

Safety instructions

Electrical equipment may only be installed and assembled by qualified electricians.

Failure to comply with these instructions may result in damage to the device, fire or other hazards.

When installing and laying cables, always comply with the applicable regulations and standards for SELV electrical circuits.

These instructions are an integral component of the product and must be retained by the end user.

Function

The RED112X allows switching and control functions for the BUS. The switching relay has a potential-free change-over contact that can be used for different switching functions.

The state of the relay and "Control-In" control input is signalled via the corresponding LEDs.



CAUTION!

The switching relay is an i2Audio device and can only be operated on the 2-wire bus with an audio decoupler.

Design and layout of the device

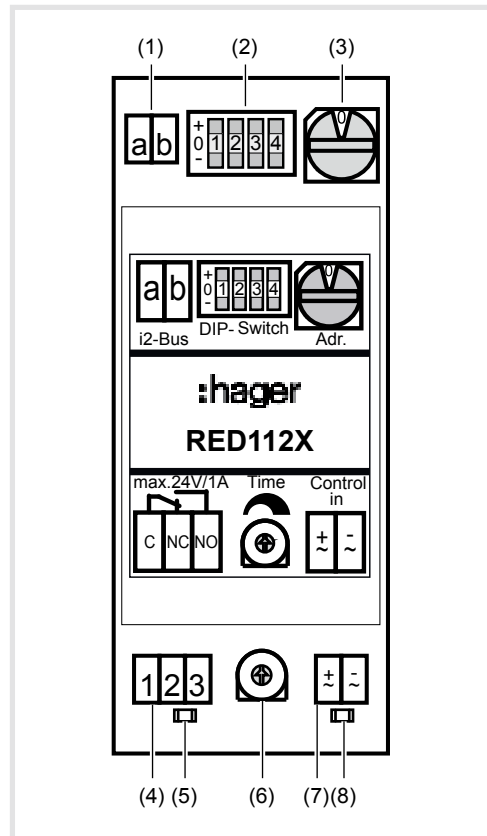


Figure 1: Design and layout of the device

- (1) Terminal a/b BUS connection
- (2) Operating mode switch: Setting of the switching functions
- (3) Rotary switch S1: Setting of the relay address
- (4) Relay terminal: Connection of potential-free relay contacts (max. 24V/1A)
C = changeover contact, (NC) = NC contact, NO = NO contact
- (5) Relay LED: LED on = relay energized, LED off = relay de-energized
- (6) Rotary control: Setting of the relay switching duration 0 – 30 seconds
- (7) Control input: Connecting terminal for "Control-In" control input (12 V AC / 12 V DC)
- (8) Control input LED: Indicates the state of the control input

Information for electricians

Installation and electrical connection



DANGER!

Touching live parts in the installation environment can result in an electric shock!

An electric shock can be lethal!

Before working on the device or load, disconnect all associated circuit breakers. Cover all live parts in the area!

When working on systems with a 230 V AC power connection, comply with the safety requirements of DIN VDE 0100.

When installing door communication systems, comply with the general safety regulations for telecommunications systems according to VDE 0800:

- Separate routing of power and door communication cables according to VDE 0800.
- Partitions between power and door communication cables in shared trunkings.
- Use of standard telecommunications' cables, e. g. J-Y (St) Y with 0.8 mm diameter.

Bus cables

- J-Y(ST)Y or A-2Y(L)2Y
Use wrapped wire pair.
Recommendation: white/yellow
- CAT
Use wrapped wire pair.
Recommendation: orange/white

Avoid interference!

The 13-MHz video carrier frequency used for two-wire video door communication systems can cause reciprocal interference with other devices, such as radios, routers and WLAN devices.

- Only use shielded cables corresponding to the qualities recommended in this manual.
- It is essential to comply with the applicable regulations during planning and installation.
- Route cables, wire the devices, and in particular implement shielding and earthing measures as described below.

Connection

- Connect conductor: Insert stripped conductor (solid conductor Ø 0.4–0.8 mm).
- Loosen conductor: Press orange push-button. Remove conductor.

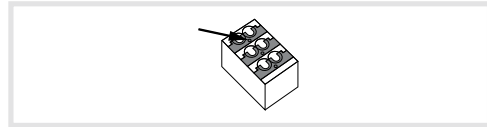


Figure 2: Connecting terminals

If interference occurs in telecommunications systems, radio services or other systems during the operation of existing video door communication systems, measures for shielding and earthing the cables and for filtering must be implemented.

- For this purpose, connect all of the drain wires of the cables in a star shape using a terminal.
- Connect all drain wires to the PE rail in the distribution box.

Configuration

"Control-In" control input

The switching relay has a "Control-In" control input. This can be activated by 12 Volt DC or AC. Depending on the set mode/parameter, the control input can be used for various control tasks.

Operating mode switch

The switching relay is configured via the operating mode switches. Here, the switches can have three states (top = +, centre = 0, bottom = –).

Door release relay and light relay modes

The switching relay switches to this mode when the door release/light button on the intercom is pressed.

The activation can be limited to specific door, group or intercom device addresses.

The switching duration can be set from 0 – 30 seconds. An additional operation is via the "Control-In" possible.

Switch	Mode
1	+
2	+
3	+
	0
	–
4	+
	0
	–

Switch	Mode
1	0
2	+
3	+
	0
	–
4	+
	0
	–

Function relay mode

The "function relay" mode allows switching functions for the comfort intercom special buttons. A status display of the relay or control input can be displayed on the comfort intercoms.

- The function relay address is set using the rotary switch S1. A maximum of 16 mutually independent switching relays can be operated on a BUS.
- In **Timer mode**, the time that remains energised after releasing the operation button is set via the rotary control.
- In **Toggle mode**, the relay changes its state each time the operation button is pressed.
- Master function: The switching relay can also be operated from another switching relay. Here, a function relay in master mode assumes the function of a comfort intercom special button. The "Control-In" control input serves here as a button input and the relay serves as a status display.
- **Status message:** You can set whether the state of the relay or Control-In input is reported back to the operating device for visualisation.

Switch	Mode
1	–
2	+
3	+
	0
	–
4	+
	0
	–

Door call signalling mode

Door calls can be signalled via the relay by means of door call signalling. The "Control-In" control input has no function here.

Switch	Mode
1	–
2	0
3	+
	0
	–
4	+
	0
	–

Door release/Light direct control modes

A door release/light relay can be controlled with the door release/light direct control. The function can be triggered by means of "Control-In" control input; the relay contacts are disabled during this time.

The address of the relay to be controlled is set using the rotary switch S1.

Switch	Mode
1	+
2	0
3	+
	0
	–
4	+
	0
	–

*For direct control of a door loudspeaker-door release contact or second switching relay RED112X in door release relay mode

Switch	Mode
1	0
2	0
3	+
	0
	–
4	+
	0
	–

**For direct control of an automatic light or second switching relay in light relay mode

Technical data

Operating voltage via bus	24 V=
Switching contact change-over contact potential-free	max. 24 V/1 A
Control-In input	for 12 V ~ / = Input
Degree of protection	IP 20
Relative humidity	0 ... 65% (no condensation)
Operating temperature	-5 ... +45°C
Storage/transport temperature	-20 ... +60°C
Connecting terminals	plug-in terminals
Maximum conductor diameter	0.8 mm
Cable length Control-In input	max. 2 m
Dimensions W x H x D	35 x 97 x 58 mm
Space units in the distributor:	2 units