

Binary Input N 261
4 x 24 V AC / DC
5WG1 261-1AB01

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

12 S4 BinCycl 240505

- 4 binary inputs
- allows to switch on/off/over at leading or trailing edge for each input
- cyclic send mode
- allows sending on bus voltage recurrence
- send conditions can be specified

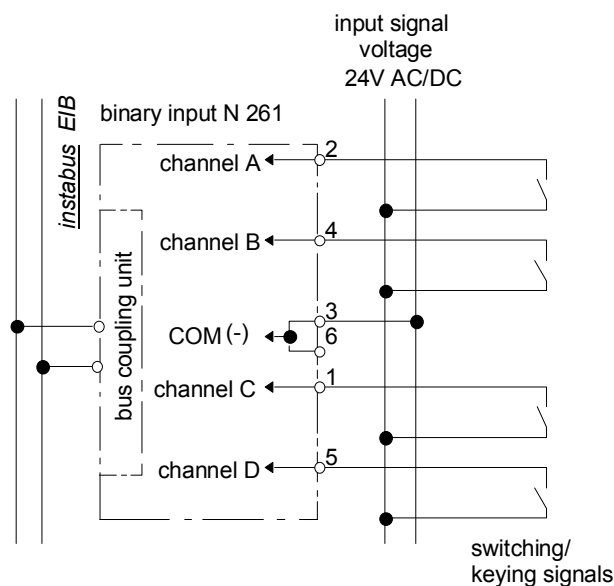
11 S4 BinVal 240A01

- 4 binary inputs
- allows send-value on rising or trailing edge for each input
- cyclic send mode
- delay mode
- interlocking of send-value provided

12 S2 On-off-toggle/Dim/Shu 220703

- 4 binary inputs
- allows configuration for dimming/shutter control or on/off/send value
- allows switching at leading edge or at leading and trailing edge
- switching at short/long key depression
- allows to send value at leading edge or at leading and trailing edge
- allows to adjust the duration of long key depression
- type of contact can be specified

Example of Operation



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 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.

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
- protection class: (according to IEC 1140) III
- 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 %

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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

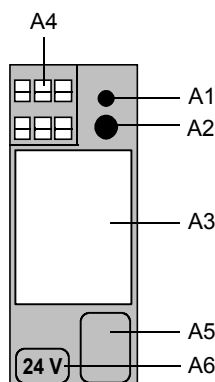


Figure 1: Location of the display and operator elements

- 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

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).

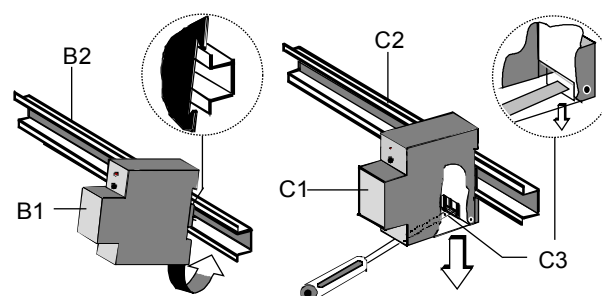


Figure 2: Mounting and dismounting a DIN-rail device

Connecting load 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:

- 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

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).

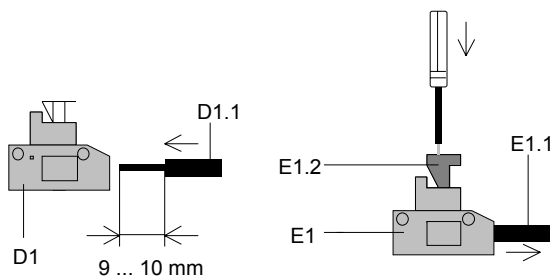
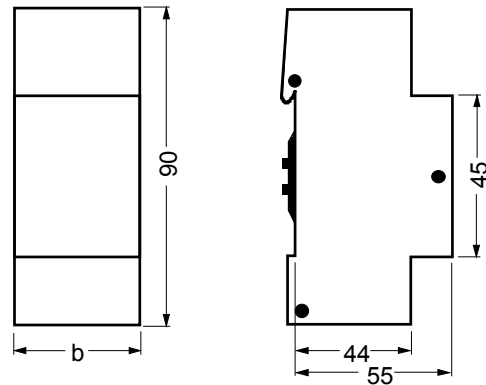


Figure 3: Connecting and disconnecting wires

Dimension Diagram

Dimensions in mm



1 Spacer Unit (SU) = 18 mm

b = 2 SU