

## 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.

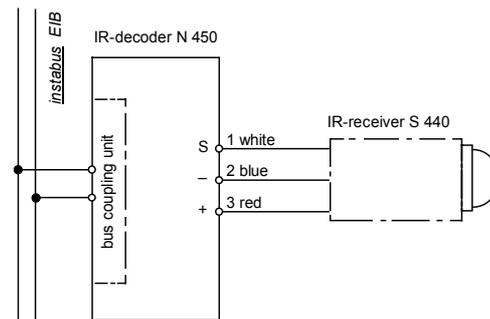
These are then passed on to the bus line, thus activating the actuators operated by the IR wall-mounted transmitter. Four IR receivers can be connected in parallel to an N 450 IR decoder. If more than four IR receivers are connected, an external power supply is needed. It is not possible to connect the inputs of several decoders with each other and connect them to an IR receiver.

## Application Programs

### 12 CO IR-Decoder 7F0301

- allows programming of up to 22 tasks (dimming and blinds control require 2 tasks)
- switch
- switch and dim
- switch and dim with set-value
- raise/lower blinds, adjust louvres
- recall scenes

## 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.
- The device must not be connected to 230 V.
- 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.

## 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

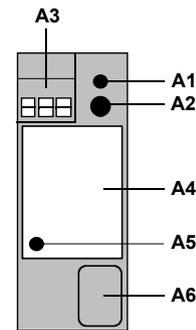


Figure 1: Location of the display and operator elements

- 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, Ø 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

IR Decoder N 450

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## 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 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 and
- swivel the device (C1) from the DIN-rail (C2).

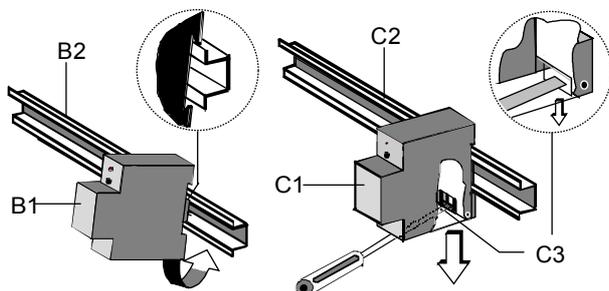
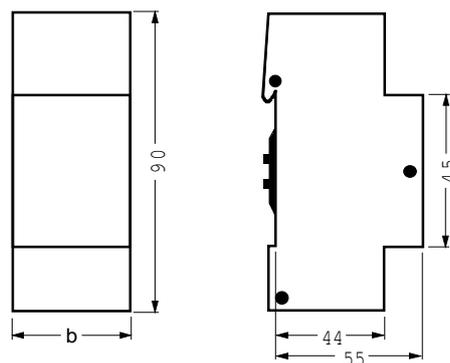


Figure 2: Mounting and dismounting a DIN-rail device

## Dimension Diagram

Dimensions in mm



1 Spacer Unit (SU) = 18 mm

b = 2 SU

*instabus EIB*

**Technical Product Information**

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**Notes**