ELCOM.

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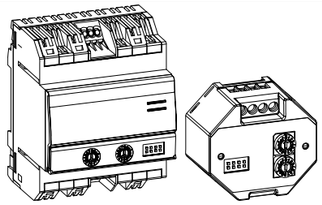

GB

Video converter 2 wires / 75 Ohm
Video converter 2 wires / 75 Ohm FM

RED712Y
RED722Y

Safety instructions

The device must only be installed by a qualified electrician in accordance with the installation standards in force in your country. Do not install outside of the building.

List of symbols

Symbol	Description
⏚	ground
🖵	video signal output
📷	video signal input
○→□	address setting
☼	monitor brightness setting
X/X	2-wire bus

Design and layout of the device

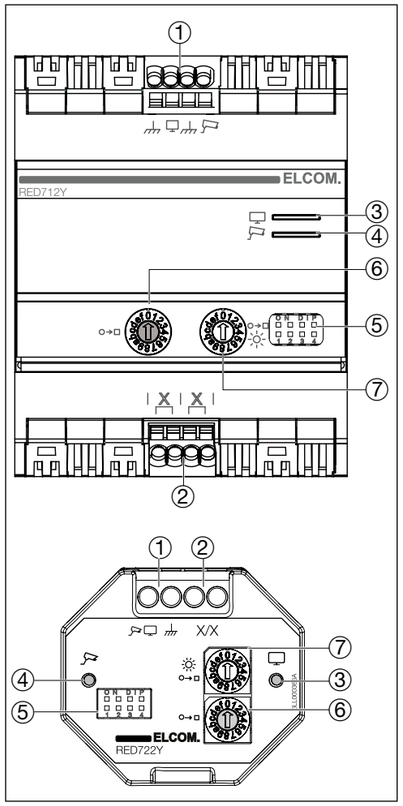

Figure 1: overview

① Ground/Video terminal block for video connection of external unit:
- ground of video signal (⏚)
- output of PAL encoded composite video signal (impedance =75 Ohm) (🖵)
- input of PAL encoded composite video signal (impedance =75 Ohm) (📷)

② Terminal block for 2-wire bus connection (X/X)

③ LED (green) operation indicator of **display** mode (🖵)

④ LED (green) operation indicator of **camera** mode (📷)

⑤ DIP Switch for setting the operating modes (4 micro-switches)

⑥ Rotary switch (blue):
- *camera mode*: to set the address of the analog camera (○→□)
- *display mode*: address of indoor station called on the 2-wire bus system (○→□)

⑦ Rotary switch (white):
- *camera mode*: to adjust the signal on the screen (setting brightness) (☼)
- *display mode*: address of the indoor station group called on the 2-wire bus system (○→□)

Function

Video converter RED712Y/RED722Y has two main applications:

Display mode (*video signal of the 2-wire bus system*): conversion and transfer to a screen of video signal issued by Elcom audio/video 2-wire bus intercom system. **The output signal from the converter to the monitor is PAL-encoded**. In the following installation, the video signal of an outdoor station is received by a connected monitor.

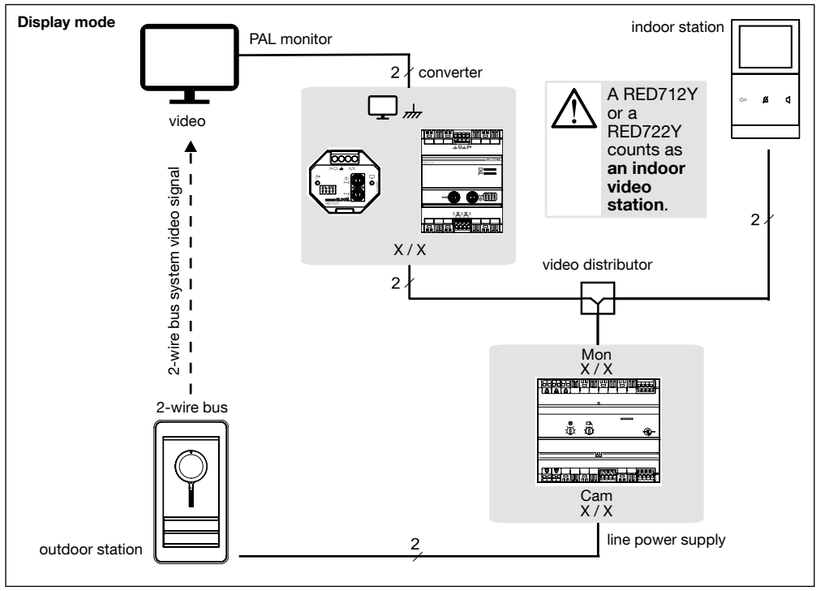

Figure 2: video converter in display mode

Camera mode (*video signal to the 2-wire bus*): this mode allows conversion and transfer of a video signal issued by a video external device to the Elcom audio/video 2-wire bus intercom system. **The input signal of the analog camera must be PAL-encoded**. In the following installation, the video signal of a connected analog camera is received by a video indoor station.

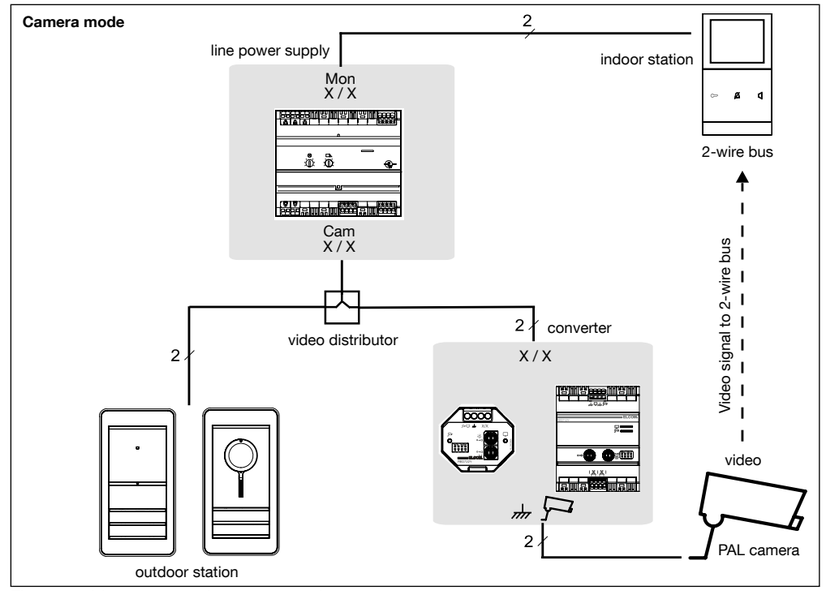

Figure 3: video converter in camera mode

Converter operation according to the DIP micro-switches ⑤ and of rotary switches ⑥ ⑦

Presetting DIP and rotary switches allows to define the operation mode and setting options.

Setting of display mode operation (🖵)

In this application, the screen is connected to terminal block ①. You must position the micro-switches as follows:
- Set DIP No. 1 to **OFF** in **display** mode,
- Set DIP No. 4 to **ON** or **OFF** to activate/disable the termination resistance (end of line) according to the installation.

The 2 rotary switches ⑥ ⑦ are set like the indoor station, and named:
- **blue** switch: indoor station address,
- **white** switch: indoor station group.

Switches				Operation options	Settings of switches	
					blue	white
No. 1	No. 2	No. 3	No. 4			
OFF	*OFF*	*OFF*	(1)	video signal of a specific indoor station called	indoor station address	indoor station group address
OFF	*ON*	*OFF*	(1)	not used	-	-
OFF	*OFF*	*ON*	(1)	video signal of one or several indoor stations called and of the same group	disabled	group address
OFF	*ON*	*ON*	(1)	video signal of one or several indoor stations of installation called (regardless of the address)		disabled

(1) DIP **Switch No. 4** must be set to **ON** position if the converter is installed in end-of-line.
DIP **Switch No. 4** must be set to **OFF** position if the converter is installed at midline (e.g. series connection).

Setting of camera mode operation (📷)

In this application, the camera is connected to terminal block ①. You must position the micro-switches as follows:
- Set DIP No. 1 to **ON** in **display** mode,
- Set DIP No. 4 to **ON** to activate the termination resistance (end of line).

⚠ In camera mode, DIP switch No. 4 must be set into ON position, since the converter is always on end of line of installation.

The 2 rotary switches ⑥ ⑦ are set as follows:
- **blue** switch: analog camera address,
- **white** switch: setting of brightness (16 brightness levels available to adjust the signal: 0/low brightness - F/high brightness). An indoor station equipped with a screen is required to adjust the brightness level.

ⓘ With an additional camera and following low brightness adjustment, it is important to test the video connection between the camera and the indoor station several times. If the pictures are split into two halves, increase brightness until you get back the full pictures.

Switches				Operation options	Settings of switches	
					blue	white
No. 1	No. 2	No. 3	No. 4			
ON	*OFF*	*OFF*	***ON***	video signal of a camera associated with a standard outdoor station (audio)	address of indoor station	brightness
ON	*ON*	*OFF*	***ON***	video signal of an additional camera associated with an external video station and accessible by key 👁 (1) (2) or ☼ (2)	address of outdoor station + 1	
ON	*OFF*	*ON*	***ON***	video signal of an additional camera associated with an external video station and accessible by key 👁 (1)		
ON	*ON*	*ON*	***ON***	video signal of a standalone camera and accessible by key 👁 (1)	unused address available	

(1) In order to use an additional camera, please review the **advanced settings** of the video indoor station, and use the **camera search** feature.
(2) With two additional cameras, this option of operation should not be used.

Connection of converter

Display mode
This application requires connecting the converter to the video input of the external device (screen). Connection by means of a RCA type connector is generally recommended.

- BEFORE connecting the monitor to the 2-wire bus installation, you need to set DIP No. 1 to the OFF position.
- The length of the video cable (RCA) between the converter and the screen video input must be less than 10 meters.

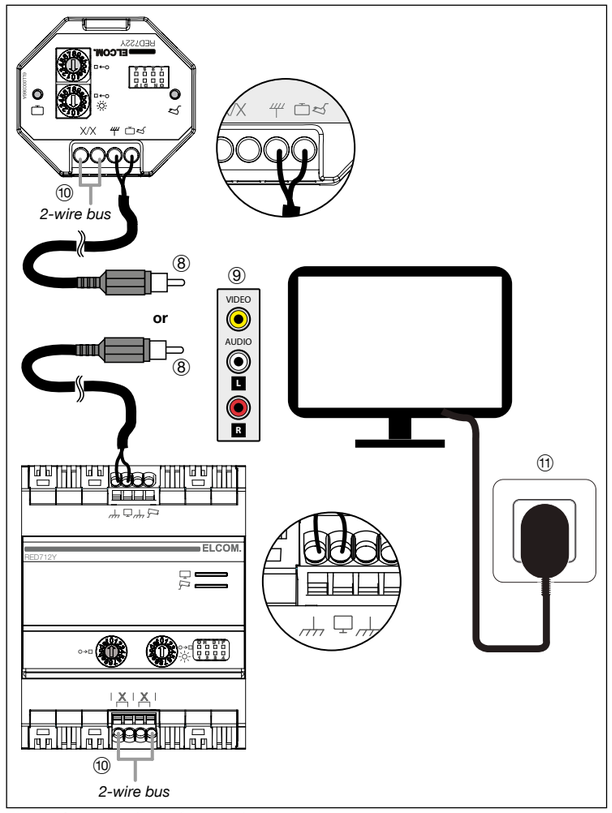

Figure 4: connection of converter in display mode

⑧ Male connector of cinch/RCA type (not supplied):
- ground video signal ( )
- output of PAL encoded composite video signal (impedance = 75 Ohm) ( )

⑨ Monitor video input of RCA type (female)

⑩ 2-wire bus connection (X/X)

⑪ Screen power supply

Camera mode
This application requires connecting the converter to the video output of the analog camera. Connection by means of a RCA type connector equipped with a RCA (female)/ BNC (male) adaptor is generally recommended.

- BEFORE connecting the camera to the 2-wire bus installation, you need to set DIP No. 1 to the ON position.
- The length of the video cable (RCA + coaxial) between the converter and the camera video output must be less than 10 meters.

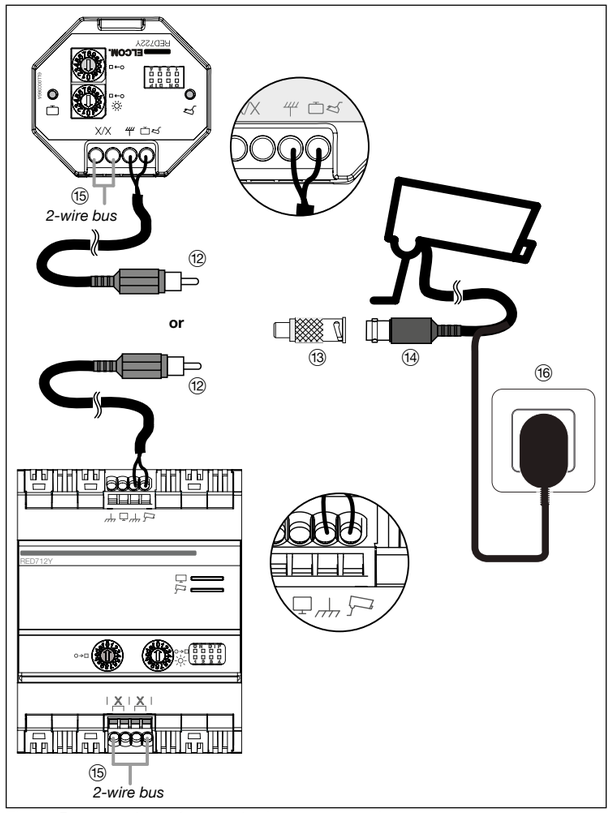

Figure 5: connection of converter in camera mode

⑫ Male connector of male cinch/RCA type (not supplied):
- ground video signal ( )
- input of PAL encoded composite video signal (impedance = 75 Ohm) ( )

⑬ RCA type female / BNC male adaptor (not supplied)

⑭ Camera video output of BNC (female) type

⑮ 2-wire bus connection (X/X)

⑯ Camera power supply

Connect the device to the 2-wire bus
When installing i2-BUS systems, comply with the general safety regulations for telecommunications systems according to VDE 0800:
- Separate routing of power and i2-BUS cables with a minimum spacing of 10 cm.
- Partitions between power and i2-BUS cables in shared cable ducts.
- Use of standard telecommunications' cables, e. g. J-Y (St) Y with 0.8 mm diameter.

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.

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.

Technical specifications

	RED712Y (mounted on rails)	RED722Y (flush-mounted)
2-wire bus power supply (X/X)	22 to 24 V ⎓	
Typical / standby consumption of 2-wire bus	75 mA / 10 mA - 24 ⎓	
Ground /video connection ( )	• display mode: RCA video cable - max length: approximately 10 meters • camera mode: RCA video cable + 75-ohm coaxial video cable - max length: approximately 10 meters	
Maximum dissipation	0,6 W max	
Connection of 2-wire bus system (X/X)	0,2 mm² - 1,5 mm²	
Operating temperature	- 5 °C → + 45 °C	
Storage temperature	- 25 °C → + 70 °C	
Width (REG)	4TE	-
Dimensions (L x H x W)	70 x 90 x 67 mm	53 x 48 x 32 mm
Installation mode	DIN Rail (EN50022)	Flush-mounting box: Ø 60mm
Protection rating	• box: IP20 • box under faceplate: IP30	IP 20
Average humidity rate	5 % → 80 % (without condensation)	
Impact resistance	IK04	

Correct Disposal of this product (Waste Electrical & Electronic Equipment). (Applicable in the European Union and other European countries with separate collection systems). This marking shown on the product or its literature indicates that it should not be disposed with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this device for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes of disposal.