

Binary Output UP 562/01
2 x 230 V AC / 10 A
5WG1 562-2AB01

Product and Applications Description



The binary output UP 562/01 is a switching actuator equipped with an additional PEI interface for box mounts. It can switch two separate groups of electric loads by its two outputs. The 10 pin PEI interface is designated for plugging-in EIB sensor modules (such as push buttons). The binary output is built into box mounts (60mm Ø , 60mm deep) by screw mounting and is connected with the bus line by screwless plug-in blocks.

Each of the outputs can be assigned various tasks depending on the application program used, i.e. the binary output UP 562/01 consists of the device (hardware) and its application programs (software).

Appropriate application programs are available for the different tasks the binary output UP 562/01 can handle; e.g. for direct on and off switching, time switch (non-delayed on, delayed off) or delayed on/off switching.

With the ETS (*EIB Tool Software*) the application program is selected, its parameters and addresses are assigned appropriately, and downloaded to the binary output UP 562/01.

Application programs

The application programs of the binary output UP 562/01 always consist of the actuating program element and the sensor program element. The tasks of the actuating program element in the application programs are identical, only the sensor program elements are different.

The tasks of the actuating program element are:

- 2 binary outputs
- 1 states request available for each output
- on/off-delay mode available
- AND/OR configuration can be set
- 1 positively driven contact available for each output
- characteristic at bus voltage failure and recurrence can be set in parameter list
- state changes are reported once in case of each change
- staircase lighting function available

20 A2 Actuator-BCU-Binary, 901002

- sensor element
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - LEDs permanently off or available as state display or as orientation light

20 A2 Actuator-BCU-Binary, single profil 901402

- sensor element
 - single push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - LEDs permanently off or available as state display or as orientation light

20 A2 Actuator-BCU-Binary, double profil 901502

- sensor element
 - double push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - LEDs permanently off or available as state display or as orientation light

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20 A2 Actuator-BCU-Binary, 4-fold profil
901602

- sensor element
 - 4-fold push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - LEDs permanently off or available as state display or as orientation light

20 A2 Actuator-BCU-Binary, 4-fold profil
901802

- sensor element
 - 4-fold push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - LEDs permanently off or available as state display or as orientation light

20 A2 Actuator-BCU-Binary, single fold profil
901902

- sensor element
 - 1-fold push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - orientation light always off or on

20 A2 Actuator-BCU-Binary, 2-fold profil
901A02

- sensor element
 - 2-fold push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - orientation light always off or on

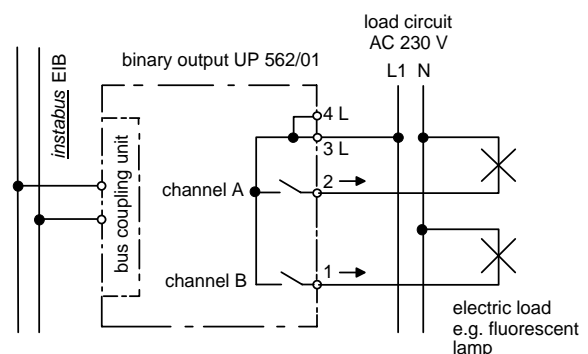
20 A2 Actuator-BCU-Binary, single fold profil
901C01

- sensor element
 - 1-fold push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted

- LEDs permanently off or available as state display or as orientation light

20 A2 Actuator-BCU-Binary, 2-fold profil
901D01

- sensor element
 - 2-fold push button
 - allows switching, shutter control or dimming
 - allows activating and programming scenes
 - each rocker press point allows an 8 bit value to be transmitted
 - LEDs permanently off or available as state display or as orientation light

Example of Operation

Installation Instructions

- The device may be used for permanent interior installations in dry locations within box mounts.


WARNING

- The device must be mounted and commissioned by an authorised electrician.
- A safety disconnection of the device must be possible.
- The device may be mounted to switch and socket combination box mounts if VDE-certified devices are used exclusively.
- The prevailing safety rules must be heeded.
- The device must not be opened.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

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Technical Specifications

Power supply
via the bus line

Outputs

- number: 2 outputs (volt free contacts)
- rated voltage: AC 230 V, 47 ... 63 Hz
- rated current: 10 A resistive load
- switching current at AC 230 V:
0,01 ... 10 A resistive load
- switching current at DC 24 V:
 - 10 A resistive load
 - 4 A inductive load (L/R = 7 ms)
- switching characteristic: set in parameter list according to application program

Switching power at AC 230 V

- at incandescent lamp load: max. 1000 W
- at fluorescent lamp (FL) load:
 - uncorrected FL, $\cos \varphi = 0,5$: max. 500 W
 - parallel corrected FL, $\cos \varphi = 1$ (at $C_{tot} \leq 14 \mu F$):
2 x 58 W or 3 x 36 W or 6 x 18 W
 - twin-lamp circuit, $\cos \varphi = 1$: max. 1000 W
 - Osram ECG for 58 W FL: max. 10 units
 - Osram ECG for 36 W FL : max. 15 units
 - Osram ECG for 18 W FL : max. 20 units

Operator elements

1 learning button:
for switching between normal operating mode and addressing mode

Display elements

1 red LED:
for monitoring bus voltage and displaying mode, selected with the learning button

Connections

- load circuit, physical:
 - strip insulation for 9 ... 10 mm
 - permissible conductor types/cross sections:
 - 0,5 ... 2,5 mm² single core or flexible conductor, 8 mm ultrasonically compacted
 - 0,5 ... 2,5 mm² flexible conductor with terminal pin, crimped on gas tight
 - 0,5 ... 1,5 mm² flexible conductor with connector sleeve
 - 1,0 and 1,5 mm² plain flexible conductor
- load circuit, electrical:
 - plain flexible conductor, min. 1 mm²:
current carrying capacity max. 6 A

- all other conductors, min. 1,5 mm²:
current carrying capacity max. 10 A



WARNING

When looping through the L-conductor (connection blocks 3 and 4), take care that the maximum connection current of 16 A (as governed by the maximum permissible printed conductor load) is not exceeded!

- bus line: screwless bus block
0,6...0,8 mm Ø single core
remove approx. 5mm of isolation

Physical specifications

- housing: plastic
- dimensions:
 - W x H: 71 x 71 mm
 - mounting depth: 39 mm
- weight: approx. 80 g (with mounting hanger)
- fire load: approx. 991 kJ $\pm 10\%$
- installation: mount to box mounts Ø 60 mm, 40 mm deep

Electrical safety

- degree of pollution (according to IEC 60664-1): 2
- protection (according to EN 60529): IP 20
- overvoltage class (according to IEC 60664-1): III
- bus: safety extra low voltage SELV DC 24 V
- relay with μ -contact
- device complies with
EN 50090-2-2 and EN 60669-2-1

Reliability

- 20.000 switching cycles for each contact

Electromagnetic compatibility

complies with EN 50081-1, EN 50082-2 and EN 50090-2-2

Environmental specifications

- climatic conditions: EN 50090-2-2
- ambient temperature operating: - 5 ... + 45 °C
- ambient temperature non-op.: - 25 ... + 70 °C
- relative humidity (non-condensing): 5 % to 93 %

Certification

EIB certificate

CE norm

complies with the EMC regulations (residential and functional buildings), and low voltage regulations

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Location and Function of the Display and Operator Elements

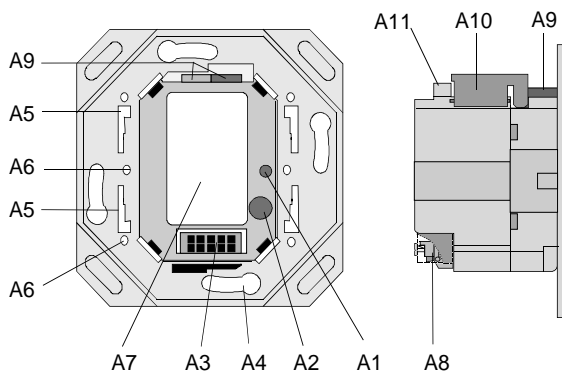


Figure 1: Location of the display and operator elements

- A1 LED for indicating normal operate mode(LED off) or addressing mode (LED on); returns to normal operating mode automatically after receiving the physical address
- A2 Learning button for switching between normal operating mode and addressing mode and for receiving the physical address
- A3 Physical external interface (PEI) for plugging-in EIB sensor module
- A4 Long slots for attaching the application unit on the box mount
- A5 Slots for attaching the application unit via slide guidance and fastening clamps
- A6 Thread for the mounting screws (for additional fastening of the application unit, e.g. theft protection)
- A7 Type label
- A8 Screwless plug-in connection blocks with verification tap to connect the load circuits
- A9 Bus connection block for single core conductors with 0,6...0,8 mm Ø
- A10 Snap-on cover for bus line and single bus wires
- A11 Anchorage for holding the bus lines in their positions

Mounting and Wiring

The binary output UP 562/01 is built into box mounts (60 mmØ, depth 60 mm) via a screw mount. It is connected to the bus line via the bus connection block 193 (screwless plug-in connection blocks for single core conductors). The application units (such as push buttons) are slipped onto the binary output via guiding and fastening springs and, depending on the type, tightened by screws.

Note

The binary output UP 562/01 must be mounted placing the physical external interface (PEI) at the bottom (figure 2) ensuring that the application units designated to be plugged on the PEI are mounted in the correct operational position. To guarantee a permanently ensured contact it is recommended to use only application units with mounting screws.

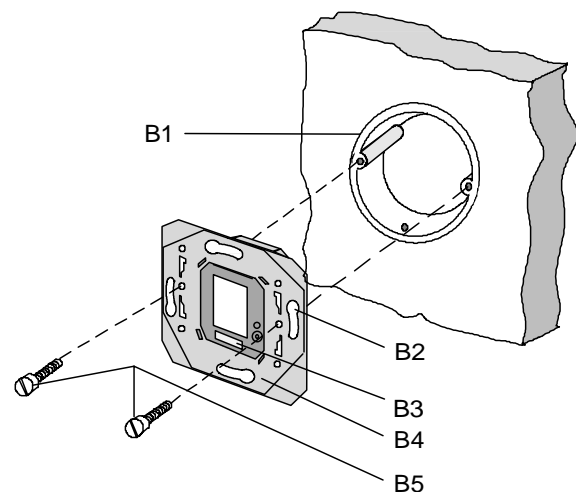


Figure 2: Mounting the binary output UP 562/01

- B1 Box mount (60 mm Ø according to DIN 49073)
- B2 Mounting slots
- B3 Physical external interface (PEI)
- B4 Binary output UP 562/01
- B5 Mounting screws

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Slipping off / on bus connection blocks (figure 3)

- The bus connection block (C2) is situated at the top of the binary output UP 562/01 (C3).
- It consists of two components (C2.1 and C2.2) with four terminal contacts each. Take care not to damage the two test sockets (C2.3) by accidentally connecting them to the bus cable or with the screw-driver (e.g. when attempting to unplug the bus connection block).

Slipping off bus connection blocks (figure 3)

- Put the screw-driver between the cover (C1) and the binary output (C3) and lever out the cover.
- Carefully put the screw-driver to the wire-inserting slit of the bus connection block's grey component (C2.2) and pull the bus connection block (C2) from the binary output (C3).

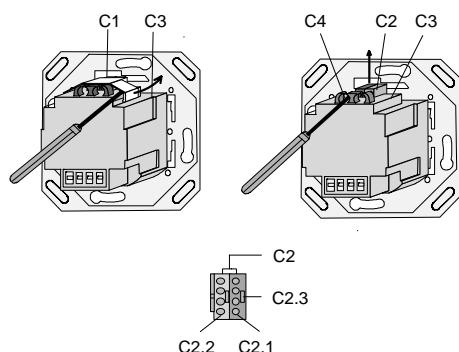


Figure 3: slipping off/on bus connection block

Note

Don't try to remove the bus connection block from the bottom side! There is a risk of shorting-out the device!

Connecting bus cables (figure 4)

- The bus connection block (D2) can be used with single core conductors 0,6 ... 0,8 mm Ø.
- Remove approx. 25 -35 mm of the insulation
- Remove the end of the insulation of the conductor (D2.4) and plug the wire into the connection block (D2) (red = +, grey = -).

Slipping on bus connection blocks (figure 3)

- Slip the bus connection block (C2) onto the guide slot of the binary output (C3) and
- press the bus connection block (C2) down to the stop.
- press the sheathing of the bare ending bus line (figure 4) projecting at least 3mm into the open anchorage (C4). If a further bus line shall be connected pierce the closed anchorage with a screw-driver and

press the wire into the anchorage as described above. Press the single bus wires into the recess below the bus connection block and snap on the cover (C1).

Disconnecting bus cables (figure 4)

- Unplug the bus connection block (D2) and remove the bus cable conductor (D2.4) while simultaneously wiggling it.

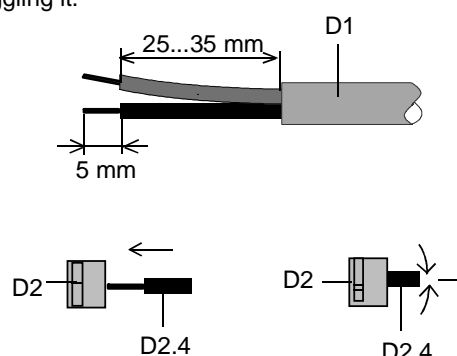


Figure 4: Connecting/disconnecting bus cables

Connecting load circuits (Figure 5)

- The load circuit is connected to screwless plug-in connection blocks (E1).
- Remove approx. 9 to 10 mm of insulation from the wire (E1.1) and plug it into the connection block (E1).

Conductor cross sections:

- load circuit, physical:
 - strip insulation for 9 ... 10 mm
 - permissible conductor types/cross sections:
 - 0,5 ... 2,5 mm² single core or flexible conductor, 8 mm ultrasonically compacted
 - 0,5 ... 2,5 mm² flexible conductor with terminal pin, crimped on gas tight
 - 0,5 ... 1,5 mm² flexible conductor with connector sleeve
 - 1,0 and 1,5 mm² plain flexible conductor
- load circuit, electrical:
 - plain flexible conductor, min. 1 mm²: current carrying capacity max. 6 A
 - all other conductors, min. 1,5 mm²: current carrying capacity max. 10 A

⚠ WARNING

When looping through the L-conductor (connection blocks 3 and 4), take care that the maximum connection current of 16 A (as governed by the maximum permissible printed conductor load) is not exceeded!

Disconnecting load circuits (Figure 5)

- Press the screw-driver onto the interlocking (F1.2) of the connection block (F1) and
- slip the conductor (F1.1) out of the connection block (F1).

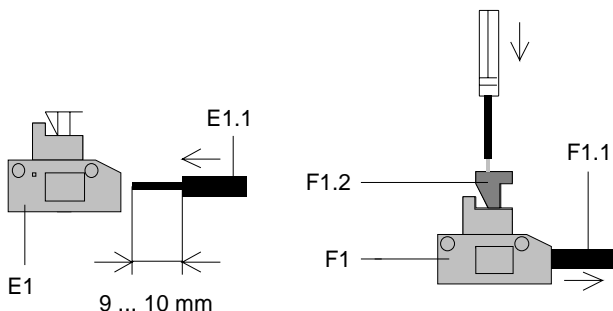
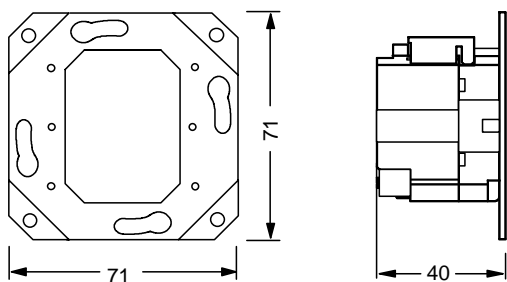


Figure 5: Connecting/disconnecting cables

Dimensions diagram

Dimensions in mm



General Notes

- Any faulty devices should be returned to the local Siemens office.
- If you have further questions about the product, please contact our Technical Support:

☎ +49 (0) 180 50 50-222
☎ +49 (0) 180 50 50-223
✉ adsupport@siemens.com

Notes