

Binary input device N 263E11
16x AC 12...230 V / DC 12...115 V

5WG1 263-1EB11

Product and function description



The N 263E11 binary input device is a 6 module units wide DIN rail mounted device in N-System dimensions with 16 inputs for AC voltage ranging from 12...230 V or DC voltage ranging from 12...115 V. It enables both statuses (voltage is applied or not) and changes in status (voltage is incoming or outgoing) to be recorded, as well as voltage impulses. It can therefore be used, for example, to monitor voltages (whether mains voltage is present), to record circuit or operating states (whether a miniature circuit-breaker or a residual-current circuit-breaker has been released, a plant is switched on or off, a malfunction or an alarm is being signalled), to record the change of status when switching on or switching off a voltage (whether a switch or a pushbutton was activated, whether it was activated for a shorter or longer period, whether the voltage was switched on or off due to the activation) and to record and count voltage pulses with a minimum voltage on-time of 50 ms and a max. pulse succession of up to 5 pulses per second, without or with monitoring of the number of pulses counted until a predetermined threshold has been reached or exceeded. At each input a red LED shows whether a voltage is applied or not. The N 263E11 has an integrated 230 V power supply in order to supply the electronics. This power supply enables switching statuses to be displayed on the inputs even when there is no bus voltage present. **Note:** The device is without function after the application program has been "unloaded" with the ETS. The status of the inputs is also no longer displayed in this case.

Application program

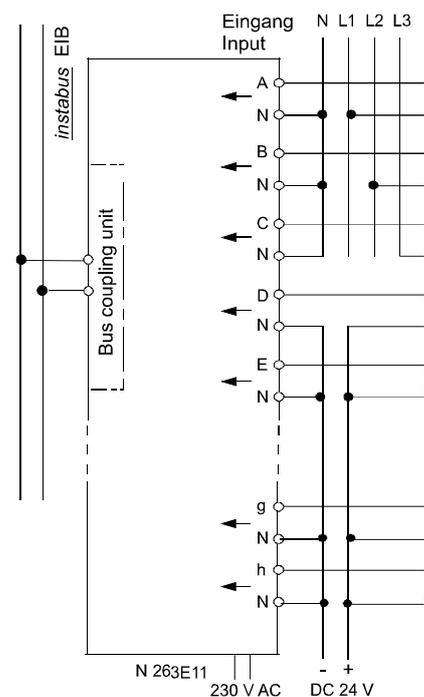
The "25S16 Binary Input Device 980D03" application program, which can be downloaded with the ETS3.0f, supports a multitude of applications and enables one of the following functions to be assigned to every input:

- Switching status / binary value transmission
- Switching, edge-triggered
- Switching, short / long operation
- 1-button dimming
- 1-button solar protection control
- 1-button group control (sequence control)
- 1-bit Scene control
- 8-bit Scene control
- 8-bit value, edge-triggered
- 8-bit value, short / long operation
- 16-bit floating point value, edge-triggered
- 16-bit floating point value, short / long operation
- 8-bit pulse counting without threshold check
- 8-bit pulse counting with threshold check
- 16-bit pulse counting without threshold check
- 16-bit pulse counting with threshold check
- 32-bit pulse counting without threshold check
- 32-bit pulse counting with threshold check.

Using the ETS, one of the following functions can be allocated to one input pair, i.e. to two neighbouring inputs:

- 2-button dimming with stop telegram
- 2-button solar protection control.

Connection example



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Installation notes

- The device can be used for permanent installation in dry interior rooms and for insertion in control cabinets or small distribution boards.



DANGER

- The device must only be installed and commissioned by an authorized professional electrician.
- Unoccupied sections of DIN rail with data rail inserted must be protected with the cover 5WG1 192-8AA01.
- When connecting the device, care should be taken that the device can be isolated from the mains.
- The device must not be opened.
- When planning and installing electrical equipment the relevant guidelines, regulations and specifications of the respective country must be considered.

Technical data

Power supply

- Bus voltage: via the bus line
- Bus current: 5 mA (only half standard bus load!)
- Electronics:
 - integrated power supply for AC 230V, +10%/-15%, 50 / 60 Hz
 - Mains connection: 2-pole (N, L)
 - power consumption: max. 1.7 W

Operating elements:

- 1 learning pushbutton: for toggling between normal mode / addressing mode

Display elements

- 1 red LED: for checking the bus voltage and displaying normal mode / addressing mode
- 1 green LED: for displaying the 230 V operating voltage
- 1 red LED per binary input for status display; LED = ON: voltage is present at the input

Inputs

- 16 inputs (each input can be connected to any phase L1, L2 or L3 or a FELV signal)
- Input voltage: AC 12 V ... 230 V, DC 12 V ... 115 V ($U_{in} = 0...2$ V: voltage not present = log. 0; $U_{in} \geq 9$ V: voltage present = log. 1)
Note: For DC voltage the negative pole should be connected in each case to the terminal designated "N".
- Input current:
 - at max. AC 253 V: typically 1.5 mA (RMS)
 - at max. DC 127 V: typically 2.7 mA

- Input signal delay:
 - at rising edge of input signal:
 - max. 60 ms for DC
 - max. 100 ms for AC
 - at falling edge of input signal:
 - max. 140 ms for DC
 - max. 100 ms for AC
- Input signal ON-time: min. 60 ms at DC
min. 100 ms at AC
- Input signal OFF-time: min. 140 ms at DC
min. 100 ms at AC
- Max. detectable switching frequency: 5 Hz
- Input function: can be selected
- Max. length of connecting cable: 100 m

Connections

- Mains connection and inputs:
 - Plug-in terminals, 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 plug connector, sealed crimp connection
 - 0,5 ... 1.5 mm² finely stranded, with connector sleeve
 - 1.0 and 1.5 mm² finely stranded, untreated
- KNX bus line:
 - Pressure contacts on data rail,
 - Screw-less bus terminal, 0.6 ... 0.8 mm Ø single-core, insulation strip length 5 mm

Mechanical data

- Housing: plastic
- Dimensions: DIN rail mounted device in N-system dimensions, width 6 Module Units (1 MU = 18 mm)
- Weight: approx. 325 g
- Fire load: approx. 6113 kJ +/- 10%
- Mounting: Snap-on mounting on DIN rail EN 60715-TH35-7.5

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

EMC requirements

- Complies with EN 50090-2-2 and EN 61000-6-2

Environmental conditions

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

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Markings:

KNX EIB

CE mark

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

Position and function of the display and operating elements

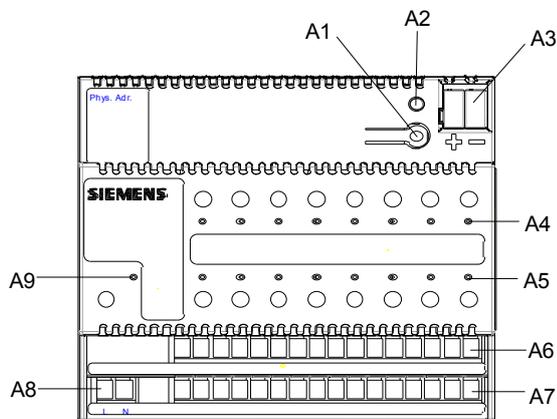


Figure 1: Position of the display and operating elements

- A1 Button for toggling between normal mode / 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 LEDs for status display of inputs a to h
- A5 LEDs for status display of inputs A to H
- A6 Terminals for inputs a to h
- A7 Terminals for inputs A to H
- A8 Terminals for L-conductor and neutral conductor (N) for power supply of the electronics
- A9 LED for displaying the operating voltage

Installation and wiring

General description

The DIN rail mounted device in N-system dimensions (width 6 module units) can be inserted in N-system distribution boards, surface- or flush-mounted and wherever DIN rails according to EN 60715-TH35-7.5 are pre-

sent. 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 (B 1) on the DIN rail (B2) and
- Rotate the DIN rail mounted device (B1) backwards until the slide switch audibly clicks into position.

Dismantling the DIN rail mounted device (Figure 2)

- Remove all 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.

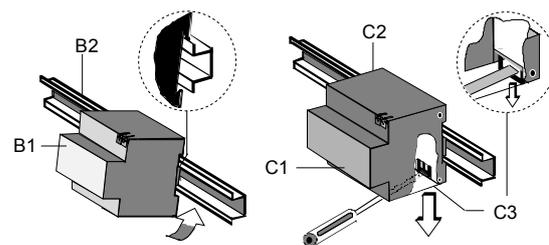


Figure 2: Installing / dismantling the device

Removing the bus terminal (Figure 3)

- The bus terminal (D2) is located on the upper side of the binary input device N 263E11 (D1).
- The bus terminal (D2) consists of two sections (D2.1, D2.2) each with four terminal contacts. Care should be taken not to damage the two test sockets (D2.3) either by accidentally trying to put in the bus cable or with the screwdriver (when trying to remove the bus terminal).
- Carefully insert the screwdriver into the wire entry slot underneath the bus terminal (D2) and pull the bus terminal (D2) forwards out of the binary input device (D1).

Note:

Care should be taken as there is a risk of shorting the bus pins with the screwdriver!

Attaching the bus terminal (Figure 3)

- Insert the bus terminal into the guide slot and press the bus terminal (D2) backwards until it reaches the stop position.

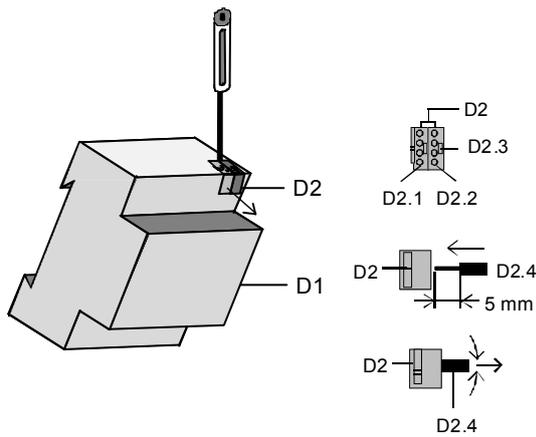


Figure 3: Attaching / removing the bus terminal

Mounting the insulating cap

- If the device is to be mounted on a DIN rail without a data rail, then the contact system must be covered using the supplied insulating cap.

Removing the locating clamp (Figure 4)

- The locating clamp (E3) encloses the contact system (E2) on the rear of the 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 into place.

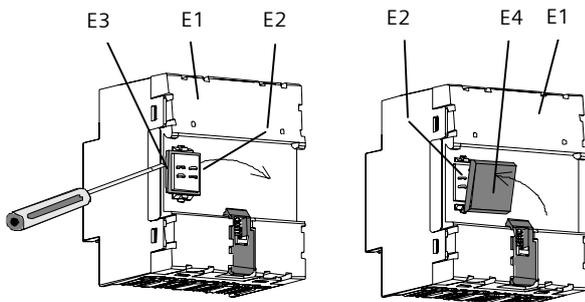
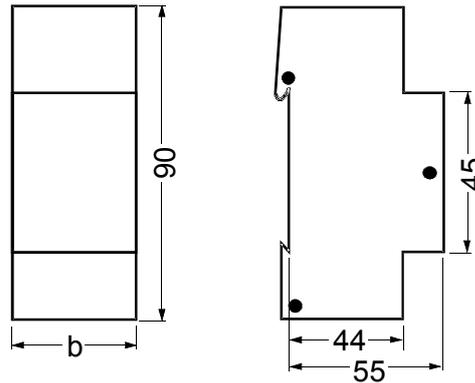


Figure 4: Covering the contact system

Dimension drawing

Dimensions in mm.



b = 6 module units

1 module unit (MU) = 18 mm

General notes

- The operating instructions must be handed over to the client.
- Any faulty device is to be sent together with a return delivery note of the local Siemens office.
- If you have further questions concerning the product please contact our technical support.

Technical Support

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