Operating and assembly instructions

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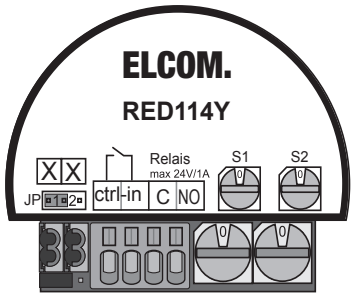

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RED114Y

Switching relay 1gang with input flush-mounted 2-wire

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.

Design and layout of the device

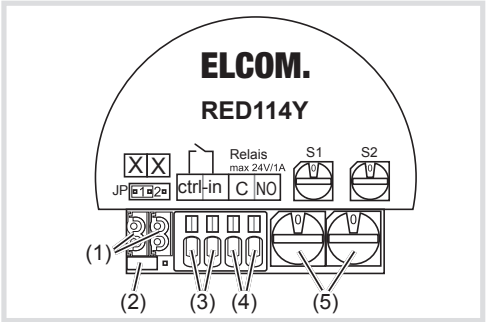

Figure 1: Design and layout of the device

(1) Bus connection 2-wire **X/X**

(2) Jumper for function setting

(3) Connection Control-in input for potential-free contacts (e.g. push-button)

(4) Connection potential-free switching contact

(5) Rotary switch S1 and S2 function/address settings

Functional description

Depending on the setting, the device executes switching or transmission commands via the 2-wire bus and/or state of the control-in input.

Correct use

- Switching of electrical loads 24 V AC/DC with potential-free contact
- Transmission of 2-wire bus commands by closing the contact on the control-in input
- Installation into wall box according to DIN 49073 or junction box surface-mounted/ flush-mounted
- Not compatible with door communication systems of other manufacturers

Product characteristics

- Rotary switch for setting of function and address
- All connections with plug-in terminals.

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 cable ducts.
- 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
- YR
  Use adjacent wires.

Connecting and installing the device

- Connect 2-wire bus cable to bus connection (1).

i If the switching relay is connected at the end of the 2-wire bus cable, the 2-wire bus cable must be completed with a terminator (supplied).

- Connect load fed from a power supply of max. 24 V to the potential-free switching contact (4) if required.
- Connect potential-free contact to control-in input if required
- Set function/address setting on rotary switches S1 and S2.
- Place the device in the installation or junction box.

Storey call function

(Function jumper (2) left inserted)

A storey call command is transmitted to the 2-wire bus
via a „NO contact" push-button connected to the control-in. The address of the indoor station(s) to be called is set on the switching relay rotary switches (5) (S1=group address, S2=intercom device address). If the door release button is pressed on an indoor station, the relay contact closes and e.g. a storey door is unlocked.

i The relay contact does not close if the indoor station is in door call or was called from a door station. A not accepted door call exists for 90 s.

i Only one switching relay may be used per indoor station address.

Door release in idle state for sender address

(Function jumper (2) left inserted)

Activation of the relay contact by indoor stations and/or with a switching relay (transmit door release command in idle state function) with the group and intercom device address set on the switching relay rotary switches (5).

i The relay contact does not close if the indoor station is in door call or was called from a door station. A not accepted door call exists for 90 s.

Door release relay function

(function jumper (2) right inserted)

The switching relay is activated by the door release button of the indoor station and/or by a push-button NO contact on the control-in input.

Jumper - door release relay function		
Rotary switch setting		Status of indoor station
S1	S2	
0	Activation by all indoor stations (S2 irrelevant)	in call/ calling
3		any time
5		in standby
1	Activation by indoor stations with this group address (S2=group address)	in call/ calling
4		any time
6		in standby
2	Activation in call with this door address (S2=door address)	in call/ calling

Light relay functions

(function jumper (2) right inserted)

The switching relay is activated by the light button of the indoor station and/or by a push-button NO contact on the control-in input.

Jumper - light button function		
Rotary switch setting		Status of indoor station
S1	S2	
7	Activation by all indoor stations (S2 irrelevant)	in call/ calling
A		any time
C		in standby
8	Activation by indoor stations with this group address (S2=group address)	in call/ calling
B		any time
D		in standby
9	Activation in call with this door address (S2=door address)	in call/ calling

Door call relay function

(Function jumper (2) not inserted)

Certain door calls close the relay contact e.g. for a secondary signal device, vibrating cushion, optical signalling etc.. The control-in input has no function.

Jumper ⫼ - door call relay function		
Function selection rotary switch S1		Parameter setting rotary switch S2
3	Relay contact only closes upon audio door call	Not relevant. Activation by all audio door calls
4		Audio door calls with identical indoor station group address setting
5	Relay contact only closes upon audio and video door call	Not relevant. Activation by all audio and video door calls
6		Door calls with identical indoor station group address setting
7		Door calls of door stations with identical door address setting (S2=door address)
8	Relay contact only closes upon video door call	Not relevant. Activation by all video door calls
9		Only of indoor stations with this group address (S2=group address)

Door opener command send function
(Function jumper (2) not inserted ⫼)

With the Transmit door release command the door release contacts can be activated by line power supplies, door stations, couplers and additional switching relays (set as door release relay). A push-button NO contact on the control-in input of the switching relay transmits a door release command to the 2-wire bus. The relay contact of the transmitting switching relay is deactivated here.

Jumper ⫼ - door opener command send function		
Function selection rotary switch S1		Parameter setting rotary switch S2
A	any time	Door release command with sender address 0/0 to target door address = S2
B		Door release command with sender address F/F to target door address = S2
C	in standby	Door release command with sender address 0/0 (S2 irrelevant)
D		Door release command with sender address F/F (S2 irrelevant)

ℹ With the Transmit door release command in idle state, the door release contacts of the line power supply that is set at any time by the couplers and door stations at their door release, are released.

ℹ With the Transmit door release in idle state command you can activate a switching relay in the Door release in idle state for sender address function. Only 2 times per system as only 2 addresses are possible. It is only possible to evaluate the sender address with the 2gang switching relay.

Light command send function
(Function jumper (2) not inserted ⫼)

With the light command the light contacts can be activated by line power supplies, automatic lights, couplers and additional switching relays. When closing a contact on the control-in input, a light command is transmitted to the 2-wire bus. The relay contact has no function in this operating mode.

Application: e.g. switch on light via magnetic contact on entrance door and apartment door.

Jumper ⫼ - light command send function		
Function selection rotary switch S1		Parameter setting rotary switch S2
E	any time	Light call with sender address 0/0 to target door address = S2
F		Light call with sender address F/F (S2 irrelevant)

Function relay function
(Function jumper (2) not inserted ⫼)

The function relay mode allows switching, inching and status functions. The function relay address is set using the rotary switch S2. A maximum of 16 mutually independent function relays can be operated on the 2-wire BUS.

Applications:

- Switching of lighting or loads
- Unlock front door
- Display of an open front door or garage door with a magnetic contact.
- Display of an unlocked front door with a lock switching contact

Jumper ⫼ - function relay		
Function selection rotary switch S1		Relay address rotary switch S2
0	Inching operation / Control-in status message (see table Inching operation)	Relay address 0-F
1	Switching operation / relay contact status message (see table Switching operation)	Relay address 0-F
2	Slave/signalling operation function relay	Relay address 0-F

ℹ The function relay in inching or switching operation can be extended by a function relay in slave/signalling operation. As a result, status or relay contact setting can be transmitted via the 2-wire bus.

ℹ A function relay in slave/signalling operation can replace the triggering special function button of an indoor station. The relay contact of the function relay in the slave/signalling operation function relay displays the LED in that moment.

Technical data

Operating voltage via bus	24 V=
Switching contact NO contact potential-free	max. 24 V /1 A
Control-in input	for potential-free contacts
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	51 x 42 x 17 mm

Warranty

We reserve the right to realise technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

In case of service issues, please contact your systems‘ engineer.

	Inching operation		Slave/signalling operation
Action \ Reaction	Relay contact Function relay in inching operation	Indoor station Special buttons Status LED	Relay contact slave /signalling function relay
Indoor station special buttons activation	Closes for the duration of the activation		
Contact closed on the control-in of the function relay in inching operation		Lights up for the duration of the contact	Closes for the duration of the contact
Contact closed on the control-in of the slave / signalling function relay	Closes for the duration of the contact		

	Switching operation		Slave/signalling operation
Action \ Reaction	Relay contact Function relay Switching operation	Indoor station Special buttons Status LED	Relay contact slave /signalling function relay
Indoor station special buttons activation	Change-over of the contact per activation	Lights up when relay contact is closed	Follows the function relay contact switching operation
Contact closed on the control-in of the function relay in switching operation	Change-over of the contact for each closing of the contact		
Contact closed on the control-in of the slave / signalling function relay	Change-over of the contact for each closing of the contact		