

Product and Applications Description

The binary input N 261 is a N-system DIN-rail mounted device with four inputs for volt free signalling contacts. The required scanning voltage must be provided by an additional AC 24 V or DC 24 V power supply unit.

Each of the inputs can be assigned various tasks depending on the application program used, i.e. the binary input N 261 consists of the device (hardware) and its application programs (software).

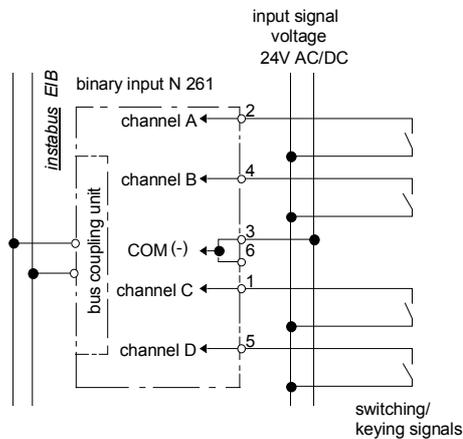
Appropriate application programs are available for the different tasks the binary input N 261 can handle; e.g. sending of on and off telegrams at different edges of the input signal either event-controlled or cyclic with parametrisable repetition intervals.

With the ETS (EIB Tool Software) the application program is selected, its parameters and addresses are assigned appropriately, and downloaded to the binary input N 261.

Application Programs

See Siemens product database from version E onward

Example of Operation



Technical Specifications

Power supply

via bus cable

Inputs

- number: 4 inputs
- input signal voltage :
 - rated value: AC/DC 24 V
 - frequency: 47 ... 63 Hz (at AC 24 V)
 - signal "0": DC -30 ... +5 V, AC 0 ... 5 V
 - signal "1": DC +10 ... +30 V, AC 10... 30 V
- input current:
 - at "1": usually 3,5 mA (at AC 24 V), usually 6 mA (at DC 24 V)
- delay of input signal:
 - at leading edge of input signal: max. 5 ms
 - at trailing edge of input signal: max. 30 ms
- input signal length: min. 50 ms
- input characteristic: set in parameter list according to application program
- length of input signal cable: max. 100 m unshielded

Control 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

- signal inputs, 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

WARNING

When looping through the shared COM-conductor (connection blocks 3 and 6), take care that the maximum connection current of 2 A (as governed by the maximum permissible printed conductor load) is not exceeded!

- bus line: pressure contacts on data rail

Physical specifications

- housing: plastic
- N-system DIN-rail mounted device, width: 2 SUs (1SU = 18 mm)
- weight: approx. 150 g
- fire load: approx. 2250 kJ ± 10 %
- installation: rapid mounting on DIN EN 50022-35 x 7,5 rail

Electrical safety

- fouling class (according to IEC 664-1): 2
- protection (according to EN 60529): IP 20
- overvoltage class (according to IEC 664-1): III
- bus: safety extra low voltage SELV DC 24 V
- device complies with EN 50090-2-2 and EN 60669-2-1

Reliability

rate of failure: 525 fit at 40 °C

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

Location and Function of the Display and Operator Elements

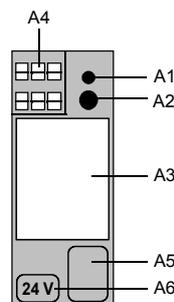


Figure 1: Location of the display and operator elements

- A1 LED for indicating normal operating mode (LED off) and addressing mode (LED on); upon receiving the physical address the device automatically returns to normal operating mode
- A2 Learning button for switching between normal operating mode and addressing mode for receiving the physical address
- A3 Type plate
- A4 Screwless plug-in terminals for connecting load circuits
- A5 Label for noting the physical address
- A6 "24 V" operating voltage label

Installation Instructions

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

WARNING

- The device may be built into distribution boards (230/400 V) if VDE-certified devices are used exclusively and must be mounted and commissioned by an authorised electrician.
- Free DIN rail areas with sticked-in data rails must be covered with covers, order no. 5WG1 192-8AA01.
- Inputs must not be connected to 230 V.
- The prevailing safety rules must be heeded.
- The device must not be opened. A device suspected faulty should be returned to the local Siemens office.

Mounting and Wiring

General description

The N-system DIN-rail device can be installed to N-system distribution boards, or to any DIN-rail EN 50022-35 x 7,5 available that has a data rail installed. The connection to the bus line is established by clicking the device onto the DIN-rail (with a data rail installed). Take care that the type plates of all devices on a DIN-rail can be read in the same direction, guaranteeing the devices are polarised correctly.

Mounting DIN-rail devices (Figure 2)

- Slide the device (B1) onto the DIN-rail (B2) and swivel back the device until the slide clicks into place audibly.

Dismounting DIN-rail devices (Figure 2)

- Remove all connected wires,
- press down the slide (C3) with a screw-driver and swivel the device (C1) from the DIN-rail (C2).

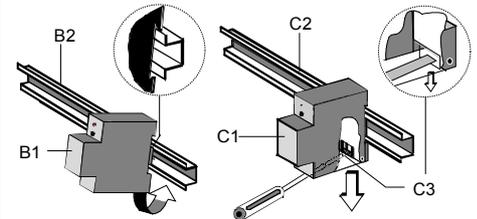


Figure 2: Mounting and dismounting a DIN-rail device

Connecting input circuits (Figure 3)

- The load circuits are connected via screwless plug-in terminals (D1).
- Remove approx. 9 to 10 mm of insulation from the wire (D1.1) and plug it into the terminal (D1).

Conductor cross sections: see technical specifications

Disconnect input circuits (Figure 3)

- Press the terminal lock (E1.2) with a screw-driver and remove the wire (E1.1) from the terminal (E1).

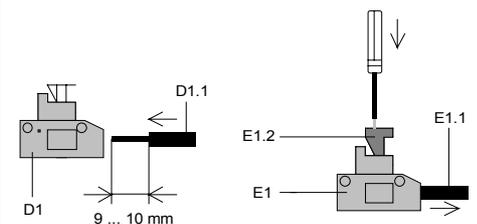


Figure 3: Connecting and disconnecting wires