

IR Receiver S 440
5WG1 440-7AB01

Product and Applications Description



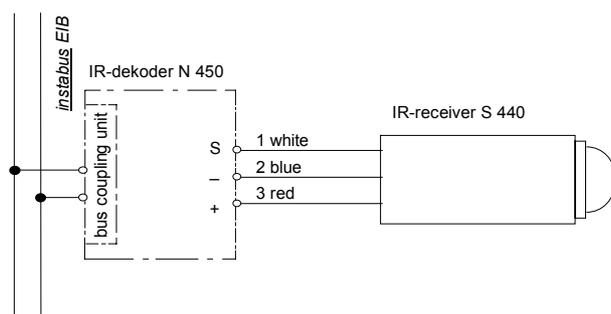
The signals emitted by the IR wall-mounted transmitter are picked up, amplified and converted to electrical signals. These are sent by a three-core wire to the N 450 IR decoder where they are converted into bus-capable telegrams. Within its receiving range, the IR receiver can receive and process the IR signals of all existing transmitters for all the channels occupied in the bus system.

Included in the items supplied are: IR receiver with a 1 m cable \varnothing 3 x 0.8 mm, spring clip and rose for mounting on ceilings and walls. The IR-receiver can also be directly built into fluorescent lamps.

Application Programs

Requires no application programs

Example of Operation



Installation Instructions

- The device may be used for permanent interior installations in dry location connected to the IR decoder N 450.



WARNING

- The device may be built into ceilings, walls or luminaires for fluorescent lamps directly and must be mounted and commissioned by an authorised electrician.
- The receiver cable must be installed according to DIN VDE 0800.
- The device must not be connected to 230 V.
- 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 IR decoder N 450

System reception space

- wall-mounted transmitter, non-focussed beam: 5 cm to 8 m
- remote control, focussed beam: max. 20m

Connection

1 m receiver cable: \varnothing 3 x 0,8 mm, may be extended to up to 50 m

Physical specifications

- housing: plastic
- dimensions (W x H x L): 25 x 26 x 65 mm
- weight: approx. 65 g
- fire load: approx. 800 kJ \pm 10 %
- transmission freq.: 458 kHz
- Installation: mount to ceilings or walls or lights directly

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 50090 and IEC 664-1: 1992

Reliability

- rate of failure: 116 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

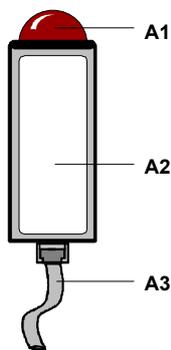
Location and Function of the Display and Operator Elements

Figure 1: Location of the display and operator elements

- A1 IR-sensitive sensor
A2 type plate
A3 cable for connecting to the decoder

Mounting and Wiring

Mounting the IR receiver to a wall or ceiling with the mounting clamp (Figure 2)

Via the mounting clamp (B3) and the countersunk screw (B2) the IR receiver (B1) can be mounted either horizontally or vertically. The mounting clamp (B3) is attached to the wall or ceiling via the screw (B2). Slide the mounting clamp (B3) into the guide rail (B4) of the IR receiver (B1). The mounting clamp (B3) can be mounted either visibly or hidden where the mounting clamp (B3) must be swivelled by 180°.

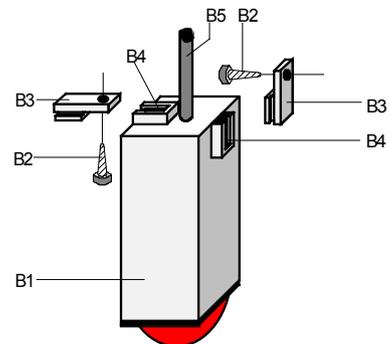


Figure 2: Wall and ceiling mountings

- B1 IR- sensor
B2 counter-sunk screw
B3 clamping device
B4 guidance
B5 terminal line

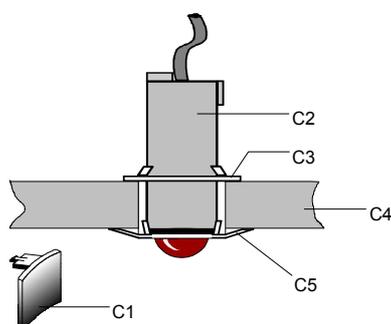
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Mounting the IR receiver S 440 to a mounting support (Figure 3)

The mounting support (C4) must provide an opening for the IR receiver (C2) of at least $\varnothing 35$ mm. The rose (C5) is clicked onto the IR receiver (C2).

The retaining spring then is slipped with its nibs (C3) along the edges of the IR receiver's casing (C2) to the front until a tight fit is achieved. A reflector (C1) can be clicked onto the rose (C5) if necessary.



- C1 reflector
- C2 IR-receiver
- C3 spring nibs
- C4 mounting support
- C5 rose

Figure 3: Mounting the IR receiver to a mounting support

Notes on mounting the IR receiver (Figure 4)

The IR receiver can be mounted to fluorescent lights directly or to any other position where its lens has an unobstructed line of optical contact to the IR transmitter.

Mounting variants for the IR receiver:

- horizontally (using mounting clamp)
- vertically (using mounting clamp)

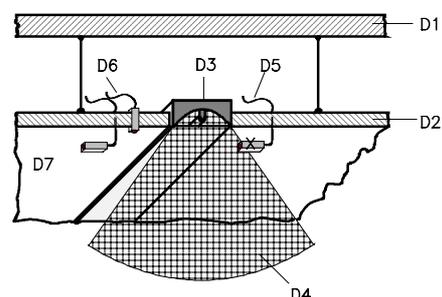
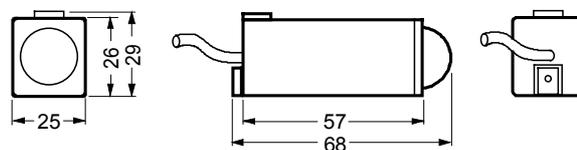


Figure 4: Notes on ceiling installations

- D1 ceiling
- D2 raised ceiling
- D3 luminaire
- D4 cone of lights
- D5 incorrect mounting
- D6 correct mounting
- D7 area of optimum reception

Dimension Diagram

Dimensions in mm



Notes