

Zone terminal N 266
5WG1 266-1AB01

Product and Applications Description



The zone terminal N 266 is a DIN rail mounted device with N-system dimensions and a width of 4 module units. It is used for the monitored connection of passive detectors to the *instabus EIB* and/or to connect floating contacts in applications with increased security requirements (e.g. monitoring of the sensor line).

The zone terminal N 266 has 4 zone inputs, whose status is displayed via 4 LED's. There are also two 12 V outputs available, "Walk test" and "Set/Unset (S/U)", for controlling e.g. conventional passive infrared movement detectors.

The device requires an external power supply of 12 V DC SELV (e.g. 6EP1 321-1SH01 LOGO! Power). Using the ETS program (*EIB Tool Software*), it is possible to select the application programs, assign specific parameters and addresses and transfer them into the zone terminal N 266.

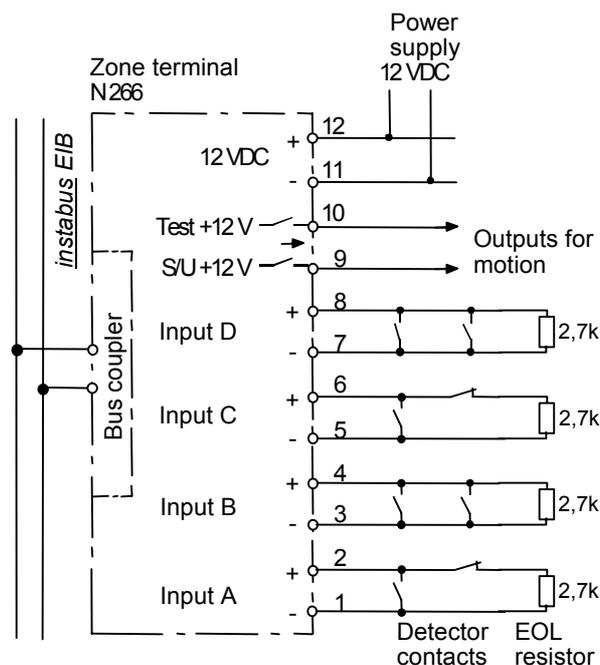
The zone terminal N 266 is not a complete intrusion detection system according to the demands of the German VdS (Verband der Schadenversicherer). But it can be used for the detection and transmission of intrusion alarms to a control panel with an *EIB* interface.

Application Programs

11 S4 Zone terminal 241C01

- 4 zone inputs (channel A-D)
- Alarm transmission in the event of a fault (disruption/short circuit) in a sensor line
- Storing of alarms until the transition to the unset state
- Monitoring of the external power supply
- Cyclical sending at selectable intervals
- Behaviour on bus voltage recovery can be set

Example of Operation



Installation Instructions

- The device may be used for permanent interior installations in dry rooms and for insertion in distribution boards or miniature housings.



WARNING

- The device may be built into distribution boards (230/400V) together only with appropriate VDE-devices and must be mounted and commissioned by an authorised electrician.
- The prevailing safety and accident regulations must be observed.
- The device must not be opened. A device suspected faulty should be returned to the local Siemens office.

Technical Specifications

Power supply

- Bus voltage: via the bus line
- External power supply:
 - 12 VDC \pm 15% SELV,
 - max. 50 mA, typ. 20 mA

Operating elements

1 learning pushbutton:
for toggling between normal/addressing mode

Display elements

- 1 red LED:
for checking the bus voltage and for displaying normal mode/addressing mode
- 4 red LEDs:
for status display of the zone inputs
- 2 yellow LEDs:
for status display of the outputs "S/U" and "Test"

Inputs/outputs

- Inputs
 - Number: 4 zone inputs
 - No-load voltage: approx. 12 VDC
 - Short-circuit current: max. approx. 5 mA
 - Cable resistance: max. 200 Ω
 - EOL resistor: 2.7 k Ω (EOL = end of line)
- Outputs
 - Number: 2, for controlling conventional passive infrared movement detectors
 - Output voltage: approx. 12 VDC
 - Output impedance: 1 k Ω

Connections

- Input/output circuit and external power supply, mechanical:
Insulation strip length 9 ... 10 mm
The following conductor cross sections are permitted:
 - 0.5 ... 2.5 mm² single core or finely-stranded, 8 mm ultrasonically welded
 - 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
- Bus line, screwless bus terminal:
0.6 ... 0.8 mm \varnothing single core

Physical specifications

- Housing: plastic
- Dimensions: DIN rail mounted device in N-system dimensions,
Width: 4 module units (1 module unit = 18 mm)
- Weight: approx. 160 g
- Fire load: approx. 3100 kJ \pm 10%
- Installation: clip-on mounting onto DIN rail
DIN EN 50022-35 x 7.5

Electrical safety

- Degree of pollution (according to IEC 60664-1): 2
- Type of protection (according to EN 60529): IP20
- Overvoltage category (according to IEC 60664-1): III
- Bus: safety extra-low voltage SELV 24 V DC
- Device complies with:
EN 50090-2-2 and EN 60669-2-1

Reliability

Failure rate: 961 fit at 40 °C

Electromagnetic compatibility

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

Environmental specifications

- 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 %

Certification

EIB-certified

CE mark

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

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Location and Function of the Display and Operating Elements

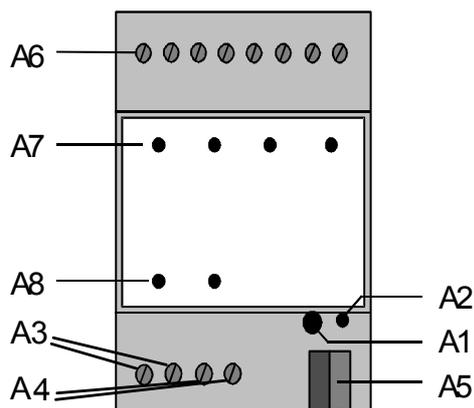


Figure 1: Location of the display and operator elements

- A1 Learning pushbutton for toggling between normal mode and addressing mode for transfer of 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 Screw terminals for the passive infrared detectors
- A4 Connection of the external power supply
- A5 Screwless bus terminal
- A6 Screw terminals for connecting the zones
- A7 LEDs for displaying the status of the zones
- A8 LEDs for displaying the status of the outputs "S/U" and "Test"

Mounting and Wiring

The N-system DIN rail mounted device (4 modules) can be inserted in N-system distribution boards, either surface- or flush-mounted and wherever EN 50022-35 x 7.5 DIN rails are available.

Installation of the DIN rail mounted device (Diagram 2)

- Hang the device (B1) into the DIN rail (B2) and
- rotate the device downwards until the slide bar audibly clicks into position.

Dismantling the DIN rail mounted device (Diagram 2)

- Remove all connected cables,
- press the slide bar (C3) downwards with a screwdriver and
- remove the device (C1) from the rail (C2) with a swivel action.

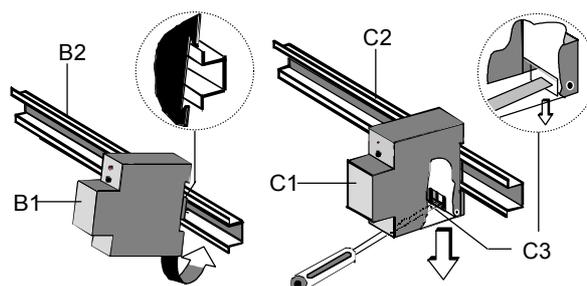


Figure 2: Installing and dismantling the DIN rail mounted device

Removing the bus terminal (Diagram 3)

- The bus terminal (D2) is located on the base of the N 266 (D1).
- The bus terminal (terminal block) (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 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 slots in the grey section of the bus terminal (D2.2) and pull the device forwards (D2) out of the device (D1).

Note

Do not lift the bus terminal from underneath as there is a risk of a short circuit.

Plugging in the bus terminal (Diagram 3)

- Place the bus terminal in the guide slots and
- push the bus terminal (D2) back until it reaches the stop.

Connection of the bus cable (Diagram 3)

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

Disconnection of the bus cable (Diagram 3)

- Remove the bus cable (D2) and the conductor (D2.4) of the bus cable by rotating them simultaneously backwards and forwards.

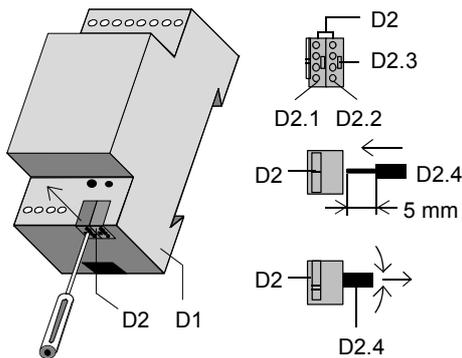


Figure 3: Connecting and disconnecting wires

Connecting input/output circuits (Diagram 4)

- Strip approx. 9 ... 10 mm of insulation from the conductors (E1.1), plug in the terminals (E1) and tighten the screws (E1.2).

Conductor cross sections:

- signal inputs, physical:
 - two screw terminal blocks each
 - permissible conductor types/cross sections:
 - 0,5 ... 2,5 mm² 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
 - 0,5 ... 4,0 mm² single core
 - 1,0 and 1,5 mm² plain flexible conductor

Disconnecting the input circuits (Figure 4)

- Detach the screw (F1.2) and slip the conductor (F1.1) out of the connection block (F1)

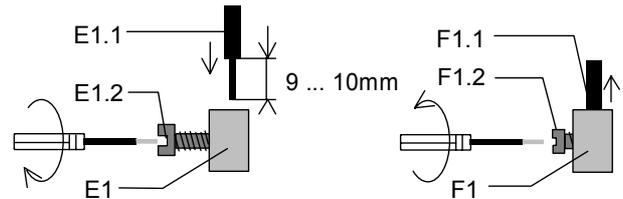
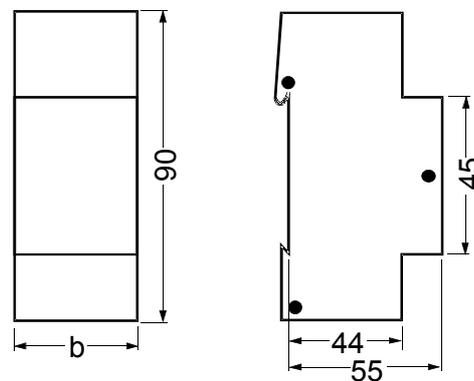


Figure 4: Connecting and disconnecting input circuits

Dimension Diagram

Dimensions in mm



b = 4 MU

1 Module unit (MU) = 18 mm