| Switching actuator N 567/11 | 5WG1 567-1AB11 |
| 8 x 230V AC / 8A | |

Product and functional description

The switching actuator N 567/11 is an N-type device for DIN-rail mounting. With its eight relay contact outputs (channels) it can switch eight groups of electrical consumers independently of each other. The connection to the bus line can be carried out either via a bus terminal block or by a contacting system to a data-rail installed in the DIN-rail.

Application program

The switching actuator N 567/11 needs the application program "25 A8 Binary, Flash Before Off 980302". With this program there is a distinction between bus mode and direct mode. In bus mode each channel can be provided with a communication object for switching, for status check and for logic operation. In addition it is possible with each channel to change over from permanent switch-on to time-limited switch-on (e.g. for cleaning light) using an optional object "Night mode".

If required it is possible to activate an 8 bit scene control function, which is integrated in the application program, and to incorporate each channel in up to 8 scenes. In addition you can choose whether all channels shall be parameterized jointly and hence identically or each channel separately and individually. The following parameterizations are possible per channel:

- Operating mode (normal / time switch mode)
- Logic operation (none, AND, OR)
- ON delay
- OFF delay
- On period in night mode
- Warning before switching-off by multiple switching Off/On (flashing) in case of a time-limited On period in night mode or in time switch mode
- Switching state after mains voltage recovery.

The application program can be loaded with ETS2 V1.3 and higher.

Bus mode / direct mode

The switching actuator N 567/11 has an integrated power supply unit for 230 V AC in order to supply power to the actuator electronics. The power supply unit enables operation of the actuator and direct switching of the actuator channels in "direct mode" even if no bus voltage is available, the N 567/11 still has to be taken into operation with the ETS (Engineering Tool Software) or communication over the EIB has been interrupted.

With the N 567/11, "direct mode" is switched on by means of a pushbutton at bottom left on the upper side of the actuator. When this pushbutton is pressed for the first time, the yellow LED shines with a steady light to indicate the direct mode. In direct mode, each channel can be switched by a toggling function using the pushbutton assigned to it on the upper side of the actuator: pressing the pushbutton once switches ON the channel, pressing it a second time switches OFF the channel. The switching state of the channel is indicated by a red LED integrated in the pushbutton.

A parameter is available to set whether direct mode can be switched on permanently or for a limited time. In the default setting, direct mode is limited to an On period of 15 minutes. Each time the pushbutton is pressed in direct mode the timer for limiting the On period is restarted with the parameterized On period. If the On period expires without the pushbutton being pressed again, direct mode is switched off automatically and "bus mode" reactivated (provided communication over the EIB is possible). Alternatively, direct mode can be terminated at any time with another press of the "direct mode" pushbutton. The yellow LED for indicating direct mode then goes out and the actuator is back in bus mode. In bus mode, nothing happens if you press the pushbuttons for directly switching a channel on or off which are located on the upper side of the actuator. Switching and scene calling commands received over the bus when direct mode is active are buffered and automatically executed after having returned to bus mode.
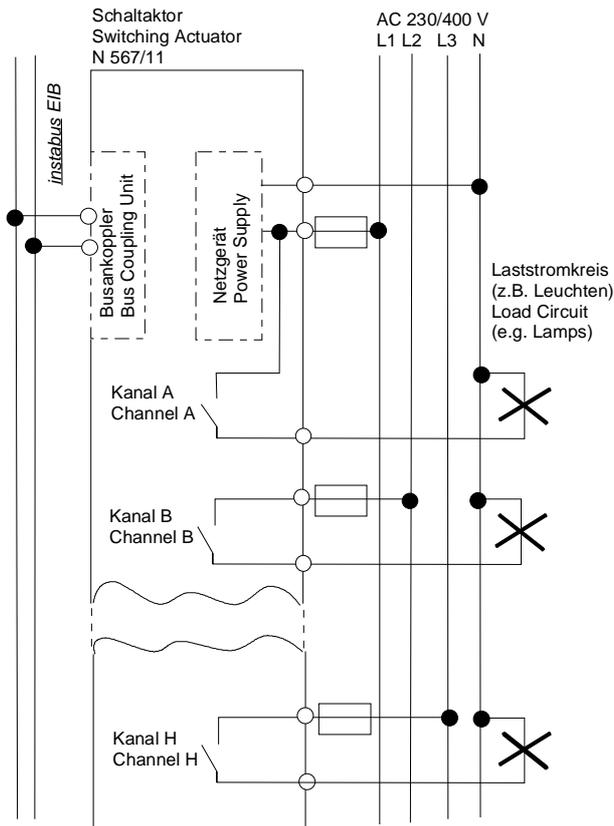
Behavior in case of power failure / recovery

The actuator electronics is powered from the mains supply; a power failure thus results in failure of the actuator. With the N 567/11, all actuator channels remain in their respective switching state when there is a power failure. However, for each channel it is possible to select which switching state is to be adopted after power recovery: the state that existed before the power failure, ON or OFF.

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Automation and Drives Group
Electrical Installation Technology
P.O. Box 10 09 53, D-93009 Regensburg

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Connection example

Installation notes

- The device can be used for permanent installation in dry, interior rooms and for insertion in distribution boards or miniature housings.

⚠ WARNING

- The device must be mounted and commissioned by an authorised electrician.
- Unoccupied sections of DIN rail with data rail inserted must be protected with the cover 5WG1 192-8AA01.
- When connecting the device, it should be ensured that the device can be isolated.
- The device may not be opened.
- When planning and installing electrical installations, the relevant guidelines, regulations and specifications of the respective country must be observed.

Technical data

Power supply

- EIB bus voltage: via the bus line
- EIB bus current: 5 mA (only half a standard bus load !)
- Actuator electronics:
  - integrated power supply for AC 230V, +10%/-15%, 50Hz
  - mains connection: 2-pole (N, L for channel A)
  - power consumption: max. 1,1 W

Inputs/outputs

- 8 switching outputs, outputs B...H floating:
  - rated voltage: AC 230V, 50Hz
  - rated current: 8A per relay contact (resistive load)
  - switching cycles: > 80.000 with cos φ = 1 and I = 8A

Operating elements

- 1 learning push button:
  for toggling between normal mode / addressing mode
- 1 push button:
  for toggling between bus mode / direct mode
- 8 push buttons:
  for direct operation (toggling) of the 8 actuator outputs, independent of the *EIB*

Display elements

- 1 red LED:
  for checking the bus voltage and for displaying normal mode / addressing mode
- 1 green LED:
  for displaying the 230V operating voltage
- 1 yellow LED:
  for displaying direct mode / bus mode
- 1 red LED per push button for direct operation:
  for displaying whether the output is switched on or off

Connections

- Mains and output circuits:
  plug-in terminals for mains connections and outputs
  Insulation strip length 9... 10 mm
  The following conductor cross-sections are permitted:
  - 0.5... 2.5 mm² single-core
  - 0.5... 2.5 mm² finely stranded with connector sleeve
  - 1.5 mm² finely stranded, untreated (max. ampacity 6A)
- Each L-conductor connected to the N 567/11 must be fused with a circuit-breaker of characteristic B or C for a max. nominal current of 10 A!
- *EIB* bus line:
  - Pressure contacts on data rails,
  - Screwless bus terminal, 0.6 ... 0.8 mm single-core, insulation strip length 5 mm

Mechanical data

- Housing: plastic

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- Dimensions: DIN rail mounted device in N dimensions, width 4 module units (1 module unit = 18 mm)
- Weight: approx. 270 g
- Fire load: approx. 3500 kJ $\pm$ 10 %
- Installation: Snap-on mounting on DIN rail EN 60715-TH35-7.50

Electrical safety
- Degree of pollution (according to IEC 60664-1): 2
- Type of protection (according to EN 60529): IP 20
- Overvoltage category (according to IEC 60664-1): III
- Bus: safety extra-low voltage SELV DC 24 V
- Device complies with: EN 50090-2-2 and EN 60669-2-1

EMC requirements
- Complies with EN 50090-2-2 and EN 60669-2-1

Environmental conditions
- Climatic withstand capability: EN 50090-2-2
- Ambient operating temperature: - 5 ... + 45 °C
- Storage temperature: - 25 ... + 70 °C
- Relative humidity (not condensing): 5 % to 93 %

Markings
- KNX *EIB*

CE mark
- In accordance with the EMC guideline (residential and functional buildings), low voltage guideline

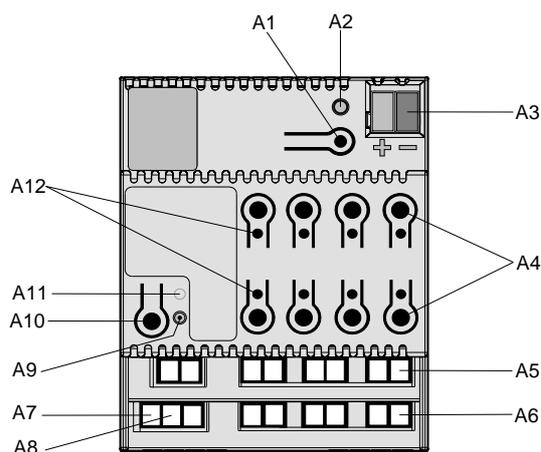## Location and function of the display and operating elements

Figure 1: *Location of the display and operating elements*

A1 Button for toggling between normal / addressing mode for transferring the physical address
A2 LED for displaying normal mode (LED off) or addressing mode (LED on); it is automatically extinguished once the physical address has been transferred
A3 Plug for bus connecting terminal
A4 Buttons for direct operation
A5 Terminals for channels E to H
A6 Terminals for channels A to D
A7 Terminal for the neutral conductor (N)
A8 Terminal for the L-conductor for channel A and for the supply of the actuator electronics
A9 LED for displaying when direct mode is switched on
A10 Button for toggling between bus mode and direct mode
A11 LED for displaying the operating voltage
A12 LED for displaying whether the corresponding channel is switched on or off.

Installation and wiring
General description
The DIN rail mounted device in N system dimensions (width 4 module units) can be inserted in N distribution boards, surface- or flush-mounted and wherever DIN rails EN 50022-35 x 7.5 are available. The connection with the bus line is either carried out via a bus terminal or via the contact system to the data rail.

Installing the DIN rail mounted device (Figure 2)
- Suspend the DIN rail mounted device (B1) on the DIN rail (B2) and
- rotate the DIN rail mounted device backwards until the slide switch audibly clicks into position.

Dismantling the DIN rail mounted device (Diagram 2)
- Remove all the connected cables,
- press the slide switch (C3) downwards with a screwdriver and
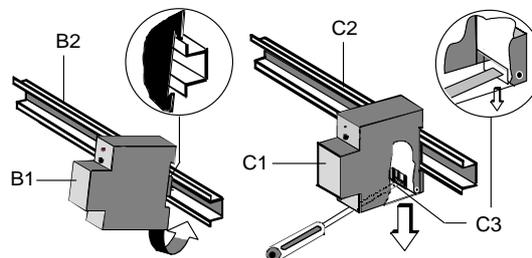- remove the DIN rail mounted device (C1) from the DIN rail (C2) with a swivel action.

Figure 2: *Installing / dismantling the DIN rail mounted device*

Removing the bus terminal (Figure 3)
- The bus terminal is located on the top of the N 567/11 (D1)
- The bus terminal (D2) consists of two sections (D2.1, D2.2), each with four terminal contacts. Care should be

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taken not to damage the two test sockets (D2.3), either by accidentally connecting them to the bus conductor or with the screwdriver (when trying to remove the bus terminal).
- Carefully insert the screwdriver in the wire entry slot underneath the bus terminal (D2) and pull the bus terminal forwards out of the N 567/11 (D1).

Note: Care should be taken as there is a risk of shorting the device !

Connecting the bus terminal (Figure 3)
- Place the bus terminal in the guide slot and press the bus terminal (D2) backwards until it reaches the stop.

Connecting the bus cable (Figure 3)
- The bus terminal (D2) is suitable for single-core conductors with 0.6... 0.8 mm Ø.
- Strip approx. 5 mm of insulation from the conductor (D2.4) and plug in the terminal (D2) (red = +, black = -).

Disconnecting the bus cable (Figure 3)
- Remove the bus terminal (D2) and the conductor (D2.4) out of the bus cable by rotating it backwards and forwards.
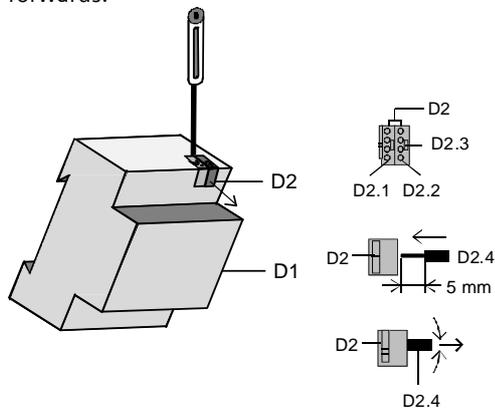

Figure 3: *Connecting and disconnecting the cable*

Connecting mains voltage and load circuits
- The connections are designed with plug-in technology.
- Strip approx. 9...10 mm of insulation from the conductors and slide them in the respective terminal.

Cross-sections:
• The following conductor cross-sections are permitted:
  - 0.5... 2.5 mm² single-core or 0.5... 1.5 mm² finely stranded with connector sleeve
• Each L-conductor connected to the N 567/11 must be fused with a circuit-breaker of characteristic B or C for a max. nominal current of 10 A!

Mounting the insulating cap
- If the device should be mounted on a DIN rail without a data rail, the contact system must be covered with the supplied insulating cap.

Removing the locating clamp (Figure 4)
- The locating clamp (E3) encloses the contact system (E2) on the rear of the DIN rail mounted device (E1).
- Insert the screwdriver between the DIN rail mounted device (E1) and the locating clamp (E3) and remove the clamp.

Clipping on the insulating cap: (Figure 4)
- Place the insulating cap (E4) on the contact system and press so that it snaps in place.
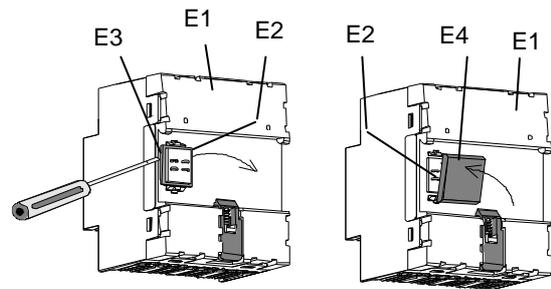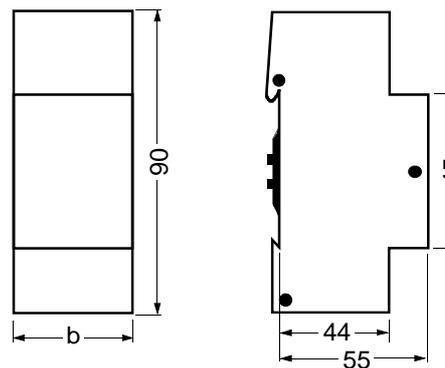

Figure 4: *Covering the contact system*

Dimension drawing
Dimensions in mm

b = 4 module units   (1 module unit = 18 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:
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📠 +49 (0) 180 50 50-223
✉ www.siemens.com/automation/support-request

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