SIEMENS GB CE

IR Decoder N 450 **5WG1 450-1AB02**

Issued: March 1999

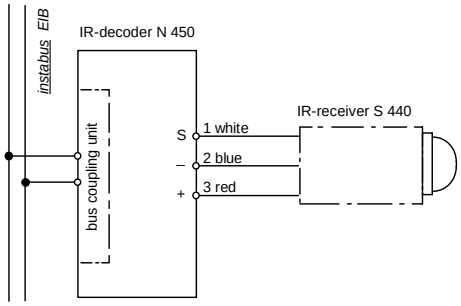
Product and Applications Description

The N 450 IR decoder is a DIN rail mounted device of N-system dimensions which converts the IR telegrams received by the S 440 IR receivers into telegrams. These are then passed on to the bus line, thus activating the actuators operated by the IR wall-mounted transmitter. Four IR receivers can be connected in parallel to an N 450 IR decoder. If more than four IR receivers are connected, an external power supply is needed. It is not possible to connect the inputs of several decoders with each other and connect them to an IR receiver.

Application Programs

See Siemens product database from version E onward

Example of Operation



Technical Specifications

Power supply
via bus cable

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 red LED:
  for indicating telegrams received from transmitters/remote controls

Connections
- bus line, pressure contacts on data rail
- connection of IR receiver cable:
  screwless plug-in connectors for solid conductors
  0,6 to 0,8 mm Ø

Physical specifications
- housing: plastic
- N-system DIN-rail mounted device,
  width: 2 SUs (1 SU = 18 mm)
- weight: approx. 150 g
- fire load: approx. 2250 kJ ± 10 %
- transmission freq.: 458 kHz
- 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 50 090-2-2 and IEC 664-1: 1992

Reliability
rate of failure: 576 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

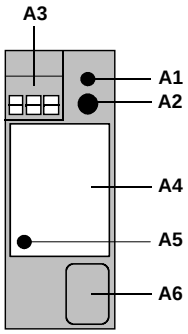


Figure 1:
Location of the display and operator elements

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 Connection of the IR receiver wire: screwless plug-in terminals for solid wires, ∅ 0,6 to 0,8 mm

A4 Type plate

A5 This LED is used primarily for testing the IR range. The LED at the IR decoder briefly flashes once when the decoder receives a valid telegram from the IR transmitter (no matter whether the IR decoder is locked against the telegram). Thus, any errors occurring, e.g., during the configuration can be eliminated more easily. If the telegram evaluation cannot be completed due to an addressing error, the LED briefly flashes 3 times.

A6 Label for noting the physical address

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.
- The device must not be connected to 230 V.
- 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. 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 of the IR decoder N 450 on the DIN-rail (Figure 2)
- Slide the device (B1) onto the DIN-rail (B2)
- swivel back the device until the slide clicks into place audibly.

Dismounting DIN-rail devices (Figure 2)
- 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).

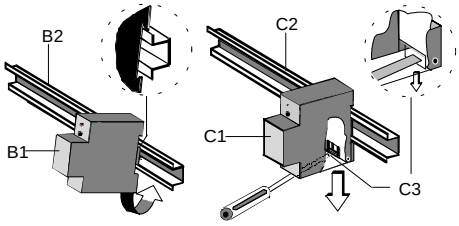


Figure 2: *Mounting and dismounting a DIN-rail device*