



Design and layout of the device

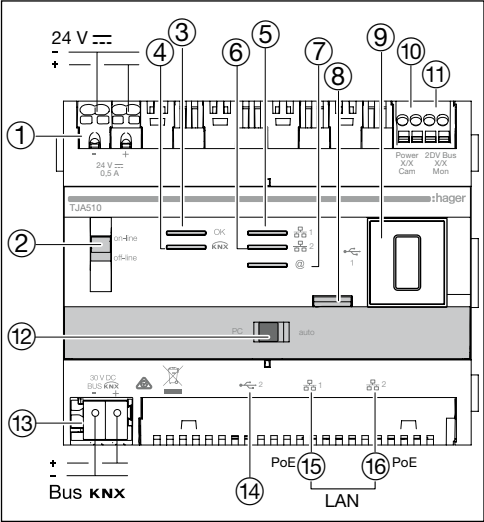


Figure 1: Design and layout of the device

- 1 External power supply terminal (24 VDC)
- 2 Switch of server operation (on-line/off-line)
- 3 Operation LED (OK)

- 4 LED of (KNX) bus status (reserved for future use)
- 5 LED of network connection to port 1
- 6 LED of network connection to port 2
- 7 LED of IP connection availability
- 8 Pushbutton for checking presence of KNX Bus voltage (reserved for future use)
- 9 USB port for updates
- 10 2-wire bus terminal / outdoor plate connection (video input: Power X/X Cam)
- 11 2-wire bus terminal / indoor connection / (video terminal: 2DV Bus X/X Mon)
- 12 Network mode selection switch (DHCP) (PC/auto)
- 13 KNX Bus terminal (30VDC) (reserved for future use)
- 14 USB port for updates
- 15 Local area network (LAN) connection via RJ-45 or port 1
- 16 Local area network (LAN) connection via RJ-45 or port 2

Behavior of the network interface (according to switches)

The 2 Ethernet ports can be used indifferently to connect the access gate to the local area network. They are switched ports connected to the same logical interface on the TJA510 (switch).

Switches		Behavior of the network interface		
2	12	Network interface (Ethernet ports 15 and 16)	IP network status	2-wire bus status
on-line	Auto	This is the normal mode of operation of the TJA510 when it is connected to an external router (ISP box). The application interface can be configured via a DHCP server or with a fixed IP address. <ul style="list-style-type: none">As a DHCP client (factory-set default mode), the TJA510 receives an IP address from the DHCP server connected to the network (the router). If, after 40 seconds, no address has been assigned, the TJA510 automatically assumes the fallback address: 192.168.0.253/255.255.255.0.With a static IP address, the TJA510 immediately takes account of the parameters set on the «Server configuration –Internet» tab of the configuration device adjustment menu:<ul style="list-style-type: none">Interface IP addressSubnet maskDefault gateway address NB: When there is an IP address conflict on the network (other equipment already using the set IP address), the module will not automatically switch to the fallback address.	On-line	
	PC	To be used when a PC is connected directly to the TJA510. This mode activates the DHCP server included in the module. The 2 ports are interchangeable and configured with the following parameters: <ul style="list-style-type: none">Interface IP address: 192.168.0.253Subnet mask: 255.255.255.0Default gateway address: 192.168.0.1IP address range that can be attributed by the DHCP-server of the TJA510: 192.168.0.10 - 192.168.0.50		
off-line	Auto / PC	This mode is a fallback mode in which the interface of the TJA510 is configured as a DHCP client mode. <ul style="list-style-type: none">If, after 40 seconds, no address has been assigned by a DHCP server, the TJA510 automatically assumes the fallback address: 192.168.0.253/255.255.255.0.	Off-line	

Function

The TJA510 is an access gate allowing to create a link between an IP environment and the Elcom/Hager two-wire door intercom systems. It requires the use of two applications on Smart Phone or tablet: the first one is **hager Pilot** configuration application, and the second one is **elcom access** end-user application. This access gates provides new important functions, such as image memory, or remote access to one's own intercom, with overall proactive operation.

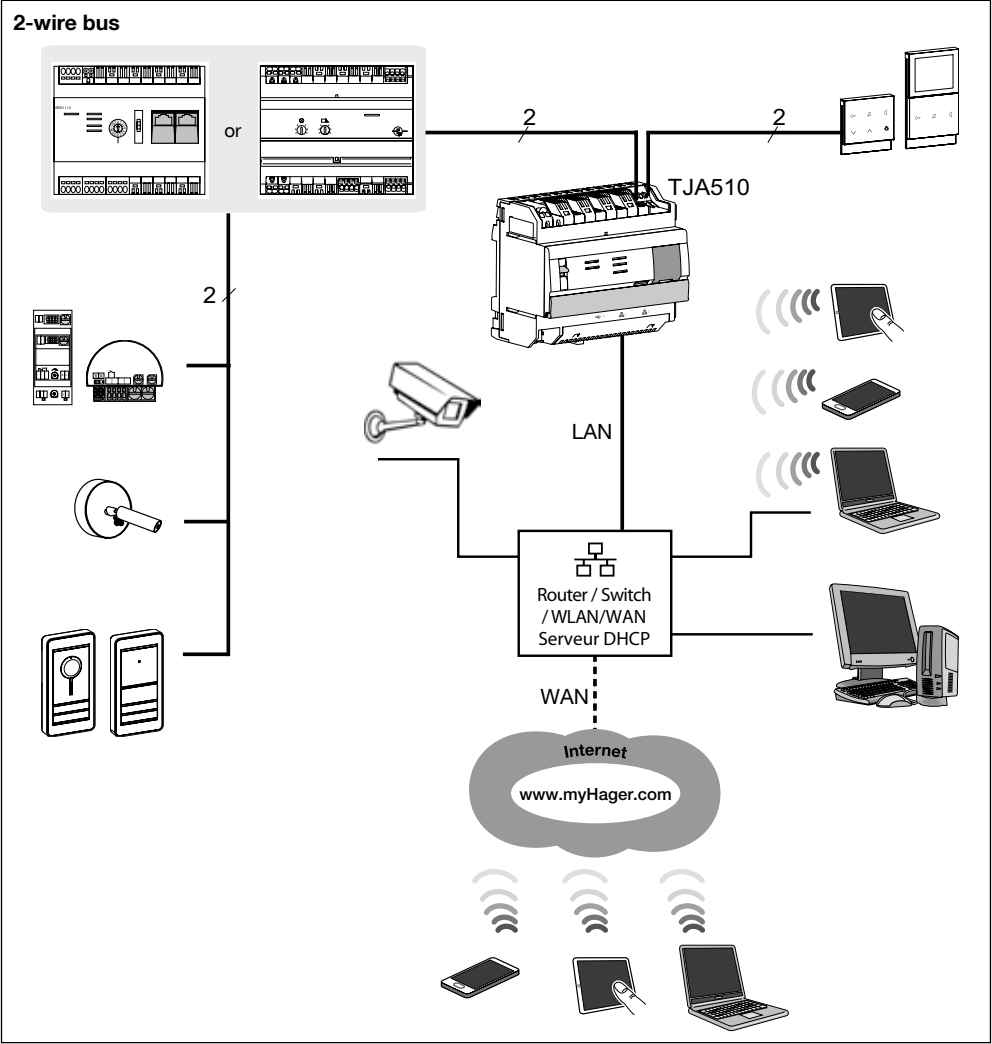


Figure 2: Access gate and its environment

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.

Interpretation of the LEDs (operating condition)

LED function	LED Ref.	Status	Description
Power	3	Off	Unit without power
		Blinks green	Unit start-up phase
		Lights up green	Unit started
		Blinks red	Unit supplied by the power reserve (10 s max.)
		Lights up red	OS loading error
Ethernet 1 and 2	5 and 6	Off	No network (or operating on power reserve (10 s max.))
		Blinks green	No DHCP-server detected, operating on fallback IP address
		Lights up green	Network detected and IP address allocated
		Lights up red	IP address conflict
		Blinks red	Waiting for IP address allocation
Remote access	7	Off	No connection (deactivation via software)
		Blinks green	Connection attempt
		Lights up green	Connection established
		Lights up red	Connection inaccessible or connection refused

Installation and electrical connection

The access gate TJA510 is power supplied via PoE or via an external power supply. It fits into a protected 2-wire audio/video bus system, and is connected to an ethernet switch to be integrated into an IP network via a router.

Mounting the device

- The TJA510 shall be installed preferably in the VDI box of your installation. When no VDI box is available, ensure separate routing of heavy and light current conductors.
- Clip device onto DIN rail in accordance with Standard DIN EN 50022.
- Compatible only with intercom systems using Elcom/Hager 2D technology.
- Only suitable for indoor use and safe from any moisture (IP20/IP30 according to conditions).

Connecting power supply of the device

- PoE power supply: the access gate must be connected to a PoE Ethernet switch according to IEEE 802.3af, for example via Hager switch TN530 (Modular Switch 8 ports 1 Gbit/s including 4 PoE ports).
- External power: the access gate must be connected to a power block, TGA200. **TGA200 power block is suitable to feed only one access gate, and under no circumstances it cannot feed another device of the installation.**

Connection and installation

Connection to 2-wire bus

A 2-wire bus system can be installed in various ways. The diagrams below show a star-configuration. For other types of installation, see the documents available on Hager websites.

Integration into a house: The wiring diagram below shows a house equipped with 3 indoor stations and 1 outdoor (street) plate by way of example. Other indoor stations, door stations, and accessory products can be added.

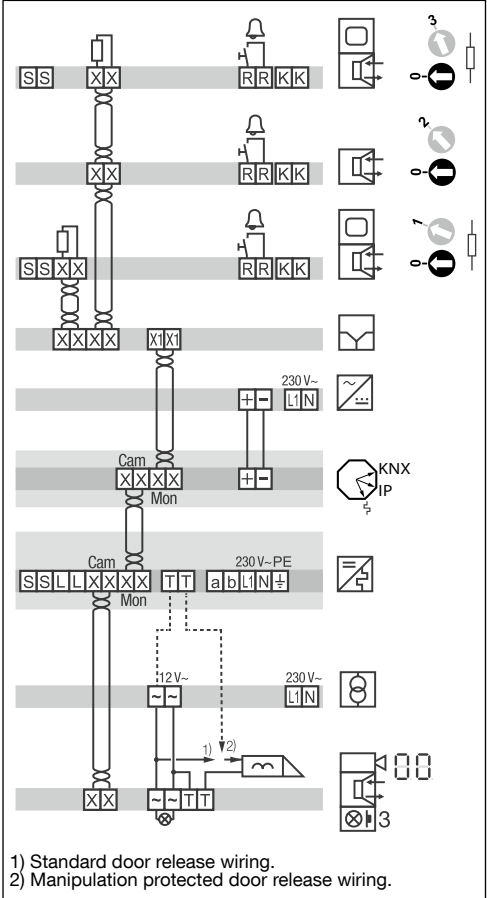


Figure 3: integration into a house installation

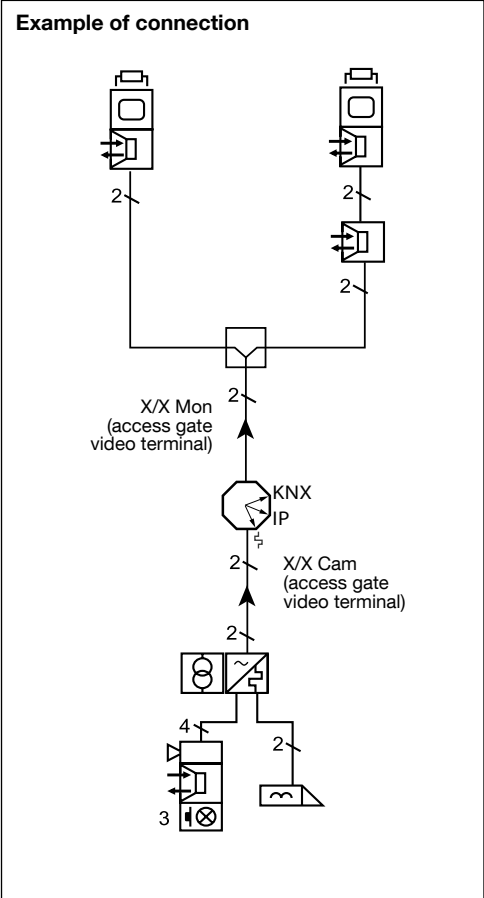
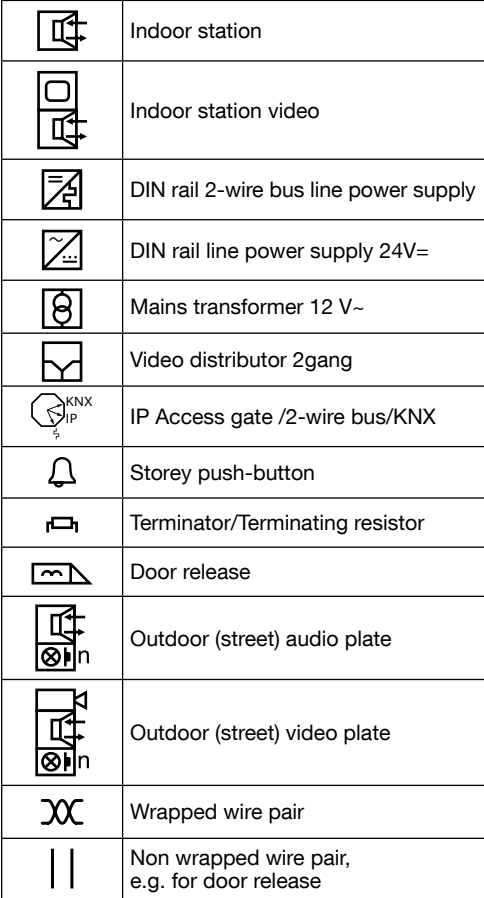


Figure 4: Example of access gate connection



2-apartment building: the following diagram shows integration of the access gate in 2 apartments equipped with one indoor station and one street door plate. Other indoor stations, door stations and accessory products can be added.
ne access gate is required for each apartment.

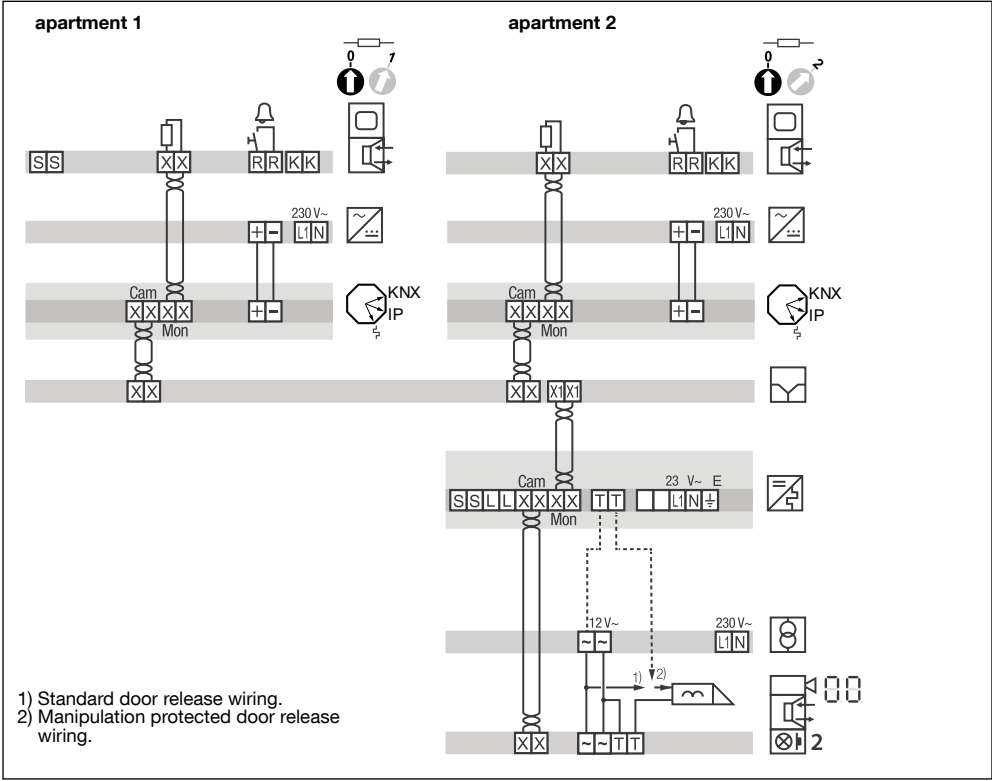


Figure 5: Integration in 2-apartment building

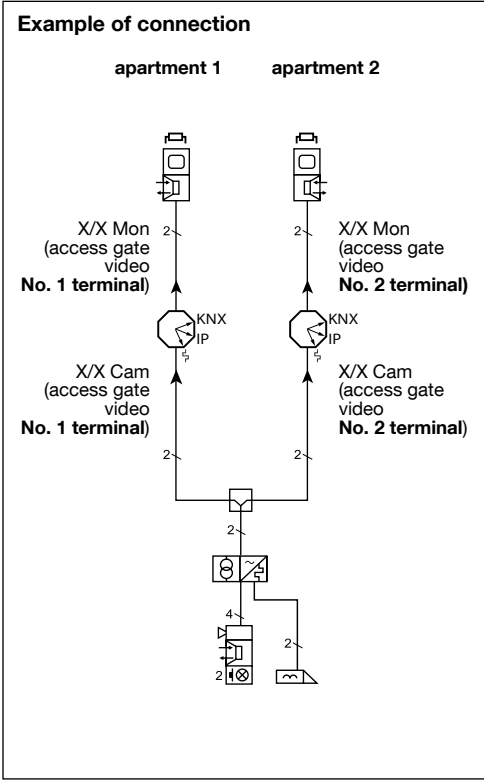


Figure 6: example of 2-access gate installation

Connection with no indoor station

If the 2-wire bus intercom system is not equipped with an indoor station, and operates only from a mobile device (Smartphone, touch screen) via the **elcom access** application, then you must connect a termination resistance onto the access gate. This resistance is supplied as part of the maintenance set Ref. No. REH109X, and provided with the access gate.

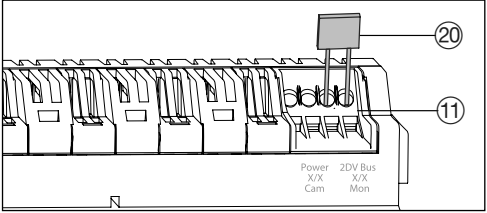


Figure 7: connection of the termination resistance

- 11 Connection terminal: 2DV Bus X/X Mon
- 20 Termination resistance

IP connection Configuration

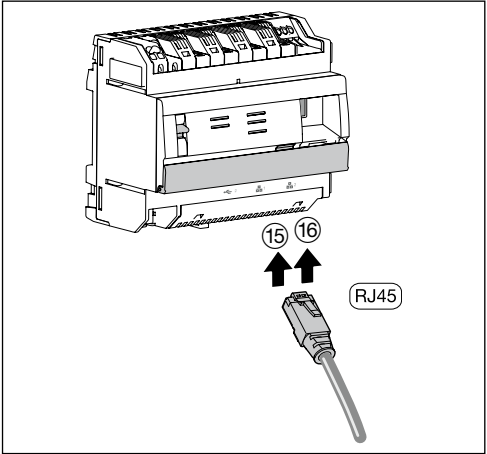


Figure 8: IP connection

Access gate TJA510 is connected to the local IP network through one of the two Ethernet ports 15 or 16. Integration of access gate between IP environment and door intercom two-wire system is done via the **hager Pilot** configuration application. It is a true central configuration unit of intelligence embedded in the access gate and the Hager Cloud infrastructure, which is required for correct system operation. In order to access this configuration interface:

- Download the **hager Pilot** application from AppStore or Google Play Store,
- connect the access gate to a WI-FI router,
- On your mobile terminal: from the WI-FI parameters menu, select the WI-FI router to which the access gate has just been connected,
- Start the hager Pilot application, a selection window is displayed:
 - select server TJA510-XXXXX of the installation,
 - the connection window will appear on the screen.
- Enter your login to connect to the server. Login: **admin** and Passwords: **1234** are the default values.

Document for help with system configuration is available for fitter in the settings menu of the gateway.

Operation

The access gate allows users to establish a link with the traditional intercom system from the local area network (LAN), and Internet via the **elcom access** application. It processes data in the two directions, and allows interoperating a broad range of connected devices (smart phones, touch screens, IP cameras) with i2bus bus-based installations (street door plates, indoor stations, i2bus cameras, relays, etc). Download the **elcom access** application from AppStore or Google Play Store.

OS compatibility

For hager Pilot, the required version is:

- iOS 9
- Android 4.4 or above.

For elcom access, the required version is:

- iOS 10.2
- Android 5.

Technical specifications

External power supply 1 or PoE 15 16	24 V → 30 V ~ via Hager TBTS of type TGA200 or via PoE Supply
Typical / standby consumption of 2-wire bus	35 mA / 12 mA - 24 V ~
Consumption on the auxiliary supply	760 mA max - 24 V ~
Standby consumption on the 24V Ethernet and SB not connected	330 mA
Maximum dissipation (24V output)	10 W without USB, 15W max with 2 USB
PoE Supply Consumption	13W under PoE Class 3 W
Ethernet Network communication	2 x 100 / 1000 Base T
Max length of 24V power cable	10 m
Bus connection 10 11	0,2 mm² - 1,5 mm²
Power socket 1	0,75 - 2,5 mm²
IP/Ethernet network socket 15 16	2 x RJ45
Operating temperature	-5 °C → + 45 °C
Storage temperature	- 20 °C → + 70 °C
Width (REG)	6TE
Dimensions (LxHxW)	106 x 90 x 67 mm
USB2 Interface 9 14	2
Installation mode	DIN Rail (EN50022)
Operating altitude	< 2000 m
Pollution level	2
Surge voltage	4 kV
Protection rating	• box: IP20 • box under faceplate: IP30
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.