

RED711X
RED721X



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.

GB

2-wire video amplifier
Flush-mounted video amplifier

Overview

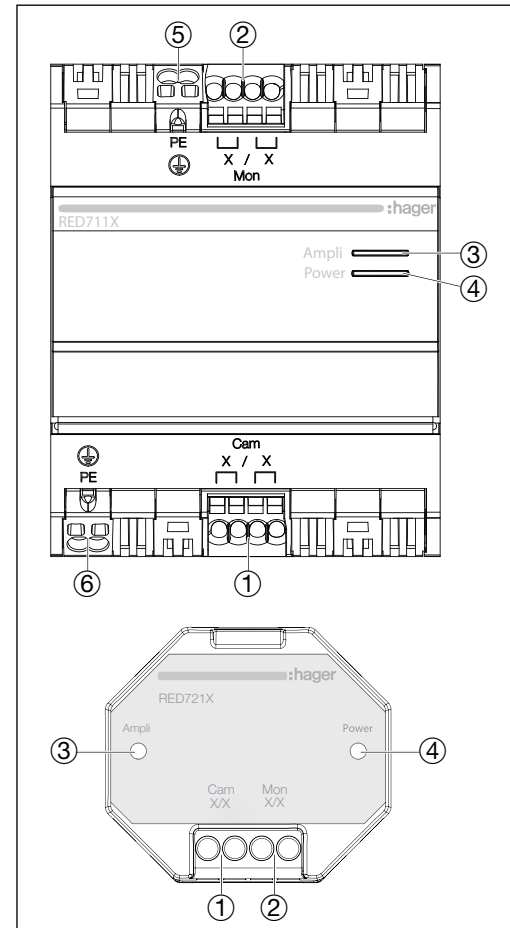


Figure 1: overview

- ① 2-wire bus video input
- ② 2-wire bus amplified video output
- ③ Operation LED (green)
- ④ Power supply LED (green)
- ⑤ ⑥ Ground connection terminal

Function

This device is used to amplify the signal of a video plate to the bus to counter signal attenuation.

This attenuation can be due to:

- excessive length of cable between the elements,
- connection of intermediate devices (distributors, couplers, etc),
- poor connecting cable quality resulting in signal loss.

It is then recommended to fit a video amplifier to limit signal attenuation according to the following table.

20dB attenuation requires interfacing a video amplifier to restore the initial level of the signal.

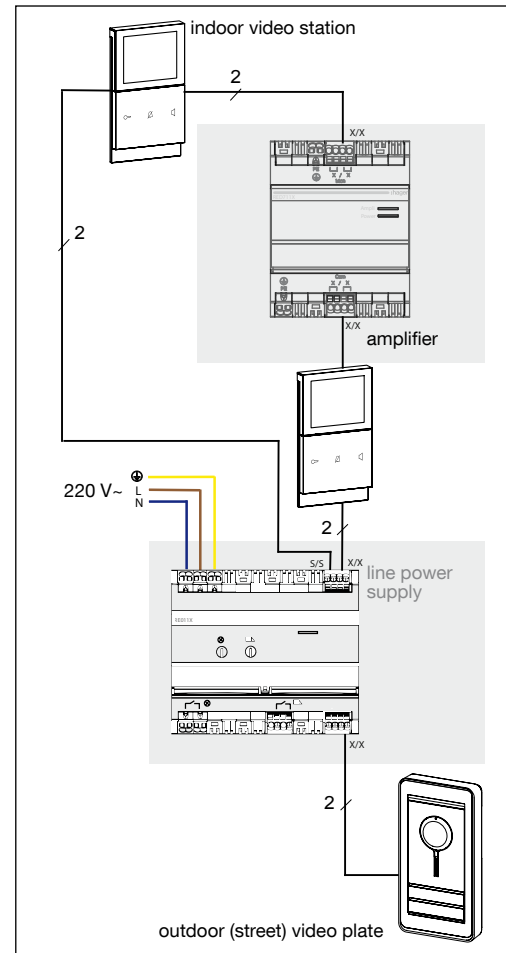


Figure 2: operation

Connection of the device



- The power consumption of a video amplifier is similar to that of the video station.
- A RED711X or a RED721X counts as an indoor video station.

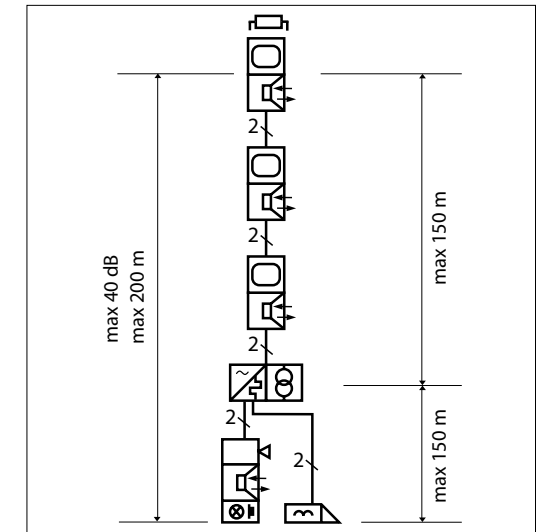


Figure 3: example of connection without amplifier

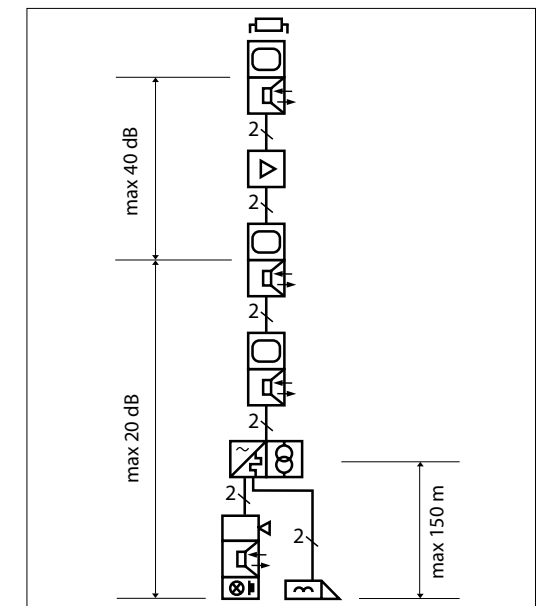


Figure 4: example of connection with a video amplifier

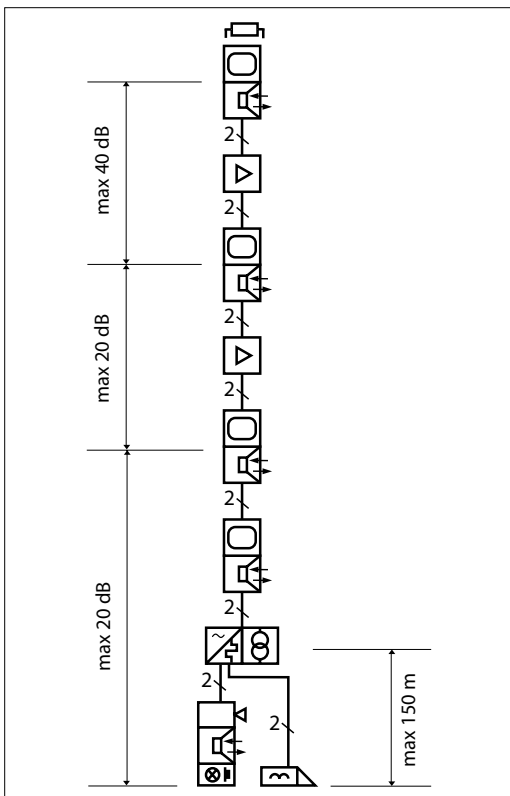


Figure 5: example of connection with two video amplifiers

Circuit symbols and elements of circuit diagrams

	Audio indoor station
	Video indoor station
	Video amplifier
	Line power supply
	Terminating resistor
	Connecting cable
	12 V~ network transformer
	Outdoor (street) video plate
	Door release

Cable length attenuation

Calculations of cable length attenuation in 2-wire installations are provided in the following table.

Type of cable	Max. cable length (m)	Max. attenuation (dB)	Max. loop resistance (Ω)
Cable between coupler and indoor video/audio station			
J-Y(ST)Y 0.6 mm	75 m 150 m ¹⁾	40 dB	15 Ω
J-Y(ST)Y 0.8 mm	150 m 150 m ¹⁾		
CAT 0.5 mm	50 m 100 m ¹⁾ 150 m ²⁾		
YR 0.8 mm	75 m 75 m ¹⁾	20 dB	
Cable between coupler and outdoor (street) plate			
J-Y(ST)Y 0.6 mm	75 m	20 dB	15 Ω
J-Y(ST)Y 0.8 mm	150 m		
CAT 0.5 mm	50 m		
YR 0.8 mm	75 m	15 dB	
Door release cable/lighting to the transformer with door release absorbed current of 1 A (0.5A)			
J-Y(ST)Y 0.6 mm	30 m; 60 m ³⁾ (60 m; 120 m ³⁾)	-	3.5 Ω (7 Ω)
J-Y(ST)Y 0.8 mm	50 m; 100 m ³⁾ (100 m; 200 m ³⁾)		
CAT 0.5 mm	20 m; 40 m ³⁾ (40 m; 80 m ³⁾)		
YR 0.8 mm	50 m; 100 m ³⁾ (100 m; 200 m ³⁾)		
Cable between coupler and video/audio indoor station			
J-Y(ST)Y 0.6 mm	-	-	-
J-Y(ST)Y 0.8 mm	-	-	-
CAT 0.5 mm	300 m	20 dB ⁴⁾	60 Ω
YR 0.8 mm	-	-	-

Table 1: wiring data

- ¹⁾ Length of cable for indoor video stations with auxiliary power supply
- ²⁾ With 2-core wire for the auxiliary power supply
- ³⁾ With 2-core wire
- ⁴⁾ Typical attenuation of cat. 6/7 cable (network cable) ~6 dB/100m

Technical specifications

	RED711X (rail-mounting)	RED721X (flush-mounting)
2-wire bus supply voltage (X/X)	22 → 24 V $\overline{\text{---}}$	
Typical 2-wire bus standby consumption	35 mA / 12 mA - 24 $\overline{\text{---}}$	
Maximum dissipation	max 1 W	
2-wire bus connection terminal (X/X)	0.2 mm ² - 1.5 mm ²	
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	Ø 53 x 32 mm
Installation mode	DIN rail (EN50022)	Flush-mounting box: Ø 60 mm
Protection rating	<ul style="list-style-type: none"> box: IP20 box with faceplate: IP30 	IP 20
Relative humidity	5 % → 80 % (with no condensation)	
Impact resistance	IK04	



Correct Disposal of this product (Electrical & Electronic Equipment Waste). (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.