

Choke N 120
500 mA
5WG1 120-1AB01
Product and Applications Description


The bus supply operating voltage for the bus devices is transmitted via the same cable as the data telegrams.

The N 120 choke prevents the power-supply unit N 121 from short-circuiting the data telegram on the bus line. It picks up the power from the two outer printed conductors and feeds it via inductors to the two inner printed conductors.

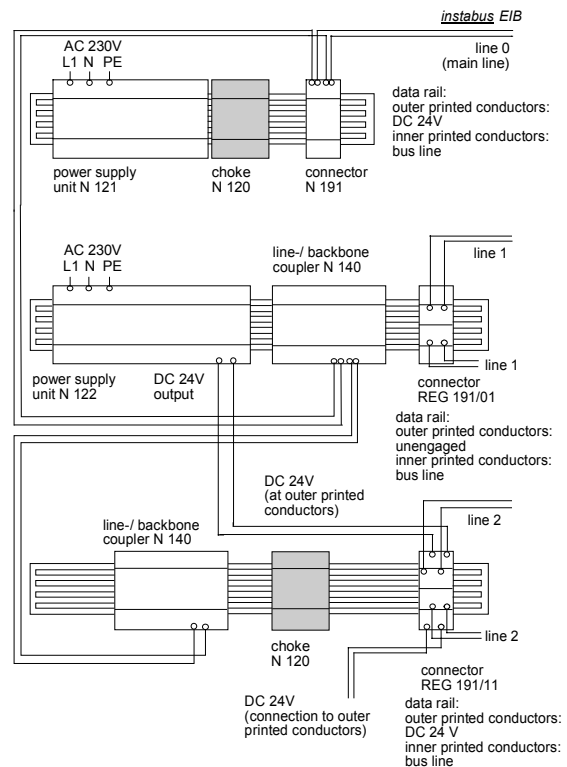
The supply voltage may be fed to the two outer printed conductors of the data rail either via a power supply unit N 121 directly or via a power supply N 122 and a connector REG 191/11.

Via the built-in reset-switch (operation > 10 s) the bus devices are set to their default setting, i.e. the bus devices return to their default setting with the recurring supply voltage. This is done by short-circuiting the bus line and switching off the supply voltage.

For the supply voltage the choke resistance is low-resistance. The informations will be send via the *instabus EIB* as an alternating current. For it the resistance of the choke N 120 is high-resistance and therefore the operating voltage does not significantly affect the information signal.

Application Programs

Requires no application programs

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 (230/400V) together with appropriate VDE-devices and must be mounted and commissioned by an authorised electrician.
- Unassigned sections of DIN rail with inserted data rail must be covered using 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

Input voltage

- rated voltage: DC 29 V (DC 28...30V)
- rated current: 500 mA

Operator elements

slide switch:

for re-setting the bus devices connected to the line
(operation > 10 s)

Display elements

1 red LED:

for indicating when the slide switch is set to reset-
position

Connections

- power supply:
pressure contacts on data rail
(outer printed conductors)
- bus line, pressure contacts on data rail
(inner printed conductors)

Physical specifications

- housing: plastic
- N-system DIN-rail mounted device,
width: 2 SUs (1 SU = 18 mm)
- weight: approx. 105 g
- fire load: approx. 1700 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 IEC 664: 1992

Reliability

rate of failure: 28 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
- storage temperature: - 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

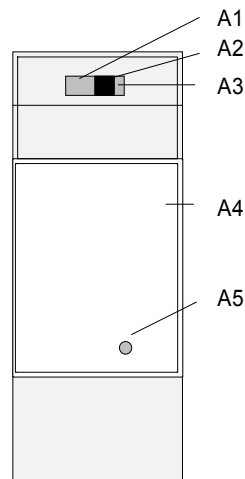


Figure 1: Location of the display and operator elements

- A1 Reset position
- A2 Reset switch
- A3 Operating position
- A4 Type plate
- A5 LED for indicating reset position (LED on)

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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 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).

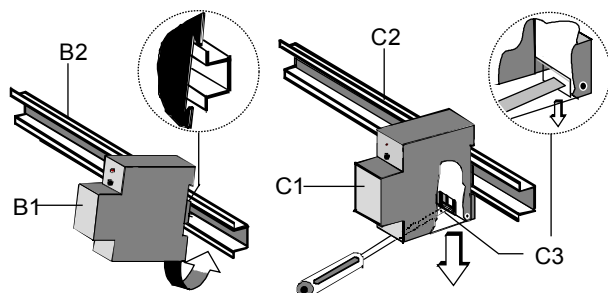
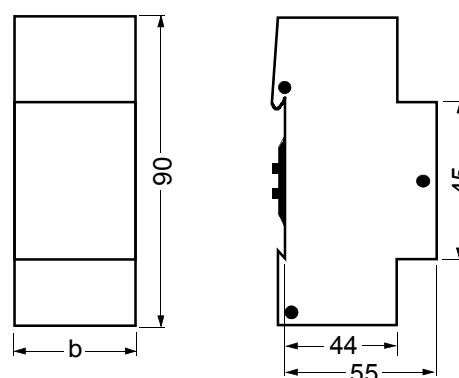


Figure 2: Mounting and dismounting a DIN-rail device

Dimension Diagram

Dimensions in mm



$b = 2 \text{ SU}$

1 Spacer unit (SU) = 18 mm

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Notes