



KNX/EIB BUILDING SYSTEM
INFORM ■ PLAN ■ EXECUTE



Berker the right way.

This Manual is designed to be a technical aid to
electrical planning and installation.
It supplements the latest issue of the master catalogue.

The Manual provides advice and information based on our
best current knowledge. No legal liability can be accepted for errors
or omissions. Any illustrations given, including circuit and connection
diagrams, are presented without guarantee, in particular in terms of
product colour, size, equipment specification and features.
Some of the products are protected by industrial property rights.

We reserve the right to make technical and formal changes
to our products for the sake of technical development.

All products cited in this Manual subject to CE regulations
carry the CE mark on their packaging label.
Almost all product listed are KNX/EIB certified.

CONTENTS

Product overviews	BY CATEGORY	5–7
	BY ORDER NUMBER	8–10
	INTRO	11–13
General information	CORPORATE PHILOSOPHY	16–17
	DESIGN LINES	18–19
	USING THE MANUAL	20–21
Systems information	EXAMPLE OFFICE/HOME	24–25
	INSTABUS KNX/EIB SYSTEM	26–31
	EIBA TOOL SOFTWARE (ETS)	32
	BIBLIOGRAPHY	33
Product descriptions	SYSTEM COMPONENTS	35–61
	SENSORS	63–235
	ACTUATORS	237–315
	LOGIC MODULES	317–325
	VISUAL REPRESENTATIONS	327–341
	OTHER COMPONENTS	343–359
	ACCESSORIES/SOFTWARE	361–365
Appendix	DIMENSIONAL DRAWINGS	367–374
	GLOSSARY	375–379
	SERVICE AND ADDRESS DIRECTORY	381
	INFORMATION ABOUT THE BERKER CD	383

PRODUCT OVERVIEWS

The two product overviews set out in the following include all Berker instabus KNX/EIB products currently available.

The first overview is subdivided by category:

- System components
 - Sensors
 - Actuators
 - Logic modules
- Visual representations
- Other components
- Accessories

The sequence within the individual categories is in turn subdivided into technical subgroups. The “Sensors” section, for example, includes the subgroups:

Push-buttons, binary inputs, time switches, analogue inputs and other sensors.

Within the subgroups, the DIN rail mounted devices are generally listed first.

Then come the built-in devices, followed by the flush and surface mounted devices.

The second overview (see page 8) allows you to access our product range quickly and easily by order number

For the sake of conciseness, the individual order numbers of every design variant are not listed. The variations in order number are represented by an “x”, so for example the 1gang push-button is listed under order number 7516 10 xx.

For the article numbers of the design variants, please see the corresponding product pages.

We will be pleased to answer any queries you may have.

THE BERKER HOTLINE

instabus KNX/EIB phone +49-(0)2355-905-203

DOWNLOAD UPDATED INFORMATION:

www.berker.com



Berker the right way.

PRODUCT OVERVIEW BY CATEGORY

Category	Device	RMD	Built in	Flush mounted	Surface mounted	Other
System components						
Power supply	Power supply 320 mA.....	Page 36				
	Power supply 640 mA.....	Page 38				
	Choke.....	Page 40				
Coupler	Coupler	Page 42				
Bus coupling unit	Bus coupling unit	Page 46				
	Bus coupling unit/protective cover for bus coupling unit.....	Page 48				
	Bus coupling unit plus/protective cover for bus coupling unit.....	Page 50				
Data interface	Data interface.....	Page 52				
	Data interface.....	Page 54				
	USB data port	Page 56				
	USB data port	Page 58				
Other	Data rail with connector	Page 60				
	Data rail cover	Page 60				
	Terminal.....	Page 60				
Sensors						
Push-buttons	Push-button BCU 1gang.....	Page 64				
	Push-button BCU 2gang.....	Page 66				
	Group push-button BCU 1gang.....	Page 68				
	Group push-button BCU 2gang.....	Page 70				
	Push-button 1gang	Page 72				
	Push-button 1gang with labelling field (new)	Page 74				
	B.IQ Push-button 1gang standard	Page 76				
	Push-button 1gang comfort.....	Page 78				
	Push-button 1gang comfort with labelling field (new).....	Page 80				
	B.IQ Push-button 1gang comfort.....	Page 82				
	Push-button 2gang	Page 84				
	Push-button 2gang with labelling field (new)	Page 88				
	B.IQ Push-button 2gang standard	Page 90				
	Push-button 2gang comfort.....	Page 94				
	Push-button 2gang comfort with labelling field (new).....	Page 96				
	B.IQ Push-button 2gang comfort.....	Page 98				
	Push-button 3gang with labelling field (new)	Page 100				
	B.IQ Push-button 3gang standard	Page 102				
	Push-button 3gang comfort with labelling field (new).....	Page 104				
	B.IQ Push-button 3gang comfort.....	Page 106				
	Push-button 4gang	Page 108				
	Push-button 4gang with labelling field (new)	Page 110				
	B.IQ Push-button 4gang standard	Page 112				
	Push-button 4gang comfort.....	Page 114				
	Push-button 4gang comfort with labelling field (new).....	Page 116				
	B.IQ Push-button 4gang comfort.....	Page 118				
	Push-button 2gang with room thermostat and display (new)	Page 120				
	Push-button 3gang with room thermostat and display (new)	Page 122				
	B.IQ Push-button 3gang with room thermostat and display.....	Page 124				
	B.IQ IR Push-button 3gang with room thermostat and display (new)..	Page 126				
	B.IQ Push-button 4gang with room thermostat and display.....	Page 128				
	B.IQ IR Push-button 4gang with room thermostat and display (new)..	Page 130				
	Push-button 5gang with room thermostat and display (new)	Page 132				
	B.IQ Push-button 5gang with room thermostat and display.....	Page 134				
	B.IQ IR Push-button 5gang with room thermostat and display (new)..	Page 136				
	Light scene push-button comfort	Page 138				
	Light scene push-button 8gang comfort (new)	Page 140				
	B.IQ Light scene push-button comfort	Page 142				
	Light scene push-button 8gang.....	Page 144				
	Multifunction push-button 4gang.....	Page 146				
	Push-button BCU 1gang AQUATEC	Page 148				
	Group push-button BCU 1gang AQUATEC	Page 150				
	Push-button BCU 2gang AQUATEC	Page 152				
	Group push-button BCU 2gang AQUATEC	Page 154				

continued on next pages ►

Category	Device	RMD	Built in	Flush mounted	Surface mounted	Other
Physical sensors	Movement controller 180	Page 156				
	Movement controller 180 comfort.....	Page 158				
	Presence detector standard.....	Page 162				
	Presence detector comfort	Page 166				
	Room thermostat with push-button interface and integral bus coupler unit (new)	Page 170				
	Object room thermostat with push-button interface and integral bus coupler unit (new)	Page 174				
	Room thermostat	Page 176				
	Brightness sensor 3gang	Page 178				
	Brightness sensor 1gang	Page 180				
	Brightness and temperature sensor.....	Page 182				
Binary inputs	Binary input 4gang 230 V AC.....	Page 184				
	Binary input 6gang 24 V AC/DC.....	Page 186				
	Binary input 8gang 230 V.....	Page 188				
	Universal interface 2gang comfort	Page 190				
	Universal interface 4gang comfort	Page 194				
Time switches	Universal interface 8gang comfort	Page 198				
	Time switch (weekly) 2gang	Page 200				
	Time switch (annual) 4gang	Page 202				
	Time switch (annual) 4gang DCF	Page 204				
	DCF receiver	Page 204				
	Programming set for OBELISK	Page 204				
Analogue inputs	OBELISK memory card	Page 204				
	Time transmitter.....	Page 208				
	Analogue input 4gang (new).....	Page 210				
	Analogue input module 4gang (new).....	Page 212				
	Weather station 4gang comfort (new)	Page 214				
	Power supply 24 V AC (new).....	Page 216				
	Combi weather sensor (new).....	Page 218				
	WS wind speed sensor	Page 220				
	Mast adapter	Page 220				
	WS rain sensor	Page 222				
Other	WS brightness sensor.....	Page 224				
	WS temperature sensor	Page 226				
	WS twilight sensor	Page 228				
	Humidity and temperature sensor 12–30 V DC.....	Page 230				
Actuators	Sensor insert with central plate and intermediate ring.....	Page 232				
	Radio receiver	Page 234				
	Hand-held radio transmitter Comfort.....	Page 234				
	Hand-held radio transmitter Mini	Page 234				
Switch actuators						
	Switch actuator 4gang 16 A manual status	Page 238				
	Switch actuator 4gang 16 A normally open manual status.....	Page 240				
	Switch actuator 6gang 6 A.....	Page 242				
	Switch actuator 8gang (4gang 6 A and 4gang 16 A) manual status.....	Page 244				
	Switch actuator 8gang 16 A normally open manual status (new)	Page 246				
	Switch actuator 4gang 16 A C-load manual normally open status	Page 248				
	Switch actuator 4gang 16 A C-load normally open manual status with current detection (new)	Page 250				
	Switch actuator 8gang 16 A C-load manual normally open status	Page 252				
	Switch actuator 8gang 16 A C-load normally open manual status with current detection (new)	Page 254				
	Switch/shutter actuator 8/4gang 16 A normally open manual status (new)...	Page 256				
	Switch actuator 16gang 10 A normally open manual status	Page 260				
	Switch/shutter actuator 16/8gang 16 A normally open manual status (new) ..	Page 262				
	Switch actuator 1gang 16 A (new).....	Page 266				
	Switch actuator 2gang 16 A (new).....	Page 270				

PRODUCT OVERVIEW BY CATEGORY

Category	Device	RMD	Built in	Flush mounted	Surface mounted	Other
Dim actuators	Universal dim actuator 1gang 50–500 W/VA Page 272					
	Universal dim actuator 2gang 2 x 300 W/VA Page 274					
	Universal dim actuator 4gang 20–210 W/VA manual status (new)..... Page 276					
	Universal dim actuator 1gang 50–210 W/VA (new) Page 278					
Control units	Control unit 3gang 1–10 V 16 A Page 282					
Shutter actuators	Shutter actuator 4gang 230 V AC manual status Page 284					
	Shutter actuator 4gang 6 A 24 V DC manual status Page 286					
	Shutter actuator 4gang 230 V AC/DC manual status (new) Page 288					
	Blind actuator 4gang 6 A 230 V manual (new) Page 292					
	Shutter actuator 1gang 6 A Page 294					
Analogue actuators	Analogue actuator 4gang (new) Page 298					
	Analogue actuator module 4gang (new) Page 300					
Other	Valve drive Page 302					
	Programming magnet Page 302					
	Heating actuator 6gang Triac 230 V AC Page 304					
	Heating actuator 6gang Triac, 24 V Page 308					
	Heating actuator 12gang Triac, 24 V Page 310					
	Actuator drive 24 V (new) Page 312					
	Valve adapter Page 312					
	Actuator drive 230 V (new) Page 314					
Logic modules	Valve adapter Page 314					
	Logic controller Page 318					
	Function module Page 322					
	Tool software for function module full version Page 322					
	Tool software for function module demo version Page 322					
Visual representations	Mini-function module Page 324					
	Info display Page 328					
	Signalling and operating panels					
	Minitableau MT 701 ct (new) Page 330					
	Minitableau MT 701 Plus Page 334					
Other components	Flush-mounted housing Page 336					
	Surface-mounted housing Page 336					
	Front panel “neutral” Page 336					
	Front panel L 40 Page 338					
	Front panel TL 15 Page 340					
Accessories/software	IP central unit Page 344					
	DALI gateway (new) Page 348					
	Bluetooth gateway Page 350					
	IR gateway Page 352					
	Alarm central unit Page 354					
	Back-up battery for alarm central unit Page 354					
	TC phone Page 358					
	Handset for TC phone Page 358					
Accessories/software	Replacement labels and label covers Page 362					
	Labelling software Page 364					
	Label sheets Page 364					
Accessories/software	Information about Berker-CD Page 383					
	Information for product database Page 383					

Products

Order number	Device	RMD in	Built mounted	Flush mounted	Surface	Other
110x	Intermediate ring					Page 232
1967	Labelling software					Page 364
1968 xx	Label sheets					Page 364
2766	Hand-held radio transmitter Comfort					Page 234
2769	Hand-held radio transmitter Mini					Page 234
7500 00 04	Data rail cover					Page 60
7500 00 05	Terminal					Page 60
7500 00 07	Protective cover					Page 48
7500 00 07	Protective cover					Page 50
7500 00 08	Data rail with connector					Page 60
7501 00 02	Choke					Page 40
7501 00 09	Power supply 320 mA					Page 36
7501 00 10	Power supply 640 mA					Page 38
7501 00 12	USB data port					Page 56
7501 00 13	Data interface					Page 52
7501 00 14	Coupler					Page 42
7502 00 01	Bus coupling unit					Page 46
7502 00 01	Logic controller					Page 318
7504 00 01	Bus coupling unit					Page 48
7504 00 03	Bus coupling unit plus					Page 50
7504 00 04	USB data port					Page 58
7506 00 xx	Data port					Page 54
7514 10 00	Push-button BCU 1gang					Page 64
7514 11 00	Group push-button BCU 1gang					Page 68
7514 20 00	Push-button BCU 2gang					Page 66
7514 21 00	Group push-button BCU 2gang					Page 70
7516 10 xx	Push-button 1gang with labelling field					Page 72
7516 10 9x	B.IQ Push-button 1gang standard					Page 76
7516 11 xx	Push-button 1gang					Page 72
7516 13 xx (new)	Push-button 1gang with labelling field					Page 74
7516 15 9x	B.IQ Push-button 1gang comfort					Page 82
7516 16 xx	Push-button 1gang comfort					Page 78
7516 17 xx (new)	Push-button 1gang comfort with labelling field					Page 80
7516 20 xx	Push-button 2gang with labelling field					Page 84
7516 20 9x	B.IQ Push-button 2gang standard					Page 90
7516 21 xx	Push-button 2gang					Page 84
7516 23 xx (new)	Push-button 2gang with labelling field					Page 88
7516 25 9x	B.IQ Push-button 2gang comfort					Page 98
7516 26 xx	Push-button 2gang comfort					Page 94
7516 27 xx (new)	Push-button 2gang comfort with labelling field					Page 96
7516 30 9x	B.IQ Push-button 3gang standard					Page 102
7516 33 xx (new)	Push-button 3gang standard with labelling field					Page 100
7516 35 9x	B.IQ Push-button 3gang comfort					Page 106
7516 37 xx (new)	Push-button 3gang comfort with labelling field					Page 104
7516 40 xx	Push-button 4gang with labelling field					Page 108
7516 40 9x	B.IQ Push-button 4gang standard					Page 112
7516 41 xx	Push-button 4gang					Page 108
7516 43 xx (new)	Push-button 4gang with labelling field					Page 110
7516 45 9x	B.IQ Push-button 4gang comfort					Page 118
7516 46 xx	Push-button 4gang comfort					Page 114
7516 47 xx (new)	Push-button 4gang comfort with labelling field					Page 116
7516 84 xx	Light scene push-button comfort					Page 138
7516 86 9x	B.IQ Light scene push-button 8gang comfort					Page 142
7516 88 xx (new)	Light scene push-button 8gang comfort					Page 140
7519 10 00	Push-button BCU 1gang AQUATEC					Page 148
7519 11 00	Group push-button BCU 1gang AQUATEC					Page 150
7519 20 00	Push-button BCU 2gang AQUATEC					Page 152
7519 21 00	Group push-button BCU 2gang AQUATEC					Page 154
7521 20 06	Time switch (weekly) 2gang					Page 200

continued on next pages ►

PRODUCT OVERVIEW BY ORDER NUMBER

Products	Order number	Device		RMD	Built	Flush	Surface	Other
				in	mounted	mounted		
	7521 30 06	Brightness sensor 3gang	Page 178					
	7521 40 06	Time switch (annual) 4gang DCF	Page 204					
	7521 40 07	Time switch (annual) 4gang	Page 202					
	7521 40 08	Binary input 4gang 230 V AC	Page 184					
	7521 60 01	Binary input 6gang 24 V AC/DC	Page 186					
	7521 80 01	Binary input 8gang 230 V	Page 188					
	7526 11 xx	Movement controller 180 (1.1 m)	Page 156					
	7526 12 xx	Movement controller 180 (2.2 m)	Page 156					
	7526 15 12	Movement controller 180 comfort with change-over switch (1.1 m)	Page 158					
	7526 16 12	Movement controller 180 comfort with change-over switch (2.2 m)	Page 158					
	7526 20 01	Presence detector standard	Page 162					
	7526 40 01	Presence detector comfort	Page 166					
	7531 00 01	Switch actuator 16gang 10 A normally open manual status	Page 260					
	7531 00 02 (new)	Switch/shutter actuator 16/8gang 16 A normally open manual status	Page 262					
	7531 10 07	Universal dim actuator 1gang 50–500 W/VA	Page 272					
	7531 20 07	Universal dim actuator 2gang 2 x 300 W/VA	Page 274					
	7531 30 05	Control unit 3gang 1–10 V 16 A	Page 282					
	7531 40 07	Switch actuator 4gang 16 A manual status	Page 238					
	7531 40 10	Switch actuator 4gang 16 A C-load manual normally open status	Page 248					
	7531 40 11	Shutter actuator 4gang 6 A 24 V DC manual status	Page 286					
	7531 40 12	Shutter actuator 4gang 230 V AC manual status	Page 284					
	7531 40 13 (new)	Blind actuator 4gang 6 A 230 V manual	Page 292					
	7531 40 15	Switch actuator 4gang 16 A normally open manual status	Page 240					
	7531 40 16 (new)	Switch actuator 4gang 16 A C-load normally open manual status with current detection	Page 250					
	7531 40 17 (new)	Universal dim actuator 4gang 20–210 W/VA manual status	Page 276					
	7531 40 18 (new)	Shutter actuator 4gang 230 V AC/DC manual status	Page 288					
	7531 60 02	Switch actuator 6gang 6 A	Page 242					
	7531 60 03	Heating actuator 6gang Triac, 230 V AC	Page 304					
	7531 80 01	Switch actuator 8gang (4gang 6 A and 4gang 16 A) manual status	Page 244					
	7531 80 02	Switch actuator 8gang 16 A C-load manual normally open status	Page 252					
	7531 80 03 (new)	Switch/shutter actuator 8/4gang 16 A normally open manual status	Page 256					
	7531 80 04 (new)	Switch actuator 8gang 16 A normally open manual status	Page 246					
	7531 80 05 (new)	Switch actuator 8gang 16 A C-load normally open manual status with current detection	Page 254					
	7533 00 01	Heating actuator 12gang Triac, 24 V	Page 310					
	7533 60 01	Heating actuator 6gang Triac, 24 V	Page 308					
	7534 10 01 (new)	Switch actuator 1gang 16 A	Page 266					
	7534 10 02	Shutter actuator 1gang 6 A	Page 294					
	7534 10 03 (new)	Universal dim actuator 1gang 50–210 W/VA	Page 278					
	7534 20 01 (new)	Switch actuator 2gang 16 A	Page 270					
	7541 40 03 (new)	Weather station 4gang comfort	Page 214					
	7541 40 04 (new)	Analogue input 4gang	Page 210					
	7542 40 04 (new)	Analogue input module 4gang	Page 212					
	7543 10 01	Brightness sensor 1gang	Page 180					
	7544 12 xx (new)	Object room thermostat with push-button interface and integral bus coupler unit	Page 174					
	7544 11 xx (new)	Room thermostat with push-button interface and integral bus coupler unit	Page 170					
	7546 12 xx	Room thermostat	Page 176					
	7549 20 01	Brightness and temperature sensor	Page 182					
	7550 00 02	Valve drive	Page 302					
	7551 40 01 (new)	Analogue actuator 4gang	Page 298					
	7552 40 01 (new)	Analogue actuator module 4gang	Page 300					
	7563 00 04	Radio receiver	Page 234					
	7564 20 01	Universal interface 2gang comfort	Page 190					
	7564 40 01	Universal interface 4gang comfort	Page 194					
	7564 80 01	Universal interface 8gang comfort	Page 198					
	7566 01 xx	Bluetooth gateway	Page 350					
	7566 02 xx	IR gateway	Page 352					
	7566 27 xx (new)	Push-button 2gang with room thermostat and display	Page 120					
	7566 35 xx	B.IQ Push-button 3gang with room thermostat and display	Page 124					
	7566 36 xx (new)	B.IQ IR Push-button 3gang with room thermostat and display	Page 126					
	7566 37 xx (new)	Push-button 3gang with room thermostat and display	Page 122					
	7566 41 xx	Multifunction push-button 4gang	Page 146					
	7566 45 xx	B.IQ Push-button 3gang with room thermostat and display	Page 128					
	7566 46 xx (new)	B.IQ IR Push-button 4gang with room thermostat and display	Page 130					
	7566 55 xx	B.IQ Push-button 5gang with room thermostat and display	Page 134					

Order number	Device	RMD in	Built mounted	Flush mounted	Surface	Other
7566 57 xx (new)	Push-button 5gang with room thermostat and display.....	Seite 132				
7566 80 xx	Light scene push-button 8gang.....	Seite 144				
7570 00 01	Front panel L 40.....	Seite 338				
7570 00 02	Front panel TL 15.....	Seite 340				
7570 00 11	Tool software for function module, full version	Seite 322				
7571 00 02	IP central unit.....	Seite 344				
7571 00 03 (new).....	DALI gateway.....	Seite 348				
7572 00 10	Function module.....	Seite 322				
7572 00 11	Mini function module	Seite 324				
7573 00 01	TC phone	Seite 358				
7573 00 10	Alarm central unit.....	Seite 354				
7573 00 xx	Surface-mounted housing	Seite 336				
7574 00 09	Minitableau MT 701 Plus	Seite 334				
7574 00 xx (new).....	MT 701 ct.....	Seite 330				
7574 00 xx	Flush-mounted housing	Seite 336				
7586 00 xx	Info display.....	Seite 328				
7590 00 08	Front panel „neutral“.....	Seite 336				
7590 00 09	Handset for TC phone.....	Seite 358				
7590 00 17	Tool software for function module, demo version	Seite 322				
7590 00 19	Programming magnet	Seite 302				
7590 00 46	Mast adapter.....	Seite 220				
7590 00 47	DCF receiver	Seite 204				
7590 00 48	Programming set for OBELISK	Seite 202				
7590 00 49	OBELISK memory card.....	Seite 202				
7590 00 50	WS wind speed sensor	Seite 220				
7590 00 52	WS rain sensor.....	Seite 222				
7590 00 53	WS brightness sensor	Seite 224				
7590 00 54	WS temperature sensor	Seite 226				
7590 00 55	WS twilight sensor	Seite 228				
7590 00 56	Humidity and temperature sensor 12–30 V DC.....	Seite 230				
7590 00 57 (new).....	Combi weather sensor.....	Seite 218				
7590 00 80	Labelling field Clear transparent	Seite 82				
7590 00 81	Labelling field Clear transparent	Seite 142				
7590 00 xx	Valve adapter	Seite 312				
7591 00 01 (new).....	Power supply 24 V	Seite 216				
7591 00 02	Time transmitter	Seite 208				
7591 00 76 (new).....	Actuator drive 230 V	Seite 314				
7591 00 77 (new).....	Actuator drive 24 V	Seite 312				
7594 00 0x	Masking frame	Seite 334				
7594 04 xx	Central plate.....	Seite 232				
7594 10 01	Sensor insert.....	Seite 232				
7596 00 xx	Replacement labels and label covers	Seite 362				
7599 10 00	Rocker grey AQUATEC	Seite 148				
7599 11 00	Rocker grey with lens AQUATEC	Seite 148				
7599 12 00	Rocker grey with symbol AQUATEC	Seite 150				
7599 13 00	Rocker grey with labelling field AQUATEC.....	Seite 148				
7599 20 00	Rockers grey AQUATEC.....	Seite 152				
7599 21 00	Rockers grey with arrow symbol AQUATEC	Seite 152				
7599 22 00	Rockers grey with symbols AQUATEC.....	Seite 154				
9200 01	Back-up battery for alarm central unit	Seite 354				

CONVENTIONAL ELECTRICAL INSTALLATION

The electrical installation field faces ever increasing demands. For example, information and data relating to the individual subsystems (heating/lighting/window blinds) within an overall facility increasingly needs to be exchanged and modified according to specific requirements.

This is especially true of office blocks, warehousing and factory facilities of all kinds, and hotels and leisure facilities, in which conventional installation needs to be supplemented by the whole raft of modern-day state-of-the-art communications technology. And complex new demands are arising in the residential building sector too. As a result, conventional electrical installation is becoming more and more technically complicated, costly and complex.

Sources of potential hazards, such as malfunctions and fire, are on the increase.

The greater demands are increasingly difficult to meet on any commercially viable basis by conventional installation techniques. A further difficulty is that post-installation modifications needed in specific subsystems or throughout the entire facility restrict productivity and usage, as well as incurring cost.

Consequently, it makes sense right from the planning phase to consider alternative techniques such as the instabus KNX/EIB system, which makes all the necessary connections, allows for unproblematic modifications as and when required, and is oriented to future needs.

HISTORY OF INSTABUS KNX/EIB

At the end of the 1980s Berker together with other leading electrical engineering companies formed an instabus development group. The outcome, in 1990, was the EIBA – the European Installation Bus Association.

All newly developed KNX/EIB products are developed, tested and monitored by the EIBA in compliance with the applicable standards. If a product meets all the relevant standards, it is awarded EIBA certification. This ensures that all KNX/EIB components are able to communicate with each other and have the same system design.

APPLICATIONS

The European Installation Bus – KNX/EIB – is a standardised installation system providing automated control of technical functions in commercial, public and residential buildings.

KNX/EIB benefits personal safety and protects property, ensures efficient use of energy and enhances comfort. The system also considerably reduces the time and cost involved in installation. All subsystems can be integrated over the bus, from the lighting to the alarm system, from the central heating to the window blind management system.

KNX/EIB is even capable of operating specific appliances such as ovens, washing machines and irons.

In terms of products the consumer has a full spectrum of choice, because over a hundred leading manufacturers offer KNX/EIB-compatible appliances.

The number of private and public clients choosing to install KNX/EIB is growing at a rate of several thousand a year. And for good reason: the system controls the building's technical services for the benefit of the users and residents, enhances safety and comfort, and saves energy. All the technical building functions such as the lighting, heating and alarm system, the oven and window blinds can be automatically controlled. How and when is dictated by the user: interior lighting can be upped or dimmed according to the time of day or outside light conditions, or depending on the presence of people in the room for example.

Whether in a bank tower in London, a hotel in Amsterdam or a private apartment block in Düsseldorf – KNX/EIB provides efficient management of private, public and commercial buildings on a worldwide scale, substantially cutting the cost of use of any property based on timed and

presence-sensitive operation of appliances and systems. Oriented to the wellbeing of the people who use the building, the KNX/EIB system also enhances working productivity. It adjusts the interior climate to the weather conditions and maintains a constant, pleasant atmosphere inside the building. And installing KNX/EIB is worthwhile not least for safety reasons too. At minimal material cost, the risk of fire is significantly reduced relative to a conventional installation.

The KNX/EIB is suitable for installation in detached homes and apartment blocks, offices and other business premises, as well as in light commercial and industrial buildings, hotels, banks, schools, hospitals and a range of other public and commercial buildings. It can be used to control the heating, air conditioning, ventilation, lighting, window blinds and shutters, as well as to monitor and report technical building services functions, for load management, alarm signalling, remote control and remote monitoring purposes.

USER-FRIENDLY – COST-SAVING

The KNX/EIB building system can be tailored precisely to the needs of the specific users, and responds to users' requirements in terms of ease of use. All the technical functions of an KNX/EIB system are attuned to each other and to the on-site ambient conditions. For example, the lighting, heating and air conditioning is adjusted to actual need without any impairment of comfort.

Load management and efficient use of energy result in substantial savings in terms of operating cost. Subsequent changes of use and conversions can be carried out more quickly and cost-effectively. Investments in KNX/EIB are amortized within just a few years.

TIME-SAVING – SAFE – FLEXIBLE

The time commitment and expense of planning and installation is reduced. This is made possible by software support in the planning and commissioning of KNX/EIB systems. And there is much less wiring too. The power supply cables are routed only to the electrical consumers and not to the sensors (push-buttons, switches, thermostats, etc.), thereby cutting installation times. The reduced wiring complexity also means less fire risk.

Changes of use as commonly occur in modern office and business environments place high demands on the electrical installation, but are no problem for KNX/EIB. With no additional installation work, functions can be modified by readdressing and parameter resetting (with software support) of the KNX/EIB components.

MODULAR – UPGRADABLE – COMPATIBLE

The modular, decentralized design of the KNX/EIB building system prevents any malfunctions which may occur from interfering with the functioning of the overall system. Existing KNX/EIB installations can be expanded, modified or upgraded at any time, including across multiple individual buildings. KNX/EIB systems can be connected via interfaces to building control and automation systems and so perform additional functions.

FUTURE-PROOF

Utilize the benefits of KNX/EIB and get the know-how you need. Berker also offers expert theoretical and practical training courses, open to anyone looking to switch to the benefits of KNX/EIB.

In addition to basic training, special advanced courses for established KNX/EIB insiders are also offered. Refer to the appendix to this Manual for address details.

Lighting	<ul style="list-style-type: none"> Switchable lighting circuits Dimming lighting circuits Motion-sensitive lighting control Light-sensitive lighting control Timed lighting control Group and centralized controls Centralized off function (when leaving the building) Save/retrieve light scenes Switchable sockets for portable devices
Window blinds/sun blinds/awnings	<ul style="list-style-type: none"> Single/group/centralized controls Timed function Light-sensitive function Automatic sun shutter weather device with display of weather data
Heating control	<ul style="list-style-type: none"> Single-room temperature control (two-stage) Timed temperature control Needs-based heating (windows open/heating off) Boiler control Window drive motors Sun shade function (to prevent heat build-up) Exposed area heating
Security technology	<ul style="list-style-type: none"> Processing of fault signals (power failure/heating/freezer, etc.) Simulated presence (lighting/window blinds) Motion-sensitive exterior lighting Fire alarm Window and door opening monitor Processing of attack alarm Lighting monitor as alarm Panic button Telephone alarm transmission/status polling Security functions when present/absent Flashing house lighting in case of alarm
Signalling system	<ul style="list-style-type: none"> Acoustic/visual indication via displays Facility to incorporate ringer
General functions	<ul style="list-style-type: none"> “Sleeping house” (night mode) Centralized display and operator control units Telephone control facility Telecontrol by PC

BERKER SWITCH RANGES

All Berker flush-mounted standard and area programs are modular in design. This means they can combine all the colour and material variants within the various ranges according to individual needs. And of course you can also interchange surfaces within the Berker special ranges.

The product illustrations presented in this Manual are generally shown in halftones.

The best way to experience the true breadth of combination options and colour shading is by referring to our master catalogue or by visiting us on the Internet at “www.berker.com”.

MODULE 2

The standard program combines highly flexible design options with optimum value for money: A classic range matching any interior design style, specially suited to rented apartment blocks and public buildings as well as private living space.

Berker S.1

The new Berker S.1 standard range sets new standards in many respects. The modern design with its simple elegance is suitable for a wide variety of ambiances and intended uses. Using the same rockers and inserts in the ranges Berker S.1, B.1, B.3 and B.7 GLASS means that warehousing requirements are minimised. Its modular concept, ergonomic design and square shape guarantee efficient handling.



MODULE 2



Berker S.1



Berker B.1



Berker B.3



Berker B.7 GLASS

B.1, B.3 and B.7 GLASS

Thanks to the successful symbiosis of shape, material and colour, the switch ranges B.1, B.3 and B.7 are perfectly designed to meet your requirements.

Berker B.3 in genuine aluminium cannot fail to impress with the soft shimmer of its metal while the clear design of Berker B.7 GLASS fits perfectly into the most varied of interior design styles. The pure brilliance of the B. switch series lends your room a timeless elegance.



Berker Switches and Systems

Berker K.1 and K.5

Sharp edges, square corners and high gloss, linear balance, while renouncing all other design attributes: those are the salient design features of the new Berker K.1 range.

With its new interpretation of timeless design sensibilities, Berker accommodates the desire of many owners and architects to give their rooms a clear, linear, timeless character. Clear contours. Consistent design. A cultivated exterior—the Berker K.5 is recommended for anyone who values fine forms and the highest quality materials in stainless steel, all in equal measure.

ARSYS

Perfect interior design originates in the detail. Carefully selected materials and colour shades create the foundation for harmonious design of living and working spaces. The program ARSYS offers you a wide variety of materials, elegant forms and colours, from classic white to shimmering matt stainless steel – a byword for timeless design.

TWINPOINT

Interior design lives and breathes by the interaction between form, colour and function. The TWINPOINT switch series underscores this interaction with subtle shaping, varying ring colours and a harmonious overall design. A broad range for private living spaces in particular.



Berker K.1



Berker K.5



Berker ARSYS



TWINPOINT



B.IQ

B.IQ

B.IQ is a minimalist design through and through. A frameless switch with a large contact area and a striking indicator light in the centre are perfectly enhanced by the high quality materials: glass, brushed stainless steel and plastic in polar white.

Product example without design variants

B. Berker

12

Supply	Via bus line	21-32 V DC
Auxiliary voltage	24 V AC $\pm 10\%$	SELV max. 250 mA
Current input		
Inputs	Sensor inputs	4
Current	0-20 mA, 4-20 mA	
Voltage	0-1 V, 0-10 V	
Input resistance	Voltage measurement approx. 18 kOhm	
Outputs	Supply outputs	2
Rated voltage	24 V AC $\pm 10\%$	
Maximum current	100 mA DC total	
Behaviour in the event of power failure	Bus voltage failure	no communication with KNX/EIB
Supply voltage failure		no communication with KNX/EIB, no supply for the sensors
Behaviour in the event of power return	Bus voltage	no communication with KNX/EIB, no supply for the sensors
Supply voltage		no communication with KNX/EIB
Bus and supply voltage		Transmission of the measurement and limit values as per installation parameters of the application
Operation and display elements	Programming key	Red
Programming LED		Red/green
Status LED		
Connections	KNX/EIB	Connecting terminal
Inputs		0.5-4 mm ² single/fine stranded without conductor sleeve, 0.5-2.5 mm ² fine stranded with conductor sleeve
Module connection		6pole system plug for analogue input module
Protection	IP 20, EN 60529	
Operation		-5 to +45 °C
Ambient temperature range	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)		72 x 90 x 58 mm

11

The analogue input 4gang is designed as a top hat rail mounted device and is used to acquire and forward up to four analogue sensor signals. The analogue input can evaluate both voltage and current signals. The current inputs with the measurement range 4-20mA can be monitored for wire break. Sensor signals are converted into 1-byte or 2-byte value telegrams. Two limit values can be set per sensor; these can trigger measured-value dependent events, such as control of shutters and blinds, switching exterior lighting, etc. By means of external objects it is possible to adapt all of the limit values while operation continues, e.g. via KNX/EIB devices such as information display or MT 701 plus or MT 701 ct. Operation of the analogue input requires a 24 V auxiliary voltage. External analogue sensors are supplied with voltage via the short-circuit and overload protected outputs.

The lateral interface can be used to connect an analogue input module for another 4 sensors, which are likewise adjusted via the software of the basic unit.

10

Device colour	Accessories
Light grey	7541 40 04
	Analogue input module
	7542 40 04
	Power supply
	24 V AC
	7591 00 01

9

■ Four freely adjustable sensor inputs

■ Four additional sensor inputs possible using analogue input module

■ Conversion of analogue measurement data into 1-byte and 2-byte values (EIS 5/6)

■ System interface for connection of an analogue input module

■ 24 V DC output for supplying connected sensors

13

Analogue input 4gang RMD

Key

1. Analogue input module connection
2. Bus connection
3. Programming button
4. Status LED
5. Active sensor
6. Active sensor

210

ETS search path: Gebir. Berker >> Entry >> Analogue input, 4gang >>

Product example with design variants

B. Berker

14

Design	Rockers	Push-button BCU 1gang
Rockers	<p>Rockers</p> <p>Rockers</p> <p>Rockers</p>	<p>Push-button BCU 1gang</p>

15

13

20

Double-page layout

Product descriptions are always laid out across a double page. On the left, two typical examples are illustrated. The blue item numbers are pointers which allow you to access key information such as technical data, applications, combination options, order numbers and suchlike quickly and easily.

1 Device category

The device category is indicated at the top right as a quick reference guide – in this case “Sensors”.

2 Applications

Any applications linked to the device are presented here with their name, features, number of objects, group addresses and assignments. If you would like more detailed information, e.g. about the objects, it is available on a CD or on the Internet under “www.berker.com”.

3 Notes

Depending on the device, this segment will give details of special features, such as for installation. There will also usually be a specimen schematic connection diagram, with a key to the connections, controls and displays, electrical consumers, etc. shown.

4 Product illustration

The core element of the page layout is the full-width blue “viewing window” (shown here in dark grey for the sake of clarity). It contains the product descriptions (see 9 and 11) and the product illustration, which is always presented on the right-hand side within the viewing window.

IMPORTANT

Product illustrations are **generally shown in halftones**. For more colour and shape details, refer to our master catalogue.

5 Product name

The product name is important for communication between the various technical specialists. For ordering purposes, however, only the order number is unique.

6 ETS icon

The ETS icon provides quick classification of the device, and can be inserted into block diagrams, planning sketches, etc.

7 ETS search path

The relevant “device path” is entered here for planning/installation using the ETS2 software package.

8 Number of pages

Quick access to the product descriptions by way of the table of contents on pages 4–10.

9 Key features

This segment gives a bullet-pointed listing of the key features of the product concerned. It is supplemented by the features information (also white-bulleted) listed in the “viewing window” (see 11).

10 Ordering data

In this example there is only one version of the device. For planning purposes, this segment provides you with details of the order number as well as the product colour.

11 Information

This segment provides supplementary information on the key features listing, including details such as the device type, area of application, functionality and combination options.

12 Technical data

This segment presents all the key technical specifications for power supply, inputs and outputs, controls and displays, protection and ambient temperature range.

13 Accessories

In many catalogues the accessories are listed on separate pages. For the sake of clarity, wherever possible the accessories are specified directly together with the product concerned. This example shows the rockers which can be combined with the push-button BCU 2gang.

14 Complex ordering data

The information given is generally the same as under item 10. Our range of design lines is listed apart from BERKER S.1 up to MODULE 2. Where the product in question has different design versions (such as different-acting types of monitor sensors), the relevant ordering data for the variants is also listed directly here. Thus, in the example here the ordering data includes “shatter-proof IP 44 rockers”.

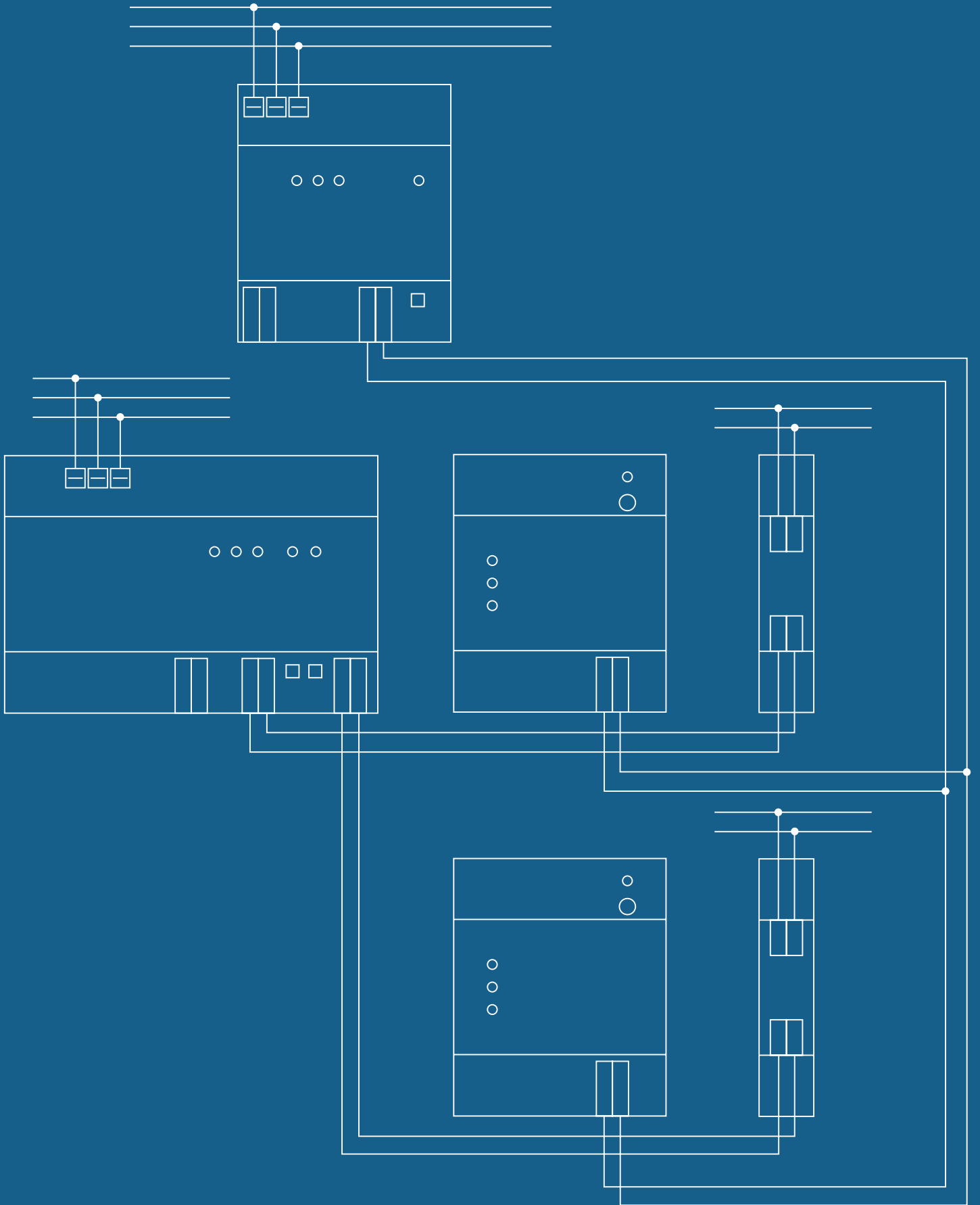
15 (where appropriate containing the following indication)

“continued on next double page ►”

The double-page product description is laid out as follows:

- technical data always at the top left
- applications always at the top right

The descriptions of some devices are so lengthy that they require an additional double page. In such cases the continuation of the “Technical data” will not, as when reading normally, follow on at the right, but will resume on the next double page. The same applies to the application descriptions, though they are always to be found at the top right.



SYSTEM INFORMATION

The idea of being able to control every conceivable electrical appliance and system in the building from virtually any centralized location, or indeed from decentralized multiple locations, has long occupied the minds of electrical engineers.

This desire for a user-friendly building system was the trigger which led to the establishment of the European Installation Bus as the standard for intelligent building control in modern installation engineering.

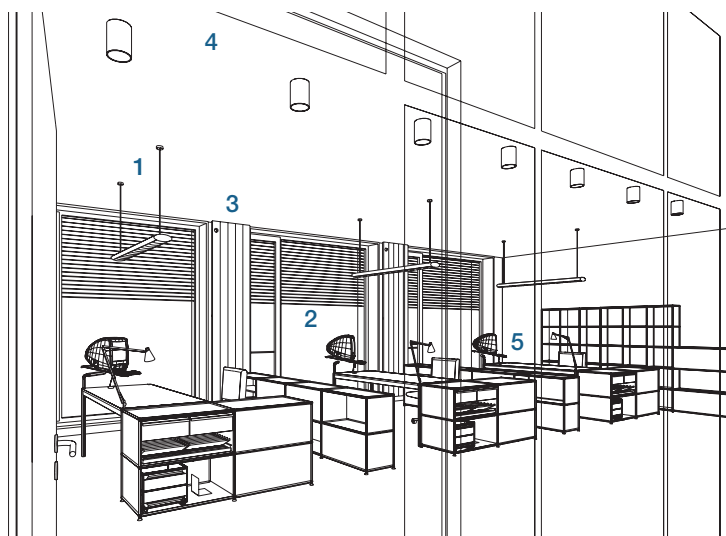
The instabus KNX/EIB meets all the requirements placed on such a system:
Simple installation and commissioning, flexibility, cost-effectiveness, high operational safety, comfort and user-friendliness

This section presents a brief introduction to the instabus KNX/EIB system.

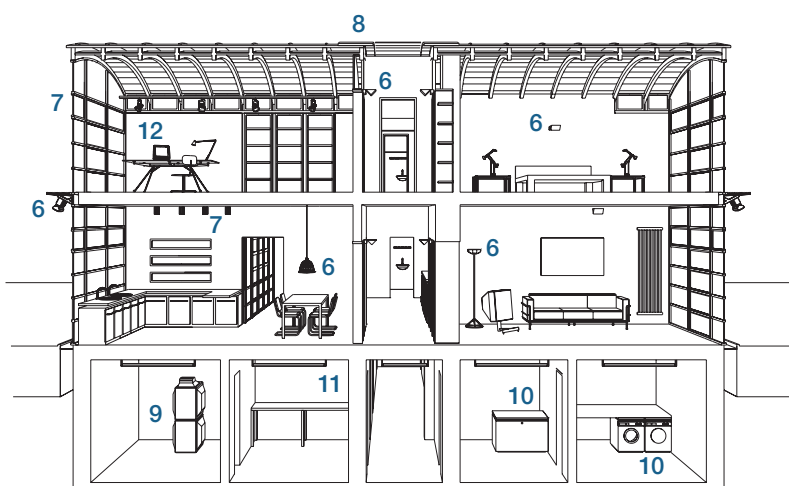


Example: Office/Home	24-25
instabus KNX/EIB system	26-31
ETS software	32
Bibliography	33

“Office”



“Home”



“Office”

In today’s world, the commercial use of a building essentially depends on factors such as flexibility, transparency, functionality and energy management. A state-of-the-art electrical installation using the Berker instabus KNX/EIB system provides the ideal basis for integration of the overall building systems.

1 Lighting

Ambient light sensitive lighting control; constant light regulation at the workplace; needs-based lighting (light scenes, monitors)

2 Sun shade/blinds/shutters

Automatic light/sun shading; safety functions to prevent destruction by wind, rain and frost

3 Heating/air conditioning/ventilation

Energy saving based on needs-oriented room-by-room control; comfort/standby/night modes; timed temperature profiling; heating and cooling with a thermostat; controlled air supply and venting; incorporation of boiler control

4 Security

Fault signalling; surveillance devices; fire alarms

5 General functions

Presentation/visualisation of building functions on panel and PC; metre, consumption and operating hours data acquisition; centralised control of building functions; maximum building transparency; timer-controlled building functions;

communication; remote visualisation and surveillance; remote maintenance; transmission of operating states and alarms

“Home”

Demands for security, comfort and well-being in the private residential environment are rising continuously. Of increasing importance in this regard is the cost-effective overall use of the building. All these demands can be met with a state-of-the-art electrical wiring installation. The Berker instabus KNX/EIB installation bus system provides the ideal basis.

6 Lighting

Store and retrieve lighting moods/light scenes at the press of a button; operate/dim lights individually, in groups and centrally; needs-based lighting (monitors); reduction in number of control elements; switchable sockets for portable devices

7 Sun shade/blinds/shutters

Automatic sun shade function; timed window blind functions

8 Weather device

Protection of awnings and blinds against destruction by wind, rain and frost; automatic closure of skylight windows in event of rain; display of weather data (wind speed, rain, temperature and brightness)

9 Heating

Well-being based on differing temperature zones around the house; energy saving based on needs-oriented room-by-room control; timed temperature profiling; incorporation of boiler control and circulation pump

10 Security

Processing of fault signals (power failure/heating malfunction/freezer / washing machine etc.); presence simulation by automatic lighting and window blind control; motion-sensitive exterior lighting; monitoring of opening of windows, doors and gates; interior surveillance (monitors); fire alarm systems; telephone forwarding of fault and alarm signals; telephone status polling; panic button with custom functioning; integrated closure systems

11 Alarm central unit

Monitoring of opening of windows, doors and gates; interior space monitoring (controllers); fire alarm systems; raising the alarm; communicating faults and alarms by telephone; responding to telephoned status enquiries; integrated closing systems; linking alarm and installation functions

12 General functions

Timed operation (lighting/heating/window blinds); wireless remote control of in-house functions; group and centralised functions; centralised display and operator control units; absence mode (“sleeping house”)

Communication

Telephone status polling/fault signalling
Remote maintenance

INSTABUS KNX/EIB BASICS

instabus KNX/EIB is a standardized, decentralized **bus system**. Devices can interchange information directly over the bus – that is, without going via a central control unit. All the devices on the bus have **equal rights status** (multi-master mode).

The key components of an instabus KNX/EIB installation are the **two-wire bus cable** and the **bus-compatible devices**, such as system devices (e.g. power supply units, couplers, interfaces), sensors (e.g. push-buttons, binary inputs) and actuators (e.g. switch actuators, valve drives, etc.). Data is exchanged between sensors (transmitter) and actuators (receiver/converter) over the bus cable in the form of **data telegrams**.

Communication and power supply to the device electronics is carried over the bus cable, which is connected to each device. In contrast to the sensors, the actuators usually require an additional supply voltage (230 V) to control the consumers. The bus cable and the mains **power connection** are reliably isolated from each other.

The **bus coupling units** of the respective sensors/actuators (devices) perform other core functions in the instabus KNX/EIB system in addition to receiving and sending data:

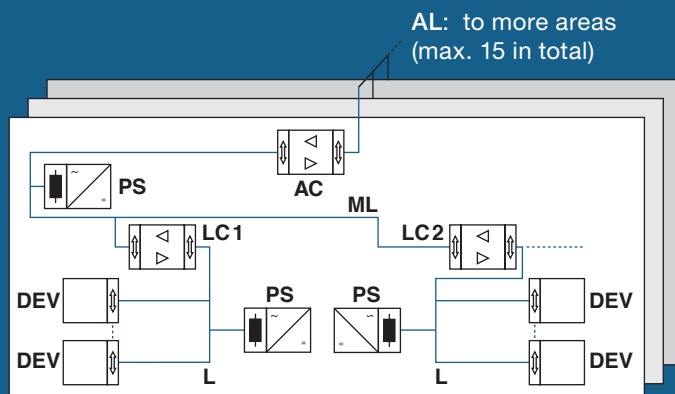
they store the physical address, the group addresses and the applications “management”. The **applications** are grouped in the **Berker product database**.

This information is loaded to the bus coupling unit via a PC with a serial or USB interface and the bus. Configuration and commissioning is carried out using the EIB tool software2 **ETS2** and **ETS3**.

Continued on next double page ►

The diagram shows a schematic example segment of an instabus KNX/EIB system.

AC = Area coupler
AL = Area line
ML = Main line
L = Line
LC = Line coupler
PS = Power supply
DEV = Device (sensor/actuator)



System



Couplers (sample illustration for system devices)

- Programming by means of programming button and LED
- Connection of lines and areas (connecting terminals)
- Reduction of telegram traffic on bus through filter functions when used as a line or area coupler
- Amplification of lines and assignment of independent line segments

Sensors



Push-button 4gang comfort (sample illustration for sensors)

- Bus coupling unit required
- Program-specific information processing
- Device-specific features such as light scene retrieval
- Reception and forwarding of information such as switching commands and measurement variables to the actuators
- User module with application (software) determines the device function, e.g. of a push-button

Actuators



Switch actuator 4gang (sample illustration for actuators)

- Bus coupling unit
- In some cases mains voltage (230 V) required
- Telegram-specific information processing
- Device-specific features such as local operation, potentiometer, etc.
- Reception of information sent by sensors
- Conversion of the commands into actions, e.g. switching, dimming, etc.

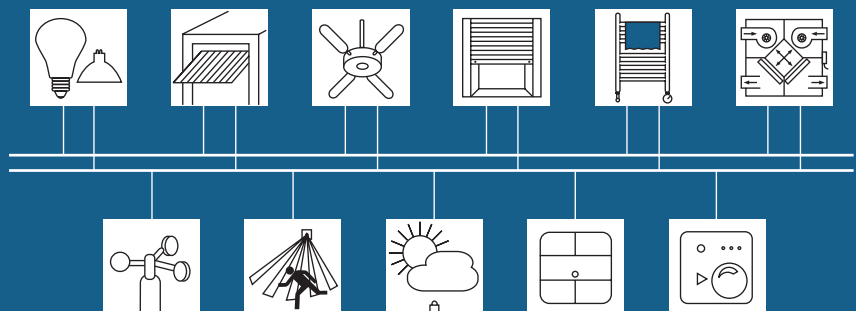
The diagram shows examples of various device types of an instabus KNX/EIB line.

Actuators

- Lighting
- Drives
- Shutters/blinds
- Heating/air conditioning/ventilation

Sensors

- Wind, motion, light
- Push-button
- Controller



INSTABUS KNX/EIB TOPOLOGY

The instabus KNX/EIB is divided into hierarchical segments. The smallest unit is the **line**. A line comprises a maximum of 256 bus devices (DEV) and at least one power supply unit (PS) with choke. By means of **line couplers** (LC) interconnected via a main line, up to 15 lines can be coupled. The result of this is an **area**.

14 additional areas are available to upgrade an instabus KNX/EIB system.

An area line interconnects all 15 areas by means of **area couplers** (AC).

The main and area lines also require a power supply unit with choke.

The line-and-area structuring means that the data transfer of a line or area does not influence the data flow of other lines or areas. A line coupler filters the data flow by ignoring telegrams from other lines/areas which do not address any devices within its own line.

This also permits independent communication within multiple lines.

The same also applies to the area couplers.

When all lines and areas are in use, over 61,000 devices can be connected to the instabus KNX/EIB system.

INSTABUS KNX/EIB ADDRESSING

With such a multiplicity of devices, two conditions in particular need to be met:

- Security of data transfer
- Unique and complex addressability of the individual devices.

The bus voltage is 21–32 V DC. The data transfer rate is 9.6 kBit/s, so terminators are not required. To avoid telegram collisions, the **CSMA/CA procedure** is applied.

In addressing, a distinction is made between the **physical address** and the group address.

The physical address reflects the name of the bus device and has the following format:
“area.line.device” (e. g. 2.5.11).

The physical address is used in programming and diagnosis.

The **group address** indicates the relationship between the devices on the bus.

The group address is divided into a maximum of 15 main groups each with a maximum of 2048 subgroups. It is maintained in the format:

“main group/subgroup” (e. g. 1/955)

or “main group/secondary group/subgroup” (e. g. 1/3/125).

Usually the group address is used to control the individual instabus KNX/EIB devices.

Cable selection/exterior

Only bus cables of which the cores are encased in a common sheath may be used. The bus cables must be rated for at least the same test voltage between the conductor and the cable surface as applies to power lines.

The following cable types are usable (see also KNX/EIB technical data):

– YCYM 2x2x0.8

or

– J-Y(St)Y 2x2x0.8

Type YCYM may only be used in exterior applications if the cable is protected against the effects of heat (direct sunlight, etc.).

Otherwise type J-Y(St)Y should be chosen.

If an instabus KNX/EIB connection between two buildings is required, the KNX/EIB bus cable can be used provided it is laid in a conduit. Water build-up in the conduit must be avoided.

Cables/wiring

The instabus KNX/EIB devices are interconnected in parallel via one wire pair (black/red) of the four-core bus cable, by way of terminals.

Use of the free wire pair on the KNX/EIB cable for additional applications is subject to the following conditions:

- Safety/protective extra low voltage (SELV/PELV) only
- Maximum 2.5 mA continuous current
- Overcurrent protection required
- Voice transmission permitted; not as public telephone line (FTZ 731 TR 1)
- Unique marking of instabus KNX/EIB cables

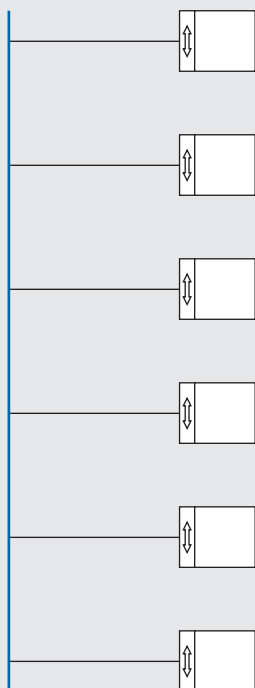
We recommend marking the selected application clearly on all cable ends.

Use of the free wire pair within a line must be uniform. If the two free wires (normally yellow/white) are used as an additional KNX/EIB bus line, the yellow wire should be used as KNX/EIB+ and the white wire as KNX/EIB–.

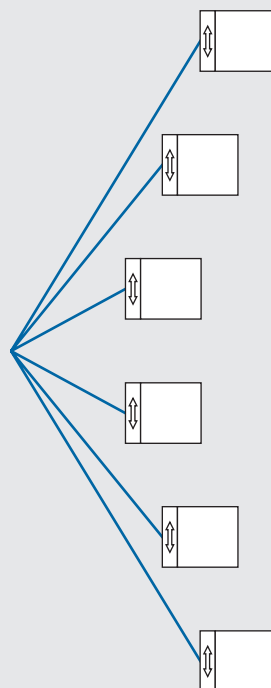
Unused wire pairs and filler wire should be rolled up or tied back. Free wires and the filler must never be allowed to touch live parts or earth.

Structures

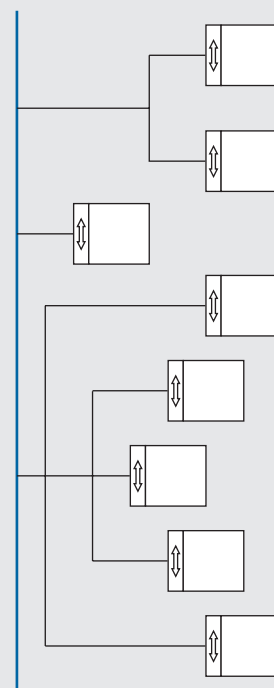
Within a line, the wiring options can be chosen from the following structures and combined at will. A loop structure is not permitted.



Line structure



Star structure



Tree structure

Functions	Display, dimming, management, signalling, measurement, closed-loop control, switching, open-loop control, monitoring	
Transmission technique	Serial telegram transfer 2-wire mode	Time multiplex Symmetrical transfer
Transfer rate	9600 bit/s	
Interference immunity	to prEN 50082-2 DIN VDE 0845 part 1	Tested 2kV surge voltage DIN EN 50082 part 2
Protection	Safety extra low voltage (SELV)	to DIN VDE 0100 T410
Power supply	230 V AC / 24 DC	Short-circuit-proof
Rated system voltage	24 V DC	
Current consumption	per device	max. 6.25 mA (150 mW)
Number of devices with	640 mA power supply	max. 100
Devices per line	max. 255 (additional power supply units and couplers required as line amplifiers)	
Lines per area	max. 15 plus main line	
Line interconnection	via area/line coupler	
Areas	max. 15	
Bus cable	YCYM 2x2x0.8	to EIBA guideline, DIN VDE 0207 and 0815 J-Y(St)Y 2x2x0.8 to DIN VDE 0815
	Wire cores	Red (+KNX/EIB) and black (-KNX/EIB) Yellow and white (each free)
Wiring	Surface/flush mounted	In duct
	In conduit together with NYM with no clearance	to flat webbed building wire min. 10 mm clearance
Cable length	max. 1000 m	
Clearance	from device to power supply between two devices between two power supply units with integ. Choke	max. 350 m max. 700 m min. 200 m
System configurations	Line, star and tree configurations	Combinable at will – no loops
Component designs	RMD, built-in, flush-mounted, surface-mounted	and duct
Bus management	decentralized Access method	Devices equal status CSMA/CA
Addressing	Physical address Group address	Continuous by collective function assignment

E DIN VDE 31000 part 10	General principles for safe design of technical products	
VDE 1000 part 10	Requirements for electrical engineering personnel	
DIN VDE 0100	Construction of power systems with rated voltages up to 1000 V	
– T200	General terms	
– T410	Protective measures	Protection against electric shock
– T420	Protective measures	Protection against overheating
– T430	Protective measures	Protection of cables and wires
– T510	Selection/construction of electrical equipment	General points
– T510	Selection/construction of electrical equipment	Cables, wires, busbars
– T610	Initial testing	
– T725	Auxiliary circuits	
DIN VDE 0105 part 1	Operation of power systems	General specifications
DIN VDE 0106	Protection against electric shock	
– T1	Classification of electrical and electronic equipment	
– T100	Arrangement of operating elements close to live parts	
– T101	Basic requirements for safe isolation in electrical equipment	
DIN VDE 0110 part 2	Insulation coordination for electrical equipment in low-voltage systems	
DIN VDE 0160	Electronic equipment of power systems	
DIN VDE 0185 part 1	VDE directive for lightning protection systems	
DIN VDE 0470 part 1	Test devices and test methods	
EN 60529	Classes of protection by chassis	IP code
DIN VDE 0472 part 508	Dielectric strength of power cables and insulated power lines	
DIN VDE 0604 part 1	Electrical wiring ducts for walls and ceilings	
DIN VDE 0605	Electrical installation conduits and accessories	

Flush-mounted devices

A Berker instabus KNX/EIB device is usually structured as follows:

- a. Bus coupling unit
- b. 2-pin terminal
- c. User module
- d. Frame in Berker design
- e. Application program

a. For switch socket mounting the bus coupling unit has a support ring with screw fitting. The bus coupling unit contains the micro-processor, other electronic modules and the system software. The integral 10-pin physical external interface (female) is used to connect the user module. The programming button with LED is used to program the physical address.

b. The terminal has a unique marking for connection of the two-wire bus cable. It is not supplied with the respective device.

c. The function of a device is determined by the user module with the associated application. A resistor is integrated into each user module, by which the bus coupler is able to identify the type of user module. The connection to the bus coupler is made via the 10-pin male connector.

d. The user module is usually cased in a Berker design frame.

e. The wide range of combination options of the user program and user module is specified in the Berker product database, and is administered and implemented using the ETS software package. Programming is carried out on a PC, including:

- Functions such as dimming, etc.
- Group addresses
- Parameters such as LED functions

NOTE

The individual components cited above must originate from one manufacturer, in order to ensure fault-free functioning of the device.

DIN rail mounted devices

Berker instabus KNX/EIB devices mounted on DIN rails are available in the following variants:

- f. Devices with pressure contacts
- g. Device with no dedicated bus coupler
- h. Devices with bus termination

f. These devices are snapped onto the DIN rail with an “integral” data rail. The pressure contacts on the back of the device contact on the data rail. The connection to the bus cable is made by a data rail connector.

g. These devices are likewise snapped onto the DIN rail, but have no pressure contacts and no dedicated bus coupler. The connection to the bus cable is made indirectly, by way of the side mounted connector strip of a device of category f. or h.

h. These devices are likewise snapped onto the DIN rail and are connected to the bus cable by a clip-on terminal.

KNX/EIB TOOL SOFTWARE

Project design of an KNX/EIB system requires KNX/EIB tool software (ETS). ETS is used to create data records. These must then be loaded into each bus device. Each data record consists of the application, the function parameters, the physical address and the assigned group addresses. An application can only be loaded into a bus device if the bus device and the application program are from the same manufacturer. The applications are held in the manufacturer-specific product database.

ETS 2

ETS 2 is a non-proprietary software tool for practical project design, commissioning and maintenance of KNX/EIB installations. A key feature of ETS 2 is its user-friendly physical external interface: using a simple drag-and-drop method, you can pick products from a database and place them in the desired location in the building, set their parameters, link bus devices functionally and check all the functions. When an KNX/EIB installation has been successfully commissioned, ETS 2 can also be used to create the project documentation.

ETS 2 runs with Windows 3.1x, Windows 3.1x, Windows 95, Windows 98, Windows 2000, Windows NT and Windows XP.

ETS 3

From April 2004 onwards, ETS 3 is available with the following program versions:

ETS 3 TESTER

The learning software ETS 3 tester (demo) offers you a simple introduction to the instabus KNX/EIB system via the ETS starter. Using select products for the “Lighting” and “Shutter” applications, you can learn how to work with the KNX/EIB system and practice what you learn. However, it is not possible to commission the products.

ETS 3 STARTER

A new software package which facilitates minor KNX/EIB/KNX installations with light control, shading technology and single room control applications with minimum effort on your part. This makes it considerably easier for newcomers and companies which only perform KNX/EIB/KNX installations occasionally to familiarise themselves with building automation, step by step. The ETS 3 Starter software package can be used for 30 days without a licence. It then switches to tester mode if the electronic key to be purchased from EIBA has not been activated. You can learn even more when using the software.

ETS 3 PROFESSIONAL

This is a further development of the ETS 2 with a new core, a new physical external interface and a series of new, very welcome functions:

- Optimised, individually adjustable user interface ■
- Parameter view in the form of a clearly-arranged tree structure ■
- Device programming via RS 232 interface and USB ■
- Downloading several devices simultaneously and using a common interface for all of them saves time ■
- Optimised, practical telegram drawing and analysis possible ■
- Convenient standard Windows functions such as “Undo” and “Recreate” ■

A project which was started with ETS 3 Starter can be continued at any time with ETS 3 Professional. The software can run with Windows 98, Windows 2000, Windows NT and Windows XP.

The following listing represents only an extract from the extensive library of material relating to instabus KNX/EIB.

Further references are given in the works cited and on the Internet, at "www.eiba.com" for example.

**KNX/EIB planen und installieren
(Planning and installing KNX/EIB)**

Rainer Scherg

1998

Vogel-Verlag, Würzburg

ISBN: 3802317467

**Einführung in die KNX/EIB
Gebäude-Systemtechnik (Intro-
duction to the KNX/EIB building
system)**

Markus Abel, Thomas Lücke

1998

Europa-Lehrmittel, Haan

ISBN: 3808535318

**KNX/EIB für die Gebäudesys-
temtechnik in Wohn- und Zweck-
bau (KNX/EIB for building systems
in residential, commercial and
public buildings)**

Michael Rose, Werner Kriesel,

Jens Rennefahrt

2000

Hüthig-Verlag, Heidelberg

ISBN: 377852643x

**KNX/EIB-Anwenderbuch, Planung,
Projektierung, Inbetriebnahme,
Kundenberatung (KNX/EIB user
manual: planning, project design,
commissioning, customer advice)**

Hannes Leidenroth

1999

Verlag Technik, Berlin

ISBN: 3341012494

**KNX/EIB: Der europäische Installa-
tionsbus – Ein neues Geschäftsfeld
für den Elektroinstallateur (The
European Installation Bus – a new
field of business for the electrician)**

Karlheinz Frank

2000

Verlag Technik, Berlin

ISBN: 3341012494

**KNX/EIB-Gebäudebussystem
(KNX/EIB building bus system)**

Dietrich, Kastner, Santer

2000

Hüthig-Verlag, Heidelberg

ISBN: 3778527959

**Handbuch Gebäudesystemtechnik
Grundlagen (Building systems
handbook : Basics)**

ZVEI (German electrical and electronics engineering industry association), ZVEH (German electricians' association)

1997

WFE, Frankfurt/Main

Order through WFE

Fax: +49-(0)69/247747-49

**Handbuch Gebäudesystemtechnik
Anwendungen (Building systems
handbook: Applications)**

ZVEI (German electrical and electronics engineering industry association), ZVEH (German electricians' association)

1997

WFE, Frankfurt/Main

Order through WFE

Fax: +49-(0)69/247747-49

SYSTEM COMPONENTS

System components are devices on the instabus KNX/EIB bus which perform higher-level, non-application-specific functions. They provide the necessary current flow, transport the bus telegrams, and generally make the instabus KNX/EIB functional.

High quality guarantees functional safety and ensures disturbance-free communication between the devices on the bus.



Power supply	36–39
Coupler	40–45
Bus coupling unit	46–51
Data interface	52–59
Other	60–61

System
components

Sensors

Actuators

Logic modules

Visual
representations

Other
components

Accessories
Software

Dim. drawings
Glossary

Service
Addresses

Software
CD

Supply	Rated voltage	161 to 264 V AC, 50 to 60 Hz 176 to 270 V DC Operation on the two outer leads of a 110 V supply
	Power loss Mains buffering	Typically < 5 W in normal operation min. 100 ms
Output "BUS"	Rated SELV	28 to 31 V DC
	Cable length	max. 350 m (to last bus device) max. 700 m (between two bus devices) max. 1000 m (overall length of bus line)
Output "30 V DC"	Rated SELV	28 to 31 V DC
Rated current	all outputs together	max. 320 mA
	split any way	sustained short circuit-proof
Bus devices	max. 32	max. 10 mA per device
Controls and displays	Slide switch	Reset
	Green LED	Normal operation
	Red LED	Overload
	Yellow LED	Overvoltage
	Red LED	Reset
Connections	Supply	Screw terminals: 0.2–4 and 2 x 0.2–2.5 mm ² single core 0.75–4 mm ² fine wire without end cap sleeve 0.5–2.5 mm ² fine wire with end cap sleeve
	Outputs	Terminals
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	in wall cabinet/control cabinet	horizontal
	when mounted in a distributor box	any
	general	no minimum clearances
Dimensions (W x H x D)	72 x 90 x 64 mm	4 modules

The 320 mA power supply is executed as a top hat rail mounted device. It generates and monitors the instabus KNX/EIB system voltage and thereby provides power for up to max. 32 bus devices. The devices can be connected to the "BUS" output without additional chokes.

In addition the power supply provides a DC output without choke. This can be used to power a further line (e.g. a main line) using a separately installed choke. Alternatively this output can be used to power further functional devices.

The load can be split in any way between the outputs, but the overall rated current of 320 mA must not be exceeded! Outputs share a common overload/short circuit protection.

Pressing the reset switch integral to the device for at least 20 seconds briefly switches off the bus line and thus triggers a reset of all bus devices. The four LEDs on the front of the device give information about the operating status of the power supply.

Device colour
Light grey 7501 00 09

Installation

The power supply should be installed only in a distribution box or in a control cabinet on a 35 mm top hat rail. Sufficient ventilation must be provided to ensure that the permissible operating temperature range is not exceeded.

For correct operation it is essential that the earth terminal is connected. The power supply can be fed by a back-up mains supply to VDE 108. Check that the mains supply is in accordance with the technical data sheet!

The power supply does not provide a rear contact to a data rail. If power for data rails is required, additional data rail connectors must be fitted.

Short circuit

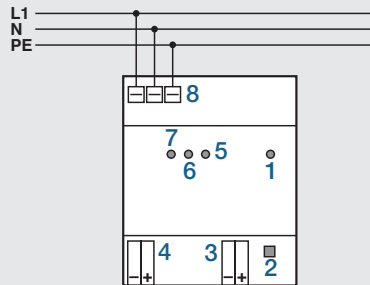
In the event of a short circuit at any one output, all outputs will be switched off!

Reset

The reset switch briefly switches off the respective line only, and triggers a reset of all bus devices.

LED displays

In the event of excessive bus voltage (> 31 V DC) the yellow LED will light.

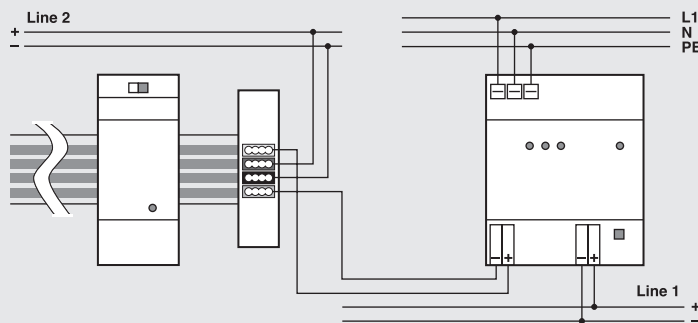


In the event of overload, short circuit, too many devices on the bus line/excessive loading on an output without a choke, the red "overload" LED will light.

Key

1. Reset LED
2. Slide switch for reset
3. BUS terminal
4. 30V DC output
5. Overvoltage LED
6. Overload LED
7. Normal operation LED
8. 230 V connection

Connection example for 2 lines with additional connector and choke



- Generation and monitoring of the KNX/EIB system voltage
- Connections by KNX/EIB terminals
- KNX/EIB devices can be connected without additional chokes
- Provision of an additional output (without choke)
- Load can be split any way between the two outputs
- Slide switch (bus line reset)
- Separate LEDs for operation, overload, overvoltage, reset



Power supply 320 mA



ETS search path: Gebr. Berker >>
System components >> Power supply >>

Supply	Rated voltage	161 to 264 V AC, 50 to 60 Hz 176 to 270 V DC Operation on the two outer leads of a 110 V supply
	Power loss Mains buffering	Typically < 5 W in normal operation min. 100 ms
Output "BUS 1" and "BUS 2"	Rated SELV	28 to 31 V DC
	Cable length	max. 350 m (to last bus device) max. 700 m (between two bus devices) max. 1000 m (overall length of bus line)
Output "30 V DC"	Rated SELV	28 to 31 V DC
Rated current	all outputs together	max. 640 mA
	split any way	sustained short circuit-proof
Bus devices	max. 64	max. 10 mA per device
Controls and displays	2 Slide switch	Reset "Bus 1" and "Bus 2"
	Green LED	Normal operation
	Red LED	Overload
	Yellow LED	Overvoltage
	Red LED	Reset
Connections	Supply	Screw terminals: 0.2–4 and 2 x 0.2–2.5 mm ² single core 0.75–4 mm ² fine wire without end cap sleeve 0.5–2.5 mm ² fine wire with end cap sleeve
	Outputs	Terminals
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	in wall cabinet/control cabinet	horizontal
	when mounted in a distributor box	any
	general	no minimum clearances
Dimensions (W x H x D)	126 x 90 x 64 mm	7 modules

The power supply unit is executed as a top hat rail mounted device. It generates and monitors the instabus KNX/EIB system voltage and thereby provides power for up to max. 64 bus devices. The devices can be connected without additional chokes to the two "BUS" outputs.

In addition the power supply provides a DC power output without a choke. This can be used to power a further line (e.g. a main line) using a separately installed choke. Alternatively this output can be used to power further functional devices.

The load can be split in any way between the outputs, but the overall rated current of 640 mA must not be exceeded! The outputs share a common overload/short circuit protection.

Pressing either of the reset switches integral to the device for at least 20 seconds briefly switches off the respective bus line and triggers a reset of all bus devices. The five LEDs on the front of the device give information about the operating status of the power supply.

Device colour
Light grey 7501 00 10

Notes

Installation

The power supply should be installed only in a distribution box or in a control cabinet on a 35 mm top hat rail. Sufficient ventilation must be provided to ensure that the permissible operating temperature range is not exceeded.

For correct operation it is essential that the earth terminal is connected. The power supply can be fed by a back-up mains supply to VDE 108. Check that the mains power supply is in accordance with the technical data sheet!

The power supply does not provide a rear contact to a data rail. If power for data rails is required, additional data rail connectors must be fitted.

Short circuit

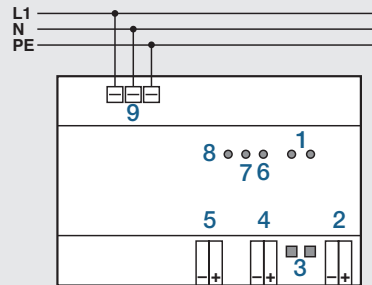
In the event of a short circuit at only one output, all outputs will be switched off!

Reset

The reset switch briefly switches off the connected lines and triggers a reset of all bus devices.

LED displays

In the event of excessive bus voltage (> 31 V DC) the yellow LED will light.

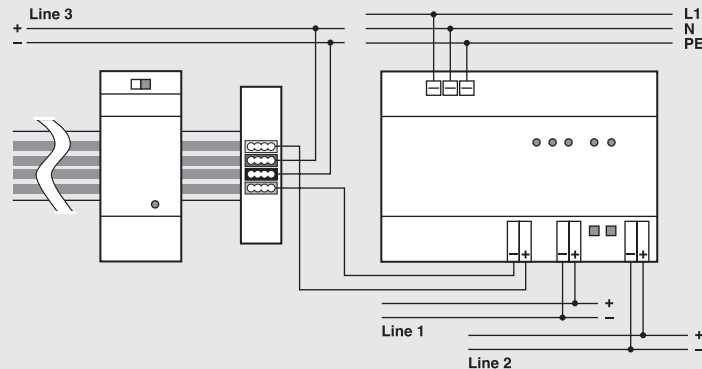


In the event of overload, short circuit, too many participants on the bus line/excessive loading on the output without choke, the red "overload" LED will light.

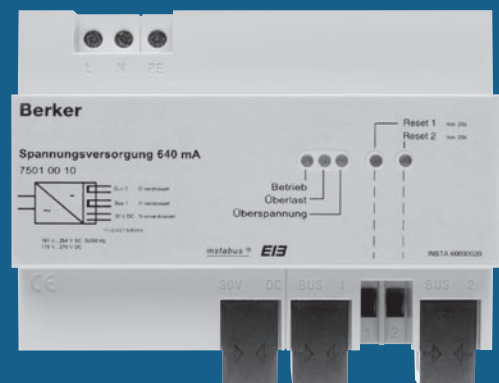
Key

1. Two reset LEDs
2. BUS 2 terminal
3. Slide switch for reset
4. BUS 1 terminal
5. 30V DC output
6. Overvoltage LED
7. Overload LED
8. Normal operation LED
9. 230 V connection

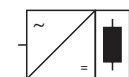
Connection example for 3 lines with additional connector and choke



- Generation and monitoring of the KNX/EIB system voltage
- Connection using KNX/EIB terminals
- Support for two bus lines "BUS 1" and "BUS 2"
- KNX/EIB devices can be connected without additional chokes
- Provision of an additional output (without choke)
- Load can be split any way between the three outputs
- Independent slide switch for resetting each bus line
- Separate LEDs for operation, overload, overvoltage, reset



Power supply 640 mA



ETS search path: Gebr. Berker >>
System components >> Power supply >>

Technical data

Supply	Rated SELV	28 V DC (+2 V/-0 V)
	Rated current	0.5 A
Controls and displays	Slide switch	Reset, isolate
	Reset LED	Red
Inputs/outputs	KNX/EIB	Pressure contact on data rail
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	35 x 90 x 55 mm	2 modules

Information

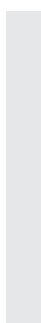
The choke is executed as a top hat rail mounted device, and isolates the instabus KNX/EIB line from the power supply.

The choke prevents the KNX/EIB data telegrams from shorting through the power supply. Operating the integral slide switch isolates and shorts the bus line. The associated LED is lit red during isolation/shorting.

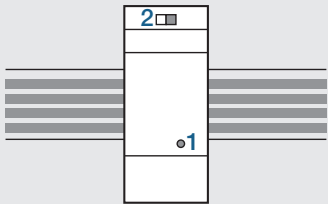
Switching the choke back on triggers a re-initialization of the connected devices (the duration of the initialization process varies according to device).

Order data

Device colour
Light grey 7501 00 02



Notes



- Key
- 1. Reset LED
 - 2. Slide switch for reset

- Isolation of lines from power supply
- Termination
- Slide switch (reset/isolate)
- LED for reset



Choke RMD



ETS search path: Gebr. Berker >>
System components >> Choke >>

Supply	via bus line	21–32 V DC (from the higher-ranking line)
Power consumption	- higher-ranking line - lower-ranking line	120–200 mW 160–260 mW
Current consumption	- higher-ranking line - lower-ranking line	approx. 6 mA approx. 8 mA
Behaviour in the event of power failure	higher-ranking line lower-ranking line	no function, all LEDs off full function on higher-ranking line
Behaviour in the event of power restore		after an initialisation phase (approx. 1 s) and LED test the coupler is ready for operation
Controls and displays	Programming button Programming LED Operation LED Data transfer LED (higher-ranking line) Data transfer LED (lower-ranking line)	red green yellow yellow
Connections	Bus - higher-ranking line - lower-ranking line	terminal terminal
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	- 5 to +45 °C - 25 to +70 °C
Assembly	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	36 x 90 x 60 mm	2 modules

The area/line coupler establishes the data link between two instabus KNX/EIB lines and ensures electrical isolation between the lines.

The function of the device is specified by the physical address and the chosen application:

Line coupler: connection of a lower-ranking line (subline) to a higher-ranking line (main line), optionally with or without filter function.

Area coupler: connection of a lower-ranking line (main line) to a higher-ranking line (area line), optionally with or without filter function. The coupler is physically assigned to the lower-ranking line.

Line amplifier: in this function, KNX/EIB telegrams are prepared and repeated on one line; there is no filter function. It is possible to divide a line into up to four independent segments (max. three parallel configured line amplifiers per line).

A separate power supply is required for each line (area line/main line/line) and line segment.

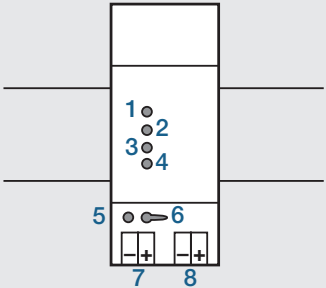
Device colour
Light grey 7501 00 14

Applications

Coupler/Amplifier 900F01	
Coupler	<ul style="list-style-type: none">■ Used as line or area coupler depending on how physical address has been allocated■ Reduction in bus load thanks to filter function (filter table)■ Forwarding of group telegrams (line > main line, main line > line) can be programmed■ Repetition of telegrams when transmission errors occur can be programmed■ Telegram confirmation programmable
Amplifier	<ul style="list-style-type: none">■ Can expand line to a max. of 4 line segments with up to 64 devices each■ Repetition of telegrams when transmission errors occur can be programmed
Objects	-
Group addresses/assignments	-

Notes

- LED displays**
The data transfer LEDs are lit when valid telegrams are being received on the corresponding line.
- Memory**
The filter tables are stored in a non-volatile memory (flash). This means that an internal backup battery is not required.

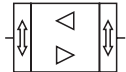


- Key**
- 1. Operation LED
 - 2. Data transfer LED, upper-ranking line
 - 3. Data transfer LED, lower-ranking line
 - 4. Group communication LED
 - 5. Programming LED
 - 6. Programming button
 - 7. Connecting terminal (upper/higher-level line)
 - 8. Connecting terminal (lower/lower-level line)

- Functions as line or area coupler
- Used as line amplifier
- Data link between two KNX/EIB lines with electrical isolation
- LED displays for operation, group communication data traffic and programming
- Filter functions in order to reduce the bus load



Coupler RMD



ETS search path: Gebr. Berker >> System components >> Line couplers >>

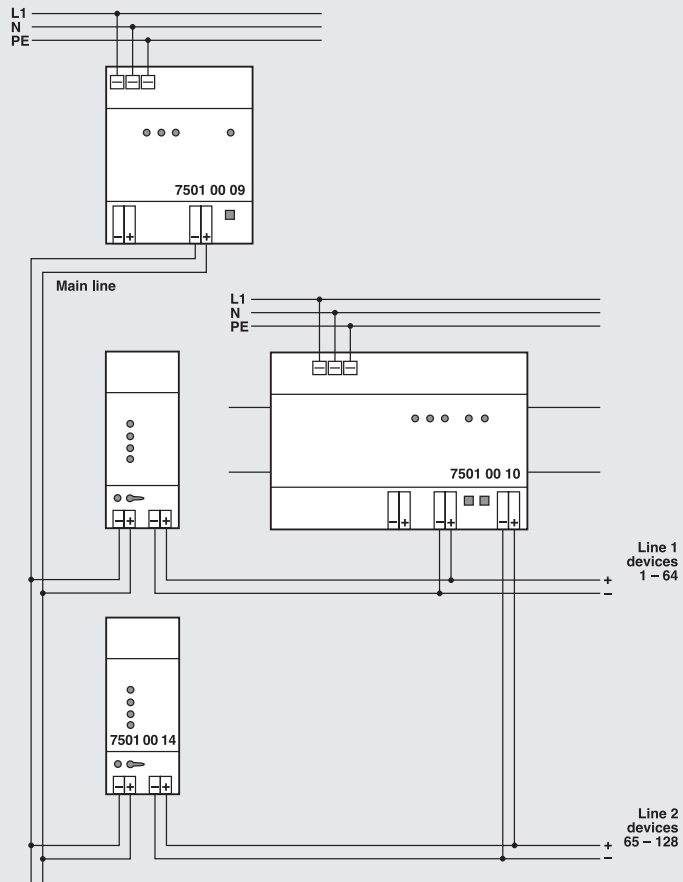
Installation

Main and area lines have the same properties as normal lines. As such, they require separate power supplies.

In terms of installation, the couplers are assigned to the lower-ranking lines.

It is advisable to install couplers on a top hat rail along with the power supply or choke.

Sample connection:
coupler as line coupler



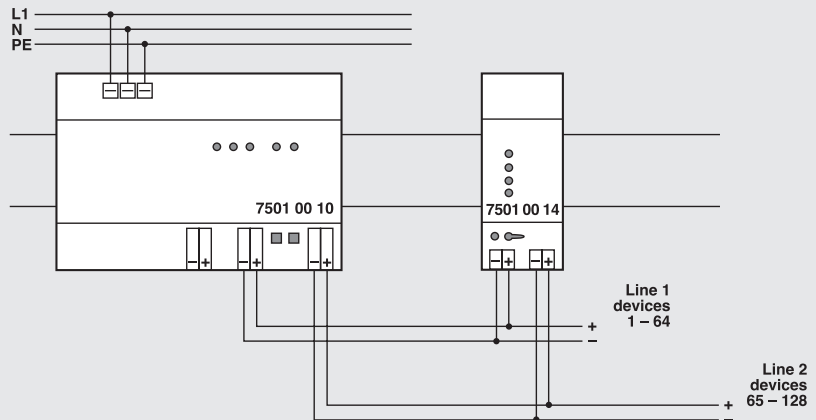
Notes

Programming

The device can be programmed via the higher-ranking or lower-ranking line (physical address, parameters).

The device can also be commissioned from any line in the KNX/EIB installation. If this coupler is used, the physical address of the data interface used is no longer relevant.

Sample connection: coupler as line amplifier



Coupler RMD

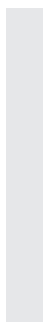
Supply	via bus line	21–32 V DC
Controls and displays	Programming button	
	Programming LED	Red
Connections	Bus	Pressure contact on data rail
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Dimensions (WxHxD)	17.5 x 90 x 58 mm	1 module

The bus coupling unit is executed as a top hat rail mounted device. It is the interface between the instabus KNX/EIB and the user modules in RMD module design.

Depending on the chosen application, output devices can be assigned to up to four channels.

This device can also be used as a logic controller with a wide variety of applications.

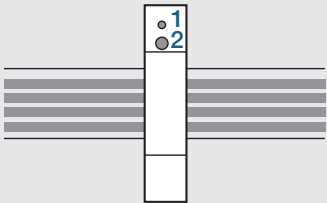
Device colour
Light grey 7502 00 01



Applications

Switching LO, TF 201112 (only in conjunction with the switch actuator module)	■ Operate relay depending on an ON or OFF telegram
Objects	4
Group addresses/assignments	maximum of 8 each (common group address for multiple objects only at sending position)

Notes



- Key
- 1. Programming LED
 - 2. Programming button

- Interface between instabus KNX/EIB and user modules
- Optionally four input or output channels
- Use as logic controller possible



Bus coupling unit
RMD



ETS search path: Gebr. Berker >>
System components>> Bus coupling unit >>

Supply	via bus line	21–32 V DC
Controls and displays	Programming button	
	Programming LED	Red
Connections	Bus	Terminal
	User module	2 x 5-pin female connectors
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fitted in wall boxes	dia. 58 mm
	Screw fixing	Claw fixing not possible!
	Insertion depth	23 mm
Dimensions (WxHxD)	75 x 75 x 23 mm	

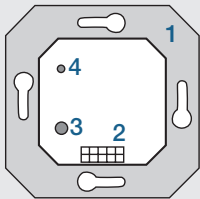
The bus coupling unit is executed as a flush-mounted device, and makes the connection between the instabus KNX/EIB and the user module.

The user module may be a sensor or an actuator clipped onto the bus coupling unit. The KNX/EIB telegrams received from the line are evaluated and passed on as signals via the physical external interface (PEI) to the user module. In the opposite direction, signals from the user module are converted into KNX/EIB telegrams and sent onto the instabus.

By means of the programming button the physical address is transferred into the bus coupling unit.

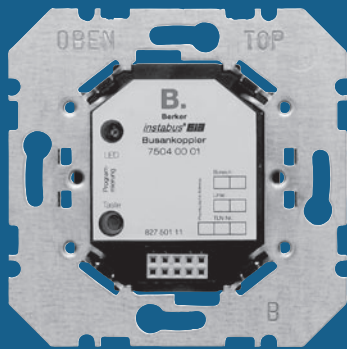
Design		Accessories	
with support ring	7504 00 01	Protective cover, grey	7500 00 07

Notes

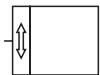


- Key**
- 1. Support ring
 - 2. Physical external interface (PEI)
 - 3. Programming button
 - 4. Programming LED

- Connection between instabus KNX/EIB and user modules
- Integral physical external interface
- LED to monitor programming



**Bus coupling unit
flush-mounted**



ETS search path: Gebr. Berker >>
System components >> Bus coupling unit >>

Supply	via bus line	21–32 V DC
Power consumption	without user module	max. 100 mW
Output power	Physical external interface	max. 150 mW
Controls and displays	Programming button Programming LED	red
Connections	Bus User module	Terminal 2 x 5-pin female connectors
Protection class	IP 20, in accordance with EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Assembly	Installation in connector boxes	Ø 58 mm
	Screw fastening	Claw fixing not possible!
	Installation depth	23 mm
Dimensions (WxHxD)	71 x 71 x 23 mm	

The flush-mounted bus coupling unit plus is designed as a flush-mounted device, and makes the connection between the instabus KNX/EIB and the user module.

Examples of user modules are push-buttons or display devices on the bus coupling unit. The KNX/EIB telegrams received from the line are evaluated and passed on as signals via the physical external interface (PEI) to the user module. In the opposite direction, signals from the user module are converted into KNX/EIB telegrams and sent onto the instabus.

By means of the programming button, the physical address is transferred into the bus coupling unit.

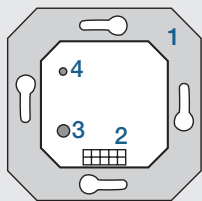
Design		Accessories	
with support ring	7504 00 03	Protective cover, grey.....	7500 00 07

Notes

IMPORTANT

Bus coupling unit for push-buttons with room thermostat and display 7566 x5 9x, Bluetooth gateway 7566 01 xx.

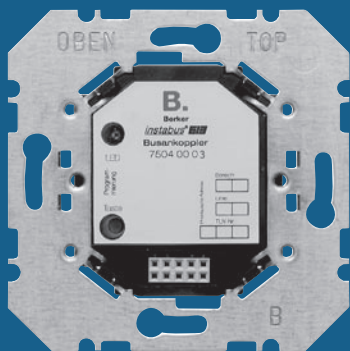
These devices have a higher current consumption and therefore require the flush-mounted bus coupling unit plus.



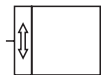
Key

- 1. Supporting ring
- 2. Physical external interface
- 3. Programming button
- 4. Programming LED

- Connection between instabus KNX/EIB and user modules
- Supports user modules with higher power consumption
- Integral physical external interface
- LED to monitor programming



Bus coupling unit plus flush-mounted



Supply	via bus line	21–32 V DC
Input	PC interface - Transmission rate - Voltage - Current input - Max. cable length, RS-232	serial, RS-232 Typ. 9.6 kBaud 5–15 V SELV approx. 10 mA 15 m
Behaviour in the event of power failure/restore	Bus voltage failure Bus voltage restore	Communication stops Communication can be continued
Operation and display elements	Programming button Programming LED Operation LED (RUN) Communication LED	red green yellow
Connections	Bus Inputs	Terminal pins 9pole Sub-D socket
Protection class	IP 20, according to EN 60529	
Ambient temperature range	Operation Storage/transport	- 5 to +45°C - 25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	
Dimensions (WxHxD)	36 x 90 x 65 mm	2 modules

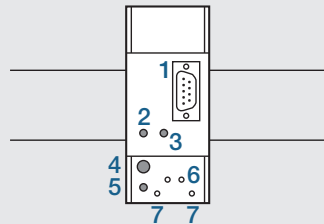
The data interface is designed as a rail mounted device. It makes possible the coupling of a PC via the RS-232 serial interface for addressing, programming and diagnosis of KNX/EIB components.

The PC is connected to the data interface via a 9pole Sub-D connector.

Device colour
Light grey 7501 00 13

Notes

To connect a PC to the data interface, a 9pole RS-232 extension cable (wired up 1:1) must be used. If the PC has a 25pole RS-232 interface, then a suitable, fully wired-up adapter must be used. The length of the connecting cable should not exceed 15 m!



Key

1. PC interface (RS-232 female)
2. Operation LED (RUN)
3. Data communication LED (COM)

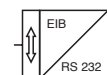
Beneath a cover:

4. Programming button
5. Programming LED
6. Bus terminal pins
7. Guide pins for cover

- Bus connection via connecting terminal
- Display of the status via operation and communication LED
- Push-on cover for reliable isolation of bus and mains voltage



Data interface RMD



Supply	via bus line	21–32 V DC
Inputs	PC port – Transfer rate – Data level – Input level – Output level	serial, RS 232 typ. 9.6 kBaud to DIN 66259, part 1 6 V 3 V
Response to power failure/restore	Bus power failure only Only bus power restored	Communication aborts Communication restored
Controls and displays	Operating LED	Green
Connections	Bus coupling unit Inputs	AST: 2 x 5-pin male connectors 9-pin Sub D female connector
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The data interface is executed as a clip-on device in conjunction with a flush-mounted bus coupling unit. A 9-pin Sub-D connector permits connection of a PC to the instabus KNX/EIB.

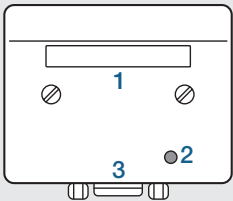
This can be used for programming, parameter setting, addressing and diagnosis of the instabus devices.

To prevent disturbances, an automatic R-type switch is integrated into the data interface.

The bus coupler's physical external interface type switches depending on whether a PC is connected or not.

MODULE 2		Berker S.1/B.1/B.3/B.7 GLASS		Berker K.1/K.5		ARSYS	
White	7506 00 12	White, glossy	7506 00 52	White	7506 00 72	White	7506 00 42
Polar white	7506 00 19	Polar white, glossy	7506 00 59	Polar white	7506 00 79	Polar white	7506 00 49
		Polar white, matt	7506 00 89	Stainless steel, lacquered	7506 00 73	Light bronze, lacquered	7506 00 44
		Anthracite, matt	7506 00 85			Stainless steel, lacquered	7506 00 43
		Aluminium, matt	7506 00 83				

Notes



- Key**
- 1. Labelling field
 - 2. Operating LED
 - 3. PC port

- Operating LED
- Connection of a PC for programming, parameter setting, etc.
- Label strip



TWINPOINT	
Polar white	7506 00 69
Red.....	7506 00 66
Black	7506 00 65

**Data interface
flush-mounted**



ETS search path: Gebr. Berker >>
Communication >> Serial >>

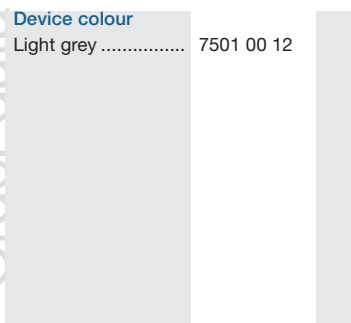
Supply	via PC	USB port
Transmission	Transmission rate Protocol Cable length	typ. 9.6 kBaud compatible with USB 1.1 and 2.0 max. 5 m
Connections	Bus USB socket	Terminal Type B
Protection class	IP 20, in accordance with EN 60529	
Protection class	II	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Assembly	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	36 x 90 x 63 mm	2 modules

The data interface is designed as a top hat rail mounted device. It allows a PC to be connected so that instabus KNX/EIB components can be addressed, programmed and diagnosed with the ETS 3 or ETS starter software.

The power is supplied completely by the USB interface from the connected PC. The device is programmed locally only by the connected PC with the physical address and therefore does not have a programming button or a programming LED.

The USB data interface firmware can be updated by PC and is therefore compatible with coming standards.

Device colour
Light grey 7501 00 12



Compatibility

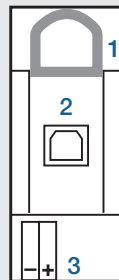
The USB data interface RMD is supported exclusively by ETS 3 (version 1.0 and higher) and the PC operating systems Windows 98, 98 SE, ME, Windows 2000 and Windows XP.

The USB connection should be made with a certified USB cable (1 x type B-connector required) with a max. length of 5 m.

The power is supplied by the USB data interface of a connected PC. The instabus KNX/EIB no longer detects the USB interface if a USB cable is not connected.

IMPORTANT

If the USB cable is connected to the distributor on a permanent basis, insert the black slider (item 1) in order to ensure max. installation height in the distributor and to prevent contact with live parts.



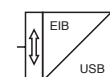
Key

- 1. Cable clamp
- 2. USB connection (type B)
- 3. Terminal

- Installation on top hat rail in the distribution box
- Connecting a PC via the USB data interface
- Connection via bus terminal
- Power supply via PC
- No bus coupling unit required
- With flash controller



USB data port RMD



Technical data

Supply	via PC	USB port
Transmission	Transmission rate Protocol Cable length	typ. 9.6 kBaud compatible with USB 1.1 and 2.0 max. 5 m
Connections	Bus USB socket	Terminal Type B
Protection class	IP 20, in accordance with EN 60529	
Protection class	II	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Assembly	Installation in connector boxes Screw fastening Installation depth	Ø 58 mm Claw fixing not possible! 34 mm
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 34 mm	

Information

The data interface allows a PC to be connected so that instabus KNX/EIB components can be addressed, programmed and diagnosed with the ETS 3 or ETS starter software.

The power is supplied completely by the flush-mounted USB interface from the connected PC. The device is programmed locally only by the connected PC with the physical address and therefore does not have a programming button or a programming LED.

The flush-mounted USB data interface firmware can be updated by PC and is therefore compatible with coming standards.

Order data

Device colour		MODUL 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
Light grey	7504 00 04	Centre plate		Centre plate		Centre plate	
		- White.....	(68)1033 02	- White, glossy.....	*1033 89 12	- White.....	*1035 70 02
		- Polar white.....	(68)1033 09	- Polar white, glossy	*1033 89 19	- Polar white.....	*1035 70 09
				- Polar white, matt...	*1033 19 09	- Stainless steel.....	*1035 70 04
					1033 19 19		
				- Anthracite, matt	*1033 16 06		
				- Aluminium, matt	*1033 14 04		
		For TDO boxes in Austria: * = (68)					

Notes

Compatibility

The USB data interface RMD is supported exclusively by the ETS 3 (version 1.0 and higher) and the PC operating systems Windows 98, 98 SE, ME, Windows 2000 and Windows XP.

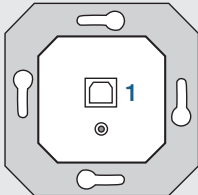
The USB connection should be made with a certified USB cable (1 x type B-connector required) with a max. length of 5 m.

The power is supplied by the USB data interface of a connected PC.

The instabus KNX/EIB no longer detects the USB interface if a USB cable is not connected.

Covers

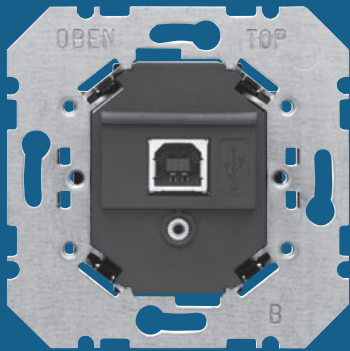
Centre plates or central plates and intermediate ring for TAE/TDO phone systems are used as a cover (see order data below).



Key

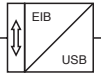
1. USB connection (type B)

- Flush-mounted device for installation in a switch box
- Connecting a PC via the USB data interface
- Connection via bus terminal
- Power supply via PC
- No bus coupling unit required
- With flash controller



ARSYS		TWINPOINT	
Centre plate		Centre plate	
- White.....	*1035 01 02	- Polar white.....	*1035 09
- Polar white.....	*1035 01 69	- Red	*1035 62
- Light bronze, metal	*1034 00 01	- Black.....	*1035 65
- Stainless steel.....	*1034 00 04		
Centre plate with labelling field			
- White.....	*1035 00 02		
- Polar white.....	*1035 00 69		

USB data port flush-mounted



Data rail with connector		
Protection class	IP 20, according to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	bonded-in
Mounting orientation	as desired	
Dimensions (WxHxD)	214 x 24 x 1.8 mm (for top hat rail 35 x 7.5 mm)	12 modules
Data rail cover		
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	Snap-on
Mounting orientation	any	
Dimensions (W)	240 mm	13.5 modules
Terminal		
Connections	Bus	2 x 4 clip-on terminals 0.6–0.8 mm
	Coding	Red/black = +/-
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to 45 °C
	Storage/transportation	-25 to 70 °C
Mounting	Clip on to connector pins of bus devices	
Mounting orientation	any	
Dimensions (WxHxD)	11.5 x 10 x 10.2 mm	

The data rail creates a connection between the devices via the pressure contacts of the KNX/EIB rail mounted devices. They are bonded into the top hat rail.

The inner pair of the four contact paths carries the bus voltage, and the outer pair the supply voltage. At the end of the data rail is a 4pole bus terminal that is used to establish the connection to the data rail.

The data rail cover protects the data rails against dirt and interference voltage. It is divisible into a 0.5 modules.

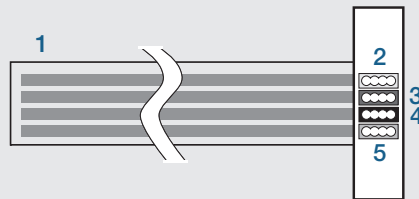
The terminal connects the components to the bus (with polarity reversal protection), and serves as a tapping block. There are connection facilities for a maximum of 2 x 4 conductors.

Data rail with connector		Data rail cover	Terminal
for top hat rail		Light grey	Red/black.....
35 x 7.5 mm		7500 00 04	7500 00 05
12 modules			

The configuration of the strip conductors is only correct if the connector is to the right during installation. The data rail must not be shortened. Empty areas of the top hat rail with a data rail inserted must be provided with a cover.

Connection to another line

The outer connector terminals (yellow and white) of the data rail are used to connect the non-choked 30 V DC voltage, e.g. to supply KNX/EIB lines via a separate choke.



Key

- 1. Data rail
- 2. 24 V DC (yellow)
- 3. KNX/EIB + (red)
- 4. KNX/EIB - (black)
- 5. 0 V (white)



Data rail with connector



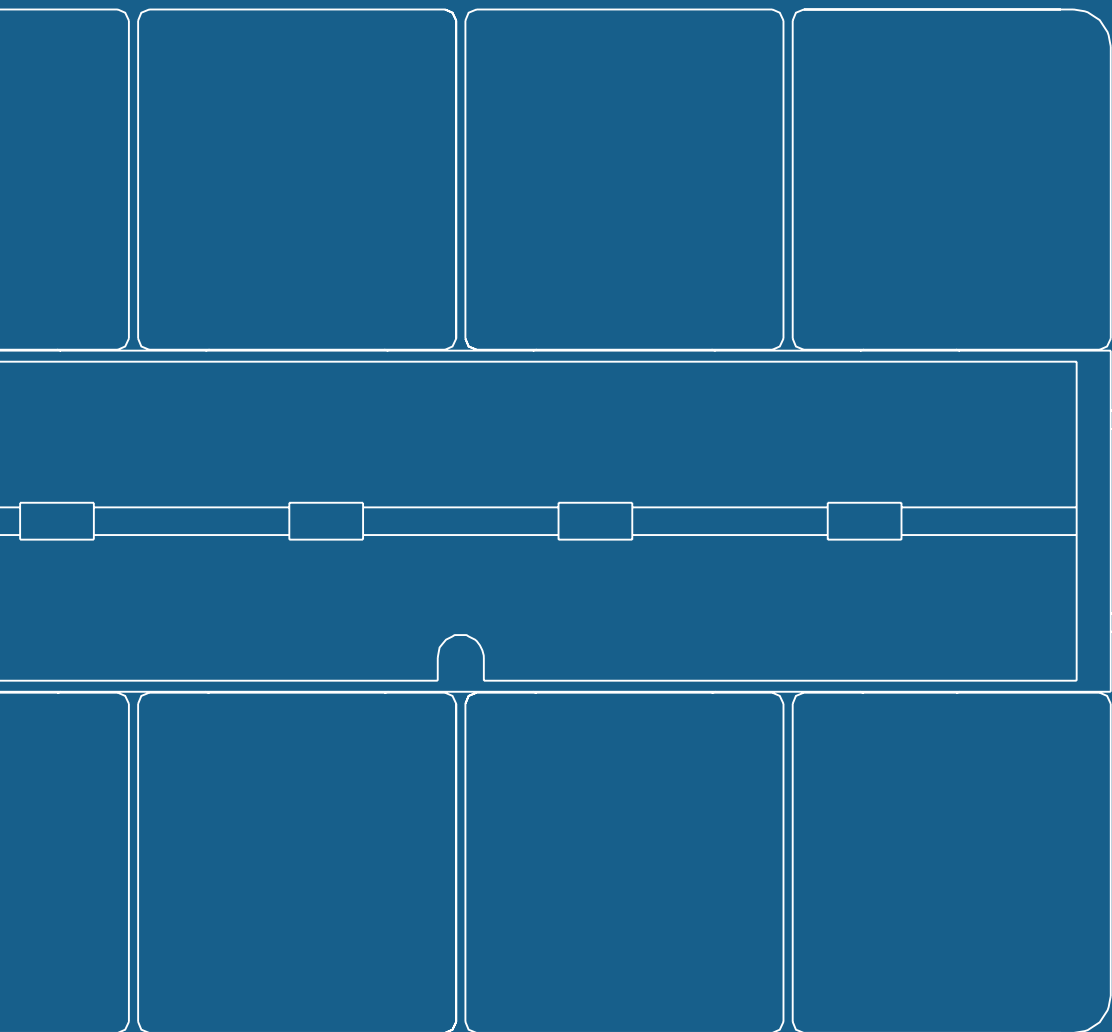
Data rail cover



Terminal

**Data rail with
connector**
Data rail cover
Terminal

ETS search path: Gebr. Berker >>
System accessory >>



SENSORS

Sensors are a key element of the instabus KNX/EIB. They convert physical variables into electrical values, process them and send a telegram onto the bus as appropriate.



Push-buttons	64–155
Physical sensors	156–183
Binary inputs	184–199
Time switches	200–209
Analogue inputs	210–231
Other	232–235

Sensors

Actuators

Logic modules

Visual representations

Other components

Accessories
Software

Dim. drawings
Glossary

Service
Addresses

Software
CD

Supply	via bus line	21–32 V DC
Controls and displays	Button with rocker mounting Programming button Programming LED Status LED	Red Red
Connections	KNX/EIB	Terminal
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Fitting in wall boxes	Ø 60 mm, 40 mm deep Ø 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

The push-button BCU 1gang is executed as a flush-mounted device. It consists of a bus coupling unit, a micro push-button with associated evaluation electronics and a status LED, as well as a mechanical mounting unit for rockers.

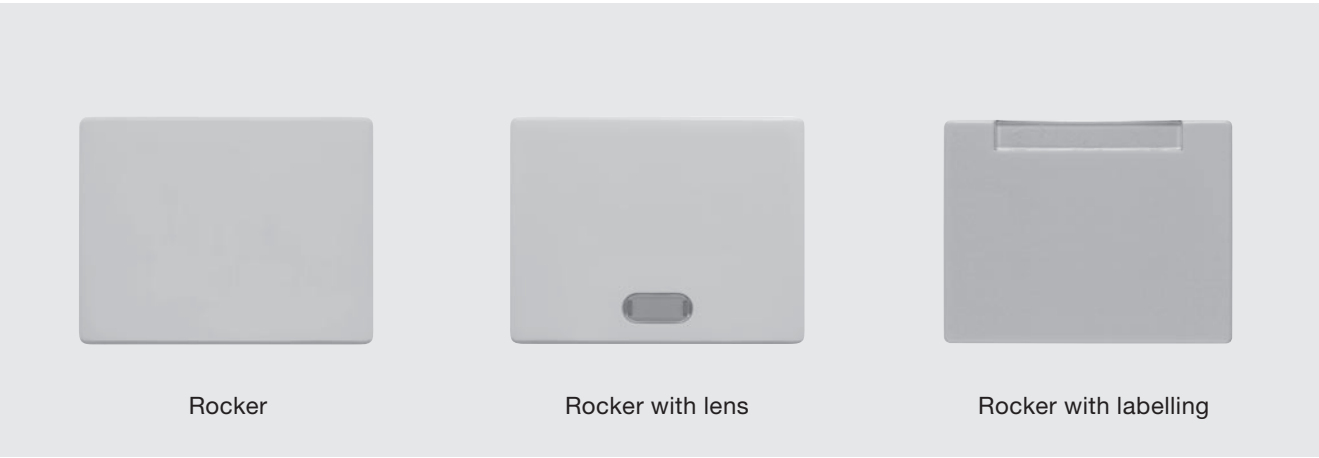
The rockers are not included. They can be ordered separately in differing designs according to the application (1gang, with lens, with labelling).

Design		Rocker Berker S.1/ B.1/B.3/B.7 GLASS	Rocker Berker S.1/ B.1/B.3/B.7 GLASS	Rocker Berker K.1/K.5	
- with support ring...	7514 10 00				
Rocker MODULE 2					
White	1620 02	White, glossy.....	1620 89 82	Anthracite, matt.....	1620 16 06
- with lens.....	1621 12	- with lens.....	1621 89 82	- with lens.....	1621 16 06
- with labelling.....	1626 02	- with labelling.....	1626 89 82	- with labelling.....	1626 16 06
Polar white	1620 09	Polar white, glossy	1620 89 89	Aluminium, matt	1620 14 04
- with lens.....	1621 19	- with lens.....	1621 89 89	- with lens.....	1621 14 04
- with labelling.....	1626 09	- with labelling.....	1626 89 89	- with labelling.....	1626 14 04
		Polar white, matt	1620 19 09		
		- with lens.....	1621 19 09		
		- with labelling.....	1626 19 09		
				White	1405 70 02
				- with lens.....	1415 70 02
				- with labelling.....	1426 70 02
				Polar white	1405 70 09
				- with lens.....	1415 70 09
				- with labelling.....	1426 70 09
				Stainless steel	1405 70 04
				- with lens.....	1415 70 04
				- with labelling.....	1426 70 04

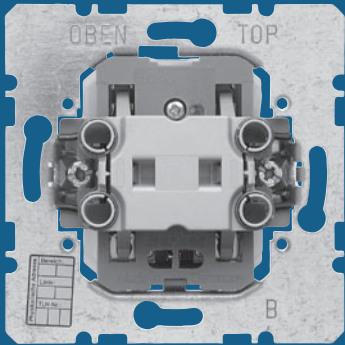
Applications

Switching 105501	■ Switching functions: ON or OFF or TOGGLE
	■ LED as status indicator, continuous ON or continuous OFF
Objects	1
Group addresses/assignments	maximum of 3 each

Rockers



- Status LED to indicate operating states or as orientation light
- Switching of a function group

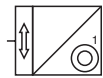


Rocker Berker ARSYS	
White	1405 00 02
- with lens.....	1415 00 02
- with labelling	1426 00 02
Polar white	1405 00 69
- with lens.....	1415 00 69
- with labelling	1426 00 69
Light bronze, metal ...	1404 00 01
- with lens.....	1416 00 01
- with labelling	1436 00 01
Stainless steel	1404 00 04
- with lens.....	1416 00 04
- with labelling	1436 00 04

Rocker TWINPOINT	
Polar white	1405 29
- with lens.....	1415 09
- with labelling	1426 19
Red	1405 62
- with lens.....	1415 62
- with labelling	1426 62
Black	1405 65
- with lens.....	1415 65
- with labelling	1426 65

Rocker Shatter-proof IP 44	
White	1550
- with lens.....	1553
- with labelling	1629
Polar white	1550 09
- with lens.....	1553 09
- with labelling	1629 09

Push-button BCU 1gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 1gang >>

Supply	via bus line	21–32 V DC
Controls and displays	Button left Button right Programming button Programming LED 2 status LEDs	Red Red
Connections	KNX/EIB	Terminal
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Fitting in wall boxes	Ø 60 mm, 40 mm deep Ø 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

The push-button BCU 2gang is executed as a flush-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (2gang, with lens, with arrow symbol).

Design		Rockers Berker S.1/ B.1/B.3/B.7 GLASS		Rockers Berker S.1/ B.1/B.3/B.7 GLASS		Rockers Berker K.1/K.5	
- with support ring...	7514 20 00	White, glossy.....	1623 89 82	Anthracite, matt.....	1623 16 06	White	1435 70 02
Rockers MODULE 2		- with lens.....	1627 89 82	- with lens.....	1627 16 06	- with lens.....	1437 70 02
White	1623 02	- with labelling	1625 89 82	- with labelling	1625 16 06	- with arrow symbol ..	1435 71 02
- with lens.....	1627 02	Polar white, glossy	1623 89 89	Aluminium, matt	1623 14 04	Polar white	1435 70 09
- with labelling.....	1625 02	- with lens.....	1627 89 89	- with lens.....	1627 14 04	- with lens.....	1437 70 09
Polar white	1623 09	- with labelling	1625 89 89	- with labelling	1625 14 04	- with arrow symbol ..	1435 71 09
- with lens.....	1627 09	Polar white, matt	1623 19 09			Stainless steel	1435 70 04
- with labelling.....	1625 09	- with lens.....	1627 19 09			- with arrow symbol ..	1435 71 04
		- with labelling	1625 19 09				

Applications

Switching, dimming, shutter 105701	<ul style="list-style-type: none">■ Switching or dimming or shutter control■ Switching function with toggle operation■ Status LED with dedicated communication objects■ Area dimming
Objects	4
Group addresses/assignments	maximum 4/maximum 5

Rockers



Rockers

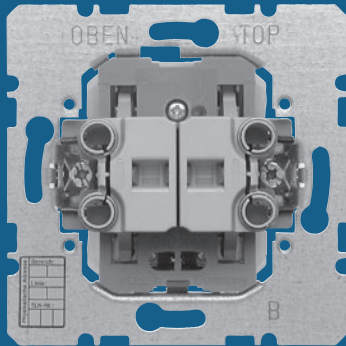


Rockers with red lenses



Rockers with arrow symbol

- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for one function group
- Switch up to two function groups



Rockers Berker ARSYS	
White	1435 00 02
- with lens.....	1437 00 02
- with arrow symbol ..	1435 01 02
Polar white	1435 00 69
- with lens.....	1437 00 69
- with arrow symbol ..	1435 01 69
Light bronze, metal ...	1434 00 01
- with arrow symbol ..	1434 01 01
Stainless steel	1434 00 04
- with arrow symbol ..	1434 01 04

Rockers TWINPOINT	
Polar white	1435 19
- with arrow symbol ..	1435 39
Red	1435 62
- with labelling	1435 72
Black	1435 65
- with labelling	1435 75

Rockers Shatter-proof IP 44	
White	1552
- with arrow symbol ..	1552 22
Polar white	1552 09
- with arrow symbol ..	1552 29

Push-button BCU 2gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 2gang >>

Supply	via bus line	21–32 V DC
Controls and displays	Upper button Lower button Programming button Programming LED Status LED	Red Red
Connections	KNX/EIB	Terminal
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Fitting in wall boxes	Ø 60 mm, 40 mm deep Ø 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

The group push-button BCU 1gang is executed as a flush-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and a status LED, as well as a mechanical mounting unit in the neutral mid position for rockers.

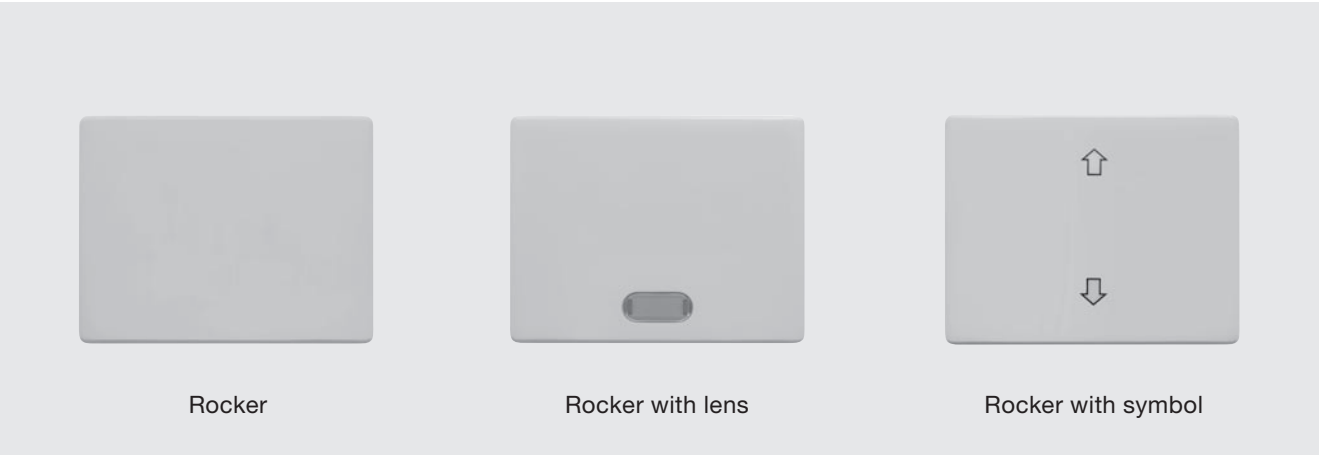
The rockers are not included. They can be ordered separately in differing designs according to the application (1gang, with lens, with symbol).

Design		Rocker Berker S.1/ B.1/B.3/B.7 GLASS		Rocker Berker S.1/ B.1/B.3/B.7 GLASS		Rocker Berker K.1/K.5	
- with support ring...	7514 11 00						
Rocker MODULE 2		White, glossy.....	1620 89 82	Anthracite, matt.....	1620 16 06	White	1405 70 02
		- with lens.....	1621 89 82	- with lens.....	1621 16 06	- with lens.....	1415 70 02
		- with symbol.....	1620 89 12	- with symbol.....	1620 16 16	- with symbol.....	1405 71 02
White.....	1620 02						
- with lens.....	1621 12	Polar white, glossy	1620 89 89	Aluminium, matt	1620 14 04	Polar white	1405 70 09
- with symbol.....	1620 22	- with lens.....	1621 89 89	- with lens.....	1621 14 04	- with lens.....	1415 70 09
Polar white	1620 09	- with symbol.....	1620 89 19	- with symbol.....	1620 14 14	- with symbol.....	1405 71 09
- with lens.....	1621 19	Polar white, matt	1620 19 09			Stainless steel	1405 70 04
- with symbol.....	1620 29	- with lens.....	1621 19 09			- with lens.....	1415 70 04
		- with symbol.....	1620 19 19			- with symbol.....	1405 71 04

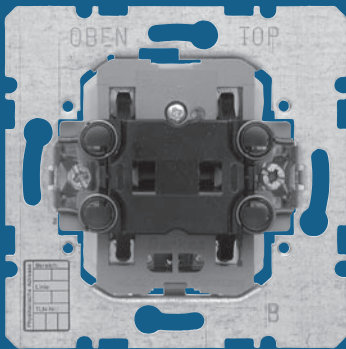
Applications

Switching, dimming, shutter 105601	■ Switching or dimming or shutter control ■ Up to two switching options by toggle function
Objects	3
Group addresses/assignments	maximum of 4 each

Rockers



- Status LED to indicate operating states or as orientation light
- Dimmer/shutter control for one function group
- Switch up to two function groups



Rocker Berker ARSYS	
White	1405 00 02
- with lens.....	1415 00 02
- with symbol.....	1405 03 02
Polar white	1405 00 69
- with lens.....	1415 00 69
- with symbol.....	1405 03 69
Light bronze, metal ...	1404 00 01
- with lens.....	1416 00 01
- with symbol.....	1404 03 01
Stainless steel	1404 00 04
- with lens.....	1416 00 04
	1404 03 04

RockerTWINPOINT	
Polar white	1405 29
- with lens.....	1415 09
- with symbol.....	1405 39
Red	1405 62
- with lens.....	1415 62
- with symbol.....	1405 72
Black	1405 65
- with lens.....	1415 65
- with symbol.....	1405 75

Rocker Shatter-proof IP 44	
White	1550
- with lens.....	1553
Polar white	1550 09
- with lens.....	1553 09

Group push-button BCU 1gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 1gang >>

Supply	via bus line	21–32 V DC
Controls and displays	2 buttons left (upper and lower) 2 buttons right (upper and lower) 2 status LEDs	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Fitting in wall boxes	Ø 60 mm, 40 mm deep Ø 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

The group push-button BCU 2gang is executed as a flush-mounted device. It consists of a bus coupling unit, four micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit in the neutral mid position for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (2gang, with lens, with symbol, with arrow symbol).

Design		Rockers Berker S.1/ B.1/B.3/B.7 GLASS		Rockers Berker S.1/ B.1/B.3/B.7 GLASS		Rockers Berker K.1/K.5	
- with support ring...	7514 21 00						
Rockers MODULE 2		White, glossy.....	1623 89 82	Anthracite, matt.....	1623 16 06	White	1435 70 02
White.....	1623 02	- with symbol.....	1644 89 82	- with symbol.....	1644 16 06	- with symbol.....	1435 72 02
- with symbol.....	1644 02	- with arrow symbol..	1625 89 82	- with arrow symbol..	1625 16 06	- with arrow symbol..	1435 71 02
- with arrow symbol..	1625 02	Polar white, glossy..	1623 89 89	Aluminium, matt	1623 14 04	Polar white	1435 70 09
Polar white	1623 09	- with symbol.....	1644 89 89	- with symbol.....	1644 14 04	- with symbol.....	1435 72 09
- with symbol.....	1644 09	- with arrow symbol..	1625 89 89	- with arrow symbol..	1625 14 04	- with arrow symbol..	1435 71 09
- with arrow symbol..	1625 09	Polar white, matt	1623 19 09			Stainless steel	1435 70 04
		- with symbol.....	1644 19 09			- with symbol.....	1435 72 04
		- with arrow symbol..	1625 19 09			- with arrow symbol..	1435 71 04

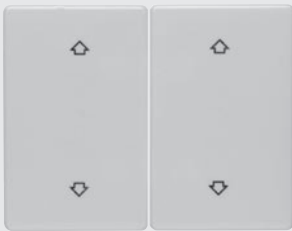
Applications

Switching, dimming, shutter 105801	<ul style="list-style-type: none">■ Switch and dimmer or■ Switch and shutter control or■ Dimmer and shutter control■ Maximum of 4 switching options by toggle function
Objects	8
Group addresses/assignments	maximum of 8 each

Rockers



Rockers

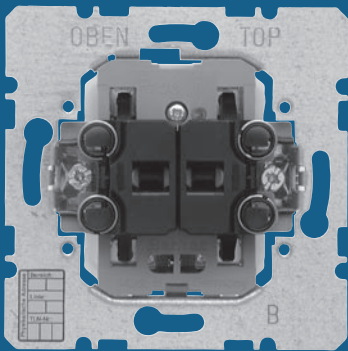


Rockers with symbol



Rockers with arrow symbol

- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for two function groups
- Switch up to four function groups



Rockers Berker ARSYS	
White	1435 00 02
- with symbol.....	1435 03 02
- with arrow symbol ..	1435 01 02
Polar white	1435 00 69
- with symbol.....	1435 03 69
- with arrow symbol ..	1435 01 69
Light bronze, metal ...	1434 00 01
- with symbol.....	1434 03 01
- with arrow symbol ..	1434 01 01
Stainless steel	1434 00 04
- with symbol.....	1434 03 04
- with arrow symbol ..	1434 01 04

Rockers TWINPOINT	
Polar white	1435 19
- with symbol	1644 29
- with arrow symbol ..	1435 39
Red	1435 62
- with symbol	1644 62
- with arrow symbol ..	1435 72
Black	1435 65
- with symbol	1644 65
- with arrow symbol ..	1435 75

Rockers Shatter-proof IP 44	
White	1552
- with arrow symbol ..	1552 22
Polar white	1552 09
- with arrow symbol ..	1552 29

Group push-button BCU 2gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 2gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Upper button	
	Lower button	
	Operating LED	Green
	Status LED	Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 1gang is a user module for clipping onto the flush-mounted bus coupling unit. It is supplied with or without labelling field (separate order number).

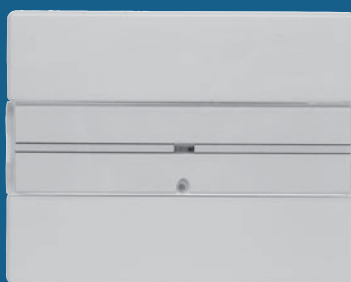
In the variant without labelling field the LEDs are not visible.

The device is completed by a cover frame, the bus coupling unit and a terminal.

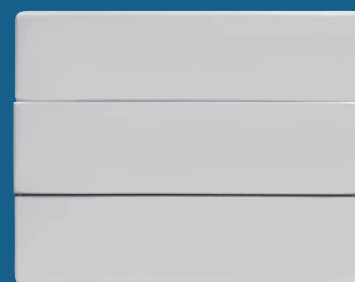
MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS		TWINPOINT *	
White.....	7516 11 12	Polar white, matt	7516 11 89	White.....	7516 11 42	Polar white.....	7516 10 69
- with labelling	7516 10 12	- with labelling	7516 10 89	- with labelling	7516 10 42	Red.....	7516 10 66
Polar white	7516 11 19	Anthracite, matt.....	7516 11 85	Polar white.....	7516 11 49	Black	7516 10 65
- with labelling	7516 10 19	- with labelling	7516 10 85	- with labelling	7516 10 49		
		Aluminium, matt	7516 11 83	Light bronze, lacquered	7516 11 44		
		- with labelling	7516 10 83	- with labelling	7516 10 44		
				Stainless steel, lacquered	7516 11 43		
				- with labelling	7516 10 43	* without anti-dis- mantling protection	

Dimming 100C12	<ul style="list-style-type: none"> Status LED programmable Switch/dimmer function 	<ul style="list-style-type: none"> Operating LED programmable Area dimming programmable
Objects	2	
Group addresses/assignments	maximum of 10 each	
Shutter 100D12	<ul style="list-style-type: none"> Step and move operation Number of step commands for variable jog mode 	<ul style="list-style-type: none"> Operating LED programmable
Objects	2	
Group addresses/assignments	maximum of 10 each	
Switching 100912	<ul style="list-style-type: none"> LED for transmission monitoring in time function Switching commands customizable 	<ul style="list-style-type: none"> Operating LED programmable
Objects	1	
Group addresses/assignments	maximum of 10 each	
Value transmitter 101B01	<ul style="list-style-type: none"> Two values to be sent to dim and/or analogue actuators and/or control units Passive or active extension of a light scene push-button 	
Objects	1	
Group addresses/assignments	maximum of 1 each	
Switching/pushing 103301	<ul style="list-style-type: none"> Status LED with separate object Switching commands customizable 	<ul style="list-style-type: none"> Operating LED programmable Toggle function for up to two group commands
Objects	3	
Group addresses/assignments	maximum of 13 each	

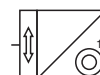
- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operating LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



with labelling



Push-button 1gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 1gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Left-hand button	Part of the rocker
	Right-hand button	Part of the rocker
	Operating LED	White
	2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Clip on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 1gang is a user module for mounting on a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded. The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons).

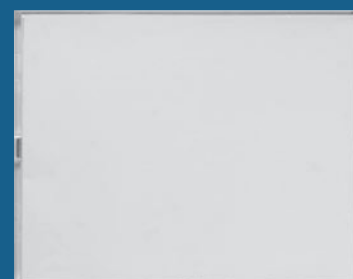
The cover is removable, the entire surface of the rocker is available for inserting a labelling plate. By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling.

The austere, minimalistic form is superbly suited to the series' form language.

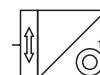
Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and Polar		for White and Polar	
white.....	7516 13 80	white.....	7516 13 70
for Anthracite and		for Stainless steel.....	7516 13 73
Aluminium	7516 13 85		

Dimming 100C03	<ul style="list-style-type: none"> Status LED adjustable Switching/dimmer function 	<ul style="list-style-type: none"> Operating LED adjustable Area dimming adjustable
Objects	2	
Group addresses/assignments	maximum 10 each	
Shutter 100D03	<ul style="list-style-type: none"> Step and move command Number of step commands for variable jog mode 	<ul style="list-style-type: none"> Operating LED adjustable
Objects	2	
Group addresses/assignments	maximum 10 each	
Switching 100903	<ul style="list-style-type: none"> Operating LED adjustable Status LED with time function for transmission monitoring 	<ul style="list-style-type: none"> Switching commands freely adjustable
Objects	1	
Group addresses/assignments	maximum 10 each	
Value transmitter 101B03	<ul style="list-style-type: none"> Two values for sending to dim and/or analogue actuators and/or control units Passive or active extension unit of a light scene push-button 	
Objects	1	
Group addresses/assignments	maximum 1 each	
Switching/pushing 103303	<ul style="list-style-type: none"> Status LED with separate object Switching commands freely adjustable 	<ul style="list-style-type: none"> Operating LED adjustable Toggle function for up to two group commands
Objects	3	
Group addresses/assignments	maximum 13 each	

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operating LED
- Status LED for indicating switching states, etc.
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 1gang with labelling field



ETS search path: Gebr. Berker >> Push-button >> Push-button, 1gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Button on left	Part of the rocker
	Button on right	Part of the rocker
	Operating LED	Blue
	2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 1gang standard is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

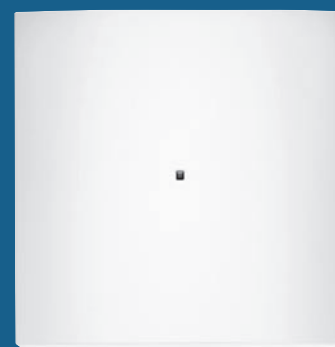
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

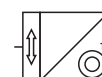
BERKER B.IQ		Accessories	
Polar white	7516 10 99	Labelling field	
Stainless steel	7516 10 93	clear transparent	7590 00 80
Glass, polar white....	7516 10 91		

Applications	Dimming 100C03	■ Status LED programmable ■ Switch/dimmer function	■ Operating LED programmable ■ Area dimming programmable
	Objects	2	
	Group addresses/assignments	maximum 10 each	
	Shutter 100D03	■ Step and move operation ■ Number of step commands for variable jog mode	■ Operating LED programmable
	Objects	2	
	Group addresses/assignments	maximum 10 each	
	Switching 100903	■ Operating LED programmable ■ Status LED with time function for transmission monitoring	■ Switching commands programmable
	Objects	1	
	Group addresses/assignments	maximum 10 each	
	Value transmitter 101B03	■ Two values to be sent to dimming and/or analogue actuators and/or control units ■ Passive or active extension of a light scene push-button	
	Objects	1	
	Group addresses/assignments	maximum 1 each	
	Switching/pushing 103303	■ Status LED with separate object ■ Switching commands programmable	■ Operating LED programmable ■ Toggle function for up to two group commands
	Objects	3	
	Group addresses/assignments	maximum 13 each	

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operating LED
- Status LED for displaying switching statuses
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 1gang standard



ETS search paths:

Gebr. Berker >> Push-button >> 1gang push-button >> Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	Upper button Lower button Operating LED 2 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 1gang comfort is a user module for clipping onto the flush-mounted bus coupling unit. The device is completed by a cover frame, the bus coupling unit and a terminal.

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness and/or temperature values or as a light scene extension
- Control of up to 2 dimmer groups via the “one push-button” dimming operation
- Open value input, 1-byte and 2-byte floating point
- Control of forced guidance (EIS 8)

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS	
White	7516 16 12	Polar white, matt	7516 16 89	White	7516 16 42
Polar white	7516 16 19	Anthracite, matt	7516 16 85	Polar white	7516 16 49
		Aluminium, matt	7516 16 83	Light bronze, lacquered	7516 16 44
				Stainless steel, lacquered	7516 16 43

PB comfort 109302

- Two push-buttons can be adjusted separately
- Operating LED adjustable
- Inverse Status LED, flashing
- Variable lighting duration of the status LED (length of actuation)
- Status LED for shutter function
- Push-button function for moving shutters, one movement direction each
- Switching function: Cyclic transmission possible
- Shutter function via one push-button operation
- Dimmer via one push-button operation
- Area dimming adjustable
- Light scene extension unit
- Start/stop function: Cyclic transmission by extension unit
- Second operating level via object
- Control function
- Value transmitter 1-byte
- Value transmitter 2-byte
- Positive operation function according to EIS 8
- Brightness value transmitter (50 lux steps)
- Temperature value transmitter (1 °C steps)
- Alarm message in the event of dismantling

Objects

6

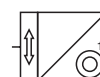
Group addresses/assignments

maximum 25 each

- Assignment of one status LED to each of the two push-buttons
- LED setup options: permanently ON/OFF, status indication, inverted status indication, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button lockable
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Push-button 1gang comfort



ETS search path: Gebr. Berker >>
Push-button >> Push-button 1gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Left-hand button	Part of the rocker
	Right-hand button	Part of the rocker
	Operating LED	White
	2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Clip on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 1gang comfort is a user module for mounting on a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide range of functions, depending on the programming.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Berker S.1/B.1/B.3/ B.7 GLASS		
for White and Polar white	7516 17 80	
for Anthracite and Aluminium	7516 17 85	
Berker K.1/K.5		
for White and Polar white	7516 17 70	
for Stainless steel.....	7516 17 73	

PB 1gang comfort 109302

- Two push-buttons can be adjusted separately
- Operating LED adjustable
- Inverse Status LED, flashing
- Variable lighting duration of the status LED (length of actuation)
- Status LED for shutter function

- Shutter function via one push-button operation
- Switching function: Cyclic transmission possible
- Dimmer via one push-button operation
- Area dimming adjustable
- Light scene extension unit
- Start/stop function: Cyclic transmission by extension unit
- Second operating level via object
- Control function

- Value transmitter 1-byte
- Value transmitter 2-byte
- Forced guidance function according to EIS 8
- Brightness value transmitter (50 lux steps)
- Temperature value transmitter (1 °C steps)

- Alarm message in the event of dismantling

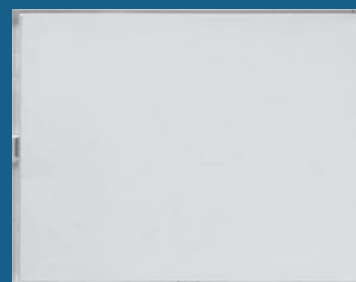
Objects

6

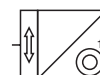
Group addresses/assignments

maximum 25 each

- Assignment of one status LED to each of the two push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition
- Push-button blockable
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 1gang comfort with labelling field



ETS search path: Gebr. Berker >> Push-button >> Push-button, 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Button on left	Part of the rocker
	Button on right	Part of the rocker
	Operating LED	Blue
	2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 1gang comfort is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming.

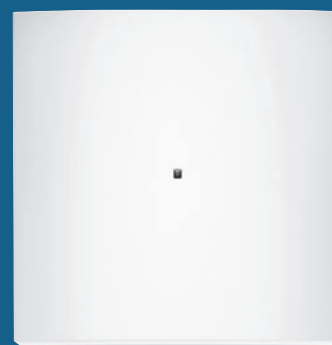
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button). The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

Order data

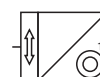
BERKER B.IQ		Accessories	
Polar white	7516 15 99	Labelling field	
Stainless steel	7516 15 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 15 91		

B.IQ 1gang comfort 109301	<ul style="list-style-type: none"> ■ Two push-buttons programmable separately ■ Operating LED programmable ■ Inverted status LED, flashing ■ Variable lighting duration of status LED (operation period) ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission possible ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Start/stop function: cyclic transmission by extension ■ Second user level via object ■ Control function
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Forced guidance function to EIS 8 ■ Brightness transmitter (50-Lux steps) ■ Temperature transmitter (1-°C steps)
	<ul style="list-style-type: none"> ■ Alarm in case of dismantling
Objects	6
Group addresses/assignments	maximum of 25 each

- Assignment of one status LED to each of the two push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button lockable
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 1gang comfort



ETS search paths:

Gebr. Berker >> Push-button >> 1gang push-button >> Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	2 upper buttons 2 lower buttons Operating LED 2 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 2gang is a user module for clipping onto the flush-mounted bus coupling unit. In addition to a operating LED, the 2gang push-button has two status LEDs to indicate operating states. It is offered with or without labelling field (separate order number). In the variant without labelling field the LEDs are not visible.

The device is completed by a cover frame, the bus coupling unit and a terminal.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS		TWINPOINT *	
White	7516 21 12	Polar white, matt	7516 21 89	White	7516 21 42	Polar white	7516 20 69
- with labelling	7516 20 12	- with labelling	7516 20 89	- with labelling	7516 20 42	Red	7516 20 66
Polar white	7516 21 19	Anthracite, matt	7516 21 85	Polar white	7516 21 49	Black	7516 20 65
- with labelling	7516 20 19	- with labelling	7516 20 85	- with labelling	7516 20 49		
		Aluminium, matt	7516 21 83	Light bronze, lacquered	7516 21 44		
		- with labelling	7516 20 83	- with labelling	7516 20 44		
				Stainless steel, lacquered	7516 21 43	* without anti-dis- mantling protection	
				- with labelling	7516 20 43		

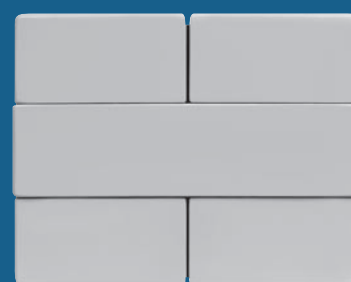
Dimming 102A01	<ul style="list-style-type: none"> Status LED programmable Switching and dimming for two function groups 	<ul style="list-style-type: none"> Operating LED programmable
Objects	4	
Group addresses/assignments	maximum of 6 each	
Shutter 102B01	<ul style="list-style-type: none"> Control of two function groups of motorized drives Operating LED programmable 	
Objects	4	
Group addresses/assignments	maximum of 8 each	
Switching, acknowledge 100A12	<ul style="list-style-type: none"> Control of two function groups Status LED programmable 	<ul style="list-style-type: none"> Operating LED programmable
Objects	2	
Group addresses/assignments	maximum of 10 each	
Value transmitter 101C01	<ul style="list-style-type: none"> Control of up to four values Passive extension of light scenes 	<ul style="list-style-type: none"> Operating LED and status LED programmable Active extension of light scenes
Objects	1	
Group addresses/assignments	maximum of 1 each	
Switching/pushing 103401	<ul style="list-style-type: none"> Switch up to four function groups by toggle function Status LED programmable separately 	
Objects	6	
Group addresses/assignments	maximum of 11 each	

Continued on next double page ►

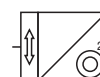
- Operating LED
- Two status LEDs to indicate operating states
- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Light scene extension
- Integral mechanical anti-dismantling protection



with labelling



Push-button 2gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 2gang >>

Switching/dimming 103C01		<ul style="list-style-type: none"> ■ Switches/dims one function group each ■ Status or operating LED programmable ■ Touch function (ON, OFF, TOGGLE) for function group switching
Objects	4	
Group addresses/assignments	maximum 7/maximum 8	
Dimming/shutter 103A01		<ul style="list-style-type: none"> ■ Switching/dimming and control of motorized drives ■ Step- and move operation of shutter control programmable ■ Assignment of rockers customizable ■ Touch dimmer principle or area dimmer ■ Status or acknowledgement LED programmable in dimmer mode
Objects	4	
Group addresses/assignments	maximum of 5 each	
Switching/shutter 103B01		<ul style="list-style-type: none"> ■ Switching and control of motorized drives ■ Step- and move operation of shutter control programmable ■ Assignment of rockers customizable ■ Status or acknowledgement LED programmable in switch mode
Objects	4	
Group addresses/assignments	maximum 9/maximum 11	



with labelling

Push-button 2gang

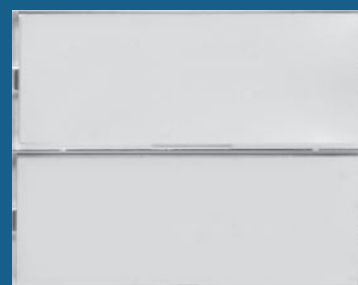
Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operating LED	White
	2 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Clip on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 2gang is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded. The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate. By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

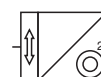
Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and		for White and	
Polar white	7516 23 80	Polar white	7516 23 70
for Anthracite and		for Stainless steel....	7516 23 73
Aluminium	7516 23 85		

Applications	Dimming 102A03	■ Status LED adjustable ■ Switching and dimming of two function groups	■ Operating LED adjustable
	Objects	4	
	Group addresses/assignments	maximum 6 each	
	Shutter 102B03	■ Control of two function groups of motor drives ■ Operating LED adjustable	
	Objects	4	
	Group addresses/assignments	maximum 8 each	
	Switching, acknowledge 100A03	■ Control of two function groups ■ Status LED adjustable	■ Operating LED adjustable
	Objects	2	
	Group addresses/assignments	maximum 10 each	
	Value transmitter 101C03	■ Control of up to four values ■ Passive extension unit of a light scene	■ Operating LED and status LED adjustable ■ Active extension unit of a light scene
	Objects	1	
	Group addresses/assignments	maximum 1 each	
	Switching/pushing 103403	■ Switching of up to four function groups using change-over function ■ Status LED adjustable separately	
	Objects	6	
	Group addresses/assignments	maximum 11 each	
	Switching/dimming 103C03	■ see page 93	
	Dimming/shutter 103A03	■ see page 93	
	Switching/shutter 103B03	■ see page 93	

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operating LED
- Status LED for indicating switching states
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 2gang with labelling field



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 2gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Rocker at top	Left/right push-button
	Rocker at bottom	Left/right push-button
	Operating LED	Blue
	2 x 2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 2gang standard is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. Depending on the rocker, the push-button distinguishes between activation of the right and the left side (button).

The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

BERKER B.IQ		Accessories	
Polar white	7516 20 99	Labelling field	
Stainless steel	7516 20 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 20 91		

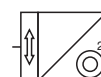
Applications	Dimming 102A03	■ Status LED programmable ■ Switching and dimming for two function groups	■ Operating LED programmable
	Objects	4	
	Group addresses/assignments	maximum of 6 each	
	Shutter 102B03	■ Controlling two function groups of motorised drives ■ Operating LED programmable	
	Objects	4	
	Group addresses/assignments	maximum of 8 each	
	Switching, acknowledge 100A03	■ Controls two function groups ■ Status LED programmable	■ Operating LED programmable
	Objects	2	
	Group addresses/assignments	maximum of 10 each	
	Value transmitter 101C03	■ Controls two to four values ■ Passive extension set of a light scene	■ Operating LED and status LED programmable ■ Active extension set of a light scene
	Objects	1	
	Group addresses/assignments	maximum of 1 each	
	Switching/pushing 103403	■ Switch up to four function groups by toggle function ■ Status LED programmable separately	
	Objects	6	
	Group addresses/assignments	maximum of 11 each	

Continued on next double page ►

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operating LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 2gang standard



ETS search paths: Gebr. Berker >>
Push-button >> 2gang push-button >>
Gebr. Berker >> Push-button >> B.IQ >>

Switching/dimming 103C03	<ul style="list-style-type: none"> ■ Switches/dims one function group each ■ Status or operating LED programmable ■ Touch function (ON, OFF, TOGGLE) for function group switching
Objects	4
Group addresses/assignments	maximum 7/maximum 8
Dimming/shutter 103A03	<ul style="list-style-type: none"> ■ Switches/dims and controls motorised drives ■ Step and move operation of shutter control programmable ■ Assignment of rockers programmable ■ Touch dimmer principle or area dimmer ■ Status or acknowledgement LED programmable in dimmer mode
Objects	4
Group addresses/assignments	maximum of 5 each
Switching/shutter 103B03	<ul style="list-style-type: none"> ■ Switches and controls motorised drives ■ Step and move operation of shutter control programmable ■ Assignment of rockers programmable ■ Status or acknowledgement LED programmable in switch mode
Objects	4
Group addresses/assignments	maximum 9 /maximum 11



**B.IQ push-button
2gang standard**

Supply	via bus line	21–32 V DC
Operation and display elements	2 upper buttons 2 lower buttons Operating LED 4 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 2gang comfort is a user module for clipping onto the flush-mounted bus coupling unit. The device is completed by a cover frame, the bus coupling unit and a terminal.

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness and/or temperature values or as a light scene extension
- Control of up to four dimmer groups via the “one push-button” dimming operation
- Open value input, 1-byte and 2-byte floating point
- Control of forced guidance (EIS 8)

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS	
White	7516 26 12	Polar white, matt	7516 26 89	White	7516 26 42
Polar white	7516 26 19	Anthracite, matt	7516 26 85	Polar white	7516 26 49
		Aluminium, matt	7516 26 83	Light bronze, lacquered	7516 26 44
				Stainless steel, lacquered	7516 26 43

PB 2gang comfort 109202

- Four push-buttons programmable separately
- Operating LED programmable
- Inverted status LED, flashing
- Variable lighting duration of status LED (operation period)
- Status LED for shutter control function

- Touch function for shutter movement, one direction each
- Switching function: Cyclic transmission possible
- Shutter function via one push-button operation
- Dimmer function via single-area operation
- Area dimming programmable
- Light scene extension
- Start/stop function: Cyclic transmission by extension
- Second user level via object and/or code input
- Control function

- Value transmitter 1-byte
- Value transmitter 2-byte
- Forced guidance function to EIS 8
- Brightness value transmitter (50 lux increments)
- Temperature value transmitter (1°C increments)
- Alarm in case of dismantling

Objects

10

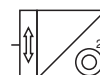
Group addresses/assignments

maximum of 25 each

- Assignment of one status LED to each of the four push-buttons
- LED setup options: permanently ON/OFF, status indication, inverted status indication, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition possible
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Push-button 2gang comfort



ETS search path: Gebr. Berker >>
Push-button >> Push-button 2gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operating LED	White
	2 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 2gang comfort is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming.

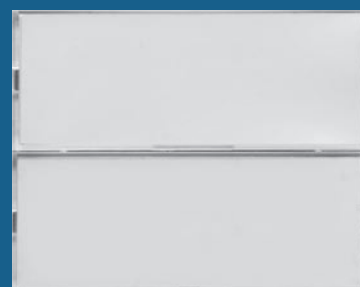
The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

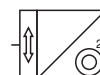
Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and		for White and	
Polar white	7516 27 80	Polar white	7516 27 70
for Anthracite and		for Stainless steel	7516 27 73
Aluminium	7516 27 85		

PB 2gang comfort 109202	<ul style="list-style-type: none"> ■ Four push-buttons can be adjusted separately ■ Operating LED adjustable ■ Inverse Status LED, flashing ■ Variable lighting duration of the status LED (length of actuation) ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Shutter function via one push-button operation ■ Switching function: Cyclic transmission possible ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Start/stop function: Cyclic transmission by extension unit ■ Second operating level via object ■ Control function
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Forced guidance function according to EIS 8 ■ Brightness value transmitter (50 lux steps) ■ Temperature value transmitter (1 °C steps)
	<ul style="list-style-type: none"> ■ Alarm message in the event of dismantling
Objects	10
Group addresses/assignments	maximum 25 each

- Assignment of one status LED to each of the four push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition possible
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 2gang comfort with labelling field



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 2gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Rocker at top	Left/right push-button
	Rocker at bottom	Left/right push-button
	Operating LED	Blue
	2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 2gang comfort is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming. The application allows different functions to be programmed to each button.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

BERKER B.IQ		Accessories	
Polar white	7516 25 99	Labelling field	
Stainless steel	7516 25 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 25 91		

B.IQ 2gang comfort 109201

- Four buttons, programmable separately
- Operating LED programmable
- Inverted status LED, flashing
- Variable lighting duration of status LED (operation period)
- Status LED for shutter function

- Shutter function via single-surface operation
- Switching function: cyclical transmission possible
- Dimmer function via single-area operation
- Area dimming programmable
- Light scene extension
- Start/stop function: cyclic transmission by extension
- Second user level via object
- Control function

- Value transmitter 1-byte
- Value transmitter 2-byte
- Forced guidance function to EIS 8
- Brightness transmitter (50-Lux steps)
- Temperature transmitter (1-°C steps)

- Alarm in case of dismantling

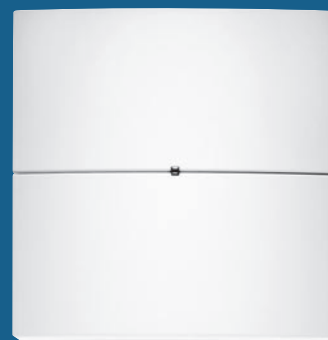
Objects

10

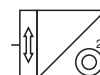
Group addresses/assignments

maximum of 25 each

- Assignment of one status LED to each of the four push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition possible
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 2gang comfort



ETS search paths: Gebr. Berker >>
 Push-button >> 2gang push-button >>
 Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operating LED	White
	3 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 3gang is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Berker S.1/B.1/B.3/ B.7 GLASS		
for White and Polar white	7516 33 80	Berker K.1/K.5 for White and Polar white
for Anthracite and Aluminium	7516 33 85	for Stainless steel
		7516 33 70
		7516 33 73

Applications	Dimming 107C01	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LEDs adjustable
	Objects	6
	Group addresses/assignments	maximum 12 each
	Shutter 107B01	<ul style="list-style-type: none"> ■ Control of four function groups of motor drives ■ Switching time between long operating time (shutter control) and short operating time (lamella adjustment) adjustable ■ Operation LED adjustable
	Objects	6
	Group addresses/assignments	maximum 12 each
	Switching, acknowledge 107A01	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable ■ Lighting duration of the status LEDs adjustable
	Objects	3
	Group addresses/assignments	maximum 10 each
	Switching status 107901	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable
	Objects	3
	Group addresses/assignments	maximum 13 each
	Value transmitter 107D01	<ul style="list-style-type: none"> ■ Sending of 8-bit values (0–255), e.g. as brightness values ■ Use as 8gang light scene extension unit with memory function ■ Operating and status LEDs adjustable
	Objects	1
	Group addresses/assignments	maximum 1 each

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operating LED
- Status LED for indicating operating states
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 3gang with labelling field



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 3gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower at bottom	Left/right push-button
	Operating LED	Blue
	3 x 2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 3gang standard is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

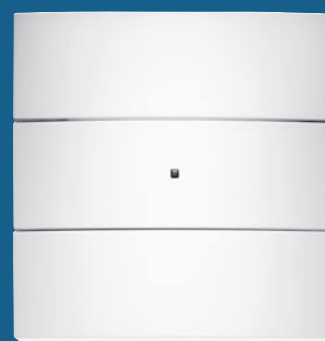
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. Depending on the rocker, the push-button distinguishes between activation of the right and the left side (button).

The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

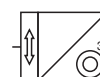
BERKER B.IQ		Accessories	
Polar white	7516 30 99	Labelling field	
Stainless steel	7516 30 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 30 91		

Applications	Dimming 107C01	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LED programmable
	Objects	6
	Group addresses/assignments	maximum of 12 each
	Shutter 107B01	<ul style="list-style-type: none"> ■ Controlling four function groups of motorised drives ■ Switching time programmable between move (shutter control) and step (lamella shutter adjustment) operation ■ Operating LED programmable
	Objects	6
	Group addresses/assignments	maximum of 12 each
	Switching, acknowledge 107A01	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable ■ Variable lighting duration of status LED (operation period)
	Objects	3
	Group addresses/assignments	maximum of 10 each
	Switching status 107901	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable
	Objects	3
	Group addresses/assignments	maximum of 13 each
	Value transmitter 107D01	<ul style="list-style-type: none"> ■ Transmission of 8 Bit values (0-255), as brightness values for example ■ Usage as 8gang light scene extension with memory function ■ Operating and status LED programmable
	Objects	1
	Group addresses/assignments	maximum of 1 each

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operating LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 3gang standard



ETS search paths: Gebr. Berker >>
 Push-button >> Push-button, 3gang >>
 Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operating LED	White
	3 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 3gang comfort is a user module for mounting on a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

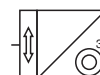
Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and		for White and	
Polar white	7516 37 80	Polar white	7516 37 70
for Anthracite and		for Stainless steel	7516 37 73
Aluminium	7516 37 85		

PB 3gang comfort 109102	<ul style="list-style-type: none"> ■ Variable lighting duration of the status LED (length of actuation) ■ Six push-buttons separately adjustable ■ Operating LED adjustable ■ Inverse Status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: Cyclic transmission by extension unit ■ Shutter function via one push-button operation ■ Switching function: Cyclic transmission ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Second operating level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness value transmitter (50 lux steps) ■ Forced guidance function according to EIS 8 ■ Temperature value transmitter (1 °C steps) ■ Alarm message in the event of dismantling
Objects	14
Group addresses/assignments	maximum 25 each

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the six push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition
- Push-button manually blockable
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 3gang comfort with labelling field



ETS search paths: Gebr. Berker >>
Push-button >> Push-button, 3gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operating LED	Blue
	6 lateral status LED	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 3gang comfort is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming. The application allows different functions to be programmed to each button.

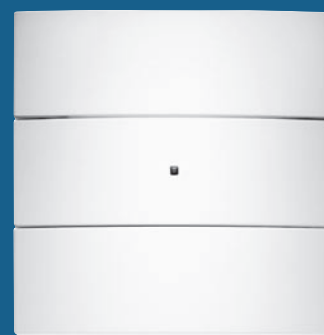
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

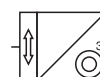
BERKER B.IQ		Accessories	
Polar white	7516 35 99	Labelling field	
Stainless steel	7516 35 93	clear transparent	7590 00 80
Glass, polar white....	7516 35 91		

B.IQ 3gang comfort 109101	<ul style="list-style-type: none"> ■ Variable lighting duration of status LED (operation period) ■ Six buttons, programmable separately ■ Operating LED programmable ■ Inverted status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: cyclic transmission by extension ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Second user level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness transmitter (50-Lux steps) ■ Forced guidance function to EIS 8 ■ Temperature transmitter (1-°C steps) ■ Alarm in case of dismantling
Objects	14
Group addresses / assignments	maximum of 25 each

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the six push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button manually lockable
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 3gang comfort



ETS search paths: Gebr. Berker >>
 Push-button >> Push-button, 3gang
 >>Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons 4 lower buttons Operating LED 4 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 4gang is a user module for clipping onto the flush-mounted bus coupling unit. It is offered with or without labelling field (separate order number). In the variant without labelling field the LEDs are not visible. The device is completed by a cover frame, the bus coupling unit and a terminal.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS		TWINPOINT *	
White	7516 41 12	Polar white, matt	7516 41 89	White	7516 41 42	Polar white.....	7516 40 69
- with labelling	7516 40 12	- with labelling	7516 40 89	- with labelling	7516 40 42	Red.....	7516 40 66
Polar white.....	7516 41 19	Anthracite, matt.....	7516 41 85	Polar white	7516 41 49	Black	7516 40 65
- with labelling	7516 40 19	- with labelling	7516 40 85	- with labelling	7516 40 49		
		Aluminium, matt	7516 41 83	Light bronze, lacquered	7516 41 44		
		- with labelling	7516 40 83	- with labelling	7516 40 44		
				Stainless steel, lacquered	7516 41 43	* without anti-dis-	
				- with labelling	7516 40 43	mantling protection	

Dimming 201D01		<ul style="list-style-type: none"> ■ Switching and dimming for four function groups ■ Status LED programmable ■ Operating LED programmable
Objects	8	
Group addresses/assignments	maximum of 12 each	
Shutter 102C01		<ul style="list-style-type: none"> ■ Control of four function groups of motorized drives ■ Switching time programmable between move (shutter control) and step (louvered shutter adjustment) operation
Objects	8	
Group addresses/assignments	maximum of 12 each	
Switching 102F01		<ul style="list-style-type: none"> ■ Control of four function groups ■ Variable lighting duration of status LED (operation period)
Objects	4	
Group addresses/assignments	maximum of 10 each	
Value transmitter 101D01		<ul style="list-style-type: none"> ■ Transmission of 8-bit values (0-255) e.g. as brightness values ■ Usage as 8gang light scene extension with memory function ■ Operating and status LEDs programmable
Objects	1	
Group addresses/assignments	maximum of 1 each	

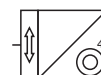
- Operation of switch, dim or shutter actuators
- Four status LEDs to indicate operating states
- Value transmitter for brightness values
- Value transmitter as light scene extension
- Integral mechanical anti-dismantling protection



with labelling



Push-button 4gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 4gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers Operating LED 4 x 2 status LEDs at side	each with left/right push-button White Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 4gang is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

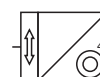
Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and		for white and	
Polar white	7516 43 80	Polar white	7516 43 70
for Anthracite and		for Stainless steel....	7516 43 73
Aluminium	7516 43 85		

Applications	Dimming 102D03	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LEDs adjustable
	Objects	8
	Group addresses/assignments	maximum 12 each
	Shutter 102C03	<ul style="list-style-type: none"> ■ Operating LED adjustable ■ Control of four function groups of motor drives ■ Switching time between long operating time (shutter control) and short operating time (lamella adjustment) adjustable
	Objects	8
	Group addresses/assignments	maximum 12 each
	Switching confirmation 102F03	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable ■ Lighting duration of the status LED adjustable
	Objects	4
	Group addresses/assignments	maximum 10 each
	Switching status 102E03	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable
	Objects	4
	Group addresses/assignments	maximum 13 each
	Value transmitter 101D03	<ul style="list-style-type: none"> ■ Sending of 8-bit values (0–255), e. g. as brightness values ■ Use as 8gang light scene extension unit with memory function ■ Operating and status LEDs adjustable
	Objects	1
	Group addresses/assignments	maximum 1 each

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operating LED
- Status LED for indicating operating states
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 4gang with labelling field



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 4gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operating LED	Blue
	4 x 2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 4gang standard is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

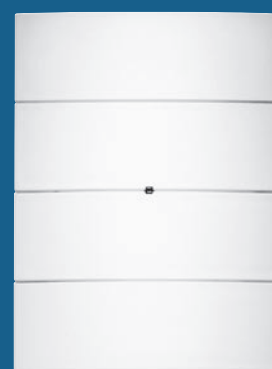
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. Depending on the rocker, the push-button distinguishes between activation of the right and the left side (button).

The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

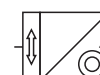
BERKER B.IQ		Accessories	
Polar white	7516 40 99	Labelling field	
Stainless steel	7516 40 93	clear transparent	7590 00 81
Glass, polar white....	7516 40 91		

Applications	Dimming 201D03	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LED programmable
	Objects	8
	Group addresses/assignments	maximum of 12 each
	Shutter 102C03	<ul style="list-style-type: none"> ■ Operating LED programmable ■ Controlling four function groups of motorised drives ■ Switching time programmable between move (shutter control) and step (lamella shutter adjustment) operation
	Objects	8
	Group addresses/assignments	maximum of 12 each
	Switch confirmation 102F03	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable ■ Lighting duration of status LED programmable
	Objects	4
	Group addresses/assignments	maximum of 10 each
	Switching status 102E03	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable
	Objects	4
	Group addresses/assignments	maximum of 13 each
	Value transmitter 101D03	<ul style="list-style-type: none"> ■ Transmission of 8 Bit values (0-255), as brightness values for example ■ Usage as 8gang light scene extension with memory function ■ Operating and status LED programmable
	Objects	1
	Group addresses/assignments	maximum of 1 each

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operating LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 4gang standard



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 4gang >> Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons 4 lower buttons Operating LED 8 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The push-button comfort 4gang is a user module for clipping onto the flush-mounted bus coupling unit. The device is completed by a cover frame, the bus coupling unit and a terminal.

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness and/or temperature values or as a light scene extension
- Control of up to eight dimmer groups via the “one push-button” dimming operation
- Open value input, 1-byte and 2-byte floating point

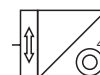
MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS	
White	7516 46 12	Polar white	7516 46 89	White	7516 46 42
Polar white	7516 46 19	Anthracite, matt	7516 46 85	Polar white	7516 46 49
		Aluminium, matt	7516 46 83	Light bronze, lacquered	7516 46 44
				Stainless steel, lacquered	7516 46 43

PB 4gang comfort 109002	<ul style="list-style-type: none"> ■ Variable lighting duration of status LED (operation period) ■ Eight push-buttons programmable separately ■ Operating LED programmable ■ Inverted status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: cyclic transmission by extension ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Second user level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness transmitter (50-Lux steps) ■ Forced guidance function to EIS 8 ■ Temperature transmitter (1-°C steps) ■ Alarm in case of dismantling
Objects	18
Group addresses/assignments	maximum of 25 each

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the eight push-buttons
- LED setup options: permanently ON/OFF, status indication, inverted status indication, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button manually lockable
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Push-button 4gang comfort



ETS search path: Gebr. Berker >>
Push-button >> Push-button 4gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers Operating LED 4 x 2 status LEDs at side	each with left/right push-button White Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 4gang comfort is a user module for mounting on a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

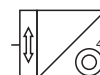
Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and Polar white	7516 47 80	for White and Polar white	7516 47 70
for Anthracite and Aluminium	7516 47 85	for Stainless steel....	7516 47 73

PB 4gang comfort 109002	<ul style="list-style-type: none"> ■ Variable lighting duration of the status LED (length of actuation) ■ Eight push-buttons separately adjustable ■ Operating LED adjustable ■ Inverse Status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: Cyclic transmission by extension unit ■ Shutter function via one push-button operation ■ Switching function: Cyclic transmission ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Second operating level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness value transmitter (50 lux steps) ■ Forced guidance function according to EIS 8 ■ Temperature value transmitter (1 °C steps) ■ Alarm message in the event of dismantling
Objects	18
Group addresses/assignments	maximum 25 each

- Control of positive operation (EIS 8)
- Assignment of one status LED to each of the eight push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition
- Push-button manually blockable
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 4gang comfort with labelling field



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 4gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operating LED	Blue
	8 lateral status LED	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 4gang comfort is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming. The application allows different functions to be programmed to each button.

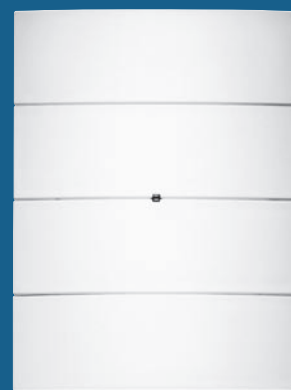
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

The operating LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

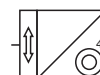
BERKER B.IQ		Accessories	
Polar white	7516 45 99	Labelling field	
Stainless steel	7516 45 93	clear transparent	7590 00 81
Glass, polar white....	7516 45 91		

B.IQ 4gang comfort 109001	<ul style="list-style-type: none"> ■ Variable lighting duration of status LED (operation period) ■ Eight push-buttons programmable separately ■ Operating LED programmable ■ Inverted status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: cyclic transmission by extension ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Second user level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness transmitter (50-Lux steps) ■ Forced guidance function to EIS 8 ■ Temperature transmitter (1-°C steps) ■ Alarm in case of dismantling
Objects	18
Group addresses/assignments	maximum of 25 each

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the eight push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button manually lockable
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 4gang comfort



ETS search paths: Gebr. Berker >>
 Push-button >> Push-button, 4gang >>
 Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	2 rockers 2 push-buttons LC display Operating LED 2 x 2 status LEDs at side	each with left/right push-button integrated into the display at left and right 35 x 12.5 mm with symbols White Red
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 2gang with room thermostat and display is a user module for mounting on the flush-mounted bus coupling unit, and combines the functions of a push-button, room thermostat and timer. The push-button room thermostat has an LC display for indicating temperatures and thermostat functions. Two additional push-buttons are integrated in the display at the right and left which enable functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

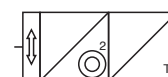
Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and Polar white	7566 27 80	for White and Polar white	7566 27 70
for Anthracite and Aluminium	7566 27 85	for Stainless steel	7566 27 73

Applications	Multifunction RTR + display 16A201	
	Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ 8 independent internal scenes with operation of 8 objects can be set ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Function "2 Telegrams", sending of two different switching/value telegrams per press of the push-button ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operating LED
	Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switch-over (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
	Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
	Objects	77
	Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions, temperatures and time in the display
- Free configuration of each push-button
- One status LED per push-button
- Push-button manually blockable
- Integrated anti-dismantling protection



Push-button 2gang with room thermostat and display



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 2gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	3 rockers	each with left/right push-button
	2 push-buttons	integrated into the display at left and right
	LC display	35 x 12.5 mm with symbols
	Operating LED	White
	3 x 2 status LEDs at side	Red
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 3gang with room thermostat and display is a user module for mounting on the flush-mounted bus coupling unit, and combines the functions of a push-button, room thermostat and timer. The push-button room thermostat has an LC display for indicating temperatures and thermostat functions. Two additional push-buttons are integrated in the display at the right and left which enable functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate. By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and		for White and	
Polar white	7566 37 80	Polar white	7566 37 70
for Anthracite and		for Stainless steel....	7566 37 73
Aluminium	7566 37 85		

Multifunction RTR + display 16A301

Push-button

- Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object)
- Free assignment of the function to the push-buttons
- Switching/push-button (ON, OFF, CHANGE, no function)
- Dimming with stop telegram, telegram repetition, one push-button operation
- Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable
- 8 independent internal scenes with operation of 8 objects can be set
- Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte
- Function "2 Telegrams", sending of two different switching/value telegrams per press of the push-button
- Operating mode switching for thermostat operation
- Status LED per push-button and operating LED

Room thermostat

- Thermostat function for single room temperature control
- Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit
- Room temperature measurement possible at the extension unit
- Temperature setpoints
- Operating modes heating/cooling or heating and cooling, each with or without auxiliary step
- Indicator objects for heating and cooling
- Temperature detection via internal and/or external sensor (mean value formation for large rooms)
- Preset control parameter for common heating and cooling units
- Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable
- Valve protection function (valve is opened cyclically every 24 hours)
- Control modes continuous PI control, switched PI control (PWM)
- Operating mode switch-over (comfort, standby, night, frost/heat protection)
- Switching 2-point control (on/off)
- Control variable objects invertible if required
- Object for controller status
- Separate window contact object
- Presence button programmable to extend comfort

Room temperature timer

- Time-dependent adjustment of the operating modes comfort, standby, night operation
- Weekly program with up to 28 switching times
- Blocking of the push-button via object

Objects

77

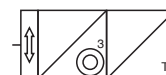
Group addresses/assignments

maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions, temperatures and time in the display
- Free configuration of each push-button
- One status LED per push-button
- Push-button manually blockable
- Integrated anti-dismantling protection



Push-button 3gang with room thermostat and display



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 3gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	3 rockers 2 buttons Graphic display Operating LED 6 lateral status LED	each with left/right push-button integrated on left and right of display 120 x 16 pixel black with characters lit up white Blue White
Connections	Bus coupling unit plus, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit plus	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 3gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, weekly timer and display unit. The push-button RTR possesses a graphic display with one symbol and two text lines. There are two additional buttons integrated on the left and right of the display. These allow the user not only to read off functions such as the set temperature, operating mode, timer etc. but also to influence their programming by means of menus.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button RTR distinguishes between activation of the right and left side of the rocker. The button for each side of the rocker can be programmed separately.

The status LEDs are arranged on the side of the push-button RTR. This allows them to light up the optional labelling field by displaying switching statuses, for example.

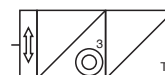
BERKER B.IQ		Accessories	
Polar white	7566 35 99	Labelling field	
Stainless steel	7566 35 93	clear transparent	7590 00 80
Glass, polar white....	7566 35 91		

Applications	B.IQ Multifunction RTR + display 161301	
	Push-button	<ul style="list-style-type: none"> ■ Operation concept programmable per rocker as 2 buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined display of the saved function as plaintext ■ Free assignment of the function to the buttons ■ Switching/pushing (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, single-surface operation ■ Shutter touch function (UP, DOWN, TOGGLE) and operating concept programmable ■ Value transmitter EIS 6 (1 Byte), light scene calling with or without memory function, value transmitter 2 Byte ■ Activation of the room thermostat or week time switch operation ■ Operating mode switchover for controller operation ■ Status LED per button and operating LED
	Room thermostat	<ul style="list-style-type: none"> ■ Controller function for individual room temperature control ■ Set point temperature values ■ Heating/cooling or heating and cooling operating modes ■ Basic and additional heating/cooling, or basic and additional heating and cooling operating modes ■ Reporting objects for heating and cooling ■ Temperature recording via internal and/or external sensor (formation of mean values for large rooms) ■ Pre-set control parameters for standard radiators and cooling ■ Disconnectable controller (dew point mode), or controller or controller operation lockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes: constant PI-control, switching PI-control (PWM) ■ Switching operating mode (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (On/Off) ■ Manipulated variable objects invertable if necessary ■ Presence button comfort extension programmable ■ Object for controller status ■ Separate window contact object
	Room temperature timer	<ul style="list-style-type: none"> ■ Time-based adjustment of the comfort, standby, and night operating modes ■ Week program with max. 28 switching times ■ Locking of the push-buttons via object
	Two week timers	<ul style="list-style-type: none"> ■ User-defined name for use in the display ■ Switching, value transmitter (1 Byte), light scene extension function ■ Locking of the timers via object
	Display	■ Input object to display 14 Byte message texts (EIS 15) in the display
	Objects	70
	Group addresses/assignments	maximum 75/maximum 200

- Functions of push-button, room thermostat, week timer and display unit in a single device
- Graphic display with integrated buttons for menu-navigated programming
- Alarm messages shown in the display
- Free project design for each push-button
- One status LED per button
- Push-button manually lockable
- Integral mechanical anti-dismantling protection



B.IQ push-button 3gang with room thermostat a. display



ETS search paths: Gebr. Berker >>
 Push-button >> Push-button, 3gang >>
 Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	3 rockers 2 push-buttons graphical display Operating LED 6 status LEDs at side	each with left/right push-button integrated into the display at left and right 120 x 16 pixels black with white lit characters Blue White
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
IR code	RC 5	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

The IR push-button 3gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, week time switch and display unit. The IR push-button room thermostat has an graphical display with one symbol line and two text lines. Two additional push-buttons are integrated in the display at the right and left which enable functions such as setpoint temperature, operating mode, timers, etc. can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The B.IQ is designed without a frame, which means that large rockers are available for convenient operation. The IR push-button room thermostat distinguishes between actuation of the right-hand and left-hand sides of the rocker. Each of the corresponding push-buttons can be programmed separately. The function of each push-button can be triggered with an RC 5 IR remote control via an assigned remote control push-button.

The status LEDs are arranged at the side of the IR push-button room thermostat so that they also illuminate the optional labelling field.

BERKER B.IQ		Accessories	
Polar white	7566 36 99	Labelling field	
Stainless steel	7566 36 93	clear transparent	7590 00 80
Glass, polar white....	7566 36 91	IR hand-held transmitter	2779

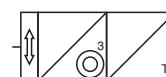
B.IQ multifunction RTR + display + IR 163301

Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined plain text display of the underlying function ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Activation of operation of room temperature or week time switch ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operating LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling ■ Operating modes basic and additional heating/cooling or basic and additional heating and cooling ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switching (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Object for controller status ■ Presence button programmable to extend comfort ■ Control variable objects invertible if required ■ Separate window contact object
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Two week time switches	<ul style="list-style-type: none"> ■ User-defined name for indication in display ■ Blocking of the time switches via object ■ Function switching, value transmitter (1-byte), light scene extension unit
Display	<ul style="list-style-type: none"> ■ Input object for indication of 14-byte message texts (EIS 15) in the display
IR	<ul style="list-style-type: none"> ■ Selection of the triggering device group of an IR remote control (RC 5) ■ Free assignment of supported remote control push-buttons to function keys of the push-button
Objects	70
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat, week time switch and display unit in a single device
- Graphical display with integrated push-buttons for menu-aided programming
- Indication of alarm messages in the display
- Free configuration of each push-button
- One status LED per push-button
- Can be operated via IR remote control
- Push-button manually blockable
- Integrated anti-dismantling protection



B.IQ IR push-button 3gang with room thermostat and display



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 3gang >>
Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers 2 buttons Graphic display Operating LED 8 lateral status LED	each with left/right push-button integrated on left and right of display 120 x 16 pixel black with characters lit up white Blue White
Connections	Bus coupling unit plus, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit plus	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 4gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus. It combines the functions of push-button, room thermostat, weekly timer and display unit. The push-button RTR possesses a graphic display with one symbol and two text lines. There are two additional buttons integrated on the left and right of the display. These allow the user not only to read off functions such as the set temperature, operating mode, timer etc. but also to influence their programming by means of menus.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button RTR distinguishes between activation of the right and left side of the rocker. The button for each side of the rocker can be programmed separately.

The status LEDs are arranged on the side of the push-button RTR. This allows them to light up the optional labelling field by displaying switching statuses, for example.

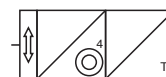
BERKER B.IQ		Accessories	
Polar white	7566 45 99	Labelling field	
Stainless steel	7566 45 93	clear transparent	7590 00 81
Glass, polar white....	7566 45 91		

Applications	B.IQ Multifunction RTR + display 161401	
	Push-button	<ul style="list-style-type: none"> ■ Operation concept programmable per rocker as 2 buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined display of the saved function as plaintext ■ Free assignment of the function to the buttons ■ Switching/pushing (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, single-surface operation ■ Shutter touch function (UP, DOWN, TOGGLE) and operating concept programmable ■ Value transmitter EIS 6 (1 Byte), light scene calling with or without memory function, value transmitter 2 Byte ■ Activation of the room thermostat or week time switch operation ■ Operating mode switchover for controller operation ■ Status LED per button and operating LED
	Room thermostat	<ul style="list-style-type: none"> ■ Controller function for individual room temperature control ■ Set point temperature values ■ Heating/cooling or heating and cooling operating modes ■ Basic and additional heating/cooling, or basic and additional heating and cooling operating modes ■ Reporting objects for heating and cooling ■ Temperature recording via internal and/or external sensor (formation of mean values for large rooms) ■ Pre-set control parameters for standard radiators and cooling ■ Disconnectable controller (dew point mode), or controller or controller operation lockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes: constant PI-control, switching PI-control (PWM) ■ Switching operating mode (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (On/Off) ■ Manipulated variable objects invertable if necessary ■ Presence button comfort extension programmable ■ Object for controller status ■ Separate window contact object
	Room temperature timer	<ul style="list-style-type: none"> ■ Time-based adjustment of the comfort, standby, and night operating modes ■ Week program with max. 28 switching times ■ Locking of the push-buttons via object
	Two week timers	<ul style="list-style-type: none"> ■ User-defined name for use in the display ■ Switching, value transmitter (1 Byte), light scene extension function ■ Locking of the timers via object
	Display	■ Input object to display 14 Byte message texts (EIS 15) in the display
	Objects	70
	Group addresses/assignments	maximum 75/maximum 200

- Functions of push-button, room thermostat, week timer and display unit in a single device
- Graphic display with integrated buttons for menu-navigated programming
- Alarm messages shown in the display
- Free project design for each push-button
- One status LED per button
- Push-button manually lockable
- Integral mechanical anti-dismantling protection



B.IQ push-button 4gang with room thermostat a. display



ETS search paths: Gebr. Berker >>
Push-button >> Push-button, 4gang >>
Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers 2 push-buttons graphical display Operating LED 8 status LEDs at side	each with left/right push-button integrated into the display at left and right 120 x 16 pixels black with white lit characters Blue White
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
IR code	RC 5	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation	Bolting to flush-mounted bus coupling unit	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

The IR push-button 4gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, weekly timer and display unit. The IR push-button room thermostat has an graphical display with one symbol line and two text lines. Two additional push-buttons are integrated in the display at the right and left which enable functions such as setpoint temperature, operating mode, timers, etc. can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The B.IQ is designed without a frame, which means that large rockers are available for convenient operation. The IR push-button room thermostat distinguishes between actuation of the right-hand and left-hand sides of the rocker. Each of the corresponding push-buttons can be programmed separately. The function of each push-button can be triggered with an RC 5 IR remote control via an assigned remote control push-button.

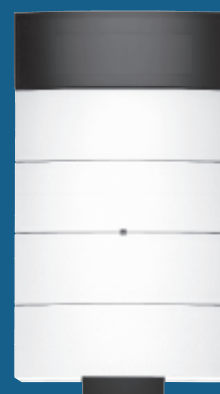
The status LEDs are arranged at the side of the IR push-button room thermostat so that they also illuminate the optional labelling field together with the display of switching states, etc.

BERKER B.IQ		Accessories	
Polar white	7566 46 99	Labelling field	
Stainless steel	7566 46 93	clear transparent	7590 00 81
Glass, polar white....	7566 46 91	IR hand-held transmitter	2779

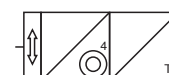
B.IQ multifunction RTR + display + IR 163401

Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined plain text display of the underlying function ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Activation of operation of room temperature or week time switch ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operating LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling ■ Operating modes basic and additional heating/cooling or basic and additional heating and cooling ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switching (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Two week time switches	<ul style="list-style-type: none"> ■ User-defined name for indication in display ■ Blocking of the time switches via object ■ Function switching, value transmitter (1-byte), light scene extension unit
Display	<ul style="list-style-type: none"> ■ Input object for indication of 14-byte message texts (EIS 15) in the display
IR	<ul style="list-style-type: none"> ■ Selection of the triggering device group of an IR remote control (RC 5) ■ Free assignment of supported remote control push-buttons to function keys of the push-button
Objects	70
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat, week time switch and display unit in a single device
- Graphical display with integrated push-buttons for menu-aided programming
- Indication of alarm messages in the display
- Free configuration of each push-button
- One status LED per push-button
- Can be operated via IR remote control
- Push-button manually blockable
- Integrated anti-dismantling protection



B.IQ IR push-button 4gang with room thermostat and display



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 4gang >> Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	5 rockers 2 push-buttons graphical display Operating LED 5 x 2 status LEDs at side	each with left/right push-button integrated into the display at left and right 35 x 12.5 mm with symbols White Red
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

The push-button 5gang with room thermostat and display is a user module for mounting on the flush-mounted bus coupling unit, and combines the functions of a push-button, room thermostat and timer. The push-button room thermostat has an LC display for indicating temperatures and thermostat function. Two additional push-buttons are integrated in the display at the right and left which enable functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Berker S.1/B.1/B.3/ B.7 GLASS for White and Polar white	7566 57 80	Berker K.1/K.5 for White and Polar white	7566 57 70
for Anthracite and Aluminium	7566 57 85	for Stainless steel	7566 57 73

Multifunction RTR + display 16A501

Push-button

- Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object)
- Free assignment of the function to the push-buttons
- Switching/push-button (ON, OFF, CHANGE, no function)
- Dimming with stop telegram, telegram repetition, one push-button operation
- Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable
- 8 independent internal scenes with operation of 8 objects can be set
- Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte
- Function "2 Telegrams", sending of two different switching/value telegrams per press of the push-button
- Operating mode switching for thermostat operation
- Status LED per push-button and operating LED

Room thermostat

- Thermostat function for single room temperature control
- Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit
- Room temperature measurement possible at the extension unit
- Temperature setpoints
- Operating modes heating/cooling or heating and cooling, each with or without auxiliary step
- Indicator objects for heating and cooling
- Temperature detection via internal and/or external sensor (mean value formation for large rooms)
- Preset control parameter for common heating and cooling units
- Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable
- Valve protection function (valve is opened cyclically every 24 hours)
- Control modes continuous PI control, switched PI control (PWM)
- Operating mode switch-over (comfort, standby, night, frost/heat protection)
- Switching 2-point control (on/off)
- Control variable objects invertible if required
- Object for controller status
- Separate window contact object
- Presence button programmable to extend comfort

Room temperature timer

- Time-dependent adjustment of the operating modes comfort, standby, night operation
- Weekly program with up to 28 switching times
- Blocking of the push-button via object

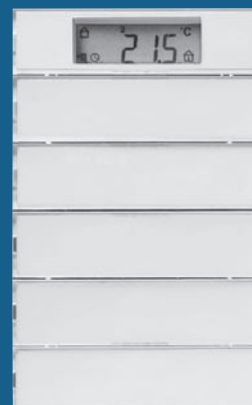
Objects

77

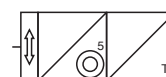
Group addresses/assignments

maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions, temperatures and time in the display
- Free configuration of each push-button
- One status LED per push-button
- Push-button manually blockable
- Integrated anti-dismantling protection



Push-button 5gang with room thermostat and display



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 5gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	5 rockers 2 buttons Graphic display Operating LED 10 lateral status LED	each with left/right push-button integrated on left and right of display 120 x 16 pixel black with characters lit up white Blue White
Connections	Bus coupling unit plus, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit plus	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensions diagrams	

The push-button 5gang with room thermostat and display is a user module for bolting to a flush-mounted bus coupling unit plus. It combines the functions of push-button, room thermostat, week timer and display unit. The push-button RTR possesses a graphic display with one symbol and two text lines. There are two additional buttons integrated on the left and right of the display. These allow the user not only to read off functions such as the set temperature, operating mode, timer etc. but also to influence their programming by means of menus.

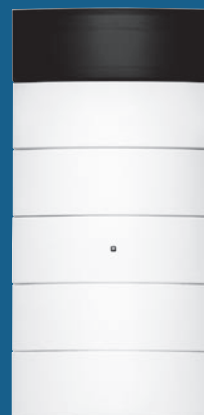
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button RTR distinguishes between activation of the right and left side of the rocker. The button for each side of the rocker can be programmed separately.

The status LEDs are arranged on the side of the push-button RTR. This allows them to light up the optional labelling field by displaying switching statuses, for example.

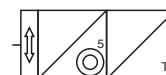
BERKER B.IQ		Accessories	
Polar white	7566 55 99	Labelling field	
Stainless steel	7566 55 93	clear transparent	7590 00 82
Glass, Polar white ...	7566 55 91		

Applications	B.IQ Multifunction RTR + display 161501	
	Push-button	<ul style="list-style-type: none"> ■ Operation concept programmable per rocker as 2 buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined display of the saved function as plaintext ■ Free assignment of the function to the buttons ■ Switching/pushing (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, single-surface operation ■ Shutter touch function (UP, DOWN, TOGGLE) and operating concept programmable ■ Value transmitter EIS 6 (1 Byte), light scene calling with or without memory function, value transmitter 2 Byte ■ Activation of the room thermostat or week time switch operation ■ Operating mode switchover for controller operation ■ Status LED per button and operating LED
	Room thermostat	<ul style="list-style-type: none"> ■ Controller function for individual room temperature control ■ Set point temperature values ■ Heating/cooling or heating and cooling operating modes ■ Basic and additional heating/cooling, or basic and additional heating and cooling operating modes ■ Reporting objects for heating and cooling ■ Temperature recording via internal and/or external sensor (formation of mean values for large rooms) ■ Pre-set control parameters for standard radiators and cooling ■ Disconnectable controller (dew point mode), or controller or controller operation lockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes: constant PI-control, switching PI-control (PWM) ■ Switching operating mode (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (On/Off) ■ Manipulated variable objects invertable if necessary ■ Presence button comfort extension programmable ■ Object for controller status ■ Separate window contact object
	Room temperature timer	<ul style="list-style-type: none"> ■ Time-based adjustment of the comfort, standby, and night operating modes ■ Week program with max. 28 switching times ■ Locking of the push-buttons via object
	Two week timers	<ul style="list-style-type: none"> ■ User-defined name for use in the display ■ Switching, value transmitter (1 Byte), light scene extension function ■ Locking of the timers via object
	Display	■ Input object to display 14 Byte message texts (EIS 15) in the display
	Objects	70
	Group addresses/assignments	maximum 75/maximum 200

- Functions of push-button, room thermostat, week timer and display unit in a single device
- Graphic display with integrated buttons for menu-navigated programming
- Alarm messages shown in the display
- Free project design for each push-button
- One status LED per button
- Push-button manually lockable
- Integral mechanical anti-dismantling protection



B.IQ push-button 5gang with room thermostat a. display



ETS search paths: Gebr. Berker >>
 Push-button >> Push-button, 5gang >>
 Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	5 rockers 2 push-buttons graphical display Operating LED 10 status LEDs at side	each with left/right push-button integrated into the display at left and right 120 x 16 pixels black with white lit characters Blue White
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
IR code	RC 5	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

The IR push-button 5gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, weekly timer and display unit. The IR push-button room thermostat has an graphical display with one symbol line and two text lines. Two additional push-buttons are integrated in the display at the right and left which enable functions such as setpoint temperature, operating mode, timers, etc. can not only be read off, but so that their programming can be modified by the user with the aid of menus.

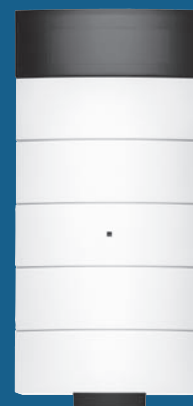
The B.IQ is designed without a frame, which means that large rockers are available for convenient operation. The IR push-button room thermostat distinguishes between actuation of the right-hand and left-hand sides of the rocker. Each of the corresponding push-buttons can be programmed separately. The function of each push-button can be triggered with an RC 5 IR remote control via an assigned remote control push-button.

The status LEDs are arranged at the side of the IR push-button room thermostat so that they also illuminate the optional labelling field together with the display of switching states, etc.

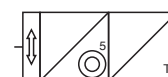
BERKER B.IQ		Accessories	
Polar white	7566 56 99	Labelling field	
Stainless steel	7566 56 93	clear transparent	7590 00 82
Glass, Polar white ...	7566 56 91	IR hand-held transmitter	2779

B.IQ multifunction RTR + display + IR 163501	
Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined plain text display of the underlying function ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Activation of operation of room temperature or week time switch ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operating LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling ■ Operating modes basic and additional heating/cooling or basic and additional heating and cooling ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switch-over (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Object for controller status ■ Presence button programmable to extend comfort ■ Control variable objects invertible if required ■ Separate window contact object
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Two week time switches	<ul style="list-style-type: none"> ■ User-defined name for indication in display ■ Blocking of the time switches via object ■ Function switching, value transmitter (1-byte), light scene extension unit
Display	<ul style="list-style-type: none"> ■ Input object for indication of 14-byte message texts (EIS 15) in the display
IR	<ul style="list-style-type: none"> ■ Selection of the triggering device group of an IR remote control (RC 5) ■ Free assignment of supported remote control push-buttons to function keys of the push-button
Objects	70
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat, weekly timer and display unit in a single device
- Graphical display with integrated push-buttons for menu-aided programming
- Indication of alarm messages in the display
- Free configuration of each push-button
- One status LED per push-button
- Can be operated via IR remote control
- Push-button manually blockable
- Integrated anti-dismantling protection



B.IQ IR push-button 5gang with room thermostat and display



ETS search paths: Gebr. Berker >> Push-button >> Push-button, 5gang >> Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons 4 lower buttons Operating LED 8 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The light scene push-button comfort is clipped onto the flush-mounted bus coupling unit. When a button is pressed it sends KNX/EIB telegrams which cause actuators to trigger corresponding functions. Depending on the loaded application, up to eight light scenes can be stored and retrieved, or four telegram sequences with a maximum of eight outputs can be generated.

Each button is assigned an LED with programmable functions.

The push-button has two user levels which can be manually set. On the first user level the lightscenes can be stored and retrieved, on the second user level the equipment can be adjusted; no additional sensors are needed.

The device is completed by a cover frame, the bus coupling unit and a terminal.

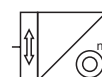
MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS	
White	7516 84 12	Polar white, matt	7516 84 89	White	7516 84 42
Polar white	7516 84 19	Anthracite, matt	7516 84 85	Polar white	7516 84 49
		Aluminium, matt	7516 84 83	Light bronze, lacquered	7516 84 44
				Stainless steel, lacquered	7516 84 43

Light scene/dimming 106501	<ul style="list-style-type: none"> ■ Lockout function via object ■ Cascading of multiple light scene push-buttons ■ Variable setting of status LED operation periods ■ Second user level: Lamp setup ■ Transmission of time-offset telegrams ■ Dimmer function programmable ■ Outputs can be removed separately from light scenes ■ Dimmer function via single-area operation ■ Extension function
Objects	20
Group addresses/assignments	maximum of 22 each
Telegram sequence 106401	<ul style="list-style-type: none"> ■ Alarm function in case push-button pulled off ■ Four telegram sequences ■ Random mode ■ Endless mode ■ Eight outputs ■ Outputs lockable ■ Extension function
Objects	10
Group addresses/assignments	maximum of 10 each

- Operation of switch, dim or shutter actuators
- Operating and status LEDs to indicate operating states
- Retrieval and storage of up to eight different light scenes
- Value transmitter for brightness values
- Operation on two switchable user levels
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Light scene push-button comfort



ETS search path: Gebr. Berker >>
Push-button >> Push-buttons general >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operating LED	White
	4 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

The light scene push-button 8gang comfort is a user module for mounting on a flush-mounted bus coupling unit.

When pressed, the light scene push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded. The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation.

The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operating LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
for White and		for White and	
Polar white	7516 88 80	Polar white	7516 88 70
for Anthracite and		for Stainless steel....	7516 88 73
Aluminium	7516 88 85		

Light scene/dimming 106501

- Object type switching or brightness value adjustable per output
- Blocking function via object
- Cascade operation of multiple light scene push-buttons
- Variable setting of the status LED with regard to the length of actuation
- Second operating level: Setting the lights to modify the light scene
- Sending of telegrams with time offset
- Dimmer adjustable
- Outputs can be removed separately from light scenes
- Dimmer via one push-button operation
- Extension unit function

Objects

20

Group addresses/assignments

maximum 22 each

Telegram sequence 106401

- Alarm function in the push-button is disconnected
- Object types 1-bit, 1-byte, 2-byte possible
- Four telegram sequences
- Sequence and times adjustable per telegram sequence
- Random mode
- Continuous operation
- Maximum of eight outputs
- Outputs blockable using push-button code (on-the-spot operation)
- Extension unit function

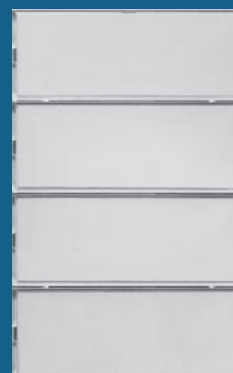
Objects

10

Group addresses/assignments

maximum 10 each

- Activation of switch, dimmer or shutter actuators
- Operating LED and status LEDs for indicating operating states
- Calling up and saving up to eight different light scenes
- Value transmitter for transmitting brightness values with eight outputs each
- Operation in two transposable operating levels
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Light scene push-button 8gang comfort



ETS search paths: Gebr. Berker >> Push-button >> Push-button, general >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operating LED	Blue
	8 lateral status LED	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

The B.IQ light scene push-button comfort is a user module for bolting to a flush-mounted bus coupling unit. When a button is pressed, it sends KNX/EIB telegrams which cause actuators to trigger corresponding functions. Depending on the application which has been loaded, up to eight light scenes can be stored and retrieved, or four telegram sequences with a maximum of eight outputs can be generated.

Each button is assigned an LED with programmable functions.

When the “Light scene/dimming” application is loaded, the push-button has two user levels which the operator can switch between manually. On the first user level the light scenes can be stored and retrieved; on the second user level the equipment can be adjusted; no additional sensors are needed.

BERKER B.IQ		Accessories	
Polar white	7516 86 99	Labelling field	
Stainless steel	7516 86 93	clear transparent	7590 00 81
Glass, polar white....	7516 86 91		

Light scene/dimming 106501

- Object type switching or brightness value per output programmable
- Lockout function via object
- Cascading of multiple light scene push-buttons
- Variable setting of status LED operation periods
- Second user level: programming of the lights for changing the light scene
- Transmission of time-offset telegrams
- Dimmer function programmable
- Outputs can be removed separately from light scenes
- Dimmer function via single-area operation
- Master function to control extensions

Objects

20

Group addresses/assignments

maximum of 22 each

Telegram sequence 106401

- Alarm function when push-button is released
- Object types 1 Bit, 1 Byte, 2 Byte possible
- Four telegram sequences
- Sequence and types programmable per telegram sequence
- Random mode
- Endless mode
- Maximum eight outputs
- Outputs lockable via button code (local operation)
- Master function to control extensions

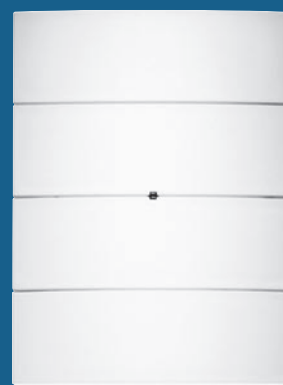
Objects

10

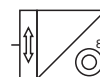
Group addresses/assignments

maximum of 10 each

- Operation of switch, dim or shutter actuators
- Operating and status LEDs to indicate object states
- Retrieval and storage of up to eight different light scenes
- Value transmitter for transmitting brightness values with eight outputs each
- Operation on two switchable user levels
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ light scene push-button comfort



ETS search paths: Gebr. Berker >>
 Push-button >> Push-button, general >>
 Gebr. Berker >> Push-button >> B.IQ >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons 4 lower buttons Operating LED 4 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The light scene push-button 8gang is clipped onto the flush-mounted bus coupling unit. When a button is pressed it sends KNX/EIB telegrams which cause actuators to trigger corresponding functions.

Up to eight light scenes can be stored and retrieved. If not all objects are actively used (linked to group addresses) the free objects must be assigned dummy addresses.

The device is completed by a cover frame, the bus coupling unit and a terminal.

TWINPOINT*	
Polar white	7566 80 69
Red.....	7566 80 66
Black	7566 80 65

* without labelling

Light scene 104102	<ul style="list-style-type: none">■ Optionally value or switching object for the eight output objects■ Retrieval of individual light scenes via extension input
Objects	9
Group addresses/assignments	maximum of 9 each

- Retrieval and storage of up to eight different light scenes



Light scene push-button 8gang



ETS search path: Gebr. Berker >>
Push-button >> Push-buttons general >>

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons 4 lower buttons Operating LED 4 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The multifunction push-button 4gang is a user module for clipping onto the flush-mounted bus coupling unit. The device is completed by a cover frame, the bus coupling unit and a terminal.

TWINPOINT*	
Polar white	7566 41 69
Red.....	7566 41 66
Black	7566 41 65

* without labelling

Multifunction 104201	<ul style="list-style-type: none">■ Function programmable separately for each rocker (switching, dimming, shutter, value, light scene extension)■ Status LED for each rocker
Objects	13
Group addresses/assignments	maximum of 34 each

- Operation of switch, dim or shutter actuators
- Function programmable separately for each rocker
- Operating LED
- Four status LEDs to indicate operating states
- Value transmitter for brightness values
- Light scene extension



Multifunction push-button 4gang



ETS search path: Gebr. Berker >>
Push-button >> Push-button 4gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Rocker Programming button Programming LED Status LED	Red Red
Connections	KNX/EIB	Terminal
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61.5 mm	see dimensional drawings

The push-button BCU 1gang is executed as a surface-mounted device. It consists of a bus coupling unit, a micro push-button with associated evaluation electronics and a status LED, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with lens, with symbol, with labelling).

Device colour	
Light grey	7519 10 00
Rockers	
- Rocker.....	7599 10 00
- with lens.....	7599 11 00
- with labelling	7599 13 00

Applications

Switching 105501	■ Switching functions ON or OFF or TOGGLE ■ LED as status indication, continuous ON or continuous OFF
Objects	1
Group addresses/assignments	maximum of 3 each

Rockers



Rocker



Rocker with lens



Rocker with labelling

- Protection IP 44 in AQUATEC surface-mounted housing
- Status LED to indicate operating states or as orientation light
- Switching of a function group



Push-button BCU
1gang AQUATEC



ETS search path: Gebr. Berker >>
Push-button >> Push-button 1gang >>

Supply	via bus line	24 V DC (+6 V/-4 V)
Operation and display elements	Upper button Lower button Programming button Programming LED Status LED	Red Red
Connections	KNX/EIB	Terminal
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61,5 mm	see dimensional drawings

The group push-button BCU 1gang is executed as a surface-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and a status LED, as well as a mechanical mounting unit in the neutral mid position for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with lens, with symbol, with labelling).

Device colour	
Light grey	7519 11 00
Rockers	
- Rocker.....	7599 10 00
- with lens.....	7599 11 00
- with symbol.....	7599 12 00
- with labelling	7599 13 00

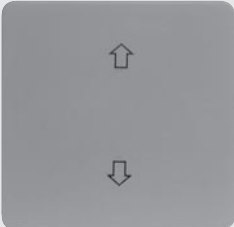
Applications

Switching, dimming, shutter 105601	<ul style="list-style-type: none">■ Switching functions for switching or dimming or shutter control■ LED as status indication, continuous ON or continuous OFF■ Maximum of two switching options by toggle function
Objects	3
Group addresses/assignments	maximum of 4 each

Rockers



Rocker with lens



Rocker with symbol



Rocker with labelling

- Protection IP 44 in AQUATEC surface-mounted housing
- Status LED to indicate operating states or as pilot lamp
- Dimmer/shutter control for a function group
- Switch up to two function groups



Rocker



**Group push-button
BCU 1gang
AQUATEC**



ETS search path: Gebr. Berker >>
Push-button >> Push-button 1gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Left button Right button Programming button Programming LED 2 status LEDs	Red Red
Connections	KNX/EIB	Terminal
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61,5 mm	see dimensional drawings

The push-button BCU 2gang is executed as a surface-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with arrow symbol).

Device colour	
Light grey	7519 20 00
Rockers	
- Rocker.....	7599 20 00
- with arrow symbol ..	7599 21 00

Applications

Switching, dimming, shutter 105701	<ul style="list-style-type: none">■ Switching functions for switching or dimming or shutter control■ Status LED with dedicated communication objects■ Switching function with toggle■ Area dimming
Objects	4
Group addresses/assignments	maximum 4/maximum 5

Rockers



Rockers



Rockers with arrow symbol

- Protection IP 44 in AQUATEC surface-mounted housing
- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for a function group
- Switch up to two function groups



**Push-button BCU
2gang AQUATEC**



ETS search path: Gebr. Berker >>
Push-button >> Push-button 2gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	2 left buttons (upper and lower) 2 right buttons (upper and lower) 2 status LEDs	Red
Connections	Terminal	
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61,5 mm	see dimensional drawings

The group push-button BCU 2gang is executed as a surface-mounted device. It consists of a bus coupling unit, four micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit in the neutral mid position for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with arrow symbol, with symbols).

Device colour	
Light grey	7519 21 00
Rockers	
- Rocker.....	7599 20 00
- with arrow symbol ..	7599 21 00
- with symbols.....	7599 22 00

Applications

Switching, dimming, shutter 105801	<ul style="list-style-type: none">■ Switching functions for switching and/or dimming and/or shutter control■ LED as status indication, continuous ON or continuous OFF■ Maximum of four switching options by toggle function
Objects	4
Group addresses/assignments	maximum of 8 each

Rockers



Rockers



Rockers with arrow symbol



Rockers with symbols

- Protection IP 44 in AQUATEC surface-mounted housing
- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for two function groups
- Switch up to four function groups

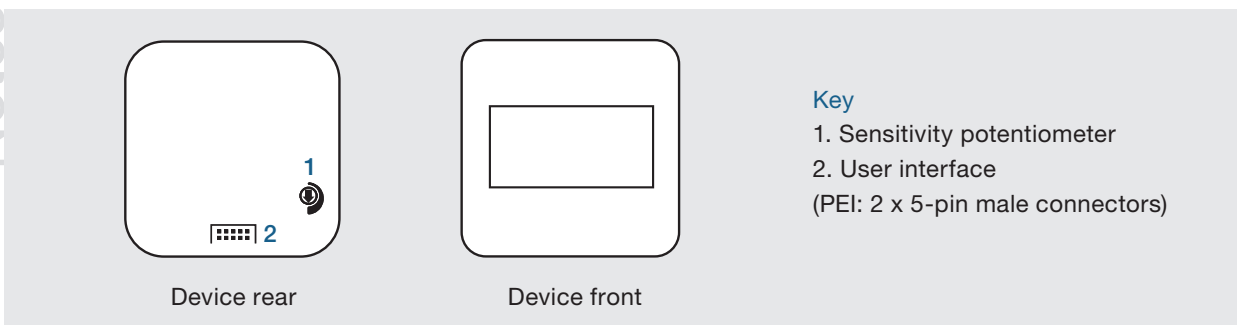


**Group push-button
BCU 2gang
AQUATEC**



ETS search path: Gebr. Berker >>
Push-button >> Push-button 2gang >>

Supply	via bus line	21–32 V DC
Operation and display elements	Rotary potentiometer	Sensitivity
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Detection range	180°	
Nominal detection range, lateral	at mounting height 1.10 m or 2.20 m	2 x 6 m
Nominal detection range, frontal	at mounting height 1.10 m or 2.20 m	10 m or 12 m
Number of switching segments (lens)	72	on 2 levels
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	



The movement controller 180 is a user module for clipping onto the flush-mounted bus coupling unit. Heat movements in the detection range caused by people, animals or objects generate an KNX/EIB switching telegram dependent on the programmable values. If the detection is sustained, the transmission can be cyclically repeated. When detection ceases, a telegram can be sent with a delay of at least 10 seconds. An additional transmission delay can be programmed.

A lockout function deactivates the movement controller dependent on an externally generated telegram with a corresponding group address.

The device is completed by a cover frame, the bus coupling unit and a terminal.

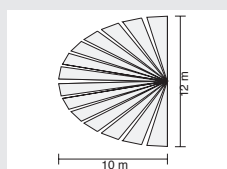
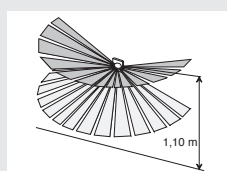
MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
White		White, glossy		Anthracite, matt		White	
- Type 110 cm	7526 11 12	- Type 110 cm	7526 11 52	- Type 110 cm	7526 11 85	- Type 110 cm	7526 11 72
- Type 220 cm	7526 12 12	- Type 220 cm	7526 12 52	- Type 220 cm	7526 12 85	- Type 220 cm	7526 12 72
Polar white		Polar white, glossy		Aluminium, matt		Polar white	
- Type 110 cm	7526 11 19	- Type 110 cm	7526 11 59	- Type 110 cm	7526 11 83	- Type 110 cm	7526 11 79
- Type 220 cm	7526 12 19	- Type 220 cm	7526 12 59	- Type 220 cm	7526 12 83	- Type 220 cm	7526 12 79
		Polar white, matt				Stainless steel, lacquered	
		- Type 110 cm	7526 11 89			- Type 110 cm	7526 11 73
		- Type 220 cm	7526 12 89			- Type 220 cm	7526 12 73

PIR single unit A00101		<ul style="list-style-type: none"> Delay time and brightness threshold programmable Transmission of switching telegrams Lockout function
Objects	2	
Group addresses/assignments	maximum of 5 each	
PIR master unit A00201 (where multiple monitor sensors in use)		<ul style="list-style-type: none"> Delay time and brightness threshold programmable Transmission of switching telegrams Master function to control extensions Lockout function
Objects	3	
Group addresses/assignments	maximum of 6 each	
PIR extension unit A00301		<ul style="list-style-type: none"> Delay time and brightness threshold programmable Transmission of switching telegrams Extension function Lockout function
Objects	3	
Group addresses/assignments	maximum of 6 each	

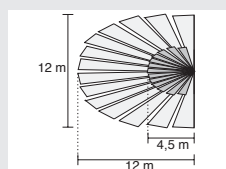
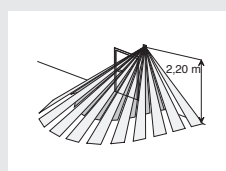
Mounting height

If the adapter lens type 2.20 m is mounted lower, such as at 1.10 m, the scan range changes as shown (illustrations at extreme right).

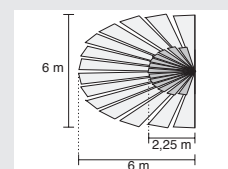
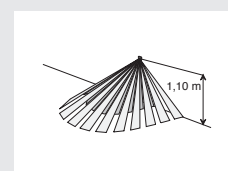
Interference can be blocked by means of the supplied cover (90° masking of the left or right half of the scan field).



Type 1.10 m



Type 2.20 m



Type 2.20 at 1.10 m

- 180° detection range
- Limitation of detection range to 90° by clip-on cover
- Sensitivity setting by sensitivity potentio-meter
- Extension mode for multiple operation



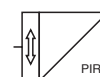
Berker ARSYS

White	
- Type 110 cm	7526 11 42
- Type 220 cm	7526 12 42
Polar white	
- Type 110 cm	7526 11 49
- Type 220 cm	7526 12 49
Light bronze, lacquered	
- Type 110 cm	7526 11 44
- Type 220 cm	7526 12 44
Stainless steel, lacquered	
- Type 110 cm	7526 11 43
- Type 220 cm	7526 12 43

TWINPOINT

Polar white	
- Typ 1,1 m	7526 11 69
- Typ 2,2 m	7526 12 69
Red	
- Typ 1,1 m	7526 11 66
- Typ 2,2 m	7526 12 66
Black	
- Typ 1,1 m	7526 11 65
- Typ 2,2 m	7526 12 65

Movement controller 180



ETS search path: Gebr. Berker >>
Physical sensors >> Movement >>

Supply	via bus line	24 V DC (+6 V/-4 V)
Operation and display elements	Rotary potentiometer Rotary potentiometer Rotary potentiometer Manual slide switch	Sensitivity Switch OFF delay Brightness threshold ON/Auto/OFF
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Detection range	180°	
Nominal detection range, lateral	at mounting height 1.10 m or 2.20 m	2 x 6 m
Nominal detection range, frontal	at mounting height 1.10 m or 2.20 m	10 m or 12 m
Number of switching segments (lens)	72 on 2 levels	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The movement controller 180 comfort is a user module for clipping onto the flush-mounted bus coupling unit. Heat movements in the detection range caused by people, animals or objects generate an KNX/EIB switching or value transmission telegram dependent on the programmable values. If the detection is sustained, the transmission can be cyclically repeated. When detection ceases, a telegram can be sent with a delay of at least 10 seconds. An additional transmission delay can be programmed.

A lockout function deactivates the movement controller dependent on an externally generated telegram with a corresponding group address.

The device is completed by a cover frame, the bus coupling unit and a terminal.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5	
White		White, glossy		Anthracite, matt		White	
- Type 110 cm	7526 15 12	- Type 110 cm	7526 15 52	- Type 110 cm	7526 15 85	- Type 110 cm	7526 15 72
- Type 220 cm	7526 16 12	- Type 220 cm	7526 16 52	- Type 220 cm	7526 16 85	- Type 220 cm	7526 16 72
Polar white		Polar white, glossy		Aluminium, matt		Polar white	
- Type 110 cm	7526 15 19	- Type 110 cm	7526 15 59	- Type 110 cm	7526 15 83	- Type 110 cm	7526 15 79
- Type 220 cm	7526 16 19	- Type 220 cm	7526 16 59	- Type 220 cm	7526 16 83	- Type 220 cm	7526 16 79
		Polar white, matt				Stainless steel, lacquered	
		- Type 110 cm	7526 15 89			- Type 110 cm	7526 15 73
		- Type 220 cm	7526 16 89			- Type 220 cm	7526 16 73

PIR comfort A00802

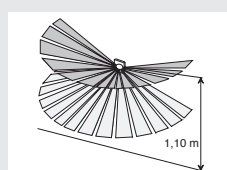
- Detection of heat movements depending on the preset brightness threshold
- Brightness threshold adjustable via potentiometer (see next page)
- Sensitivity adjustable via potentiometer based on walk test
- Telegram programmable at beginning and end of a detection or lockout
- Cyclic transmission during a detection possible
- Transmission of switch, value transmitter or light scene retrieval telegrams after detection of motion
- Various operating modes:
 - Lighting mode (telegram after first movement pulse)
 - Message mode (telegram after a programmable number of movement pulses)
- Toggle between lighting and message mode
- Telegram programmable on restoration of bus voltage
- Dismantling signal programmable following detachment of device from bus coupling unit
- Resetting the disassembly message after the device has been clipped on again

Objects	9
Group addresses/assignments	maximum of 28 each

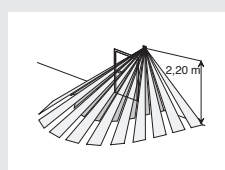
Mounting height

If the adapter lens type 2.20 m is mounted lower, such as at 1.10 m, the scan range changes as shown (illustrations at extreme right).

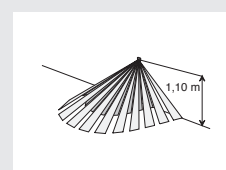
Interference can be blocked by means of the supplied cover (90° masking of the left or right half of the scan field).



Type 1.10 m



Type 2.20 m



Type 2.20 at 1.10 m

Continued on next double page ►

- 180° detection range
- Limitation of detection range to 90° by clip-on cover
- Brightness threshold, delay time and sensitivity adjustable via potentiometer
- Non-light-sensitive message mode
- Manual operation by slide switch
- Continuous light ON or light OFF
- Switch/Value transmitter/Light scene retrieval modes selectable
- Extension mode for multiple devices

**Berker ARSYS**

White

- Type 110 cm 7526 15 42
- Type 220 cm 7526 16 42

Polar white

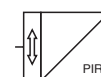
- Type 110 cm 7526 15 49
- Type 220 cm 7526 16 49

Light bronze,
lacquered

- Type 110 cm 7526 15 44
- Type 220 cm 7526 16 44

Stainless steel,
lacquered

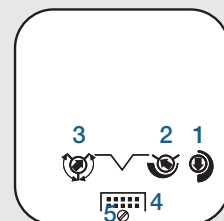
- Type 110 cm 7526 15 43
- Type 220 cm 7526 16 43

**Movement
controller 180
comfort**

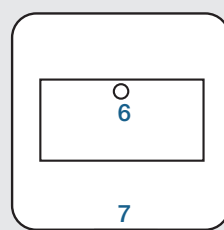
ETS search path: Gebr. Berker >>
Physical sensors >> Movement >>

Key

1. Sensitivity potentiometer
Stepless range setting between 100 % and 20 %
2. Brightness threshold potentiometer
Fine adjustment of software-preset twilight level
3. Switch OFF delay potentiometer
Alteration of software-preset “additional transmission delay” by ± 50 %
(in extension mode this setting has no function)
4. Physical external interface (PEI: 2 x 5-pin male connectors)
5. Arrester screw for manual selection switch
Arresting of slide switch in AUTO position
6. Walk test LED
for walk test function and dismantling alarm
7. Manual slide switch
(in message/extension mode the manual selection switch has no function)



Device rear



Device front

Cover

Interference can be blocked by means of the supplied cover (90° masking of the left or right half of the scan field).



Movement controller 180 comfort

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typically 150 mW
Behaviour on power failure/restore	Bus power failure	no function
	Bus power failure	---
	Bus and mains power failure	---
	Bus power restoration	Software-dependent (immunity time of approx. 40 s)
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Rotary potentiometer "sensitivity"	Range
	Rotary potentiometer "time"	Transmission delay
	Rotary potentiometer "lux"	Fine adjustment of brightness threshold
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Detection area	360°	
	At mounting height 2.5 m	Table-top height (approx. 80 cm): Ø approx. 5 m Floor level: Ø approx. 8 m (Controller mode: Ø approx. 5 m)
Number of lenses/detection levels	80	6
	Switching segments (lens)	320
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Clip on to bus coupling unit, flush-mounted	
Mounting orientation	only ceiling-mounted!	free of vibration
	Minimum clearances	none
Dimensions (Ø and H)	103 mm	42 mm

Information

The presence detector standard automatically switches the interior lighting on when required, i.e. when the presence of a person is detected and the level of ambient brightness is less than the threshold.

The presence detector standard can be used as a single device and is mounted on to a flush-mounting bus coupling unit exclusively on the ceiling of the room. It monitors the floor area directly beneath it. The lens structure and the digital signal evaluation detect even the slightest movements.

Two operating modes are available for selection. Setting the operating mode and subsequently changing between operating modes is achieved exclusively by programming the devices in the ETS. In both operating modes there are available two output channels with freely selectable functions available of switching, dimmer value transmitter and light scene extension unit. The outputs can be parameterised independently of each other and locked out by externally generated telegrams.

Order data

Device colour
Polar white 7526 20 01

Presence standard A00E01

- Free assignment of the functions switching, dimmer value transmitter and light scene extension unit to the two outputs
- Operating mode selectable as either presence detector or ceiling monitor
- Effect of potentiometers for twilight level and additional transmission delay can be parameterised to a different output
- Trigger object for switching on the presence detector can be configured independently of a detection
- Blocking time after telegram transmission adjustable
- Twilight level (switch-on/switch-off brightness) configurable for each output
- Teach-in function (application of current brightness as twilight threshold)
- Cyclic transmission can be performed during a detection
- Additional telegram can be activated on re-triggering
- Telegram configurable at beginning and end of a detection
- Telegram configurable at beginning and end of lockout
- Configurable additional transmission delay (basis and factor)
- Correction factor for adjusting the switch-off brightness
- Behaviour on bus power restoration separately configurable for each output
- Disassembly message option on removal of the device from the flush-mounting bus coupling unit (1 bit/1 byte)

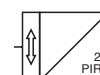
Objects	8
Group addresses/assignments	maximum of 30 each

Continued on next double page ►

- 360° Detection area
- Passive Infra-Red (PIR) sensor for movement detection depending on the twilight level setting
- Twilight level (switch-on/switch-off brightness) configurable
- Teach-in function (application of current brightness as twilight threshold)
- Three potentiometers for setting the response sensitivity and fine adjustment of parameterised values
- Setting the potentiometer without removing it (removable device cap)
- Operating mode selectable as either presence detector or ceiling controller
- Objects for switching, value transmitter or light scene retrieval
- Alarm object on removal of the device from the bus coupling unit (disassembly protection)



Presence detector standard



ETS search path: Gebr. Berker >>
Physical sensors >> Movement >>

Mounting position/ installation

Do not install the presence detector in the immediate vicinity of sources of heat such as lights.

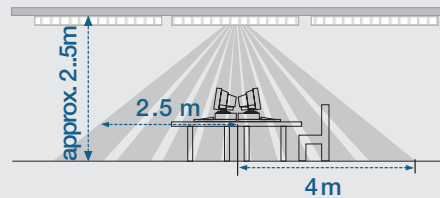
Air movements such as from open windows, fans, radiators, etc. can cause spurious triggering of the switch.

Reflecting/pale surfaces under the installation position will affect the evaluation.

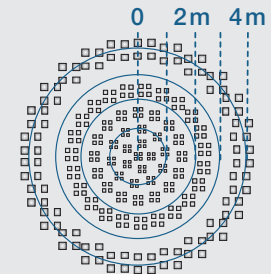
The brightness sensor should be placed on a wall facing away from the window, so as to avoid the effects of stray light.

If the devices are mounted significantly higher up, the sensitivity of the movement detection will be reduced.

Office situation (presence detector operating mode)

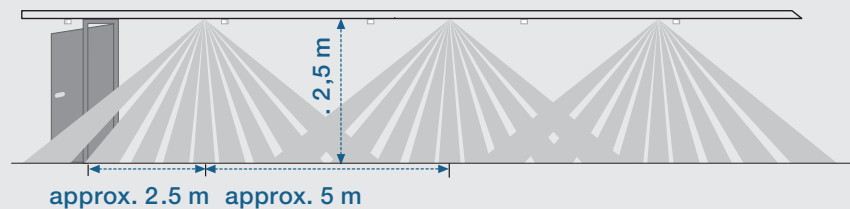


Detection cone at a workplace when mounted at 2.5 m height



Segmentation

Installation example in a corridor (operating mode = ceiling controller)

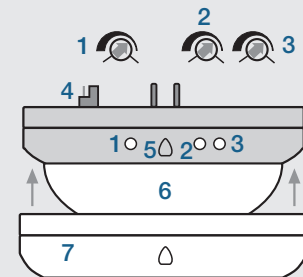


In a corridor, the detection area should be walked through primarily in a "radial" sense. The reliable detection area at ground level is still only approx. 5 m - the detection areas must overlap at that spacing!

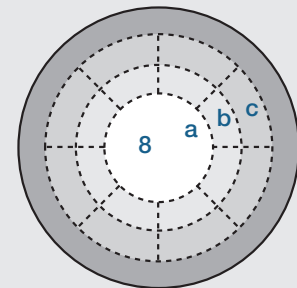
Notes

Key

1. "Sensitivity" potentiometer
Stepless range setting between 100 % and 20 %
2. "Time" potentiometer
Adjustment of the additional transmission delay by ± 50 %
3. "Lux" potentiometer
Adjustment of the software-preset twilight level
4. Physical external interface (PEI: 2 x 5-pin male connector)
5. Brightness sensor
6. Lens system for movement detection
7. Removable device cap (allows access to the potentiometer)
8. Clip-on cover (clipped on when delivered)



Side view



Clip-on cover (plan view)

Clip-on cover/adjusting the detection area

Areas where detection is not required and sources of spurious detections can be excluded from coverage (using scissors to trim the cover along the indicated lines).

When the trimmed cover is used the diameter of the detection area at floor level changes as follows:

- Area **a** cut out: diameter approx. 2.20 m
- Areas **a** and **b** cut out: diameter approx. 4.00 m
- Areas **a**, **b** and **c** cut out: diameter approx. 6.00 m
- Clip-on cover fully removed: diameter approx. 8.00 m



**Presence detector
standard**

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typically 150 mW
Behaviour on power failure/restore	Bus power failure	no function
	Bus power failure	---
	Bus and mains power failure	---
	Bus power restoration	Software-dependent (immunity time of approx. 40 s)
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Rotary potentiometer "sensitivity"	Range
	Rotary potentiometer "time"	Transmission delay
	Rotary potentiometer "lux"	Fine adjustment of brightness threshold
Connections	Bus coupling unit, flush-mounted Up	PEI: 2 x 5-pin male connectors
Detection area	360°	
	At mounting height 2.5 m	Table-top height (approx. 80 cm): Ø approx. 5 m Floor level: Ø approx. 8 m (Controller mode: Ø approx. 5 m)
Number of lenses/detection levels	80	6
	Switching segments (lens)	320
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Clip on to bus coupling unit, flush-mounted	
Mounting orientation	only ceiling-mounted!	free of vibration
	Minimum clearances	none
Dimensions (Ø and H)	103 mm	42 mm

Information

The presence detector comfort automatically switches the interior lighting on when required, i. e. when the presence of a person is detected and the level of ambient brightness is less than the threshold.

The presence detector comfort can be used as a master unit and as an extension unit and is mounted on to a flush-mounting bus coupling unit exclusively on the ceiling of the room. It monitors the floor area directly beneath it. The lens structure and the digital signal evaluation detect even the slightest movements.

The operating modes "presence detector", "ceiling controller" and "message mode" are available for selection. Setting or changing the operating mode (without re-programming) is performed using software.

The selected operating modes each have two output channels with freely selectable functions available of switching, dimmer value transmitter and light scene extension unit. The outputs can be parameterised independently of each other and locked out by externally generated telegrams.

In addition, output 1 can be programmed as brightness transmitter or temperature value transmitter.

Order data

Device colour
Polar white 7526 40 01

Presence comfort A00F01

- Free assignment of the functions switching, dimmer value transmitter, light scene extension unit and reporting to the four outputs
- Output 1 can be used either for the temperature function or for the brightness value transmitter
- Object for changing over between two pre-selected operating modes during operation
- Application type selectable as single device, master unit or extension unit
- Effect of potentiometers for twilight level and additional transmission delay can be parameterised to a different output
- Locking time after telegram triggering is configurable
- Telegram delay at beginning of a detection is configurable
- Twilight level (switch-on/switch-off brightness) and teach-in object can be configured independently for each output; in master unit operation the twilight level evaluation can be performed at the master unit or extension unit
- Teach-in function (application of current brightness as twilight threshold)
- Cyclic transmission can be performed during a detection
- Additional telegram can be activated on re-triggering
- Telegram configurable at beginning and end of a detection
- Telegram configurable at beginning and end of lockout
- Configurable additional transmission delay (basis and factor)
- Correction factor for adjusting the switch-off brightness
- Behaviour on bus power restoration separately configurable for each output
- Disassembly message option on removal of the device from the flush-mounting bus coupling unit (1 bit/1 byte)

Objects

12

Group addresses/assignments

maximal 20/maximal 21

Continued on next double page ►

- 360° Detection area
- Passive Infra-Red (PIR) sensor for movement detection depending on the twilight level setting
- Twilight level (switch-on/switch-off brightness) configurable
- Teach-in function (application of current brightness as twilight threshold)
- Three potentiometers for setting the response sensitivity and fine adjustment of parameterised values
- Setting the potentiometer without removing it (removable device cap)
- Operating mode selectable between “presence detector”, “ceiling controller”, “message mode”
- Objects for switching, value transmitter or light scene retrieval
- Alarm object on removal of the device from the bus coupling unit (disassembly protection)



Presence detector comfort



ETS search path: Gebr. Berker >>
Physical sensors >> Movement >>

Mounting position/ installation

Do not install the presence detector in the immediate vicinity of sources of heat e. g. lights.

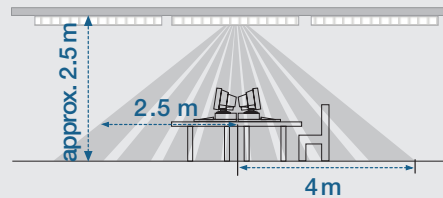
Air movements such as from open windows, fans, radiators, etc. can cause spurious triggering of the switch.

Reflecting/pale surfaces under the installation position will affect the evaluation.

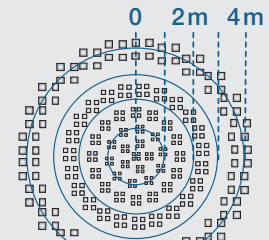
The brightness sensor should be placed on a wall facing away from the window, so as to avoid the effects of stray light.

If the devices are mounted significantly higher up, the sensitivity of the movement detection will be reduced.

Office situation (presence detector operating mode)

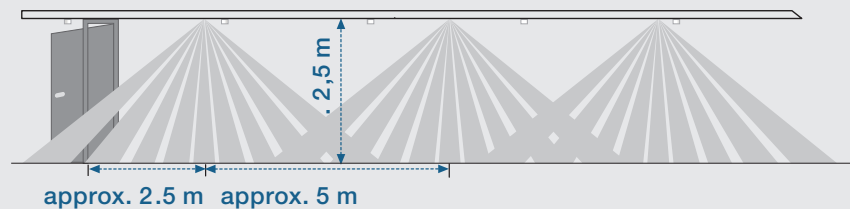


Detection cone at a workplace when mounted at 2.5 m height



Segmentation

Installation example in a corridor (operating mode = ceiling controller)

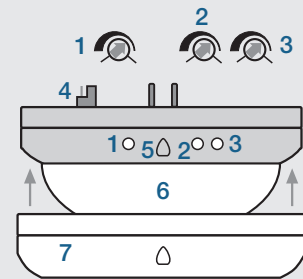


In a corridor, the detection area should be walked through primarily in a “radial” sense. The reliable detection area at ground level is still only approx. 5 m – the detection areas must overlap at that spacing!

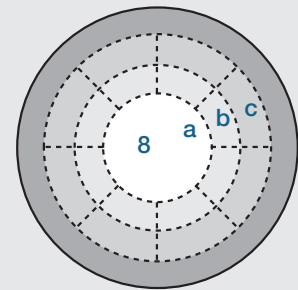
Notes

Key

1. "Sensitivity" potentiometer
Stepless range setting between 100 % and 20 %
2. "Time" potentiometer
Adjusting the an additional transmission delay by ± 50 %
3. "Lux" potentiometer
Adjustment of software-preset twilight level
4. Physical external interface (PEI: 2 x 5-pin male connector)
5. Brightness sensor
6. Lens system for movement detection
7. Removable device cap (allows access to the potentiometer)
8. Clip-on cover (clipped on when delivered)



Side view



Clip-on cover (plan view)

Clip-on cover/adjusting the detection area

Areas where detection is not required and sources of spurious detections can be excluded from coverage (using scissors to trim the cover along the indicated lines).

When the trimmed cover is used the diameter of the detection area at floor level changes as follows:

- Area **a** cut out: diameter approx. 2.20 m
- Areas **a** and **b** cut out: diameter approx. 4.00 m
- Areas **a**, **b** and **c** acut out: diameter approx. 6.00 m
- Clip-on cover fully removed: diameter approx. 8.00 m



**Presence detector
comfort**

Supply	via bus line	21–32 V DC
Inputs	Number	max. 4
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0.8 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Operation and display elements	Presence button	
	Setting knob	
	LED comfort operation	green
	LED standby operation	green
	LED night operation	green
	LED dewpoint (controller blocked)	red
	LED frost/heat protection	red
	LED operating mode cooling	blue
	LED operating mode heating	red
	LED energy demand	yellow
	Programming button	under the setting knob
	Programming LED	red
Connections	KNX/EIB	Connecting terminal
	Inputs/outputs	6pole screw terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-40 to +55 °C
Installation	e. g. deep flush-mounted box	Diameter 60 mm
Mounting orientation	as desired	
Dimensions (W x H x D)	see dimensional drawings	

The room thermostat with push-button interface is designed as a flush-mounted device with an integral bus coupling unit. Through the optional connection of potential-free switches and push-buttons the device makes it possible to operate all of the room functions in the door area in a cost-optimised manner.

The thermostat detects the room temperature and depending on the operating mode and the current setpoint sends a command value to the heating or cooling control on the instabus KNX/EIB. Five operating modes are available (comfort, standby, night, frost/heat protection and dewpoint operation). For the heating and cooling function, the control mode PI control (continuous or switching) or 2-point control (switching) can be selected; two-stage heating and cooling are likewise possible.

The integral push-button interface provides four independent binary inputs for control of lighting, blinds or as value transmitters. Two of these inputs can also be programmed as outputs and thus be used e. g. for activation of LED displays or electronic relays.

MODULE 2		Berker S.1/B.1/B.3/		Berker K.1/K.5		Berker ARSYS	
White	7544 11 12	B.7 GLASS		White	7544 11 72	White	7544 11 42
Polar white	7544 11 19	White, glossy	7544 11 52	Polar white	7544 11 79	Polar white	7544 11 49
		Polar white, glossy ..	7544 11 59			Light bronze,	
		Polar white, matt	7544 11 89	Stainless steel,		lacquered	7544 11 44
		Anthracite, matt	7544 11 85	lacquered	7544 11 73	Stainless steel,	
		Aluminium, matt	7544 11 83			lacquered	7544 11 43

Continuous controller with push-button interface 4gang 705D10

- Temperature detection via internal or external sensor or mixed operation adjustable
- Temperature compensation for sensors and polling time of the external sensor and transmission behaviour adjustable for temperature values
- Operating modes comfort, standby, night, frost/heat protection mode and comfort extension can be activated through on-the-spot operation or object
- Objects for general controller status and per operating mode set
- Operating mode switch-over via value (1-byte) or switching (4 x 1-bit) adjustable
- Operating mode adjustable in preferred position or after reset
- Operating mode to extend comfort can be activated using presence button or presence object
- Presence button and setting knob can be programmed to have no functions
- Operating modes heating/cooling or heating and cooling, each with or without auxiliary step
- Continuous or switched PI control or two-point control can be set.
- Control variable objects invertible if required
- Valve protection function can be set (valve is opened cyclically every 24 hours)
- Temperature setpoints can be adjusted via software or bus (on the device)
- Setting range of the temperature setpoints to be specified via software
- Function as thermostat extension unit for other room thermostats, complete control and display at the thermostat extension unit
- Room temperature measurement possible at the extension unit
- Separate window contact object

Push-button interface**General**

- Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of four inputs
- Blocking object for blocking individual entries (polarity of the blocking object adjustable)
- Delay for bus voltage return and debounce time can be adjusted centrally
- Behaviour for bus voltage return and can be adjusted separately for each input
- Telegram rate limit can be set generally for all inputs
- Input four can also be set as an input for external temperature sensor or as a floor heating temperature limiter

continued on next double page ►

- Individual single room control
- With integral bus coupling unit
- Eight LEDs in various colours for indicating the operating mode and controller status
- Setpoint temperature adjustment via setting knob
- Presence button to extend comfort
- Programming button and programming LED accessible by pulling off the setting knob
- Integrated anti-dismantling protection

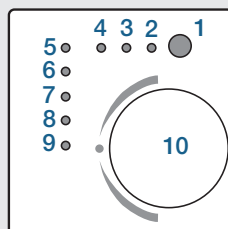
**TWINPOINT**

Polar white	7544 11 69
Red.....	7544 11 66
Black	7544 11 65

Room thermostat with push-button interface and integral bus coupling unit



ETS search path: Gebr. Berker >> Heating, air conditioning, ventilation >> Controller >>



Key

1. Presence button
2. LED for night operation
3. LED for standby operation
4. LED for comfort operation
5. LED for energy demand
6. LED for operating mode heating
7. LED for operating mode cooling
8. LED for frost/heat protection
9. LED for dewpoint (controller blocked)
10. Setting knob (below which are the programming button and red LED)

Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, CHANGE, no response) ■ Cyclic transmission of the switching objects can be set
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, CHANGE) and switching time between short and long-time operation adjustable ■ Control concept adjustable ■ Length of actuation for lamella adjustment adjustable
Functions value, temperature value, brightness value transmitter and light scene extension unit	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button
Outputs	■ Output of any desired 1-bit command value of the controller or an external switching object adjustable
Objects	58
Group addresses/assignments	maximum 120 each



**Room thermostat
with push-button in-
terface and integral
bus coupling unit**

Supply	via bus line	21–32 V DC
Inputs	Number	max. 4
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0.8 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Operation and display elements	Programming button	under the cover
	Programming LED	red
Connections	KNX/EIB	Connecting terminal
	Inputs/outputs	6pole screw terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-40 to +55 °C
Installation	e.g. deep flush-mounted box	Diameter 60 mm
Mounting orientation	as desired	
Dimensions (W x H x D)	see dimensional drawings	

The object room thermostat with push-button interface is designed as a flush-mounted device with an integral bus coupling unit. The thermostat is designed without visible operation and display elements to prevent unauthorised adjustment and sabotage in public areas. Through the optional connection of potential-free switches and push-buttons it is possible to operate all of the room functions in the door area in a cost-optimised manner.

The thermostat detects the room temperature and depending on the operating mode and the current setpoint sends a command value to the heating or cooling control on the instabus KNX/EIB. Five operating modes are available (comfort, standby, night, frost/heat protection and dewpoint operation). For the heating and cooling function, the control mode PI control (continuous or switching) or 2-point control (switching) can be selected; two-stage heating and cooling are likewise possible. The integral push-button interface provides four independent binary inputs for control of lighting, blinds or as value transmitters. Two of these inputs can also be programmed as outputs and thus be used e.g. for activation of LED displays or electronic relays.

MODULE 2		Berker S.1/B.1/B.3/		Berker K.1/K.5		Berker ARSYS	
white.....	7544 12 12	B.7 GLASS		White	7544 12 72	White	7544 12 42
polar white.....	7544 12 19	White, glossy.....	7544 12 52	Polar white	7544 12 79	Polar white	7544 12 49
		Polar white, glossy..	7544 12 59			Light bronze,	
		Polar white, matt	7544 12 89	Stainless steel,		lacquered	7544 12 44
		Anthracite, matt.....	7544 12 85	lacquered	7544 12 73	Stainless steel,	
		Aluminium, matt	7544 12 83			lacquered	7544 12 43

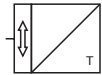
Applications	Object controller with push-button interface 4gang 705C10	<ul style="list-style-type: none">■ Temperature detection via internal or external sensor or mixed operation can be set■ Temperature compensation for sensors and polling time of the external sensor and transmission behaviour adjustable for temperature values■ Operating modes comfort, standby, night, frost/heat protection mode and comfort extension can be activated through on-the-spot operation or object■ Objects for general controller status and per operating mode set■ Operating mode switching via value (1-byte) or switching (4 x 1-bit) adjustable■ Operating mode adjustable in preferred position or after reset■ Operating mode to extend comfort can be activated using presence button or presence object■ Presence button and setting knob can be programmed to have no functions■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step■ Continuous or switched PI control or two-point control can be set.■ Control variable objects invertible if required■ Valve protection function can be set (valve is opened cyclically every 24 hours)■ Temperature setpoints can be adjusted via software or bus (on the device)■ Setting range of the temperature setpoints to be specified via software■ Function as thermostat extension unit for other room thermostats, complete control and display at the thermostat extension unit■ Room temperature measurement possible at the extension unit■ Separate window contact object
	Push-button interface	
	General	■ Description of the previous device
	Function switching	■ Description of the previous device
	Function dimming	■ Description of the previous device
	Function shutter	■ Description of the previous device
	Functions value, temperature value, brightness value transmitter and light scene extension unit	■ Description of the previous device
	Outputs	■ Description of the previous device
	Objects	58
	Group addresses/assignments	maximum 120 each

- For individual single room control
- Without visible operation and display element for protection against unauthorised operation
- With integral bus coupling unit
- Programming button and programming LED accessible by pulling off the cover



TWINPOINT	
Polar white	7544 12 69
Red.....	7544 12 66
Black	7544 12 65

Object room thermo-
stat with push-button
interface and inte-
gral bus coupling unit



ETS search path: Gebr. Berker >> Heating, air conditioning, ventilation >> Controller >>

Supply	via bus line	21–32 V DC
Operation and display elements	Presence push-button Rotary knob LED comfort operation mode LED standby operation mode LED night operation mode LED “Controller locked” LED LED frost protection	Green Green Green Red Orange
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Measuring range	0 to +40 °C	
Resolution	0.08 K	
Air humidity	0 to 95 %	No condensation
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupler, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

The room thermostat is a user module for clipping onto the flush-mounted bus coupling unit.

The internal temperature sensor records the room temperature and sends a manipulated variable to the heating/cooling controller or valve drive over the instabus KNX/EIB depending on the operating mode and the current target (setpoint) value.

The device has five operating modes (Comfort, Standby, Night, Frost/heat protection and Controller lock), each with one set-point value in heating or cooling mode (10 set-point values). A constant or switching PI or 2-point algorithm can be selected for the heating and cooling function. Two-stage modes can be set. The integral push-button is used to manually control the operating modes.

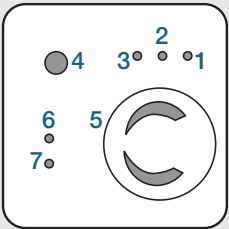
The device is completed by a cover frame, the bus coupling unit and a terminal.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5		Berker ARSYS	
White	7546 12 12	White, glossy	7546 12 52	White	7546 12 72	White	7546 12 42
Polar white	7546 12 19	Polar white, glossy ..	7546 12 59	Polar white	7546 12 79	Polar white	7546 12 49
		Polar white, matt	7546 12 89	Stainless steel, lacquered	7546 12 73	Light bronze, lacquered	7546 12 44
		Anthracite, matt	7546 12 85			Stainless steel, lacquered	7546 12 43
		Aluminium, matt	7546 12 83				

Applications

Regulator 705A01	<ul style="list-style-type: none">■ Two-stage heating or cooling possible (e.g. floor heating and towel heating)■ Heating/cooling functions in variants■ Automatic heating/cooling toggle■ Constant (1-byte) or switching (1-bit) manipulated variable■ PI control or 2-point control programmable■ Control parameters for PI controller (proportional range, resetting time) and 2-point controller (hysteresis) programmable■ Transmission of current and set-point temperature■ Adjustable room temperature measurement (current value)■ Push-button function and rotary knob deactivatable■ Scaling of set-point value rotary knob programmable■ Automatic transmission, cycle time and telegram rate limitation for manipulated variables programmable■ Command value limitation for continuous outputs can be activated and adjusted■ Duration of comfort extension operating mode programmable■ Status information (1-bit or 1-byte) programmable
Objects	12
Group addresses/assignments	maximum of 18 each

Notes



- Key
- 1. LED for night operating mode
 - 2. LED for standby operating mode
 - 3. LED for comfort operating mode
 - 4. Presence push-button
 - 5. Rotary knob
 - 6. LED for controller lock
 - 7. LED for frost protection

- Room thermostat for maximum of two heating circuits
- Heating and cooling
- Two-stage heating/cooling possible
- Operation of electro-thermic valves and valve drives
- Visual mode indicator
- Set-point temperature adjustment via rotary knob
- Presence push-button for comfort extension operating mode
- Various control algorithms



TWINPOINT	
Polar white	7546 12 69
Red.....	7546 12 66
Black	7546 12 65

Room thermostat



ETS search path: Gebr. Berker >>
Heating, air conditioning >> Thermostat >>

Technical data

Supply	via bus line	21–32 V DC
Inputs	Signal recognition	0–20.000 lux
	Signal duration	Continuous
Operation and display elements	Programming button	
	Programming LED	Red
Connections	RMD module	KNX/EIB via connecting terminal
	Brightness sensor	2 screw-type terminals, max. 100 m cable length
Protection	RMD module	IP 20, EN 60529
	Brightness sensor	IP 54, EN 60529
Ambient temperature range	RMD module operation	–5 to +45 °C
	Storage/transportation	–25 to +70 °C
Mounting	RMD module	Snap-on to top hat rail
	Brightness sensor	Fixing bracket
Mounting orientation	any	
Dimensions (WxHxD)	RMD module	86 x 35.8 x 60 mm, 2 modules
	Brightness sensor	86 x 27 x 38 mm

Information

The brightness sensor 3gang is executed as a top hat rail mounted device, and controls switch and/or dim actuators dependent on the ambient light. The ambient light is detected by a supplied external brightness sensor.

Depending on application, the RMD module has multiple software-programmable transmission channels. In addition, by way of a lockout object any combination of transmission channels can be temporarily disabled.

Order data

Device colour
Light grey 7521 30 06

Switching, 3 limiting values

- Three separately programmable brightness limiting values (setting range: 1 to 10.000 lux) for three switching channels
- Switching response to infringement of lower and upper limiting values programmable
- Common setting of the three channels in terms of:
 - cyclic transmission time
 - delay
 - hysteresis
- Activation/deactivation of any combination of the three channels

Objects

4

Group addresses/assignments

maximum of 5 each

Switching, value transmitter, 4 brightness areas

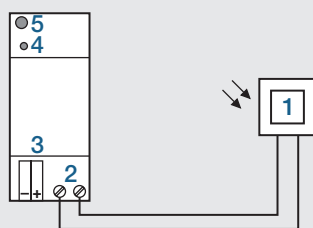
- Brightness sensor functions as a light-sensitive light scene module
- Setting range from 1 to 100 lux or 100 to 20.000 lux
- Definition of four brightness ranges based on three different brightness limiting values
Each brightness range is a light scene, comprising three switch objects and one value object
- Delay for the switch and value telegrams programmable for each brightness range
- Forced guidance of each scene object

Objects

5

Group addresses/assignments

maximum of 5 each



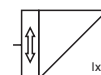
Key

1. Brightness sensor
2. Brightness sensor connection
3. Bus connection
4. Programming LED
5. Programming button

- Three switching channels
- Lockout facility for any combination of the three channels
- Separate brightness sensor for interior and exterior (supplied)



Brightness sensor 3gang RMD



ETS search path: Gebr. Berker >>
Physical sensors >> Brightness >>

Supply	via bus line	21–32 V DC
Inputs	Signal recognition	0 - 20.000 Lux
	Signal duration	Continuous
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
	Inputs	Clip-on terminal 0.25 - 0.75 mm ²
		Single-wire 2 m, non-extendable
Protection	Built-in module (decoder)	---
	Brightness sensor (receiver)	IP 20, EN 60529
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Built-in module (decoder)	Fixing holes in housing base
	Brightness sensor (receiver)	Fixing hole dia. 34 mm
Mounting orientation	Built-in module (decoder)	any
	Brightness sensor (receiver)	Vertical in ceiling
Dimensions (WxHxD)	Built-in module (decoder)	274.5 x 42 x 28 mm
	Brightness sensor (receiver)	26 x 25 x 77.4 mm

The brightness sensor 1gang comprises the KNX/EIB built-in device (decoder) and the separate brightness sensor (receiver).

The decoder evaluates the detected brightness value and, depending on application, controls the lighting over the instabus KNX/EIB with the corresponding dim up or dim down command.

Device colour
Light grey 7543 10 01

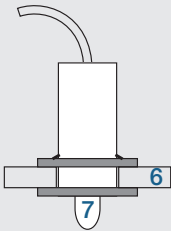
Applications

Calibration A00401	■ Only to calibrate brightness sensor during commissioning ■ Input of current brightness value to determine result of calibration	
Objects or group addresses/assignments	2	maximum of 2 each
Constant light regulation A00501	■ Transmission of 4-bit dimming telegrams to regulate the brightness target value ■ Comparison of current and set-point values by brightness sensor ■ Set-point value shift ■ Transmission of cyclic dimming telegrams to adjust to the desired brightness value	
Objects or group addresses/assignments	7	maximum of 15 each
Two position regulation A00601	■ Transmission of 1-bit telegram for on/off ■ Definition of 2 brightness limiting values for on/off ■ Definition of brightness limiting value as value transmitter (1-byte) ■ Comparison of current value and the two set-point values ■ Transmission of a switching telegram in event of continuous deviation; monitoring of lower limiting value for switch-on and of upper limiting value for switch-off.	
Objects or group addresses/assignments	4	maximum of 15 each
Send lux value A00701	■ Transmission of 2-byte EIS 5 telegrams	
Objects or group addresses/assignments	5	maximum of 18 each

Notes



Mounting configuration



- Key
- 1. Brightness sensor
 - 2. Brightness sensor connection
 - 3. Programming LED
 - 4. Programming button
 - 5. Bus connection
 - 6. Intermediate ceiling
 - 7. Brightness sensor

- Constant brightness control
- Limiting value control
- Separate brightness sensor for interior (supplied)



Brightness sensor
1gang built-in



ETS search path: Gebr. Berker >>
Physical sensors >> Brightness >>

Supply	via bus line	21–32 V DC
	Power consumption	< 150 mW
Measuring range	Brightness	0 to 100 kLux
	Temperature	Sensing angles: horizontal $\pm 60^\circ$, vertical -35 to $+65^\circ$ -25 to 55°C
Operation and display elements	Programming button	
	Programming LED	Red
Terminals	KNX/EIB	Terminals
Protection	IP 54, EN 60529	when mounted vertically with cover
Ambient temperature range	Operation	-25 to $+55^\circ\text{C}$
	Storage/transport	-25 to $+70^\circ\text{C}$
Mode of fixing	Surface-mounted on wall	Use installation bracket
Mounting orientation	vertical	See notes if installed south of latitude 47
Weight	approx. 140 g	
Dimensions (W x H x D)	72 x 110 x 54 mm	

The sensor senses brightness and temperature values. These values are sent as telegrams on the bus, e.g. so that they can be visually represented.

The sensor also is equipped with limit switches, which in response to the brightness, temperature and a combination of brightness and temperature (shade) control the activation of switch, dimmer and shutter actuators. These can be linked for instance to control of awnings, winter gardens and greenhouses.

Constant light control can be achieved by using the sensor in conjunction with a dimmer actuator.

Device colour
White 7549 20 01

Sensor for brightness and temperature

- Sends brightness and temperature values cyclically or when they change
- Send parameters configurable
- Brightness and temperature limit values can be selected in fine gradations within the measuring range
- Brightness-dependent switching and valuator device (up to 3 brightness limit values programmable)
- Temperature-dependent switching and valuator device (up to 2 temperature limit values programmable)
- Combined evaluation of brightness and temperature (up to 2 shading objects configurable)
- Switching dependent on configurable hysteresis
- Compensation value for temperature sensing configurable
- Brightness control to a set brightness level using a dimmer actuator (constant light control)
- Locking out functions by object

Objects	10
Group addresses/assignments	maximum of 15 each

Selection of mounting location

Please note the following:

- Direct sunlight can affect the temperature reading.
- A dirty cover will affect the brightness reading. Whenever possible, select a mounting position where the sensor is not exposed to dirt.
- If installed south of latitude 47, due to the height of the sun the device in some circumstances should be tilted slightly upwards,

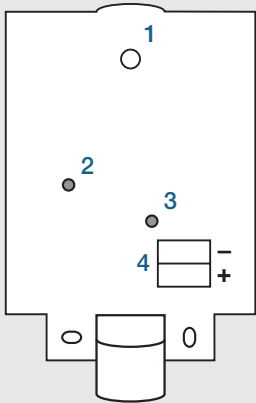
in order to obtain a correct brightness reading (refer to documentation).

Care

To remove dirt, clean the cover occasionally with a damp cloth.

Key

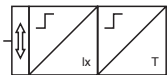
1. Sensor aperture
2. Programming LED
3. Programming button
4. Bus connection



- Sensing ambient brightness and temperature
- Activation of switch, dimmer or shutter actuators
- Brightness and temperature-dependent switching and valuator device
- Several limit switches for brightness, temperature and shading
- Constant light control
- Surface-mounted device for external mounting



Brightness and temperature sensor



ETS search path: Gebr. Berker >> Physical sensors >> Brightness/temperature>>

Supply	via bus line	21–32 V DC
Inputs	4 Signal voltage „0“ signal „1“ signal Signal current Signal duration Power consumption per channel Length of input cable	110 - 230 V AC, $\pm 10\%$, 50 to 60 Hz 0 - 70 V AC > 90 V AC approx. 7 mA at 230 V AC per input $T_{min} = 200$ ms at pulse-pause ratio 1:1 approx. 1,6 VA at 230 V AC per input max. 100 m (unshielded)
Behaviour on power failure/restoration	Bus power failure Bus power failure Bus and mains power failure Bus power restoration Mains power restoration Bus and mains power restoration	--- falling edge detected, software-dependent --- Software-dependent Rising edge detected, software-dependent Software-dependent
Operation and display elements	Programming button Programming LED 4 status LEDs	Red Yellow
Terminals	KNX/EIB Inputs	Terminals Terminals with wire protection: 0.75–4 mm ² solid, 0.75–4 mm ² fine wire without end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Snap-on to top hat rail	
Mounting orientation	any	
Dimensions (WxHxD)	35 x 90 x 58 mm	2 modules

The binary input 4gang is executed as a top hat rail mounted device. It detects the presence of or change in the 230 V voltage signals at its input terminals (e.g. from conventional switches, auxiliary contacts, door and window contacts) and, depending on the chosen programming, sends telegrams over the instabus KNX/EIB. The four inputs can be assigned different functions independently of each other. Each input is provided with an LED, which indicates the status of the associated contact. Inputs can be individually locked out.

Device colour
Light grey 7521 40 08

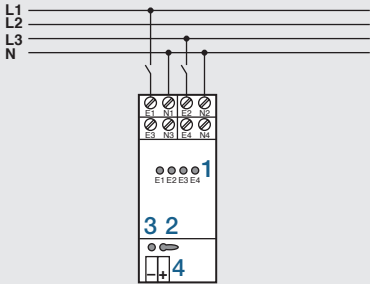
Applications

Universal input 705501	<ul style="list-style-type: none">■ Free assignment of the functions switch, dim, shutter, value transmitter to the four 4 inputs■ Locking out the individual inputs using object■ Delay on bus power restoration and de-bounce time centrally configurable■ Behaviour on bus power restoration configurable separately for each input■ Telegram rate limitation configurable globally for all inputs■ Free assignment of the functions “pulse counter” and “switching counter” to inputs 1 and 2 (if “pulse counter”, inputs 3, 4 then reserved for synchronising signal)	
Switching	<ul style="list-style-type: none">■ Two independent switch objects for each input enabled individually■ Command independently configurable on rising or falling edge (ON, OFF, TOGGLE, no function)■ Independent cyclical transmission of the switched object can be selected to be dependent on the signal edge or dependent on the object value	
Dimming	<ul style="list-style-type: none">■ Single surface or two-surface operation possible■ Time between dimmer and switch function and dimming step width configurable■ Optional telegram repetition and transmission of a stop telegram	
Shutter	<ul style="list-style-type: none">■ Command configurable on rising edge (UP, DOWN, TOGGLE, no function)■ Operating concept parameterizable (step and move operation)■ Slat adjustment time configurable	
Value transmitters	<ul style="list-style-type: none">■ Function as dimmer value transmitter, light scene retrieval, temperature value transmitter, brightness value transmitter■ Edge (button as normally-open, button as normally-closed, switches) and value at edge configurable■ Values can be set using the button by pressing the button for a long period■ Light scene extension units with memory function allow the scene to be saved without previously retrieving it	
Objects or group addresses/assignments	12	maximal 26/maximal 27

Notes

IMPORTANT

The reference potential N must be connected separately for each input.
Different phases can be connected.

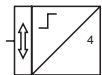


- Key
- 1. Status LED
 - 2. Programming button
 - 3. Programming LED
 - 4. Bus connection

- Four independent 230 V AC inputs
- Different phases can be connected
- Simultaneous application of signal voltage to all inputs
- Four status LEDs to indicate input states



Binary input 4gang
230 V AC RMD



ETS search path: Gebr. Berker >> Inputs >>
Binary input, 4gang >>

Supply	via bus line	21–32 V DC
Inputs	6 Signal voltage “0” signal “1” signal Signal current Signal duration Power consumption per channel Length of input cable	8–42 V AC/DC, 50 to 60 Hz 0 to 1.8 V AC, -42 to 1.8 V DC > 8 V AC/DC approx. 4 mA at 24 V AC/DC per input $T_{min} = 200$ ms at pulse-pause ratio 1:1 approx. 100 mW at 24 V AC/DC per input max. 100 m (unshielded)
Behaviour on power failure/restoration	Bus power failure Bus power failure Bus and mains power failure Bus power restoration Mains power restoration Bus and mains power restoration	--- falling edge detected, software-dependent --- Software-dependent Rising edge detected, software-dependent Software-dependent
Operation and display elements	Programming button Programming LED 6 status LEDs	red yellow
Terminals	KNX/EIB Inputs	Terminals Terminals with wire protection: 0.75–4 mm ² solid, 0.75–4 mm ² fine wire without end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Snap-on to top hat rail	
Mounting orientation	any	
Dimensions (WxHxD)	35 x 90 x 58 mm	2 modules

The binary input 6gang is executed as a top hat rail mounted device. It detects the presence of or change in the 24 V voltage signals at its input terminals (e.g. from conventional switches, auxiliary contacts, door and window contacts) and, depending on the chosen programming, sends telegrams over the instabus KNX/EIB. The six inputs can be assigned different functions independently of each other. Each input is provided with an LED, which indicates the status of the associated contact. Inputs can be individually locked out.

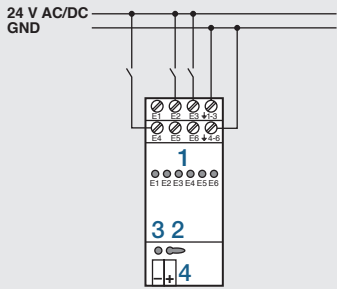
Device colour
Light grey 7521 60 01

Applications

Universal input 705601	<ul style="list-style-type: none">Free assignment of the functions switch, dim, shutter, value transmitter to the four 6 inputsLocking out the individual inputs using objectDelay on bus power restoration and de-bounce time centrally configurableBehaviour on bus power restoration configurable separately for each inputTelegram rate limitation configurable globally for all inputsFree assignment of the functions "pulse counter" and "switching counter" to inputs 1 and 2 (if "pulse counter", inputs 3, 4 then reserved for synchronising signal)
Switching	<ul style="list-style-type: none">Two independent switch objects for each input enabled individuallyCommand independently configurable on rising or falling edge (ON, OFF, TOGGLE, no function)Independent cyclical transmission of the switched object can be selected to be dependent on the signal edge or dependent on the object value
Dimming	<ul style="list-style-type: none">Single surface or two-surface operation possibleTime between dimmer and switch function and dimming step width configurableOptional telegram repetition and transmission of a stop telegram
Shutter	<ul style="list-style-type: none">Command configurable on rising edge (UP, DOWN, TOGGLE, no function)Operating concept parameterizable (step and move operation)Slat adjustment time configurable
Value transmitters	<ul style="list-style-type: none">Function as dimmer value transmitter, light scene retrieval, temperature value transmitter, brightness value transmitterEdge (button as normally-open, button as normally-closed, switches) and value at edge configurableValues can be set using the button by pressing the button for a long periodLight scene extension units with memory function allow the scene to be saved without previously retrieving it
Objects or group addresses/assignments	18maximal 26/maximal 27

Notes

IMPORTANT
Inputs 1–3 and 4–6 each have a common reference potential.



- Key
- 1. Status LED
 - 2. Programming button
 - 3. Programming LED
 - 4. Bus connection

- Six independent 24 V AC/DC inputs
- A separate reference potential (GND) for each three inputs
- Simultaneous application of signal voltage to all inputs
- Six status LEDs to indicate input states



Binary input 6gang 24 V AC/DC RMD



ETS search path: Gebr. Berker >> Inputs >>
Binary input, 6gang >>

Supply	via bus line	21–32 V DC
Inputs	8 Signal voltage “0” signal “1” signal Signal current Signal duration Power consumption per channel Length of input cable	110–230 V AC, $\pm 10\%$, 50 to 60 Hz 0–70 V AC > 90 V AC approx. 7 mA at 230 V AC per input $T_{min} = 200$ ms at pulse-pause ratio 1:1 approx. 1.6 VA at 230 V AC per input max. 100 m (unshielded)
Behaviour on power failure/restoration	Bus power failure Bus power failure Bus and mains power failure Bus power restoration Mains power restoration Bus and mains power restoration	--- falling edge detected, software-dependent --- Software-dependent Rising edge detected, software-dependent Software-dependent
Operation and display elements	Programming button Programming LED 8 status LEDs	red yellow
Terminals	KNX/EIB Inputs	Terminals Terminals with wire protection: 0.75–4 mm ² solid, 0.75–4 mm ² fine wire without end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Snap-on to top hat rail	
Mounting orientation	any	
Dimensions (WxHxD)	70 x 90 x 58 mm	4 modules

The binary input 8gang is executed as a top hat rail mounted device. It detects the presence of or change in the 230 V voltage signals at its input terminals (e.g. from conventional switches, auxiliary contacts, door and window contacts) and, depending on the chosen programming, sends telegrams over the instabus KNX/EIB. The eight inputs can be assigned different functions independently of each other. Each input is provided with an LED, which indicates the status of the associated contact. Inputs can be individually locked out.

Device colour
Light grey 7521 80 01

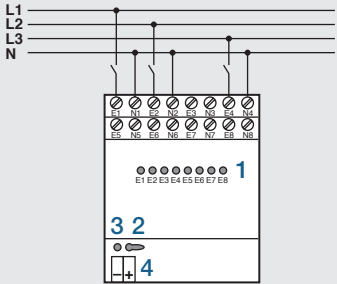
Applications

Universal input 705401	<ul style="list-style-type: none">■ Free assignment of the functions switch, dim, shutter, value transmitter to the four 4 inputs■ Locking out the individual inputs using object■ Delay on bus power restoration and de-bounce time centrally configurable■ Behaviour on bus power restoration configurable separately for each input■ Telegram rate limitation configurable globally for all inputs■ Free assignment of the functions “pulse counter” and “switching counter” to inputs 1 and 2 (if “pulse counter”, inputs 3, 4 then reserved for synchronising signal)	
Switching	<ul style="list-style-type: none">■ Two independent switch objects for each input enabled individually■ Command independently configurable on rising or falling edge (ON, OFF, TOGGLE, no function)■ Independent cyclical transmission of the switched object can be selected to be dependent on the signal edge or dependent on the object value	
Dimming	<ul style="list-style-type: none">■ Single surface or two-surface operation possible■ Time between dimmer and switch function and dimming step width configurable■ Optional telegram repetition and transmission of a stop telegram	
Shutter	<ul style="list-style-type: none">■ Command configurable on rising edge (UP, DOWN, TOGGLE, no function)■ Operating concept parameterizable (step and move operation)■ Slat adjustment time configurable	
Value transmitters	<ul style="list-style-type: none">■ Function as dimmer value transmitter, light scene retrieval, temperature value transmitter, brightness value transmitter■ Edge (button as normally-open, button as normally-closed, switches) and value at edge configurable■ Values can be set using the button by pressing the button for a long period■ Light scene extension units with memory function allow the scene to be saved without previously retrieving it	
Objects or group addresses/assignments	24	maximal 26/maximal 27

Notes

IMPORTANT

The reference potential N must be connected separately for each input.
Different phases can be connected.



Key

- 1. Status LED
- 2. Programming button
- 3. Programming LED
- 4. Bus connection

- Eight independent 230 V AC inputs
- Different phases can be connected
- Simultaneous application of signal voltage to all inputs
- Eight status LEDs to indicate input states



Binary input 8gang
230 V RMD



ETS search path: Gebr. Berker >> Input >>
Binary input, 8gang >>

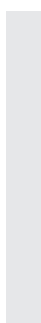
Supply	via bus line	21–32 V DC
	Power consumption	typ. 150 mW
Inputs	Number	max. 2
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0,8 mA
	Parallel circuit	in total 1.5 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Response to power failure/restoration	Bus power failure	no response (outputs switch off)
	Mains power failure	---
	Bus and mains power failure	---
	Bus power restoration	programmable for inputs and outputs
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminals
	Inputs/outputs	Pre-assembled connecting cables
Protection	IP 20, EN 60529	
	Protection class	III
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Assembly	e.g. deep flush-mounted box	diameter 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	43 x 28,5 x 15,5 mm	

The universal interface 2gang comfort is designed as a flush-mounted device and has two independent channels. This means that the push-button interface can read in two push-button/switching statuses potential-free at a common reference potential and transit the appropriate telegrams to the instabus.

If programmed appropriately, the channels can also operate as independent outputs and control LEDs as status LEDs for example. To raise the output current (cf. technical data), these channels can also be connected in parallel if they have the same parameters.

The outputs are short-circuit-proof, and protected against overload and polarity reversal.

Device colour
Light grey 7564 20 01



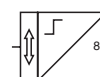
Applications	2 inputs, 2 outputs 705801	
	General	<ul style="list-style-type: none"> ■ Free assignment of the switch, dim, shutter and value transmitter functions to the max. two inputs ■ Free assignment of the "Pulse meter" and "Switching Meter" functions to inputs 1 and 2 ■ Blocking object for blocking individual inputs (polarity of the blocking object is programmable) ■ Delay in event of bus power restoration and de-bounce time centrally programmable ■ Response to bus power restoration programmable separately for each input ■ Telegram rate limitation programmable globally for all inputs
	Switching function	<ul style="list-style-type: none"> ■ Two independent switching objects available for every input ■ Command in event of rising or falling flank independently programmable (ON, OFF, TOGGLE, no function) ■ Cyclical transmission of the switching objects programmable
	Dimming function	<ul style="list-style-type: none"> ■ Single surface and two-surface operation possible ■ Time between dimmer and switch function and dimming step width programmable ■ Telegram repetition and Stop telegram transmission possible
	Shutter function	<ul style="list-style-type: none"> ■ Command in event of rising edge (UP, DOWN, TOGGLE) and switchover time between step and move operation programmable ■ Operating concept programmable ■ Operation period for lamella shutter adjustment programmable
	Value, temperature and brightness value transmitter function and light scene extension	<ul style="list-style-type: none"> ■ Edge (button as normally-open, button as normally-closed, switches) and value at edge programmable ■ Value can be changed by pressing and holding the push-button
	Outputs	<ul style="list-style-type: none"> ■ Independent outputs programmable as NO (normally open) or NC (normally closed) contacts ■ Preferred location programmable on restoration of bus voltage ■ One switching status report and one additional function possible for each output ■ Programmable additional functions: <ul style="list-style-type: none"> logic operation function with three logical parameters, lock-out / forced positioning function ■ On and/or Off delay or time switch function programmable for each output separately ■ Flashing output signal programmable (flashing frequency in three stages)
	Objects	24
	Group addresses/assignments	26/27

Continued on next double page ►

- Assembly possible in a deep flush-mounted box behind installation switches
- 2 potential-free inputs
- Channels can be used as outputs
- Input and output functions can be combined
- Short-circuit-proof
- Reverse polarity protection



Universal interface 2gang comfort flush-mounted



ETS search path: Gebr. Berker >> Input >>
Universal >>



Notes

IMPORTANT

Only connect potential-free switches and push-buttons.

Hardware

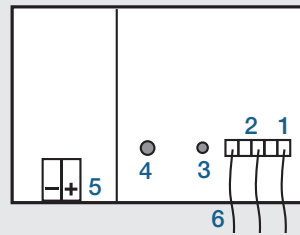
To avoid electromagnetic disturbance, the cables of the inputs should not be laid parallel to live cables carrying mains power.

The connection of 230 V-signals or other external voltages to the inputs is not permitted.

The voltage potentials of the connecting cables for the contacts and the LED are not electrically isolated from the bus voltage.

Connection diagrams/terminal assignment

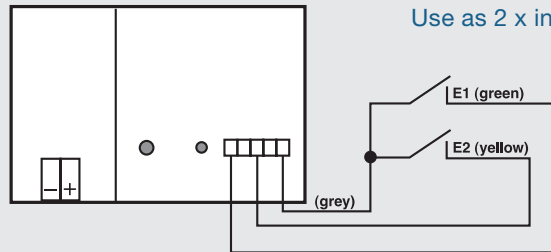
The colour of the cable for the reference potential is grey.



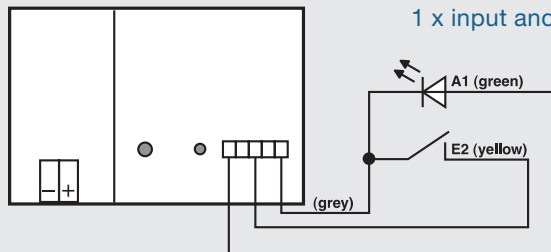
Key

1. Reference potential (grey)
2. Channels 1 and 2
3. Programming LED
4. Programming button
5. Bus connection
6. Connecting cables

Use as 2 x inputs



1 x input and 1 x output



**Universal interface
2gang comfort
flush-mounted**

Supply	via bus line	21–32 V DC
	Power consumption	typ. 150 mW
Inputs	Number	max. 4
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0,8 mA
	Parallel circuit	in total 1.5 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Response to power failure/restoration	Bus power failure	no response (outputs switch off)
	Mains power failure	---
	Bus and mains power failure	---
	Bus power restoration	programmable for inputs and outputs
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminals
	Inputs/outputs	Pre-assembled connecting cables
Protection	IP 20, EN 60529	
	Protection class	III
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Assembly	e.g. deep flush-mounted box	diameter 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	43 x 28,5 x 15,5 mm	

The universal interface 4gang comfort is designed as a flush-mounted device and has four independent channels. This means that the push-button interface can read in up to four push-button / switching statuses potential-free at a common reference potential and transit the appropriate telegrams to the instabus.

If programmed appropriately, channels 1 and 2 can also operate as independent outputs and activate LEDs as status LEDs for example. To raise the output current (cf. technical data), these channels can also be connected in parallel if they have the same parameters.

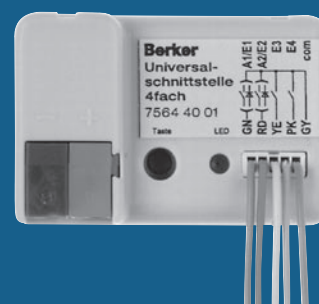
The outputs are short-circuit-proof, and protected against overload and polarity reversal.

Device colour
Light grey 7564 40 01

Applications	4 inputs, 2 outputs 705701	
	General	<ul style="list-style-type: none"> ■ Free assignment of the switch, dim, shutter and value transmitter functions to the max. four inputs ■ Free assignment of the „Pulse meter“ and „Switching Meter“ functions to inputs 1 and 2 ■ Blocking object for blocking individual inputs (polarity of the blocking object is programmable) ■ Delay in event of bus power restoration and de-bounce time centrally programmable ■ Response to bus power restoration programmable separately for each input ■ Telegram rate limitation programmable globally for all inputs
	Switching function	<ul style="list-style-type: none"> ■ Two independent switching objects available for every input ■ Command in event of rising or falling flank independently programmable (ON, OFF, TOGGLE, no function) ■ Cyclical transmission of the switching objects programmable
	Dimming function	<ul style="list-style-type: none"> ■ Single surface and two-surface operation possible ■ Time between dimmer and switch function and dimming step width programmable ■ Telegram repetition and Stop telegram transmission possible
	Shutter function	<ul style="list-style-type: none"> ■ Command in event of rising edge (UP, DOWN, TOGGLE) and switchover time between step and move operation programmable ■ Operating concept programmable ■ Operation period for lamella shutter adjustment programmable
	Value, temperature and brightness transmitter function and light scene extension	<ul style="list-style-type: none"> ■ Edge (button as normally-open, button as normally-closed, switches) and value at edge programmable ■ Value can be changed by pressing and holding the push-button
	Outputs	<ul style="list-style-type: none"> ■ Independent outputs programmable as NO (normally open) or NC (normally closed) contacts ■ Preferred location programmable on restoration of bus voltage ■ One switching status report and one additional function possible for each output ■ Programmable additional functions: <ul style="list-style-type: none"> logic operation function with three logical parameters, lock-out / forced positioning function ■ On and/or Off delay or time switch function programmable for each output separately ■ Flashing output signal programmable (flashing frequency in three stages)
	Objects	24
	Group addresses/assignments	26/27

Continued on next double page ►

- Assembly possible in a deep flush-mounted box behind installation switches
- Four potential-free inputs
- Channels 1 and 2 can be used as outputs
- Input and output functions can be combined
- Short-circuit-proof
- Reverse polarity protection



Universal interface 4gang comfort flush-mounted



ETS search path: Gebr. Berker >> Input >>
Universal >>



Notes

IMPORTANT

Only connect potential-free switches and push-buttons.

Hardware

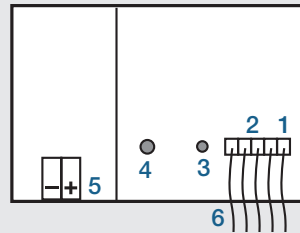
To avoid electromagnetic disturbance, the cables of the inputs should not be laid parallel to live cables carrying mains power.

The connection of 230 V-signals or other external voltages to the inputs is not permitted.

The voltage potentials of the connecting cables for the contacts and the LED are not electrically isolated from the bus voltage.

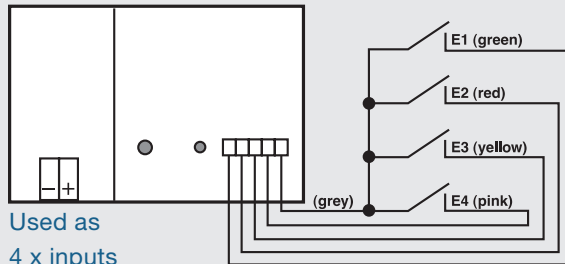
Connection diagrams/terminal assignment

The colour of the cable for the reference potential is grey.

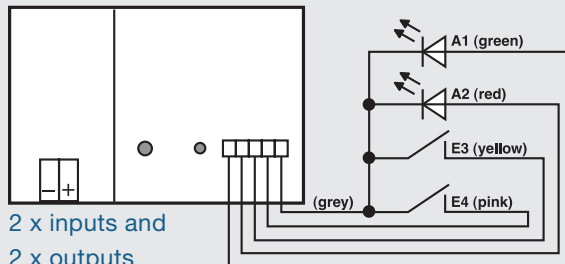


Key

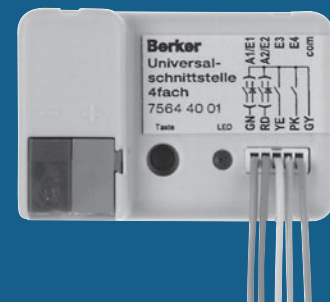
1. Reference potential (grey)
2. Channels 1 to 4
3. Programming LED
4. Programming button
5. Bus connection
6. Connecting cables



Used as
4 x inputs



2 x inputs and
2 x outputs



**Universal interface
4gang comfort
flush-mounted**

Supply	via bus line	21–32 V DC
Inputs	Number	max. 8/4 (depending on application)
	Cable length	≥ 10 m
	Scanning voltage	20 V pulses, 2 ms long, cyclic every 60 ms
Outputs	Number	max. 8/4 (depending on application)
	Cable length	10 m
	Output current	0.8 mA (constant) each output
Response to power failure/restoration	Bus power failure	No response
	Mains power failure	---
	Bus power restoration	All object values of the outputs are cleared
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
	Inputs/outputs	2 x 5-pin screw-terminal connector blocks
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	e.g. deep UP socket	Diameter 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	44 x 48 x 32 mm	

The universal interface comfort 8gang is executed as a flush-mounted device. It has eight channels which, depending on the loaded application, operate all as inputs or outputs or as a combination of the two (four inputs/four outputs).

The device can operate up to eight LEDs, for example, by way of its independent outputs, or poll up to eight potential-free push-buttons via its inputs and send telegrams over the instabus KNX/EIB accordingly. The outputs are short-circuit-proof, and protected against overload and polarity reversal.

To avoid electromagnetic disturbance, the cables of the inputs should not be laid parallel to live cables carrying mains power.

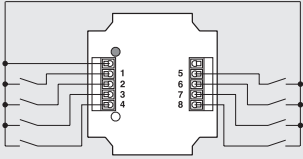
Interference voltages must not be connected to the inputs.

Device colour	
Black	7564 80 01

Applications	General features		<ul style="list-style-type: none"> Free assignment of the Switching/Toggle, Dimming, Shutter, Value transmitter/light scene extension, Forced guidance and Control functions
	Switching/toggle function		<ul style="list-style-type: none"> Command programmable on rising or falling edge (ON, OFF, TOGGLE, no function) Cyclic transmission
	Dimming function		<ul style="list-style-type: none"> Single or two-area (one push-button or two push-buttons) operation programmable Switchover time between dimmer and switch function and dimming step width programmable Telegram repetition and transmission of a stop telegram
	Shutter function		<ul style="list-style-type: none"> Touch function (UP, DOWN) and switchover time between step and move operation programmable Operation period for shutter lamella adjustment programmable
	Value transmitter/light scene extension function		<ul style="list-style-type: none"> Switch between 1-byte value transmitter or light scene retrieval with/without memory function programmable Value adjustment by "long button press" programmable
	Forced guidance function		<ul style="list-style-type: none"> Command programmable on rising and falling edge
4 inputs 4 outputs, 8 outputs 704001		<ul style="list-style-type: none"> Maximum of 8 outputs usable for status/operating indication via LED 	
	Objects or group addresses/assignments	18	maximum of 26 each
8 inputs 704101		<ul style="list-style-type: none"> Eight potential-free binary inputs 4-digit level switch code freely selectable 	<ul style="list-style-type: none"> 2 user levels programmable
	Objects or group addresses/assignments	18	maximum of 26 each

IMPORTANT

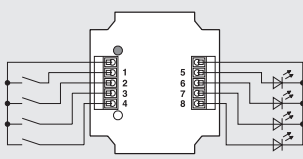
Connect only potential-free switches and push-buttons!



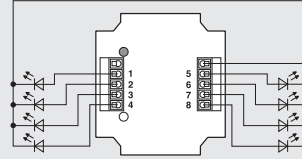
8 inputs

IMPORTANT

Connect only potential-free switches and push-buttons. Pay attention to reference potentials of the inputs and outputs!



4 inputs and 4 outputs



8 outputs

- Inputs potential-free
- Optionally programmable
 - Eight inputs
 - Four inputs and 4 outputs
 - Eight outputs
- Short-circuit-proof
- Reverse polarity protection



Universal interface 8gang comfort flush-mounted



ETS search path: Gebr. Berker >> Input >> Binary input universal >>

Supply	via bus line	21–32 V DC
Timer	Channels	2
	Memory locations	36
	Automatic program	Day and week program
	Special program	Interruption of automatic program from 1 to 99 days
	Shortest switching interval	1 minute
	Switching accuracy	1 second
	Summer/Winter time switching	automatic
	Accuracy	< 1s per day at 20 °C
	Reserve	> 6 years with indicator
	Manual operation	Temporary/permanent manual operation
Display	LCD display	
Operation and display elements	7 jog buttons	Time setting, program input and 2 hand switches
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	35.8 x 45 x 60 mm	2 modules

The time switch (weekly) 2gang is a top hat rail mounted device with integral bus coupling unit. The connection to the KNX/EIB is made via a terminal.

The timer offers 36 switching times, programmable by customized block formation on one day, several days or every day of the week.

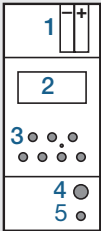
Ex factory the device is preprogrammed with the current time and for automatic Summer/Winter time switching (according to Central European practice). If a different time configuration, or no time switching, is required, the setup can be reprogrammed as set out in the operating instructions.

Device colour	
Light grey	7521 20 06

Applications

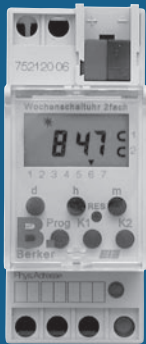
Switching, value transmitter, forced guidance	<div>■ Selection of telegram type for the two channels as follows:<ul style="list-style-type: none">– Switching telegram (1-bit)– Forced guidance telegram (2-bit)– Value telegram (8-bit)– Cyclic transmission</div> <div>■ Implementation of one scene per channel with up to four different telegram types</div> <div>In this way, different types of actuators or actuator groups (switch/dim/shutter actuators) can be operated at one switching time.</div> <div>■ “Lock object” (telegram suppression) programmable for each channel</div>
Objects	9
Group addresses/assignments	maximum of 11 each

Notes



- Key
- 1. Bus connection
 - 2. Display
 - 3. User buttons
 - 4. Programming button
 - 5. Programming LED

- Two independent channels
- Switching, value and forced guidance telegrams
- Time preprogrammed
- Automatic Summer/Winter time switching
- Transmission of up to four telegrams per channel
- Storage of 36 switching times



Time switch (weekly)
2gang RMD



ETS search path: Gebr. Berker >> Timer >> Time switch >>

Supply	via bus line	21–32 V DC
Timer	Channels	4
	Memory locations	324
	Automatic program	Day, week and year program
	Special program	9 priority programs
		Public holiday programs
	Shortest switching interval	1 minute
	Switching accuracy	1 second
	Summer/Winter time switching	automatic
	Accuracy	< 1sec/day
	Reserve	> 1.5 years with indication
	Manual operation	Temporary/permanent manual operation
Display	LCD display	
Operation and display elements	15 jog buttons	Time setting, program input and 2 hand switches
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	105 x 45 x 60 mm	6 modules

The time switch (annual) 4gang is a top hat rail mounted device. The connection to the instabus KNX/EIB is made via a terminal.

The time switch offers 324 switching times for selectable day, week and date commands, pulse commands, priority switching times, as well as one-off configurations for public holidays and vacation periods. For each channel, in addition to the standard week program nine further week programs with priority levels P1 to P9 and time-limited continuous operation can be programmed. The period covered by a priority program is defined by input of a start and end date.

The OBELISK memory card is programmed by means of the programming set. After programming, the memory card is slotted into the time switch (annual) and all relevant data are then transferred.

Ex factory the device is preprogrammed with the current time and for automatic Summer/Winter time switching.

Device colour		Accessories	
Light grey	7521 40 07	Programming set for OBELISK.....	7590 00 48
		OBELISK memory card	7590 00 49

Switching, value transmitter, forced guidance

■ Selection of telegram type for the four channels as follows:

- Switching telegram (1-bit)
- Forced guidance telegram (2-bit)
- Value telegram (8-bit)
- Cyclic transmission

■ With channel 4 implementation of a scene with up to four different telegram types possible
In this way, different types of actuators or actuator groups (switch/dim/shutter actuators) can be operated at one switching time.

Objects

8

Group addresses/assignments

maximum of 10 each

Switching, value transmitter, time and date transmission

■ see description of the next product

Switching, value transmitter, time and date reception

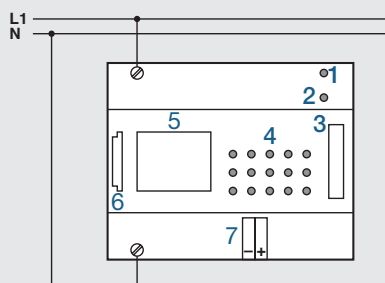
■ see description of the next product

IMPORTANT

The applications of the time switch (annual) 4gang DCF (next product 7521 40 06) are used!



OBELISK memory card



Key

1. Programming LED
2. Programming button
3. Emergency power battery
4. User buttons
5. Display
6. OBELISK slot
7. Bus connection

- Four independent channels
- Switching, value and forced guidance telegrams
- Summer/Winter time switching
- 324 switching times
- Nine priority programs
- Random functions
- Setting of switching times by programming set possible
- Transfer to time switch by OBELISK memory card



Programming set for OBELISK



Time switch (annual) 4gang RMD



ETS search path: Gebr. Berker >> Timer >>
Time switch >>

Supply	via bus line	21–32 V DC
Timer	Channels	4
	Memory locations	324
	Automatic program	Day, week and year program
	Special program	9 priority programs
		Public holiday programs
	Shortest switching interval	1 minute
	Switching accuracy	1 second
	Summer/Winter time switching	automatic
	Accuracy	< 1sec/day or radio-controlled
	Reserve	> 1.5 years with indication
	Manual operation	Temporary/permanent manual operation
Display	LCD display	
Inputs	DCF receiver	
Operation and display elements	15 jog buttons	Time setting, program input and 2 hand switches
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	105 x 86 x 60 mm	6 modules

Continued on next double page ►

The time switch (annual) 4gang is a top hat rail mounted device. The connection to the instabus KNX/EIB is made via a terminal.

The device switch is prepared for connection of the DCF receiver.

The time switch offers 324 switching times for selectable day, week and date commands, pulse commands, priority switching times, as well as one-off configurations for public holidays and vacation periods. For each channel, in addition to the standard week program nine further week programs with priority levels P1 to P9 and time-limited continuous operation can be programmed. The period covered by a priority program is defined by input of a start and end date.

The OBELISK memory card is programmed by means of the programming set. After programming, the memory card is slotted into the time switch (annual) and all relevant data are then transferred.

The device is preprogrammed with the current time and for automatic Summer/Winter time switching.

Device colour		Accessories	
Light grey	7521 40 06	DCF receiver	7590 00 47
		Programming set for OBELISK	7590 00 48
		OBELISK memory card	7590 00 49

Applications

Switching, value transmitter, forced guidance	<div>■ Selection of telegram type for the four channels as follows:<ul style="list-style-type: none">– Switching telegram (1-bit)– Forced guidance telegram (2-bit)– Value telegram (8-bit)– Cyclic transmission</div> <div>■ With channel 4 implementation of a scene with up to four different telegram types possible In this way, different types of actuators or actuator groups (switch/dim/shutter actuators) can be operated at one switching time.</div>
Objects	8
Group addresses/assignments	maximum of 10 each

Switching, value transmitter, time and date transmission	<div>■ Selection of telegram type for the four channels as follows:<ul style="list-style-type: none">– Switching telegram (1-bit)– Forced guidance telegram (2-bit)</div>
--	--

Continued on next double page ►

Notes



DCF receiver

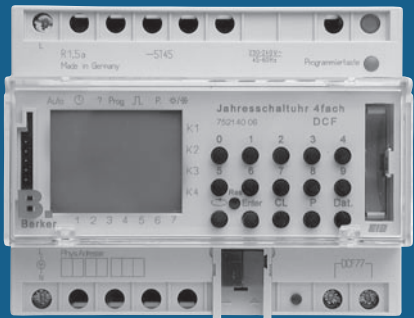


Programming set for OBELISK

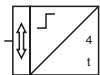


OBELISK memory card

- Four independent channels
- Switching, value and forced guidance telegrams
- Summer/Winter time switching
- 324 non-erasable switching times
- Nine priority programs
- Random functions
- Connection for DCF receiver
- Setting of switching times by programming set possible
- Transfer to time switch by OBELISK memory card



**Time switch (annual)
4gang DCF RMD**



ETS search path: Gebr. Berker >> Timer >>
Time switch >>

Technical data

DCF receiver		
Supply	via time switch (annual) 4gang DCF	
Display	Function LED	Flashing once per second
Outputs	DCF 77	
	Connecting cable	e.g. NYM 3 x 1.5 mm ² , max. 100 m
Reception range	1500 km around Frankfurt/Main, Germany	
Protection	IP 54, EN 60529	
Ambient temperature range	Operation	-20 to +70 °C
	Storage/transportation	-25 to +70 °C
Mounting	Surface-mounted	Wall bracket, screw fixing (supplied)
Mounting orientation	Arrow pointing toward Frankfurt/Main, Germany	
Dimensions (WxHxD)	98 x 64 x 34 mm	

Information

Mount the DCF receiver with the supplied mounting bracket at a location which permits it to be simply aligned toward Frankfurt/Main, Germany.

In selection of the mounting location, avoid close proximity to TV sets, power packs, radio signal transmitters or large metallic objects.

Connect the DCF receiver's lead to the screw terminals provided (see diagram at right, item 7). When you activate the year timer, the reception LED assigned to the DCF receiver begins to flash. Align the DCF receiver so it flashes at a frequency of once per second.

Applications

Switching, value transmitter, time and date transmission (continued)

- Dimmer/value telegram (8-bit)
- Cyclic transmission
- Transmission of date and time per minute, per hour, per day or on request

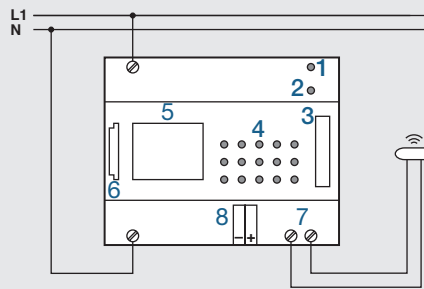
Objects	7
Group addresses/assignments	maximum of 8 each

Switching, value transmitter, temperature, time and date reception

- Selection of telegram type for the four channels as follows:
- Switching telegram (1-bit)
 - Forced guidance telegram (2-bit)
 - Dimmer/value telegram (8-bit)
 - Temperature telegram (16-bit)
 - Any telegram in EIS 5 format (16-bit)
 - Cyclic transmission
 - Synchronization/setting of time by reception of time and date telegram

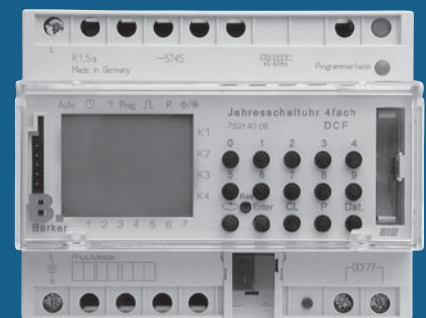
Objects	6
Group addresses/assignments	maximum of 8 each

Notes



Key

1. Programming LED
2. Programming button
3. Emergency power battery
4. User buttons
5. Display
6. OBELISK slot
7. DCF receiver connection
8. Bus connection



**Time switch (annual)
4gang DCF RMD**

Supply	via bus line	21–32 V DC
Input	DCF receivers	Max. cable length 100 m
Clock	Internal quartz time basis Time deviation Power reserve	1 s/d without DCF 10 years (lithium battery)
Operation and display elements	Programming button Programming LED DCF status LED	red red
Connections	KNX/EIB Input	Connecting terminal Screw terminal with wire protection
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-10 to +50 °C -25 to +70 °C
Installation	Snap onto top hat rail	
Mounting orientation	as desired	
Dimensions (W x H x D)	36 x 90 x 66 mm	2 modules

The time transmitter RMD is designed as a top hat rail mounted device.

The time transmitter has a quartz movement and transmits the time and date to the bus. Either the time can be set via the bus or it can be synchronised with the DCF signal. The time transmitter has an automatic summer/winter time change-over that can also be switched off. This way the time transmitter is also suitable for use as a clock for shade systems with sun level calculation.

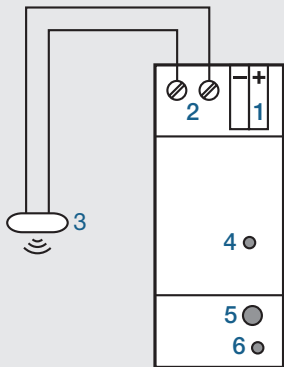
Device colour		Accessories	
Light grey	7591 00 02	DCF receivers.....	7590 00 47

Time transmitter RMD V1.0		<ul style="list-style-type: none">■ Transmission of time and date only on request or cyclically (interval adjustable)■ Time zone for summer/winter time change-over can be adjusted flexibly■ Time correction for quartz time adjustable■ Rules for summer time change-over can be adjusted by the user■ Time and the date object can be read out directly, e. g. via display
Objects	3	
Group addresses/assignments	maximum 8 each	

The time is set at the factory, and the time transmitter is thus ready for operation immediately once the group addresses are assigned.

Use poled DCF receiver. The connecting terminals are labelled with + and –.

Information about DCF receiver on the previous double page.

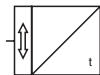


- Key**
- 1. Bus connection
 - 2. DCF receiver connection
 - 3. DCF receiver
 - 4. DCF status LED
 - 5. Programming button
 - 6. Programming LED

- Either Quartz operation or synchronisation with DCF77 time signal
- Connection for DCF receiver
- Status LED for DCF reception
- Integral lithium cell for power reserve



Time transmitter RMD



ETS search path: Gebr. Berker >> Timer >> Time transmitter >>

Supply	via bus line	21–32 V DC
Auxiliary voltage	24 V AC \pm 10 %	SELV
	Current input	max. 250 mA
Inputs	Sensor inputs	4
	Current	0–20 mA, 4–20 mA
	Voltage	0–1 V, 0–10 V
	Input resistance	Voltage measurement approx. 18 kOhm Current measurement approx. 100 ohm
Outputs	Supply outputs	2
	Rated voltage	24 V AC \pm 10 %
	Maximum current	100 mA DC total
Behaviour in the event of power failure	Bus voltage failure	no communication with KNX/EIB
	Supply voltage failure	no communication with KNX/EIB, no supply for the sensors
Behaviour in the event of power return	Bus voltage	no communication with KNX/EIB, no supply for the sensors
	Supply voltage	no communication with KNX/EIB
	Bus and supply voltage	Transmission of the measurement and limit values as per initialisation parameters of the application
Operation and display elements	Programming key	Red
	Programming LED	Red/green
	Status LED	
Connections	KNX/EIB	Connecting terminal
	Inputs	0.5–4 mm ² single/finely stranded without conductor sleeve, 0.5–2.5 mm ² finely stranded with conductor sleeve
	Module connection	6pole system plug for analogue input module
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The analogue input 4gang is designed as a top hat rail mounted device and is used to acquire and forward up to four analogue sensor signals. The analogue input can evaluate both voltage and current signals. The current inputs with the measurement range 4–20mA can be monitored for wire break.

Sensor signals are converted into 1-byte or 2-byte value telegrams. Two limit values can be set per sensor; these can trigger measured-value dependent events, such as control of shutters and blinds, switching exterior lighting, etc. By means of external objects it is possible to adapt all of the limit values while operation continues, e. g. via KNX/EIB devices such as information display or MT 701 plus or MT 701 ct. Operation of the analogue input requires a 24 V auxiliary voltage. External analogue sensors are supplied with voltage via the short-circuit and overload protected outputs.

The lateral interface can be used to connect an analogue input module for another 4 sensors, which are likewise adjusted via the software of the basic unit.

Device colour		Accessories	
Light grey	7541 40 04	Analogue input module	7542 40 04
		Power supply 24 V AC	7591 00 01

Applications	Analogue input B00713	
	Analogue inputs	<ul style="list-style-type: none"> ■ Connectable sensor type can be adjusted for the integral analogue inputs: 0–1 V; 0–10 V; 0–20 mA; 4–20 mA ■ Transmission behaviour for measured values adjustable ■ 1 or 2-byte can be chosen as transmission format ■ Two limit values with hysteresis can be set per input ■ Two external limit values per input can be selected for adjustment via EIB devices in ongoing operation ■ Wire break monitoring can be set for 4–20 mA sensors ■ Transmission of an alarm bit can be set
	Modules	<ul style="list-style-type: none"> ■ One analogue input module with four additional inputs can be selected: Programming options are the same as the basic unit
	Objects	50
	Group addresses/assignments	max. 200 each

Notes

Terminals

+US: Supply for external sensors

GND: Reference potential for +US and inputs

E1...E4: Measured value inputs

AC 24 V: External supply voltage

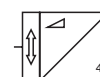
Key

1. Analogue input module connection
2. Bus connection
3. Programming button
4. Programming LED
5. Status LED
6. Active sensor

- Four freely adjustable sensor inputs
- Four additional sensor inputs possible using analogue input module
- Conversion of analogue measurement data into 1-byte and 2-byte values (EIS 5/6)
- System interface for connection of an analogue input module
- 24 V DC output for supplying connected sensors



Analogue input 4gang RMD



ETS search path: Gebr. Berker >> Entry >>
Analogue input, 4gang >>

Auxiliary voltage	24 V AC $\pm 10\%$	SELV
	Current input	max. 250 mA
Inputs	Sensor inputs	4
	Current	0–20 mA, 4–20 mA
	Voltage	0–1 V, 0–10 V
	Input resistance	Voltage measurement approx. 18 kOhm Current measurement approx. 100 ohm
Outputs	Supply outputs	2
	Rated voltage	24 V AC $\pm 10\%$
	Maximum current	100 mA DC total
Operation and display elements	Status LED	Red/green
Connections	inputs	0,5–4 mm ² single/finely stranded without conductor sleeve, 0,5–2,5 mm ² finely stranded with conductor sleeve
	Module connection	6pole system plug for analogue input module
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The analogue input module is designed as a top hat rail mounted device. It is an inexpensive way to expand the analogue input 4gang or the weather station comfort to include four connections for four additional sensors. No separate application is available for the device; programming is carried out via the software of the basic unit.

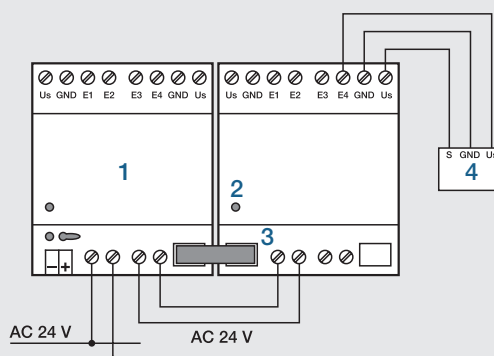
For operation the analogue input requires a 24 V auxiliary voltage that is made available either directly from the 24V AC power supply or indirectly via the 24 V AC terminals of the basic unit.

Device colour
Light grey 7542 40 04

Connection of an analogue input module is exclusively by means of the 6pole system plug. Only one analogue input module can be connected per basic unit.

The connections +US and GND of the analogue input module may not be connected to the corresponding connections of another device, e. g. of the analogue input. This may result in accidental ground energisation.

Sensors that are connected to the inputs of the analogue input module may not be supplied by the analogue input, and vice versa. Exchange on an analogue input module e. g. in the event of a defect can be carried out in ongoing operation (isolate module from voltage!). After the exchange the analogue input carries out a reset after approx. 25 seconds. This re-initialises and places in the original state all inputs and outputs of the analogue input and the connected module.



Terminals

- +US: Supply for external sensors
- GND: Reference potential for +US and inputs
- E1...E4: Measured value inputs
- AC 24 V: Ext. supply voltage

Key

- 1. Analogue input 4gang
- 2. Status LED
- 3. System plug, 6pole
- 4. Active sensor

- Four additional sensor inputs for analogue input 4gang or weather station comfort
- Link to basic unit via 6pole system interface
- Status LED for indicating readiness for operation
- 24 V DC output for supplying connected sensors



Analogue input module 4gang RMD



ETS search path: Gebr. Berker >> Input >> Analogue input, 4gang >>

Supply	via bus line	21–32 V DC
Auxiliary voltage	24 V AC ± 10 % Current input	SELV max. 250 mA
Inputs	Sensor inputs Current Voltage Input resistance	4 0–20 mA, 4–20 mA 0–1 V, 0–10 V Voltage measurement approx. 18 kOhm Current measurement approx. 100 ohm
Outputs	Supply outputs Rated voltage Maximum current	2 24 V AC ± 10 % 100 mA DC total
Behaviour in the event of power failure	Bus voltage failure Supply voltage failure	no communication with KNX/EIB no communication with KNX/EIB, no supply for the sensors
Behaviour in the event of power return	Bus voltage Supply voltage Bus and supply voltage	no communication with KNX/EIB, no supply for the sensors no communication with KNX/EIB Transmission of the measurement and limit values as per initialisation parameters of the application
Operation and display elements	Programming key Programming LED Status LED	red red/green
Connections	KNX/EIB Inputs Module connection Sensor connection	Connecting terminal 0.5–4 mm ² single/finely stranded without conductor sleeve, 0.5–2.5 mm ² finely stranded with conductor sleeve 6pole system plug for analogue input module 4pole system plug for combi weather sensor
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The weather station 4gang comfort is designed as a top hat rail mounted device. It makes it possible to connect four freely configurable sensors for detecting weather data and to acquire, process and forward their measured values. The measured values are converted into 1-byte or 2-byte value telegrams. Two limit values can be set per sensor; these can trigger measured-value dependent events, such as control of shutters, switching exterior lighting, etc. By means of external objects it is possible to adapt all of the limit values while operation continues, e. g. via EIB devices such as information display or MT 701 plus or MT 701 ct.

The weather station is programmed using a clearly-organised software plug-in; configuration is made easier by the ability to select pre-configured sensors of the system. Operation requires a 24 V auxiliary voltage. External sensors are supplied with voltage via the short-circuit and overload protected outputs. An analogue input module for an additional four sensors can be connected via interfaces. It is also possible to connect a combi weather sensor with an integral DCF77 receiver.

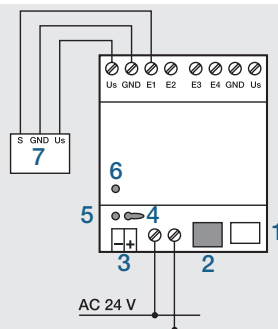
These devices are likewise programmed using the software of the basic unit.

Device colour		Accessories	
Light grey	7541 40 03	Analogue input module	7542 40 04
		Combi weather sensor surface-mounted	7590 00 57
		Power supply 24 V AC	7591 00 01

Weather station comfort B00602	
Analogue inputs	<ul style="list-style-type: none"> ■ Connectable sensor type can be adjusted for the integral analogue inputs: 0–1, 0–10 V; 0–20, 4–20 mA ■ Selection of the pre-configured system sensors for the analogue inputs: wind sensor, brightness sensor, twilight sensor, temperature sensor, rain sensor, humidity sensor, air pressure sensor. ■ Transmission behaviour for measured values adjustable ■ Transmission of an alarm bit can be set ■ 1 or 2-byte can be chosen as transmission format for measured values ■ Two limit values with hysteresis can be set per input (other than rain sensor) ■ Two external limit values per input can be selected for adjustment via EIB devices in ongoing operation ■ Wire break monitoring can be set for 4–20 mA sensors
Blocking modules	<ul style="list-style-type: none"> ■ 16 blocking modules available ■ One input, output and blocking object per blocking module ■ Per input and output object format switching 1-bit, value 1-byte and value 2-byte can be set
Logic controller	<ul style="list-style-type: none"> ■ Number of logic gates freely selectable, but limited by the max. number of objects (200) ■ Logic "AND", "OR", "exclusive OR" can be set ■ Number of inputs selectable per logic gate (max. 8 inputs) ■ For output object, switch on delay, switch off delay and cyclic transmission are adjustable
Modules	<ul style="list-style-type: none"> ■ One analogue input module with four additional inputs can be selected: Programming options as for the basic unit ■ One combi sensor can be selected: Programming options see combi sensor ■ Common selection of analogue input module and combi sensor possible
Objects	200
Group addresses/assignments	max. 200 each

Terminals

- +US: Supply for external sensors
- GND: Reference potential for +US and inputs
- E1...E4: Measured value inputs
- AC 24 V: External supply voltage



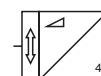
Key

1. Analogue input module connection
2. Combi weather sensor connection
3. Bus connection
4. Programming button
5. Programming LED
6. Status LED
7. Active sensor

- Four freely adjustable sensor inputs
- Four additional sensor inputs possible using analogue input module
- System interface for connection of an analogue input module
- Connection for combi weather sensor surface-mounted
- 24 V DC output for supplying connected sensors



Weather station 4gang comfort RMD



ETS search paths: Gebr. Berker >> Entry >>
 Analogue input, 4gang >>
 Gebr. Berker >> Physical sensors >> Weather station >>

Supply	Primary voltage	230 VAC ± 10 %, 50/60 Hz
Output	Supply for KNX/EIB devices	2 connecting terminals
	Voltage	24 V AC ± 10 %
	Output current	max. 1 A
	Switch-on time	100 %
	Short-circuit protection	Thermostatic switch
Connections	Inputs/supply outputs	Screw terminals 0.5–4 mm ² , single-core
		Screw terminals 0.34–4 mm ² , finely stranded (without conductor sleeve)
		Screw terminals 0.14–2.5 mm ² , finely stranded (with conductor sleeve)
Protection	IP 20	DIN 40050
Ambient temperature range	Operation	-5 °C to +45 °C
	Storage/transport	-25 °C to +70 °C
Humidity	Environment/storage/transport	max. 93 % relative humidity (moisture condensation not permissible)
Installation	on top hat rail 35 mm	EN 50022
Mounting orientation	as desired	
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

The power supply is designed as a top hat rail mounted device. It generates the operating voltage for the applicable KNX/EIB devices such as the weather station 4gang comfort RMD or analogue input 4gang RMD.

For convenient connection the device has two internally connected 24 V outputs. In addition, the heating voltage for sensors such as a combi weather sensor surface-mounted or rain sensor surface-mounted can be made available using the device.

The voltage supply is protected against overload by a thermostatic switch.

Device colour		Combination with	
Light grey	7591 00 01	Weather station	
		4gang comfort.....	7541 40 03
		Analogue input	
		4gang	7541 40 04

Terminals

AC 230 V ~: Mains voltage

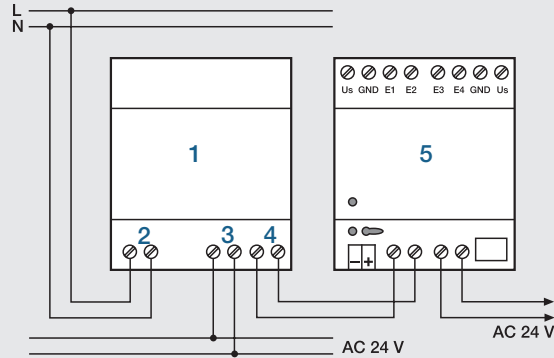
AC 24 V: Supply voltage

Installation

The output terminals are designed in pairs. The terminals with the same potential are connected internally (labelled with dot).

In the event of overload or short-circuit the thermostatic switch switches the device off if excessively heated.

The device starts again automatically after the short-circuit is rectified and it has cooled down.



Key

1. Power supply RMD
2. Connection 230 V
3. Power supply 24 V
4. Output 24 V

5. Example: Analogue input 4gang RMD

- Output current up to 1 A
- Two 24 V connecting terminals for convenient connection
- Thermostatic switch for overload/overheating protection



Power supply 24 V AC RMD



Technical data

Supply voltage	AC/DC	24 V \pm 15 %, 50/60 Hz
	Current input	max. 600 mA
	Power consumption (sensors and heater)	max. 14.4 W
Sensor measurement range	Wind speed	approx. 1–40 m/s
	Precipitation	yes/no
	Twilight	approx. 0–674 lux
	Brightness	approx. 1–110 klux, per compass direction east, south, west
Operation and display elements	Reed contact	Activation of the acoustic DCF signal
	Adjusting screw	Orientation of the DCF antenna
Connecting cable	10 m, pre-assembled	LiYCY, 6 x 0.25 mm ² max. 50 m
Protection	IP 55, EN 60529	in position of normal use
Ambient temperature range	Operation	-40 to +60 °C, ice-free
	Storage/transport	-40 to +60 °C
Mounting orientation	vertical	Wind wheel up
Dimensions (Ø x H)	130 x 200 mm	

Information

The combi weather sensor combines seven sensors in a single device. It is used to measure wind speed, precipitation, brightness and twilight, and is connected direction to the weather station 4gang comfort. Combining different sensors in a single device reduces the amount of installation work. Additionally, the combi weather station has a DCF77 receiver that not only serves as a clock for the bus, but also enables integration of the time signal into an expanded shading control. Through the use of three brightness sensors oriented to the east, south, and west and connected to the weather station it is possible to control the shading systems for different sides of the building depending on the compass direction. Operation of the combi weather sensor requires a 24 V supply voltage, e. g. like that provided by the 24 V AC power supply. The additional heating of the combi sensor protects the electronics against condensation.

Order data

Device colour		Accessories	
black.....	7590 00 57	Weather station 4gang comfort.....	7541 40 03
		Power supply 24 V AC.....	7591 00 01

Weather station comfort B00601 (expanded options with combi sensor)

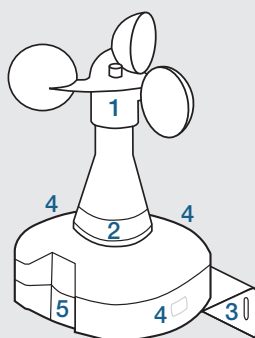
- Monitoring of the link to the combi sensor and testing the signals for conclusiveness
- In conjunction with DCF77 reception automatic shading of up to four sides of the building with tracking of the lamellae depending on the position of the sun
- Transmission behaviour of date and time and sun position can be set
- Entry of the geographical position for time-dependent calculation of the position of the sun
- Entry of the orientation of the side of the building for automatic, expanded shading control
- Transmission of the lamella position as an angle or in percent can be set
- Object for external adaptation of the basic brightness and opening angle to the sun

Installation

For interference-free reception of the DCF77 signal, maintain a distance of 3 m from other electrical devices.

So that the brightness sensors can detect the state of the sun's course unambiguously, the combi sensor should be aligned with a compass in such a way that the precipitation window points to the north.

The housing should be as free as possible from dust deposits so as not to corrupt the measurements. During operation, rain will keep the housing surfaces largely clean.



Key

1. Wind wheel
2. Twilight sensor
3. Fixing bracket with screw holes
4. Brightness sensor west
Brightness sensor east
Brightness sensor south
5. Precipitation sensor (north)

The heating of the combi sensor protects the electronics against condensation in the specified temperature range. It does not protect against icing of the housing or moving parts.

- DCF77 receiver
- Buzzer for quality indication of the DCF77 signal
- PTC heater element for winter operation
- Mounting bracket and Nirost clamp for fixing to a mast
- Pre-assembled connecting cable



Combi weather sensor



Technical data

Measuring range	linear	0.7 to 40 m/s
Electrical output	0 to 10 V	min. 1.5 K Ω load
Supply	Voltage	24 V DC (18 to 32 V DC)
	Current consumption	approx. 12 mA (without heater)
	Heater	24 V DC/AC, PTC element (80 °C)
Loading	short-time	max 60 m/s
Lead	3 m	LiYY 6 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions
Weight	300 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-25 to +60 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	Mounting bracket (supplied)
Mounting orientation	vertical	
Dimensions	Overall height: 160 mm	Wind vane diameter: 124 mm

Information

The WS wind speed sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the wind speed.

The rotation speed, recorded by way of a reed contact, is converted by an electronic circuit into an analogue output signal from 0 to 10 V. The optional heating transformer permits trouble-free operation in case of frost.

The necessary supply voltage is provided by the analogue input or the weather station. The 24 V AC RMD power supply can provide the heating voltage for sensors such as the wind sensor surface-mounted or the rain sensor surface-mounted.

Connection to external systems is possible.

Order data

Device colour		Accessories	
White	7590 00 50	Mast adapter	7590 00 46
		Power supply	
		24 V AC	7591 00 01

Notes

Selection of mounting location

Do not mount the wind sensor close to transmitters (e.g. private mobile radio).

To avoid corruption of measured values, make sure the sensor is correctly orientated (e.g. not sheltered from the wind).

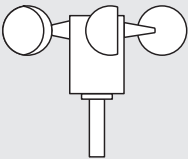
Wiring

Do not lay sensor cables parallel to live or load-carrying cables.

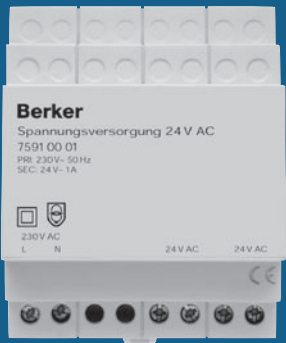
To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Terminal assignment

White: Ground
Brown: Operating voltage +24 V DC
Green: Output 0–10 V
Yellow: Ground
Grey/pink: Heater 24 V AC/DC



- Registering and evaluation of wind speed
- Generation of analogue signals
- Non-frost-sensitive operation with optional WS heating transformer



Power supply 24 V AC



WS wind speed sensor



ETS search path: ---

Electrical output	0 V dry, 10 V rain	min. 1 k Ω load
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 10 mA (without heater)
	Heater	24 V DC/AC, max 4.5 W
Lead	3 m	LiYY 5 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions
Weight	300 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	Mounting bracket (supplied)
Mounting orientation	approx. 45°	
Dimensions (WxHxD)	60 x 82 x 17 mm	

The WS rain sensor is deployed in conjunction with the weather station 4gang or the analogue input.

It registers and evaluates the precipitation.

The conductivity of the rain water is evaluated by means of a meander-shaped sensor and converted by an electronic circuit into an analogue output signal from 0 to 10 V. The optional heating transformer permits the end of the precipitation to be detected more quickly and prevents ice forming on the surface of the sensor. An additional voltage of 24 V AC or DC is required to heat the rain sensor.

The necessary supply voltage is provided by the analogue input or the weather station. The 24 V AC RMD power supply can provide the heating voltage for sensors such as the wind sensor surface-mounted or the rain sensor surface-mounted.

Connection to external systems is possible.

Device colour		Accessories	
Grey.....	7590 00 52	Mast adapter.....	7590 00 46
		Power supply	
		24 V AC	7591 00 01

Notes

Selection of mounting location

Do not mount the rain sensor close to transmitters (e.g. private mobile radio).

The mounting location must ensure direct precipitation impact (not installed underneath roof overhangs).

Care

The sensor must be cleaned regularly with a mild cleaning agent, and so should be mounted at an easily accessible location.

Wiring

Do not lay sensor cables parallel to live or load-carrying cables. To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

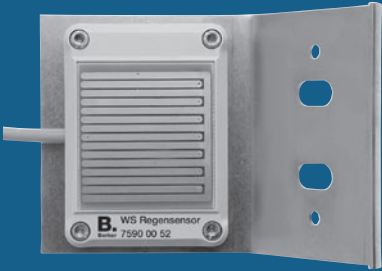
Terminal assignment

White: Ground
Brown: Operating voltage +24 V DC
Green: Output 0–10 V
Yellow/
grey: Heater 24 V

- Registering and evaluation of precipitation
- Generation of analogue signals
- Connection of optional heater



Power supply 24 V AC



WS rain sensor



Measuring range	0 to 60 kLux	linear
Electrical output	0 to 10 V (min. 1 kΩ load)	Short-circuit-proof
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 5 mA
Lead	via PG7 gland	3 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions!
Weight	approx. 200 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	
Mounting orientation	any	
Dimensions (WxHxD)	58 x 64 x 35 mm	

The WS brightness sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the brightness.

The registered brightness is converted by an electronic circuit into a linear, analogue output signal from 0 to 10 V. To prevent damp forming in the housing, the device is fitted with a pressure compensation element (climate control diaphragm).

The required supply voltage for the brightness sensor is delivered by the weather station 4gang or the analogue input.

Connection to third-party systems is possible.

Device colour		Accessories	
Grey.....	7590 00 53	Mast adapter.....	7590 00 46

Notes

Selection of mounting location

Do not mount the brightness sensor close to transmitters (e.g. private mobile radio). Pay attention to possible changes in ambient conditions (house shadow, change in level of foliage, etc.).

To avoid corruption of measured values, make sure the sensor is correctly aligned (e.g. East, South, West). Do not mount it within the range of influence of lamps.

Wiring

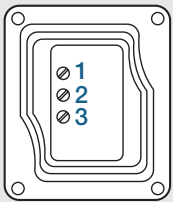
Do not lay sensor cables parallel to live or load-carrying cables. To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Care

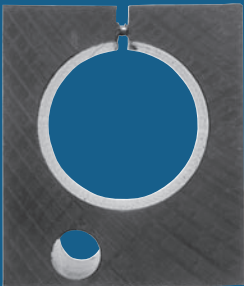
The sensor must be cleaned regularly with a mild cleaning agent, and so should be mounted at an easily accessible location.

Terminal assignment

- 1. Output 0–10 V
- 2. Ground
- 3. Operating voltage 24 V DC



- Registering and evaluation of ambient light
- Generation of analogue signals
- Climate control diaphragm



Mast adapter



WS brightness sensor



Measuring range	-30 to +70 °C	linear
Electrical output	0 to 10 V (min. 1 kΩ load)	Short-circuit-proof
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 3 mA
Lead	via PG7 gland	3 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions!
Weight	approx. 200 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	
Mounting orientation	any	
Dimensions (WxHxD)	58 x 64 x 35 mm	

The WS temperature sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the temperature.

To prevent damp forming in the housing, the device is fitted with a pressure compensation element (climate control diaphragm). The registered temperature is converted by an electronic circuit into an analogue output signal from 0 to 10 V.

The required supply voltage is delivered by the weather station 4gang or the analogue input.

Connection to third-party systems is possible.

Device colour		Accessories	
Grey.....	7590 00 54	Mast adapter.....	7590 00 46

Notes

Selection of mounting location

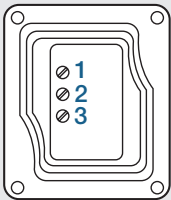
Do not mount the temperature sensor close to transmitters (e. g. private mobile radio).
To prevent corruption of measured values, make sure the sensor is mounted correctly (e. g. not in direct sunlight, not within the range of heaters).

Wiring

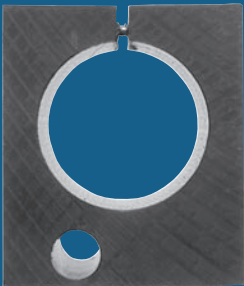
Do not lay sensor cables parallel to live or load-carrying cables.
To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Terminal assignment

- 1. Output 0–10 V
- 2. Ground
- 3. Operating voltage 24 V DC



- Registering and evaluation of outside temperature
- Generation of analogue signals
- Pressure compensation element



Mast adapter



WS temperature sensor



Measuring range	0 to 255 lux	linear
Electrical output	0 to 10 V (min. 1 kΩ load)	Short-circuit-proof
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 5 mA
Lead	via PG7 gland	3 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions
Weight	approx. 200 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	
Mounting orientation	any	
Dimensions (WxHxD)	58 x 64 x 35 mm	

The WS twilight sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the brightness.

To prevent damp forming in the housing, the device is fitted with a pressure compensation element (climate control diaphragm). The registered brightness is converted by an electronic circuit into a linear, analogue output signal from 0 to 10 V.

The required supply voltage for the brightness sensor is delivered by the weather station 4gang or the analogue input.

Connection to third-party systems is possible.

Device colour		Accessories	
Grey.....	7590 00 55	Mast adapter.....	7590 00 46

Notes

Selection of mounting location

Do not mount the brightness sensor close to transmitters (e. g. private mobile radio).
Pay attention to possible changes in ambient conditions (house shadow, change in level of foliage, etc.).
To prevent corruption of measured values, make sure the sensor is correctly aligned (toward the North, not in direct sunlight).
Do not mount it within the range of influence of lamps.

Wiring

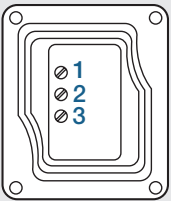
Do not lay sensor cables parallel to live or load-carrying cables.
To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Care

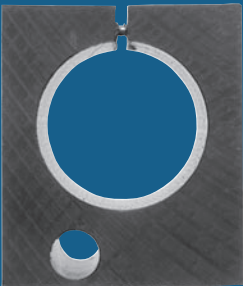
The sensor must be cleaned regularly with a mild cleaning agent, and so should be mounted at an easily accessible location.

Terminal assignment

- 1. Output 0–10 V
- 2. Ground
- 3. Operating voltage 24 V DC



- Registering and evaluation of ambient light
- Generation of analogue signals
- Climate control diaphragm



Mast adapter



WS twilight sensor



Measuring range	Humidity Temperature	10 to 95 % relative air humidity (5 kΩ load) -30 to +70 °C (5 kΩ load)
Accuracy	Humidity Temperature	± 3 % ± 0.3 °C, DIN 43760
Output	Humidity Temperature	0 to 100 % (0 to 10 V) -30 to +70 °C (0 to 10 V)
Measuring system	Humidity Temperature	capacitive Pt 1000
Response time	Humidity Temperature	approx. 60 s approx. 30 s
Current consumption	approx. 5 mA	
Supply voltage	12 to 30 V DC	
Connection	Screw-type terminals	max. 1.5 mm ² (recommended 4 x 0.25 mm ²)
Protection	IP 30, EN 60529	
Ambient temperature range	Operation Storage/transportation	-30 to +70 °C -25 to +70 °C
Fixing method	Surface-mounted	Screw fixing holes in housing base
Mounting orientation	vertical	Vents at top and bottom
Dimensions (WxHxD)	71 x 71 x 27 mm	

The humidity and temperature sensor is executed as a surface-mounted device, and is deployed in conjunction with the weather station 4gang or the analogue input. It was developed for wall mounting in rooms and climatic chambers.

It registers the ambient temperature and the general humidity of the ambient gases. The measurement results can be used to control the in-room climate and other functions of the instabus KNX/EIB system. The two outputs generate a voltage of between 0 and 10 V.

The required supply voltage for the humidity and temperature sensor is delivered by the weather station 4gang or the analogue input.

Device colour
White 7590 00 56

Selection of mounting location

Do not mount the sensor directly over sources of heat (such as heating radiators). Do not close off or cover over the vents.

Do not expose the sensor to direct sunlight.

Do not mount it within the range of influence of lamps.

Wiring

Do not lay sensor cables parallel to live or load-carrying cables.

To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Combination with 4gang weather device

The measurement inputs can be configured for the combination sensor with the standard temperature and humidity settings.

These parameters are matched to the technical properties of the combination sensor.

Care

The sensor must be cleaned regularly with a mild cleaning agent, and so should be mounted at an easily accessible location.

- Registering and evaluation of ambient temperature
- Registering and evaluation of air humidity
- Generation of analogue signals



**Humidity and temperature sensor
12-30 V DC**



Connections	Three-pin terminal block	Plug-in terminals up to 1.5 mm²
Protection	IP 20, EN 60529	
Ambient temperature range	Storage/transport	-25 to +70 °C
Mounting	in flush-mounted box to DIN 49073	Ø 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 30 mm	Installation depth 30 mm

The sensor insert is installed in a flush-mounted box and contains a terminal block for connection of wired sensors (e.g. PT-100 temperature sensors).

The sensor is covered by a central plate with slots for air circulation.

Mounting is completed with a frame, intermediate ring and central plates for the chosen switch range.

Design									
With support ring.....	7594 10 01	MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5			
		Central plate		Central plate		Central plate			
		- White.....	7594 04 02	- White, glossy	7594 04 02	- White.....	7594 04 02		
		- Polar white	7594 04 09	- Polar white, glossy.	7594 04 09	- Polar white	7594 04 09		
		Intermediate ring		- Polar white, matt ...	7594 04 89	Intermediate ring			
		- White.....	1109 02	- Anthracite, matt	7594 04 85	- White.....	1108 70 02		
		- Polar white	1109 09	- Aluminium, matt....	7594 04 83	- Polar white	1108 70 09		
				Intermediate ring		- Stainless steel, lacquered	1108 70 04		
				- White, glossy	1109 89 82				
				- Polar white, glossy.	1109 89 89				
				- Polar white, matt ...	1109 19 09				
				- Anthracite, matt	1109 16 06				
				- Aluminium, matt....	1109 14 04				

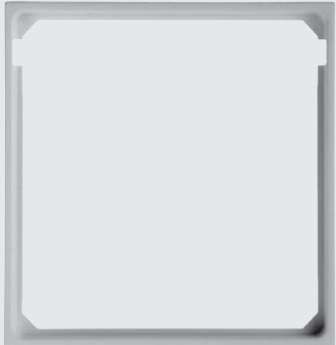
Notes

Mounting

The cover is provided by the central plate for the sensor unit.

IMPORTANT

The central plate should be used only with an intermediate ring.



Intermediate ring

- Connection of wired sensors
- Protection of sensors by covering with a central plate
- Central plate with slots for air circulation
- Cover with frame, intermediate ring and central plate for the various switch ranges



Central plate



Sensor insert

Berker ARSYS	
Central plate	
- White.....	7594 04 02
- Polar white.....	7594 04 09
- Light bronze, lacquered.....	7594 04 04
- Stainless steel, lacquered.....	7594 04 03
Intermediate ring	
- White.....	1108 00 02
- Polar white.....	1108 00 69
- Light bronze, lacquered.....	1108 90 11
- Stainless steel, lacquered.....	1108 90 04

Supply	via bus line	21–32 V DC
	9 V block battery	Only required for programming
Radio signal input	Number of channels	50
	Radio memory locations	100
	Transmission medium	Radio
	Reception frequency	433.42 Hz
	Modulation	ASK
Response to power failure/restoration	Bus power failure	-
	Bus power restoration	-
Operation and display elements	Channel indicator	Two-digit seven-segment display
	2 channel selector buttons	
	Acknowledgement button	
	Programming button	
	Programming LED	Red
	Operating LED	Green
Connections	KNX/EIB	Terminal
	Battery	Battery connection clip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fixing holes in housing base	
Mounting orientation	any	
Dimensions (WxHxD)	110 x 94 x 38 mm	

The radio receiver is executed as a surface-mounted device, and links radio bus transmitters to the instabus KNX/EIB.

In the process, received radio telegrams are converted into corresponding KNX/EIB telegrams.

Up to 50 channels can be assigned a total of 100 memory locations for buttons (e.g. hand-held transmitter buttons) and devices (e.g. standard monitors).

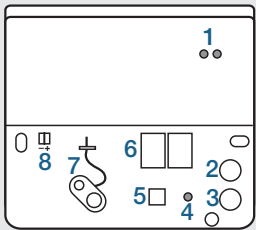
The data transfer is unidirectional.

Device colour			
White	7563 00 04	Hand-held radio transmitter	
		Comfort	2766
		Mini	2769

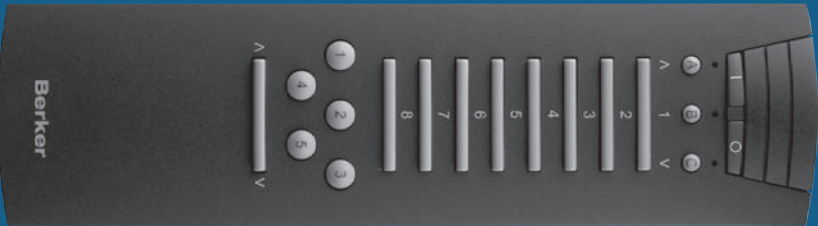
Applications

Radio receiver C00101	The application includes the following channel functions:
- Switching	■ Function of upper/left and lower/right buttons programmable
- Toggle	■ Alternating transmission of ON and OFF telegrams per button
- Dimming	■ Dimming step width programmable ■ Send telegram repetition and stop telegram
- Shutter control	■ Touch function (UP, DOWN) and time between step and move operation programmable ■ Louvered shutter adjustment time (time in which a move command is terminated by releasing the button) programmable
- Value transmitter	■ Value (0 to 255) of upper/left and lower/right buttons programmable
- Light scene extension	■ Light scene number (1 to 8) of upper/left and lower/right buttons programmable ■ Memory function possible
- Light scene	■ Retrieve and store up to 5 light scenes each with 8 outputs via buttons or extension ■ Object types: switch (1-bit) or dimmer value (1-byte) configurable per output
- Movement controller	■ Send 1-bit switching or 1-byte value telegrams dependent on preset twilight value ■ Telegram configurable at beginning and end of a detection ■ Transmission delay at end of detection and lockout time configurable
- Universal transmitter as switch	■ Send ON/OFF telegrams according to the received universal transmitter telegrams
Objects	109
Group addresses/assignments	maximum of 113 each

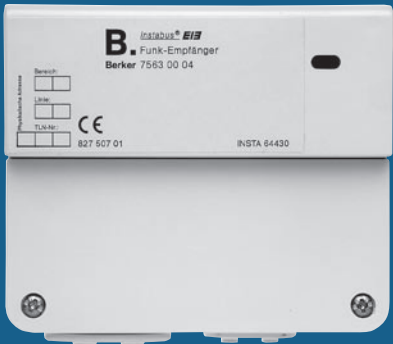
Notes



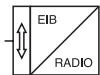
- Key**
- 1. Operating LEDs
 - 2. Channel selector button
 - 3. Programming button
 - 4. Programming LED
 - 5. Acknowledgement button
 - 6. Channel indicator
 - 7. Battery terminal
 - 8. Bus connection



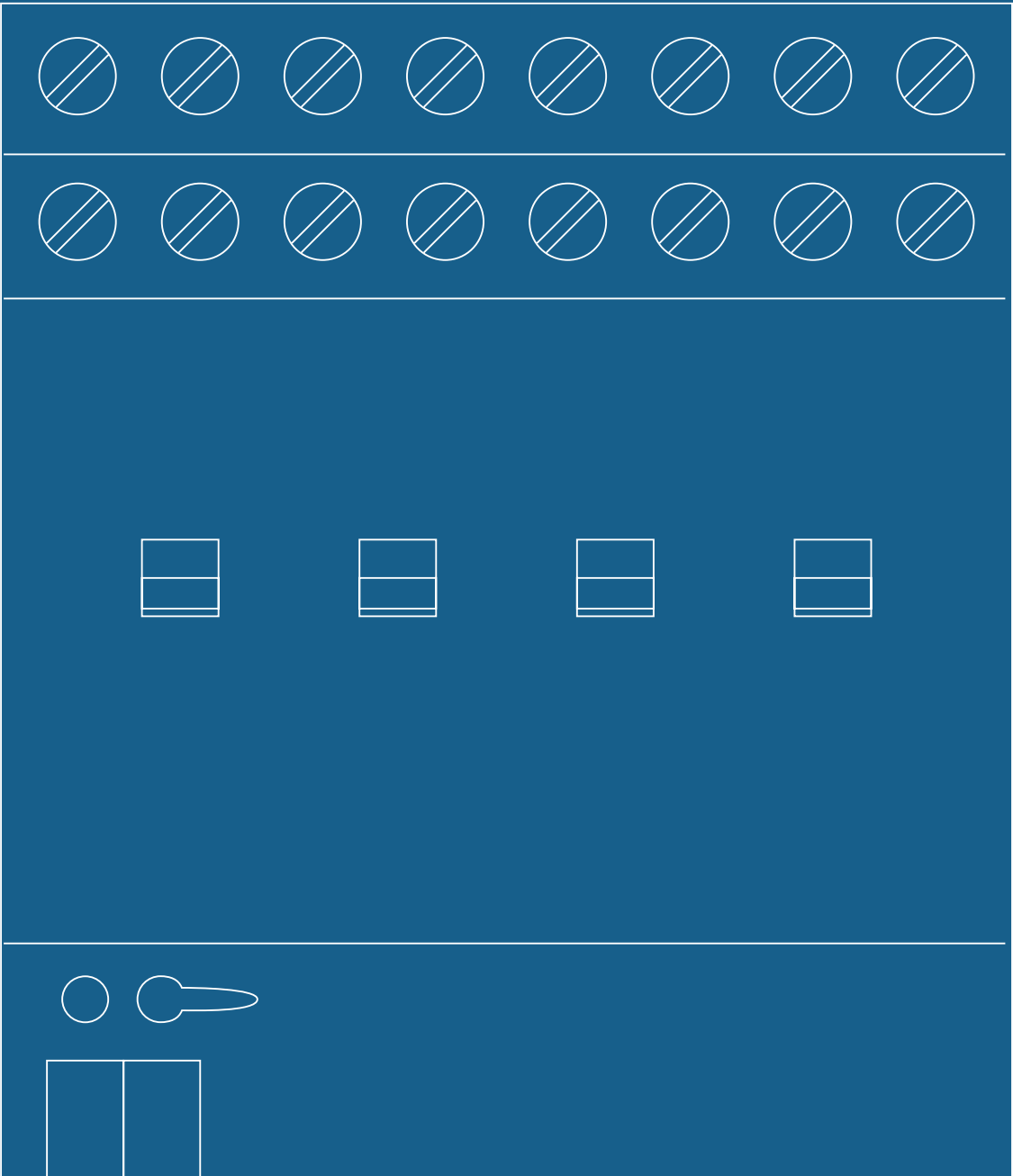
Hand-held radio transmitter comfort

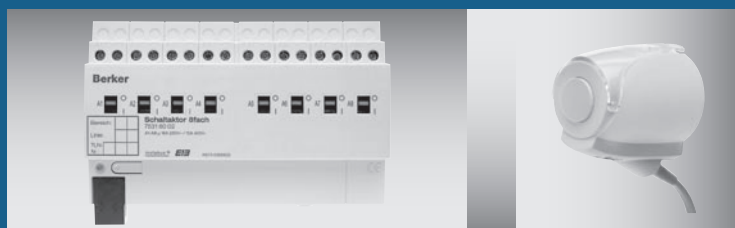


Radio receiver



ETS search path: Gebr. Berker >> Communication
>> Radio >>





ACTUATORS

The actuators comprise the bus coupling unit, power module and application program. They are selected specific to application and actuated with sensors. The information for processing first passes over the bus to the bus coupling unit. The bus coupling unit sends and receives data, delivers power for the electronics, saves key data for its own physical address, one or more group addresses and the application program with parameters. The power module and the application program define the function of the actuator.



Switch actuators	238–271
Dim actuators	272–281
Control units	282–283
Shutter actuators	284–297
Analogue actuators	298–301
Other actuators	302–315

Supply	via bus line	21–32 V DC
Outputs	4 NO contacts Rated voltage Switching current, DIN VDE 0660 part 102 AC-1 AC-3	Potential-free 230 V AC (various outer conductors possible) at AC 230 V: 16 A/AC-1; 16 A/AC-3 at AC 400 V: 10 A/AC-1; 6 A/AC-3 Non-inductive or low-inductance loads, resistance furnaces On and Off condition: $\cos \varphi = 0.8$ Squirrel-cage motors, on/off when running On and Off condition: $\cos \varphi = 0.45$ at I_e 100 A I_e : Rated operating current
Response to power failure/restoration	Bus power failure Bus power restoration	programmable programmable
Switching capacity	Bulbs LV halogen with conv. Transformer Fluorescent lamps - uncompensated - Duo circuit - parallel-compensated	2500 W 500 VA 2500 W, $\cos \varphi = 0.5$ 2 x 2500 W, $\cos \varphi = 1$ 1300 W/140 μ F
Operation and display elements	Programming button Programming LED	Red
Connections	Manual selection switch KNX/EIB Outputs with screw-type terminals	4 Terminal 0.2 – 4 mm ² and 2 x 0.2 – 2.5 mm ² , each single-wire 0.75 – 4 mm ² fine wire without ferrule 0.5 – 2.5 mm ² fine wire with ferrule
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	72 x 90 x 64 mm	4 modules

The switch actuator 4gang is executed as a top hat rail mounted device. It receives instabus KNX/EIB telegrams and switches four mutually independent NO (normally open) contacts. Various functions can be implemented.

The response to bus power failure is configurable by way of parameters.

No data rail is required for mounting on the top hat rail, because the connection is made by way of a terminal. Various outer conductors can be connected. A contact configuration of 230 V AC and SELV at the various outputs is not permitted!

Adjustment of the relays by the manual selection switches is not detected by the software! An output disabled via the bus can still be adjusted manually, however.

The relays of a device never operate simultaneously, but always at a time offset. At higher switching frequencies this interval gets longer and longer.

Device colour
Light grey 7531 40 07

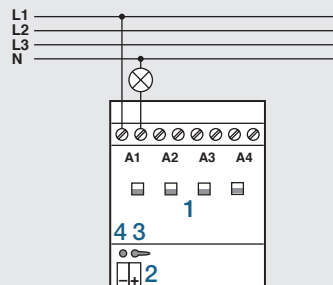
Switching RS, LO, TF 206201

- Independent switching of the four outputs
- Outputs configurable as NO (normally open) or NC (normally closed) contacts
- Preferred position on bus power failure/restoration configurable
- Switching, revertive signal and supplementary function configurable per output
- Configurable supplementary functions:
 - Logic operation function with three logic parameters
 - Lockout function with programmable relay response
 - Forced positioning function for prioritization of incoming switching telegrams
- Revertive signal (feedback) object invertible
- On and/or Off delay or timer function configurable for each output separately

Objects	12
Group addresses/assignments	maximum of 32 each

ATTENTION

Suitable for switching different phases.



Key

1. Manual selection switch/Status indicator
2. Bus connection
3. Programming button
4. Programming LED

- Four potential-free, independent switching channels
- NO (normally open) contacts 16 A
- Manual selection switch/Status indicator
- Forced guidance, logic operation, delay time and timer functions



Switch actuator 4gang 16 A manual status RMD



ETS search path: Gebr. Berker >> Output >>
Binary output 4gang >>

Supply	via bus line	21–32 V DC
Outputs	4 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz
		DC: 24 V
	Switching current	230 V AC: 16 A/AC-1; 10 A/AC-3
		400 V AC: 10 A/AC-1; 6 A/AC-3
		DC: 16 A/24 V
	Making current	max. 400 A, 150 μ s; 200 A, 600 μ s
	Min. switching current	100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Bus voltage restore	software-dependent
Breaking capacity	Ohmic load	3600 W
	Incandescent lamps/HV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA
		Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 2500 W
		parallel-compensated: 1300 W, 140 μ F
	Mercury vapour lamps	Duo circuit: 2300 W, 140 μ F
		uncompensated: 2000 W
		parallel compensated: 2000 W, 140 μ F
Operation and display elements	4 manual selection switches	ON/OFF relay
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core
		0.75–4 mm ² finely stranded without conductor,
		0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

The switch actuator 4gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. Each switching output has a separate bistable switching relay, so that switching states can also be secured in the event of a bus voltage failure.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. The relay position is not detected via a bus, however. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator is supplied completely by the KNX/EIB and therefore does not require any additional external power supply.

Device colour
Light grey 7531 40 15

Switching RS, LO, TF 209001

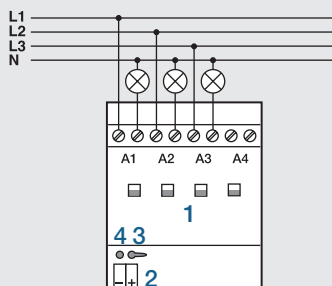
- Independent switching of the four outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel – alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel

Objects	50
Group addresses/assignments	maximum 254/maximum 255

ATTENTION

Suitable for switching different external phase conductors.

When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible. The connection of three-phase motors is not permissible.



Key

1. Manual selection switch/ status indication
2. Bus connection
3. Programming button
4. Programming LED

- Four independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Manual selection switch with status indication for each output



Switch actuator 4gang 16 A NO manual status RMD



ETS search path: Gebr. Berker >> Output >> Binary output, 4gang >>

Supply	via bus line	21–32 V DC
Outputs	6 NO contacts Rated voltage Switching current AC-1	Potential-free 230 V AC (various outer conductors possible) 6 A/AC-1 Non-inductive or low-inductance loads, resistance furnaces
Response to power failure/restoration	Bus power failure Bus power restoration	programmable programmable
Switching capacity	Bulbs Fluorescent lamps - uncompensated - Duo circuit - parallel-compensated	1000 W 500 W ($\cos \varphi = 0.5$) 2 x 500 W ($\cos \varphi = 1$) 2 x 58 W/14 μ F 3 x 36 W/14 μ F 6 x 18 W/14 μ F
Operation and display elements	Programming button Programming LED	Red
Connections	KNX/EIB Outputs with screw-type terminals	Terminal 0.2 – 4 mm ² single-wire 2 x 0.2 – 2.5 mm ² single-wire 0.75 – 4 mm ² fine wire without ferrule 0.5 – 2.5 mm ² fine wire with ferrule
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	72 x 90 x 58 mm	4 modules

The switch actuator 6gang is executed as a top hat rail mounted device. It receives KNX/EIB telegrams and performs switching functions depending on the setting.

The six potential-free output channels can be connected to different outer conductors.
A contact configuration of 230 V AC and SELV at the various outputs is not permitted!

The relays of a device never operate simultaneously, but always at a time offset. At high switching frequencies this interval gets longer and longer.

Example

If all output channels are set to the same group address (all relays to operate simultaneously), and if multiple switching telegrams are received, the switching interval extends to max. 0.1 s. In this case the time between two telegrams must not fall below 0.6 seconds, so that all the relays will respond to the change of state.

Device colour
Light grey 7531 60 02

Switching RS, LO, TF 206101

- Independent switching of the six outputs
- Outputs configurable as NO (normally open) or NC (normally closed) contacts
- Preferred position on bus power failure/restoration configurable
- Switching, revertive signal (feedback) and supplementary function programmable for the four outputs
- Switching, revertive signal (feedback) programmable via two additional outputs
- Configurable supplementary functions:
 - Logic operation function with three logic parameters
 - Lockout function with programmable relay response
 - Forced positioning function for prioritization of incoming switching telegrams
- Revertive signal (feedback) object invertible
- On and/or Off delay or timer function configurable for each output separately

Objects

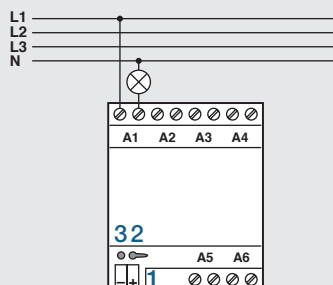
16

Group addresses/assignments

maximum of 32 each

ATTENTION

Suitable for switching different phases.



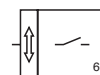
Key

1. Bus connection
2. Programming button
3. Programming LED

- Six potential-free, independent switching output channels
- NO (normally open) contacts 6 A
- Revertive signal (feedback) of relay state
- Forced guidance, logic operation, delay time and timer functions



Switch actuator 6gang 6 A RMD



ETS search path: Gebr. Berker >> Output >>
Binary output 6gang >>

Supply	via bus line	21–32 V DC
Outputs	8 NO contacts	Potential-free
	Rated voltage	230 V AC, outputs 5 – 8 230 V AC; 400 V AC, outputs 1 – 4
	Switching current, DIN VDE 0660 part 102	6 A/AC-1, outputs 5 – 8 16 A/AC-1; 10 A/AC-3 at 230 V AC outputs 1 – 4 10 A/AC-1; 6 A/AC-3 at 400 V AC outputs 1 – 4
	AC-1	Non-inductive or low-inductance loads, resistance furnaces On and Off condition: $\cos \varphi = 0.8$
	AC-3	Squirrel-cage motors, on/off when running On and Off condition: $\cos \varphi = 0.45$ at I_e 100 A I_e : Rated operating current
Response to power failure/restoration	Bus power failure	programmable
	Bus power restoration	programmable
Switching capacity output 1–4	Bulbs	2500 W
	LV halogen with conventional transformer	500 VA
	Fluorescent lamps – uncompensated	2500 W
	- Duo circuit or parallel-compensated	2 x 2500 W or 1300 W/140 μ F
Switching capacity output 5–8	Bulbs	1000 W
	Fluorescent lamps – uncompensated	500 W
	- Duo circuit or parallel-compensated	2 x 500 W or 2 x 58, 3 x 36, 6 x 18 W/14 μ F
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
	Outputs with screw-type terminals	0.2 – 4 mm ² and 2 x 0.2 – 2.5 mm ² , each single-wire 0.75 – 4 mm ² fine wire without ferrule 0.5 – 2.5 mm ² fine wire with ferrule
Protection	IP 20, EN 60529	
Ambient temperature range	Operation and Storage/transportation	-5 to +45 °C or -25 to +70 °C
Mounting/Mounting orientation	on top hat rail 35 mm, EN 50022	any
Dimensions (WxHxD)	72 x 90 x 58 mm	4 modules

The switch actuator 8gang is executed as a top hat rail mounted device. It receives telegrams and performs switching functions according to their contents. By way of eight outputs, a maximum of eight mutually independent electrical consumer groups can be operated.

The response of the contacts to failure of the bus voltage is configurable.

Various outer conductors can be connected. A contact configuration of 230 V AC and SELV at the various outputs is not permitted!

Adjustment of the relays by the manual selection switch is not detected by the software! An output disabled via the bus can still be adjusted manually, however. The relays of a device never operate simultaneously, but always at a time offset. At high switching frequencies this interval gets longer and longer (for example see: switch actuator 6gang 6 A).

Device colour
Light grey 7531 80 01

Switching RS, LO, TF 206001

- Independent switching of the eight outputs
- Manual operation for outputs 1–4
- Outputs configurable as NO (normally open) or NC (normally closed) contacts
- Preferred position on bus power failure/restoration configurable
- Switching, revertive signal (feedback) and supplementary function programmable for four outputs
- Switching, revertive signal (feedback) programmable for the four additional outputs
- Configurable supplementary functions:
 - Logic operation function with three logic parameters
 - Lockout function with programmable relay response
 - Forced positioning function for prioritization of incoming switching telegrams
- Revertive signal (feedback) object invertible
- On and/or Off delay or timer function configurable for each output separately

Objects

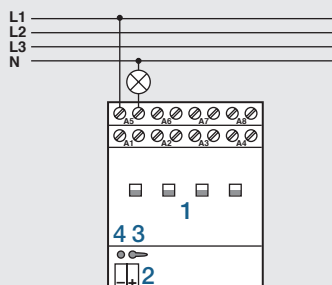
20

Group addresses/assignments

maximum of 32 each

ATTENTION

Suitable for switching different phases.



Key

1. Manual selection switch/
Status indicator for
outputs 1–4
2. Bus connection
3. Programming button
4. Programming LED

- Eight independent outputs (4gang 6 A and 4gang 16 A)
- Outputs as NC or NO contacts
- Manual selection switch/Status indicator for outputs 1–4
- Revertive signal (feedback) of relay position



Switch actuator 8gang (4gang 6 A and 4gang 16 A) manual status RMD



ETS search path: Gebr. Berker >> Output >>
Binary output 8gang >>

Supply	via bus line	21–32 V DC
Outputs	8 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz DC: 24 V
	Switching current	230 V AC: 16 A/AC-1, 10 A/AC-3 400 V AC: 10 A/AC-1, 6 A/AC-3 DC: 16 A/24 V
	Making current	max. 400 A, 150 μ s; 200 A, 600 μ s
	Min. switching current	100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Bus voltage restore	software-dependent
Breaking capacity	Ohmic load	3600 W
	Incandescent lamps/HV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 2500 W parallel-compensated: 1300 W, 140 μ F Duo circuit: 2300 W, 140 μ F
	Mercury vapour lamps	uncompensated: 2000 W parallel compensated: 2000 W, 140 μ F
Operation and display elements	4 manual selection switches	ON/OFF relay
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	
Connecting terminal	Outputs: Screw terminals	0,2–4 mm ² or 2 x 0,2–2,5 mm ² single-core 0,75–4 mm ² finely stranded without conductor, 0,5–2,5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

The switch actuator 8gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. Each switching output has a separate bistable switching relay, so that switching states can also be secured in the event of a bus voltage failure.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. The relay position is not detected via a bus, however. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator is supplied completely by the KNX/EIB and therefore does not require any additional external power supply.

Device colour
Light grey 7531 80 04

Switching RS, LO, TF 208801

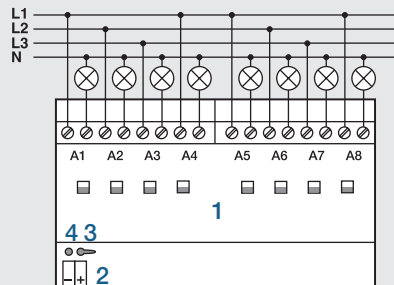
- Independent switching of the eight outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel—alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel

Objects	106
Group addresses/assignments	maximum 254/maximum 255

ATTENTION

Suitable for switching different external phase conductors.

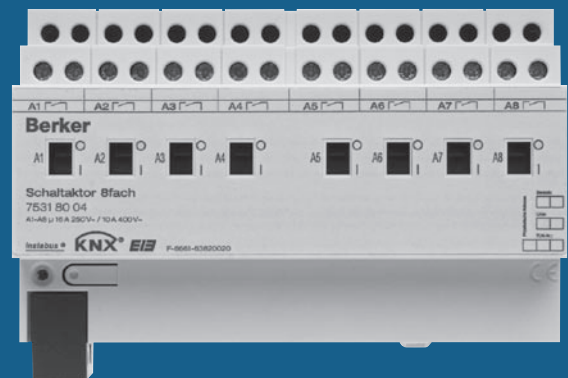
When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible. The connection of three-phase motors is not permissible.



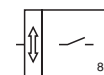
Key

1. Manual selection switch/ status indication
2. Bus connection
3. Programming button
4. Programming LED

- Eight independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Manual selection switch with status indication for each output



Switch actuator 8gang 16 A NO manual status RMD



ETS search path: Gebr. Berker >> Output >> Binary output, 8gang >>

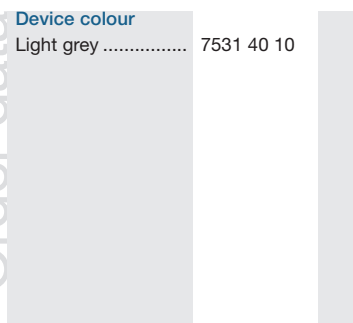
Supply	via bus line	21–32 V DC
	Power consumption	typically 150 mW
Outputs	4 normally-open	potential-free
	Switching voltage	230 V AC, 400 V AC (not for DC)
	Rated current	max. 16 A/AC-1 bzw. 16 A/AC-3 at 230 V AC max. 10 A/AC-1 bzw. 6 A/AC-3 at 400 V AC
	Making current	max. 500 A per output; 0.1 ms; 200 µF
Behaviour on power failure/restore	Bus power failure	Software-dependent
	Bus voltage restoration	Software-dependent
Switching capacity	Incandescent lamps/HV halogen lamps	3680 W
	Fluorescent lamps	
	- uncompensated	3680 W
	- parallel compensated	2500 W at 200 µF
	- Duo circuit	2 x 3680 W
	LV halogen lamps (wound transformer)	2000 W
	Mercury vapour/sodium vapour lamps	3680 W at 200 µF
Operation and display elements	Tronic transformer	2500 VA
	4 manual switches	Relay ON/OFF
	Programming button	
Terminals	Programming LED	Red
	KNX/EIB	terminals
	Outputs: Screw terminals	0.2 – 4 mm ² /2 x 0.2 – 2.5 mm ² single-wire 0.75 – 4 mm ² fine wire without end cap sleeve 0.5 – 2.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	
Ambient temperature range	Operation/Storage/Transport	-5 to +45 °C / -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	72 x 90 x 64 mm	4 modules

The 4gang switch actuator is executed as a top hat rail mounted device. It receives instabus KNX/EIB telegrams and switches four mutually independent NO (normally open) contacts. Various functions can be implemented.

The switching contacts are specially for connecting loads with a capacitive nature (C-loads), with the ability to cater for the resulting high inrush currents. The device is thus particularly suitable for switching Tronic transformers and fluorescent lamps.

The relay can be switched manually, however this is not apparent to the software! An output locked out via the KNX/EIB instabus can still however be set manually. The relays of a device never operate simultaneously, but always with a time offset. The response to bus power failure is configurable using parameters.

Device colour
Light grey 7531 40 10



Switching RS, LO, TF 206201

- Independent switching of the four channels
- Outputs configurable as NO (normally open) or NC (normally closed) contacts
- Preferred position of the relay on bus power failure/restoration configurable
- Switching, feedback and supplementary functions configurable per output
- Configurable supplementary functions:
 - Logic operation function with three logic parameters
 - Lock out function with programmable relay response
 - Forced positioning function for prioritisation of incoming switching telegrams
- Feedback object can be inverted
- On and/or off delay or time switch function configurable for each output separately

Objects

12

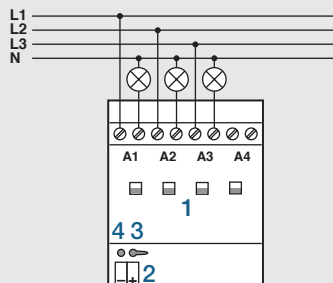
Group addresses/assignments

maximum of 32 each

IMPORTANT

Suitable for switching different phases.

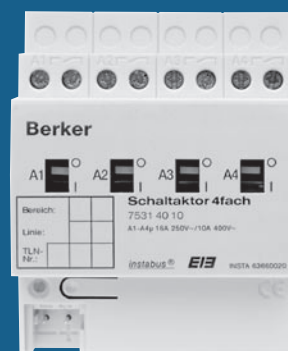
A combination of 230 V and SELV at the various outputs is not permitted!



Key

1. Manual selection switch/
status indication object
2. Bus connection
3. Programming button
4. Programming LED

- Four outputs configurable as NO (normally open) or NC (normally closed) contacts
- Potential-free normally-open contacts 16 A
- One manual switch with status indicator per output
- Objects for switching and feedback (revertive signal)



Switch actuator 4gang 16 A C-load manual NO status RMD



ETS search path: Gebr. Berker >> Outputs >> Binary output, 4gang >>

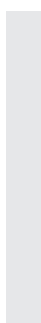
Supply	via bus line	21–32 V DC
Outputs	4 NO contacts Rated voltage Switching current Making current Min. switching current	potential-free μ contacts, bistable 230/400 V AC: 50/60 Hz; DC: 24 V 230/400 V AC: 16 A/AC-1, 16 A/AC-3; DC: 16 A/24 V max. 600 A, 150 μ s; 300 A, 600 μ s 100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure Bus voltage restore	software-dependent software-dependent
Breaking capacity	Ohmic load Incandescent lamps/HV halogen lamps LV halogen Fluorescent lamps T5/T8 Mercury vapour lamps	3680 W 3680 W Conventional transformers: 2000 VA Tronic transformers: 2500 W uncompensated: 2500 W parallel-compensated: 2500 W, 200 μ F Duo circuit: 3680 W, 200 μ F uncompensated: 3680 W parallel compensated: 3680 W, 200 μ F
Current detection	Frequency Detection range Detection precision	50/60 Hz 0.25 to 16 A sinusoidal < 1 A: ± 100 mA; > 1 A: ± 8 % of the current value
Operation and display elements	4 manual selection switches Programming button Programming LED	ON/OFF relay red
Connections	KNX/EIB Outputs: Screw terminals	Connecting terminal 0,2–4 mm ² or 2 x 0,2–2,5 mm ² single-core 0,75–4 mm ² finely stranded without conductor, 0,5–2,5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired, preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

The switch actuator 4gang C load is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. The switching contacts are specially designed for the connection of loads with a capacitive character (C load) and the high making currents thus generated. The device is therefore especially suitable for the switching of Tronic transformers and fluorescent lamps. Additionally current detection can be optionally carried out and processed once per output.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state.

The relay position is not detected via the bus, however. When configured and commissioned with the ETS3.0d or newer versions, shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator does not require any additional external power supply.

Device colour
Light grey 7531 40 16



Switching RS, LO, TF 20A001

- Independent switching of the four outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel—alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel
- Current detection for each output and transmission behaviour of the current detection adjustable
- Load monitoring with fixed load limits or adjustable with teaching function
- Message in the event of overload and underload and transmitter behaviour can be set

Objects	66
Group addresses/assignments	maximum 254/maximum 255

ATTENTION

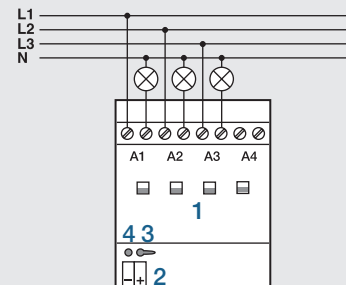
Suitable for switching different external phase conductors.

When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

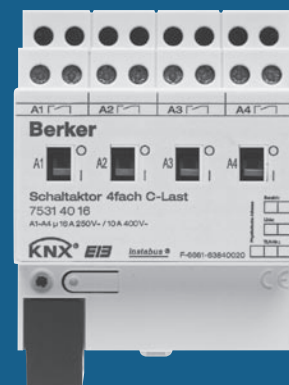
The connection of three-phase motors is not permissible.

Key

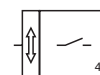
1. Manual selection switch/status indication
2. Bus connection
3. Programming button
4. Programming LED



- Four independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Current detection for each output
- Manual selection switch with status indication for each output



Switch actuator 4gang 16A C-load, NO manual status with current detection RMD



ETS search path: Gebr. Berker >> Output >> Binary output, 4gang >>

Supply	via bus line	21–32 V DC
	Power consumption	typically 150 mW
Outputs	4 normally-open	potential-free
	Switching voltage	230 V AC, 400 V AC (not for DC)
	Rated current	max. 16 A/AC-1 bzw. 16 A/AC-3 at 230 V AC max. 10 A/AC-1 bzw. 6 A/AC-3 at 400 V AC
	Making current	max. 500 A per output; 0.1 ms; 200 µF
Behaviour on power failure/restoration	Bus power failure	Software-dependent
	Bus voltage restoration	Software-dependent
Switching capacity	Incandescent lamps/HV halogen lamps	3680 W
	Fluorescent lamps	
	- uncompensated	3680 W
	- parallel compensated	2500 W at 200 µF
	- Duo circuit	2 x 3680 W
	LV halogen lamps (wound transformer)	2000 W
	Mercury vapour/sodium vapour lamps	3680 W at 200 µF
Operation and display elements	Tronic transformer	2500 VA
	4 manual switches	Relay ON / OFF
	Programming button	
Terminals	Programming LED	Red
	KNX/EIB	terminals
	Outputs: screw terminals	0.2 – 4 mm²/2 x 0.2 – 2.5 mm² single-wire 0.75 – 4 mm² fine wire without end cap sleeve 0.5 – 2.5 mm² fine wire with end cap sleeve
Protection	IP 20, EN 60529	
Ambient temperature range	Operation/Storage/Transport	-5 to +45 °C / -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	140 x 90 x 64 mm	8 modules

The switch actuator 8gang is executed as a top hat rail mounted device. It receives instabus KNX/EIB telegrams and switches eight mutually independent NO (normally open) contacts. Various functions can be implemented.

The switching contacts are specially for connecting loads with a capacitive nature (C-loads), with the ability to cater for the resulting high inrush currents. The device is thus particularly suitable for switching Tronic transformers and fluorescent lamps.

The relay can be switched manually, however this is not apparent to the software! An output locked out via the KNX/EIB instabus can still however be set manually. The relays of a device never operate simultaneously, but always with a time offset. The response to bus power failure is configurable using parameters.

Device colour
Light grey 7531 80 02

Switching RS, LO, TF 206001

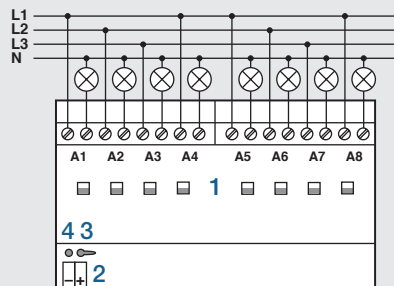
- Independent switching of the eight channels
- Outputs configurable as NO (normally open) or NC (normally closed) contacts
- Preferred position of the relay on bus power failure/restoration configurable
- Switching, feedback and supplementary functions programmable for four outputs
- Switching, feedback programmable for the four additional outputs
- Configurable supplementary functions:
 - Logic operation function with three logic parameters
 - Lockout function with programmable relay response
 - Forced positioning function for prioritisation of incoming switching telegrams
- Feedback object can be inverted
- On and/or off delay or time switch function configurable for each output separately

Objects	20
Group addresses/assignments	maximum of 32 each

IMPORTANT

Suitable for switching different phases.

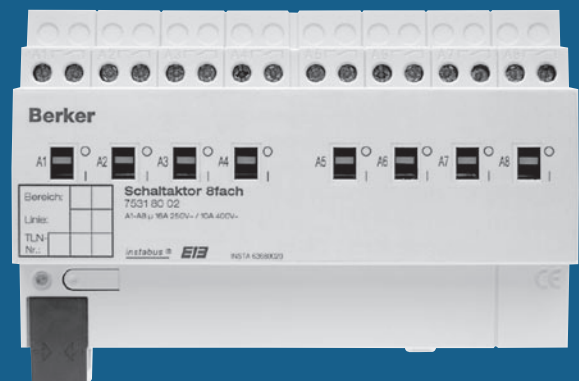
A combination of 230 V and SELV at the various outputs is not permitted!



Key

1. Manual selection switch/ Status indication object
2. Bus connection
3. Programming button
4. Programming LED

- Eight outputs configurable as NO (normally open) or NC (normally closed) contacts
- Potential-free normally-open contacts 16 A
- One manual switch with status indicator per output
- Objects for feedback (revertive signal)
- Additional functions for 4 freely selectable outputs: logical link, lock-out function/forced guidance for priorities allocation



Switch actuator 8gang 16 A C-load manual NO status RMD



ETS search path: Gebr. Berker >> Outputs >> Binary output, 8gang >>

Supply	via bus line	21–32 V DC
Outputs	4 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz; DC: 24 V
	Switching current	230/400 V AC: 16 A/AC-1, 16 A/AC-3; DC: 16 A/24 V
	Making current	max. 600 A, 150 μ s; 300 A, 600 μ s
	Min. switching current	100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Bus voltage restore	software-dependent
Breaking capacity	Ohmic load	3680 W
	Incandescent lamps/HV halogen lamps	3680 W
	LV halogen	Conventional transformers: 2000 VA
		Tronic transformers: 2500 W
	Fluorescent lamps T5/T8	uncompensated: 2500 W
		parallel-compensated: 2500 W, 200 μ F
		Duo circuit: 3680 W, 200 μ F
		uncompensated: 3680 W
	Mercury vapour lamps	parallel compensated: 3680 W, 200 μ F
Current detection	Frequency	50/60 Hz
	Detection range	0.25 to 16 A sinusoidal
	Detection precision	< 1 A: \pm 100 mA; > 1 A: \pm 8 % of the current value
Operation and display elements	4 manual selection switches	ON/OFF relay
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0,2–4 mm ² or 2 x 0,2–2,5 mm ² single-core
		0,75–4 mm ² finely stranded without conductor,
		0,5–2,5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired, preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

The switch actuator 8gang C load is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. The switching contacts are specially designed for the connection of loads with a capacitive character (C load) and the high making currents thus generated. The device is therefore especially suitable for the switching of Tronic transformers and fluorescent lamps. Additionally current detection can be optionally carried out and processed once per output.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. The relay position is not detected via the bus, however. When configured and commissioned with the ETS3.0d or newer versions, shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator does not require any additional external power supply.

Device colour
Light grey 7531 80 05

Switching RS, LO, TF 209801

- Independent switching of the eight outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel – alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel
- Current detection for each output and transmission behaviour of the current detection adjustable
- Load monitoring with fixed load limits or adjustable with teaching function
- Message in the event of overload and underload and transmitter behaviour can be set

Objects	66
Group addresses/assignments	maximum 254/maximum 255

ATTENTION

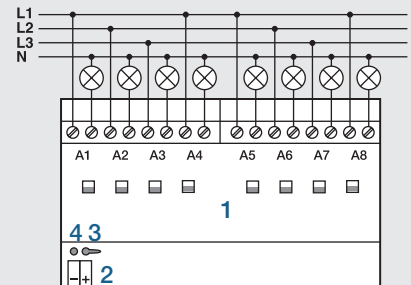
Suitable for switching different external phase conductors.

When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator

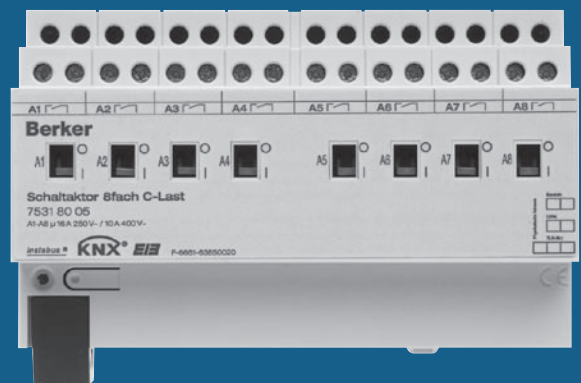
is not permissible. The connection of three-phase motors is not permissible.

Key

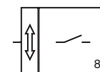
1. Manual selection switch/status indication
2. Bus connection
3. Programming button
4. Programming LED



- Eight independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Current detection for each output
- Manual selection switch with status indication for each output



Switch actuator 8gang 16A C-load NO manual status with current detection RMD



ETS search path: Gebr. Berker >> Output >> Binary output, 8gang >>

Supply	via bus line	21–32 V DC
	Auxiliary voltage	110 to 230 V AC $\pm 10\%$, 50/60 Hz
Outputs	8 NO contacts	potential-free μ contacts, monostable
	Rated voltage	110 to 230 V AC, +10% -15%
		400 V AC; 50/60 Hz
		DC: 24 V
	Switching current	230 V AC: 16 A/AC-1; 10 A/AC-3
		400 V AC: 10 A/AC-1; 6 A/AC-3
Behaviour in the event of power failure/restore		DC: 16 A/24 V
	Making current	max. 800 A, 200 μ s; 165 A, 20 ms
	Min. switching current	100 mA (at 24 V)
	Total current load capacity	max. 160 A
	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
Breaking capacity	Bus/mains voltage return	software-dependent
	Ohmic load	3000 W
	Capacitive load	16 A, max. 140 μ F
	Motor load	1380 VA (shutter/blind or fan)
	Incandescent lamps	3000 W
	LV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA
		Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 1000 W
		parallel-compensated: 1160 W, 140 μ F
		Duo circuit: 2300 W, 140 μ F
	Mercury vapour lamps	uncompensated: 1000 W
		parallel compensated: 1160 W, 140 μ F

continued on next double page ►

The switch/shutter actuator 8gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts or controls up to four motor drives for shutters, blinds, etc. Switching and shutter operation combined on a single actuator are also possible.

The 4 push-button field on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. For manual operation and the power supply for the relays, a separate auxiliary voltage supply is required. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

Device colour
Light grey 7531 80 03

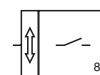
Switching shutter 208001	<ul style="list-style-type: none"> ■ Shutter or switching operation can be set for the eight outputs, in shutter operation each pair of two neighbouring outputs are combined into a shutter output ■ Responses in the event of bus voltage failure and return can be set for each output ■ Delay for active feedback after bus voltage return can be adjusted ■ Manual operation can be blocked
Shutter operation	<ul style="list-style-type: none"> ■ Activation of lamella shutters, blinds or ventilation flaps adjustable ■ Separately paramet. operation times with operation time extension for moving to the upper end position ■ Central activation of all shutter outputs possible ■ Active and passive (object can be read out) feedback of the shutter position or lamella position ■ Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm), if desired with cyclic monitoring ■ Forced setting function can implemented for each shutter output ■ Extensive sun shade function can be set for each output ■ Can be included in scenes: Up to eight internal scenes can be set
Switching operation	<ul style="list-style-type: none"> ■ NO or NC operation can be set ■ Central switching function with group feedback ■ Active and passive (object can be read out) feedback of the switching state ■ Logical linking function ("AND", "OR", "AND with return") for each output ■ Blocking function can be paramet. for each channel—alternatively forced setting function for each output ■ Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function) ■ Can be included in light scenes, up to eight internal scenes can be set
Objects:	76
Group addresses/assignments:	maximum 254/maximum 255

continued on next double page ►

- Combination unit for switching or control of motor drives
- Outputs can be set as NO or NC
- Eight potential-free NO contacts 16 A
- Four push-buttons with LED display for manual operation
- LED status indication for each channel



Switch/shutter actuator 8/4gang 16 A NO manual status RMD



ETS search path: Gebr. Berker >> Output >>
Binary output, mix >>

Operation and display elements	Button field 4gang	Local operation
	3 status LEDs on-the-spot operation	Red
	8 status LEDs outputs	Red
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0,2–4 mm ² or 2 x 0.2–2.5 mm ² single-core 0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

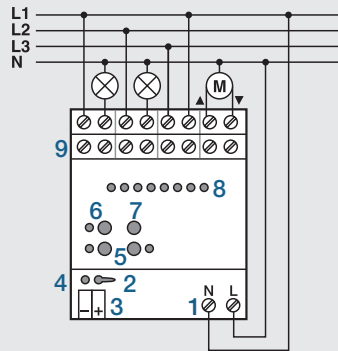
ATTENTION

Suitable for switching different external phase conductors.

The mains voltage must be present in order to activate the outputs.

The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

The connection of three-phase motors is not permissible.



Key

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons 1/▲ and 0/▼ each with associated LED
6. Manual button with associated LED
7. ALL OFF button
8. Status LEDs of the outputs
9. Outputs



**Switch/shutter actuator 8/4gang
16 A NO manual
status RMD**

Supply	via bus line	21–32 V DC
	Auxiliary voltage	110–240 V ±10% AC, 50 to 60 Hz
Outputs	16 NO contacts	potential-free
	Switching voltage	250 V AC, 50 to 60 Hz
	Switching current	max. 10/16 A at 250 V AV
Behaviour on power failure/restoration	Bus and/or mains power failure	Configurable
	Bus power restoration	Configurable
	Mains power restoration	Configurable
	Bus and mains power restoration	Configurable
Switching capacity (outputs 1 to 8/ 9 to 16)	Resistive load	3600 W
	Incandescent lamps	1400/1225 W
	HV halogen lamps	2300 W
	LV halogen lamps	
	- inductive transformers	1200 VA
	- electronic transformers	1200 W
	Fluorescent lamps compensated	not approved/920 VA (80 µF)
	Motors	600 W (no three-phase induction motors)
Operation and display elements	Buttons for “Manual” and “Off”	Local operation or bus operation
	Buttons “Up” and “Down”	Drive controls for upwards and downwards
	Programming button	
	Programming LED	Red
	LED local operation/bus operation locked out	Red
	Status LED “Up” and “Down”	Red
	16 status LEDs	Red
Connections	KNX/EIB	terminals
	Outputs, external supply (screw terminals)	0.5 – 4 mm² single/fine wire without end cap sleeve, 0.5 – 2.5 mm² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation/Storage/Transport	-5 to +45 °C/-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (W×H×D)	144 x 90 x 64 mm	8 modules

The switch actuator 16gang is executed as a top hat rail mounted device. Its outputs switch 16 groups of electrical consumers/control up to 8 roller shutter drives, with two switching channels combined constituting one roller shutter channel. Switch and roller shutter operation can be combined.

Outputs are switched in response to KNX/EIB telegrams or manual operation directly at the switch actuator. When manual operation is active, bus operation is locked out.

The device requires a separate auxiliary power supply.

Device colour
Light grey 7531 00 01

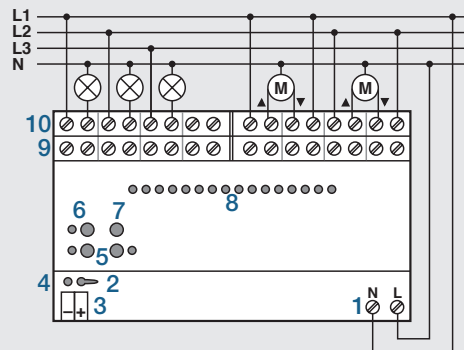
Switching/shutter, TF 802601	<ul style="list-style-type: none"> ■ Outputs arranged in pairs for switching or roller shutter operation functions
Switches	<ul style="list-style-type: none"> ■ Outputs configurable as NO (normally open) or NC (normally closed) contacts ■ Outputs 1 – 8 with time switch functions or switch-off delay ■ Switching behaviour on bus power failure and restoration configurable by output ■ Outputs can be locked out: Behaviour at start and end of a lock-out configurable ■ Central function for all outputs: Switching (1 bit) or forced operation (2 bit)
Drives	<ul style="list-style-type: none"> ■ Type of shutter configurable: Roller shutter or Venetian blind (including slat control) ■ Run time configurable ■ Pause on change of direction configurable ■ Roller shutter behaviour on bus power failure and restoration configurable by output ■ Security functions for all outputs globally configurable ■ Up to 2 sunshade functions for all outputs globally configurable - sunshade positioning available including slat activation
Objects	20
Group addresses/assignments	maximum of 32 each

IMPORTANT

Suitable for switching different phases.
The loads connected must be in accordance with the parameterisation - otherwise there is a risk of damage!

Outputs 1 to 8 and 9 to 16 have different loading capabilities - check their designation!

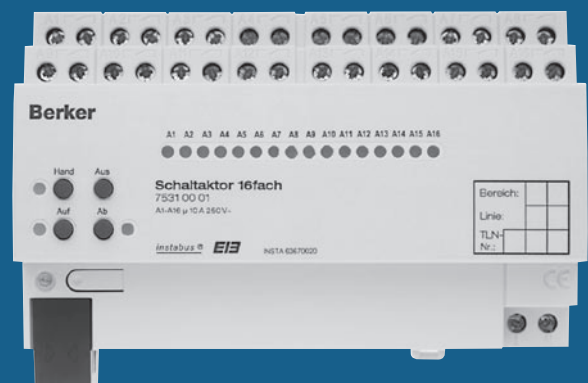
For drive controls two adjoining relay outputs are combined as a single output channel (left hand output for upwards).



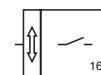
Key

1. Auxiliary voltage terminal
2. Programming button
3. Bus connection
4. Programming LED
5. Up/down buttons each with its associated LED
6. Manual button with its associated LED
7. Off/bus operation button
8. Output status LEDs
9. Outputs 9 to 16
10. Outputs 1 to 8 (with time switch function and switch-off delay)

- Combination device for switching and controlling roller shutters
- Outputs configurable as NO (normally open) or NC (normally closed) contacts
- One LED status indicator per channel
- Manual operation can be locked out/restricted to absence of bus power



Switch actuator 16gang 10 A NO manual status RMD



ETS search path: Gebr. Berker >> Outputs >> Binary output, mix >> manual, status

Supply	via bus line	21–32 V DC
	Auxiliary voltage	110 to 230 V AC $\pm 10\%$, 50/60 Hz
Outputs	16 NO contacts	potential-free μ contacts, monostable
	Rated voltage	110 to 230 V AC, $+10\%$ -15% 400 V AC; 50/60 Hz DC: 24 V
	Switching current	230 V AC: 16 A/AC-1; 10 A/AC-3 400 V AC: 10 A/AC-1; 6 A/AC-3 DC: 16 A/24 V
	Making current	max. 800 A, 200 μ s; 165 A, 20 ms
	Switching current	min. 100 mA (at 24 V)
Behaviour in the event of power failure/restore	Total current load capacity	max. 160 A
	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
Breaking capacity	Bus/mains voltage return	software-dependent
	Ohmic load	3000 W
	Capacitive load	16 A, max. 140 μ F
	Motor load	1380 VA (shutter/blind or fan)
	Incandescent lamps	3000 W
	LV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 1000 W parallel-compensated: 1160 W, 140 μ F
	Mercury vapour lamps	Duo circuit: 2300 W, 140 μ F
		uncompensated: 1000 W parallel compensated: 1160 W, 140 μ F

continued on next double page ►

The switch/shutter actuator 16gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts or controls up to eight motor drives for shutters, blinds, etc. Switching and shutter operation combined on a single actuator are also possible.

The 4 push-button field on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. For manual operation and the power supply for the relays, a separate auxiliary voltage supply is required.

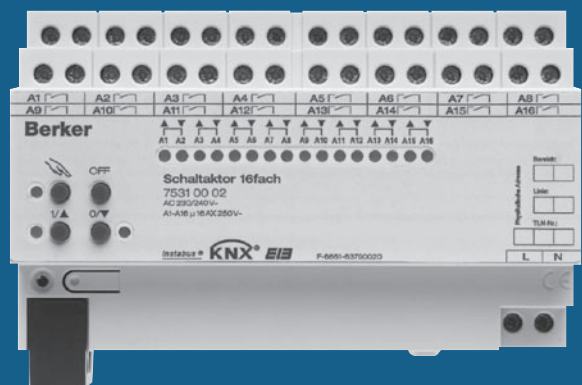
When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

Device colour
Light grey 7531 00 02

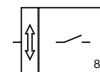
Switching/shutter 207801	<ul style="list-style-type: none"> ■ Shutter or switching operation can be set for the sixteen outputs, in shutter operation each pair of two neighbouring outputs are combined into a shutter output ■ Responses in the event of bus voltage failure and return can be set for each output ■ Delay for active feedback after bus voltage return can be adjusted ■ Manual operation can be blocked
Shutter operation	<ul style="list-style-type: none"> ■ Activation of lamella shutters, blinds or ventilation flaps adjustable ■ Separately paramet. operation times with operation time extension for moving to the upper end position ■ Central activation of all shutter outputs possible ■ Active and passive (object can be read out) feedback of the shutter position or lamella position ■ Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm), if desired with cyclic monitoring ■ Forced setting function can implemented for each shutter output ■ Extensive sun shade function can be set for each output ■ Can be included in scenes: Up to eight internal scenes can be set
Switching operation	<ul style="list-style-type: none"> ■ NO or NC operation can be set ■ Central switching function with group feedback ■ Active and passive (object can be read out) feedback of the switching state ■ Logical linking function ("AND", "OR", "AND with return") for each output ■ Blocking function can be paramet. for each channel—alternatively forced setting function for each output ■ Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function) ■ Can be included in light scenes, up to eight internal scenes can be set
Objects:	122
Group addresses/assignments:	maximum 254/maximum 255

continued on next double page ►

- Combination unit for switching or control of motor drives
- Outputs can be set as NO or NC
- Sixteen potential-free NO contacts 16 A
- Four push-buttons with LED display for manual operation
- LED status indication for each channel



Switch/shutter actuator 16/8gang 16 A NO manual, status RMD



ETS search path: Gebr. Berker >> Output >> Binary output, mix >>

Operation and display elements	Button field 4gang	Local operation
	3 status LEDs for local operation	Red
	8 status LEDs outputs	Red
	Programming button	
Connections	Programming LED	Red
	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0,2–4 mm ² or 2 x 0.2–2.5 mm ² single-core
		0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

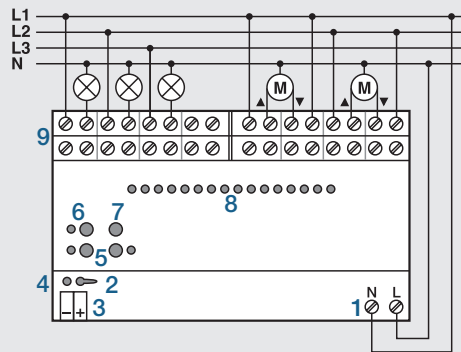
ATTENTION

Suitable for switching different external phase conductors.

The mains voltage must be present in order to activate the outputs.

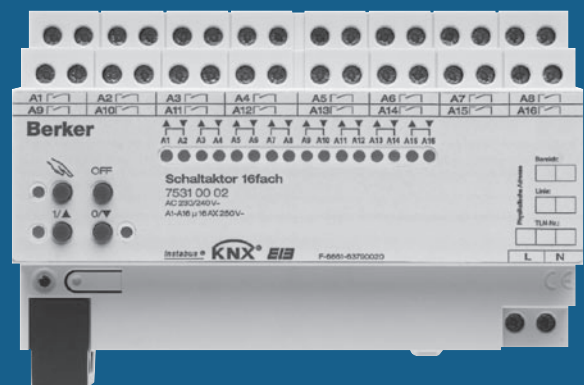
The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

The connection of three-phase motors is not permissible.



Key

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons 1/▲ and 0/▼ each with associated LED
6. Manual button with associated LED
7. Off/bus operation button
8. Status LEDs of the outputs
9. Outputs



**Switch/shutter
actuator 16/8gang
16 A NO manual,
status RMD**

Supply	via bus line	21–32 V DC
Inputs	Number	max. 2
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	approx. - 19 V DC; continuous signal
Outputs	1 NO contact	potential-free μ contact, bistable
	Rated voltage	230 V AC; 50 60 Hz
	Switching current	max. 16 A
	Making current	max. 400 A, 20 ms
Behaviour in the event of bus voltage failure	Outputs	Dependent on the parameterisation
	Inputs	No response
Behaviours in the event of bus voltage return	Outputs	Dependent on the parameterisation
	Inputs	Dependent on the parameterisation
Breaking capacity	Incandescent lamps	2500 W
	HV halogen lamps	2200 W
	LV halogen	Conventional transformers: 1000 VA Tronic transformers: 1000 W
	Capacitive load	230 V AC, 10 A nominal current, max. 105 μ F
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Pre-assem. connecting cable, connecting terminal
	Inputs	Pre-assem. connecting cable: YY 6 x 0.6 mm ²
	Output	Pre-assem. connecting cable: 2 x H05 V-K 2.5 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	e.g. insertion in deep flush-mounted box	Ø 60 mm
Mounting orientation	as desired	
Dimensions (Ø x H)	53 x 28 mm	Hole in the centre of the actuator: Ø = 7 mm

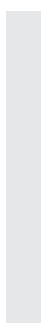
The switch actuator 1gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and switches electrical loads with its relay contact.

The device also has two extension unit inputs that can operate either directly on the switching output (local operation of the switching output by input 1) or also alternatively as binary outputs on the bus, depending on the parameterisation. The connected potential-free switching or push-button contacts are read in via a common reference potential on the switch actuator.

Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out via the binary inputs.

The switch actuator is supplied by the KNX/EIB and therefore does not require any additional external power supply.

Device colour
Light grey 7534 10 01



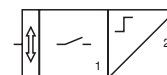
Switching, 2 inputs 207201	
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (this is the state at delivery) - Operation as general binary inputs separately on the bus ■ Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return and can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between step/move time operation adjustable ■ Control concept adjustable ■ Length of actuation for lamella adjustment adjustable
Value transmitter and light scene extension unit function	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with memory function it is possible to save the scene without calling it up first
Output	<ul style="list-style-type: none"> ■ Output can be set as NO or NC ■ Preferred position in the event of bus voltage failure and return can be set ■ Additional feedback and one additional function possible ■ Adjustable additional functions: <ul style="list-style-type: none"> - Logic function with three logical parameters - Blocking function with adjustable blocking behaviour of the relays - Forced setting function for assigning priorities to arriving switching telegrams ■ Feedback object invertible ■ Delay for bus voltage return can be adjusted ■ Switch-on and/or switch-off delay or timer function adjustable
Objects	9
Group addresses/assignments	maximum 26/maximum 27

continued on next double page ►

- Potential-free bistable NO contact 16 A
- Two independent binary inputs for potential-free contacts
- Local operation via input pre-programmed
- Pre-assembled connecting cables



Switch actuator 1gang 16A flush- mounted



ETS search path: Gebr. Berker >> Output >>
Binary output, 1gang >>

ATTENTION

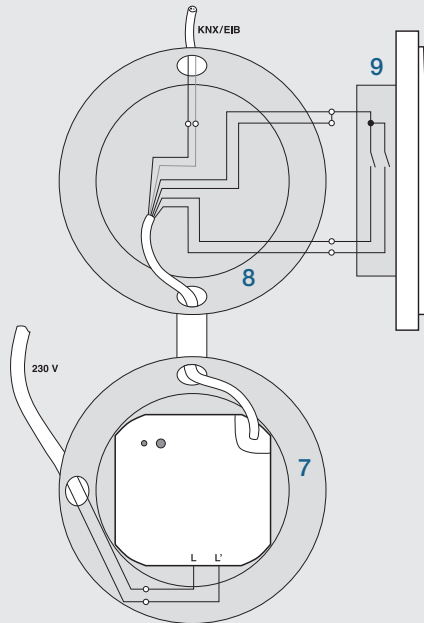
The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

Recommendation

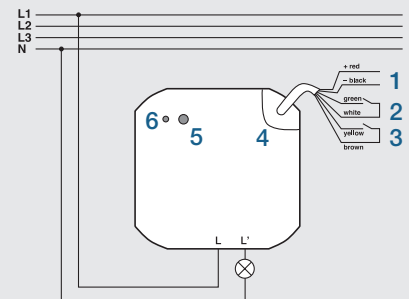
Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (8) can house the bus and extension unit connection and also a series switch (9), for example.

The other box (7) houses the the switch actuator and the 230 V terminals. The 6pole connecting cable (D) is routed through the connection between the boxes.



Key

1. KNX/EIB connection (red/black)
2. Input 1 (green/white)
3. Input 2 (yellow/brown)
4. Bus and extension unit connection
5. Programming button
6. Programming LED
7. Flush-mounted box for switch actuator 1gang
8. Flush-mounted box for e.g. series switch
9. Connection diagram for e.g. a series switch



**Switch actuator
1gang 16A flush-
mounted**

Supply	via bus line	21–32 V DC
Inputs	Number	max. 2
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	approx. - 19 V DC; continuous signal
Outputs	2 NO contacts	potential-free μ contact, bistable
	Rated voltage	230 V AC; 50 60 Hz
	Switching current	max. 6 A
	Making current	max. 120 A, 20 ms
Behaviour in the event of bus voltage failure	Outputs Inputs	Dependent on the parameterisation No response
Behaviours in the event of bus voltage return	Outputs Inputs	Dependent on the parameterisation Dependent on the parameterisation
Breaking capacity	Incandescent lamps	1200 W
	HV halogen lamps	1200 W
	LV halogen	Conventional transformers: 500 VA Tronic transformers: 500 W
	Capacitive load	230 V AC, 6 A nominal current, max. 14 μ F
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Pre-assem. connecting cable, connecting terminal
	Inputs	Pre-assem. connecting cable: YY 6 x 0.6 mm ²
	Output	Pre-assem. connecting cable: 2 x H05 V-K 2.5 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	e.g. insertion in deep flush-mounted box	Ø 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (Ø x H)	53 x 28 mm	Hole in the centre of the actuator: Ø = 7 mm

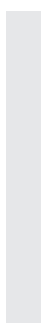
The switch actuator 2gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and switches electrical loads with its two relay contacts.

The device also has two extension unit inputs that can operate either directly on the switching output (local operation) or also alternatively as binary outputs on the bus, depending on the parameterisation.

The connected potential-free switching or push-button contacts are read in via a common reference potential on the switch actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out via the binary inputs.

The switch actuator is supplied by the KNX/EIB and therefore does not require any additional external power supply.

Device colour
Light grey 7534 20 01



Switching, 2 inputs 207101

Inputs	■ like previous device
Function switching	■ like previous device
Function dimming	■ like previous device
Function shutter	■ like previous device
Value transmitter and light scene extension unit function	■ like previous device
Outputs	■ like previous device
Objects	12
Group addresses	maximum 26
Assignments	maximum 27

ATTENTION

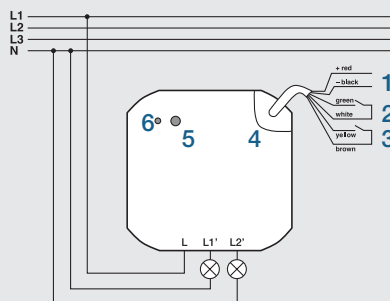
The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Not suitable for connection of different external conductors!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

Installation recommendation

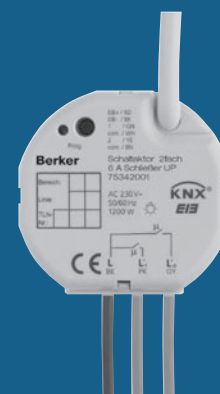
See previous page.



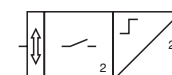
Key

1. KNX/EIB connection (red/black)
2. Input 1 (green/white)
3. Input 2 (yellow/brown)
4. Bus and extension unit connection
5. Programming button
6. Programming LED

- Potential-free bistable NO contacts 6 A
- Two independent binary inputs for potential-free contacts
- Local operation via inputs pre-programmed
- Pre-assembled connecting cables



Switch actuator 2gang 6A flush- mounted



ETS search path: Gebr. Berker >> Output >> Binary output, 2gang >>

Supply	via bus line	21–32 V DC
	Supply voltage	via connected phase lead (2-wire system)
Outputs	Switch type	Power MOS-FET (phase rising or falling zero transit)
	Rated voltage	230 V AC $\pm 10\%$, 50 to 60 Hz
	Rated current	2.2 A
	Minimum load	50 W (if output switched)
	Overall power loss	maximum 4.5 W
Behaviour on power failure/restoration	Bus or mains power failure	Dimmer actuator switches off
	Bus and mains power failure	Dimmer actuator switches off
	Bus power restoration	Software-dependent
	Mains power restoration	Dimmer actuator adjusts brightness according to object value
	Bus and mains power restoration	Software-dependent
Dimming capacity	Resistive load, incandescent lamps, HV halogen lamps, LV halogen lamps with electronic or conventional transformer	50–500 W/VA in each case
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	terminals
	Outputs	screw terminals 0.25–4 mm ²
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	–5 to +45 °C
	Storage/transport	–25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (W×H×D)	72 x 90 x 58 mm	4 modules

The universal dim actuator 1gang is executed as a top hat rail mounted device. It operates on the generalized phase cut-on or phase cut-off principle, and permits switching and dimming of incandescent lamps, HV halogen lamps and LV halogen lamps with conventional or Tronic transformers.

The characteristic of the connected load is automatically calibrated and the dimmer actuator is set to the appropriate dimming method.

Device colour
Light grey 7531 10 07

Dimming 301701

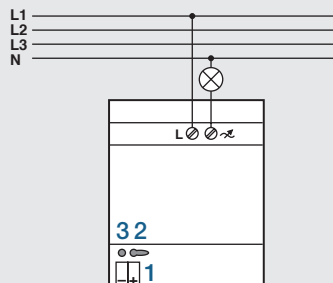
- Switching and dimming of lights
- “Dim-down” or “Jump onto” preset brightness levels function
- Switch-on and dimming response programmable
- “Soft-ON”, “Soft-OFF” and “timed dimmer” (stairwell light function) programmable
- Time-delayed switch-off when basic brightness reached or when light falls below basic brightness level
- Switching status/dimming value indication object
- Light scene mode – retrieval of up to eight brightness values as light scenes
- Activation of a lockout mode – brightness value at beginning and end of lockout programmable
- Response to bus power restoration programmable
- Overload detection

Objects

9

Group addresses/assignments

maximum of 27 each



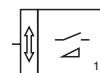
Key

1. Bus connection
2. Programming button
3. Programming LED

- Automatic calibration to connected load
- Energy-saving softstart
- Dimming rate and basic brightness configurable
- Revertive signal (feedback) of switching state
- Overheating protection
- Electronic shorting and overload protection



Universal dim actuator 1gang 50-500 W/VA RMD



ETS search path: Gebr. Berker >>
Illumination >> Dimmer >>

Supply	via bus line	21–32 V DC
	Supply voltage (two-wire technique)	via connected outer conductor
Outputs	Switch type	Power MOS-FET
	Rated voltage	230 V AC
	Rated current	2 x 1 A
	Minimum load	50 W per channel
	Total power loss	maximum 4.5 W (both channels)
Response to power failure/restoration	Bus or mains power failure	Dim actuator switches off
	Bus and mains power failure	Dim actuator switches off
	Bus power restoration	programmable
	Mains power restoration	Dim actuator adjusts brightness according to object value
	Bus and mains power restoration	programmable
Dimming capacity	Bulbs, HV halogen lamps, LV halogen lamps with electronic or conventional transformer	50 – 300 W/VA each
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Pressure contact on data rail
	Outputs	Screw-type terminals 0.25 – 4 mm ²
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	No minimum clearances
Mounting orientation	any	
Dimensions (WxHxD)	72 x 90 x 58 mm	4 modules

The universal switch actuator 2gang is executed as a top hat rail mounted device. It operates on the generalized phase cut-on or phase cut-off principle, and permits switching and dimming of bulbs, HV halogen lamps and LV halogen lamps with conventional or Tronic transformers.

The characteristic of the connected load is automatically calibrated and the dim actuator is set to the appropriate dimming method.

Device colour
Light grey 7531 20 07

Dimming 301501

- Switching and dimming of lights
- "Dim-down" or "Jump onto" preset brightness levels function
- Switch-on and dimming response programmable
- "Soft-ON", "Soft-OFF" and "timed dimmer" (stairwell light function) programmable
- Time-delayed switch-off when basic brightness reached or when light falls below basic brightness level
- Switching status/dimming value indication object
- Light scene mode – retrieval of up to eight brightness values as light scenes
- Activation of a lockout mode – brightness value at beginning and end of lockout programmable
- Response to bus power restoration programmable
- Overload detection

Objects

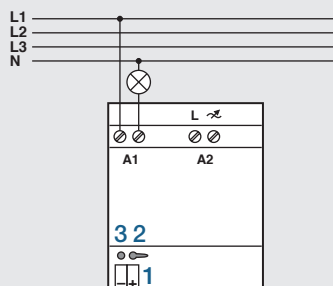
18

Group addresses/assignments

maximum 34/maximum 28

ATTENTION

Suitable for switching and dimming different external phase conductors.



Key

1. Bus connection
2. Programming button
3. Programming LED

- Automatic calibration to connected load
- Energy-saving softstart
- Dimming rate and basic brightness configurable
- Revertive signal (feedback) of switching state
- Overheating protection
- Electronic shorting and overload protection



Universal dim actuator 2gang 2 x 300 W/VA RMD



ETS search path: Gebr. Berker >>
Illumination >> Dimmer >>

Supply	via bus line	21–32 V DC
Auxiliary voltage	AC 190 to 230 V ~ +10/-15 %; 50/60 Hz	
Outputs	Switch type Rated voltage Minimum load Total power loss	Power MOS-FET (phase cut-on or phase cut-off) 230 V AC; 50/60 Hz 20 W/VA (if output connected) max. 10 W
Behaviour in the event of power failure/restore	Bus voltage failure Mains voltage failure Bus/mains voltage return	software-dependent Loads are switched off software-dependent
Dimming capacity	Incandescent lamps, HV halogen lamps LV halogen lamps with electronic or conventional transformer	each 20–210 W/VA
Operation and display elements	Button field 4gang 3 status LEDs local operation 8 status LEDs outputs Programming button Programming LED	Local operation Red Red Red
Connections	KNX/EIB Outputs: Screw terminals	Connecting terminal 0.5–4 mm ² single/finely stranded without conductor sleeve 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Operation and storage/transport	-5 to +45 °C -25 to +70 °C
Installation	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

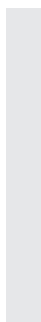
The dim actuator 4gang is designed as a top hat rail mounted device. It operates according to the phase cut-on and phase cut-off principle, and makes it possible to switch and dim different lamp loads on four outputs. The characteristic of the connected load is calibrated automatically and the suitable dimming process is set, although the setting can also be made manually using the programming software.

The manual selection switches on the front of the device can be used to switch and dim the connected loads by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state.

When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

The device requires a separate auxiliary voltage supply.

Device colour
Light grey 7531 40 17



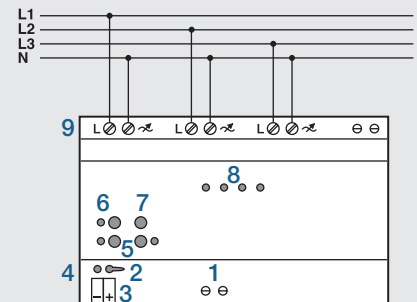
Dimming 301A01

- Independent activation of up to 4 dimming outputs
- Manual actuation of the outputs possible independently from the bus (building site operation)
- Central switching function for common activation of all outputs
- Switching feedback: active or passive (object can be read out) feedback function
- Load type can be set for each output:
 - universal (with automatic calibration process)
 - electronic transformer (capacitive/phase cut-off principle)
 - conventional transformer (inductive/phase cut-on principle)
- brightness limit values for basic and maximum brightness adjustable
- Dimming behaviour (including fading) and dimming characteristic curves adjustable
- Soft switch-on or soft switch-off function adjustable
- Transmission of message telegrams to the bus for each output in the event of short-circuit/overload and in the event of a load drop-out adjustable
- Feedback of the connected load type possible
- Blocking function or alternatively forced setting function for each output adjustable
- Time functions (switch-on, switch-off delay, stair light function - also with pre-warning function) adjustable
- Operating hours meter can be activated for each output
- Outputs can be included in up to 8 scenes
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each group

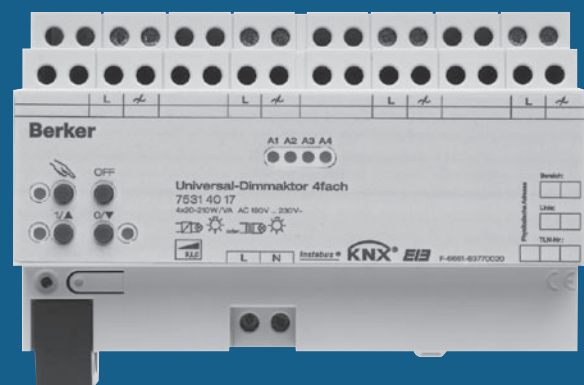
Objects	75
Group addresses/assignments	maximum 254/maximum 255

Key

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Push-buttons 1/▲ and 0/▼ each with associated LED
6. Manual button with associated LED
7. OFF button
8. Status LED of the outputs
9. Outputs



- Four outputs for switching and dimming
- Automatic calibration of the connected load
- Bulb-preserving soft start
- Thermal overload protection
- Electronic short-circuit and overload protection
- Manual selection switch with status indication for each output



Universal dim actuator 4gang 20-210 W/VA manual status RMD



ETS search path: Gebr. Berker >> Illumination >> Dimmer >>

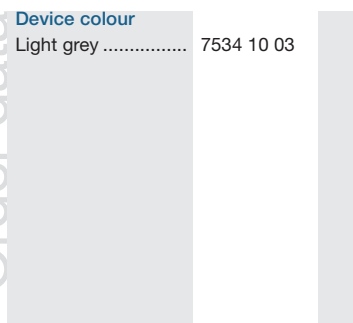
Supply	via bus line external	21–32 V DC via connected external conductor
Inputs	Number Cable length Scanning voltage	maximum 2 33 cm pre-assembled, maximum 5 m approx. up to 19 V DC; continuous signal
Outputs	Switch type Rated voltage Nominal current Minimum load Total energy dissipation	Power MOS-FET (phase cut-on or phase cut-off) 230 V AC; 50/60 Hz 0.9 A 50 W/VA (if output connected) maximum 2 W
Behaviour in the event of bus voltage failure	Outputs	Dependent on the parameterisation Inputs no response
Behaviour in the event of bus voltage return	Outputs Inputs	Dependent on the parameterisation Dependent on the parameterisation
Dimming capacity	Incandescent lamps, HV halogen lamps LV halogen lamps with electronic or conventional transformer	50–210 W/VA
Operation and display elements	Programming button Programming LED	Red
Connections	KNX/EIB Inputs Output	Pre-assem. connecting cable, connecting terminal Pre-assem. connecting cable: YY 6 x 0.6 mm Pre-assem. connecting cable: 2 x H05 V-K 0.75 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation	e.g. insertion in deep flush-mounted box	Ø 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (Ø x H)	53 x 28 mm	Hole in the centre of the actuator: Ø = 7 mm

The dim actuator 1gang is designed as a flush-mounted device. It operates according to the phase cut-on and phase cut-off principle, and makes it possible to switch and dim different lamp loads. The characteristic of the connected load is calibrated automatically and the suitable dimming process is set.

The device also has two extension unit inputs that can operate either directly on the dimming output (local 2-push-button operation by inputs 1 and 2) or also alternatively as binary outputs on the bus, depending on the parameterisation. The connected potential-free switching or push-button contacts are read in via a common reference potential on the switch actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out via the binary inputs.

The external power supply is provided via the connected loads.

Device colour
Light grey 7534 10 03



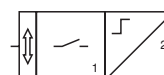
Dimming, 2 inputs 301901	
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (this is the state at delivery) - Operation as general binary inputs separately on the bus ■ Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return and can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between step/move time operation adj. ■ Length of actuation for lamella adjustment adjustable ■ Control concept adjustable
Value transmitter and light scene extension unit function	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with memory function it is possible to save the scene without calling it up first
Output	<ul style="list-style-type: none"> ■ Switch-on and dimming behaviour adjustable using parameters ■ Feedback of the switching state possible using a separate communication object ■ Feedback of the set brightness value using a separate com. object or via the brightness value object ■ "Soft ON", "Soft OFF" and timed dimmer adjustable ■ Time-delayed switch-off if lower than a switch-off brightness possible ■ Short-circuit message and report of a load drop-out (also power failure) possible ■ Light scene operation (calling up up to eight internally stored brightness values as light scenes) ■ Activation of lock-out operation with parameterisable brightness value at the beginning and end of the lock-out adjustable via object ■ Behaviour after bus voltage failure and return can be set ■ Delay for bus voltage return can be adjusted centrally
Objects	19
Group addresses/assignments	maximum 26/maximum 27

continued on next double page ►

- Automatic calibration of the connected load
- Bulb-preserving soft start
- Thermal overload protection
- Electronic short-circuit and overload protection
- Two independent binary inputs for potential-free contacts
- Local operation via input pre-programmed
- Pre-assembled connecting cables



Universal dim actuator 1gang 50-210 W/VA flush-mounted



ETS search path: Gebr. Berker >> Illumination >> Dimmer >>

Notes

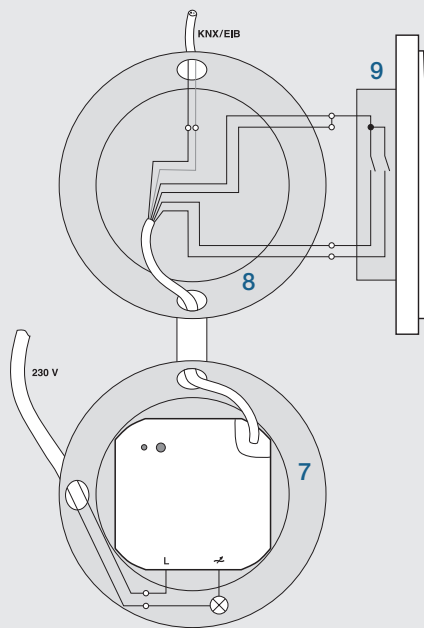
ATTENTION

The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

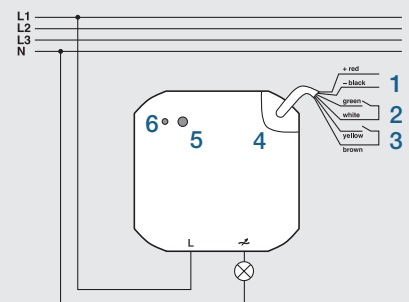
Recommendation

Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (A) can house the bus and extension unit connection and also a series switch (C), for example. The other box (B) houses the the switch actuator and the 230 V terminals. The 6pole connecting cable (D) is routed through the connection between the boxes.



Key

1. KNX/EIB connection (red/black)
2. Input 1 (green/white)
3. Input 2 (yellow/brown)
4. Bus and extension unit connection
5. Programming button
6. Programming LED
7. Flush-mounted box for switch actuator 1gang
8. Flush-mounted box for e.g. series switch
9. Connection diagram for e.g. a series switch



**Universal dim
actuator 1gang
50-210 W/VA flush-
mounted**

Supply	via bus line	21–32 V DC
Inputs	Number	3
	Signal voltage	1–10 V
	Signal current per input	max. 100 mA (1 Siemens electronic ballast: approx. 1 mA, 1 Helvar electronic ballast: approx. 4 mA)
	Signal duration	Continuous
	Length of input cable	100 m, at 1.5 mm ²
Outputs	Number	3 NO contacts, potential-free relay contact
	Rated voltage	230 V AC
	Rated current	16 A/AC-1; 10 A/AC-3
Response to power failure/restoration	Bus power failure	1–10 V input regulates to 10 V
	Mains power failure	Relay maintains value prior to bus power failure Control voltage at 1–10 V input undefined Relay maintains value prior to bus power failure
	Bus and mains power failure	Relay maintains value prior to bus/mains power failure
	Bus power restoration	programmable
	Mains power restoration	Control unit regulates brightness according to object value
	Bus and mains power restoration	programmable
Switching capacity	Ohmic load	2500 W
	Fluorescent lamps with electronic ballast	Type-dependent, different switch-on currents
Operation and display elements	Manual selection switch, programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
	Outputs	0.25–4 mm ² and 2 x 0.2–2.5 mm ² , each single-wire
		0.75–4 mm ² fine wire without ferrule 0.5–2.5 mm ² fine wire with ferrule
Protection	IP 20, EN 60529	
Ambient temperature range	Operation and Storage/transportation	-5 to +45 °C or -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	No minimum clearances
Mounting orientation	any	
Dimensions (WxHxD)	70 x 90 x 58 mm	4 modules

The control unit 3gang is executed as a top hat rail mounted device.

The unit receives KNX/EIB telegrams and performs switching and dimming functions accordingly.

It is used to control ballasts with built-in 1–10 V interface (electronic ballasts, electronic transformers).

The mains voltage of the equipment is fed in via relay contacts. The control voltage is fed in from the ballast and processed by electronic potentiometers of the control unit.

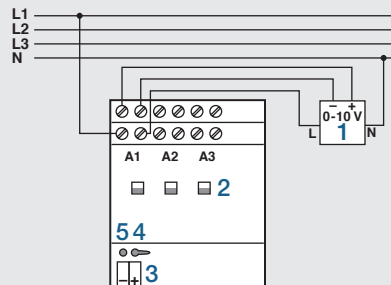
Device colour

Light grey 7531 30 05

Control unit 301601

- “Dim-down” or “jump to” preset brightness levels function
- Switch-on and dimming response programmable
- Active transmission of brightness values (set “T” flag!)
- “Soft-ON”, “Soft-OFF” and “timed dimmer” (stairwell light function) programmable
- Time-delayed switch-off when basic brightness reached or when light falls below basic brightness level
- Switching status/dimming value indication object
- Switching and dimming of fluorescent lamps in conjunction with electronic ballast (EVG) or other 1–10 V dimmable devices
- Light scene mode, retrieval of up to eight brightness values as light scenes
- Activation of a lockout mode – brightness value at beginning and end of lockout programmable
- Response to bus power restoration programmable

Objects	18
Group addresses	maximum 34
Assignments	maximum 28



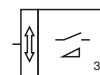
Key

1. Electronic ballast (EVG)
2. Manual selection switch/Status indication
3. Bus connection
4. Programming button
5. Programming LED

- Integral switching contacts 16 A
- 1–10 V interfaces 100 mA
- Manual selection switch/Status indication
- Switching status indication object



Control unit 3gang 1-10 V 16 A RMD



ETS search path: Gebr. Berker >> Illumination >> Dimmer >>

Supply	via bus line	21–32 V DC
	Power consumption	typ. 150 mW
	Power supply	230 V AC $\pm 10\%$, 50 to 60 Hz
	Power loss (without connected load)	min. 0.3 W up to max. 1.8 W
Outputs	Number	4
	Type	1 NO (normally open) contact and 1 changeover contact (mono-stable), direction mech. locked against each other
	Switching voltage	230 V AC $\pm 10\%$, 50 to 60 Hz
	Switching power	max. 6 A at 230 V AC (non-inductive or low-inductance loads)
Response to power failure/restoration	Bus power failure	depends on software
	Mains power failure	all outputs switch off, no manual operation, position data, functions are lost, but safety functions remain intact
	Bus and mains power failure	as above - safety functions are discarded.
	But power restoration	Outputs off, bus communication possible
	Mains power restoration	depends on software, manual operation possible
	Bus and mains power restoration	depends on software, manual operation possible
Operating and display elements	Button	activation of manual operation
	3 buttons	Retrieval of the shutter functions locally
	Programming button	
	Programming LED	Red
	11 status LEDs	Red
Connections	KNX/EIB	terminal
	Outputs: screw terminals	0.5 – 4 mm ² single/fine wire without end cap sleeve
	0.5 – 2.5 mm ² fine wire with end cap sleeve	
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation/storage/transport	-5 to +45 °C/-25 to +70 °C
Mounting/mounting orientation	on top hat rail 35 mm, EN 50022	any orientation
Dimensions (WxHxD)	72 x 90 x 64 mm	4 modules

The shutter actuator 4gang is designed as a top hat rail mounted device. Depending on the instabus KNX/EIB telegrams, it switches four mutually independent channels so that they can control one motorised drive each. The number of channels can be reduced to two. In this case, two motors control one channel each.

The various outputs can be controlled independently of the bus by means of the integrated manual operation function in the device. The actuator also offers the facility to move to specific blind, shutter or lamella positions in response to sun shade, centre or position telegrams. The position is acted upon both in bus and manual mode and can be output via the position object. When a storm warning is received, the actuator can move the blinds and/or shutters to a preset safety position and lock them in place.

The device requires a separate auxiliary power supply.

Device colour
Light grey 7531 40 12

Shutter 206901

- Four mutually independent outputs for one motorised drive
- 2 x 2 channel mode with shared control of two terminal outputs possible
- Operating mode for shutter or blind programmable
- A separate switchover time can be programmed for every output channel in the event of a change of direction
- Separate move times for step and move operation can be programmed for each channel
- A specific position of the shutter (including blade and/or blind) can be set for each channel
- Extension of movement time can be programmed to allow correction of the decelerated lifting time
- Two safety objects for shutter and blind channels with cyclic monitoring
- Polarity of the safety objects can be programmed
- Prioritisation of incoming telegrams can be programmed
- Two sun-protection functions to position the shutters depending on the brightness - one of the sun-protection functions can be selected per channel
- Four central functions are possible in 2 x 2 channel mode - the polarity for these functions can be programmed separately
- Response to bus power failure and bus power restoration can be programmed
- Manual operation can be locked

Objects or group address/assignments

20

32 each

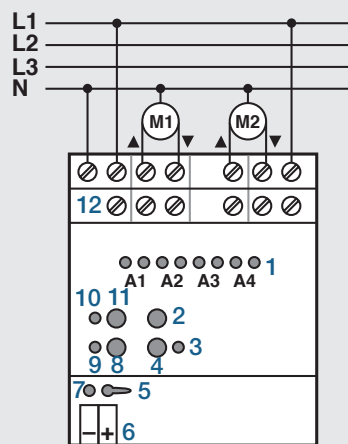
IMPORTANT

Suitable for spreading the loads over various phases.

A contact configuration of 230 V AC and SELV at the various outputs is not permitted.

Installation

The auxiliary voltage is connected to terminals N and L beside the terminals of output A1. This also supplies power to output A1.



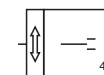
Key

1. LED direction display
2. Manual operation deactivated
3. LED direction display
4. DOWN button (manual operation)
5. Programming button
6. Bus connection
7. Programming LED
8. UP button (manual operation)
9. LED direction display
10. LED manual operation activated
11. Manual operation activation button
12. Terminals 230 V

- Four independent channels for controlling 230 V drives
- 2 x 2 channel mode possible
- Loads can be spread over various phases
- Two LEDs per channel for direction indication
- Permanent manual activation with locking of the bus function is possible
- Manual activation without bus power is possible



Shutter actuator 4gang 230 V AC manual status RMD



ETS search path: Gebr. Berker >> Shutter >> Shutters >>

Supply	via bus line	21–32 V DC
	Power consumption	typ. 150 mW
	Power supply	24 V DC $\pm 10\%$ (no AC)
	Power loss	min. 0.3 W up to max. 1.8 W (without connected load)
Outputs	Number	4
	Type	4 changeover contacts (mono-stable for each output), direction mechanically locked against each other
	Switching voltage Switching power	230 V AC $\pm 10\%$, 50 to 60 Hz max. 6 A at 24 V AC (non-inductive or low-inductance loads)
Response to power failure/restoration	Bus power failure	depends on software
	Mains power failure	all outputs switch off, no manual operation, position data, functions are lost, but safety functions remain intact
	Bus and mains power failure	as above - safety functions are discarded.
	Bus power restoration	Outputs off, bus communication possible
	Mains power restoration	depends on software, manual operation possible
	Bus and mains power restoration	depends on software, manual operation possible
Operating and display elements	Button	activation of manual operation
	3 buttons	Retrieval of the shutter functions locally
	Programming button	
	Programming LED	Red
Connections	11 status LEDs	Red
	KNX/EIB	terminal
	Outputs: screw terminals	0.5 – 4 mm ² single/fine wire without end cap sleeve 0.5 – 2.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation/storage/transport	-5 to +45 °C/-25 to +70 °C
Mounting/mounting orientation	on top hat rail 35 mm, EN 50022	any orientation
Dimensions (WxHxD)	72 x 90 x 64 mm	4 modules

The shutter actuator 4gang is designed as a top hat rail mounted device. Depending on the instabus KNX/EIB telegrams, it switches four mutually independent channels so that they can control one motorised drive each. The number of channels can be reduced to two. In this case, two motors control one channel each.

The various outputs can be controlled independently of the bus by means of the integrated manual operation function in the device. The actuator also offers the facility to move to specific blind, shutter or lamella positions in response to sun shade, centre or position telegrams. The position is acted upon both in bus and manual mode and can be output via the position object. When a storm warning is received, the actuator can move the blinds and/or shutters to a preset safety position and lock them in place.

The device requires a separate 24 V DC power supply.

Device colour
Light grey 7531 40 11

Shutter 206901

- Four mutually independent outputs for one motorised drive
- 2 x 2 channel mode with shared control of two terminal outputs possible
- Operating mode for shutter or blind programmable
- A separate switchover time can be programmed for every output channel in the event of a change of direction
- Separate move times for step and move operation can be programmed for each channel
- A specific position of the shutter (including blade and/or blind) can be set for each channel
- Extension of movement time can be programmed to allow correction of the decelerated lifting time
- Two safety objects for shutter and blind channels with cyclic monitoring
- Polarity of the safety objects can be programmed
- Prioritisation of incoming telegrams can be programmed
- Two sun-protection functions to position the shutters depending on the brightness - one of the sun-protection functions can be selected per channel
- Four central functions are possible in 2 x 2 channel mode - the polarity for these functions can be programmed separately
- Response to bus power failure and bus power restoration can be programmed
- Manual operation can be locked

Objects or group address/assignments

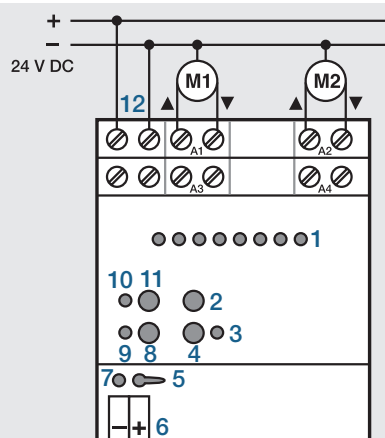
20

32 each

IMPORTANT

Not suitable for connecting alternating voltage (AC).

Terminals „+1/2-“ and „+3/4-“ must have the same operating voltage polarity. Otherwise, the actuator may be destroyed.



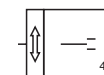
Key

1. LED direction display
2. Manual operation deactivated
3. LED direction display
4. DOWN button (manual operation)
5. Programming button
6. Bus connection
7. Programming LED
8. UP button (manual operation)
9. LED direction display
10. LED manual operation activated
11. Manual operation activation button
12. Terminals 24 V DC

- 4 independent channels for controlling 24 V DC drives
- 2 x 2 channel mode possible
- One separate supply connection for every two channels
- Two LEDs per channel for direction display
- Permanent manual activation with locking of the bus function is possible
- Manual activation without bus power is possible



Shutter actuator 4gang 6A 24 V DC manual status RMD



ETS search path: Gebr. Berker >> Shutter >> Shutters >>

Supply	via bus line	21–32 V DC
Auxiliary voltage	110 to 230 V AC ± 10 %, 50/60 Hz	
Outputs	Number	4/2
	Dependent on the parameterised channel definition	(4-channel 230 V) or (2-channel 12–48 V DC)
	Contact type	μ contact, monostable
	Switching voltage AC	110 to 230 V AC $+10$ % -15 %, 50/60 Hz
	Contact rating AC	3 A AC-1 4 A AC-1 at maximum 75 % ED (switch-on time) 6 A AC-1 at maximum 50 % ED (switch-on time)
	Switching voltage DC Contact rating DC	12–48 V DC 3 A 6 A at maximum 50 % ED (switch-on time)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
	Bus and mains voltage return	software-dependent
Operation and display elements	Button field 4gang	Local operation
	3 status LEDs local operation	Red
	8 status LEDs outputs	Red
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0,2–4 mm ² or 2 x 0,2–2,5 mm ² single-core 0,75–4 mm ² finely stranded without conductor, 0,5–2,5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	on top hat rail 35 mm	EN 50022
Mounting orientation	as desired	preferably connecting terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

The shutter actuator 4gang is designed as a top hat rail mounted device and uses its mutually independent relay contacts to control motor drives for mains voltage 230 V AC (4 channels) or low voltage 12–48 V DC (2 channels). The four push-buttons on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

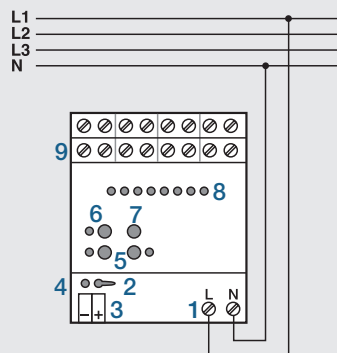
A separate auxiliary voltage supply is necessary for manual operation and for the power supply for the relays.

Device colour
Light grey 7531 40 18

Shutter 20A801

- Mode of operation can be set to four-channel or two-channel
- Activation of lamella shutters, blinds or ventilation flaps adjustable
- Automatic operation time detection for 230 V drives with mechanical end position switches adjustable
- Separately adjustable operation times with operation time extension for moving to the upper end position
- Central activation of all shutter outputs possible
- Active and passive (object can be read out) feedback of the shutter position or lamella position
- Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm), if desired with cyclic monitoring
- Forced setting function can implemented for each shutter output
- Extensive sun shade function can be set for each output
- Input objects for variable sun shade functions (specification e.g. via weather station)
- Expanded sun shading with presence detection adjustable
- Inclusion in scenes possible: Up to eight internal scenes can be set
- Responses in the event of bus voltage failure and return can be set for each output
- Delay for active feedback after bus voltage return can be adjusted
- Manual operation can be blocked

Objects	106
Group addresses/assignments	maximum 254/maximum 255

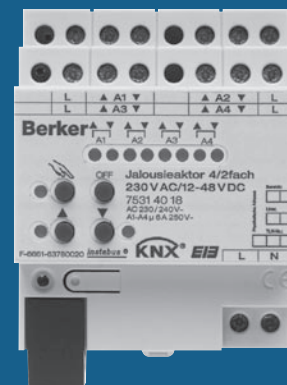


Key

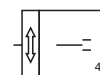
1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons ▲ and ▼ each with associated LED
6. Manual button with associated LED
7. ALL OFF button
8. Status LEDs of the outputs
9. Outputs

continued on next double page ►

- Four independent channels for 230V drives/two independent channels for direct current drives
- Automatic operation time detection for 230 V drives with mech. end position switches
- Four buttons for manual operation with LED display
- LED status indication for each channel

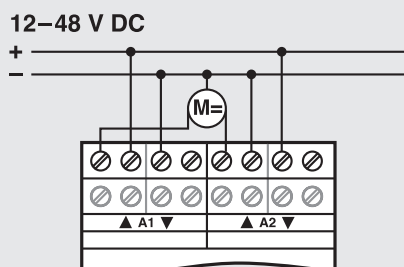


Shutter actuator 4gang 230 V AC/ 2gang 12-48 V DC manual status RMD



ETS search path: Gebr. Berker >> Shutter >> Shutters >>

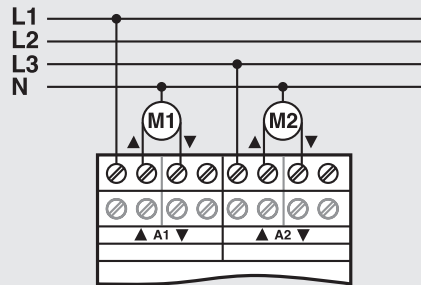
Electrical connection for 12 to 48 V drive motors



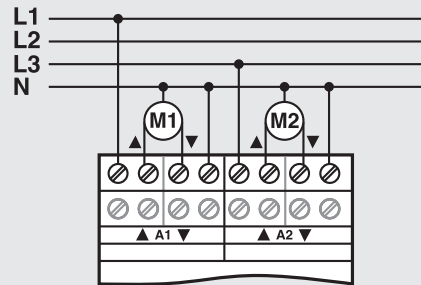
ATTENTION

A1 and A2 (as well as A3 and A4) are combined into a channel pair and control a DC drive.
In 2-channel operation the manual operation for output A2 (or A4) does not have any function.
The status LEDs indicate the relay states.

Electrical connection for 110 to 230 V drive motors



without automatic end position detection

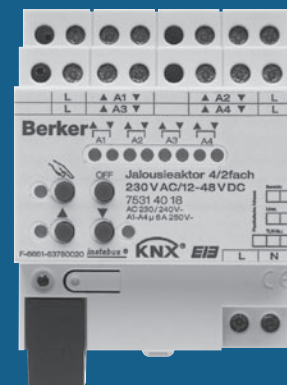


with automatic end position detection

ATTENTION

Suitable for dividing up the loads to different external phase conductors.

With appropriate programming and configuration the shutter actuator detects the operation times of the individual hangings itself and saves them. The actuator measures the voltage at the drives with mechanical end position switches the voltage against the activated N conductor, thus detecting the end positions. During operation the shutter actuator also adjusts itself to changed operation times (e. g. due to ageing of the drives).



**Shutter actuator
4gang 230 V AC/
2gang 12-48 V DC
manual status RMD**

Supply	via bus line	21–32 V DC SELV
	Power consumption	Typ. 150 mW
	Voltage	230 V AC $\pm 10\%$, 50/60 Hz
	Energy dissipation min.	0.3 to max. 1.8 W (without connected load)
Outputs	Number	4
		Type 1 NO and 1 change-over contact (mono stable), movement direction interlocked with each other
	Switching voltage	110 to 240 V AC $\pm 10\%$, 50/60 Hz
	Switching current	max. 6 A at 230 V AC (not inductive or weakly inductive loads)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Mains voltage failure	all outputs switch off; no manual operation; Position data, functions are lost; Safety functions remain, however as before - safety functions are discarded!
	Bus and mains voltage failure	Outputs off, bus communication possible
	Bus voltage restore	software-dependent, manual operation possible
	Mains voltage return	software-dependent, manual operation possible
	Bus and mains voltage return	software-dependent, manual operation possible
Operation and display elements	Button	Activation of manual operation
	3 push-buttons	Retrieval the shutter functions locally
	Programming button	
	Programming LED	Red
	11 status LEDs	Red
Connections	KNX/EIB	Connecting terminal
	Outputs	Screw terminals 0.5–4 mm ² single/finely stranded without conductor sleeve
		0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	Safety class II
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired
Dimensions (W x H x D)	72 x 90 x 64 mm	4 modules

The blinds actuator 4gang is designed as a top hat rail mounted device and depending on instabus KNX/EIB telegrams switches four mutually independent channels, each of which controls a motor drive. The number of channels can be reduced to two so that two motors can be activated per channel.

Using the integral manual operation on the devices it is possible to activate the individual outputs independently of the bus. If a storm message is received the actuator is able to move the shutters and/or blinds into a pre-defined safety position, and to lock them there. The device requires a separate auxiliary voltage supply.

Device colour
Light grey 7531 40 13

Shutters 207401

- Four mutually independent output channels, each for a blind control motor or comparable systems
- Two times 2-channel operation for common activation of two motors per output channel
- Operation times for step and move operation can be set separately for each channel
- Switching time on change of direction can be set separately for each output channel
- Operation time extension can be set for correction of the slowed lifting time
- Two safety objects for blinds channels can be assigned independently of each other, with cyclic monitoring
- Polarity of the safety objects adjustable
- Response in the event of bus voltage failure and bus voltage return can be set
- Manual operation can be blocked

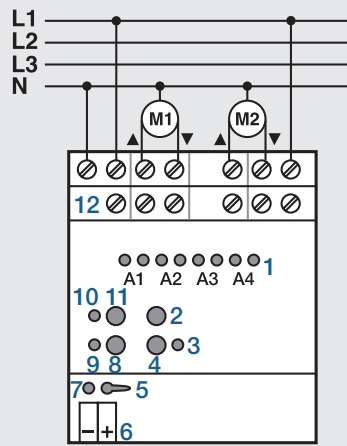
Objects	10
Group addresses/assignments	maximum 32 each

ATTENTION

Suitable for dividing up the loads to different external phase conductors.

Installation

The auxiliary voltage is connected at terminals N and L1 next to the terminals of output A1.
At the same time this supplies power to output A1.



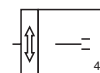
Key

1. LED indication of movement direction
2. Manual operation deactivated
3. LED indication of mov. direction
4. DOWN button (manual operation)
5. Programming button
6. Bus connection
7. Programming LED
8. UP button (manual operation)
9. LED indication of mov. direction
10. LED man. operation activated
11. Manual mode activation push-button
12. Connecting terminals 230 V

- Four independent channels for the activation of 230 V drives
- Two times 2-channel operation possible
- Per channel two LEDs for indication of movement direction
- Continuous manual actuation with lock-out of the bus function possible
- Manual actuation possible without bus voltage



**Blind actuator 4gang
6A 230 V manual
RMD**



ETS search path: Gebr. Berker >> Shutter >> Shutters >>

Supply	via bus line	21–32 V DC
Inputs	Number	max. 2
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	approx. up to 19 V DC; continuous signal
Output	1	1 x change-over contact plus 1 x NO, potential-free μ contacts, bistable
	Switching voltage	230 V AC; 50/60 Hz
	Switching current	maximum 6 A per output
	Making current	maximum 120 A, 20 ms
	Breaking capacity	maximum 1 motor 1.000 VA
Behaviour in the event of bus voltage failure	Outputs	Dependent on the parameterisation
	Inputs	no response
Behaviour in the event of bus voltage return	Outputs	Dependent on the parameterisation
	Inputs	Dependent on the parameterisation
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Pre-assem. connecting cable, connecting terminal
	Inputs	Pre-assem. connecting cable: YY 6 x 0.6 mm
	Output	Pre-assem. connecting cable: 3 x H05 V-K 1.5 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	e.g. insertion in deep flush-mounted box	Ø 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (Ø x H)	53 x 28 mm	Hole in the centre of the actuator: Ø = 7 mm

The shutter actuator 1gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and controls a shutter or blind control motor with its output. Both movement directions of the actuator are interlocked with each other.

The device also has two extension unit inputs that can operate either directly on the shutter output (local operation/two push-button principle) or also alternatively as binary outputs on the bus, depending on the parameterisation. The connected potential-free switching or push-button contacts are read in via a common reference potential on the shutter actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out as binary inputs.

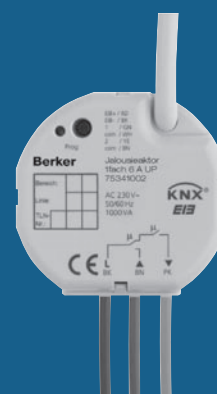
The switch actuator is supplied by the KNX/EIB and therefore does not require any additional external power supply.

Device colour
Light grey 7534 10 02

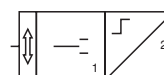
Shutter, 2 inputs 207301	
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (this is the state at delivery) - Operation as general binary inputs separately on the bus ■ Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return and can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between step/move time operation adjustable ■ Control concept adjustable ■ Length of actuation for lamella adjustment adjustable
Value transmitter and light scene extension unit function	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with memory function it is possible to save the scene without calling it up first
Output	<ul style="list-style-type: none"> ■ Shutter type adjustable (shutter or blinds) ■ Switching time on change of direction programmable ■ Priority assignment for arriving telegrams for sun shading and manual operation (Step/Move) adjustable ■ Automatic sun shading for brightness-dependent motion to an adjustable position ■ Safety function with cyclic monitoring and assignment to the shutter or blinds channels ■ Motion to an adjustable end position in the event of a safety message ■ Response after bus voltage failure and return adjustable
Objects	11
Group addresses/assignments	maximum 26/maximum 27

continued on next double page ►

- Potential-free bistable relay contacts 6 A
- Two independent binary inputs for potential-free contacts
- Local operation via inputs pre-programmed
- Pre-assembled connecting cables



Shutter actuator 1gang 6 A flush- mounted



ETS search path: Gebr. Berker >> Shutter >> Shutters >>

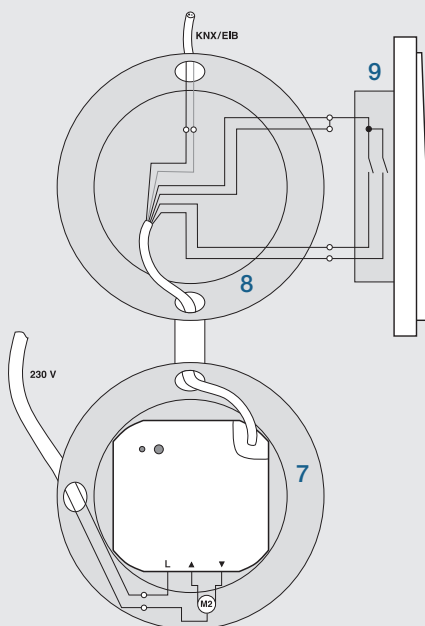
ATTENTION

The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

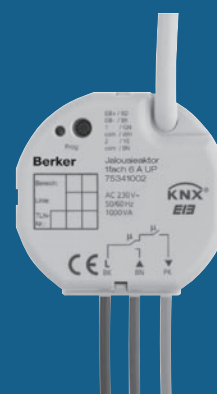
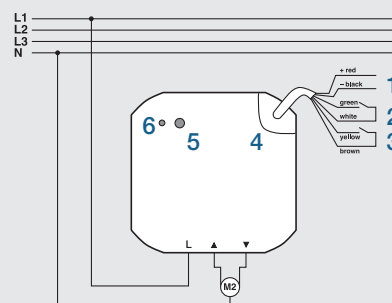
Recommendation

Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (A) can house the bus and extension unit connection and also a series switch (C), for example. The other box (B) houses the switch actuator and the 230 V terminals. The 6pole connecting cable (D) is routed through the connection between the boxes.



Key

1. KNX/EIB connection (red/black)
2. Input 1 (green/white)
3. Input 2 (yellow/brown)
4. Bus and extension unit connection
5. Programming button
6. Programming LED
7. Flush-mounted box for switch actuator 1gang
8. Flush-mounted box for e. g. series switch
9. Connection diagram for e. g. a series switch



**Shutter actuator
1gang 6A flush-
mounted**

Supply	via bus line	21–32 V DC
Auxiliary voltage	24 V AC $\pm 10\%$ Current input	SELV maximum 310 mA
Outputs	Current or voltage output Signal type	4 Depending on setting: 0–1 V DC, 0–10 V DC, 0–20 mA DC or 4–20 mA DC
	Load output signal	Voltage signal, $\geq 1\text{ kohm}$ Current signal, $\leq 500\text{ ohm}$
	Output current	Voltage signal, maximum 10 mA per channel Current signal, maximum 20 mA per channel
Behaviour in the event of power failure	Bus voltage failure Supply voltage failure	adjustable: last value is kept Outputs run against 0 V or 0 mA
Behaviour in the event of power return	Bus voltage Supply voltage	adjustable: no response Initialisation state, last value before failure Adjustable status query of the group addresses, Detection and adjustment of the set output states when bus voltage is connected
Operation and display elements	Programming key Programming LED Status LED 4 status LED outputs	Red Red/orange/green yellow
Connections	KNX/EIB Outputs	Connecting terminal 0,5–4 mm ² single-core 0,34–4 mm ² single-core/finely stranded without conductor sleeve, 0,14–2,5 mm ² finely stranded with conductor sleeve
	Module connection	6pole. System plug for analogue output module
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The analogue actuator 4gang is designed as a top hat rail mounted device and has four analogue outputs that can output voltage or current signals. For this purpose the device converts measurement data that is received via KNX/EIB telegrams into analogue output signals. The analogue output signals make it possible for end devices of the heating, air conditioning and ventilation systems to adapt their output variables based on bus information and to take part in control processes. Outputs that are not needed can be switched off. For operation the analogue output requires a 24 V auxiliary voltage. The lateral interface can be used to connect an analogue actuator module for another four analogue outputs, which are likewise adjusted via the software of the basic unit.

Device colour		Accessories	
Light grey	7551 40 01	Analogue output module	7552 40 01
		Power supply 24 V AC	7591 00 01

Analogue actuator B00811

Analogue outputs

- Type of signal output (0–10 V, 0–1 V, 0–20 mA, 4–20 mA) adjustable
- Format of the input value (8-bit or 16-bit) adjustable
- Dim actuator operation (for 8-bit input objects) possible
- Output value after initialisation adjustable
- Up to two forced guidance functions possible
- Cyclic monitoring of the input variables
- Response for exceeding of the monitoring time can be set
- Behaviour in the event of bus voltage failure and bus voltage return can be set

Modules

- One analogue actuator module with four additional inputs can be selected: Programming options are the same as the basic unit

Objects

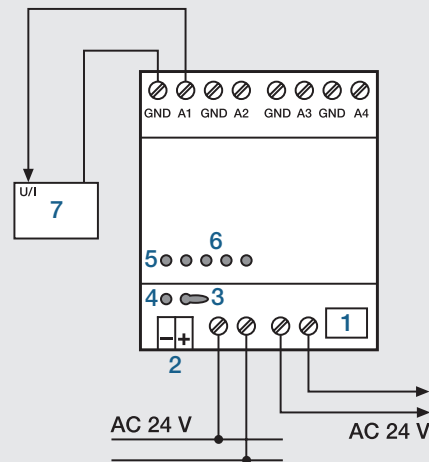
58

Group addresses/assignments

maximum 200 each

Terminals

- GND: Reference potential for outputs
A1 to A4: Outputs
AC 24 V: External supply voltage



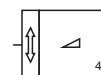
Key

1. Analogue actuator module connection
2. Bus connection
3. Programming button
4. Programming LED
5. Status LED
6. Status LED outputs
7. Device with analogue interface

- Four freely adjustable outputs
- Conversion of digital measurement data into voltage or current signals
- LED status indication for each channel
- Four additional outputs possible using analogue actuator module
- System interface for connection of an analogue output module



Analogue actuator 4gang RMD



ETS search path: Gebr. Berker >> Output >> Analogue output, 4gang >>

Auxiliary voltage	24 V AC $\pm 10\%$ Current input	SELV maximum 310 mA
Outputs	Current or voltage output Signal type Load output signal Output current	4 Depending on setting: 0–1 V DC, 0–10 V DC, 0–20 mA DC or 4–20 mA DC Voltage signal, $\geq 1\text{ kohm}$ Current signal, $\leq 500\text{ ohm}$ Voltage signal, maximum 10 mA per channel Current signal, maximum 20 mA per channel
Behaviour in the event of power failure	Bus voltage failure Supply voltage failure	adjustable: last value is kept Outputs run against 0 V or 0 mA
Behaviour in the event of power return	Bus voltage Supply voltage	adjustable: no response Initialisation state, last value before failure Adjustable status query of the group addresses, Detection and adjustment of the set output states when bus voltage is connected
Operation and display elements	Status LED 4 status LED outputs	Red/orange/green Yellow
Connections	Actuator connection Outputs	6pole system plug 0,5–4 mm ² single-core 0.34–4 mm ² single-core/finely stranded without conductor sleeve, 0.14–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The analogue actuator module is an inexpensive way to expand the analogue actuator 4gang to include four additional outputs for voltage or current signals.

No separate application is available for the device; programming is carried out via the software of the basic unit.

For operation the analogue input of the module requires a 24 V auxiliary voltage that is made available either directly from the 24V AC power supply or indirectly via the 24 V AC terminals of the basic unit.

Device colour		Accessories	
Light grey	7552 40 01	Power supply	
		24 V AC	7591 00 01

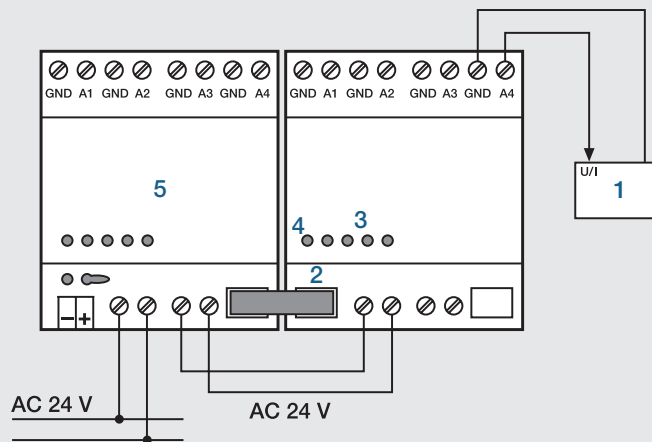
Notes

Installation

Connection of the analogue actuator module is exclusively by means of the 6pole system plug. Only one analogue actuator module can be connected per basic unit.

The GND connections of the analogue actuator module may not be connected to the corresponding connections of another device, e.g. of the analogue input. The exchange of an analogue actuator module in the event of a defect can be carried out in ongoing operation (isolate module from voltage!).

Then the analogue actuator carries out a reset after approx. 25 seconds. This re-initialises all inputs and places them in the original state.



Terminals

GND: Reference potential for outputs
A1 to A4: Outputs
AC 24 V: External supply voltage

Key

1. Device with analogue interface
2. 6pole system plug, e.g. for connection of an analogue actuator
3. Status LED outputs
4. Status LED
5. Analogue actuator 7551 40 01

- Four additional analogue outputs
- Link to basic unit via 6pole system interface
- Status LED for indicating readiness for operation
- LED status indication for each channel



Analogue actuator module 4gang RMD



Supply	via bus line	21–32 V DC
Inputs	Number	2
	Signal voltage	20 V pulses, approx. 3 ms long
	Signal current	approx. 1 mA per channel
	Length of input cable	max. 5 m
Output	1 channel	Controls one thermostat valve tappet
	Stroke	max. 4.2 mm
	Running time	25 s/mm
Response to bus power failure/restore	Bus power failure	Drive remains in last position
	Mains power failure	-
	Bus and mains power failure	-
	Bus power restoration	Drive runs through adjustment routine. Then the “Manipulated variable if no controller is present...” value is activated and manipulated variable telegrams are waited for. Inputs are interrogated and the programmed function is triggered if necessary.
	Mains power restoration	-
	Bus and mains power restoration	-
Operating and display elements	Reed contact for triggering the programming	Activation via programming magnet
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal via pre-manufactured connecting cable (J)EYY–OB 3 x 2 x 0.6/1m
Protection	IP 43; EN 60529	Note mounting orientation
Ambient temperature range	Operation	0 to +50 °C
	Storage/transport	-20 to +70 °C
Mounting	Bolted on to thermostat valve tappet	
Mounting orientation	Vertical upright	IP 43
	other positions	IP 42
Dimensions (WxHxD)	46 x 87 x 60 mm	

The valve drive is suitable for mounting on Heimeier thermostat valve lower parts for room temperature control such as on heaters, radiators, convectors, heating circuit distributors for underfloor heating systems, etc. It is maintenance-free and designed for direct connection to the instabus KNX/EIB.

The valve drive moves the heating valve to the appropriate position according to the setpoint (target) value transmitted by a KNX/EIB room thermostat.

Window contacts, for example, as well as normal push-buttons and switches can be connected by way of 2 potential-free inputs. They can act directly on the actuator or be used for switching, dimming or shutter control.

The valve drive has no programming button, but has a reed contact which is operated by a programming magnet (separate order number). The programming function is toggled on and off when the reed contact is only approached.

Device colour	
Valve drive with 2 inputs	
White	7550 00 02
Programming magnet	
White	7590 00 19

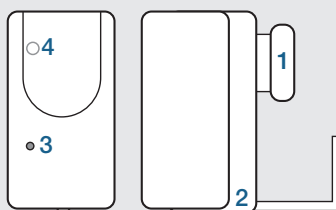
Valve drive A00D01

- 2 binary inputs to control valve drive or generate switch, dim or shutter commands
- Reception of a valve manipulated variable signal (e.g. from a thermostat)
- Change in heater valve tappets (0 to 255 = 0 to 100 %) dependent on manipulated variables (proportional to a setting between "Open" and "Closed")
- Complete change of position of valve when telegram evaluation sustained
- Execution of last telegram
- Minimum change of manipulated variable: ± 2 degrees of manipulation (range 0 to 255)
- Maximum travel of servo drive approx. 4.2 mm
- Variable travel of connected heater valve tappets (possibly less)
- Adjustment routine – facility to ascertain actual adjustment travel
- Proportional conversion of adjustment travel (possibly differing from travel of valve drive)
- Initialization of adjustment routine after
 - download/restoration of bus power or
 - 4096 "manipulated variable" telegrams received (object update) or
 - 4096 actual adjustments of the heater valve

Objects	12
Group addresses/assignments	maximum 12

Installation

Please avoid mounting vertically underneath the valve lower part (with knurled nut at top), since water may then get into the device in the event of a leak. The servo drive is mounted by pressing it lightly onto the heater valve, and the union nut is tightened using a suitably sized pair of pliers.



Programming

Switching the programming function on and off is achieved by bringing the programming magnet close to the activation point (toggle function).

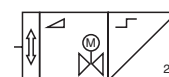
Key

1. Union nut
2. Bus connection (Bus/binary input)
3. Programming LED
4. Activation point for the programming magnet

- Direct connection to instabus KNX/EIB
- Control of devices for room temperature regulation
- High control accuracy based on proportional translation of adjustment travel
- Maintenance-free
- 2 potential free inputs for window contacts



Valve drive



ETS search path: Gebr. Berker >> Heating, air conditioning >> Valves >>

Supply	via bus line	21–32 V DC
	Power consumption	typically 125 mW
	Power supply	230 V AC $\pm 10\%$, 50 to 60 Hz
	Power loss	approx. 2 W disregarding the power loss of the actuator drives (depending on the type and number of the actuator drives)
Outputs	6	Triac
	Rated voltage	230 V AC $\pm 10\%$, 50 to 60 Hz (dependent on the mains input voltage)
	Rated current	50 mA (resistive per output)
	Making current	max. 1.5 A (short-time)
	Minimum load	2 W (1 actuator drive)
	Number of connectable loads	max. 4 actuator drives per output (actuator drives can be from different manufacturers)
Actuator drives	230 V per output	electro-thermal max. 4
Behaviour on power failure/restore	Bus power failure	Software-dependent
	Mains power failure	all outputs deactivated (outputs high-resistance), Bus communication exists; Control variables received will be acted upon
	Bus and mains power failure	all outputs deactivated (outputs high-resistance)
	Bus power restoration	Software-dependent
	Mains power restoration	PWM 50 % (15 minutes cycle time)
	Bus and mains power restoration	
Operation and display elements	- Programmed actuator:	Software-dependent
	- Unprogrammed actuator:	PWM 50 % (15 minutes cycle time)
Programming button	Programming button	
	Programming LED	Red

Continued on next double page ►

The heating actuator 6gang is executed as a top hat rail-mounted device for activation of electro-thermal actuator drives (ETA) for heating systems or cooling systems. It has 6 electronic outputs, which are silently activated by KNX/EIB telegrams. Up to four actuator drives (e.g. order no. 7590 00 71) can be connected to each output.

Outputs provide either switching or a PWM signal, depending on the setting of the control variable (1 bit or 8 bit). In the unprogrammed condition the heating actuator is set for pulse width modulation with a control variable of 50 % and a cycle time of 15 minutes. This permits the actuator to be tested for functioning even without bus power.

The heating actuator is able to detect overloads/short circuits at an output/at multiple outputs.

Continued on next double page ►

Device colour
Light grey 7531 60 03

Switching PWM 206701

- 6 independent outputs (activation optionally by 1 bit or 1 byte size of control variables)
- If 1 byte activation by pulse width modulation (PWM); cycle time output signals configurable
- Status feedback (1 bit/1 byte) available for each output automatically or on read request
- Valve activation (deactivated opened/closed) configurable for each output
- Summer or winter mode can be set by an object; polarity configurable
- Supervisory and cyclical monitoring of the control variable configurable for each output
- Activation of back-up operation, with Alarm report object, if control variable telegram missing
- Forced position (locking each output with various values for summer/winter mode)
- Behaviour on bus voltage restoration and failure separately configurable for each output as follows: "Valve closing/opening", "Positive position", "Back-up operation", "No response" (only on bus power failure)
- Overload/short circuit reporting separately configurable for each output; polarity configurable
- Mains failure report can be set by an object; polarity configurable
- "Global report" by an object (control variables for all valves "OFF" or "0"); polarity configurable
- Separate object for sending the values stored in the actuator 1 byte control variable for an output
- Automatic valve protection programmable to avoid sticking

Objects	29
Group addresses/assignments	maximum of 29 each

Continued on next double page ►

- Six independent electronic outputs
- Up to four electro-thermal actuator drives can be connected to each output
- Choice between switching and continuous (PWM) regulation
- Detection and reporting of overloads or short circuits
- Changeover between summer and winter mode by object
- Back-up operation in the event of sensor or bus failure
- Automatic valve protection



Heating actuator 6gang Triac 230 V AC RMD



ETS search path: Gebr. Berker >> Heating, air conditioning, ventilation >> Heating actuators >>

Connections	KNX/EIB	terminals
	Outputs: Screw terminals	0.2 – 4 mm ² / 2 x 0.2 – 2.5 mm ² single-wire 0.75 – 4 mm ² fine wire without end cap sleeve 0.5 – 2.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +60 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (W×H×D)	72 x 90 x 64 mm	4 modules

In this case the short circuited outputs after a identification time permanently deactivated.

Overloads and also mains voltage failures can be set by parameters for reporting on the bus.

The system can be changed over between summer and winter mode. In addition the heating actuator offers the facility for cyclic monitoring of the control variables. If, during the cyclic monitoring, control variable telegrams are found to be missing, back-up operation will be activated for the respective output, using a parameterised control variable defined for summer or winter mode.

The facility is also available to activate each output separately to a positive position. For this a parameterizable control variable, different for summer and winter mode, is assigned to the respective output.

Installation

Do not connect capacitive or inductive loads!

Outputs which are switched off are not electrically isolated from the mains and should therefore not be disconnected! When connecting an actuator drive, disconnect the device from the mains!

The "N" terminals for outputs A1 to A6 are suitable only for connection to the actuator drives and should not be used for looping through to other devices! Looping through can cause damage to the device!

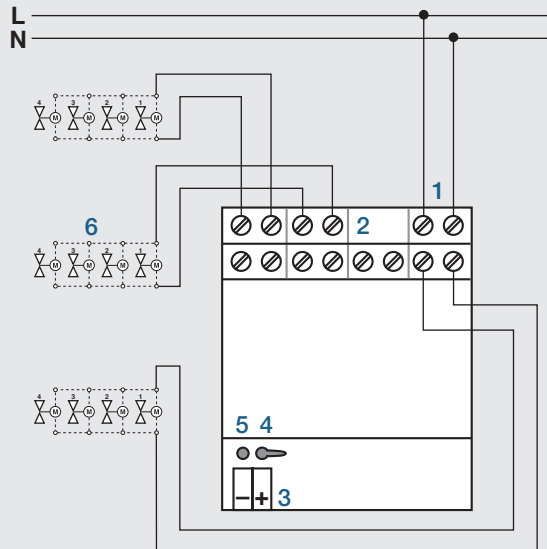
The outputs always timed to switch with a 0.5 s separation period from each other, so that no overload is reported at the moment of switching.

Each output can be connected to up to four actuator valves from different manufacturers in any combination, even if the valves have different load characteristics.

Key

1. Mains power connection
2. Outputs A1 to A6
3. Bus terminal

4. Programming button
5. Programming LED
6. Actuator drives (different manufacturers)



Short circuit

Because the operating groups affect one another, reliable detection of overloads in one of more output channels can only be ensured after a final test cycle, which lasts about 4 minutes.



**Heating actuator
6gang Triac
230 V AC RMD**

Supply	via bus line	21–32 V DC
	Power supply	primary: 230 VAC, 50 to 60 Hz secondary: 24 V, 50 to 60 Hz
	Power consumption (no load) Maximum power consumption	3 W 50 W
Outputs	6	Triac
	Rated voltage	24 V AC, ±20 %
Actuator drives	per output	max. 4
	Total connectable actuator drives	max. 13
Behaviour in the event of bus voltage failure	Back-up operation	programmable
Operation and display elements	Programming button	
	Programming LED	Red
	Operation LED	Green
	Fuse LED	Red
	6 status LEDs	Red (when calling for heating)
Fuse	2 A (slow-blowing)	common to all outputs
Connections	KNX/EIB	terminals
	Transformer	Mains plug
	Actuator drives	screwless plug-in terminals
		0.5–1.5 mm ² solid, 1–1.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +50 °C
	Storage/transport	-25 to +60 °C
Mounting	on top hat rail 35 mm, EN 50022 or	on wall in the heating circuit distributor box
Mounting orientation	any	
Weight	1700 g	
Dimensions (W×H×D)	302 x 75 x 70 mm	

The heating actuator 6gang Triac, 24 V is for activating the thermal actuator drives. These can be divided into six channels with a maximum of four actuator drives per channel. This means that the temperatures in the various rooms can be controlled individually using different instabus KNX/EIB controllers. In addition the heating actuator sends data to the boiler controls and thus assists in saving energy.

The device is designed to be especially suitable for mounting on a top hat rail or on the wall in the heating circuit distributor. The Triac outputs allow silent switching and are protected against short circuits and overloads.

Device colour		Accessories	
Light grey	7533 60 01	Actuator drive 24 V..	7591 00 77

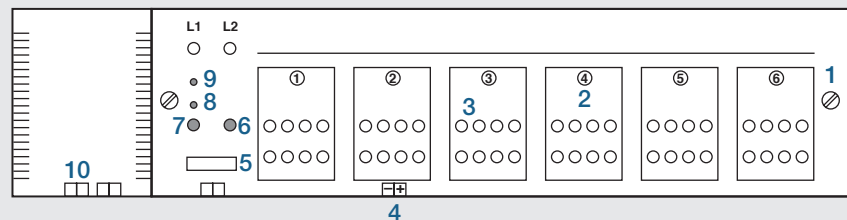
Actuator drives 6/12 outputs

- Selectable by channel between switched and continuous (pulse width modulated) control
- Behaviour of the actuator drives (open or closed when deactivated) configurable
- Control variable monitoring can be sent cyclically or in the event of control variable failure
- Summer mode
- Valve protection function
- Actuation cycle time (PWM period) configurable
- Control variable range limits configurable
- Back-up operation on bus or sensor failure configurable
- Each channel: Input object for control variable, mandatory position and status object
- Lock-out operation by object

Objects	31 (dependent on the parameterisation)
Group addresses/assignments	maximum of 66 each

Key

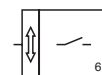
1. Securing the cover
2. Status LED
3. Plug-in terminals for actuator drives
4. Bus connection
5. Fuse
6. Programming LED
7. Programming button
8. Fuse LED
9. Power-LED
10. Transformer with mains plug



- Six separately controlled channels
- Selection between switched and continuous (pulse width modulated) control
- Summer mode for deactivation of the heating actuator
- Simple connection of the drives
- Integral transformer with mains plug for power supply to actuator drives
- Actuator drives operate on a 24 V supply



Heating actuator 6gang Triac, 24 V



ETS search path: Gebr. Berker >> Heating, air conditioning, ventilation >> Heating actuators >>

Supply	via bus line	21–32 V DC
	Power supply	primary: 230 V AC, 50 to 60 Hz secondary: 24 V, 50 to 60 Hz
	Power consumption (no load) Maximum power consumption	3 W 50 W
Outputs	12 Rated voltage	Triac 24 V AC, ±20 %
Actuator drives	per output	max. 2
	Total connectable actuator drives	max. 13
Behaviour in the event of bus voltage failure	Back-up operation	Configurable
Operation and display elements	Programming button	
	Programming LED	Red
	Operation LED	Green
	Fuse LED	Red
	12 Status LED	Red (when calling for heating)
Fuse	2 A (slow-blowing)	common to all outputs
Connections	KNX/EIB	terminals
	Transformer	Mains plug
	Actuator drives	screwless plug-in terminals
		0.5–1.5 mm ² solid, 1–1.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	–5 to +50 °C
	Storage/transport	–25 to +60 °C
Mounting	on top hat rail 35 mm, EN 50022 or	on wall in the heating circuit distributor box
Mounting orientation	any	
Weight	1700 g	
Dimensions (W×H×D)	302 x 75 x 70 mm	

The heating actuator 12gang is for activating thermal actuator drives. These can be divided into twelve channels with a maximum of two actuator drives per channel. This means that the temperatures in the various rooms can be controlled individually using different instabus KNX/EIB controllers. In addition the heating actuator sends data to the boiler controls and thus assists in saving energy.

The device is designed to be especially suitable for mounting on a top hat rail or on the wall in the heating circuit distributor. The Triac outputs allow silent switching and are protected against short circuits and overloads.

Device colour		Accessories	
Light grey	7533 00 01	Actuator drive 24 V..	7591 00 77

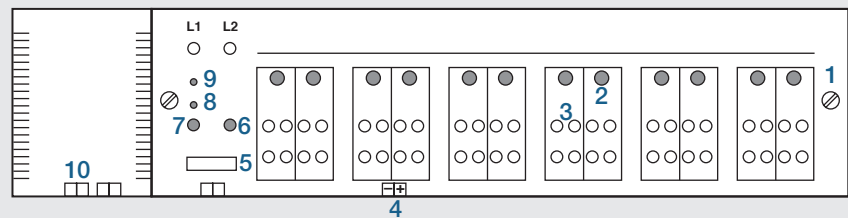
Actuator drives 6/12 outputs

- Selectable by channel between switched and continuous (pulse width modulated) control
- Behaviour of the actuator drives (open or closed when deactivated) configurable
- Control variable monitoring can be sent cyclically or in the event of control variable failure
- Summer mode
- Valve protection function
- Actuation cycle time (PWM period) configurable
- Control variable range limits configurable
- Back-up operation on bus or sensor failure configurable
- Each channel: Input object for control variable, mandatory position and status object
- Lock-out operation by object

Objects	31 (dependent on the parameterisation)
Group addresses/assignments	maximum of 66 each

Key

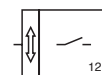
1. Securing the cover
2. Status LED
3. Plug-in terminals for actuator drives
4. Bus connection
5. Fuse
6. Programming LED
7. Programming button
8. Fuse LED
9. Power-LED
10. Transformer with mains plug



- Twelve independently controlled channels
- Selection between switched and continuous (pulse width modulated) control
- Summer mode for deactivation of the heating actuator
- Simple connection of the drives
- Integral transformer with mains plug for power supply to actuator drives
- Actuator drives operate on a 24 V supply)



Heating actuator 12gang Triac, 24 V



ETS search path: Gebr. Berker >> Heating, air conditioning, ventilation >> Heating actuators >>

Supply	Power supply	24 V AC/DC, +20 to -10 %, 0 to 60 Hz
Design	PTC-heated expansion element with compression spring	Closed when de-energised
Power consumption	Operating power Operating current Making current	1.8 W 75 mA max. 250 mA for max. 2 min.
Drive	Closing and opening times Operating travel/stroke Operating force	approx. 3 min. approx. 4 mm 100 N ± 5 %
Behaviour on power failure/restore	dependent on actuator	
Connections	Plug-in connection cable	1 m, 2 x 0.75 mm ² max. cable length: 20 m
Protection	IP 54, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	0 to +60 °C -20 to +60 °C
Mounting	Clip on to valve adapter Screw the valve adapters to the thermostat valve lower part	
Mounting orientation	any	Refer to note regarding "overhead mounting"!
Dimensions (W×H×D)	opened	44 x 60 x 61 mm

The actuator drive 24 V is a thermoelectric drive for opening and closing valves in heating, ventilation and air conditioning applications. Activation is by conventional room thermostats or instabus KNX/EIB heating actuators. The actuator drives are suitable for two-point operation or continuous control (pulse width modulated). A selection of valve adapters is available, to match valve lower parts and heating circuit distributors from a variety of manufacturers.

Device colour	Valve adapter
White 7591 00 77	Grey (M 30 x 1,5) 7590 00 72
	Dark grey (M 30 x 1,5) 7590 00 73
	Polar white, (Flange)..... 7590 00 74
	Light grey (M 30 x 1,5) 7590 00 75
	Other valve adapters on request

Mounting orientation

We recommend vertical and lateral mounting. Overhead mounting is possible, however no warranty can be accepted if this mounting orientation is employed.

Valve adaptation

Valve adaptation is achieved using valve adapters, which are available in various versions for the most popular valve lower parts and heating circuit distributors.

Please check this when ordering!

Valve adapter 10

Adapts to the valves or distributors made by

- Dumser
- Simplex

Valve adapter 50

Adapts to the valves or distributors made by

- Honeywell & Brauckmann
- Reich (distributor)
- Landis & Gyr
- MNG
- Cazzaniga

Valve adapter 78

Adapts to the valves or distributors made by

- Danfoss RA

Valve adapter 80

Adapts to the valves or distributors made by

- Heimeier
- Herb
- Onda
- Schlösser (manufactured 1993 and later)
- Oventrop



Key

1. Function indicator
2. Disassembly clip
3. Plug-in connecting cable
4. Valve adapter (example)

- Function display and adjustment control
- Easy plug-in assembly
- Anti-dismantling protection by means of removable dismantling aid
- Valve adapters for various valve lower parts
- First-open function
- Plug-in connecting cable



Valve adapter (example)



Actuator drive 24 V



Supply	Power supply	230 V AC/DC, $\pm 10\%$, 0 to 60 Hz
Design	PTC-heated expansion element with compression spring	Closed when de-energised
Power consumption	Operating power Operating current Making current	1.8 W 8 mA max. 250 mA for max. 2 min.
Drive	Closing and opening times Operating travel/stroke Operating force	approx. 3 min. approx. 4 mm 100 N $\pm 5\%$
Behaviour on power failure/restore	dependent on actuator	
Connections	Plug-in connection cable	1 m, 2 x 0.75 mm ² max. cable length: 20 m
Protection	IP 54, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	0 to +60 °C -20 to +60 °C
Mounting	Clip on to valve adapter Screw the valve adapters to the thermostat valve lower part	
Mounting orientation	any	Refer to note regarding "overhead mounting"!
Dimensions (WxHxD)	opened	44 x 60 x 61 mm

The actuator drive 230 V is a thermoelectric drive for opening and closing valves in heating, ventilation and air conditioning applications. Activation is by conventional room thermostats or instabus KNX/EIB heating actuators. The actuator drives are suitable for two-point operation or continuous control (pulse width modulated). A selection of valve adapters is available, to match valve lower parts and heating circuit distributors from a variety of manufacturers.

Device colour	Valve adapter
White 7591 00 76	Grey (M 30 x 1,5) 7590 00 72
	Dark grey (M 30 x 1,5) 7590 00 73
	Polar white, (Flange)..... 7590 00 74
	Light grey (M 30 x 1,5) 7590 00 75
	Other valve adapters on request

Mounting orientation

We recommend vertical and lateral mounting. Overhead mounting is possible, however no warranty can be accepted if this mounting orientation is employed.

Valve adaptation

Valve adaptation is achieved using valve adapters, which are available in various versions for the most popular valve lower parts and heating circuit distributors.

Please check this when ordering!

Valve adapter 10

Adapts to the valves or distributors made by

- Dumser
- Simplex

Valve adapter 50

Adapts to the valves or distributors made by

- Honeywell & Brauckmann
- Reich (distributor)
- Landis & Gyr
- MNG
- Cazzaniga

Valve adapter 78

Adapts to the valves or distributors made by

- Danfoss RA

Valve adapter 80

Adapts to the valves or distributors made by

- Heimeier
- Herb
- Onda
- Schlösser (manufactured 1993 and later)
- Oventrop



Key

1. Function indicator
2. Disassembly clip
3. Plug-in connecting cable
4. Valve adapter (example)

- Function display and adjustment control
- Easy plug-in assembly
- Anti-dismantling protection by means of removable dismantling aid
- Valve adapters for various valve lower parts
- First-open function
- Plug-in connecting cable



Valve adapter (example)



Actuator drive 230 V





LOGIC MODULES

The rising demands in terms of the complexity of interlinked functions in instabus KNX/EIB installations was the trigger for the development of logic modules.

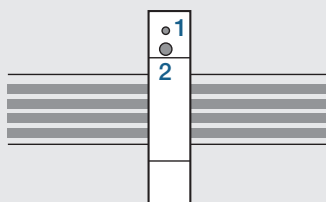
A particular importance in this context are the function modules. With their real-time operating systems, they permit time-critical complex processes to be implemented.

Logic controller	318–321
Function module	322–323
Mini-function module	324–325

Supply	via bus line	21–32 V DC
Operation and display elements	Programming button Programming LED	Red
Connections	Pressure contact on data rail	
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022 with bonded-in data rail	
Dimensions (WxHxD)	17.5 x 90 x 58 mm	1 module

Key

- 1. Programming LED
- 2. Programming button



The logic controller is executed as a top hat rail mounted device.

It receives and processes instabus KNX/EIB system commands. The result of the logic operation is sent as a command onto the instabus KNX/EIB.

Device colour

Light grey 7502 00 01

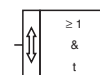
Filter/time 600701	<ul style="list-style-type: none"> ■ Conversion of input telegrams into other output telegrams with different group address (2 channels) ■ Telegram conversion configurable for ON and OFF telegrams ■ Time function at output configurable for ON or OFF telegrams ■ Telegram rate configurable
Objects	6
Group addresses/assignments	maximum 10/maximum 14
Transfer 1 Bit 600801	<ul style="list-style-type: none"> ■ Three input gates (channel 1-3) each with up to four outputs (A, B, C, D) ■ Generation of max. 4 output telegrams (1-bit) per channel with different group addresses ■ Disable/enable all outputs via main enable object ■ Disable/enable all outputs with same letter coding (A, B, C, D) ■ Telegram rate configurable
Objects	20
Group addresses/assignments	maximum 22/maximum 25
Transfer 4 Bit 600901	<ul style="list-style-type: none"> ■ Three input gates (channel 1-3) each with up to 4 outputs (A, B, C, D) ■ Generation of max. 4 output telegrams (1-bit) per channel with different group addresses ■ Disable/enable all outputs via main enable object ■ Disable/enable all outputs with same letter coding (A, B, C, D) ■ Telegram rate configurable
Objects	20
Group addresses/assignments	maximum 22/maximum 25
Transfer 8 Bit 600C01	<ul style="list-style-type: none"> ■ Three input gates (channel 1-3) each with up to 4 outputs (A, B, C, D) ■ Generation of max. 4 output telegrams (1-bit) per channel with different group addresses ■ Disable/enable all outputs via main enable object ■ Disable/enable all outputs with same letter coding (A, B, C, D) ■ Telegram rate configurable
Objects	20
Group addresses/assignments	maximum 22/maximum 25
1 >> 8 Bit Transfer 600B01	<ul style="list-style-type: none"> ■ Telegram conversion from 1 bit to 8 bit for value transmitter or light scene extension (2 channels) ■ Input enable or gating (logic operation) function (AND, OR, XOR) configurable per channel ■ Response of gate object to initialization configurable

Continued on next double page ►

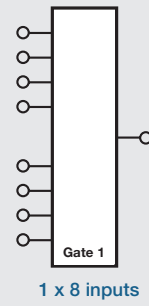
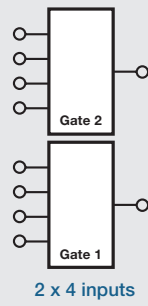
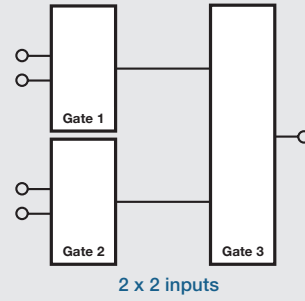
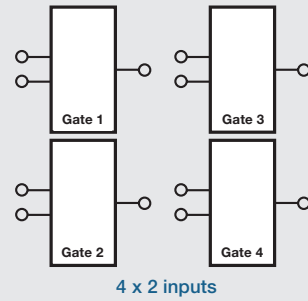
- Logic operations
- Time delays
- Telegram multiplications



Logic controller



ETS search path: Gebr. Berker >>
Controller >> Controller >>



1 >> 8 Bit Transfer 600B01 (continued)		<ul style="list-style-type: none"> ■ Send criterion for logic operation function configurable ■ Output delay configurable
Objects	6	
Group addresses/assignments	maximum 14/maximum 15	
4 x 2 inputs 600312		<ul style="list-style-type: none"> ■ Four logic gates each with two inputs and one output ■ Logic operation function for both gates configurable separately ■ Generation of one output telegram per input telegram
Objects	10	
Group addresses/assignments	maximum 10/maximum 12	
2 x 2 inputs 600402		<ul style="list-style-type: none"> ■ Logic operation of two input gates and one output gate ■ Logic operation function for both gates configurable separately ■ Response of inputs configurable individually ■ Telegram rate, send criterion and cyclic transmission configurable
Objects	5	
Group addresses/assignments	maximum 6/maximum 8	
2 x 4 inputs 600502		<ul style="list-style-type: none"> ■ Two logic gates each with four inputs and one output ■ Logic operation function for both gates configurable separately ■ Response of inputs configurable individually ■ Telegram rate, send criterion and cyclic transmission configurable
Objects	10	
Group addresses/assignments	maximum 10/maximum 12	
1 x 8 inputs 600602		<ul style="list-style-type: none"> ■ Logic gate with eight inputs and one output ■ Logic operation function configurable (AND, OR, NAND, NOR) ■ Response of inputs configurable individually ■ Telegram rate, send criterion and cyclic transmission configurable
Objects	9	
Group addresses/assignments	maximum 10/maximum 12	



Logic controller

Supply	via bus line	21–32 V DC
	External voltage	29 V DC (20 – 30 V unchoked)
	Current consumption	Normal operation 40 mA (approx. 8 device units) At initialization/programming < 100 mA
Buffering for real-time clock	Capacitive buffering	for at least 24 hours
Number of function blocks	Dependency on number of group addresses	e.g. 2000 function blocks with 500 group addresses Input with 500 group addresses Output
Telegram buffer	Input	50 telegrams
	Output	100 telegrams
Operation and display elements	Programming button	
	Programming LED	Red
	Operating LED	Red
	Fault LED	Red
Connections	Bus	Pressure contact on data rail
	PC port	serial, RS 232
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022 with bonded-in data rail	
Dimensions (WxHxD)	54 x 90 x 58 mm	3 modules

The function module is a maintenance-free programmable control device.

As an add-on to the decentralized system, a wide range of control and automation tasks can be efficiently performed with the aid of the extensive function library. KNX/EIB telegrams are received and processed, and the result sent onto the bus within a defined time.

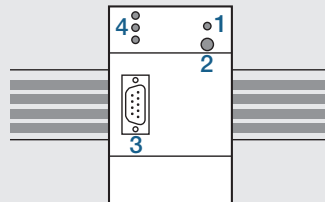
Project design and commissioning is carried out with a function diagram oriented software program (FM tool with dongle). The program runs cyclically, operating the module in real-time mode.

The connection to the KNX/EIB system is made via the integral bus coupling unit. The device is mounted on the top hat rail and powered via the 29 V DC contacts of the data rail (outer conductor pair).

Device colour		Accessories	
Light grey	7572 00 10	Tool software	
		- Full version.....	7570 00 11
		- Demo version.....	7590 00 17

Operation

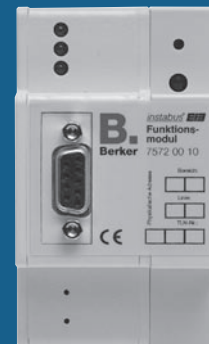
The supply is delivered via the two outer bars of the data rail. This requires a 4gang connector (7501 00 05).



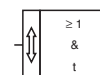
Key

1. Programming LED
2. Programming button
3. PC port
4. Operating/fault LEDs

- Implementation of wide-ranging logic, time, control and/or monitoring functions
- Integral bus coupling unit
- Integral real-time clock
- Processing of different EIS telegrams



Function module



Supply	via bus line	21–32 V DC
	Auxiliary voltage	29 V DC (20–30 V unchoked)
	Current consumption	Normal operation 40 mA (approx. 8 device units)
	Initialization/programming	< 100 mA
Buffering for real-time clock	Capacitive buffering	for at least 24 hours
Number of function blocks	maximum of 150 per device with maximum 200 group addresses (inputs/outputs)	
Telegram buffer	Input	50 telegrams
	Output	100 telegrams
Operation and display elements	Programming button	
	Programming LED	Red
	Operating LED	Red
	Fault LED	Red
Connections	Bus	Pressure contact on data rail
	PC port	serial, RS 232
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022 with bonded-in data rail	
Dimensions (WxHxD)	54 x 90 x 58 mm	3 modules

The mini function module is a maintenance-free programmable control device.

As an add-on to the decentralized system, a wide range of control and automation tasks can be efficiently performed with the aid of the extensive function library. KNX/EIB telegrams are received and processed, and the result sent onto the bus within a defined time.

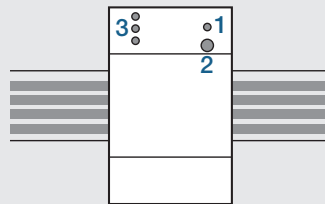
Project design and commissioning is carried out with a function diagram oriented software program (Mini FM tool). The program runs cyclically, operating the module in real-time mode.

The connection to the KNX/EIB system is made via the integral bus coupling unit. The device is mounted on the top hat rail and powered via the 29 V DC contacts of the data rail (outer conductor pair).

Device colour
Light grey 7572 00 11

Operation

The supply is delivered via the two outer bars of the data rail. This requires a 4gang connector (7501 00 05).



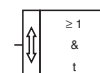
Key

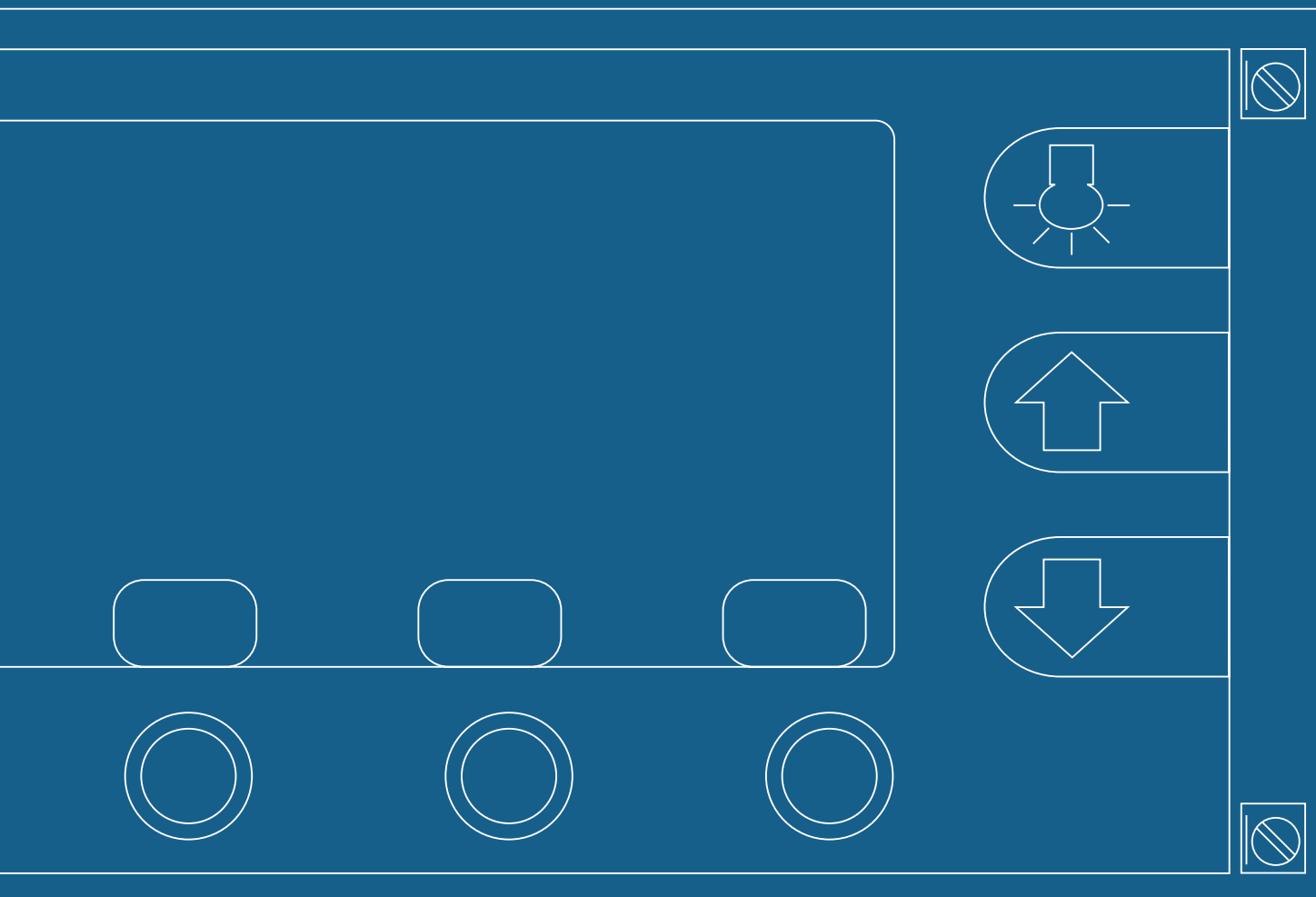
1. Programming LED
2. Programming button
3. Operating/fault LEDs

- Integral bus coupling unit
- Integral real-time clock
- Implementation of wide-ranging logic, time, control and/or monitoring functions
- Processing of different EIS telegrams (no 2-byte floating point)



Mini-function module





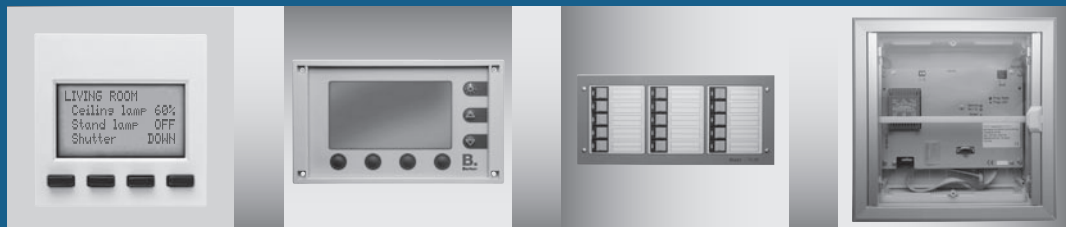
VISUAL REPRESENTATIONS

In residential, public and commercial buildings, the operating states of various subsystems often need to be recorded and signalled.

This requirement covers both the interior and exterior areas of the buildings concerned.

The KNX/EIB installation bus can be used in a multifunctional role to perform this task. All display, signalling, operator control and monitoring elements can receive information over a bus cable and send commands and messages to all other devices on the bus.

This results in neatly structured, clearly defined installations and cuts costs.



Displays	328–329
Indication and operating panels	330–341

Supply	via bus line	21–32 V DC
Operation and display elements	LC display	Four lines of 16 characters
	Navigation buttons	2
	Function buttons	2
Behaviour in the event of power restore	Status enquiry	Programmable
Connections	Bus coupling unit, flush-mounted	PEI: 2 × 5-pin male connectors
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Clip on to flush-mounted bus coupling unit	Plastic adapter with retaining screw
Mounting orientation	any	
Dimensions	Dependent on design	See dimensions diagrams

The info display offers the facility to trigger a wide variety of building functions using instabus KNX/EIB telegrams, and to display information about these function on LC displays. Displays are in the form of freely programmable texts and words called up from the devices on the bus.

Up to 12 pages with 1, 2 or 4 lines each programmable. Each line can be assigned a function (switching, dimming, value display, etc.).

The two buttons on the right are for navigation between the display screens. The two buttons on the left are for operation of the selected function according to the ETS programming. From these functions up to 12 alarm messages can be selected and administered on an alarm screen. Alarm messages can result in triggering an acoustic and/or visual alarm.

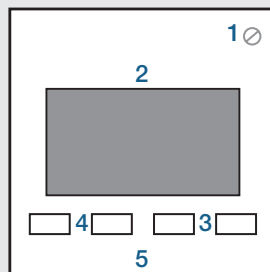
Messages from the alarm centre KNX/EIB can be displayed on the information display and acknowledged.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5		Berker ARSYS	
White	7586 00 12	White, glossy	7586 00 52	White	7586 00 72	White	7586 00 42
Polar white	7586 00 89	Polar white, glossy ..	7586 00 59	Polar white	7586 00 79	Polar white	7586 00 49
		Polar white, matt	7586 00 89	Stainless steel, lacquered	7586 00 73	Light bronze, lacquered	7586 00 44
		Anthracite, matt	7586 00 85			Stainless steel, lacquered	7586 00 43
		Aluminium, matt	7586 00 83				

Display 500D01

- Device parameters configurable
- Selectable line functions:
 - Retrieve light scene (light scene extension set)
 - Drive shutters
 - Display date and/or time of master clock
 - Display text
- Page functions selectable:
 - Display
- Protection against incorrect use configurable
- Line functions configurable
- Alarm functions configurable
- Lighting can be activated by object
- Object value sent on removal of the device from the bus coupling configurable
- Dimming the lighting
- Switching the lighting
- Forced guidance
- Send and receive values (up to 4 bytes)
- Display ASCII text
- No function
- Display alarm centre

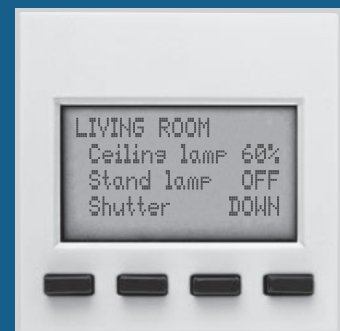
Objects	50 (dependent on the parameterisation)
Group addresses/assignments	maximum 78/maximum 127



Key

1. Protection against removal (under the design cover)
2. Info Display
3. Two navigation buttons
4. Two function buttons
5. Design cover

- Display and operation of building functions
- Illuminated LC display
- 1, 2 or 4-line display (4, 8, 16 characters per line)
- Acoustic and/or visual alarms
- Display of messages and operation of bus devices
- Protection against incorrect use
- Values can be presented
- Directly programmable using ETS (no special software required)



Info display



ETS search path: Gebr. Berker >> Displays >> LCD displays >>

Supply	via bus line	21–32 V DC
	Supply voltage	230 V AC $\pm 10\%$, 50 to 60 Hz
Operation and display elements	Touchscreen, colour	TFT display, 320 x 240/240 x 320 pixels, 4096 colours
Graphics memory	for icons and background images	approx. 4 MB
Connections	Bus	Connecting terminal
	Supply voltage	Screw terminals up to 4 mm ²
	Programming interface	USB
Behaviour in the event of power failure	Bus voltage	Display values are depicted with dashes, Display elements are not depicted
	Mains voltage	no operation via the instabus KNX/EIB
	Bus and mains voltage	no function of the device
Behaviour in the event of power return	Bus or mains voltage	Status query of the bus devices and update of the display values
	Bus and mains voltage	Status query of the bus devices and update of the display values (if this function has been selected in the plug-in software)
Protection	IP 20	
Ambient temperature range	Operation	0 to +45 °C
	Storage/transport	-40 to +55 °C
Installation	screwed into flush-mounted housing	
Mounting orientation	as desired	
Dimensions (W x H x D)	Visible dimensions	220 x 140 x 46 mm without frame
		231 x 159 x 46 mm with frame
	Panel hole dimensions, hollow wall (hole dimensions) for flush-mounted housing	212 x 124 x 75 mm

The MT 701 ct is used to depict and influence building functions at a central point. Operation and display is by means of the colour touchscreen (TFT display), whose user interface can be custom configured.

The functions of the display elements can be set freely. Basic functions such as switching, dimming, shutters, and complex functions such as value transmitter, time, date, etc. can be processed. Configuration is carried out via a software plug-in integrated into the ETS which allows the transfer of group addresses. A preview screen allows direct control of the display page created. An internal real-time clock is available for processing the time functions. The switching times can be changed without a PC intervention. Date and time can be received by system timers and also transmitted by the internal value transmitter.

Device colour		Accessories	
Polar white	7574 00 10	Frame	
Anthracyte.....	7574 00 11	- Glass, polar white...	7594 01 01
		- Stainless steel.....	7594 01 03
		Flush-mounted housing	7590 00 21

continued on next double page ►

Mini tableau 501101

- Duration and type of activation of the display illumination adjustable
- Object for activation of the display illumination
- Colour of the display adjustable
- Display format, sending and updating behaviour of date and time adjustable
- Display depiction for horizontal and vertical mounting
- Mode of depiction adjustable by means of numerous parameters
- Display of 50 dialogue pages possible with free design and integration of graphics (bmp, jpg)
- Password protection possible for each display page
- Adjustable display elements (e.g. buttons) with configuration preview
- Character sets for Western and Eastern Europe, Greek and Cyrillic
- Operation adjustable using photo-realistic room depictions, e.g. as a floor plan and situation icons
- Parts of a project can be saved for re-use in function blocks
- Functions switching, dimming, shutters, value display (if desired with limit value monitoring), Adjustable light scene, date, time, text display, access control, positive operation and operating mode switching, heating for display elements
- Possible to show a 4-button line at the lower edge of the display with the selectable functions switching, dimming, shutters, value, light scenes, positive operation and calling other display dialogue pages
- Possible to show a status line with a display of events, fault messages, values, date, time or texts
- Service page for system settings
- Four password levels for assigning various access rights
- Adjustable integrated week time switch with sixteen timer channels on two timer pages
- Up to 50 fault messages can be set
- Possible to display the last 20 fault messages with opening of a message window and acoustic signal
- Acknowledgement of fault messages via display or object
- 80 logic operations (AND, OR, exclusive OR) can be programmed for convenient linking/processing of statuses and events
- 12 multiplexers with up to three channels can be programmed
- Up to 40 time elements with filter, time and blocking parameters programmable for switching functions

Objects max. 2000 (depend on parameterisation)

Addresses/assignments 3000/3000

continued on next double page ►

- Colour touchscreen (TFT display with 320 x 240 pixels)
- Contrast adjustable
- Bitmap/JPG graphics can be inserted
- Up to 50 dialogue pages, each with up to 16 display elements
- Total of 400 display elements possible
- Switching times adjustable without PC
- System time with C backup (approx. 3 days)
- Integrated piezo buzzer



continued on next double page ►

MT 701 ct

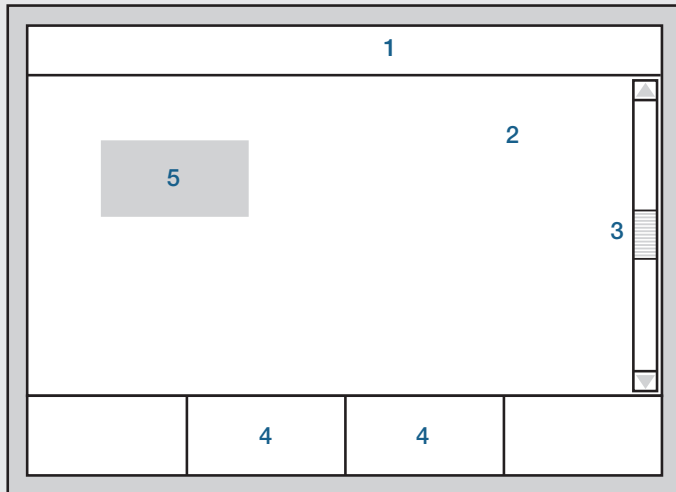


ETS search path: Gebr. Berker >> Display >> Panel >>

Control (possible even via the integrated time switch) and saving of up to 24 light scenes with up to 32 outputs (1 bit, 1 byte) are possible, light scenes and descriptive texts can be changed.

Extension unit operation is possible using suitable sensors (value transmitters).

Notes ▼



Key

1. Status line
2. User interface with freely selectable background graphics and display elements
3. Scroll bar
4. Four button displays (optional)
5. Display element (up to 16 elements freely positionable per dialogue page)

- Password functions
- Alarm functions
- Limit value functions
- Week time switch with 16 channels each with 8 switching times
- Light scene function with extension unit operation
- USB programming interface integrated
- Programming possible via KNX/EIB



MT 701 ct

Supply	Bus	21–32 V DC
	External voltage	230 V AC $\pm 10\%$, 50 to 60 Hz
	Power consumption	approx. 3 VA lighting off, approx. 6 VA lighting on
Operation and display elements	4 programmable keys	
	2 cursor keys	
	Backlighting button	
	Display	LCD with 240 x 180 pixels
Connections	Bus	Terminal
	Supply voltage	Screw-type terminals up to 2.5 mm ²
Response to power failure	Bus voltage	Last display values are retained
	Mains voltage	Device does not function
	Bus and mains power	Device does not function
Response to power restore	Bus or mains power	Status polling of bus devices and updating of display values
	Bus and mains power	Status polling of bus devices and updating of display values (if function selected in Plug-In software)
Protection	Depending on size and properties of mounting area	up to IP 54
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Bolted into flush-mounted housing	
Mounting orientation	any	
Dimensions (WxHxD)	Visible dimensions	213 x 125 x 75 mm without decor frame 216 x 145 mm with decor frame (accessory)
	Cavity installation dimensions (hole dimensions) for flush-mounted housing	212 x 124 x 75 mm

The Minitableau MT 701 Plus is used to display and modify building functions from a central point. The display medium is an LCD graphical display. The physical external interface is controlled via a membrane keypad using the common Interworking Standards. Basic functions such as switching, dimming and shutter control operation can be handled, as well as complex functions such as value transmission, time, date, etc. The functions of the four input keys can be programmed free.

The projecting tool to program the Minitableau is a Plug-In, which is implemented in the ETS. It has a direct access to the project group addresses. A preview window helps to check the programmed pages.

An internal real-time clock is provided for the time functions. The switching times can be altered without use of a PC. The date and time can be received by system time transmitters and transmitted by the internal value transmitter. It is possible to control and store up to 24 scenes with up to 32 outputs (1-bit, 1-byte).

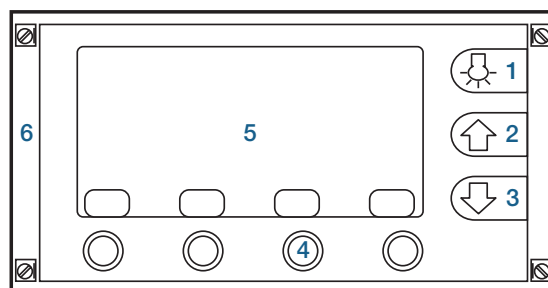
Light scenes can be changed and labelled by the user.

Extension mode operation is possible by way of suitable sensors (value transmitters).

Device colour		Accessories	
Light grey	7574 00 09	Masking frame	
		- Polar white	7594 00 09
		- Deep black	7594 00 05
		- Light bronze, lacquered	7594 00 04
		- Stainless steel, lacquered	7594 00 03
		Flush-mounted housing	7590 00 21

Notes

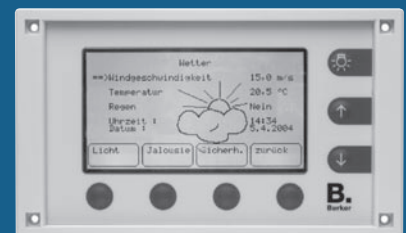
Alarm functions	Definition and processing Representation	by alarm list (190 entries) by pop-up functions and/or acoustic signals
Limiting value functions	Definition Processing Representation	from up to eight telegrams into switching telegrams as analogue values
Password functions	Structure Backup Password selection Password changing	Four segments, hierarchical, segment 4 has highest priority in EEPROM – Backup also in case of power failure and project redesign possible without software possible without software



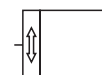
Key

1. "Illumination" push-button
2. Cursor "Up"
3. Cursor "Down"
4. Context-sensitive menu keys
5. Display
6. PC port and bus connection on rear

- Graphical display with 240 x 128 pixels
- Backlighting
- Contrast adjustable
- Background bitmaps insertable
- Up to 50 dialogue pages each with sixteen functions in eight lines programmable
- Four membrane push-button free programmable for interactive user control
- Two cursor push-buttons
- Illumination push-button
- System time buffered (approx. 3 days)
- Switching times programmable with use of PC
- Password functions
- Alarm functions
- Limiting value functions
- Sixteen-channel timer function (week program)
- Light scene function with extension mode
- Integral programming interface
- Programming via KNX/EIB possible



Minitableau MT 701 Plus



Supply	via bus line	21–32 V DC
	External voltage	230 V AC $\pm 10\%$, 50 to 60 Hz
	Power consumption	max. 20 W/VA
Inputs/outputs	Parallel bus	max. cable length: 0.5 m
	Number of front panels	max. 6
Operation and display elements	Reset button	
	Programming button	
	Programming LED	Red
	RX/TX LED	Green
	Reset/operating LED	Red/green
Connections	KNX/EIB	Terminal
	Outputs	Screw-type terminals up to 2.5 mm ²
	Parallel bus	20-pin ribbon cable connector
	Port	serial, RS 232
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Flush-mounted	
	Surface-mounted	Screw fixing holes in housing base
Mounting orientation	any	
Dimensions (WxHxD)	Flush-mounted housing	Surface-mounted housing
	- 2 front panels: 320 x 320 x 93 mm	- 2 front panels: 310 x 310 x 93 mm
	- 3 front panels: 320 x 445 x 93 mm	- 3 front panels: 310 x 435 x 93 mm

The housing can accommodate up to three front panels. The front panels are interconnected over the parallel bus and are connected to the system via the built-in bus coupling unit.

Programming is carried out on PC via the built-in RS 232 port.

The data are saved independently of the mains voltage.

Project design and commissioning is carried out using the KNX/EIBTAB panel software.

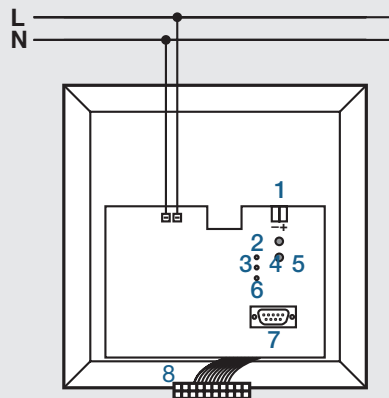
The blank cover is made of aluminium, silver anodized with a grey plastic covering.

Flush-mounted housing with		Surface-mounted housing with		Accessories	
- 2 front panels	7574 00 02	- 2 front panels	7573 00 02	Front panel "neutral"	7590 00 08
- 3 front panels	7574 00 03	- 3 front panels	7573 00 03		

Installation

Appropriate ribbon cables to connect the modules are offered separately. The cable length between two modules should not be longer than 50 cm.

For well and hollow wall openings 10 mm of the height and width of the flush-mounted housing has to be subtracted.



Key

1. Bus connection
2. Programming button
3. Programming LED
4. Operating (Reset) LED
5. RX/TX LED for data transfer of KNX/EIB control electronics
6. Reset button
7. PC port
8. Parallel bus

- Integral control unit with bus coupling unit
- Integral power pack
- Up to six different front panels usable/combinable
- Programming by KNX/EIB TAB panel software



Surface-mounted housing



Flush-mounted housing

Housing with control electronics for front panels



Technical data

Supply	via control electronics	5 V DC
	Power consumption	max. 1.4 W
Inputs/outputs	Parallel bus	max. cable length: 0.5 m
Operation and display elements	Coding switch	
	40 status LEDs	Red
Connections	Parallel bus	20-pin ribbon cable connector
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fixing by 4 half-screws	
Mounting orientation	any	
Dimensions (WxHxD)	270 x 124.5 x 29 mm	

Information

The front panel L 40 is built into the indication and operating panel housing (surface-mounted/flush-mounted) and connected via the integrated control module.

The front panel indicates the status of the inputs or KNX/EIB group addresses.

Project design and commissioning is carried out using the KNX/EIBTAB panel software.

Ribbon cable (30 cm) and labelling fields are supplied.

Order data

Device colour	
Grey.....	7570 00 01

Notes

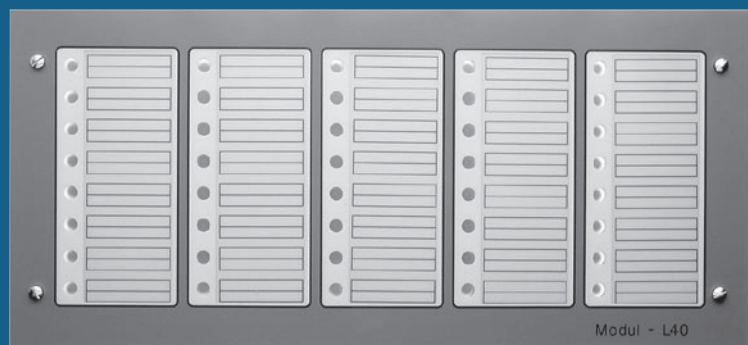
Installation

The cable length between two modules should not be longer than 50 cm.

Commissioning

Prior to commissioning, the planned device address must be set by way of the coding switch on the rear of the device (A – H).

- 40 free programmable LEDs
- Connection between modules over parallel bus
- Device address programmable by coding switch



Front panel L 40



Technical data

Supply	via control electronics	5 V DC
	Power consumption	max. 1.4 W
Inputs/outputs	Parallel bus	max. cable length: 0.5 m
Operation and display elements	Coding switch	
	15 push-buttons	
	15 status LEDs	Red
Connections	Parallel bus	20-pin ribbon cable connector
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fixing by 4 half-screws	
Mounting orientation	any	
Dimensions (WxHxD)	270 x 124.5 x 29 mm	

Information

The front panel TL 15 permits states to be displayed and various consumers to be controlled over the instabus KNX/EIB. Switching telegrams, dimming, value and shutter control operation telegrams can be transmitted at the press of a button.

The front panel is built into the indication and operating panel housing (surface-mounted/flush-mounted) and connected via the integrated control module.

The unit indicates the status of the inputs and KNX/EIB group states by way of customizable LEDs.

Project design and commissioning is carried out using the KNX/EIBTAB panel software.

Ribbon cable (30 cm) and labelling fields are supplied.

Order data

Device colour
Grey..... 7570 00 02

Notes

Installation

The cable length between two modules should not be longer than 50 cm.

Commissioning

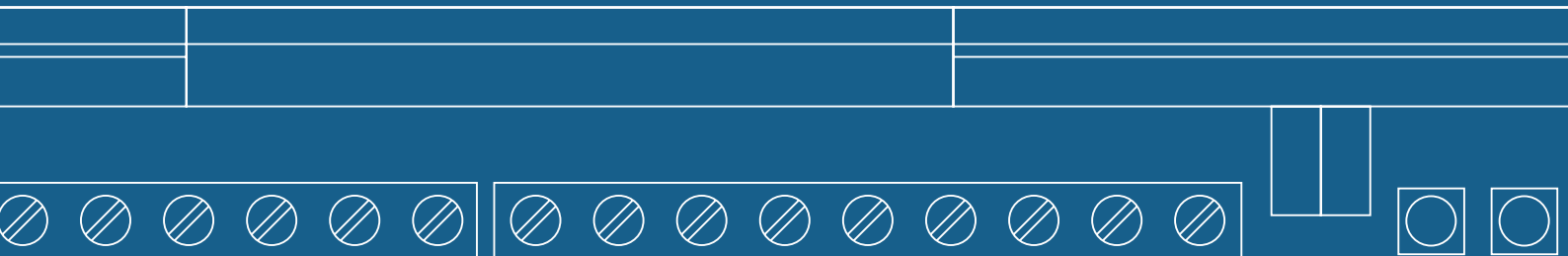
Prior to commissioning, the planned device address must be set by way of the coding switch on the rear of the device (A – H).

- 15 free programmable push-buttons
- 15 free programmable status LEDs
- LEDs integrated in push-buttons
- Connection between modules over parallel bus
- Device address programmable by coding switch



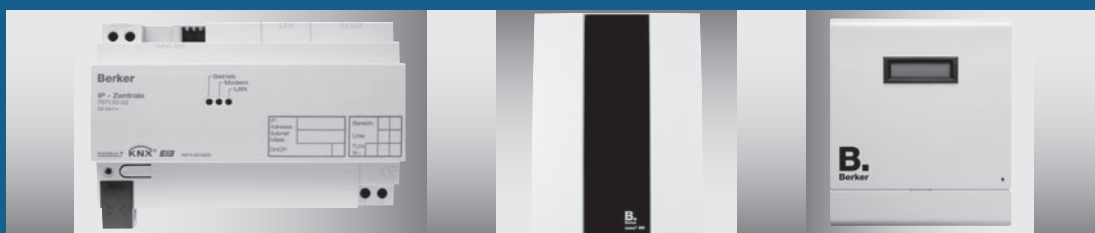
Front panel TL 15







Berker the right way.



OTHER COMPONENTS

The instabus KNX/EIB connects and links all subsystems within a building.

Gateways create the connection from standardised systems to the instabus KNX/EIB so that the PDA rises up to the cable-less operating centre of a room (Bluetooth gateway) or the light is switched on via the television remote control (IR gateway).

The alarm centre uses the instabus KNX/EIB to control all components; the connection to the building system technology creates synergies through the use of movement detectors to control the lighting and monitor the interior.

It is not just a question of convenience but also of security when important information such as burglary reports or fire alarms can be reported to nearly every place by telephone (TC phone).

Other
components

Accessories
Software

Dim. drawings
Glossary

Service
Addresses

Software
CD

Supply	unchoked output of the EIB power supply	21–32 V DC
	Power consumption	approx. 3 W
Operation and display elements	Programming button	
	Programming LED	Red
	Operation LED	Green
	LED modem	Yellow
	LED LAN	Yellow
Connections	EIB	terminal
	24 V supply and a/b trigger input	0.5–4 mm ² single/fine wire without end cap sleeve
	Screw-type terminals	2 fine wire with end cap sleeve
	Ethernet/LAN	RJ45 jack (10/100 MBit/s Fast Ethernet)
	Serial RS232	SUB-D plug, 9-pin
		external: e2i plug, 4-pin
		internal: e2i connector strip, 6-pin
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Dimensions (W x H x D)	144 x 90 x 64 mm	8 modules

The IP central unit is designed as a top hat rail mounted device and forms the interface between a local area network (LAN via Ethernet) and the instabus EIB. The Ethernet connection gives the user access to his instabus EIB system via a local PC in his LAN or the Internet. This in turn allows him to activate and control shutters, lights, heaters, ventilation or the alarm system.

The IP central unit acts as a server and is operated as a central control and reporting unit via a Web browser (e.g. Internet Explorer, version 5.5 or higher) in the PC, or else via suitable LAN devices. In addition, scenarios can be used which co-ordinate various bus functions with each other. Time can be controlled using a “Time planner” (time switch (annual)).

The connection to the Internet can be created using DSL, LAN (RJ45 connection) or else with an V90 modem/ISDN adapter (RS232 connection).

The device requires a separate 24 V power supply.

Device colour
Light grey 7571 00 02

IP control centre C00901	<ul style="list-style-type: none"> ■ Software plug-in for convenient programming for ETS2 and ETS3 ■ Definition of the room, function, channel and data point names ■ Room structure for browser interface with a maximum of 16 rooms ■ User-defined configuration and naming of all functions in the room ■ Supports all object types (EIS)
Logic gates (max. 64)	<ul style="list-style-type: none"> ■ Logic functions (AND, OR, XOR) programmable ■ Additional blocking object ■ Timing element for creation of time functions ■ Transfer module (between group telegrams from the same/different EIS types, for example 1-bit on 1-bit or 1-bit on 8-bit converter) ■ Limit value module (e.g. for temperature monitoring, etc.)
Configuration	<ul style="list-style-type: none"> ■ Possible to use the device clock as a system clock ■ Optional connection to a time server can be programmed in the Internet. ■ IP configuration of the device ■ Specification of the type of Internet access ■ Saves the access data of the Internet service provider ■ Modem operating data can be programmed ■ Password specified for the user levels in the device (administrator, user, guest)
Objects	256
Group addresses/assignments	maximal 506, dynamic

IMPORTANT

A knowledge of network technology is required in order to commission the IP central unit.

Operating modes

Depending on the equipment in the system, the IP control centre can be used in different operating modes:

- LAN
- LAN with dedicated line to the Internet
- LAN with Internet access and Triggering via modem (analogue or ISDN)
- LAN with triggering or a/b port behind the telephone system
- Telephone system with Internet access via modem (analogue/ISDN)

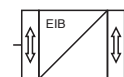
User menu

A total of five user areas are administered in the device. They are configured and controlled via the user browser interface.

You will find more information on the following two pages.

Continued on next double page ►

- Central control and reporting unit
- Operates and visualises the instabus EIB via PC and Internet
- Uses Web browsers as a convenient user menu
- Numerous interfaces to permit a wide range of functions
- Integrated time switch (annual) with astronomical function
- 64 Logic gates to ensure intelligent use of object values

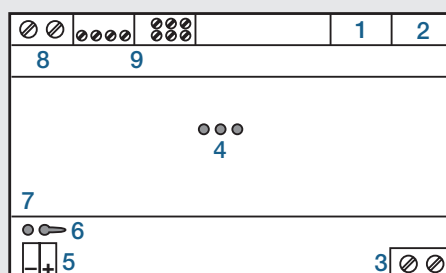
**IP central unit RMD**

ETS search path: Gebr. Berker >> communication
>> IP

Use of the router

The device uses “keep-alive” telegrams to ensure that it is not disconnected from the router.

After a forced disconnection from the provider, the directory server is informed of the new IP address (if there is a new one) when the router is re-connected.



Key

1. RJ45 socket (Ethernet)
2. 9-pin. Sub-D plug (Modem)
3. Screw-type terminals (trigger input)
4. LED
 - LAN, modem (yellow)
 - Operation (green)
5. Bus connection
6. Programming button
7. Programming LED
8. Screw-type terminals (24 V DC)
9. Further connections for future standards

User menu

A total of five user areas are administered in the device. They are configured and controlled via the user browser interface.

Building – Operation and visualisation

- Organisation of operation and visualisation by room and functions (subsystems) in parallel possible
- Configuration of a favourites page for frequently used building functions

Time planer – time switch (annual) with astronomical function and week and day profiles

- Configuration of time programs
- Eight different profiles with 8 programmable points in time each can be used.
- For each point in time, 16 group telegrams can be sent to the instabus EIB.
- Astronomical function for lighting or for the shutter depending on the subsystem
- Possible to use day profiles the following year as well

Simulation of presence of a person

- Six points in time for simulated presence can be configured.
- Possible to send eight group telegrams per point in time
- The programmed points in time can be varied up to +/- 60 min. so that the random time can be calculated.
- Manual or timer-controlled call-up (browser interface)

Scenes

- Up to 32 scenes can be created.
- End user configures the scenes.
- 32 devices from various subsystems (e.g. light, shutter, heating) per scene
- Manual call-up (browser interface) or up to 8 extension sets per scene

Event detector

- 32 event programs are available
- Event reports (e.g. alarm/status indications) are sent to e-mail addresses which the user can configure himself.
- Event reports are sent once, cyclically when values are changed or received.
- Address book for receivers of event reports integrated in device.



IP central unit RMD

Supply	via bus line	21–32 V DC
Auxiliary voltage	110 to 240 V AC +10 %/-15 %	50/60 Hz
	Power consumption	maximum 6 W
DALI	Voltage	typ. 16 V DC (with overvoltage protection)
	Current	typ. 128 mA, maximum 200 mA briefly designed for max. 64 DALI devices with 2 mA each with short-circuit and overload protection
	Transmission rate	1200 bit/s
Cable lengths between Gateway and operating device	Ø 1.5 mm ² or Ø 1.0 mm ² Ø 0.75 mm ² or Ø 0.5 mm ² Resistivity	maximum 300 m or maximum 238 m maximum 174 m or maximum 116 m maximum 4 ohm (one-way length) maximum 8 ohm (two-way cable)
	Cable type	Specified by FELV; preferably two free cores of an NYM installation cable
Behaviour in the event of power failure	Bus voltage failure Mains voltage failure	software-dependent According to its parameterisation, the device reports failure of the supply voltage on the bus and then switches off
Behaviour in the event of power return	Bus voltage Mains voltage	software-dependent brief initialisation, then readiness for operation
Operation and display elements	Button field 4gang 3 local operation status LEDs, 1 programming LED Programming button	Local operation Red
Connections	KNX/EIB Inputs	Connecting terminal single-core 0.2–4 mm ² or 2 x 0.2–2.5 mm ² 0.75–4 mm ² finely stranded without conductor 0.5–2.5 mm ² finely stranded with conductor
Protection	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired, preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The DALI Gateway is designed as a rail mounted device and serves as the interface between a KNX/EIB installation and a DALI lighting system. It makes it possible to switch and dim up to 64 lights with a DALI operating device (e.g. electronic ballast) that can be assigned to up to 32 different light groups. Activation of the DALI Gateway makes possible room-specific light control in the higher-level KNX/EIB building management. Additionally, the light groups can be integrated into up to 16 scenes, meaning that it is possible to call up pre-programmed lighting moods, for example.

The operating devices (4 push-buttons) can be used to switch the DALI light groups on and off or dim them in parallel with KNX/EIB, even without bus voltage or in an unprogrammed state. This enables quick function testing of the connected loads. The device is configured and commissioned via a plug-in embedded in the ETS 3. The DALI Gateway is supplied with power entirely from the separate mains connection.

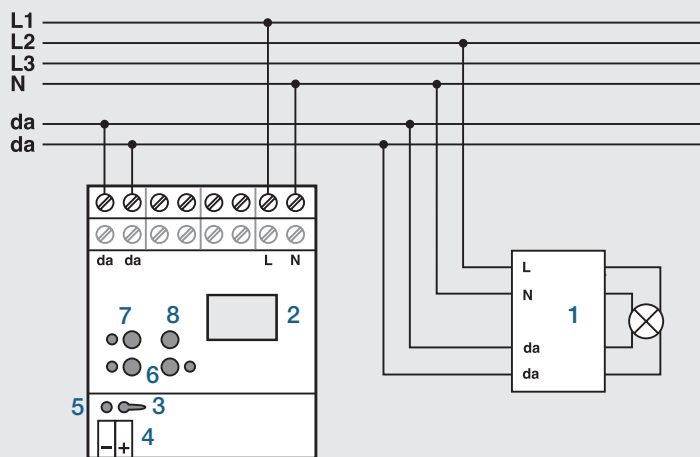
The mains voltage must be switched on in order to activate the DALI interface.

Device colour
Light grey 7571 00 03

DALI Gateway C00C01

- Control of max. 64 DALI devices in a max. of 32 groups
- Parameters for activation and function of manual operation adjustable
- Feedback of DALI error state or short-circuit
- Switching feedback: active or passive (object can be read out) feedback function
- Message in the event of failure of the supply voltage
- Central switching function
- Brightness limit value adjustable
- Lock function or alternatively forced guidance function can be set for each group; in the lock function flashing of light groups is possible
- Adjustable time functions (on delay, off delay, stair light function—also with prewarning function)
- The groups can be included in up to 16 light scenes
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each group
- Soft switch-on or soft switch-off function
- DALI commissioning with ETS plug-in
- Dimming behaviours adjustable

Objects	216
Group addresses/assignments	maximum 254/maximum 255



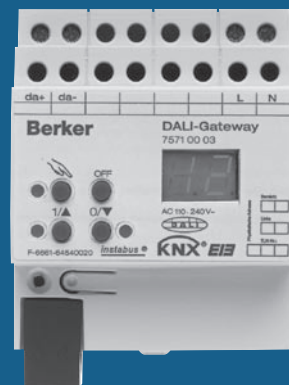
Terminals

da = DALI system voltage

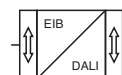
Key

1. DALI device (e.g. electronic ballast, up to 64 devices)
2. Display
3. Programming button
4. Bus connection
5. Programming LED
6. Buttons 1/▲ and 0/▼ each with associated LED
7. Manual button with associated LED
8. OFF button

- Interface to DALI lighting systems
- Control of 64 lights in up to 32 lighting groups
- Provision of the DALI system voltage
- Four buttons for manual operation with LED display
- Two-character, seven-segment display for DALI groups and status information



DALI gateway RMD



ETS search path: Gebr. Berker >> Lighting >> Dimmer

Supply	via bus line	21–32 V DC
Controls and display elements	Buttons	4
	Graphic display	four lines with 16 characters
Bluetooth	2.4 GHz ISM-Band	79 channels
	Frequency hopping	1600/sec
	Transmitting power	10 mW
	Transmission/reception range	approx. 10 m in class 3
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +75 °C
Mounting	Clip on to flush-mounted bus coupling unit plus	
Mounting orientation	any	
Dimensions (W x H x D)	depends on design	see dimension drawings

The Bluetooth gateway is clipped onto a flush-mounted bus coupling unit, and sends and receives Bluetooth signals wirelessly. Bluetooth signals are converted into KNX/EIB telegrams and vice versa at the gateway. This allows lights, shutters and heaters to be operated with the correct Bluetooth terminal devices and their current status to be visualised. The physical external interface in the terminal device is designed with specific systems in mind and is tailored to the specific application.

Up to eight terminal devices can be administered. The terminal devices are registered, and the settings and configuration performed using the displays and the four device buttons. No re-programming is necessary. Frequency hopping during transmission from gateway to terminal device keeps the connection immune from interference.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5		Berker ARSYS	
White	7566 01 12	White, glossy.....	7566 01 52	White	7566 01 72	White	7566 01 42
Polar white	7566 01 19	Polar white, glossy..	7566 01 59	Polar white	7566 01 79	Polar white	7566 01 49
		Polar white, matt	7566 01 89	Stainless steel, lacquered	7566 01 73	Light bronze, lacquered	7566 01 44
		Anthracite, matt.....	7566 01 85			Stainless steel, lacquered	7566 01 43
		Aluminium, matt	7566 01 83				

Bluetooth

- Creation of eight rooms and eight subsystems
- User-defined names for rooms, channels, subsystems to be displayed in the Bluetooth device
- Max. 24 channels per room
- Total number of channels: 62
- Channel functions: switching, dimmer value transmitter, shutter, light scene extension with/without memory function, value display (2 Byte)
- Control channel objects are invertible
- Alarm function when user module is disconnected can be programmed
- PIN number for each of device administration and device settings
- Eight error messages with 16 characters each for displays in the terminal device
- Error messages activated via object
- Acknowledgement of the error messages can be programmed

Objects

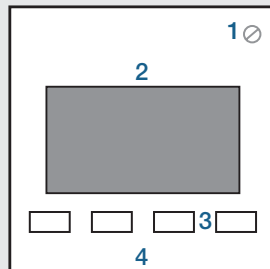
60

Group addresses/assignments

maximum of 60 each

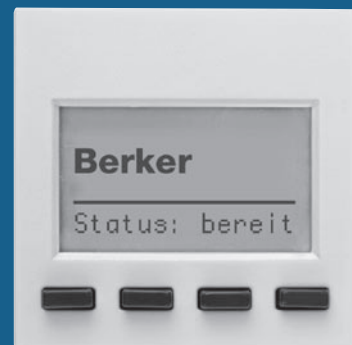
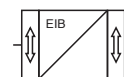
Compatibility

At present, the Bluetooth gateway supports Tungsten T3, T5 and E2 manufactured by PALM.

**Key**

1. Protection against removal (under the design cover)
2. Display
3. Buttons for managing and configuring terminal devices
4. Design cover

- Wireless operation of the instabus KNX/EIB via Bluetooth terminal devices
- Management of terminal devices via the display and user buttons on the device
- Management of up to eight terminal devices
- Illuminated graphic display
- Integral mechanical anti-dismantling protection

**Bluetooth gateway**

ETS search path: Gebr. Berker >> Communication
>> Radio

Supply	via bus line	21–32 V DC
Controls and display elements	Rotary potentiometer Slide switch LED, three colours	Reset Operating statuses: - operation (left position) - standby (central position) - learning (right position) Operating status displayed beneath the lens
Connections	Bus coupling unit V2, flush-mounted	PEI: 2 × 5-pin male connectors
IR range	Transmission and reception angle Transmission/reception range	30° approx. 7 m
IR signals	Scanning and sending Reception	20–70 kHz 34–42 KHz
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +75 °C
Mounting	Clip on to bus coupling unit V2, flush-mounted	
Mounting orientation	Ensure it is aligned with transmitters and receivers.	
Dimensions (W x H x D)	depends on design	see dimension drawings

The IR gateway is clipped onto a flush-mounted bus coupling unit V2, and sends and receives IR signals. Incoming KNX/EIB telegrams are converted into IR signals, and can then control IR-controllable devices such as televisions and audio systems or integrated them into scenes. In the same way, IR signals are converted into KNX/EIB telegrams so that KNX/EIB devices can be operated with IR remote controls.

By using several IR gateways, the instabus-KNX/EIB can be used as a transmission link to allow for simplified, IR control from one room to another. For this purpose, the IR signal is converted into an KNX/EIB telegram, is forwarded and then re-converted into an IR signal elsewhere.

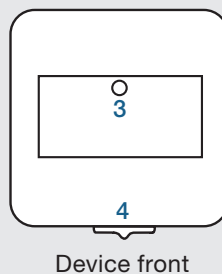
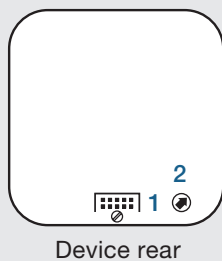
In teach-in mode, the IR gateway can learn nearly all standard IR remote controls (e.g. with RC5 code) and convert their signals into KNX/EIB telegrams. A reset function to delete all IR signals is integrated into the IR gateway.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker K.1/K.5		Berker ARSYS	
White	7566 02 12	White, glossy	7566 02 52	White	7566 02 72	White	7566 02 42
Polar white	7566 02 19	Polar white, glossy ..	7566 02 59	Polar white	7566 02 79	Polar white	7566 02 49
		Polar white, matt	7566 02 89	Stainless steel, lacquered	7566 02 73	Light bronze, lacquered	7566 02 44
		Anthracite, matt	7566 02 85			Stainless steel, lacquered	7566 02 43
		Aluminium, matt	7566 02 83				

IR gateway

- Time interval for repetition of the infrared transmissions can be programmed.
- LED confirmation of received objects can be programmed.
- Assignment of infrared signals to switching (1 bit), dimming (4 bit) or value objects (1 Byte) is possible.
- Assignment to one object per infrared signal
- When assigning switching objects, it is possible to send two IR signals (ON or OFF) per object in toggle mode.
- Infrared signals assigned to objects via teach-in mode in the device

Objects	32
Group addresses/assignments	not yet known at time of going to press

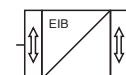
**IMPORTANT**

Older remote controls which work with IR frequency 455 KHz cannot be taught in (note the frequency range: 20–70 KHz).

Key

1. Physical external interface
2. "Reset" potentiometer
3. LED (can display three colours)
4. Slide switch (operating modes)

- Sends and receives infrared signals
- "Operation", "Standby" and "Teach-in" operating modes can be selected via the slide switch.
- Three-coloured LED to distinguish between operating status displays
- Reset via potentiometer at rear
- Teach-in mode for teaching in standard IR remote controls

**IR gateway**

ETS search path: Gebr. Berker >> Infrared >> IR converter

Supply	via bus line	21 to 32 V DC
	Power consumption	typically 240 mW
	Auxiliary power supply	230 V AC $\pm 10\%$, 50 to 60 Hz
	Power consumption	max. 24 W
Inputs	all following inputs in common:	
	- Signal duration	minimum 100 ms
	- Signal current	typically 500 μ A (when closed)
	Wired detectors	1
	- Signal voltage	approx. 4.7 V DC (when open = "1" signal)
	- Detector resistance	max. 1.7 kOhm (when closed)
	- Length of the input cable	max. 200 m (minimum. 0.8 mm cable diameter)
	Sabotage	1
	- Signal voltage	approx. 4.7 V DC (when open = "1" signal)
	- Length of the input cable	max. 600 m (minimum. 0.8 mm cable diameter)
	Transfer device (ÜG-R)	1
	- Signal voltage	external max. 5 V DC SELV
	- Signal recognition	"1" Signal: ≥ 2 V DC / "0" signal: 0–0.8 V DC
	- Length of the input cable	max. 200 m (minimum. 0.6 mm cable diameter)
Outputs	Alarm sensors	3: External/internal sirens and flash
	- Switch type	Power MOS-FET for each output
	- Rated voltage	12 V DC SELV each output (± 1.5 V back-up power operation)
	- Rated current	max. 1.6 A (all 3 outputs together)
	- Length of output cable	max. 200 m (minimum. 0.6 mm cable diameter)
	Transfer device	
	- Supply	2: 1 x 12 V DC and 1 x GND ÜG (–)
	- Control outputs	5: 1 each x ÜG-S/U, ÜG-E, ÜG-F, ÜG-Ü and ÜG-S
	- Rated voltage	12 V DC SELV each output (± 1.5 V back-up power operation)
	- Switch type	Transistor for each control output
	- Rated current (supply and control outputs)	max. 100 mA
	- Length of output cable	max. 200 m (minimum. 0.6 mm cable diameter)
	Relay output	1 x normally open (NO) and 1 x normally closed (NC)
	- Switch type	Potential-free relay contacts

Continued on next double page

The alarm central unit KNX/EIB is designed for surface-mounting. It links all system components of the alarm system and coordinates their functions. The alarm centre monitors the detectors and activation equipment and controls the alarm sensors and displays. So as to offer systems appropriate both to the structures of residential buildings and also small trade business premises, up to four security zones can be configured as the application requires.

In addition, two zones are available for monitoring fire detectors and burglary detectors. Programming is performed using an easy-to-use software plug-in, which displays the structure of the alarm system in diagrammatic overview. Events such as activations, alarms, errors are recorded in an event log with time and date.

For large buildings, several alarm centres can be set up, which monitor one another.

Device colour	
Alarm central unit	
Polar white/black.....	7573 00 10
Back-up battery	
Black	9200 01

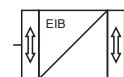
Alarm centre C00401

- ETS Plug-In for easy programming of the alarm centre
- 15 practical configurations for structuring the alarm system
- Permanent monitoring of the zones for fire and break-in, irrespective of whether the system is activated
- Max. 160 dynamically addressed detector inputs with freely selectable designations
- Individual identification and monitoring of all detectors
- Various types of detectors can be programmed for different applications
- Freely selectable designations for all zones
- Four switching devices per activation zone with individual identification for anti-sabotage protection
- Deactivation of switching devices in the event of sabotage
- Activation delays programmable by zone
- Objects for activating/deactivating acknowledgement can be set by zone
- Alarm delays programmable by zone
- Advance alarm programmable by zone via object
- Alarm output configurable for all zones and for the additional fire and break-in zones
- Alarm duration for flash light, external and internal sirens programmable
- Display and transfer of error messages
- 4 groups of displays (e.g. information displays) with individually programmable display configurations
- Mutual functional monitoring of multiple alarm centres by input/output object
- Cyclical functional monitoring of the mutual communication signals
- Dynamic event log for recording the last 400 events (e.g. alarms, errors)
- System log can be sent from the ETS to a printer or to a file
- Facility for synchronisation of the integral system clock via KNX/EIB object (e.g. by DCF-77 receiver)
- Detector test mode for function testing of all detectors in the alarm system

Objects	231
Group addresses/assignments	maximum of 254 each

Continued on next double page ►

- Four individually configurable security zones with up to 160 detectors
- Decentralised display and operation e.g. using the information display
- Individual identification and monitoring of all detectors via the KNX/EIB
- Direct connection of the alarm sensors (siren, flash, transfer device) to the alarm centre and/or control of alarm sensor▲via the KNX/EIB
- Back-up battery for continuous operation up to 12 hours
- Potential-free output for e.g. additional alarm sensors
- Sabotage protection by cover contact
- Self-protection by means of local detector input (wired detectors)

**Alarm central unit**

ETS search path: Gebr. Berker >>
Alarm technology >> Alarm centre >>

Outputs (continued)	- Switching voltage	12 V AC/DC
	- Switching current/minimum load	max. 5 A/30 mA
	- Length of output cable	max. 200 m (minimum. 0.6 mm cable diameter)
Behaviour on power failure/restore	Additional output 12 V DC	1 × 12 V DC and 2 × GND
	- Rated voltage	12 V DC SELV (±1.5 V back-up power operation)
	- Rated current	max. 100 mA
	- Length of output cable	Dependent on load relative to cable diameter
Operation and display elements	Bus power failure	configurable using plug-in jumper J1 (see item 12)
	Mains power failure	Event-dependent, supply from battery
	Bus and mains power failure	Configurable, supply from battery
	Bus power restoration	Configurable
	Mains power restoration	Event-dependent
	Bus and mains power restoration	Configurable
Connections	Plug-in jumper J1	Determines behaviour in the event of bus power failure
	Programming button	Red
	Programming LED	Red/green (status bus power, see item 13)
	9 + 1 status LEDs	
Protection	KNX/EIB	Terminals
	Auxiliary voltage: Screw terminals	max. 4 mm ² single wire
	Inputs and outputs: Screw terminals	max. 2.5 mm ² fine wire without end cap sleeve
		max. 1.5 mm ² fine wire with end cap sleeve
Ambient temperature range	Operation/storage/transport	max. 1.5 mm ² single wire
		max. 1.0 mm ² fine wire without end cap sleeve
Battery	Type	max. 0.75 mm ² fine wire with end cap sleeve
	Rated voltage/capacity	Lead-gel battery
Mounting/Mounting orientation	Charging voltage/current	12 V DC/1.2 Ah
		13.4 V DC/max. 150 mA
Dimensions (W×H×D)	Wall-mounted	Preferably upright
	210 x 270 x 70 mm	

OTHER COMPONENTS (Continued)

Key

1. Programming LED
2. Programming button
3. Sabotage contact (cover contact)
4. Bus connection
5. Back-up power battery
6. Terminal strip for alarm sensor
7. Terminal strip for wired detector/transfer device
8. Status LED
9. Mains connection 230 V
10. Fuse for mains supply
11. Fuse for battery reverse polarity protection
12. Plug-in jumper J2
13. Fuses for actuator outputs
14. Plug-in jumper J1 (determines behaviour in the event of bus power failure)
15. Bus power LED

IMPORTANT

The plug-in jumper J2 (item 12) must be plugged in - position immaterial!

Exact terminal assignment can be found in the installation guide.



Alarm central unit

Supply	via bus line	21–32 V DC
	External voltage primary	230 V AC (+6%, -14%) 50 Hz
	External voltage secondary (plug-in power supply unit)	48 V AC/100 mA; 2 x 12.5 V AC/350 mA
	Power consumption	13 VA
Inputs	4 signalling inputs	Potential-free
	“0” signal	Contact open
	“1” signal	Contact closed
	6 instabus KNX/EIB output	2 instabus KNX/EIB signalling inputs
Announcement texts	6 message texts, 6 status texts	
Telephone connection	Analogue, Western jack plug 3 storable call numbers	Compatible with PABX systems
Response to power failure/restore	Bus power failure	---
	Mains power failure	depending on parameter setting to evaluate detected edges
	Bus and mains power failure	---
	Bus power restoration	---
	Mains power restoration	depending on parameter setting to evaluate detected edges
	Bus and mains power restoration	---
Operation and display elements	Reset button	Setting of device parameters
	5 jog buttons	
Connections	KNX/EIB	Terminal
	External voltage	Permanent mains connection with plug-in power supply unit
	Inputs	Screw-type terminals
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage / transportation	-25 to +75 °C
Mounting	Wall mounted	
Mounting orientation	Preferably vertical	
Dimensions (WxHxD)	185 x 215 x 45 mm	

The TC-Phone is executed as a surface-mounted device, and is suitable for connection to analogue PABX systems. It uses a DTMF-compatible telephone or DTMF hand-held transmitter.

The unit receives instabus KNX/EIB telegrams or switching commands over the telephone network and performs functions according to their contents. By way of the NO contact, a maximum of four mutually independent electrical consumer groups can be operated. A maximum of six mutually independent consumer groups can be controlled with instabus KNX/EIB telegrams.

The TC-Phone additionally has four potential-free and two instabus signalling inputs. Using the signalling inputs, it is possible to send plain-text messages to any designated telephone when required, such as alarms. In case of an alarm, up to three call numbers are each dialled up to four times. The message texts can be entered as required by way of a suitable handset.

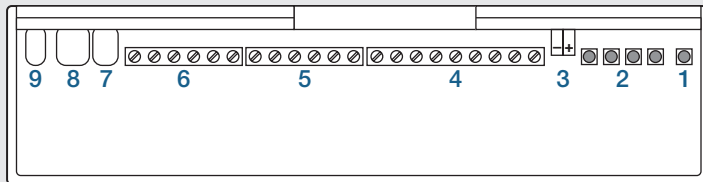
Power is supplied by the accompanying external power pack.

Device colour		
TC-Phone		
White	7573 00 01	
Handset		
Black	7590 00 09	

TC 800E02

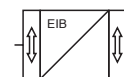
- Send up to six 1-bit group telegrams
- Receive and evaluate system/device states (1-bit format)
- KNX/EIB device functions operable with keypad digits 5 (1st KNX/EIB device), 6, 7, 8, 9 and 0
- Switching of the four conventional contacts by way of the first four keypad digits 1, 2, 3, 4
- Processing of incoming messages via two additional objects
- Forwarding of messages as alarms into a telephone network

Objects	8
Group addresses/assignments	maximum of 8 each

**Key**

1. Programming button
2. Text recording button
3. Bus connection
4. Outputs, relay tripping
5. Alarm inputs
6. Telephone system screw fitting
7. Handset connection
8. Telephone system connection
9. Mains power connection

- Six independent instabus KNX/EIB outputs
- Two instabus KNX/EIB signalling inputs
- Four potential-free signalling inputs
- Four conventional NO (normally open) contacts
- Functions as alarm, control, monitoring and/or dialler device
- Plain-text messages in case of alarm, etc.
- Redial in case of alarm, etc.

**TC phone**

ETS search path: Gebr. Berker >> Communication
>> Modem >>



ACCESSORIES AND SOFTWARE

One of the features of the instabus KNX/EIB technology is its facility to adapt quickly and efficiently to new requirements. The changes do, however, also need to be visualized in the conventional manner. For this, Berker offers a standardized facility in the form of replacement label fields and label sheets with associated software.

The core of the instabus KNX/EIB is software. Special driver software, the product database and instabus KNX/EIB tender specification texts are presented on the available CD.

Accessories	362–363
Software	364–365

Accessories
Software

Dim. drawings
Glossary

Service
Addresses

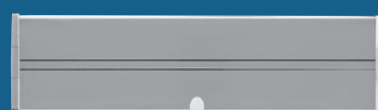
Software
CD

The replacement label fields with cover strips for the KNX/EIB push-buttons are used to provide users with a reminder of the programmed functions.

The label fields are designed to ensure that the available LEDs of the push-button are visible.

The label assembly comprises the label field itself and a plastic cover, and is clipped onto the push-button.

MODULE 2		Berker S.1/B.1/B.3/ B.7 GLASS		Berker ARSYS	
White	7596 00 01	Polar white	7596 00 07	White	7596 00 03
Polar white	7596 00 02	Aluminium	7596 00 09	Polar white	7596 00 06
		Anthracite	7596 00 08	Light bronze, lacquered	7596 00 05
				Stainless steel, lacquered	7596 00 04



**Replacement labels
and label covers**



Technical data

System requirements	Computer configuration	PC with Pentium processor or faster min. 32 MB RAM, more recommended min. 70 MB available hard disk capacity Graphics resolution min. 800 x 600 pixels min. double-speed CD drive Mouse or compatible pointing device Windows-compatible inkjet printer
	Operating system	Windows 95/98 or Windows 2000 Windows NT 4.0 or higher

Information

This PC software is useful for labelling of push-buttons. It permits custom labels to be printed onto pre-pressed plastic sheets. These are then inserted in the push-button label field.
Each label sheet provides a number of individual labels (up to 33).

Order data

Labelling software (German version)	1967	MODULE 2 for push-buttons comfort	1968 04	Berker S.1/B.1/B.3/ B.7 GLASS for push-buttons comfort	1968 05	Berker ARSYS for push-buttons comfort	1968 02
Label sheets (differentiated by design line)	1968 xx	for push-buttons	1968 03	for push-buttons	1968 05	for push-buttons	1968 01

Zweckform DesignPro "Edition Berker"

- Free formatable text objects
- Creation of semi-circular, circular or oval text objects
- Graphical tools for lines, circles, rectangles and polygons
- Free rotation of objects
- Support for all system colours for text and graphical objects
- Grid, guide lines and ruler for precise alignment
- Multi-layout function (each label customizable)
- Single-label and page view
- Automatic sequencing (numeric or alphabetical)
- Automatic read-in of data media directories
- Creation of custom databases in dBase format
- Import of graphics (formats: BMP, EPS, JPG, PCD, PCX, TIF, WMF)
- File import via ODBC (e.g. Access, dBase, Excel)
- Support for OLE 2.0
- Import of WinLabel, LabelPro or CardMaker user files (*.wlb, *.lpd and *.car files)
- Barcode generator (more than 10 barcode types for trade and industry)

**Cooperation with
Avery Zweckform**

The labelling software contains the templates for over 500 Avery Zweckform labels and card products, such as:

- Address labels
- Notice labels
- Data media labelling (CDs, floppy disks, audio, video)
- Folder labelling
- Product marking
- Warehouse labelling
- Visiting cards and stub cards
- Design papers
- etc.

- Standardized labelling for all push-buttons
- Pre-pressed inserts
- Custom formattable text objects
- Graphical tools for lines, circles, rectangles and polygons
- Import of graphics (formats: BMP, EPS, JPG, PCD, PCX, TIF, WMF)
- File import via ODBC (e.g. Access, dBase, Excel)

**Labelling software/
label sheets**

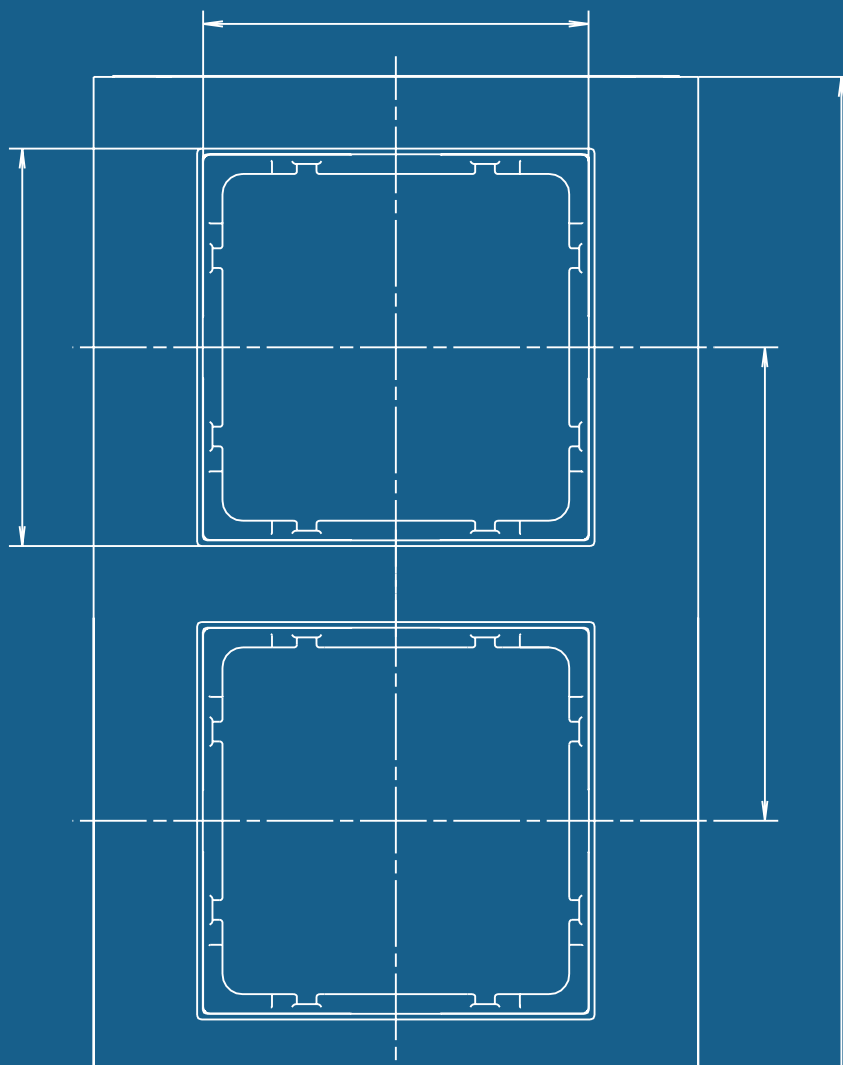
INSTRUCTIONS FOR CLEANING AND CARE

Clean by wiping off the surfaces with a moist, soft, lint-free cloth.

In the case of heavy dirt we recommend using a diluted household cleaning agent containing soap. The surfaces "Glas" and "Aluminium" can be cleaned using common glass cleaners.

For heavy dirt on stainless steel surfaces, special cleaners such as "Surface Shield" or "Chromol" are preferred. Please observe the corresponding instructions for use, as they may not be used on plastics and fine metallic surface finishes.

Abrasives and polishes, acidic (scale removing) cleaning agents and cleaning agents containing chlorine generally damage all surfaces. Moreover, painted surfaces must not come in contact with cleaning agents that contain alcohol.





DIMENSIONAL DRAWINGS

For the sake of conciseness, in the “Technical data” section of the product descriptions as soon as a product features in more than one of our designs it is no longer detailed in each with the associated dimensional variations. The dimensions are presented in the following table, in millimetres.

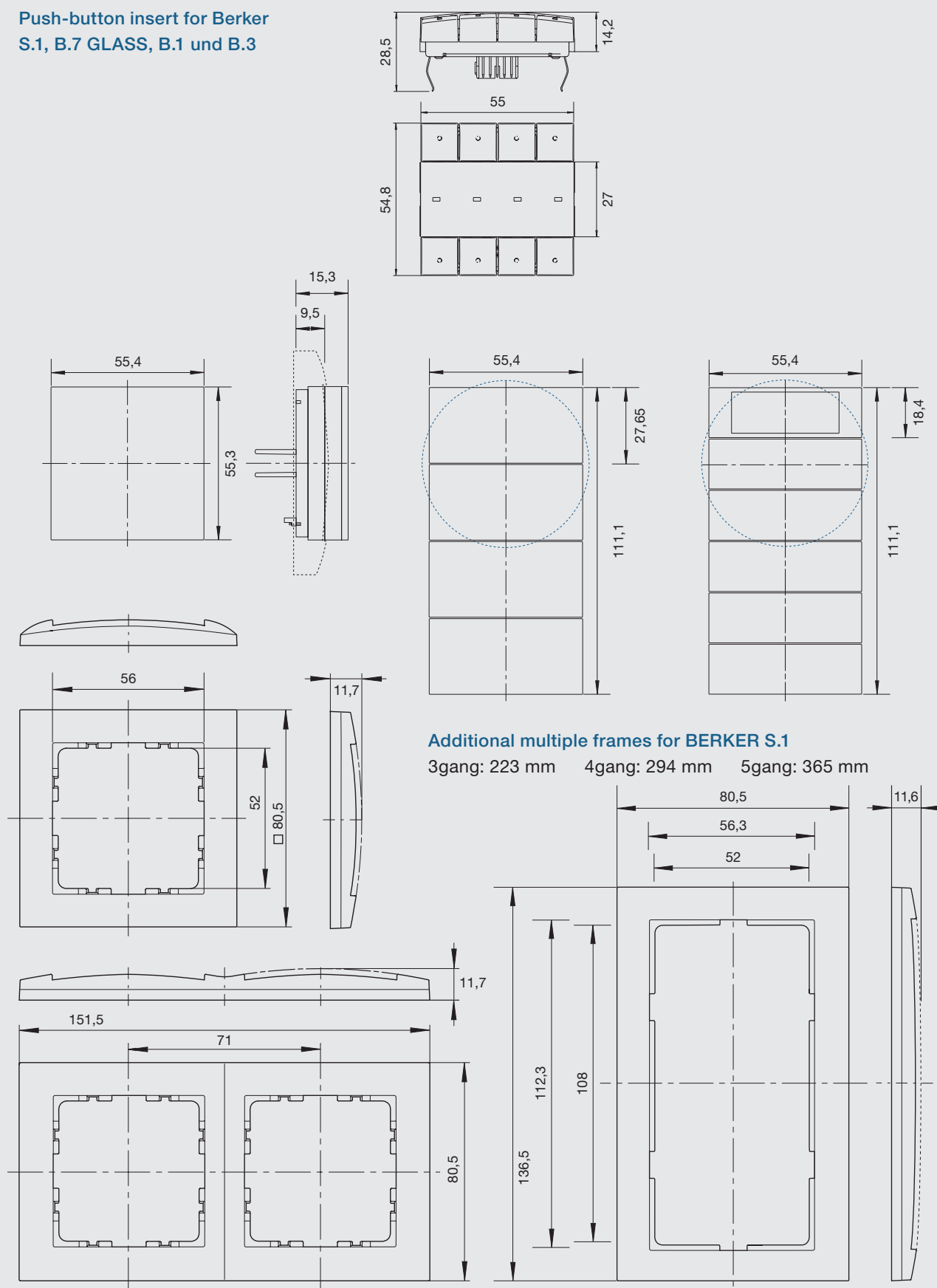
Device-specific dimensions, such as for DIN rail mounted devices, panels, etc., are still detailed directly in the technical data to the individual products. For more information on dimensions refer to the master catalogue.

GLOSSARY

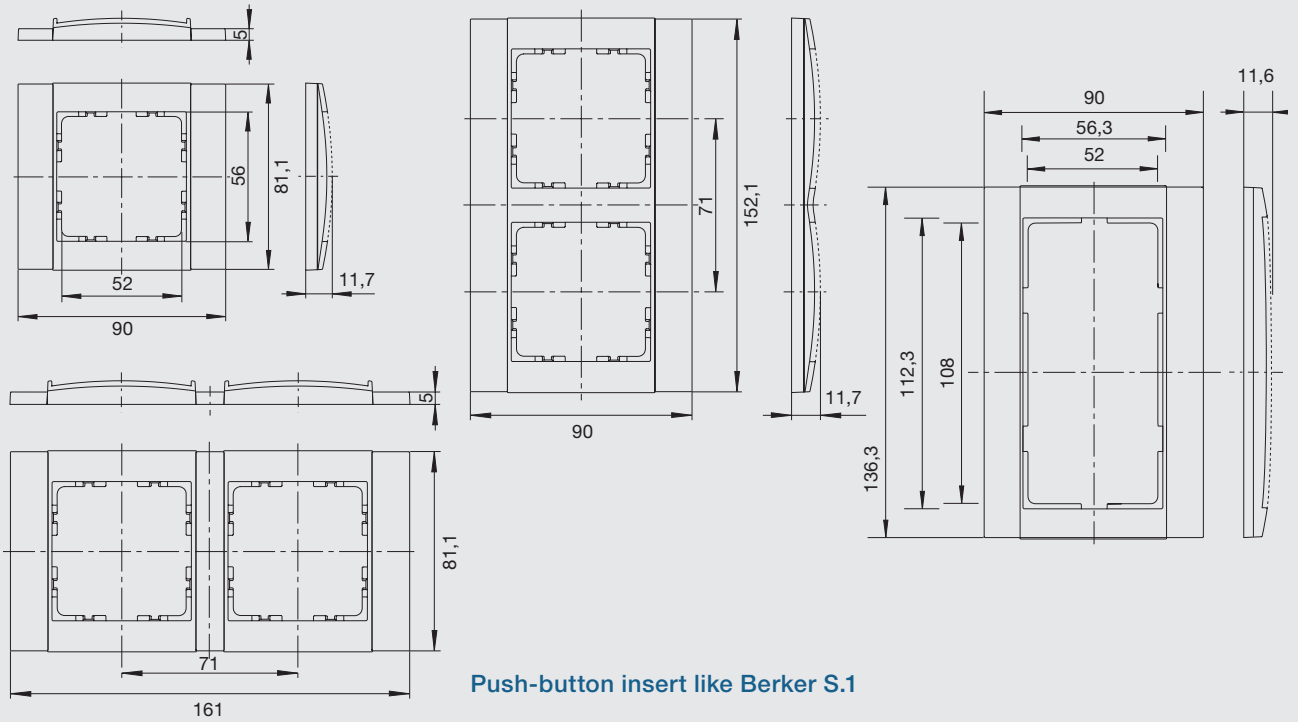
The explanations of the specialist terms are intended to make the technical features and their context as easily understood as possible. The Glossary presents unified terminology related to building systems engineering, and consequently should only be used in that context.

Dimensional drawings	368–374
Glossary	375–379

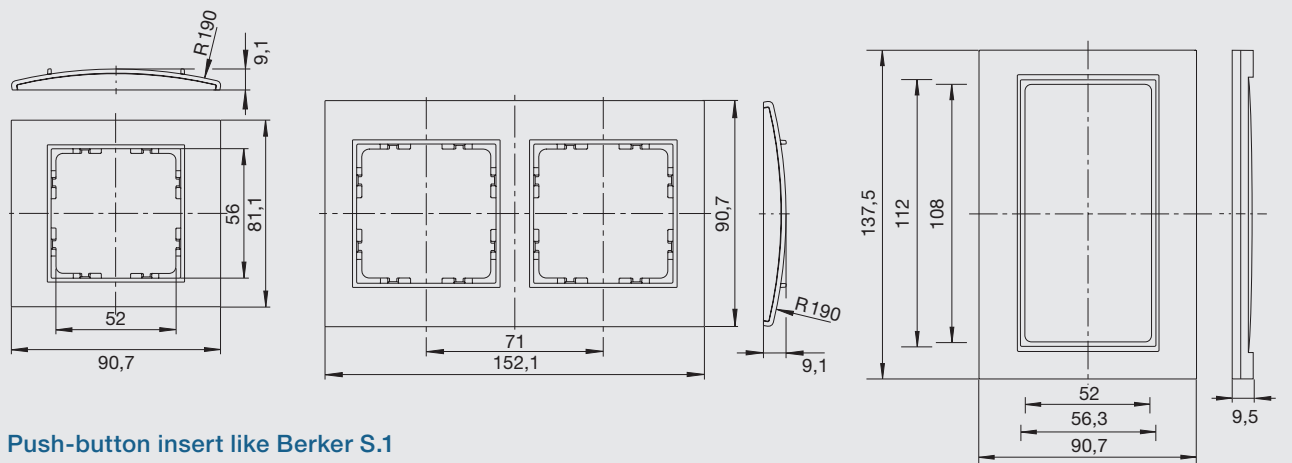
Push-button insert for Berker
S.1, B.7 GLASS, B.1 und B.3



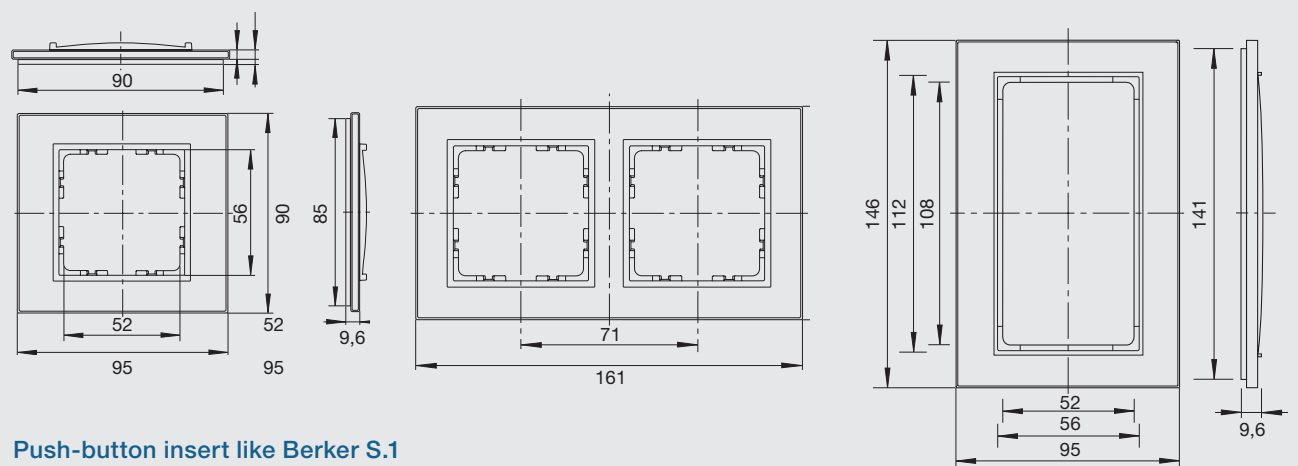
B.1



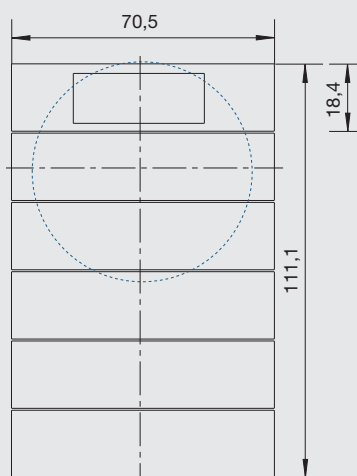
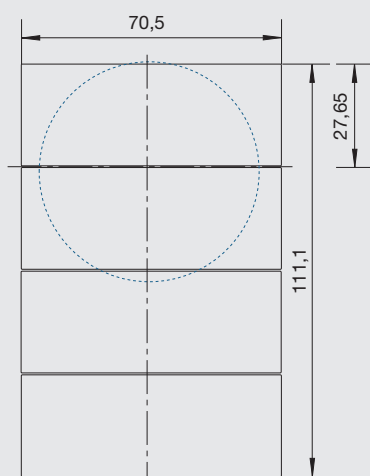
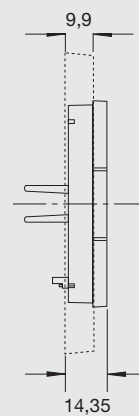
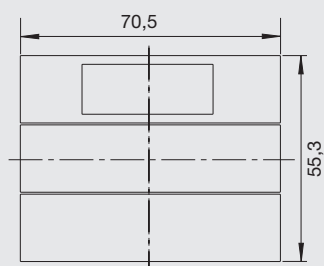
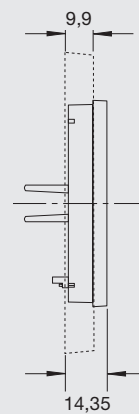
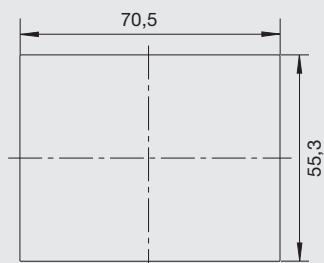
B.3

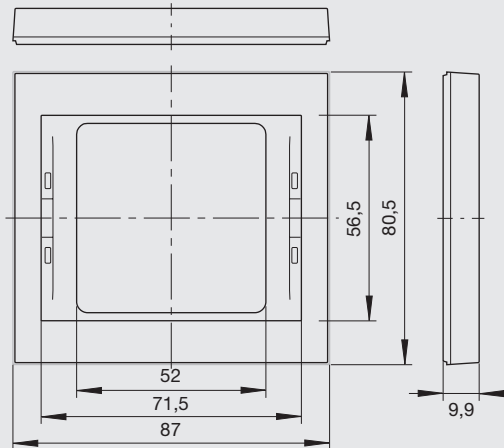


B.7 GLASS



Push-button insert for
Berker K.1 and K.5



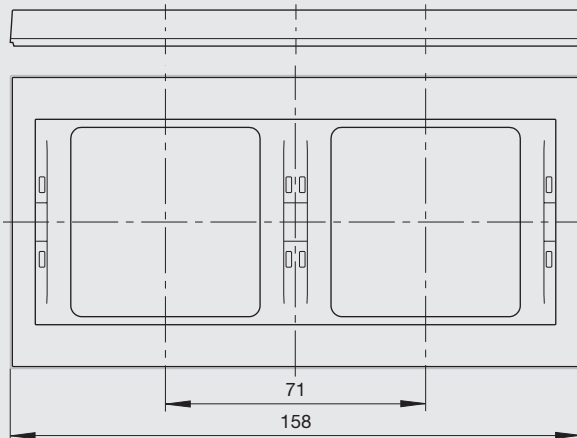
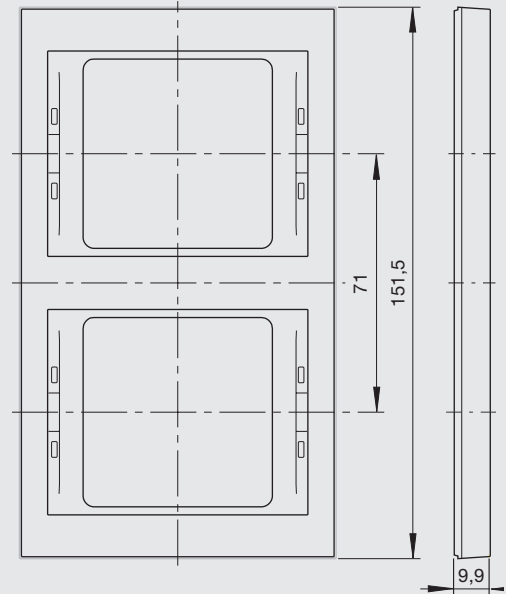


Additional multiple frames

3gang vertical: 222.5 mm

4gang vertical: 293.5 mm

5gang vertical: 364.5 mm

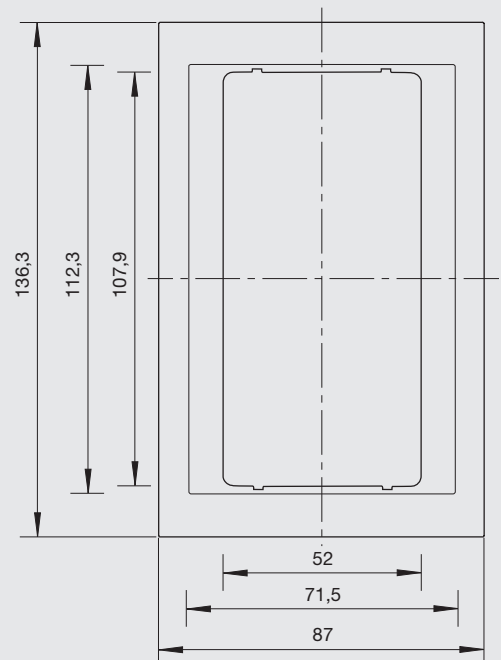


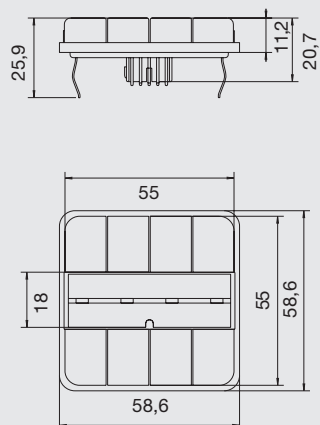
Additional multiple frames

3gang horizontal: 229 mm

4gang horizontal: 300 mm

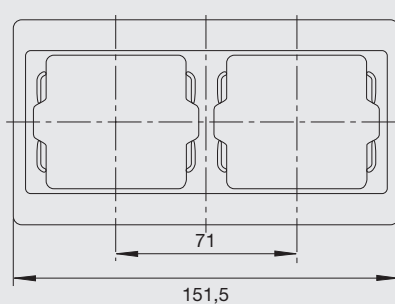
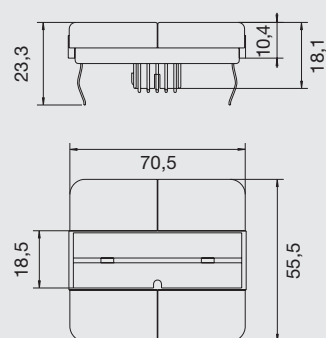
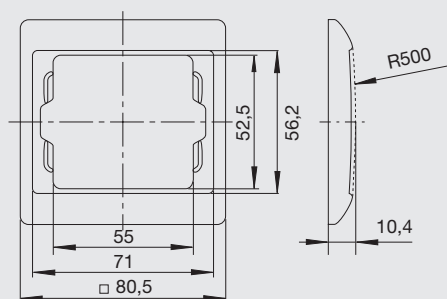
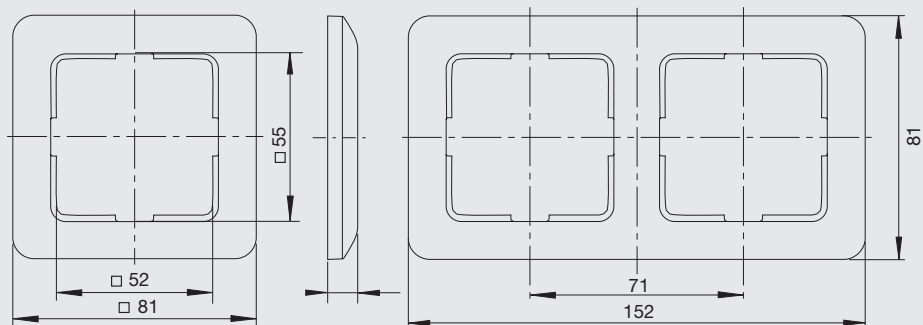
5gang horizontal: 371 mm





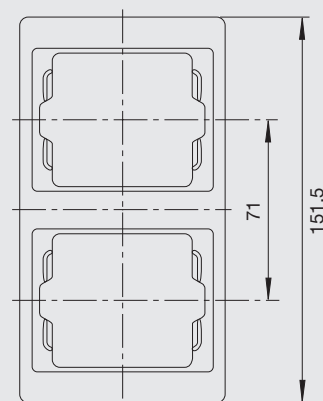
Additional multiple frames

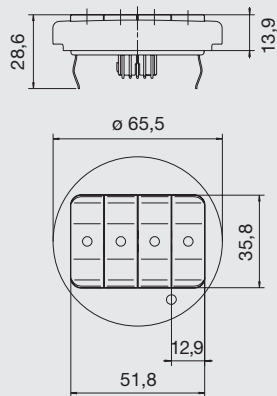
3gang: 223 mm 4gang: 294 mm 5gang: 365 mm



Additional multiple frames

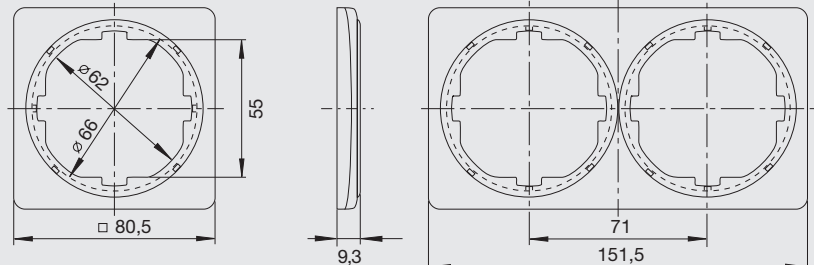
3gang: 222,5 mm
4gang: 293,5 mm
5gang: 364,5 mm





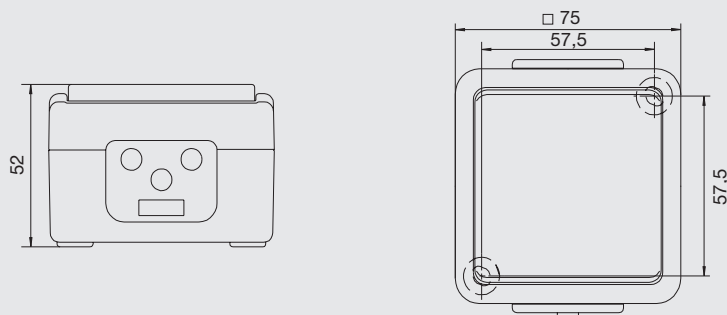
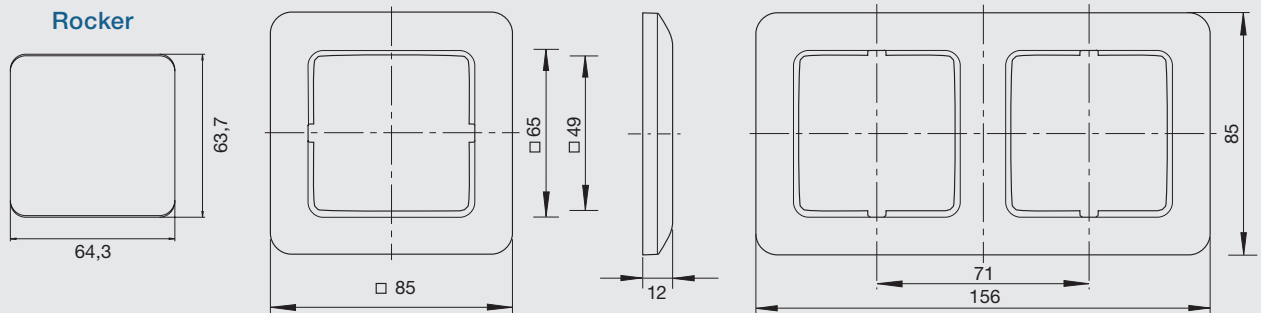
Additional multiple frames

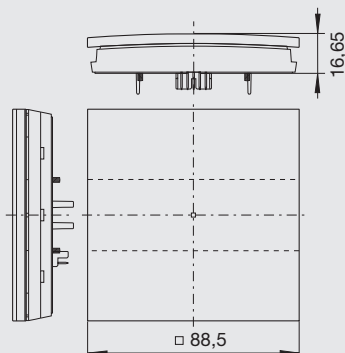
3gang: 222,5 mm 4gang: 293,5 mm 5gang: 364,5 mm



Additional multiple frames

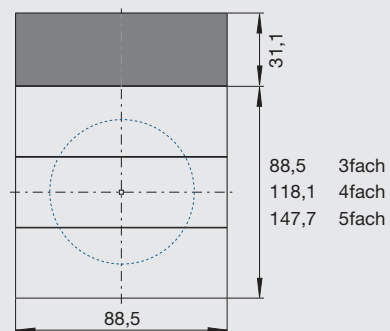
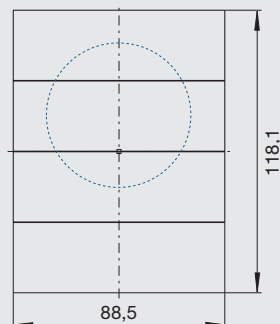
3gang: 227 mm



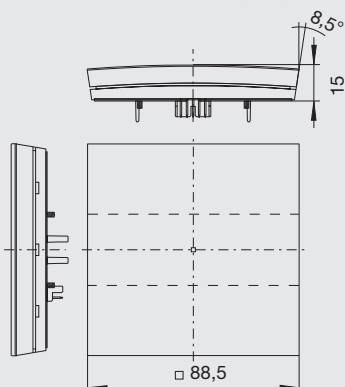


Push-button 1-3gang: at top
Push-button 4gang: on right

B.I.Q Glass, stainless steel

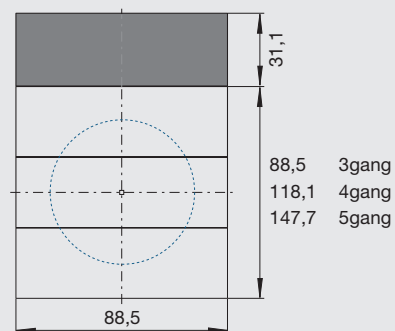
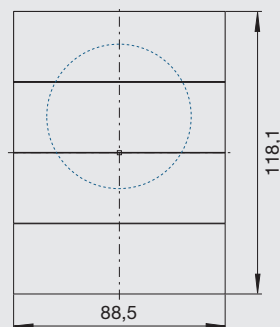


Push-button with room thermostat and display 3-5gang

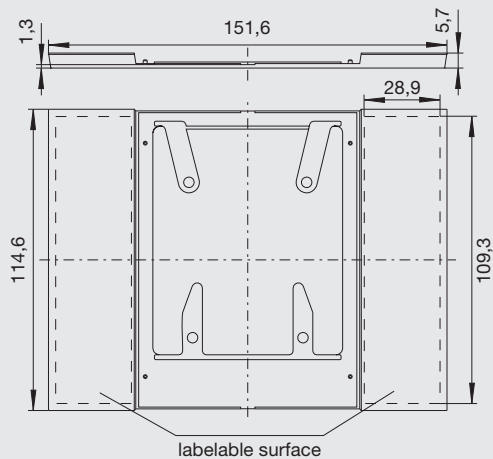
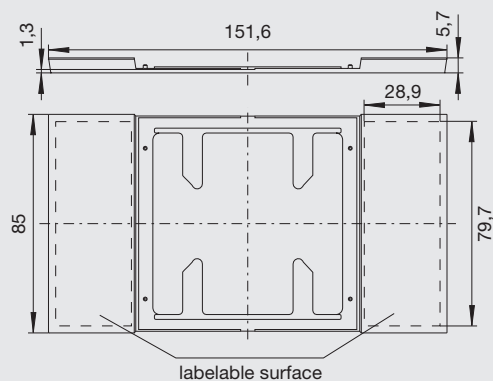


Push-button 1-3gang: at top
Push-button 4gang: on right

B.I.Q Polar white

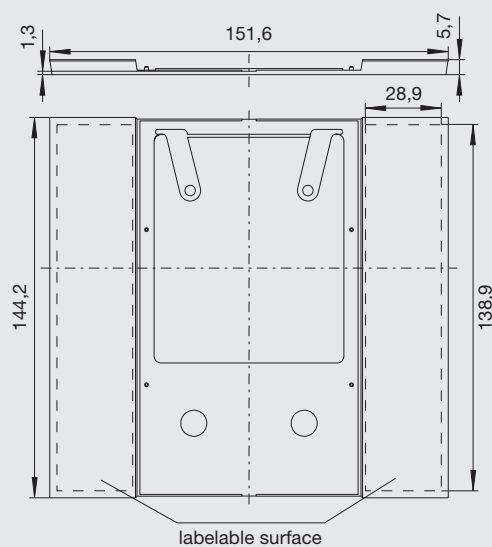


Push-button with room thermostat and display 3-5gang



B.I.Q Labelling fields

for push-buttons 1-3gang (left), for push-buttons 4gang (bottom left) and push-buttons 5gang (bottom right)



A

Acknowledgement	Feedback that an item of information has been received, understood and/or processed.
Actuator	Device which executes control commands. It includes, for example, NO (normally open) contacts to switch consumers.
Address	Identification of devices on the bus, e.g. in the form of a consecutive numbering (see Group address, Physical address, Source address, Telegram, Destination address).
Addressing	The process in which a device on the bus is assigned a physical address and/or one or more group addresses.
Analogue value	An analogue value may assume an infinite number of intermediate values between a minimum and maximum, e.g. temperature, brightness, etc.
Application program	The program which is loaded into a bus coupling unit or user module and defines the function of the bus device.
Application	Application program in a bus coupling unit. A push-button can be used, for example, for dimming or to control the shutters or window blinds. In ETS 2 the term “program” is used.
Area coupler	Provides the data link between a main line and the area line.
Area	Multiple bus lines can be grouped with line couplers over a main line to form an area.

B

Baud rate	Number of bits transferred in a specific time unit. The unit is bits per second. On the instabus the baud rate is 9600.
Binary character, binary data	A value which can assume only two variables, “1” or “0”.
Bit	Smallest unit of representation of binary data (binary digit). A bit can only assume the value 0 or 1.
Building systems engineering	Interconnection of system components and users over the instabus to form a unified electrical installation system, implementing functions and processes, and the systemic links between them, within a building. The intelligence is distributed across the system components. Information is exchanged directly between the devices.
Building visualization	Visualization of the switching states of electrical equipment forming part of the building installation, on a PC monitor or touch panel. The program also permits remote control of the installed components.
Bus access method	Organizational method by which each individual device accesses the bus to exchange information. The instabus uses the CSMA/CA (Carrier Sense Multiple Access/Collision Avoidance) method. It permits equal access privileges for the devices connected to the bus, with avoidance of collisions.
Bus cable	Twisted-pair two-wire cable. Permissible cable types: PYCYM or J-Y(St)Y 2x2x0.8

Bus coupling unit (BCU)	Forms the mechanical, electrical and data link between the bus (cable or data rail) and the user module.
Bus	Transfer medium over which a number of users (devices) exchange information. On the instabus the transfer medium used is a two-wire cable or data rail. Apart from the information, the power to the electronics of the devices connected to the bus is also transmitted over the instabus.
Byte	A unit of information comprising 8 bits. A byte can assume 256 (2 ⁸) different values.

C	
Coupler.....	Bus device to provide the data link between, and to extend, lines and areas.

D	
Data type	Determines the length of the telegram. An item of On/Off switching information has a different telegram structure to an item of dimming information, for example.
Debounce time	Waiting time in order to avoid erroneous telegrams possibly caused by the repeated spring-back when a mechanical contact closes.
Decentralized system	A system which operates with no higher-level central control. In a system of such a kind, the users/subsystems control the information flow, bus access, etc. themselves.
Destination address	The address of the device on the bus which receives the information.
DIN rail.....	Rail executed to DIN EN 50 022, onto which appropriately designed DIN rail mounted devices ("RMD") to DIN 43 880 are snapped. Dimensions: 35 x 7.5 mm (x modules).

E	
EEPROM/EPROM.....	Electrically Erasable Programmable Read Only Memory. The data are retained in the event of power failure.
ETS	KNX/EIB Tool Software, non-proprietary program for parameter setting of KNX/EIB devices.
European Installation Bus Association (KNX/EIBA)	Association of leading electrical installation companies with the aim of offering a uniform, high-reliability installation bus system on the market.
Extra-low voltage	Protective measures against direct touch contact to DIN VDE 0100 part 410. Umbrella term for: FELV = Functional Extra Low Voltage PELV = Protective Extra Low Voltage SELV = Safety Extra Low Voltage

F

- Feedback**..... Indication that an item of information (command) has been understood and/or processed and/or executed and/or the item of equipment concerned has changed its state.
- Filter table**..... List stored in a coupler that decides which telegrams are allowed through and which are blocked.
- Flag**..... Accessory to an object. It decides, for example, whether the object status can be read over the bus.
- Forced guidance** Forced activation or deactivation of an actuator contact, without other devices being able to change the set switching state. When forced guidance is cancelled, the actuator can return to its original state.
- Functions**..... Functions generally refer to the correlation between cause and effect, between input and output variable, or between sensor and actuator. The instabus provides the following functions:
- Switching, loop control, measurement
 - Open-loop control, signalling, monitoring

G

- Group address** Address at which multiple recipients can be reached by one telegram. They thus form a group. The group address is a function-oriented address.

H

- Interfaces** Defined points within a system or within devices. In the instabus KNX/EIB, for example, the following interfaces are defined:
- Between bus (cable or data rail) and bus coupling unit
 - Between bus coupling unit and physical external interface (PEI)

L

- Light scene**..... Specific lighting situation in a room with multiple lighting groups.
- Line amplifier** Coupler which detects, based on its physical address, that it is to be used to expand a line.
- Line coupler**..... Bus device to interconnect lines. Depending on the destination address, telegrams are forwarded via line couplers or limited to one line.
- Line**..... Part of an instabus comprising an electrical segment or created by the interconnection of electrical segments via line amplifiers.
- Logic operation** Combines the effect of different sensors on an actuator.

M

- Main line** Interconnects multiple line couplers and connects them where appropriate to the assigned area coupler. Thereby permits data exchange across multiple lines and areas.
- Module**..... A function group with defined, known properties, which may be either hardware (unit, circuit board) or software.

P

Parameter	Configurable settings of an KNX/EIB device. They can be used to define whether, for example, pressing the upper rocker of the push-button triggers an On or Off telegram.
Physical address	Unique identifier of a bus device in the instabus. The physical address contains the device, line and area numbers.
Physical external interface (PEI)	2 x 5-pin connection between a bus coupling unit and a user module. The function of the PEI is programmable, e.g. as inputs/outputs or serial data transfer.
Programming	In relation to the instabus this term is also used for parameter setting and addressing, e.g.: <ul style="list-style-type: none"> - Assigning addresses - Entering switching times - Entering logic operations - Defining threshold values

R

RS 232-C	Designation of a standardized serial port; another is V.24.
----------------	---

S

Sensors	Devices in the system which record physical variables, process them and send them as telegrams over the bus.
Serial data transfer	Sequential information processing, i.e. the information is transmitted and received consecutively.
Source address	The address of the device sending information over the bus.
System components	Designation of devices on the bus which perform higher-level non-application-specific functions.
Software plug-in	For an additional program provided for an instabus device. A software plug-in is started by calling up the parameters view within the ETS. This is a convenient facility for overall project control and parameter setting for devices, covering all functions.

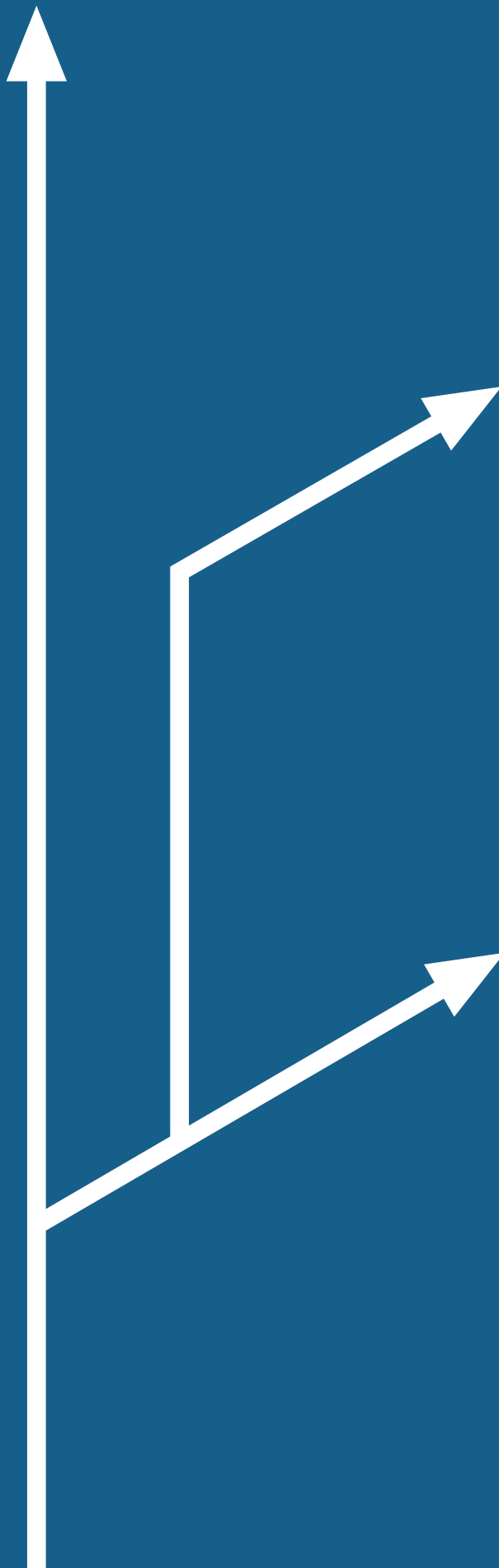
T

Telegram rate limitation	This parameter defines how many telegrams the device can send as a maximum in 17 seconds. It prevents overloading of the bus time capacity.
Telegram	A bit sequence for transfer of an item of information from one device on the bus to others. In the instabus the telegram contains: <ul style="list-style-type: none"> - Control field - Address field with source and destination address - Data field - Security field with checksum - Confirmation field

Time functions	Switch actuator contacts can operate at a delay after reception of a telegram.
Time switch	Implements the so-called “automatic stairwell light”. When an On telegram is received the contact of an actuator remains closed for a certain period of time.
Topology	System layout/structure
Transfer rate	Number of bits transferred in a specific time unit. The unit is bits per second. The instabus KNX/EIB uses a transfer rate of 9600 bit/s.
Twisted pair	Twisted pair of wires

U

USB	The universal serial bus is a port for connecting peripheral devices (mouse, modem, printer, KNX/EIB data interface) to the computer. Up to 127 devices can be connected to one single USB port. In 2000, USB 1.1 was upgraded to USB 2.0. However, the KNX/EIB interfaces support both standards.
User module (UM)	Part of an instabus KNX/EIB device which is clipped onto or connected to a bus coupling unit.



B.
Berker the right way.

SERVICE AND ADDRESSES



Please ask our representatives directly about options for product training.
Please contact the representative or Berker office nearest you.

For more information about our local representatives,
please see our Internet website at **www.berker.com**

Please contact us directly if you have any other questions.

Berker GmbH & Co. KG
International Sales Department (VE)
Klagebach 38
58579 Schalksmühle, Germany
Phone +49 (0) 23 55/9 05-0
Fax +49 (0) 23 55/9 05-112
export@berker.com