Binary Input N 260
4 x 230 V AC

5WG1 260-1AB01

Product and Applications Description

The binary input N 260 is a N-system DIN-rail mounted device with four inputs for AC 230 V switching or keying signals from separate external outside lines (L1, L2, L3) with a shared reference potential (N).

Each of the inputs can be assigned various tasks depending on the application program used, i.e. the binary input N 260 consists of the device (hardware) and its application programs (software).

Appropriate application programs are available for the different tasks the binary input N 260 can handle; e.g. sending of on/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 260.

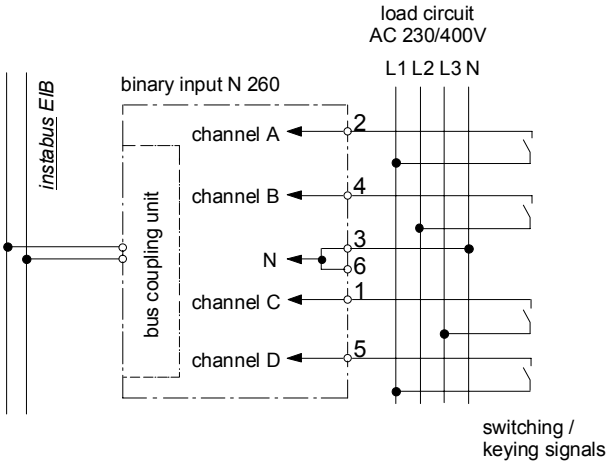
Applikationsprogramme

12 S4 BinCycl 240505
- 4 binary inputs
- each input allows switching on/off or toggling at leading or trailing edge
- allows cyclic sending
- allows sending at bus voltage recurrence
- sending condition can be set

12 S2 On-off-toggle/Dim/Shu 220703
- 4 binary inputs
- allows configuration for dimmer/shutter or on/off/sending value
- switching at leading edge or at leading and trailing edge
- switching short/long key depression
- sending value at leading edge or at leading and trailing edge
- duration of long key depression can be set
- used type of contacts can be set

11 S4 BinVal 240A01
- 4 binary inputs
- each input allows to send values at leading edge and/or at leading and trailing edge
- allows cyclic sending
- allows delay
- allows interlocking

Example of Operation



Installation Instructions

- The device may be used for permanent interior installations in dry locations within distribution boards.

⚠ 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.
- A safety disconnection of the device must be possible. Especially if the device is connected to different phases.
- Free DIN rail areas must be covered with covers, order no. 5WG1 192-8AA01.
- 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.

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Technical Specifications

Power supply
via bus cable

Inputs
- 4 inputs
- input signal voltage :
  - rated value: AC 230 V
  - frequency: 47 ... 63 Hz
  - signal "0": 0 ... 170 V
  - signal "1": 198 ... 264 V
- input (signal) current at "1":usually 1 mA (at AC 230 V)
- delay of input signal:
  - at leading edge of input signal: max. 5 ms
  - at trailing edge of input signal: max. 30 ms
- duration of input signal: min. 50 ms
- input characteristic: set in parameter list according to application program
- length of input signal cable: max. 100 m unshielded
- glow lamps for illuminating push buttons: maximum number of glow lamps that can be connected via a bridging module 5TC5 015 to each input:
  - high luminous power (5TG7 342): max. 12 units
  - medium luminous power (5TG7 332): max. 18 units
  - low luminous power (5TG7 321): max. 60 units

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 N-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 = 18mm)
- 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
- the device complies with EN 50090-2-2 and EN 60669-2-1

Reliability
rate of failure: 612 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

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Location and Function of the Display and Operator Elements

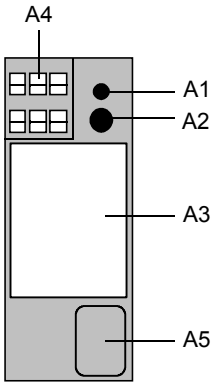

Figure 1: Location of the display and operator elements

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 input circuits
A5 Label for noting the physical address

Mounting and Wiring

General description
The N-system DIN-rail device (2 SUs) can be installed to N-system distribution boards, surface or flush mounted, 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).

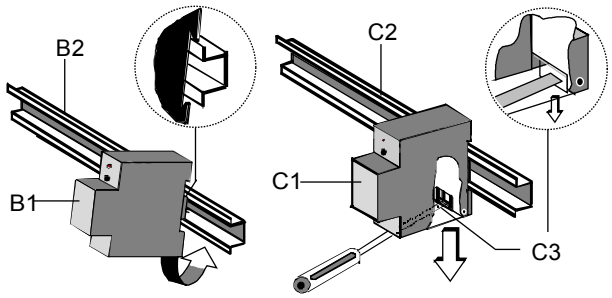

Figure 2: Mounting and dismounting a DIN-rail device

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:
- 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).

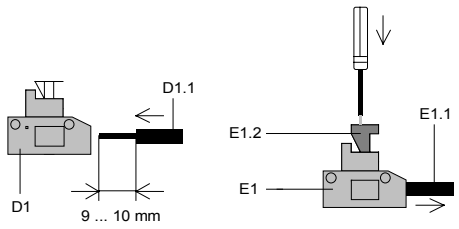

Figure 3: Connecting and disconnecting wires

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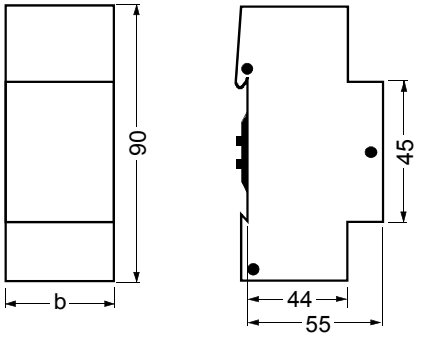
Dimensions Diagram

Dimensions in mm



b = 2 SU

1 Spacer unit (SU) = 18mm

Notes