

Interface N 148/11
USB

5WG1 148-1AB11

Product and Applications Description



The USB interface N 148/11 is a N-system DIN-rail mounted device. The device can be connected to the bus line parallel via the pressure contact system as well as the bus terminal.

The USB interface N 148/11 enables with its built-in USB socket a personal computer to be attached for addressing, parameterising, visualising, logging and diagnosis of bus devices.

With the USB interface it is possible to operate all bus devices in the whole bus system.

The USB interface N 148/11 is compatible to USB 1.1, the transmission rate between the PC and the interface is therefore up to 12 Mbit/s.

It allows devices isolated access to the bus line under observation of the standardised EIB protocol.

The connection of the USB interface and the PC is arranged between the USB socket of the USB interface and any USB socket of the PC or a connected USB hub.

The required USB cable (normal USB cable for PC peripherals with one USB plug type A and one USB plug type B) is not part of the shipment but has to be bought separately, e.g. at an authorised computer store.

The power supply of the USB interface N 148/11 is carried out via the USB cable by the PC. When the interface is not connected to the PC or the PC is not switched on the interface N 148/11 is not active and can't be accessed from the bus.

Note:

The USB interface is supported by ETS only from ETS3 onwards!

Application Programs

10 CO Dummy 70002

- Sets the internal bus coupling unit to interface mode and erases its memory.

Installation Instructions

- The device may be used for permanent interior installations in dry locations, within distribution boards or small casings with DIN rail EN 60715-TH35-7,5.



WARNING

- The device may be built into distribution boards (230/400V) together with appropriate VDE-devices.
- The device 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.
- The prevailing safety rules must be heeded.
- The device must not be opened.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

Technical Specifications

Power supply

via USB by the connected PC

Transmission rate

9600 bit/s between N 148/11 and EIB,
USB 1.1 full speed between PC and N 148/11 (max. 12 MBit/s)

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
- 1 green LED:
for monitoring the USB connection (power supply) and to indicate data traffic

Connections

- bus line:
 - pressure contacts on data rail
 - screwless bus connection block
0,6...0,8 mm Ø single core
remove approx. 5mm of isolation
- USB socket type B
length of data cable: max. 5 m

Connection cable

available from authorised computer stores
(normal USB cable for PC peripherals with AB plug)

Physical specifications

- housing: plastic
- N-system DIN-rail mounted device,
width: 1 SUs (1SU = 18mm)
- weight: approx. 75 g
- installation: rapid mounting on EN 60715-TH35-7,5 rail

Electrical safety

- degree of pollution (according to IEC 60664-1): 2
- protection (according to EN 60529): IP 20
- protection class (according to IEC 61140): III
- overvoltage class (according to IEC 60664-1): III
- bus: safety extra low voltage SELV DC 24 V
- the device complies with
EN 50 090-2-2 and IEC 60664-1

Electromagnetic compatibility

complies with
EN 50081-1, EN 61000-6-2 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

KNX / EIB

CE marking

complies with the EMC regulations (residential and functional buildings), and low voltage regulations

Location and Function of the Display and Operator Elements

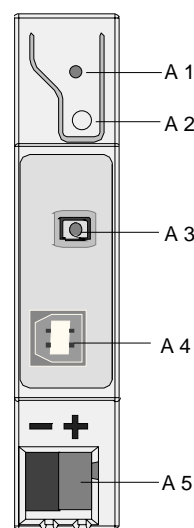


Figure 1: Location of the display and operator elements

- A1 LED red: 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 LED green: for monitoring the USB connection (power supply, LED on) and to indicate data traffic (LED flickers)
- A4 USB socket type B
- A5 bus connection block

Interface N 148/11
USB

5WG1 148-1AB11

Mounting and Wiring

General description

The N-system DIN-rail device can be installed to N-system distribution boards, surface or flush mounted, or to any DIN-rail 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. If the Interface N 148/11 is installed the conventional adapter is not necessary (also for other DIN-rail devices connected to the same data rail). The bus voltage is carried from the bus connection block to the data rail.

Mounting DIN-rail devices (Figure 2)

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

Dismounting DIN-rail devices (Figure 2)

- Remove the cover.
- Remove the clamps for connection cables.
- Unplug the 9-pin Sub D connector.
- Press down the slide (C3) with a screw-driver, click it into place by a slight pressure and
- swivel the device (C1) from the DIN-rail (C2).

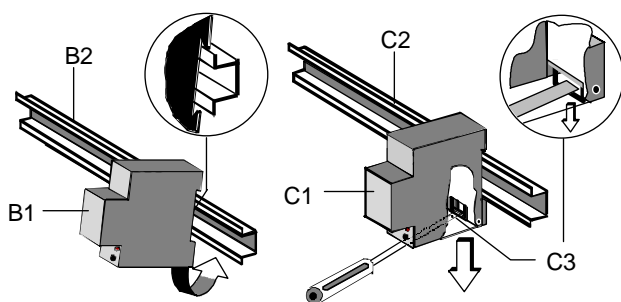


Figure 2: Mounting and dismounting a DIN-rail device

Connection to the bus without data rail

If the connection is established via bus connection block (data rail not installed) the data rail connection system has to be covered with the enclosed insulation hood after removing the guiding ring e.g. with a screw driver to guarantee a sufficient insulation from the DIN rail.

Removing the guiding top (Figure 3)

- The guiding top (D3) encloses the contact system (D2) on the rear of the interface N 148/11 (D1).
- Insert the screwdriver between the DIN rail mounted device (D1) and the guiding ring (D3) and remove the guiding ring.

Clipping on the insulating hood (Figure 3)

- Place the insulating hood (D4) on the contact system and press so that it snaps in place.

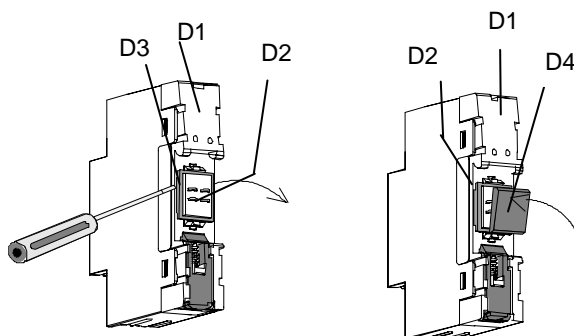
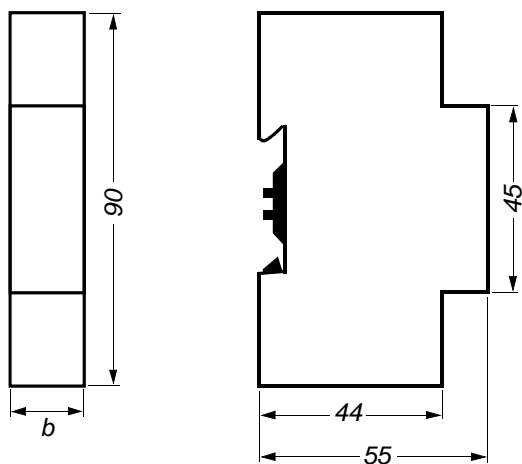


Figure 3: Covering the contact system

Dimension Diagram

Dimensions in mm



b = 1 SU

1 Spacer unit (1 SU) = 18 mm

General Notes

- Any faulty device should be returned to the local Siemens office.
- If you have further questions about the product, please contact our Technical Support:

☎ +49 (0) 180 50 50-222

☎ +49 (0) 180 50 50-223

🌐 www.siemens.com/automation/support-request