Gira door communication system

GIRA

Home Stations

Surface-mounted home station		Home station	
Surface-mounted home station video Resistance = Yes		Surface-mounted home station video Resistance = No	
Home station video Resistance = Yes		Home station video Resistance = No	
VideoTerminal Resistance = Yes		VideoTerminal Resistance = No	
Control 9 Client		Control 19 Client	
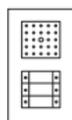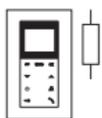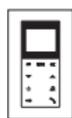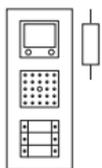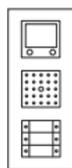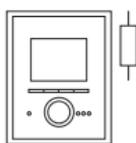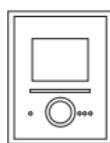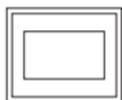
Door stations
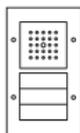
Door station audio		Door station video	
Door station stainless steel audio		Door station stainless steel video	
Built-in loudspeaker			
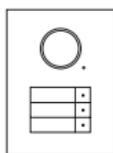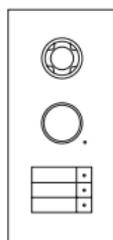
Keyless In

Fingerprint reader		Keypad	
Transponder reader			

Gira door communication system

Contents

1 Gira door communication system

The functionality of the Gira switch ranges is extended and the door intercom becomes part of the electrical installation with the Gira door communication system.

For example, the Gira door communication system uses the proven electrical installation form.
All functions for listening, speaking and seeing are installed in round 58 mm flush-mounted boxes.
If flush-mounted boxes cannot be installed, the product range offers attractive surface-mounted devices which enable fast, simple surface-mounted installation.

Installation in 58 mm flush-mounted boxes

The system is based on the intelligent 2-wire bus with which modifications can still be carried out later without problems.
Only two lines are required to supply the components with voltage and to transfer all the audio and video signals.
This makes it possible, for example, to easily replace an existing bell device with the Gira door communication system. Instead of laying new lines, the existing lines of the current system are used.
In new installations the 2-wire bus technology reduces the usual wiring required for a door intercom and allows faster, non-interchangeable installation.

2-wire bus

The door and home stations can be individually combined from a broad range of different functions, e.g. with or without video components.
The product range is supplemented, for example, with the DCS-IP-gateway. The DCS-IP-gateway enables the integration of network-capable devices, e.g. computers or video IP telephones, in the door communication system.
Or with a DCS switching actuator with which switching actions, such as switching the staircase illumination, can be controlled via the door communication system.

Broad range of functions

Integration in Gira design system

The functions of the Gira door communication system are integrated in existing Gira design platforms:
Gira home stations are available in a broad range of design variants; they can be combined in various colours with different cover frame variants.

For example, the door stations offer an attractive reception point outside next to the front door. Their functions can be installed in the frames of the Gira TX_44 switch range.

Advantages

- Uniform appearance of door communication and electrical installation

- Large design variety with simultaneous lean product range

- Installation as accustomed for the electrical installation in 58 mm flush-mounted boxes

- Home stations and door stations are also available as ready-to-connect surface-mounted variants

- Fast, simple mounting of the surface-mounted versions

- Signal transmission for audio and video via the 2-wire bus

- Non-interchangeable installation

- Easy retrofitting of an existing doorbell system

- Simple replacement of an existing intercom system

- Low cabling effort and expense for new installation, as only two wires are required

2 Door stations

The door stations are used as speaking and operating units for the door communication system at the front door. Via the door station, a call is connected to the desired home station after a call button is pressed. At the same time, the door station confirms the triggering of the ringing tone with an acknowledgement tone.
The Gira door stations are available in surface and flush-mounted versions.

The surface-mounted door station is a compact, completely pre-assembled unit with a height of 19 mm.
The surface-mounted door station can be used for pure audio operation in a 1 to 6-family house, while when combined with the colour camera it is suitable for a 1 to 3-family house.
The surface-mounted door station is available in the colours pure white, anthracite and aluminium in the following variants:

Surface-mounted door station

- Surface-mounted door station, 1-gang
- Surface-mounted door station, 3-gang
- Surface-mounted door station, 6-gang
- Surface-mounted door station video, 1-gang
- Surface-mounted door station video, 3-gang
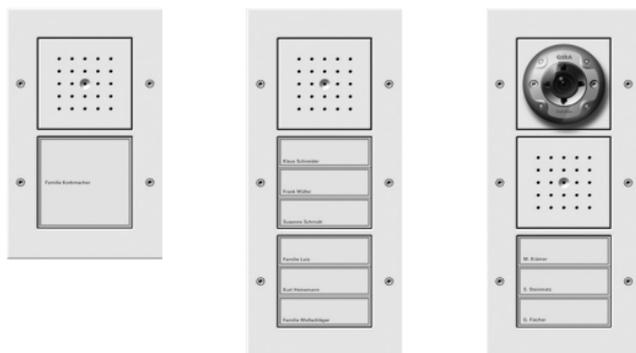
Fig. 1: Variants of the Gira surface-mounted door station

Door station for flush-mounted installation

The Gira door station is mounted in 58 mm flush-mounted boxes. It fits in TX_44 frames, in panels, Gira energy profiles, front panels and letterbox systems.

The flush-mounted door station is available in the colours pure white, anthracite and aluminium in the following basic 1-gang and 3-gang versions.
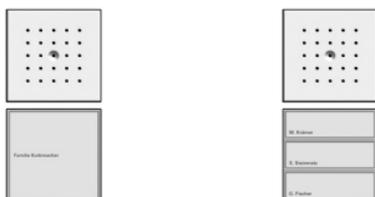
Fig. 2: Gira door stations

Modular design

The modular design ensures a high level of flexibility, so that the flush-mounted door station can, for example, be combined with a colour camera, an automatic control switch, an Info module or additional call buttons.
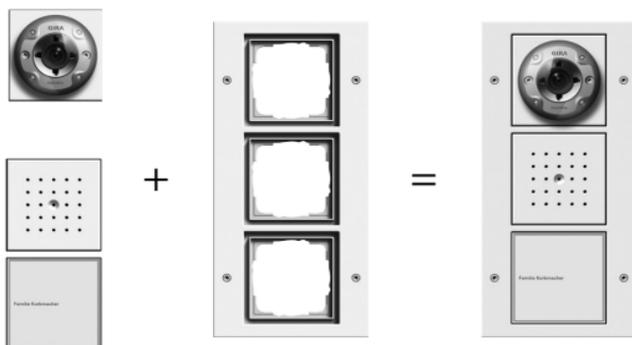
Fig. 3: Modular design of Gira door station

Note: If the colour camera is retrofitted, the video control device is required.

Inscription service

The Gira inscription service assumes the inscription of the door stations. Information on the inscription service and additional options for creating inscription labels are provided at Page 21.

With the door station in the TX_44 frame (4.gang) you can realise pure audio systems for a 1 to 9-family house, while when combined with the colour camera in the TX_44 cover frame it is suitable for a 1 to 6-family house.

TX_44

For use at driveways or entrance gates, the flush-mounted door station can be integrated in the Gira energy profile. The energy profiles have corresponding empty units which can be outfitted with call buttons, door loudspeakers, an Info module or the colour camera. Other functions from the switch range Gira TX_44 can also be used, e.g. an automatic control switch which then automatically activates the light element of the energy profile when a movement is detected.

Integration in the Gira energy profile

Note: The colour camera can only be integrated in energy profiles without a light element.

Four variants are available:

• 1,400 mm with four empty units
• 1,600 mm with four empty units
• 1,600 mm with six empty units
• 1,600 mm with light element and three empty units

For custom-tailored production for individual customers requirements or large buildings, the door station can be installed in front panels or letterbox systems with the installation profile. In existing systems with mechanical bell buttons, the built-in loudspeaker represents the interface to the Gira door communication system.
Details on the installation of the door station in front panels and letterbox systems is provided on Page 29 ff.

Integration in front panels and letterbox systems

With its 3 mm V2A stainless-steel front panel, the door station stainless steel is extremely rugged and therefore especially resistant to vandalism and weathering. The door station stainless steel is available with and without a colour camera.
Additional information on the door station stainless steel is available at Page 34.

Door station stainless steel

2.1 Surface-mounted door station

Surface-mounted door station video

The basic design of a surface-mounted door station video is shown in the following illustration.

Picture legend
1 Cable gland
2 Colour camera
3 Speech cover plate
4 Call button, 3-gang
5 Lower housing section
6 Connection terminals
7 Upper housing section
8 Call button covers
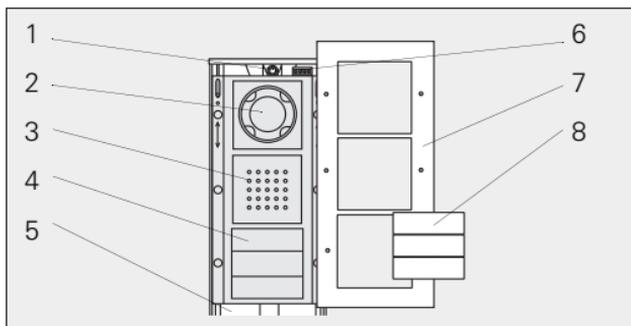
Fig. 4: Design of surface-mounted door station video 3-gang

Advantages of the surface-mounted door station

- Ready-to-connect, pre-fabricated unit
- Low height of just 19 mm
- Fast, simple mounting
- Mounting on difficult surfaces (e.g. on brick, natural stone, metal surfaces or marble)
- When flush-mounting is not possible (e.g. insufficient wall thickness)
- Surface-mounted cable feeding possible
- Torsionally rigid anodised aluminium carrier profile

2.2   Modular design of door station

The basic design of a door station with a colour
camera is shown in the following illustration.

Door station with colour camera
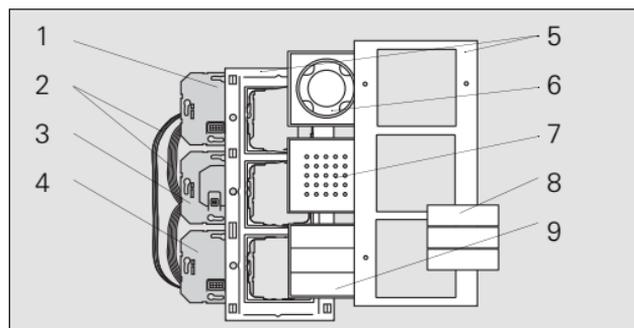
Fig. 5:   Design of a door station, 3-gang, with colour
camera

Picture legend
1 Colour camera insert
2 Video connection
  cable (2 pole)/audio
  (6-pole)
3 Speech insert
4 Door communication
  bus coupler
5 TX_44 frame upper/
  lower suction
6 Colour camera top
  unit
7 Door loudspeaker
  top unit
8 Call button covers
9 Call button, 3-gang

- Modular design

- Low height

- Installation in 58 mm flush-mounted boxes

- Later expansion (e.g. colour camera) possible

- Can be combined with electrical installation in
  one unit (e.g. automatic control switch)

- Can be installed in energy profile, letterboxes or
  front panels

- Can cover old installation openings
  (in conjunction with the mounting plate)

- Realisation of larger systems (e.g. in front panels)
  possible

Advantages of the door station

3 Expansions for door station

3.1 Colour camera

The door station can be expanded with a colour camera. The colour camera transmits the picture of the person at the front door via the 2-wire bus to the TFT colour display of the home station.
Up to 15 colour cameras (5 door stations video and 10 DCS-camera-gateways) can be connected to the video control unit required for video operation. Here two door stations with colour cameras can be supplied with power by the video control device.

Range of coverage

The Gira colour camera (1) has an angle of detection of 100°. For exact specification of the range of coverage, the lens can be manually swivelled by 20° in any direction. Once the camera has been positioned optimally for the entrance area (2), motorized operation is not necessary thanks to the wide-angle lens.
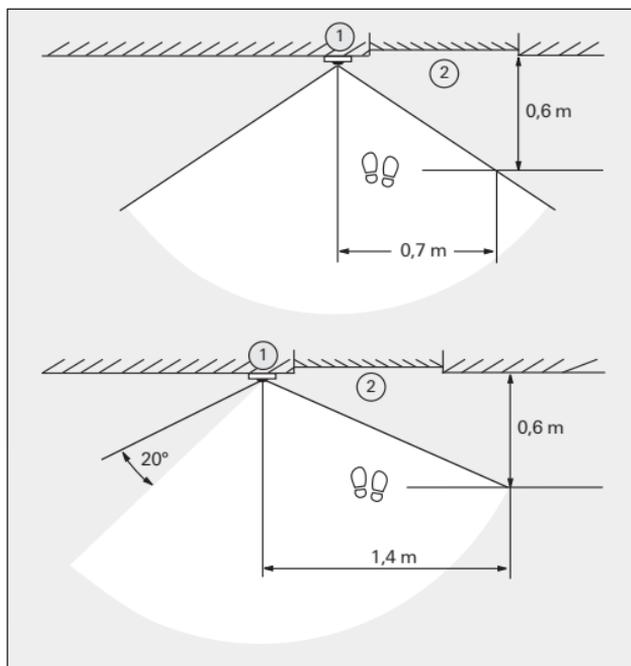
Fig. 6: Range of coverage of Gira colour camera

If the ambient brightness drops below a value of 1 lux, the camera automatically changes over to the black-and-white mode. Illumination of the field of view with four white LEDs additionally provides a sufficient light intensity at a distance of 0.5 m to the camera. The light sensitivity of the colour camera in the black-and-white mode is 0.1 lux.

Day/night switching

The integrated temperature-dependent camera heating prevents condensation from forming on the camera cover plate due to fluctuating climactic conditions and thus provides a clear view. The splash-water sealed camera cover is of shock-resistant plastic. Should damage occur, e.g. due to vandalism, the cover plate can be replaced independently of the electronics.

Camera heating

The cable set, consisting of a video connection cable (2-pole) and an audio connection cable (6-pole) with a length of 50 cm, is required when the colour camera is to be installed offset from the door station or the built-in loudspeaker.

50 cm connection cable set

3.2   Selecting installation site

The selection of the installation site and the illumination are critical for good picture quality.

Do not point the colour camera toward strong background lighting, such as streetlamps or yard illumination. Prevent direct sunlight from shining on the lens. For entryway illumination, the light source must not shine into the camera lens directly from the front. The best installation site of an external light source is above the colour camera.

No background lighting

Avoid extremely bright picture backgrounds with strong contrasts.

Picture background

The recommended installation height for the colour camera is 1.50 m. At this installation height persons with an average height of 1.80 m will be shown optimally.

Installation height

3.3   1- to 3-gang call button

The door station can be expanded with the 1 and 3-gang call buttons. This enables even larger facilities with up to 15 call buttons to be realised with the Gira door communication system.
For this purpose, the flush-mounted call button insert is simply connected to any desired flush-mounted insert of the door station with the 6-pole audio connection cable.
In addition to the door call, switching actions of the DCS switching actuator can also be triggered with the call button via the 2-wire bus. As a result, the call button can, for example, also be used to switch the outdoor lighting.

3.4   Call-button cover plate for 3-gang call button

If a call button on a 3-gang door station is not in use, e.g. in a two-family house, the call button not required can be covered with the call-button cover plate.
The call-button cover plate is available in the three system colours pure white, anthracite and aluminium.

3.5   Info module

The Info module can, for example, be used to display the house number or the business and consulting hours.
Thanks to the background illumination with maintenance-free, energy-saving LEDs, this information is also easily legible in the dark.

3.6 Inscription service

The Gira inscription service prints transparent plastic labels according to your specifications. The labels are non-fading, weather-resistant and wrinkle-free. In just a few steps you can create a personal template and order it via the form at the website **www.marking.gira.com**. The finished labels (available for a fee) are then sent back immediately.

Dr. Richard Klotz
Dr. Peter Platzhalter
Zahnärzte

Sprechstunden
nach Vereinbarung
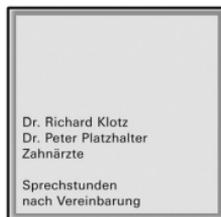
Furthermore, there is a PDF template if available from the Gira inscription service that you can print out yourself free of charge.

As an alternative to the inscription service, the inscription can also be produced with the Gira inscription software "DesignPro Edition Gira" from Avery Zweckform and the available inscription sheets matched to the respective products.

Inscription software

3.7 Theft protection

Mounting the door stations in TX_44 frames protects all components from theft by securing the cover-frame top section with Torx screws.

If necessary, the level of theft protection can be increased by also doweling the TX_44 frame to the wall.

If this protection is to be increased even further, the Torx screws can be replaced with Tri-Wing screws from the optionally available Tri-Wing screw set.

4 Additional applications

4.1 Built-in loudspeaker

With the built-in loudspeaker, the Gira door communication system is integrated in letterbox systems, door side installations or front panels. The built-in loudspeaker acts as an adapter between the mechanical call buttons of the existing system and the Gira 2-wire bus, and assumes the function of the door station.

Mounting

The built-in loudspeaker in mounted behind the speech cover plate of the existing system. Depending on the design, this is carried out directly on the front panel or via a manufacturer-dependent installation carrier.
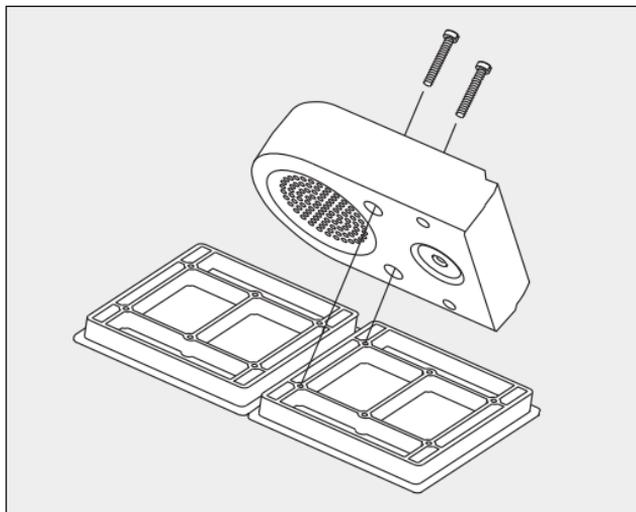
Fig. 7: Mounting the built-in loudspeaker

Dimensions

The built-in loudspeaker has two mounting openings which are matched to the mounting systems of common installation solutions.
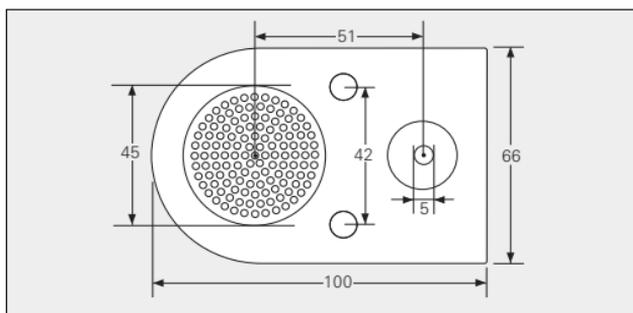
Fig. 8: Dimensions of built-in loudspeaker

Up to 8 mechanical bell buttons can be connected to the terminal strip of the built-in loudspeaker. Additional bell buttons can be connected via add-on modules.

Connection
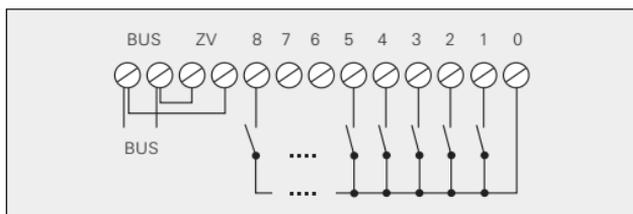
Fig. 9: Terminal strip of built-in loudspeaker

Due to the full system compatibility, the Gira colour camera can also be connected to the built-in loudspeaker. This is installed, for example, into a cut-out in the door side installation or in the front panel of the existing system.

Connection of colour camera to built-in loudspeaker
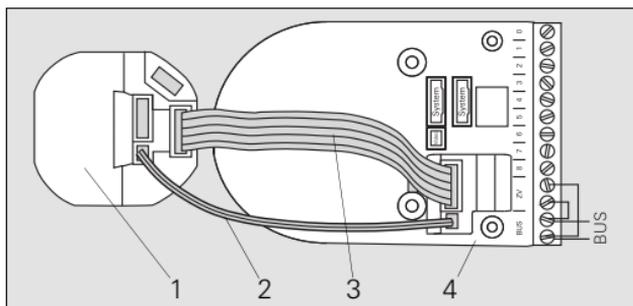
Picture legend
1 Colour camera insert
2 Video connection cable (2 pole)
3 Audio connection cable (6 pole)
4 Built-in loudspeaker

Fig. 10: Connection of a colour camera

Connection example
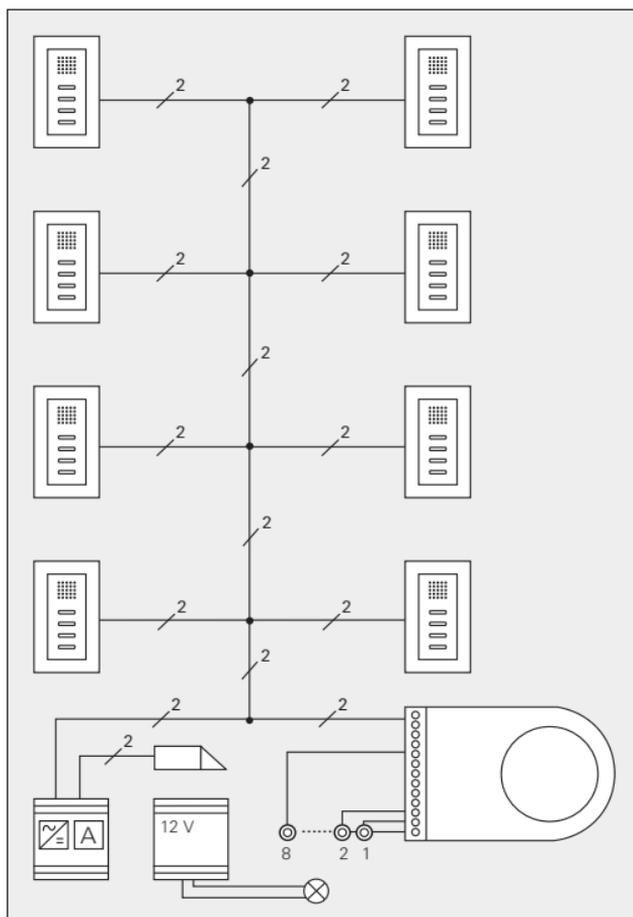
Fig. 11: Door loudspeaker in an 8-family house

Lighting   The illumination of the bell button cannot be supplied with power via the control device. It must be connected to an additional power supply.

4.2 Add-on module for built-in loudspeaker

The add-on module can be used to realise larger buildings with the built-in loudspeaker Up to five add-on modules with 12 bell buttons each can be connected to a built-in loudspeaker.

Note: The Gira door communication system is designed for the following numbers of devices:

- Audio: 70 devices (e.g. 68 surface-mounted home stations, 1 built-in loudspeaker with 5 add-on modules, 1 DCS switching actuator)
- Video: 31 devices (e.g. 28 home stations, 2 door stations with colour camera, 1 DCS switching actuator)
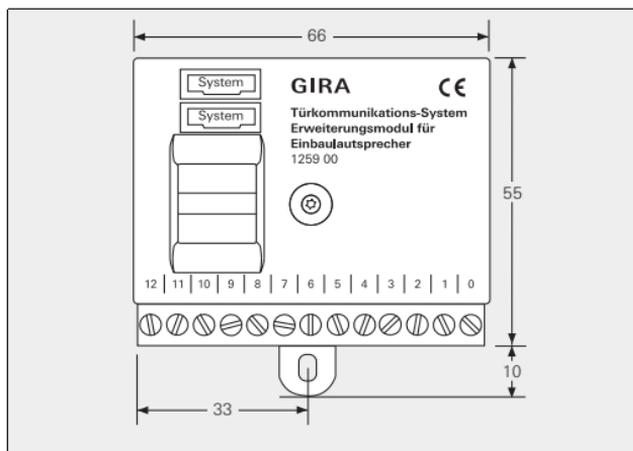
Dimensions

Fig. 12: Dimensions of add-on module

The add-on module is connected to the built-in loudspeaker via the 6-pole audio connection cable.

Connection

The "0" terminal of the add-on module may not be connected to the "0" terminal of the built-in loudspeaker or other add-on modules.

Do not connect "0" terminals
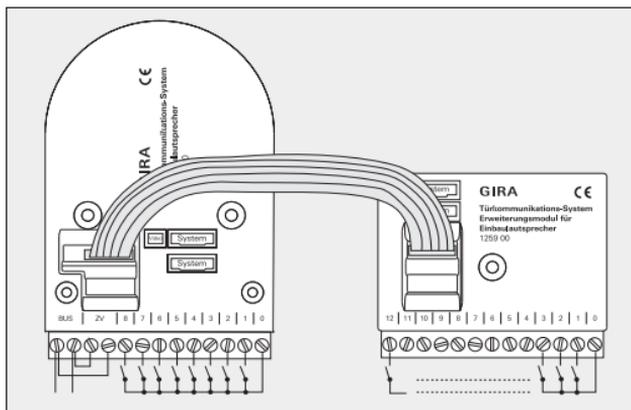
Fig. 13: Connection of add-on module to built-in loudspeaker

4.3 Installation profile

With the installation profile, the Gira door communication system is integrated in letterbox systems, front panels or door side installations. Using the integrated height compensation, the components can also be installed flush with different wall thicknesses (1.25 - 4 mm).
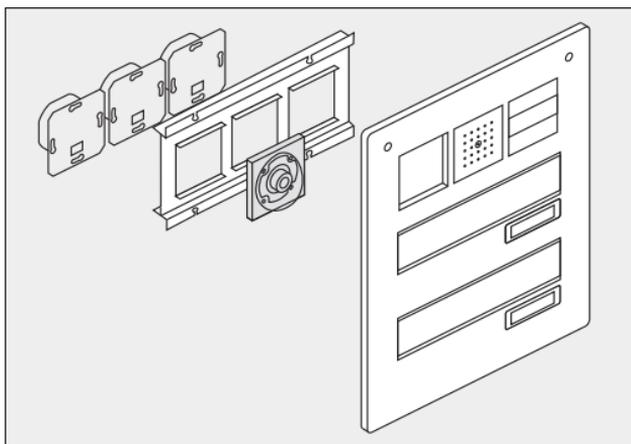
Fig. 14: Gira door station with colour camera integrated in a letterbox system

The installation profile is available in the
1 to 4-gang versions and is fastened to the front
panel with screws or welded pins.
The front panels must be prepared as follows for
the installation of the components:
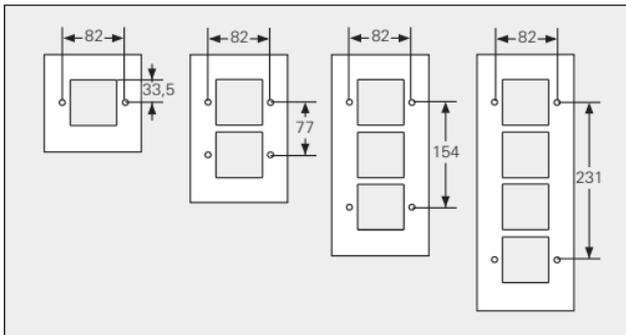
**Positions of holes
(for M4 x 16 mm
screws)**

Fig. 15: Positioning holes
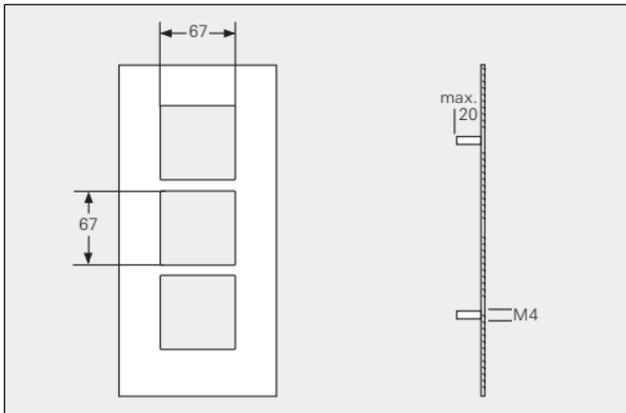
**Cut-outs for
TX_44 inserts
Dimensions of
welded pins
(M4 x 20 mm)**

Fig. 16: Dimensions for required cut-outs and welded
pins on front panel

With the optionally available fastening set, the
installation profile can be fastened to the front
panel with an adhesive connection. This is required
when welded pins cannot be set due to the material
thickness and visible screws are not desired on the
front of the front panel.

Fastening set

4.4 Mounting plates

Dimensions

The mounting plate is used for retrofitting the Gira door communication system to cover the installation openings of door intercom systems already present in buildings.

The mounting plate consists of anodised aluminium and has holes for wall mounting and openings for receiving the Gira door station.

Mounting plate	Dimension A	Dimension B	Dimension C	Dimension D
2-gang	253 mm	130 mm	173 mm	66.5 mm
3-gang	253 mm	130 mm	173 mm	66.5 mm
4-gang	346 mm	130 mm	273 mm	66.5 mm

Tab. 1: Dimensions of mounting plates

Picture legend
1 Panel box (of system already installed in building)
2 Mounting plate (carrier plate + cover plate)
3 Door communication components
4 TX_44 frame
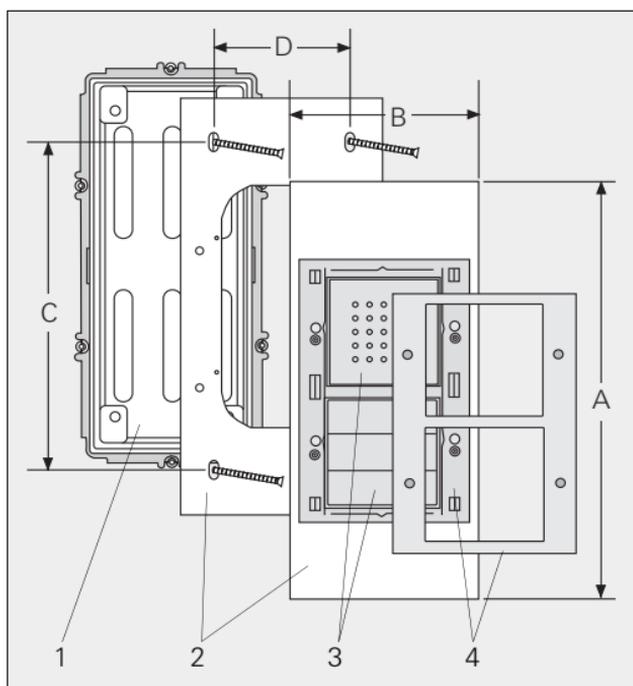
Fig. 17: Installation of Gira door station in a flush-mounted box already present in building

4.5 Integration in front panels

In cooperation with the company Renz, custom-tailored production for individual customer requirements can be realised in both a flush-mounted and a surface-mounted design for large residential units.

The components of the door stations can be integrated flush mounted in front panels made of various materials provided in the building, e.g. stainless steel, aluminium or brass.

This enables audio door stations to be produced for up to 45 devices. In video systems, individual door stations for up to 30 devices are possible.
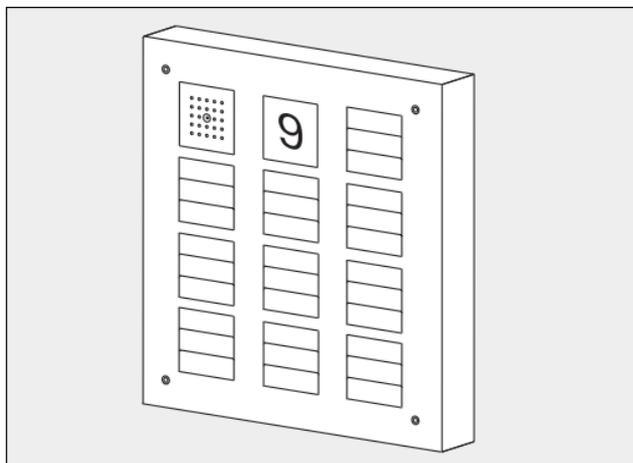
Gira door station in front panel with surface-mounted housing

Fig. 18: Gira door station integrated in a front panel with surface-mounted housing

Exploded view of Gira door station in front panel with surface-mounted housing
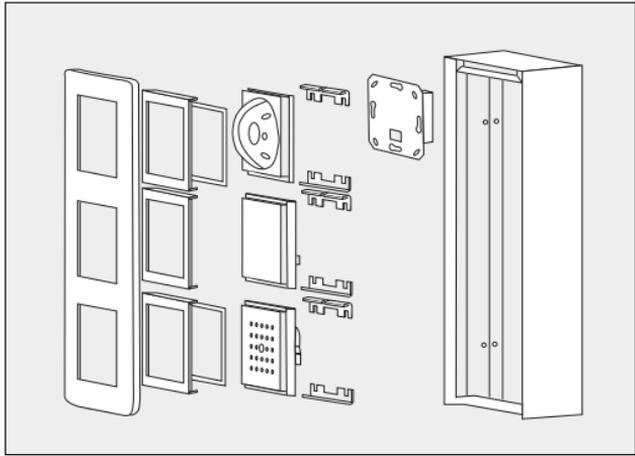
Fig. 19: Gira door station with colour camera integrated in a front panel with surface-mounted housing

Information on colours

The components of the Gira door station are available in the three system colours pure white (similar to RAL 9010), anthracite (lacquered) and aluminium (lacquered). Due to different materials and manufacturing processes, colour differences between the door station inserts and the front panel can result. For this reason, it may be practical from case to case to select contrary colour combinations (e.g. front panel in aluminium, inserts in anthracite).

Renz will be happy to answer any queries on the mechanical installation of the door station in front panels.
The address is available at

Gira built-in loudspeaker and colour camera in front panel with flush-mounted housing (increased protection against vandalism)
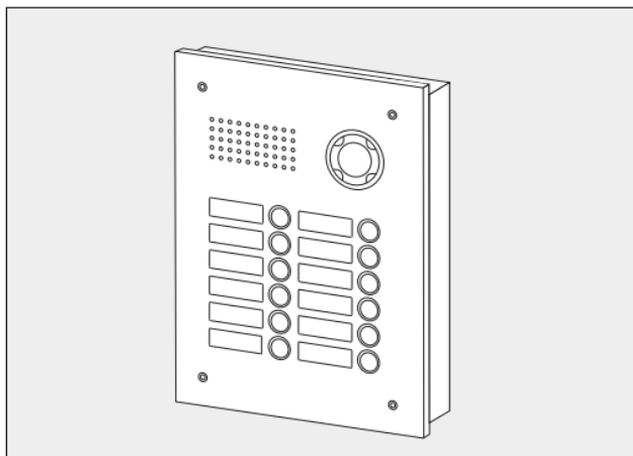
Fig. 20: Gira built-in loudspeaker with colour camera integrated in a front panel with flush-mounted housing

Exploded view of Gira built-in loudspeaker and colour camera in front panel with flush-mounted housing
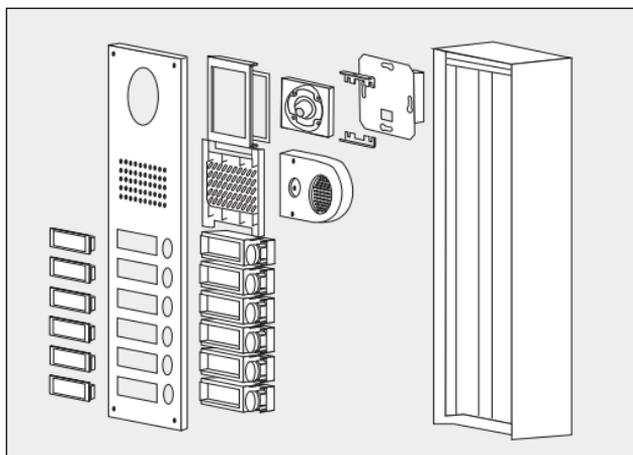
Fig. 21: Exploded view of Gira built-in loudspeaker and colour camera integrated in a front panel with flush-mounted housing

Additional information on the planning and ordering of building door stations and letterbox systems is provided in the planning folder available in the download area www.downlaod.gira.com.

Planning folder on the Internet

4.6 Integration in letterbox systems

Gira door station in letterbox system

Thanks to co-operation with Renz, the door station can be integrated in letterbox systems. When ordering from Renz, the housings are available with cut-outs in which the individual devices, such as a colour camera, call buttons, door loudspeaker and Info module, can be inserted.
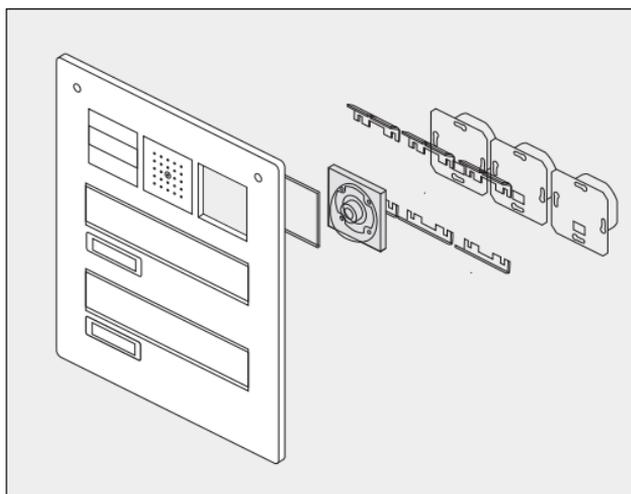
Fig. 22: Gira door station with colour camera integrated in a letterbox system

Information on colours

The components of the Gira door station are available in the three system colours pure white (similar to RAL 9010), anthracite (lacquered) and aluminium (lacquered). Due to different materials and manufacturing processes, colour differences between the door station inserts and the front panel can result. For this reason, it may be practical from case to case to select contrary colour combinations (e.g. front panel in aluminium, inserts in anthracite).

Renz will be happy to answer any queries on the mechanical installation of the door station in letterbox systems.

Using the Gira built-in loudspeaker, the Gira door communication system can also be used in letterbox systems already present in buildings. In the process, the built-in loudspeaker acts as an adapter between the mechanical call buttons and the Gira 2-wire bus and enables all Gira home stations to be controlled.

Gira built-in loudspeaker in letterbox system
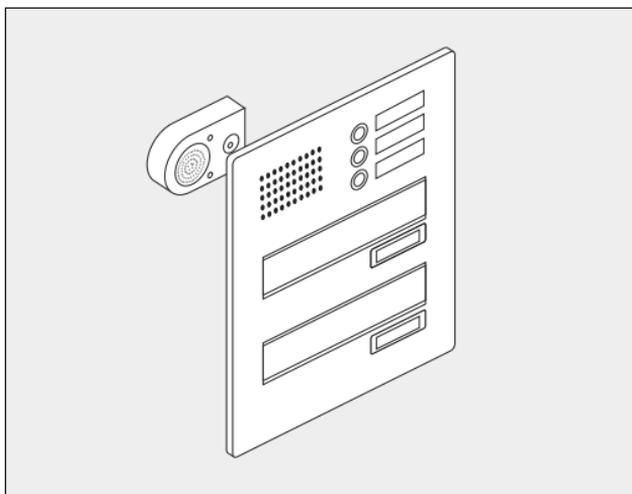
Fig. 23: Gira built-in loudspeaker integrated in a letterbox system

Additional information on the planning and ordering of building door stations and letterbox systems is provided in the planning folder available in the download area
www.gira.com/en/download.

Planning folder on the Internet

5 Door station stainless steel

The Gira door station stainless steel combines design and strength: With the high-quality stainless-steel front panel, it is not only attractive, it is also extremely rugged and therefore especially resistant to vandalism and weathering.
The transition between the front panel and the name plates are virtually seamless, preventing any objects from being inserted in the cracks.

Door station stainless steel

Everything from single-family houses to large buildings with up to 12 residential units can be equipped with the Gira door station stainless steel.

Fig. 24: Variants of the door station stainless steel

Door station stainless steel video

The door station stainless steel video is available in the variants from single-family house to a house with twelve residential units. The colour camera cover plate is made of shock-resistant plastic and can be easily replaced if damaged.

Fig. 25: Variants of the door station stainless steel video

The Gira door station stainless steel for flush mounting is supplied ready to connect including a built-in loudspeaker, which saves time-consuming cabling of the call buttons. Al that is required for starting up is to connect the Gira 2-wire bus. The door station is installed in a 40 mm deep flush-mounted box (60 mm for the video variants) with wall anchors and openings for cable feeding. Sponge rubber on the underside of the front panel seals the station to the wall. In addition, a catch strap and the supporting surface in the flush-mounted box simplify mounting.

Mounting

The ground front panel is 3 mm thick and is manufactured from high-quality Nirosta V2A stainless steel. The door station is mounted without screws for all variants. Unlocking is carried out with a special opening tool included with the product.

Front panel

The name plates are located behind 5 mm thick cover windows made of security glass. They are protected against splash water, resist attacks with impacts, fire or scratching and are especially easy to clean.
And it is not necessary to dismantle the door station stainless steel to change the inscription labels. The inscription labels can be removed from the front via concealed unlocking technology.

Name plates

Stainless steel call buttons and name plates are illuminated with white LEDs. Pressing the buttons is acoustically acknowledged, however this function can also be deactivated if necessary.

Call buttons

The concealed design of the loudspeaker and microphone prevents the hands-free device from being damaged with a pointed object.

Loudspeaker and microphone

The labels for the initial inscription of the door station stainless steel are available free of charge from the Gira inscription service. Addition information on the Gira inscription service is available at Page 21.

Free initial inscription

6 Home stations

The home stations are used as speaking and operating units for the door communication system in the flat. If someone rings at the front door, it is possible to speak with the person at the front door and open the door for him/her with the home station.

On the home stations unique calling tones for door call (from a door station), floor call (from a floor call button) and internal call (from another home station) are provided. Here the user can choose from five different call tone melodies (not on home station with receiver).

Gira design system
The Gira design system is modular. This enables all Gira home stations to be installed in a wide range of design variants – suitable for electrical installation in the Gira switch ranges Standard 55, E2, Event, Esprit, E22 and the F100 product range.

Stainless-steel range
By using an intermediate plate, the components of the home stations can also be integrated in the Gira stainless-steel range.

The Gira home stations available as surface and flush-mounted variants.

Surface-mounted home station
The Gira surface-mounted home stations are pre-assembled and ready to connect for quick, easy and clean surface-mounted installation. They offer a voice-controlled hands-free feature with a very low height of just 21 mm, and can be mounted both without and with a 2-gang frame without a crossbar.

Fig. 26: Variants of surface-mounted home stations

With the surface-mounted home station video, the features of the surface-mounted home station are extended with a 5.1 cm (2") TFT colour display as well as convenient operating buttons with capacitive sensor technology. For detailed information on the surface-mounted home station video, see Page 41.

Surface-mounted home station video

The Gira home station for flush-mounted installation are available in two versions:

Home station for flush-mounted installation

• Home station

• Home station with receiver

With the modular design, the home station can, for example, be expanded with a TFT colour display or an additional call button for Internal calls.

Modular design
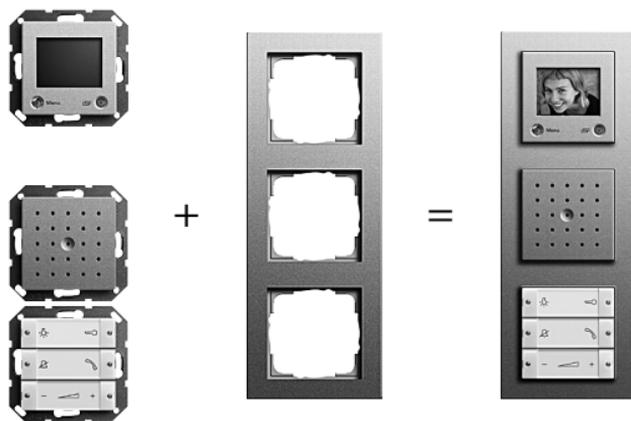
Fig. 27: Modular design of Gira home station

6.1 Surface-mounted home station

Surface-mounted home station

The basic design of a surface-mounted home station is shown in the following illustration.

Picture legend
1 2-gang cover frame without crossbar (frameless installation for wall mounting possible without flush-mounted box)
2 Mounting plate
3 Fixing holes for wall mounting
4 Fixing holes for box mounting (58 mm flush-mounted box or wall lamp outlet box)
5 Operating buttons
6 Upper housing section
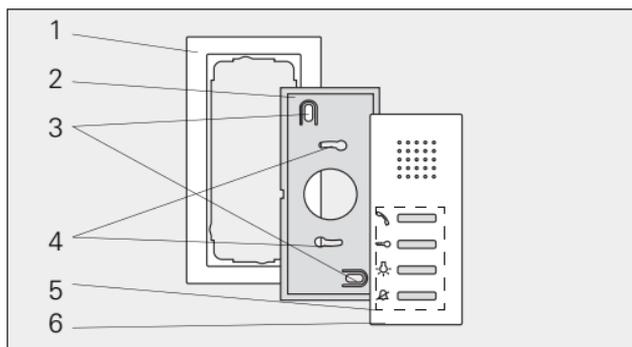
Fig. 28: Design of surface-mounted home station

Advantages of surface-mounted home station

- Low height of just 20 mm (or 21 mm with surface-mounted home station video)
- Fast, simple installation (just drill two plug holes)
- Pre-fabricated unit
- Can be installed with and without frame
- Ideal for retrofitting

Note: The surface-mounted home station cannot be expanded with a TFT colour display or a call button for home stations.

6.2 Modular design of home station

The basic design of a home station is shown in the following illustration.

Home station

Fig. 29: Modular design of home station
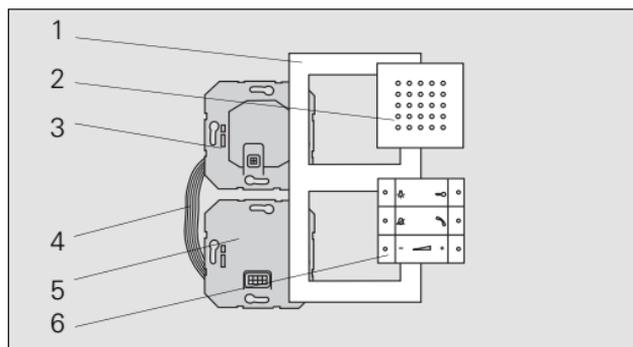
Picture legend
1 Cover frame, 2-gang
2 Loudspeaker top unit
3 Speech insert
4 Audio connection cable (6-pole)
5 Door communication bus coupler
6 Operating buttons for home station

- Installation in standard 58 mm flush-mounted boxes

Advantages of home station

- Integration in Gira Profile 55
- Modular design
- Can be combined with electrical installation in one unit (e.g. switch)
- Later expansion easily realisable
- Expansion with video function (TFT colour display)
- Expansion with additional call buttons, e.g. for internal conversations or additional switching functions via the DCS switching actuator
- Additional automatic door opener:
  With the function activated, the door opener is automatically operated after pressing the door-station call button

Gira Profile 55

The Gira Profile 55 enables simple expansion of an existing installation. It can be individually equipped with more than 200 functions, in addition to additional socket outlets, e.g. also with the Gira door communication system.

The product range includes different variants with up to eight empty units, available in aluminium and aluminium pure white lacquered. If the Gira Profile 55 is equipped with a base with a home station, the door communication functions can be positioned very conveniently directly on a desk.

Door communication on computer

Via the network connection to the DCS-IP-gateway, any computer can be used as a home station for door communication. Only the DCS Communicator must be installed on the computer itself.
For details on the Gira a DCS-IP-gateway, see Page 65.

6.3   Surface-mounted home station video

The surface-mounted home station video is a completely pre-assembled home station with a 5.1 cm (2") TFT colour display of the latest generation. A special feature is the homogeneous front of the device. Loudspeaker and microphone are not directly visible from the front. The surface-mounted home station video can be installed both with and without a cover frame.

With the 5.1 cm (2") TFT colour display, the user benefits form the excellent visibility from various viewing angles and a high depth of focus. System settings such as selecting and deactivating the ringing tone, brightness, contrast, colour and ringing tone melody assignment are made with the on-screen display. 21 different languages are available for the display texts.

5.1 cm (2") TFT colour display

With capacitive sensor technology, the buttons need only be lightly touched to press them. Functions such as switching light on, opening door, deactivating ringing tone and call acceptance can be directly carried out with these capacitive buttons.

Capacitive buttons

The automatic call acceptance function enables speaking or listening directly in a room. This function is, for example, used in doctor's offices to speak with the doctor in the treatment room from the reception desk without the doctor having to accept the call at the surface-mounted home station video by pressing a button. Line the automatic door opener, the automatic call acceptance function must be enabled by the electrician during starting up.

Automatic call acceptance

Installation is in two steps:
with raw installation, the base plate is firstly mounted on the wall with the connection terminals. Pre-wiring can thus be carried out without the device. The home station is later engaged directly on the mounting plate, with direct automatic contact to the device.

Simplified mounting

Additional power supply

The surface-mounted home station video can always be operated without an additional power supply. Up to three home stations called at the same time can be supplied via the 2-wire bus. An additional power supply must be connected from the fourth home station called simultaneously.
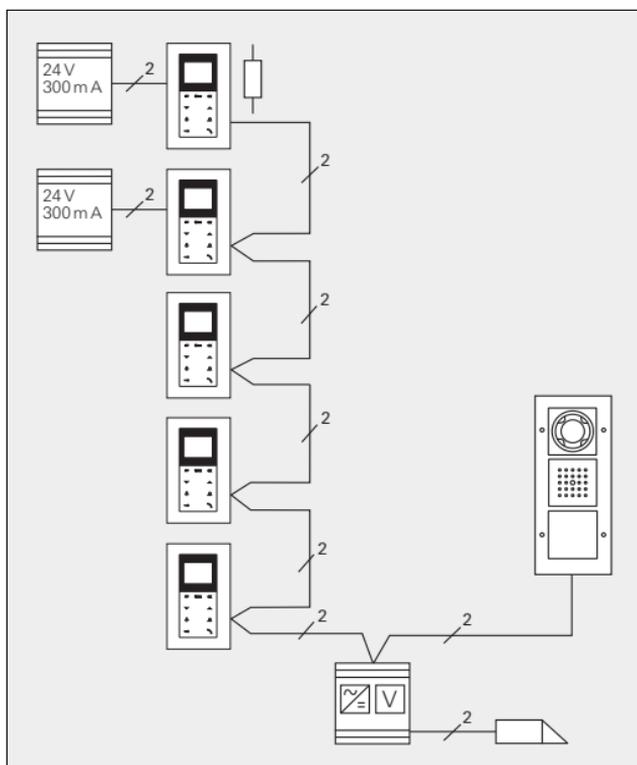
Fig. 30: Topology with five surface-mounted home stations video called simultaneously

No jumpers between ZV and BUS.

The surface-mounted home station video automatically detects whether an additional power supply is connected to the ZV terminals. As a result, no jumpers need be mounted between the AS and BUS terminals.

6.4 VideoTerminal

The Gira VideoTerminal is a home station with a 14.5 cm (5.7") TFT colour display and a convenient hands-free speech function with an enforcement function.

In addition, the VideoTerminal also has the same convenience features as the other Gira home stations, e.g. automatic door opener and five different ringing tone melodies, which can be individually assigned to the single call buttons. The Gira VideoTerminal is available with front panels made of glass in the versions black, white or mint.

The 14.5 cm (5.7'') TFT colour display offers excellent picture quality with a resolution of 640 x 480 pixels.

Display

A background-illuminated button for turning and pressing and the four function buttons, enable intuitive operation of the Gira VideoTerminal and the displayable menu level.

The basic functions, such as door opening, activating/deactivating ringing tone, switching light and switching camera on and over, can be called with the four function buttons.

Operation

The Gira VideoTerminal can be installed in three different ways:

Installation

• in the modular function profile (surface-mounted)

• in the surface-mounted mounting frame

• in the flush-mounted mounting frame

The VideoTerminal requires and additional power supply (24 V DC, 700 mA). For this reason, two additional wires are required in addition to the BUS line for the connection of the VideoTerminal.

Power supply

The permissible wire length for the additional power supply is 50/80 m (with 0.6/0.8 mm wire diameter).

Cable length

6.5 Gira Control 19 Client
Gira Control 9 Client

Gira Control 19 Client

The Gira Control 19 Client is a PC-based control and regulation unit with a brilliant, capacitive touch screen with a screen diagonal of 47 cm (18.5"). Thanks to the integration of a loudspeaker and microphone and in combination with the Gira DCS-IP-gateway, the Gira Control 19 Client can also be used as a home station for audio-visual door communication.

Gira Control 9 Client

The PC-based Gira Control 9 Client can be used directly as a home station via the Gira DCS-IP-gateway. Special software is installed for this purpose; the DCS Communicator. A loudspeaker and microphone are integrated for audio-visual communication, as well as a colour camera for future applications. Via the touch screen with a screen diagonal of 22.9 cm (9"), the user has an overview and control everything on the Gira Control 9 Client.

Functions such as creating user groups, distributing rights or personalising ringing tones open up flexible possibilities for individualisation. It is additionally possible to integrate the door communication in the Gira Interface via the HomeServer (from Version 3) and a software plug-in.

Installation

Both devices are installed in the wall in special flush-mounted boxes. The frames are available in either aluminium or glass in the colours black, white, mint and umber.

Power supply

The power supply is via an integrated broad-range power supply unit (110 – 230 V), meaning that a no additional power supply unit is required in the flush-mounted box or the distributor.

7 Expansions for home stations

7.1 TFT colour display

The Gira home stations can be expanded with the TFT colour display. It switches on automatically as soon as a door call is triggered by a door station with the video function. In addition, the camera can - even without the call button being pressed - be activated manually via the On/Off button on the TFT colour display.

The high-resolution active TFT colour display features LED background illumination. In System 55 it has a size of 4.6 cm (1.8"); in the F100 product range 6.4 cm (2.5").

Operation

The status indications and menu guidance occur via text presentations in the TFT colour display (OSD function). The TFT colour display is operated with the On/Off button and the control button (with 5-way navigation).

It is possible to change between the various (max. 15) camera sources with the On/Off button. The designation of the colour camera currently activated appears as text (e.g. Cam1) on the TFT colour display.
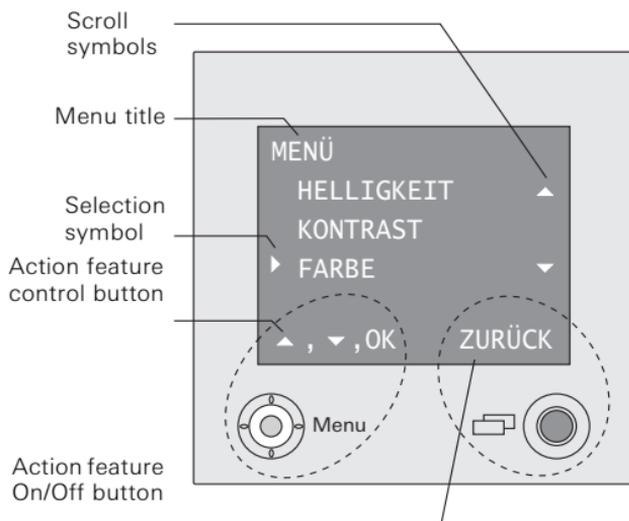
Menu interface

Fig. 31: Menu interface of TFT colour display

Menu items   The TFT colour display is equipped with the following adjustment options:

Menu item			Brief description
Start-up menu for installer*	End customer	Brightness	Setting of display brightness
		Contrast	Setting of display contrast
		Colour	Setting of display colour intensity
		Swit.-on time	Setting of how long the TFT colour display remains switched on after being switched on manually
		Priority	Setting of whether the TFT colour display is operated as a primary or a secondary display
		Frequency	Fine tuning of the video signal between the colour camera and the TFT colour display
		Resistor	Setting of the terminating resistance for the video signal (Yes/No)
		Lighting	Setting of the illumination for the field of view of the colour camera
		Display	Setting of whether the TFT colour display can be switched on manually
		Language	Selection of the menu language (German/English)
		Factory setting	Resetting to factory settings
		Version	Display of the software version

Tab. 2:   Menu items of TFT colour display

* The menu items of the start-up menu are only displayed when the system is in the Programming mode.

7.2   1- to 3-gang call button

If the home station is expanded with a call button
for home stations, internal conversations can be
conducted, e.g. from the home station in the attic
to the home station in the cellar.
In addition, switching functions of the DCS
switching actuator can be triggered with the call
buttons.

The Gira inscription service also assumes the
inscription of the call button. Information on the
inscription service and additional options for
creating inscription labels are provided at Page 21.

**Inscription
service**

7.3   Surface-mounted gong

The surface-mounted gong is used for additional
signalling, e.g. parallel to a home station.
The surface-mounted gong offers five ringing tone
melodies which can be individually assigned to the
floor-call button, the call buttons of the door station
or the internal call buttons of other home stations.
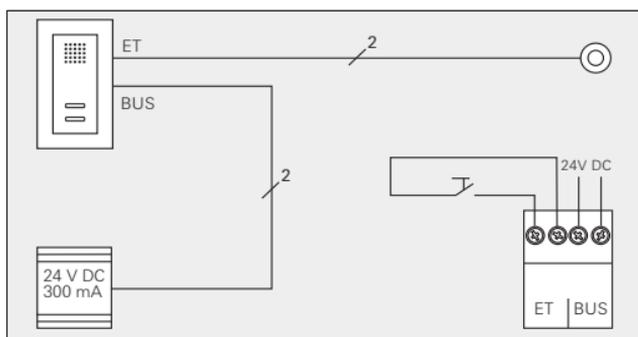
Fig. 32: Use of surface-mounted gong as "doorbell"

In conjunction with a mechanical bell button and a
power supply, the surface-mounted gong can also
be used alone as a "doorbell".

8 Door communication bus coupler

The flush-mounted versions of the door and home stations are connected to the Gira 2-wire bus via door-communication bus couplers.

Door communication bus coupler
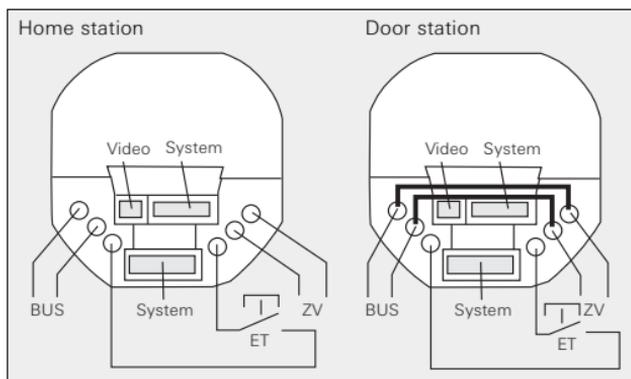
Fig. 33: Door communication bus coupler

8.1 Connections and slots

BUS
The BUS terminals are the interfaces to the 2-wire bus. The polarity need not be observed when connecting to the bus with neutral polarity.

Floor-call button (ET)
Any desired push button (NO contact) can be connected to the ET terminals as a floor-call button or as an additional call button.

Additional power supply (ZV)
The ZV terminals have two functions:

• Power supply of the call button illumination on the door stations (in larger facilities from the 9th call button illumination).

• Power supply for devices which can no longer be powered via the 2-wire bus (e.g. 3rd colour camera).

System
The door communication inserts are connected to each other with the 6-pole audio connection cable via these connectors.

Video
The door communication bus coupler is connected to the flush-mounted inserts of the TFT colour display or the colour camera via the 2-pole connector.

9 Video distributor

The video distributor is an active component for the line adjustment of the video signal.
The video distributor distributes the video signal of the door stations, DCS-camera-gateways and DCS-IP-gateways to the home stations. It is required when the cable routing to the video components of the Gira door communication system is carried out as a branch line. It ensures the proper terminating resistance for the video signal to prevent possible reflections of the individual branches and the resulting picture disturbances.

Topologies with branch lines, for which video distributors are required, are often used in the retrofit area. The video distributor is cascadable. A total of up to 15 video distributors and video multiplexers can be used in one system.

The video distributor can be installed in a distributor surface-mounted, flush-mounted or on the top-hat rail with the DRA adapter provided.

Mounting
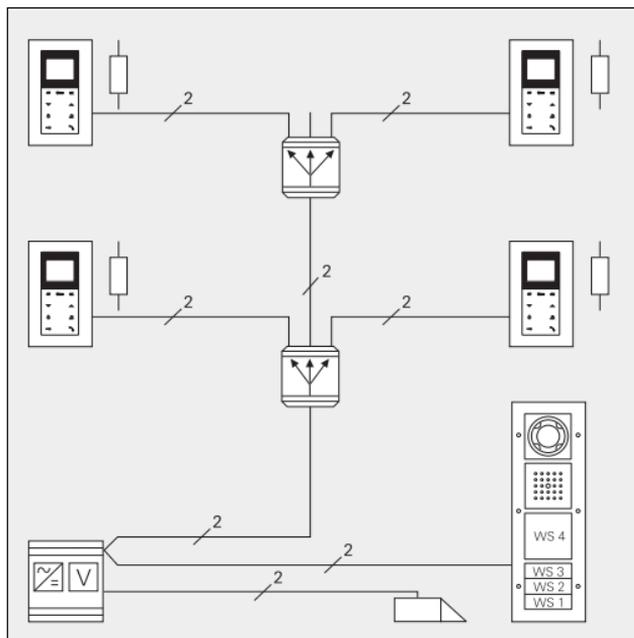
Fig. 34: Using video distributors in 4-family house

Terminating element

There is a terminating element included in the video distributor's scope of supply. The following rules apply to the use of the terminating element:

- A terminating element is required if a system is operated with more than 10 devices with a BUS_IN/BUS_OUT terminal (e.g. video distributor, video amplifier, video multiplexer, DCS-camera-gateway, DCS-IP-gateway, etc.).

- The terminating element is connected to the door and home stations which are located at the line ends.

- The terminating element is connected to the BUS terminals parallel to the 2-wire bus.

- The terminating resistance is set to "YES" in the start-up menu of the home stations with a terminating element.

A maximum of three terminating elements may be installed in one system. If there are more than three lines in a system, the following rules apply:

- The terminating element is installed in the three lines with the most devices with BUS_IN/ BUS_OUT terminals.

- For the same number of devices in the individual lines, the longest line is provided with a terminating element.
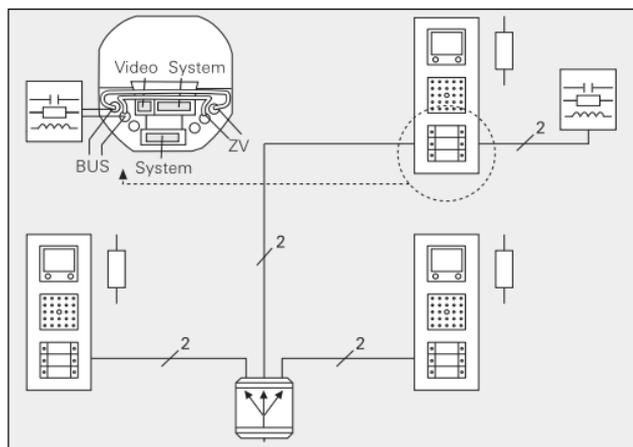
Fig. 35: Connecting terminating element

9.1 24 home stations (branch line)
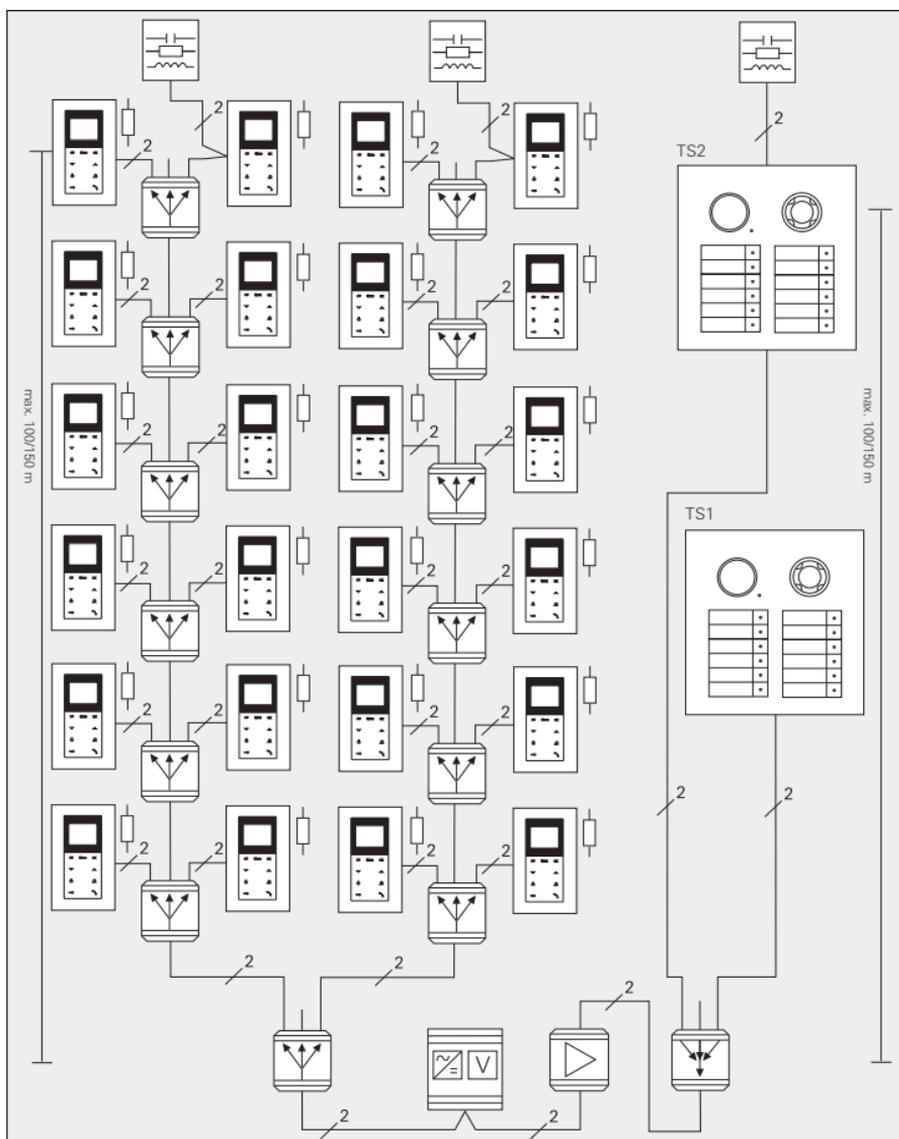
Fig. 36: Installation example with 3 terminating elements

The included terminating elements are required if more than 10 devices are operated with the BUS_IN/BUS_OUT terminal.

9.2 Five door stations video (branch line)
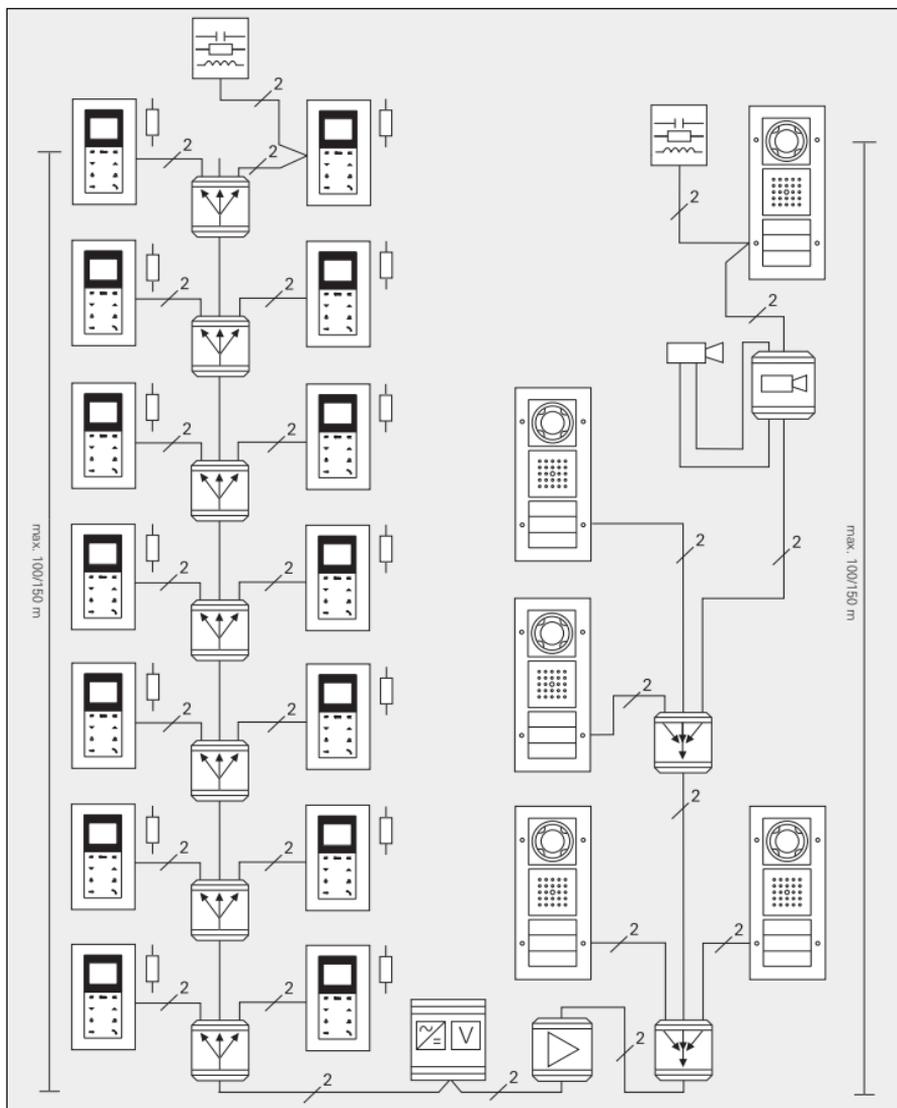
Fig. 37: Installation example with DSC-camera-gateway

Each cable line is provided with a terminating element. The terminating resistance on all home stations at the end of the line is set to "Yes".

9.3   15 home stations (branch line)
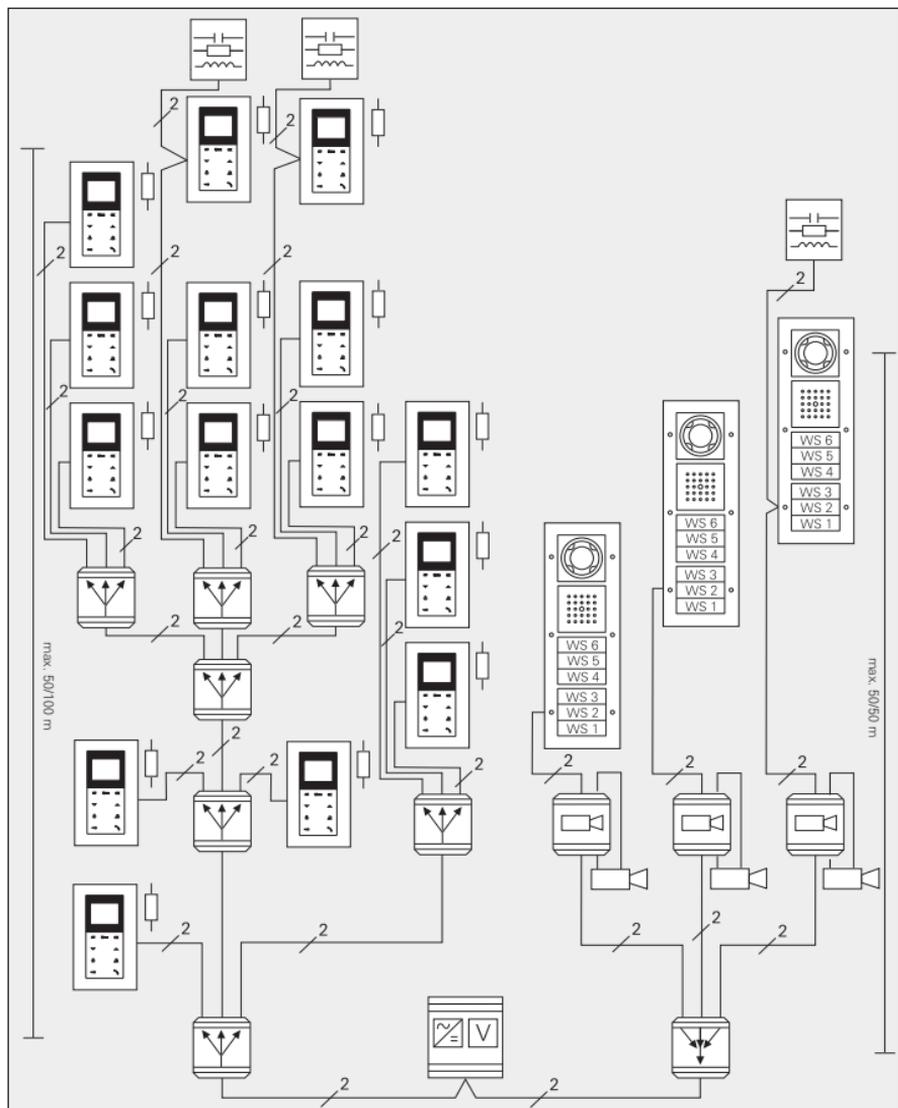
Fig. 38: Installation example with 3 DCS-camera-
gateways

A maximum of three terminating elements may be
used. If more than three lines with the same
number of devices are present, the three longest
lines are equipped with a terminating element.

10 Video amplifier

The video amplifier extends the range of Gira door communication systems with video function. It increases the volume of the incoming video signal to the maximum permissible bus level and outputs it at the output. In doing so, the line attenuation from the source of the video signal to the input of the video amplifier is compensated.

With a video amplifier, the cable length between the door and home station can be extended by 100 or 150 m to a maximum of 300 m.

Five home stations (looping through)
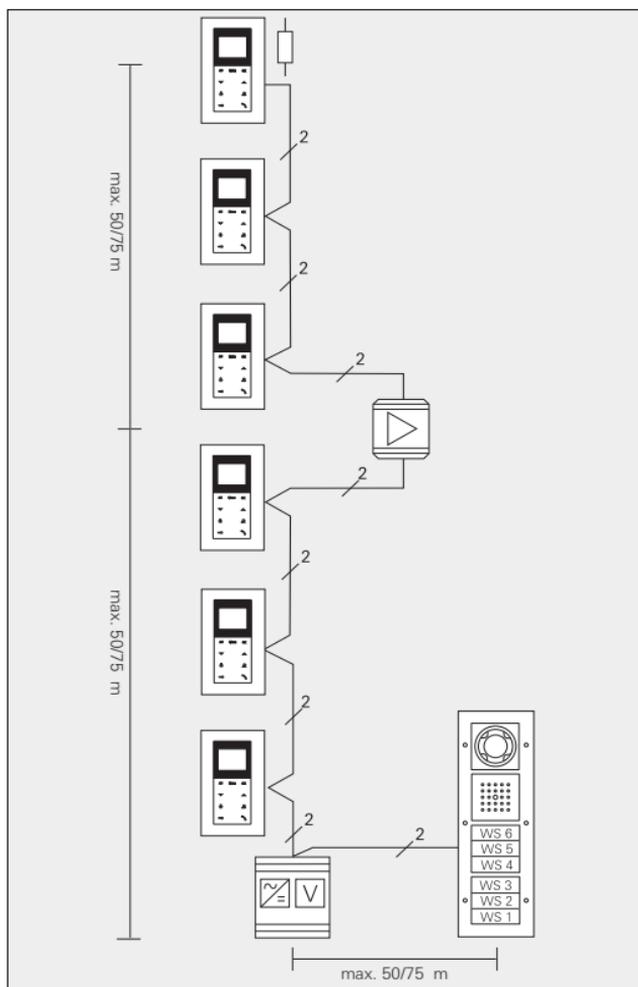
Fig. 39: Installation example with video amplifier

10.1 12 home stations (branch line)
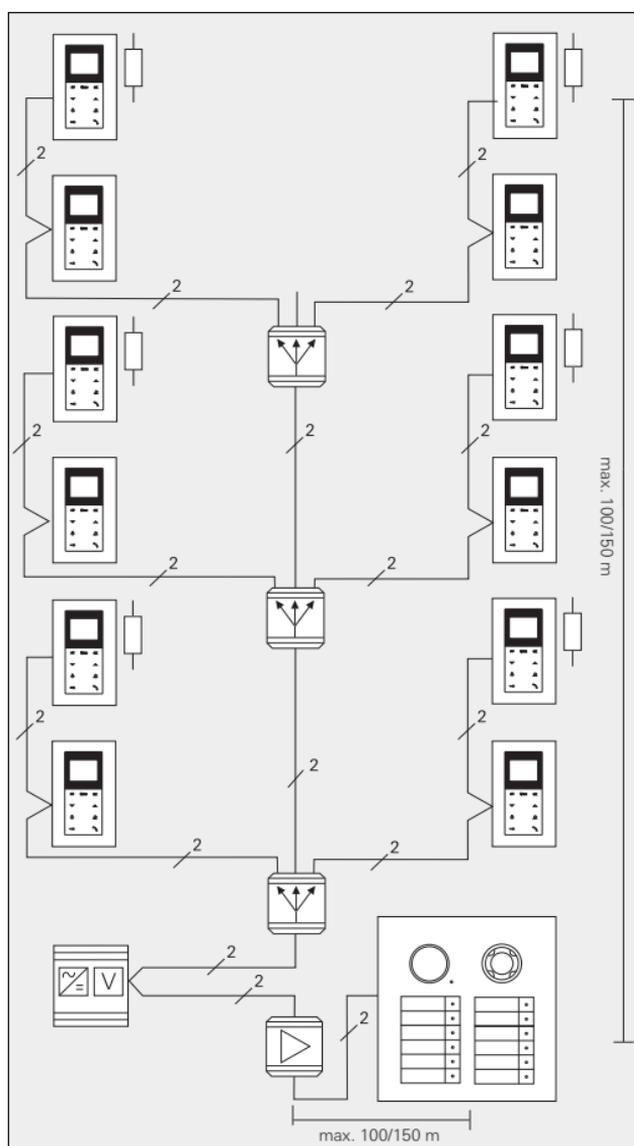
Fig. 40: Installation example with video amplifier
(branch line)

11 Video multiplexer

The video multiplexer bundles the video signals of the door stations or DCS-camera-gateways. A video multiplexer can bring the video signals from three cameras together. Using two video multiplexers, the video signals from up to five door stations with a colour camera can be brought together.

Mounting

The video multiplexer can be installed in a distributor surface-mounted, flush-mounted or on the top-hat rail with the DRA adapter provided.

11.1 Connection of three cameras
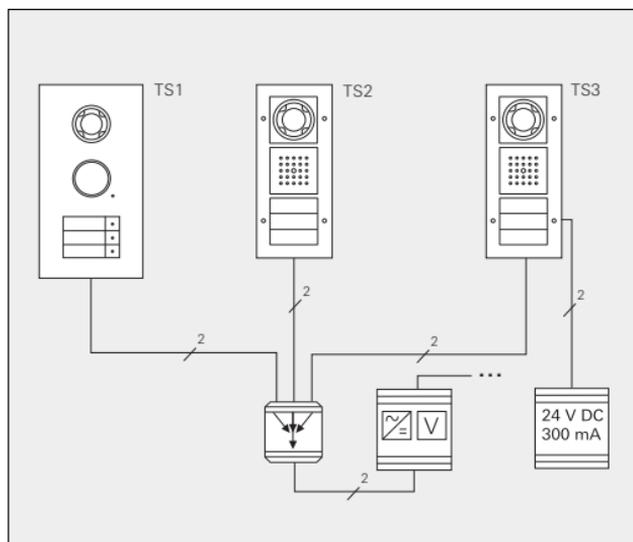
Fig. 41: Connection of three cameras

Power supply

The video control device can supply up to two door stations video with power. For this reason, the third door station is operated with its own additional power supply.

11.2 Connection of five cameras
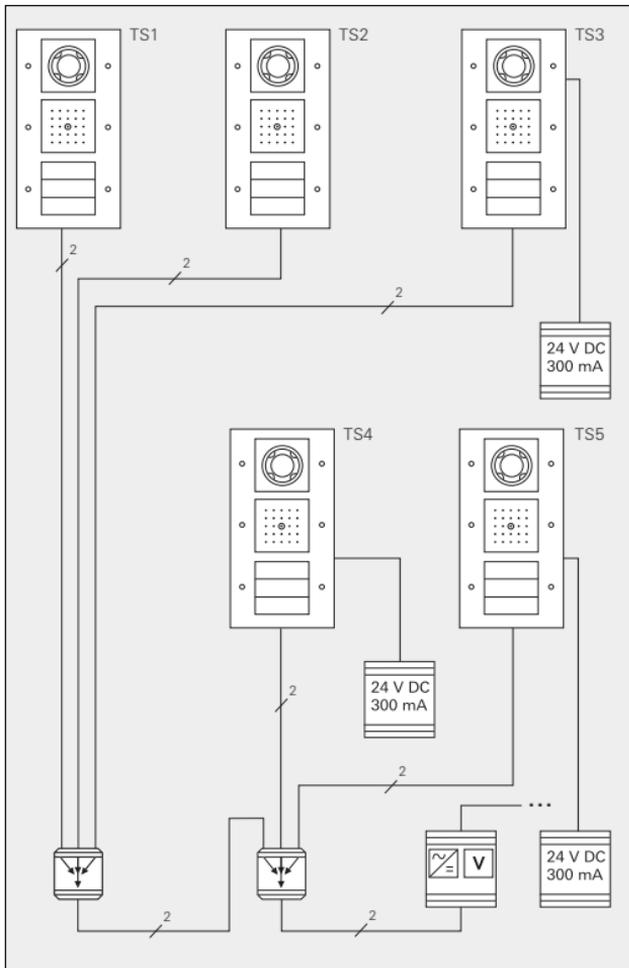
Fig. 42: Connection of five cameras

The video control device can supply up to two door stations video with power. For this reason, the additional door stations are each operated with a their own additional power supply.

Power supply

11.3 Connection of more than five cameras
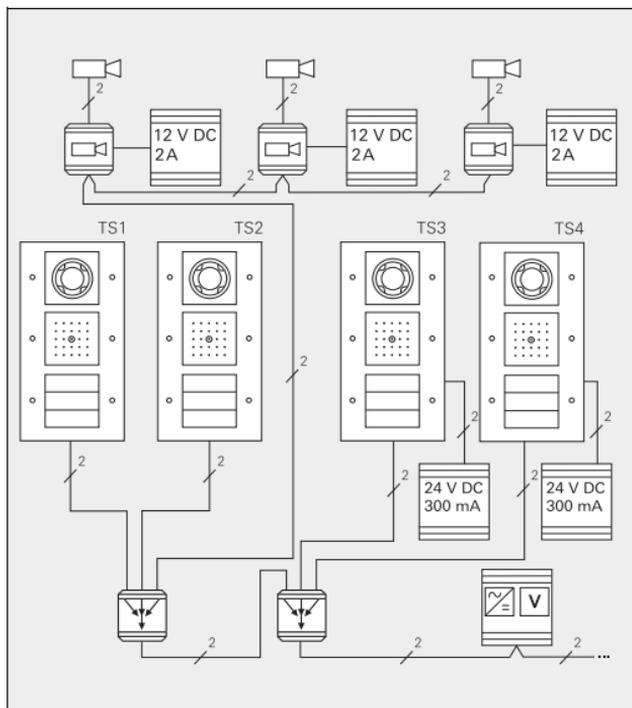
Fig. 43: Connection of more than five cameras

Up to 15 cameras can be connected to the video control device (5 door stations video and 10 DCS-camera-gateways).

Up to five cameras can be integrated in the door communication system in the form of a star with two video multiplexers. If more than five cameras are to be integrated, the DCS-camera-gateways must be "looped through". Up to 10 DCS-camera-gateways can be used in a system, and the video signal may run through a maximum of three DCS-camera-gateways.

Each external camera requires its own power supply and its own DCS-camera-gateway.

12 Control devices

The control device is the main power supply and control component of the Gira door communication system. It carries out the following tasks:

- Provision of the bus voltage (26 VDC ± 2 V) for the door communication system.
- Power supply for up to 8 call button illuminations. From the 9th call button illumination, an additional power supply is required.
- Provision of door opener operation including power supply of the door opener.
- Activation of the programming mode of the entire Gira door communication system.

Additional product features of the control devices:

- Electronic overload and short-circuit protection.
- electronic excess-temperature protection.
- Overload and short-circuit LED indicator.
- LED operation indication for determination of whether or not mains voltage is active.
- Adjustable activation time of door opener from 1 s to 10 s.

12.1 Audio control device

The audio control device is intended for door communication systems in which only audio components are used. It supplies up to 70 devices (e.g. 68 individually called surface-mounted home stations, 1 built-in loudspeaker with 5 add-on modules, 1 DCS switching actuator).

The 12 V AC output from the audio control device can be used to supply the door opener or the DCS-TC-gateway.

Door opener connection
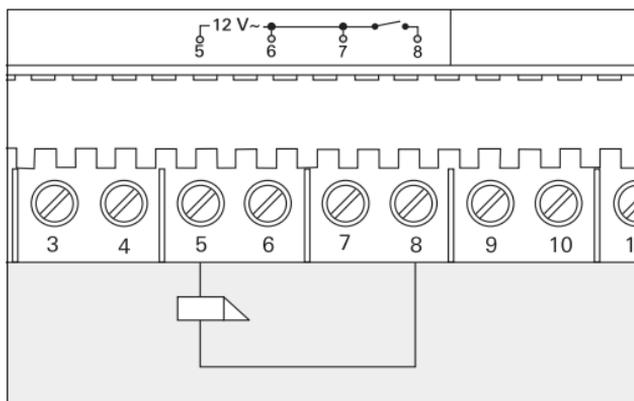
Fig. 44: Door opener connection with power supply via audio control device

Relay contact

A door opener (8 - 12 VAC, max. 1.6 A) can be connected directly to the relay contact of the audio control device.
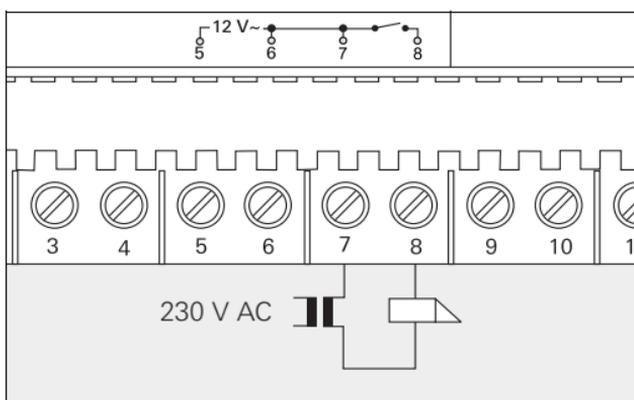
Fig. 45: Door opener with separate power supply on relay contact of audio control device

A door opener with other electrical values (e.g. 24 VAC) can be connected to the relay contact with an additional power supply.

12.2 Video control device

If audio and video components are used in the Gira door communication system, the video control device is required. The video control device makes a higher output available, as colour cameras and TFT colour displays have a higher current consumption.

A maximum of 15 colour cameras can be controlled by the video control device (5 door stations video and 10 DCS-camera-gateways), of which two door stations with colour cameras can be supplied with power from the Gira 2-wire bus. The other colour cameras must each be operated with their own additional power supply.

The video control device supplies up to 31 devices in systems with the video function (e.g. 28 home stations, 2 door stations with colour camera, 1 DCS switching actuator).

Number of devices of video systems

In doing so, the number of devices depends on the number of home stations with video function called simultaneously:

Home stations video per residential unit	1	2	3
Residential units	28	12	6
Home stations	28	24	18

The 12 VAC output of the video control device is used to supply power to and control the door opener (8-12 VAC, max. 1.1 A).

Door opener connection

Note: Power is not continuously supplied at the door opener output. The 12 V supply on the door opener output is only active for the door opener time specified on the adjuster (1 s to 10 s).

Door opener connection
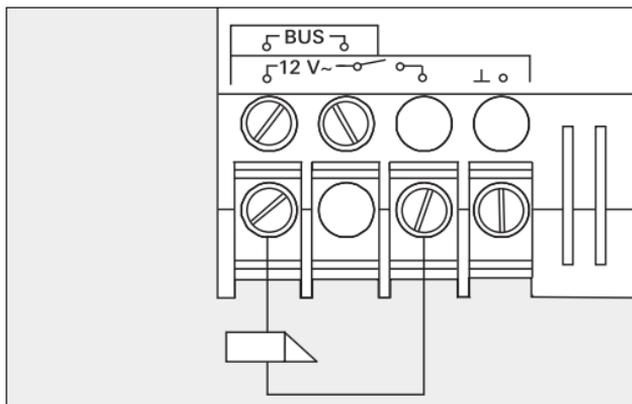
Fig. 46: Door opener connection with power supply via video control device
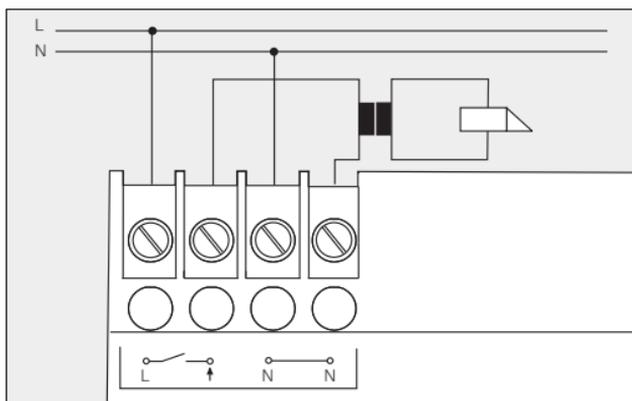
Relay contact

Fig. 47: Door opener on relay contact with separate power supply

A door opener which **cannot** be connected to the "12 VAC" terminals due to its electrical values (e.g. very low-ohm or 24 VAC) can be connected to the equipotential-bonding relay contact with an external power supply (230 VAC, max. 2 A).

12.3 Difference between audio and video control device

Feature	Audio control device	Video control device
Item number	1287 00	1288 00
Secondary rated current	160 mA continuous load 550 mA peak load (max. 5 seconds)	700 mA continuous load 1,150 mA peak load (max. 5 seconds)
Dimensions	6 HP	8 HP
Door opener output	12 VAC, 1.6 A (ED 25 %)	12 VAC, 1.1 A (ED 25 %)
Relay output	30 V AC/DC, 2 A	250 V AC, 2 A
Supplies	up to 70 audio devices, e.g. 68 surface-mounted home stations (individually called) 1 built-in loudspeaker 5 add-on modules for built-in loudspeaker	up to 31 video devices, e.g. 28 home stations with TFT colour display (individually called) 2 door stations with colour camera 1 DCS switching actuator up to 70 audio devices, e.g. 68 surface-mounted home stations (up to 3 home stations called simultaneously) 1 built-in loudspeaker 5 add-on modules for built-in loudspeaker
Power supply unit	Wound transformer	Switched-mode power supply
12 V output	12 V AC permanent	12 V AC switched (only for connection of a door opener) Note: Not suitable for the supply of the DCS-TC-gateway.

Tab. 3: Comparison of control devices

12.4 Additional power supplies

24 VDC, 300 mA

The additional 24 VDC 300 mA power supply is required, among other things, in the following applications:

- Supply of a door station video if more than two door stations with colour cameras are operated in the system.
- Supply of the call button illumination in large facilities (from the 9th call button illumination)
- Supply of the DCS-TC-gateway in conjunction with the video control device, the DCS-IP-gateway or the Keyless In devices.

Power supply of third colour camera
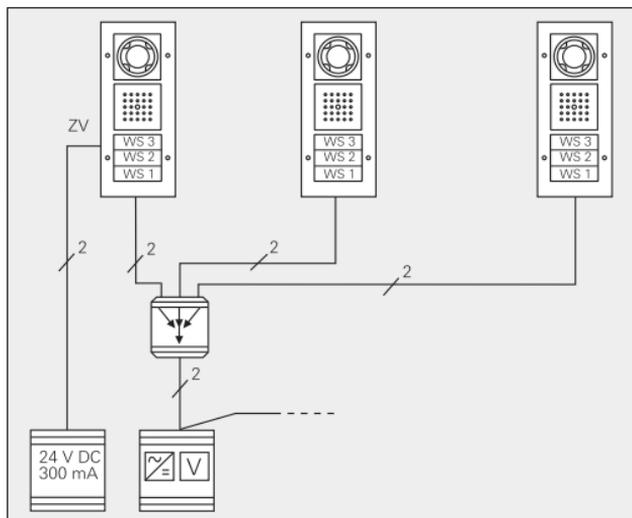
Fig. 48: Use of 24 VDC 300 mA power supply to supply third colour camera

24 VDC, 700 mA

The additional 24 VDC 700 mA power supply is used, for example, to supply the VideoTerminal and can, of course also be used in the application cases named above.

12 VDC, 2 A

The additional 12 VDC 2 A power supply is used to supply the external camera.

13 DCS-IP-gateway

The DCS-IP-gateway implements the signals of the Gira door communication system on the network protocol level (IP) and enables the integration of network-capable devices, such as computers, video IP telephones, IP cameras and of the Gira Control 9 Client or Gira Control 19 Client. The devices can be used anywhere a network connection or WLAN is available.

Up to 10 DCS-IP-gateways can be used in a system, and the video signal may run through a maximum of three DCS-IP-gateways.
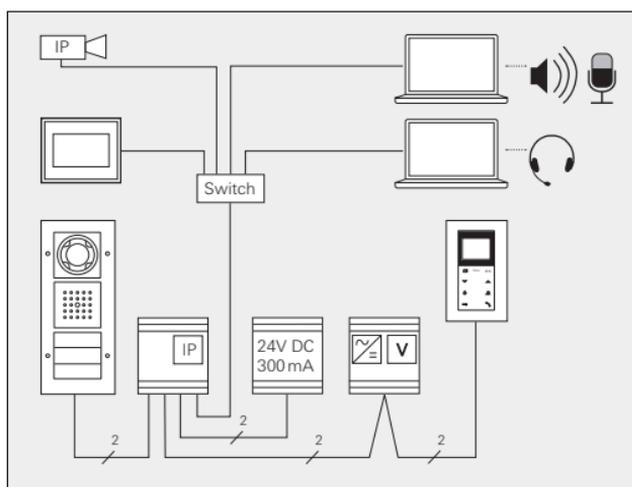
Fig. 49: DCS-IP-gateway in a single-family house

The DCS-IP-gateway requires and additional power supply (24 VDC, 300 mA). **Power supply**

The DCS-IP-gateway is started up with the Gira Assistant. The Gira Assistant is a browser-based software and is simply run in the web browser of the start-up PC. **Start-up**

DCS Communicator	With the "DCS Communicator" software, common computers and PC-based operating devices, such as the Gira Control 9, can be used as home station via the network connection. The DCS Communicator offers all the functions of a video home station, such as accepting conversations, switching lights (in conjunction with a DCS switching actuator) and opening doors.
License models	Several license models (5, 10 or 20 licences) are available for the DCS-IP-gateway. The number of licences indicates how many devices (e.g. DCS Communicator, IP telephone, HomeServer plug-in) may be logged onto the DCS-IP-gateway simultaneously. Here it must be noted that the DCS Communicator may be installed on as many user PCs as desired.
Connection to HomeServer	The Gira DCS-IP-gateway is connected to the Gira HomeServer (from Version 3) via a plug-in. Thus the door communication system is integrated into the Gira Interface and can be operated in various ways. This makes door communication more flexible and creates numerous new application possibilities. In addition, the Gira Keyless In Fingerprint, Transponder and Keypad components can be integrated. The assignment of fingerprints or transponder cards is carried out directly on the respective reader. All data including access authorisations can be managed centrally and flexibly using the Gira HomeServer. Temporary or one-time access authorisations can also be granted easily in this way. With connection to the Gira HomeServer, intelligent links of all types become possible: For example, door opening can be coupled with switching on the lights or heating.
Gira download area	Several documents are available for start-up support in the download area **www.gira.com/en/download**.

14 Examples DCS-IP-gateway

14.1 DCS-IP-gateway in 3-family house (looping through)
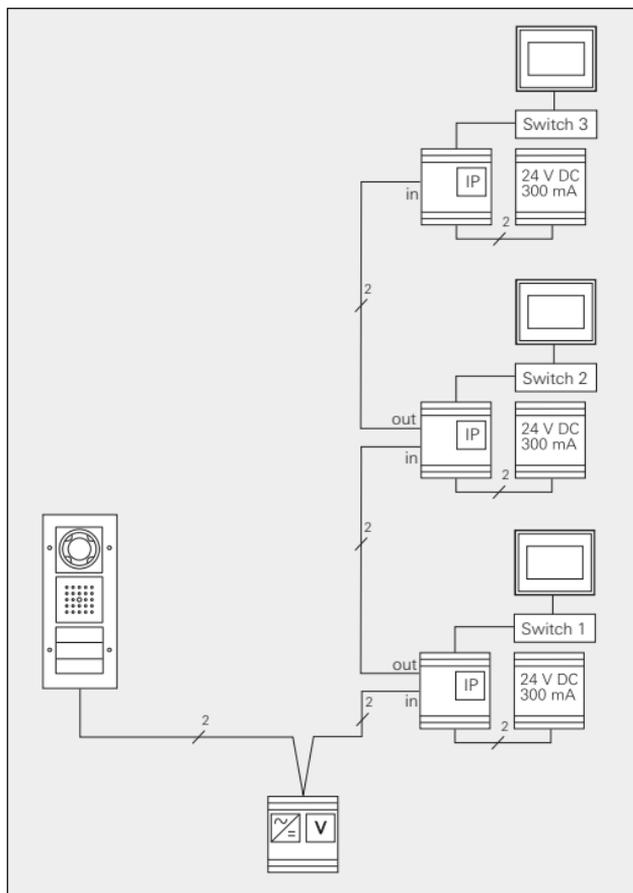
Fig. 50: Installation example of DCS-IP-gateway in 3-family house (looping through)

Up to 10 DCS-IP-gateways can be used in a system, and the video signal may run through a maximum of three DCS-IP-gateways.

Gira Control 9 Clients are used as home stations in this example. Additional PC-based devices can also be connected to each switch as a home station.

Gira Control 9 Client

14.2 DCS-IP-gateway in 3-family house (branch line)
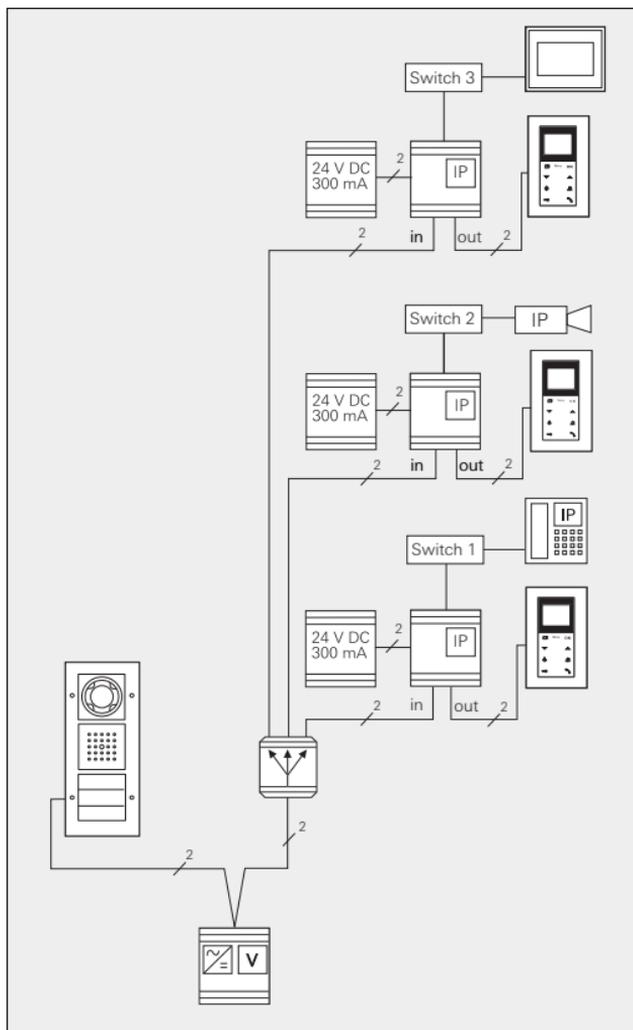
Fig. 51: Installation example of DCS-IP-gateway in 3-family house (branch line)

IP camera
IP cameras are integrated in the Gira door communication system with the DCS-IP-gateway. The picture of the IP camera of the centre flat can only be displayed by the surface-mounted home station video of the centre flat.

14.3 DCS-IP-gateway in 6-family house (mixed topology)
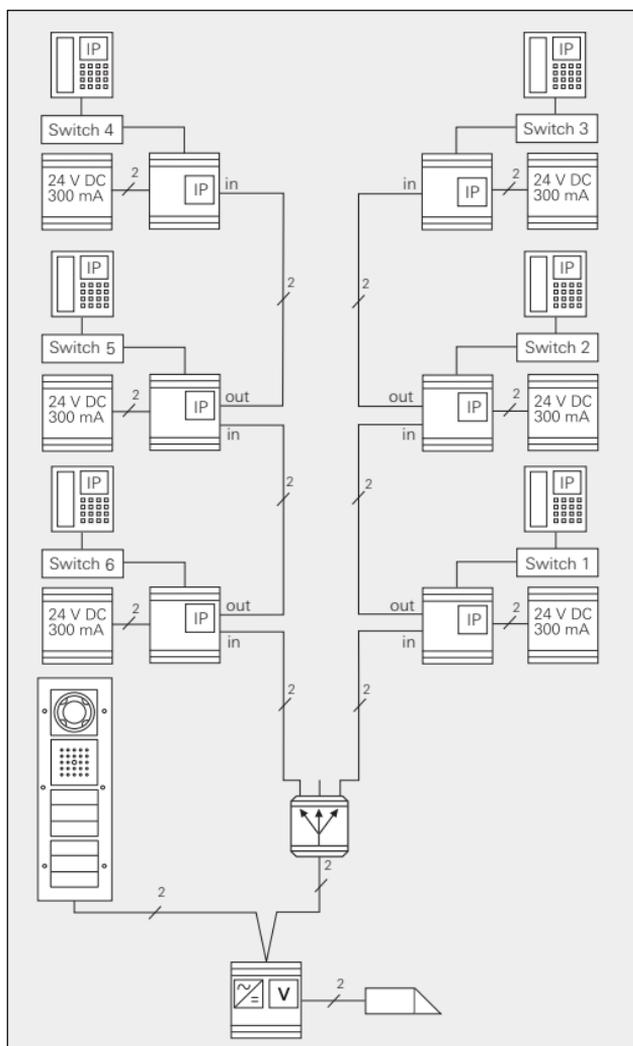
Fig. 52: Installation example of DCS-IP-gateway in 6-family house

In this example, video-capable IP telephones are used as home stations. The door opener can be triggered from the IP telephone via the key combination "* 0".

Door opener

15 DCS-TV-gateway

With the DCS-TV-gateway, the camera picture of the door station video can be displayed on a TV. A television set with the picture-in-picture function allows direct display of a smaller picture within the current television screen.
Alternatively, the picture from the door station can also be fed to the antenna system.

Product details

The DCS-TV-gateway outputs the video image supplied by the Gira door communication system as a standard FBAS signal 1Vss in the PAL standard. The video signal can then be used for feeding in on the Scart connection of a TV, for feeding in the antenna system or for further processing of the signal, e.g. for video servers.

The DCS-TV-gateway only transmits the picture of the door station video. The door conversation is, for example, conducted via the home station or a telephone connected to the DCS-TC-gateway.

Connection to a television

The picture of the door station video is transferred directly per Scart connection to the TV. It then appears automatically as a full-screen picture or as a picture-in-picture if the television set supports this function.
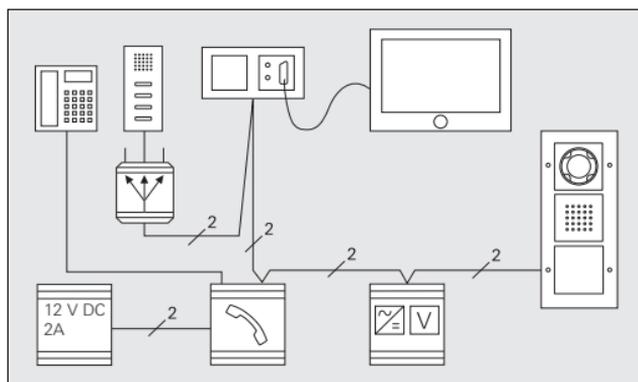
Fig. 53: Use of a DCS-TV-gateway in single-family house

With an additional AV modulator, the video signal is routed via the house's antenna system, and a channel for calling up the signal is reserved on the television set. When the doorbell rings, the visitor can be seen on the TV screen when the respective channel is selected.

Signal into an antenna system

The picture signal is made network-capable with a video server and is therefore also available for the Gira HomeServer.
In addition to the HomeServer, the display on a PC, PDA, mobile phone (UMTS, MMS and GPRS services) and IP picture telephone is possible. A picture memory can also be realised in conjunction with the HomeServer.

Connection to the world of IP

The video signal is provided via the Scart jack as an FBAS signal (pole 19) with 1 Vss. A switching voltage of 12 V is supplied on pole 8 of the Scart jack to enable the picture-in-picture function. This function depends on whether or not it is supported by the connected television set.

Scart jack

The switching output of the DCS-TV-gateway is closed as soon as the assigned call button on the door station has been pressed. This switching output can, for example, be evaluated by an EIB binary input or an EIB push button interface.

Switch output

The DCS-TV-gateway can be switched on via the switching input without the call button on the door station being pressed beforehand. If several cameras are in the system, the individual cameras can be selected one after another via the input. The on/switchover function of the cameras can be initiated via the following devices from the Gira product range:

Switch input

• DCS switching actuator

• Radio remote control in conjunction with the radio actuator

• Mechanical push button

16 DCS-TC-gateway

The DCS-TC-gateway is the connection between the Gira door communication system and the telephone connection.

In the main function, door station calls are forwarded to the devices of the DCS-TC-gateway. After call acceptance, speech and switching functions of the door communication system can be used. In the opposite direction, the DCS-TC-gateway can be called by telephone. After a call is accepted by the DCS-TC-gateway, a voice connection can be established to the door stations. In addition, switching functions or operating procedures for the configuration of the DCS-TC-gateway can be carried out.

The DCS-TC-gateway is connected to either an analogue telephone connection (exchange a/b) or the analogue auxiliary unit of an (ISDN) telephone system.

Advantages of DCS-TC-gateway

- Gateway to the public telephone network
- Door call acceptance via an existing telephone
- Call forwarding to local, wired or mobile telephone possible
- Direct exchange connection, therefore no TC system required
- Option for connection to an existing TC system
- Switching option for daytime/nighttime mode (chemist's switching mode)
- Call waiting function is supported
- Start-up and configuration via telephone or PC-supported programming software

16.1 Programming set for DCS-TC-gateway

All settings and operations during normal operation
are carried out via a DTMF-capable telephone
connected to the DCS-TC-gateway or to the
telephone system.
Start-up and configuration of the DCS-TC-gateway
can also be carried out with DTFM codes via a
connected telephone.

However, starting up with a PC or laptop computer
(with a serial RS232 interface) and the
programming set is more convenient. The
programming set consists of a programming cable
for connection to the DCS-TC-gateway and the
start-up software.

Fig. 54: Interface of start-up software

The start-up software has the four program
interfaces "Configure", "Phonebook", "Log" and
"Firmware".
The DCS-TC-gateway can be configured simply and
conveniently with these interfaces.

**Program
interfaces**

17 Examples of DCS-TC-gateway

17.1 Connection on analogue telephone connection
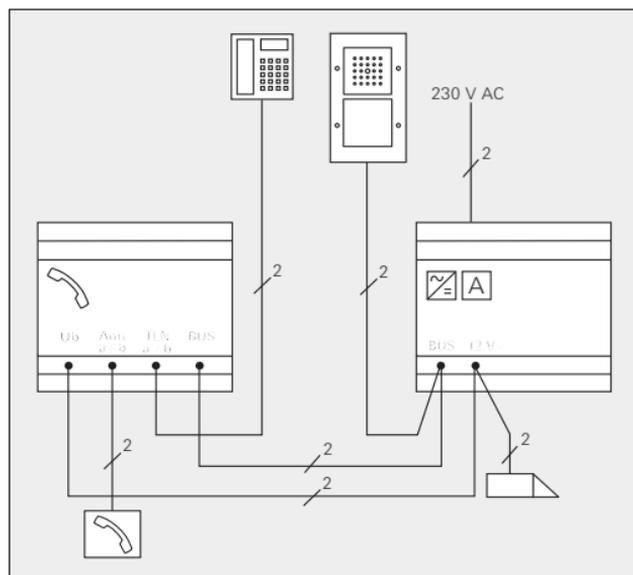
Fig. 55: Connection of the DCS-TC-gateway to an analogue telephone connection

With use of the DCS-TC-gateway on an analogue telephone connection, an analogue telephone is connected to the "TLN" port. All door calls are forwarded to the connected telephone.

External phone number

It is also possible to forward the door calls to an external phone number (e.g. a mobile telephone). A conversation can then be held with the person at the door station via the external telephone, and, if necessary, the door can be opened.

17.2 Use on a telephone system
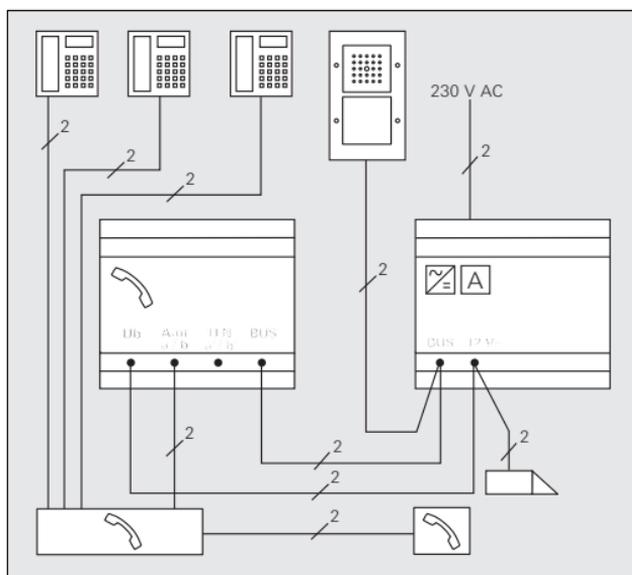
Fig. 56: Connection of the DCS-TC-gateway to an analogue telephone system

If several telephones are to be connected to a DCS-TC-gateway, the use of an analogue telephone system is required.

Depending on the setting of the telephone system and configuration of the DCS-TC-gateway, it is possible to specifically call individual telephones via call buttons or to signal a door call to all telephones via a collective call.

Collective call

17.3 DCS-TC-gateway in single-family house Audio
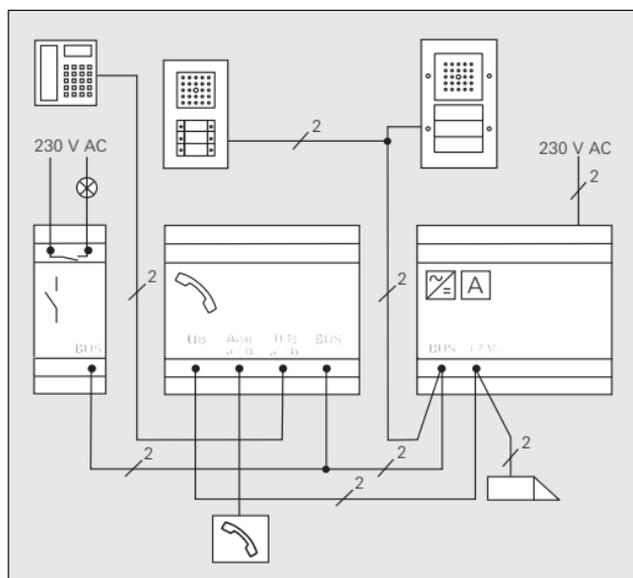
Fig. 57: Installation example of DCS-TC-gateway in a single-family house

The single-family house has a door station and a home station with an additional call button. In addition, a DCS-TC-gateway is operated parallel to the home station. The DCS-TC-gateway is supplied with power via the audio control device.

Switching light on By using the DCS switching actuator, the outside light can be switched on via both the home station and the telephone.

Open door The door opener connected to the control device can be controlled from both the home station and the telephone.

Internal conversation With the additional call button of the home station, the telephone can be selected to conduct an internal conversation between the telephone and the home station.

17.4 DCS-TC-gateway in single-family house video
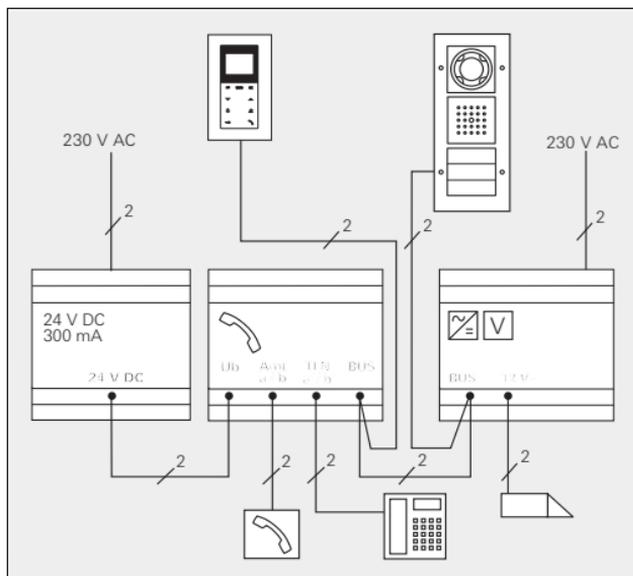
Fig. 58: Operation of the DCS-TC-gateway with the video control device

In systems in which the DCS-TC-gateway cannot be supplied by the control device (e.g. in large systems or when the video control device is used), the DCS-TC-gateway must be supplied via an external power supply (e.g. additional 24 VDC power supply or common 12 VAC doorbell transformer).

To do this, connect the additional power supply to the U_b terminals of the DCS-TC-gateway.

Power supply

17.5 Three DCS-TC-gateways in multi-family house
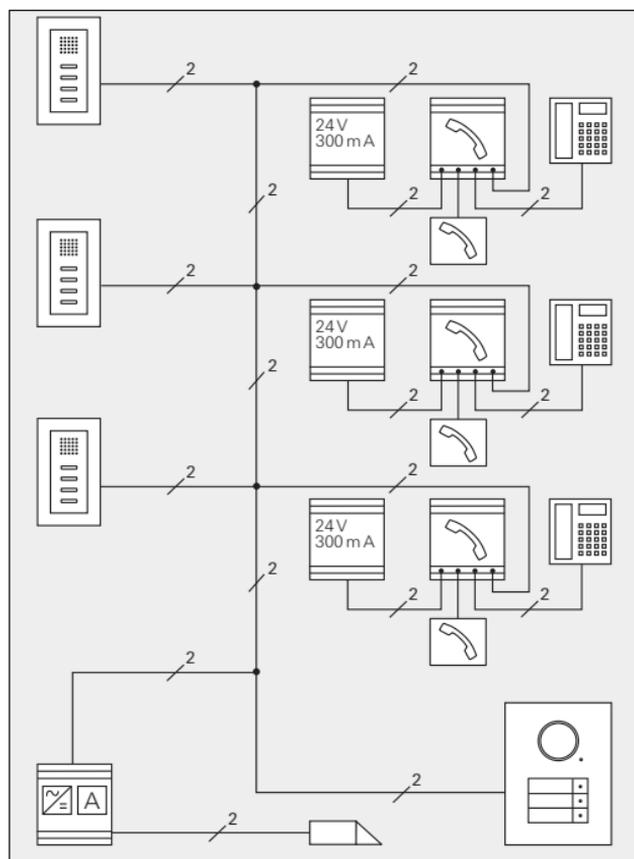
Fig. 59: Installation example for a multi-family house

One home station is located in each flat. Parallel to this, a DCS-TC-gateway with a telephone is operated in each flat.

Door opener   The door opener connected to the audio control device can be controlled from both the home stations and the telephones.

Power supply   The DCS-TC-gateways can be supplied with power either via the additional power supply (24 VDC, 300 mA) or via a common doorbell transformer (12 VAC).

18 DCS-camera-gateway

The DCS-camera-gateway integrates a common analogue camera into the Gira door communication system via the 2-wire bus.

The camera gateway can be operated with or without an assigned door station.

- Function with assigned door station audio:
The external camera is assigned to a door station audio and functions as a system camera (i.e. automatically activated with a door call).

- Function without assigned door station:
The camera gateway is not assigned to a door station. In this case the camera image can only be switched on manually via home stations with video function.

The Gira DCS-camera-gateway can be installed in a distributor surface-mounted, flush-mounted or on the top-hat rail with the DRA adapter provided.

Mounting

The connection of the external camera is made with screw terminals. An adapter cable is included for cameras with BNC connection.

With several external cameras, a DCS-camera-gateway and a separate power supply is required for each external camera.

Up to 10 DCS-camera-gateways may be used in a system, and the video signal may run through a maximum of three DCS-camera-gateways.
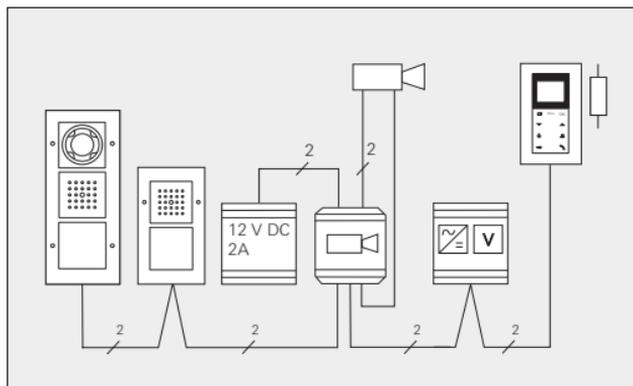
Fig. 60: DCS-camera-gateway in a single-family house

External camera

External camera for wall and ceiling mounting with wide-range lens, integrated IR lighting and automatic white balance. The external camera can be installed anywhere in the entrance area and can be integrated into the Gira door communication system via the DCS-camera-gateway.

An overview of the most important features:

- Integrated temperature-dependent camera heating which prevents condensation from forming on the camera cover plate due to fluctuating climatic conditions.
- Light-sensitive chip set for clear imaging in weak light conditions
- Adjustable IR LEDs for video monitoring in complete darkness
- Second video output for connecting a monitor during start-up
- Camera module adjustable on three axes
- IP 66 protection type for outdoor use

Power supply

The camera is supplied with power via the additional 12 VDC 2A power supply. To ensure the function of the camera heating, the camera must be continually supplied with power.

19 Examples of DCS-camera-gateway

19.1 Three DCS-camera-gateways (branch line)
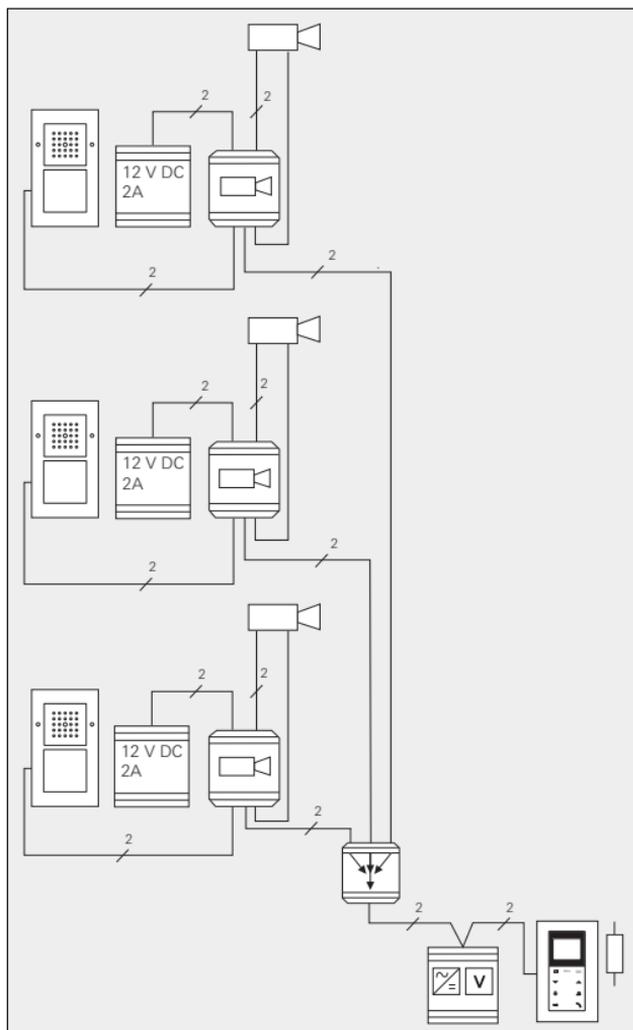
Fig. 61: Installation example of three DCS-camera-gateways (branch line)

If the DCS-camera-gateway is assigned to a door station audio, the connected external camera acts like a system camera (i.e. it is automatically activated with a door call).

19.2 Three DCS-camera-gateways (looping through)
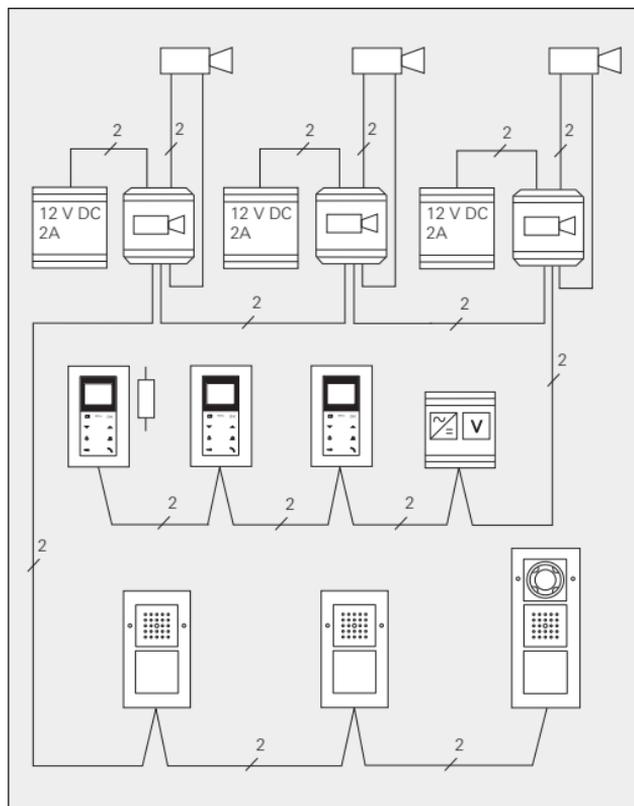
Fig. 62: Installation example of three DCS-camera-gateways (looping through)

If several cable lines are linked with video multiplexers, up to 10 DCS-camera-gateways can be used in a system, and the video signal may run through a maximum of three DCS-camera-gateways.

Each external camera requires its own power supply and its own DCS-camera-gateway.

20 DCS switching actuators

20.1 DCS switching actuator

Switching functions operated via the 2-wire bus of the door communication system are carried out via the zero-voltage relay contact (230 V, 10 A) of the DCS switching actuator.

There are five operating modes:

- In the "Switching" operating mode, the device is switched on/off by pressing a button.

- The "Timer/sec." operating mode (1-10 seconds) can be used, for example, for direct operation of a door opener. This can then be operated directly with a call button, even if no call has been triggered from the door station beforehand. After the button is pressed, the contact closes for the time set on the controller.

- The "Timer/min." operating mode (1-10 min) is used, for example, for the operation of path illumination or staircase illumination (without security function).
  After the button is pressed, the contact closes for the time set on the controller.

- The "Pulse" operating mode is used, for example, for the operation of an existing automatic staircase mechanism. The contact closes for 0.3 seconds after the button is pressed.

- In the "Door opener" (1-10 seconds) operating mode, the DCS switching actuator ⌐○ is operated by the button of the home station. The activation time of the door opener can be set within the range of 1 to10 seconds via the adjuster.

One or more mechanical push buttons (NO contact), used to initiate the switching functions, can be connected to the binary input of the DCS switching actuator.

Binary input

The maximum cable length between the binary input of the DCS switching actuator and a push button is 20 m.

max. cable length

20.2 Flush-mounted DCS switching actuator

The flush-mounted DCS switching actuator carries out switching functions via its zero-voltage relay contact (24 V SELV, 50 µA to 1.6 A AC/DC) which are triggered via the 2-wire bus.

There are four operating modes:

- In the "Switching" operating mode, the device is switched on/off by pressing a button.

- The "Timer/sec." operating mode (1-10 seconds) can be used, for example, for direct operation of a door opener. This can then be operated directly with a call button, even if no call has been triggered from the door station beforehand. After the button is pressed, the contact closes for the time set on the controller.

- The "Timer/min." operating mode (1-10 min) is used, for example, for the operation of path illumination or staircase illumination (without security function).
  After the button is pressed, the contact closes for the time set on the controller.

- The "Pulse" operating mode is used, for example, for the operation of an existing automatic staircase mechanism. The contact closes for 0.4 seconds after the button is pressed.

Relay contact The relay contact of the flush-mounted DCS switching actuator is designed for a maximum of 24 V SELV. If a 230 V device, e.g. illumination, is to be switched, a corresponding additional device (relay etc.) is required.

Installation Due to its compact size, the flush-mounted DCS switching actuator can be installed in a deep wall box (60 mm) behind a door communication bus coupler.

21 Examples of DCS switching actuator

21.1 Second door opener
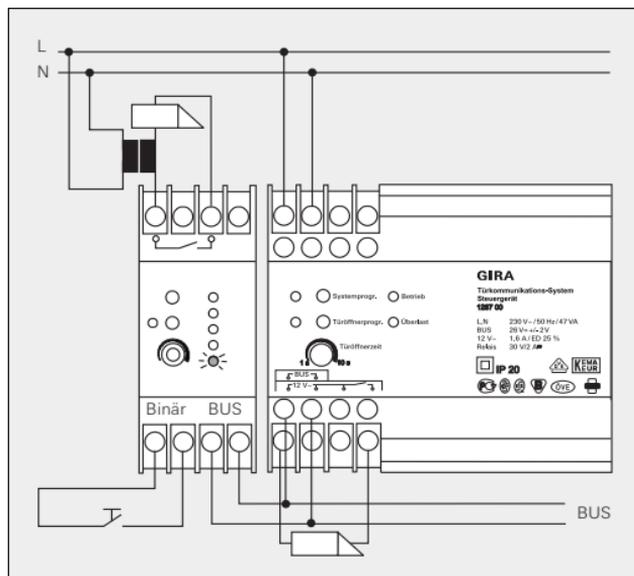
Fig. 63: Connection of a second door opener via a DCS switching actuator

If several door openers are present in a system, the use of DCS switching actuators is necessary. The door opener of the "main" door is connected to the control device and the door opener of the "side" door to the DCS switching actuator. The DCS switching actuator is assigned to the "side" door station in the "door opener" operating mode. The activation time of the door opener can be set within the range of 1 s to10 s via the adjuster. The door opener connected to the DCS switching actuator can then only be operated via the ⌐○ button of the home station when a door call has been sent out from the door station of the "side" door. It is switched to the "main" door two minutes after the door call (with no conversation) or 30 seconds after the door conversation.

The door opener of the side door can also be activated via the mechanical push button connected to the binary input.

Push button on binary input

21.2 Switching lighting
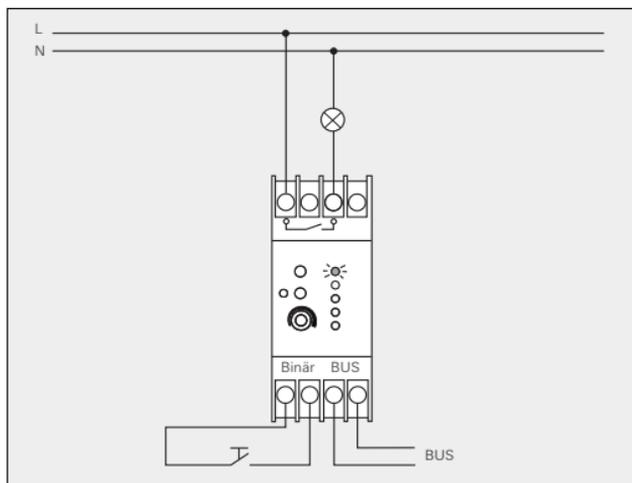
Fig. 64: Connection of a light

A lamp is to be switched with the "Light" button of the home station via the 2-wire bus.

"Switch" operating mode
In the "Switch" operating mode, the illumination is activated via the press of a button and remains activated until the button is pressed again.

"Timer/min" operating mode
In the "Timer/min" operating mode, the illumination is switched on after pressing the button for the time set on the DCS switching actuator (1-10 min). If switching is carried out again before the set time expires, the set time begins again.

Push button connection
In addition, one or several mechanical push buttons can be connected to the binary input, via which the light can then also be switched.

21.3 Additional signalling
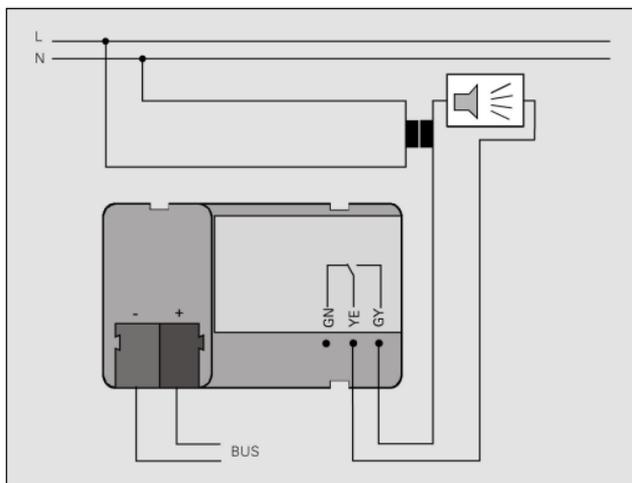
Fig. 65: Connection of additional signalling

The additional signalling (external bells, vibrating pads etc.) is activated parallel to the called home station after a call button is pressed.

The "Timer/sec" operating mode is selected on the flush-mounted DCS switching actuator. After the call button is press, the DCS flush-mounted switching actuator activates the additional signalling for the time set on the DCS switching actuator (1-10 seconds).

"Timer/sec" operating mode

22 DCS push button interface, 2-gang
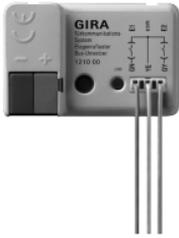
The 2-gang door communication push button interface is used for implementation of a zero-voltage button signal on the Gira 2-wire bus.

The DCS push button interface has two mutually independent inputs for connection of zero-voltage buttons. The inputs can be assigned to either a DCS switching actuator (for the triggering of a switching action) or a home station.

Inputs

With assignment of the DCS push button interface to a home station, the inputs function differently:

- Input 1 triggers a floor call.
  This input is required, for example, when only a two-wire cable is available for the connection of a home station including the floor-call button (e.g. when retrofitting an existing door intercom).

- Input 2 triggers a door call.
  This input is required, for example, when the automatic door opener of the Gira home station is to be triggered by a mechanical push button.

Installation

The DCS push button interface is intended for installation in a flush-mounted wall box (recommendation: deep wall box) behind a conventional push button.

Push button connection

The push button connection is made via a 3-wire connection cable with length approx. 20 cm. The connection cable may be extended to a maximum of 5 m.

23 Door communication configuration

23.1 Topologies, cable routing

The Gira door communication system operates with the voltage type SELV 26 VDC (audio control device) or PELV 26 VDC (video control device). The bus voltage is electrically isolated from the mains voltage side via a transformer.

The following cable types can be used:

Cable types

- Telecommunications indoor cable
  J-Y(ST)-Y 2 x 2 x 0.6, J-Y(ST)-Y 2 x 2 x 0.8,
  J-Y(ST)-Y 4 x 2 x 0.6 or J-Y(ST)-Y 4 x 2 x 0.8
- Insulated bell cable YR 4 x 0.8
- Telecommunications cable A-2Y(L)2Y 4 x 2 x 0.8

The system is designed for various wiring topologies and mixed forms are supported. A distinction is always made between two types of cable routing:

Cable routing

- Looping through
- Branch line

For a new building installation it is recommended that the 2-wire bus be looped through. As a result, detailed cable terminations are achieved and no video distributors need be used. In addition, later expansions with video components can be realised without video distributors.

The maximum total cable length is 700 m in systems with audio components (distributed among several cable lines). The maximum cable length of a line (from the control device to the last device) is dependent on the core diameter.

Audio cable lengths

Maximum line length with audio components:

- 170 m with 0.6 mm core diameter
  (max. loop resistance = 22 ohms)
- 300 m with 0.8 mm core diameter
  (max. loop resistance = 22 ohms)

A maximum of 30 audio devices can be connected to each cable line.

Video cable lengths	In systems with video components, the maximum total line length is 300 m (distributed among several cable lines).
	Without video amplifiers, the maximum cable length from the first camera to the last home station is 100/150 m (with a core diameter of 0.6/0.8 mm).
	With video amplifiers, the maximum cable length from the first camera to the last home station is 200/300 m (with a core diameter of 0.6/0.8 mm). Here the maximum line lengths (from control device to last device) may not be exceeded.
	Maximum line length with video components (when using the video amplifier):

- 100 m with 0.6 mm core diameter
- 150 m with 0.8 mm core diameter

A maximum of 16 video devices can be connected to each cable line.

VideoTerminal	For the VideoTerminal, the maximum cable length to the additional power supply is 50/80 m (with a core diameter of 0.6/0.8 mm).
Video system	When realising a Gira door communication system with the video function, the following points must be observed:

- Do not install the video control device in the sub-distribution next to doorbell transformers, switched-mode power supplies or other devices subject to interference
- Do not route the cables of the 2-wire bus together with 230 V cables
- "Looping through" is recommended as the topology
- Route the supply cable to the door opener as a separate cable if possible
- The maximum cable length between the colour camera and TFT colour display may not be exceeded

In systems with the video function, the following numbers of devices may not be exceeded:

Number of devices

- Devices with BUS_IN-/BUS_OUT terminals (DCS-camera-gateway, DCS-IP-gateway, video amplifier, distributor and multiplexer): max. 20 of these video distributors and multiplexers: max. 15
- DCS-camera-gateway: max. 10 of these max. three in series
- DCS-IP-gateway: max. 10 of these max. three in series

When renewing an existing doorbell or door communication system, the following minimum requirements must be met:

Old building (renovation)

- 2-wire cable with a diameter of at least 0.6 mm to all operating points
- The recommended cable types (or comparable) should be present
- Unsuitable cable types are, for example, antenna cables, coaxial cables, NYM cables, flat webbed cables
- Blind branch lines or unused wires must be removed or may not be connected
- Avoid transitions between different cable types.

23.2 Installation solution Looping through

Fig. 66: "Looping through" connection example

With "looping through" the cables are looped through from device to device.

Advantages of looping through

When the cables are looped-through from home station to home station, defined cable terminations are achieved so that in video systems like the example shown, no video distributors need be used.
Another advantage is that no flush-mounted junction boxes need be used.

23.3 Installation solution Branch line
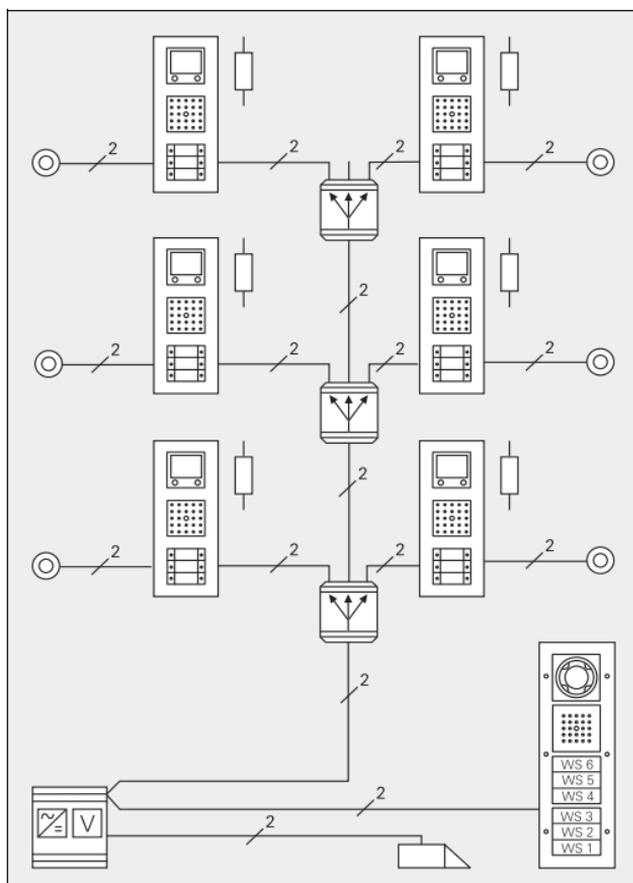
Fig. 67: "Branch line" connection example

With the "branch line" solution the cables to the devices are wired in junction boxes.

Less cable material results compared to the "looping through" topology.

Advantage of branch line

23.4 Component selection

Selection criteria for door station

Criterion	Door station	
	sur-face-mtd.	flush-mtd.
Modularity desired		X
Expansion option (e.g. with video)	X[*]	X
Fast, simple mounting	X	
Combination with other devices (e.g. automatic control switch)		X
More than 6 home stations are present (or more than 6 call buttons required)		X
Installation in Gira energy profile		X
Installation in front panels with installation profile		X
Not possible to set flush-mounted boxes	X	
Existing letterbox system with bell buttons	**Built-in loudspeaker**	

[*]with the DCS-camera-gateway

Tab. 4:   Selection criteria for door stations

Selection criteria for home station

Criterion	Home station	
	sur-face-mtd.	flush-mtd.
Modularity desired		X
Fast, simple mounting	X	
Price	X	
Combination with other devices (e.g. light switch)		X
Internal conversation desired	X[*]	X
Expansion option (e.g. with video)		X
Not possible to set flush-mounted boxes	X	

[*]With surface-mounted home station only call acceptance

Tab. 5:   Selection criteria for home stations

24 Audio examples

24.1 Single-family house
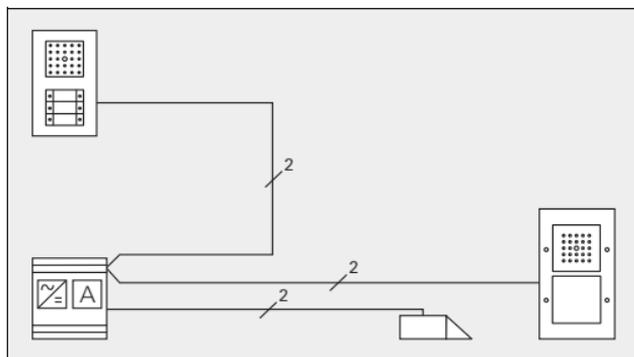
Fig. 68: Installation example for single-family house audio
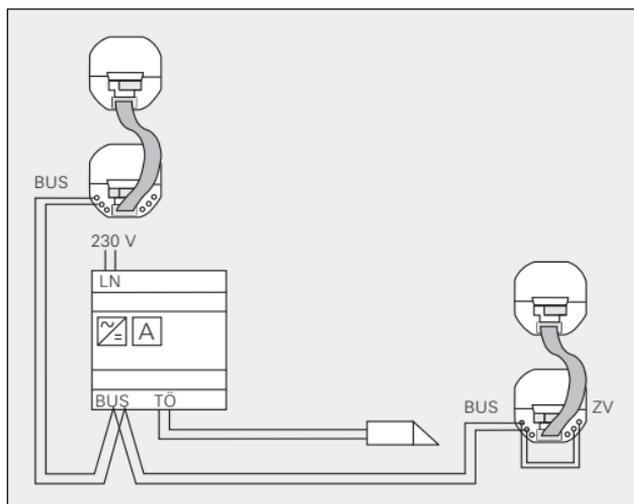
Wiring diagram

Fig. 69: Wiring diagram for single-family house audio

The 2-wire bus is connected to the bus coupler of the door or home station. The flush-mounted inserts are interconnected with the 6-pole audio connection cable.

To switch on the call button illumination on the door station, the jumpers must be placed between the terminals ZV and BUS on the bus coupler of the door station.

Bus coupler jumpers

24.2 Three door stations (branch line)
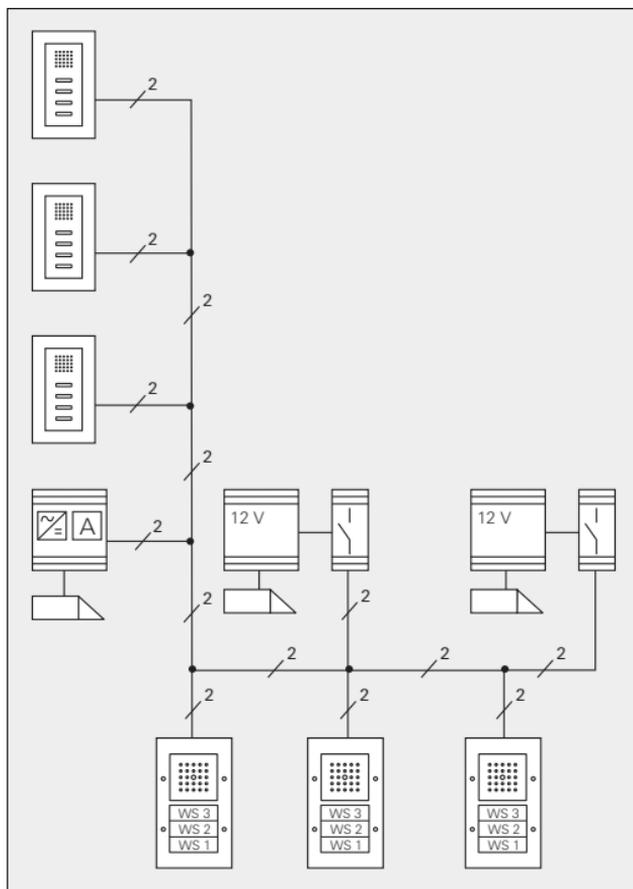
Fig. 70: Installation example for 3-family house audio (branch line)

In purely audio systems, no video distributors are required. All components of the door communication system can simply be interconnected via the 2-wire bus.
The nodes are wired in flush-mounted junction boxes.

Door opener   The door openers of the door stations 2 and 3 are operated via DCS switching actuators.

24.3 Three door stations (looping through)

Fig. 71: Installation example for 3-family house audio (branch line)

The example shows how the 2-wire bus can be looped-through in larger audio systems.
The individual components are connected in the flush-mounted boxes of the bus couplers, so that no further flush-mounted junction boxes need be used.

The door openers of the door stations 2 and 3 are operated via DCS switching actuators.

Door opener

25 Video example

25.1 Configuration of the terminating resistance

With the Gira door communication system, the cable ends of all branch lines must have a defined terminating resistance in systems with the video function. For this reason the terminating resistance can be activated or deactivated on all home station with the video function in the Start-up menu.

The terminating resistance must always be activated on each home station with the video function, which is installed at the end of a cable line. This applies to both topology types, i.e. "looping through" and "branch line".

The terminating resistance is set to "Yes" at the factory. To switch off in the Start-up menu of the device, select the menu item "Resistance" and there the option "No".

Three rules
The three following rules apply to the configuration of the terminating resistance. These rules are described in detail on the following pages.

- Activate terminating resistance at branch end
- With looping through, activate the terminating resistance of the last home station
- A video distributor is required when connecting an audio home station at the line end

Activate terminating resistance at branch end   **1st rule**
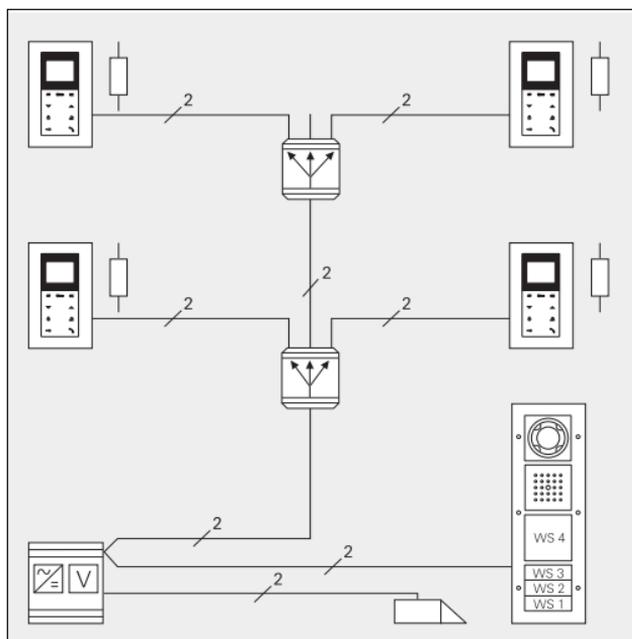
Fig. 72:   Installation example for Rule 1

The terminating resistance must be activated on home stations with the video function, which are installed at the end of a cable line.

2nd rule **With looping through, activate the terminating resistance of the last home station**
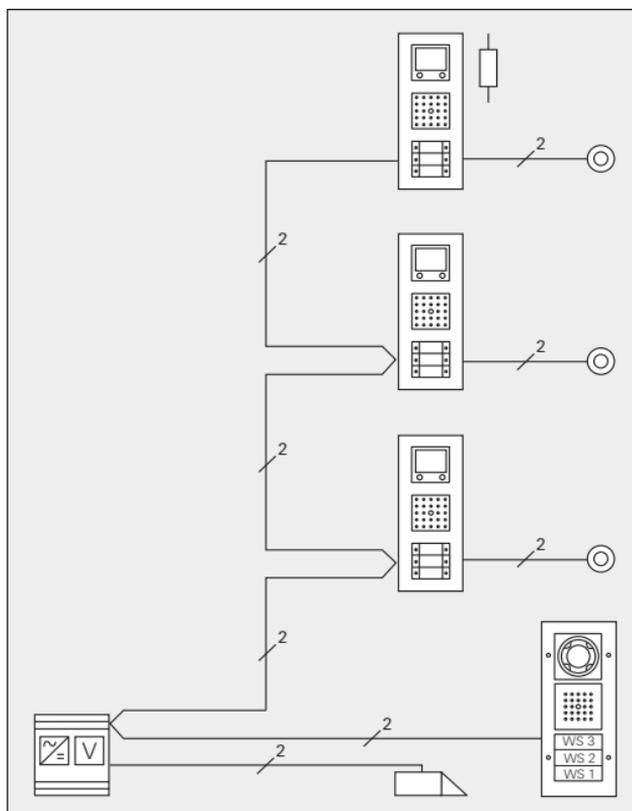
Fig. 73: Installation example for Rule 2

When looping-through from home stations with the video function, the terminating resistance of the last home station must be activated.

A video distributor is required when connecting an audio home station at the line end   3rd rule
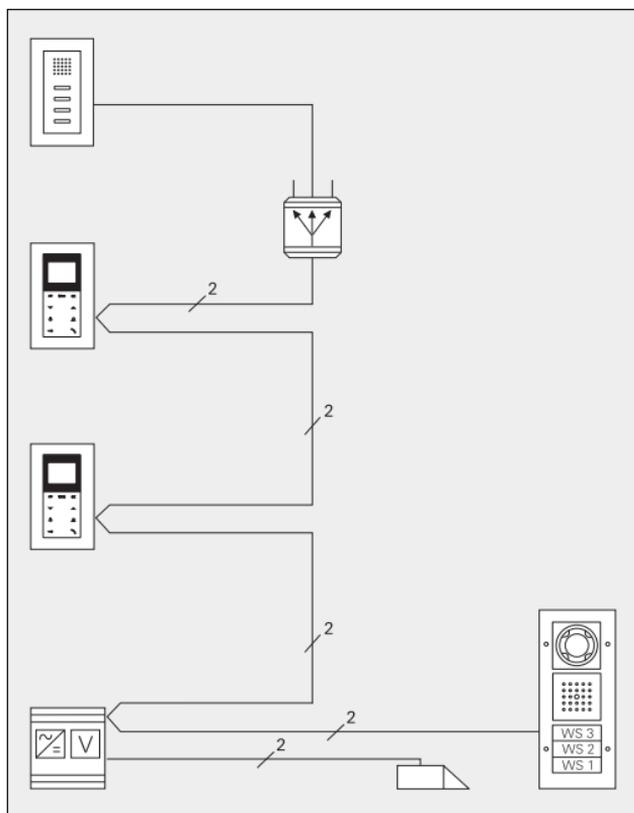
Fig. 74: Installation example for Rule 3

If a home station without a video function is located at the end of a cable line, it must be connected via a video distributor to prevent reflections of the video signal.

25.2 Single-family house
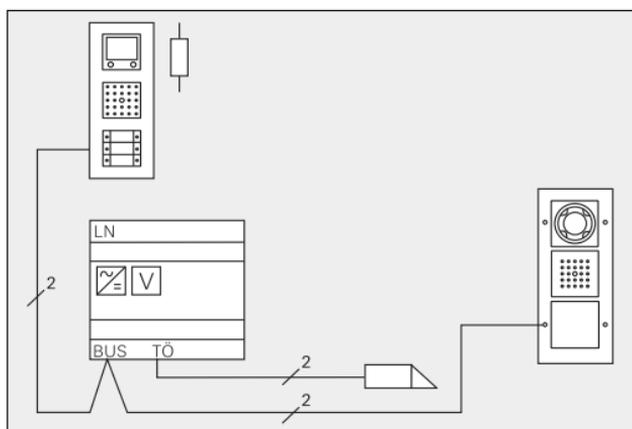
Fig. 75: Installation example for single-family house video

Wiring diagram
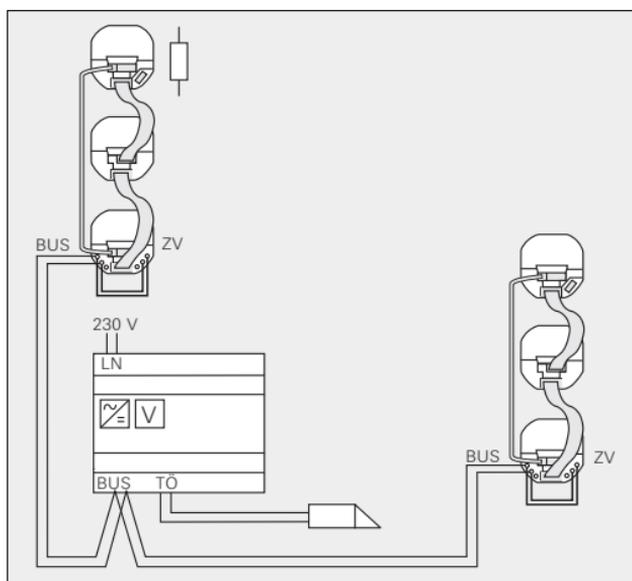
Fig. 76: Wiring diagram for single-family house video

In addition to the 6-pole audio connection cable, the flush-mounted inserts of the video components are connected to the respective bus coupler with the 2-pole video connection cable.

On the bus couplers of the home and door station, the jumpers must be placed between the terminals ZV and BUS so that the TFT colour display and colour camera are supplied with voltage. The call button illumination is therefore always switched on on door stations with a colour camera.

Jumpers on bus coupler

25.3 Connection of several door stations with colour camera
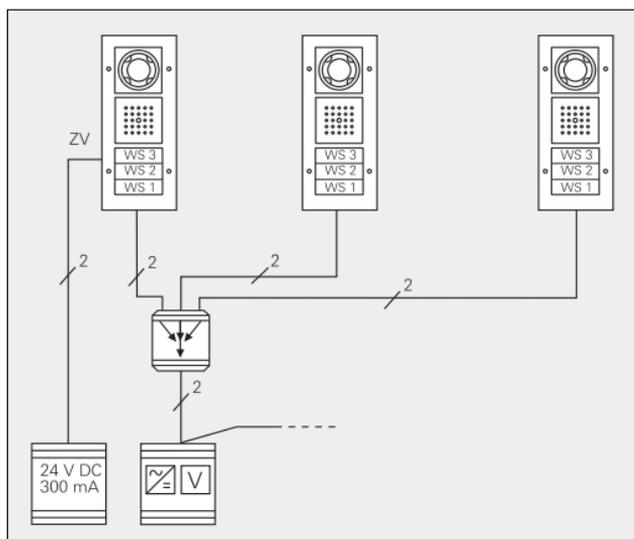
Fig. 77: Installation example of connection of several door stations with colour camera

When using several door stations with colour cameras, the door stations are connected to the video control device via video multiplexers.

Video multiplexer

Two door stations with colour cameras can be supplied via the video control device. Each additional door station with a colour camera requires an additional power supply.

Power supply

25.4 Three door stations with colour cameras (branch line)
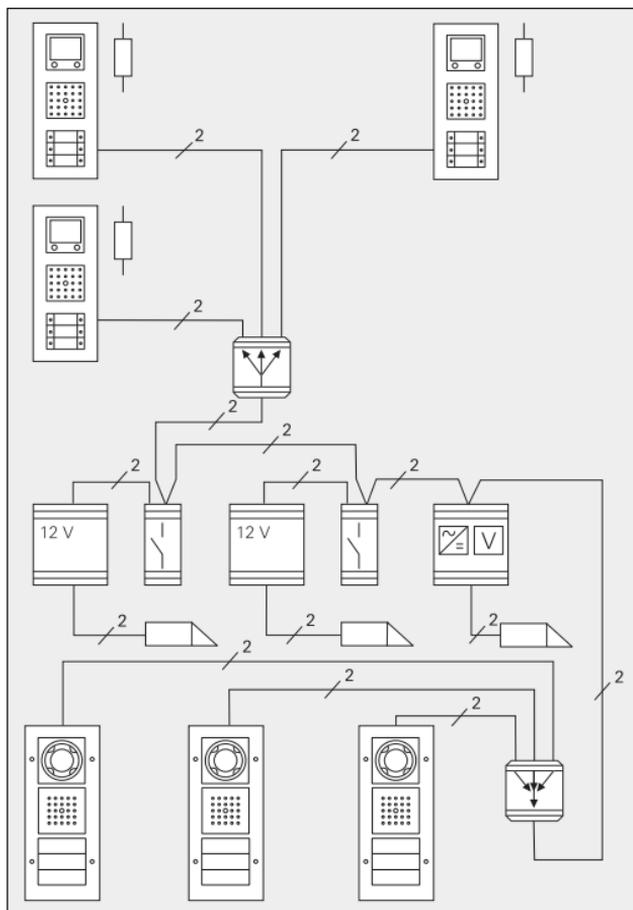
Fig. 78: Installation example of three door stations with cameras

In this example three door stations with colour cameras are connected to the video control device via a video multiplexer.
With two video multiplexers up to five door stations with colour cameras can be connected to the control device with branch lines.

Door opener The door opener of the side doors are controlled with a DCS switching actuator in each case.

25.5 6-family house (looping through)
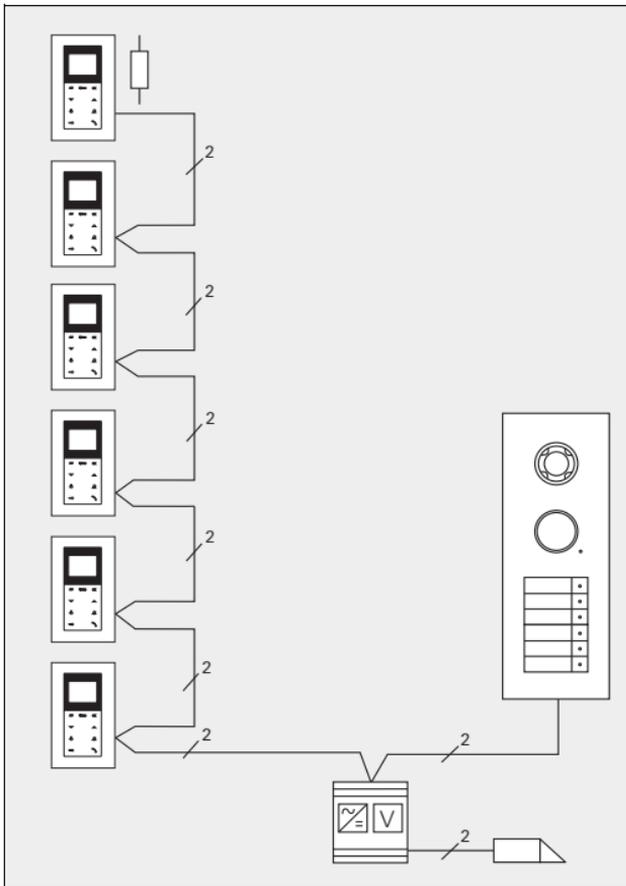
Fig. 79: Installation example of a 6-family house

Up to 28 surface-mounted home stations video can be supplied by a video control device. An additional power supply is only required if more than three home stations are to be called simultaneously from one call button.

25.6 6-family house (branch line)
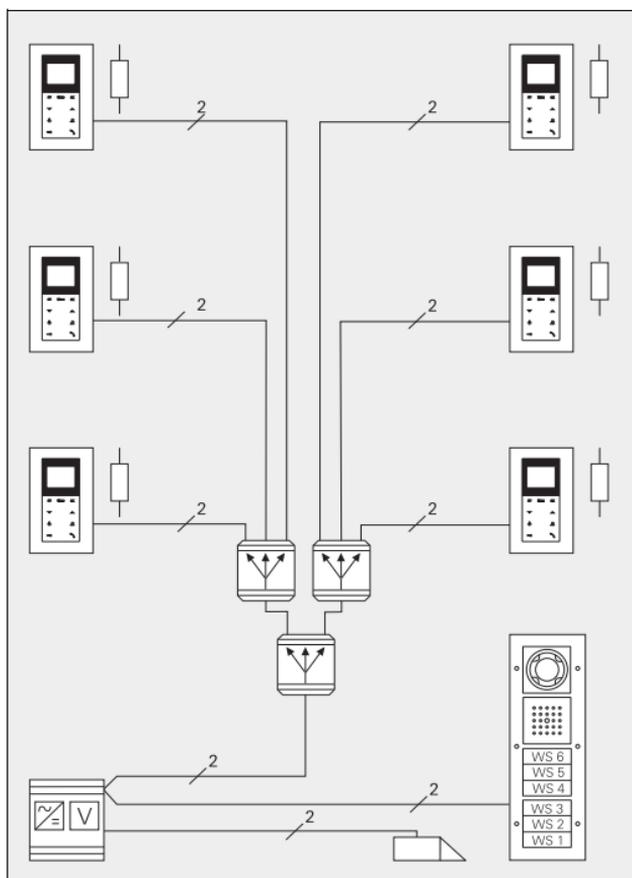
Fig. 80: Installation example of 6-family house with
branch line topology

Due to the cascadeability of the video distributors,
even large systems can be realised with branch line
topology.
Up to 15 video distributors may be used in a
system. With more than 10 devices with BUS_IN/
BUS_OUT terminals, the line ends must be
provided with a terminating element.

25.7 Building with 12 home stations (branch line)
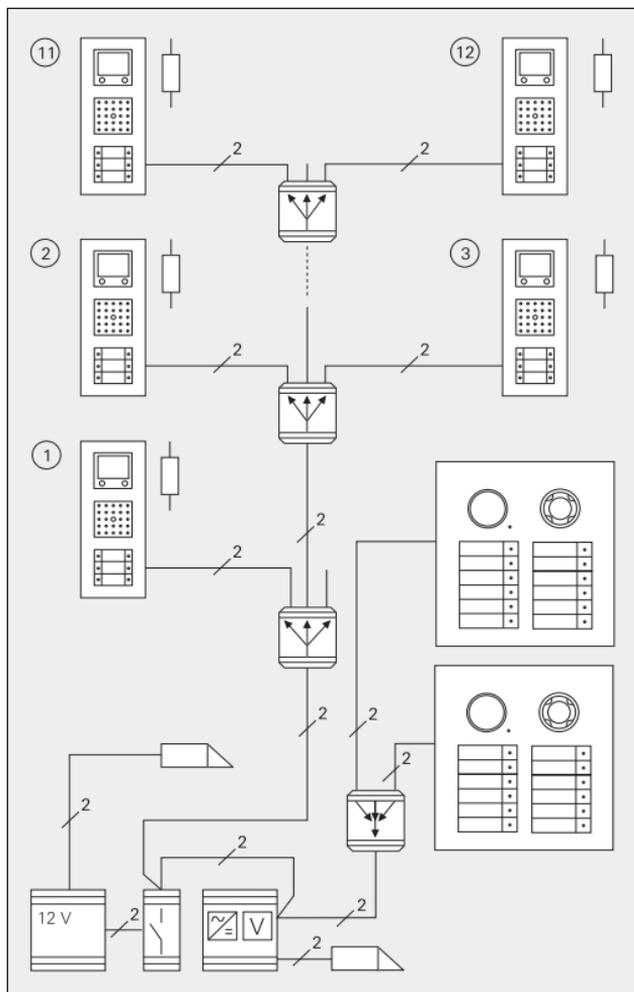
Fig. 81: Installation example of building with 12 home stations

In this example two door openers are required. The door opener of the main door is connected to the control device, and the door opener of the side door to a DCS switching actuator.

Door opener

25.8 Building with 28 home stations (mixed topology)
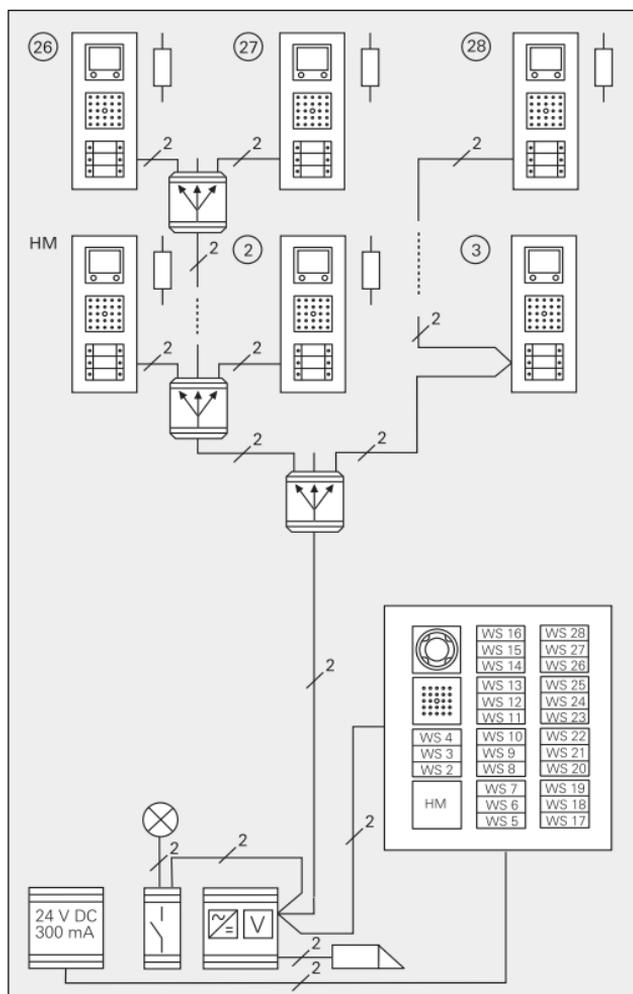
Fig. 82: Installation example of building with 28 home stations

Door station

The components of the door station are mounted in a front panel, e.g. from Renz, using the installation profile.
With 28 home stations and 1 DCS switching actuator, this examples shows the maximum expansion level of a video system.

25.9 DCS-TV-gateway with antenna system
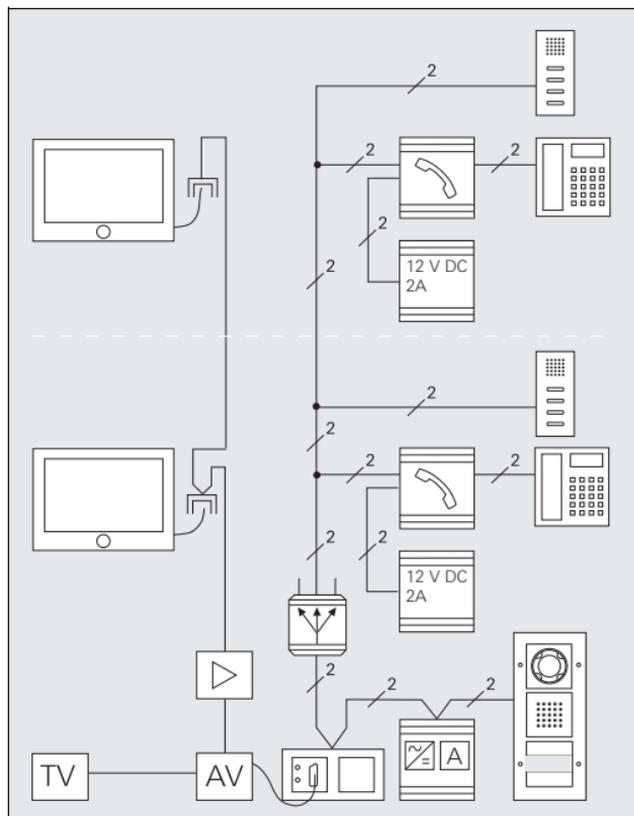
Fig. 83: Installation example of DCS-TV-gateway in 2-family house with antenna system

In this example, the video signal of the DCS-TV-gateway is fed into the antenna system of the 2-family house via an AV modulator. After a door call, the visitor can be seen on the television set after changing over to a corresponding channel. The door conversation is conducted via the home station or the telephone connected to the DCS-TC-gateway.

AV modulator

The video distributor is used in this example to avoid reflections of the video signal.

Video distributor

26 Audio/video examples

26.1 3-family house (looping through)
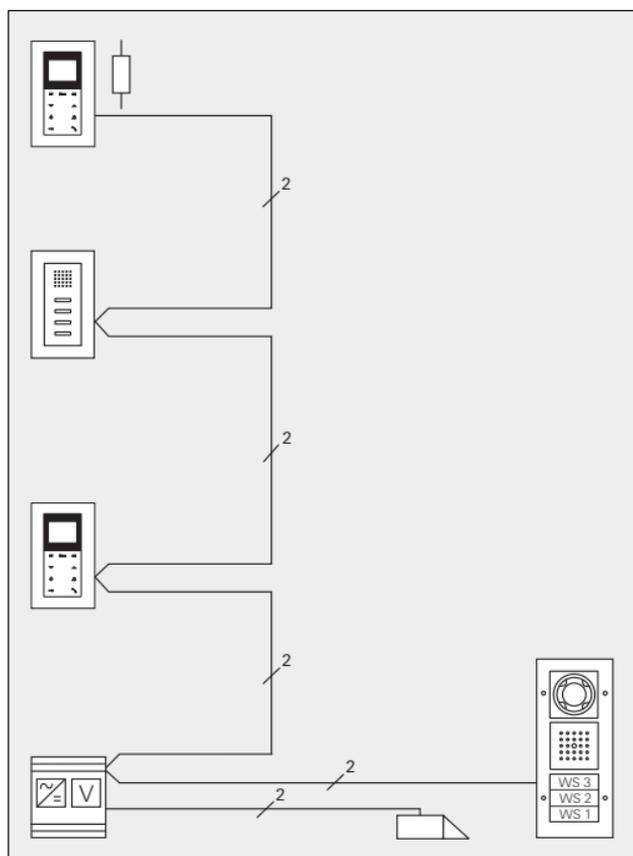
Fig. 84: Installation example of a 3-family house

Home stations without the video function can simply be integrated into the 2-wire bus and do not affect the setting of the terminating resistance on the last home station.

26.2 Two door stations (looping through)

Fig. 85: Installation example of looping through of two door stations

The door station stainless steel with a colour camera must be connected at the end of the cable line. The door station audio can easily be integrated in the cable line.
The terminating resistance on the VideoTerminal is activated.

Only two of the three call buttons have been taught-in on the door station audio. The centre call button not required can be covered with the optionally available call-button cover plate.

Call-button cover plate

26.3 Two door stations (branch line)
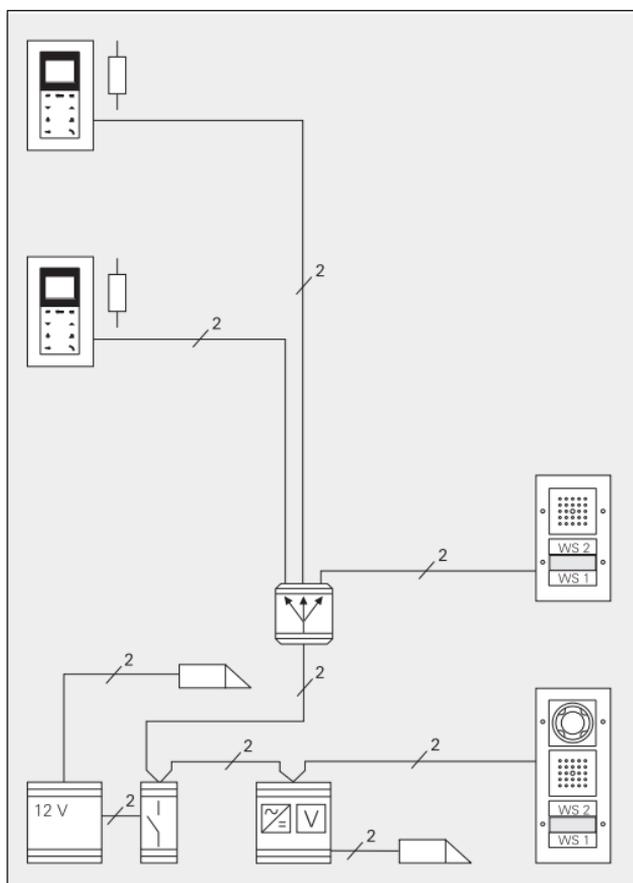
Fig. 86: Installation example of two door stations with branch line topology

Connection via video distributor

The door station audio is connected in this example via the video distributor to prevent reflections of the video signal.

Call-button cover plate

Only two of the three call buttons have been taught-in on the door stations. The centre call button not required in this example can be covered with the optionally available call-button cover plate.

26.4 6-family house (branch line)
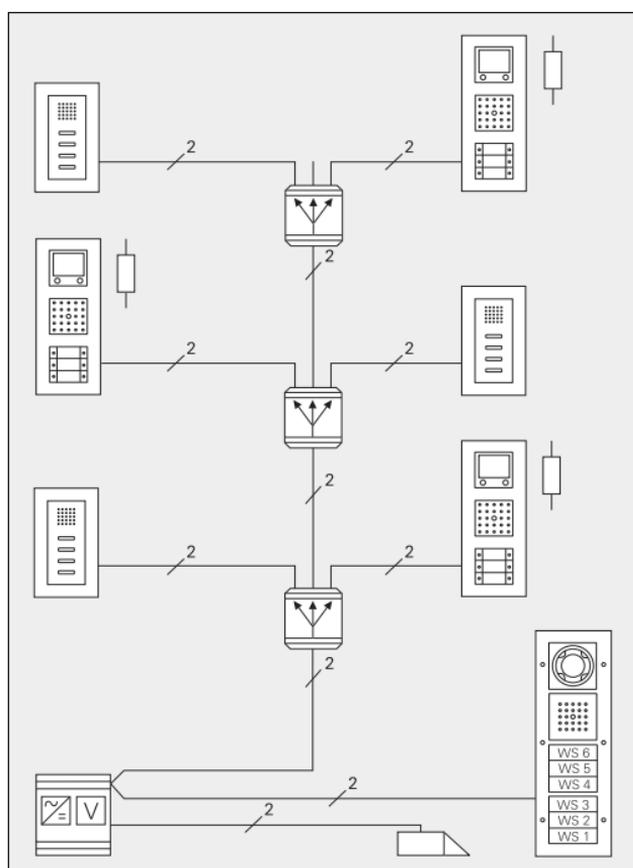
Fig. 87: Installation example of 6-family house with branch line topology

Home stations without the video function can also be integrated in the system with video distributors.

The terminating resistance of all home stations with the video function is set to "Yes".

Terminating resistance

26.5 6-family house (branch line with node)
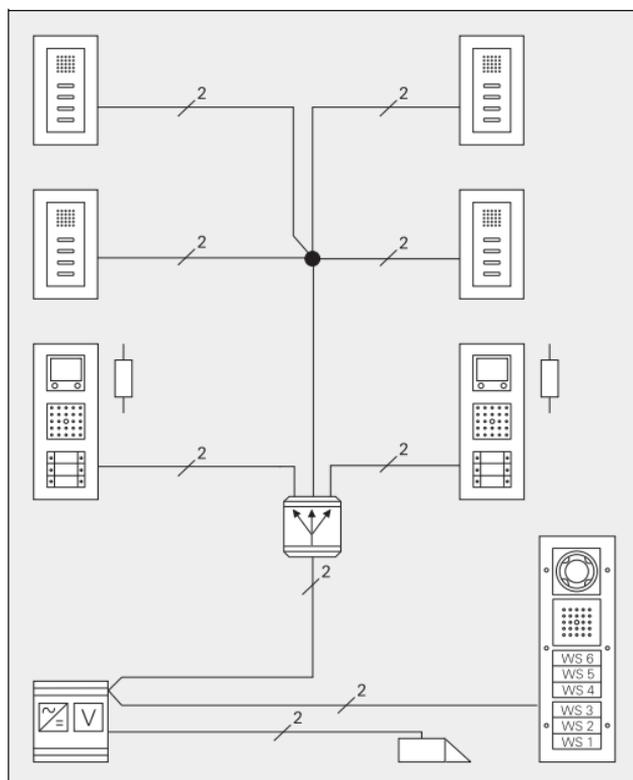
Fig. 88: Installation example of connection of home stations via a node

The audio home stations can be connected to a node without a video distributor (e.g. in a flush-mounted junction box).

The home stations with the video function are integrated in the topology via a video distributor.

27 One-person start-up

27.1 3-family house with DCS switching actuator
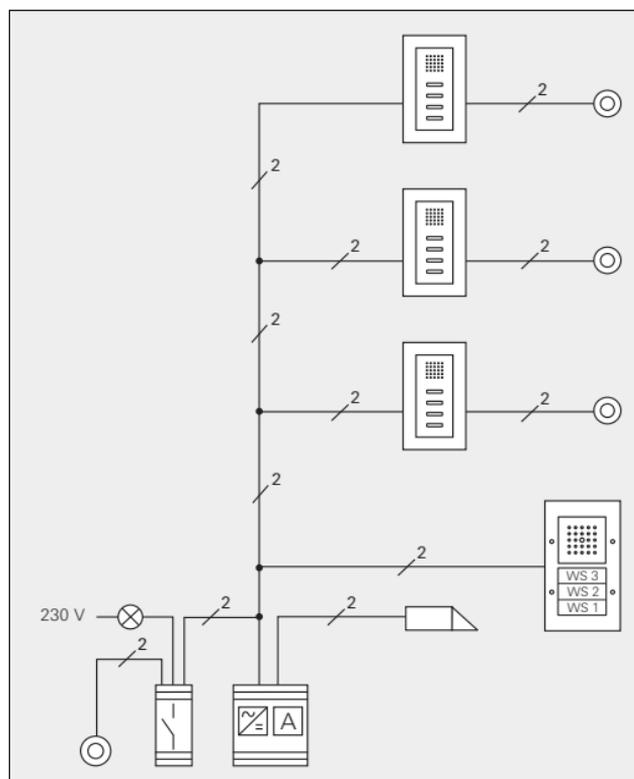
Fig. 89: Installation example of a 3-family house with DCS switching actuator

The 3-family house is equipped with three home stations. The door opener can be operated from each home station with the ⌐○ button. A floor-call button is connected to each home station.

The outdoor lighting can be switched on from the home stations via the DCS switching actuator. After the time set on the DCS switching actuator expires, the light goes out automatically. In addition, there is a mechanical push button on the ground floor of the staircase with which the outdoor lighting can also be switched on.

DCS switching actuator

27.2 Start-up

The topology shown on Page 115 is started up via sequential processing in simple steps:

Assigning call buttons

To assign the door-station call buttons to the respective home stations, proceed as follows:

3 s Systemprogr.

1. Press the "System progr." button on the **control device** for 3 sec. to start programming mode.

3 s M. Meier

2. Press the call buttons on the **door station** for 3 seconds each in the sequence in which the home stations are then to be assigned.

3 s

3. Go to the **home stations** in the specified order and press the button ⌖ there for 3 sec. each time.

1 x Systemprogr.

4. After you have assigned all the home stations, press the "System progr." button on the **control device** to exit programming mode.

Assigning door opener

The door opener connected to the control device is programmed at the respective door station as follows:
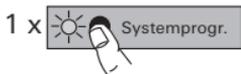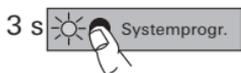
3 s Systemprogr.

1. Press the "System progr." button on the **control device** for 3 sec. to start programming mode.

3 s Türöffnerprogr.

2. Press the "Door opener progr." button on the **control device** for 3 sec. to start the door-opener programming mode.

3 s M. Meier

3. Press any call button on the **door station** for 3 s.

1 x Systemprogr.

4. Press the "System progr." button on the **control device** to exit the programming mode.

The DCS switching actuator is programmed to the "Light" button of the home stations as follows:

Programming DCS switching actuator

1. Press the "System progr." button on the **control device** for 3 sec. to start programming mode.

3 s ☼ Systemprogr.

2. Press the "Function" button on the **DCS switching actuator** several times until the "Timer/min." LED flashes.

Funktion

3. Press the "Progr." button on the **DCS switching actuator** for 3 sec. to start the programming mode of the DCS switching actuator.

3 s ☼ Progr.

4. Press the ⌀ button on all **home stations** for 3 seconds.

3 s

5. Press the "System progr." button on the **control device** to exit the programming mode.

1 x ☼ Systemprogr.

Note: The DCS switching actuator is programmed at the factory so that the functions "Switching", "Timer/sec.", "Timer/min" and "Pulse" can be triggered by pressing the ⌀ button of the home stations without prior teaching-in. As soon as the DCS switching actuator is taught-in on a button, this factory pre-programming is overwritten.

The switch-on time can be set on the DCS switching actuator within the range of 1 to 10 minutes via the adjuster. If switching is carried out again before the set time expires, the set time begins again.

Specifying switch-on time

The floor-call buttons are connected to the ET terminals of the home stations. They need not be taught-in.

Floor-call button

Detailed explanations of the teaching-in process and other examples for starting up the door communication components are contained in the system manual included with every control device. The system manual can also be downloaded as a PDF file from the Internet at **www.gira.com/en/download**.

System manual

28 Keyless In

Keyless access

The Gira Keyless In products enable keyless access to rooms and buildings. The technology is based on electronic and biometric systems.
The three variants Fingerprint, Keypad and Transponder can be installed without additional control components in the single mode or within the Gira door communication system. They can be installed in common 58 mm flush-mounted boxes and integrate in the both the outdoor and indoor Gira switch ranges

Fig. 90: The three Keyless In variants

Safety note

Gira Keyless In should not be installed as an individual device in safety-relevant area, as in this case the switching action is carried out via relay contacts present on the device. These contacts are freely accessible for unauthorised persons after dismantling the device.
A high level of security is ensured in combination with the Gira door communication system, as the switching action takes place bus controlled in the DCS switching actuator which is installed protected from unauthorised access.

Functional expansions

The Keyless In devices can be connected to the Gira HomeServer with the DCS-IP-gateway. This enables intelligent links. For example, temporary or one-time access authorisations can be issued quite easily. All data including access authorisations can be managed centrally and flexibly using the Gira HomeServer.
Keyless In devices from Index 03 and the HomeServer Expert from Version 2.6 are required for these functional expansions

28.1 Fingerprint reader

The fingerprint reader enables the realisation of access control based on the biometric features of the human finger. It evaluates the structures of the deepest layers of skin of the finger used using high-frequency technology. As a result, access also functions with minor injuries to the surface of the skin or slightly dirty fingers.

The taught-in fingers are constantly checked in the fingerprint reader and are saved as necessary references again. This is especially important for children's fingers, as they change over time and therefore must be continually updated. Children's fingers can generally first be reliably detected from 6 years of age.

The connection terminals can be pulled off for easier connection.

Connection terminals

1	Relay 1 N.O. (NO contact)
2	Relay 1 COM
3	Relay 1 N.C. (NC contact)
4	Release
5	Release
6	GND
7	Relay 2 N.O. (NO contact)
8	Relay 2 COM
9	Relay 2 N.C. (NC contact)
10	GND
11	+ 24 VDC
12	Free
13	6-pole slot
	Door communication system
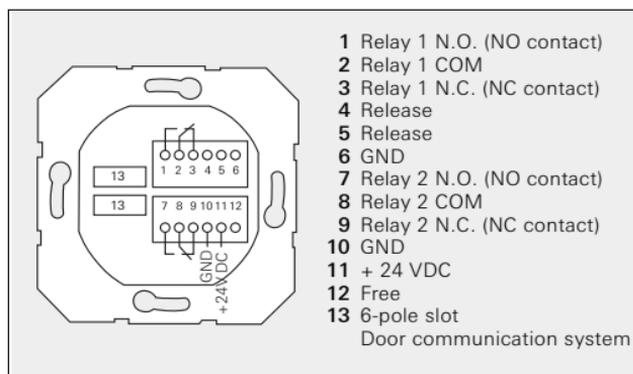
Fig. 91: Terminal assignment of fingerprint reader

When operated as a single device, the zero-voltage relay contacts provided in the flush-mounted insert of the fingerprint reader are used for a switching action, e.g. for a door opener with its own power supply.

Single operation
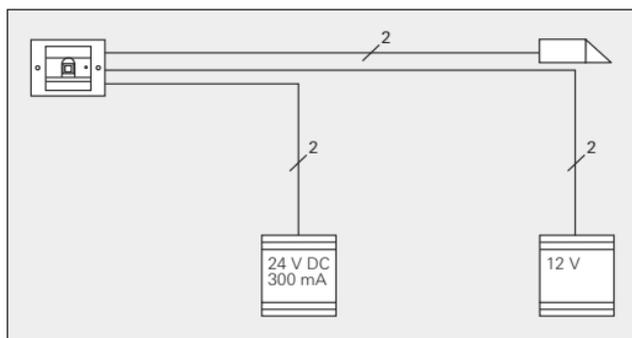
Fig. 92: Fingerprint reader in single operation

Safety note

When operating the fingerprint reader as a single device, please observe the safety note on Page 118.

Door communication system

The fingerprint reader can be integrated in the door communication system via a connection cable with a door station or the built-in loudspeaker. As a result, DCS switching actuators can be operated or the door opener function triggered via user fingers taught-in beforehand.
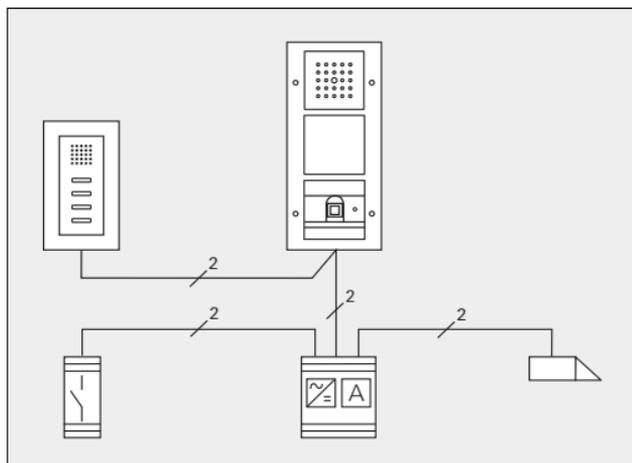
Fig. 93: Fingerprint reader in door communication system

The flush-mounted insert generates a 1-minute continuous tone when the fingerprint reader is pulled off. If the fingerprint reader is operated in the door communication system, the pull-off signal can also be forwarded to a DCS switching actuator, which then carries out a switching action.

Sabotage function

To operate the fingerprint reader, only the one-time laying on of the previously taught-in finger is necessary.

Operation

The LED lights up red when the finger is laid on. The fingerprint is read during this time.
The finger can be removed again following the short acknowledgement tone. While the fingerprint is being compared to saved fingerprints, the LED lights up orange.

If the finger is recognised the LED lights up green and a long acknowledgement tone is heard (positive acknowledgement signal). At the same time the previously specified switching action is executed.

An unauthorised or unassigned finger is indicated with a red LED and three short acknowledgement tones (negative acknowledgement signal).

In order to ensure proper functioning of the fingerprint reader, the finger must be correctly laid on during both teaching-in and subsequent operation.

Optimal positioning of finger

It is important that the finger area with the greatest fingerprint swirls (middle of finger pad) is registered by the sensor of the fingerprint reader when the finger is laid on.

Note:
Humidity (formation of drops) on the sensor surface of the fingerprint reader can negatively affect the detection of the user finger. In this case, wipe the scanner surface (and the damp finger) dry before laying on the finger.

Teaching-in finger

For the teaching-in of a user finger, the finger to be taught-in (admin, programming or user finger) is repeatedly laid on. It is important to vary the position of the finger by a few millimetres each time when laying on repeatedly, so that the fingerprint reader can register the largest possible finger area.

1. Lay on the finger to be taught-in centrally until an acknowledgement tone is heard.

2. Lay on the finger shifted slightly upwards.

3. Lay on the finger shifted slightly downwards.

4. Repeat Step 1 to 3 until two long acknowledgement tones are heard and the LED lights up green.

Important:
Do not rotate the finger during teaching-in.

Information for teaching-in:

With "difficult" fingers (e.g. with small children's fingers or very dry skin or sweaty skin), it may be necessary to lay on the finger for teaching-in up to 7 times.
If a negative acknowledgement sounds after the seventh attempt (three short tones), teaching-in of the finger was not successful. In this case lay the finger on again (step 1) or use another finger.

Tip with very dry or cold skin:
Lay on finger with greater pressure.

Tip with sweaty skin:
Wipe the finger dry before teaching-in and press down less firmly.

Fingers which have been taught-in after laying on for the 3rd or 4th time are generally optimally taught-in. Therefore, it is advisable to delete a finger which was not taught-in until being laid on for the 5th, 6th or 7th time and to teach it in again. With an optimally taught-in finger, reading success during later operation will also be optimal.

Lay on finger optimally:
It is important that the finger area with the greatest fingerprint swirls (middle of finger pad) is registered by the fingerprint sensor when the finger is laid on.

During later operation, users are inclined to lay the finger on shifted more and more downwards.

Frequent errors when laying on a finger

In extreme cases, only the tip of the finger pad might be laid on. Such reading processes must almost always lead to rejection for security reasons, as the sensor then only scans the fingerprint in the upper area of the finger pad, i.e. too far above the centre of the swirl. Significantly less curved skin lines are locate there, meaning that the system cannot recognise sufficiently significant features.

28.2 Keypad

The keypad serves as an access control system for outdoor and indoor use. The switching action or the opening of the door takes place after a personal numerical combination is entered.

Thanks to the capacitive switching technology, a pressure-free operation is already detected as a press of the button. This has the advantage that the buttons are protected and therefore no wearing can be recognised on the numeric field even with frequent use of certain numerical combinations.

Connection terminals

The connection terminals can be pulled off for easier connection.

1 Relay 1 N.O. (NO contact)
2 Relay 1 COM
3 Relay 1 N.C. (NC contact)
4 Release
5 Release
6 GND
7 Relay 2 N.O. (NO contact)
8 Relay 2 COM
9 Relay 2 N.C. (NC contact)
10 GND
11 + 24 VDC
12 Free
13 6-pole slot
Door communication system
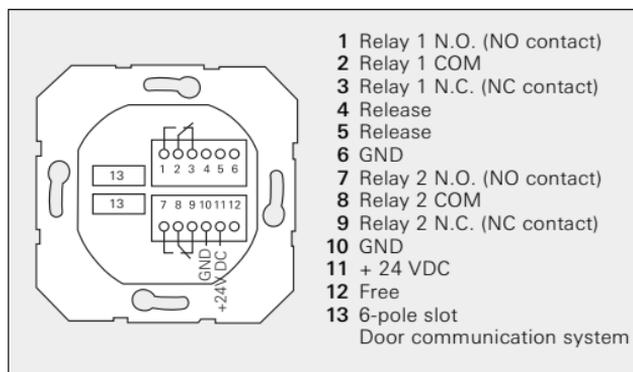
Fig. 94: Terminal assignment of keypad

Single operation

When operated as a single device, the zero-voltage relay of the keypad is used for the switching actions.

24 V DC
300 mA

12 V
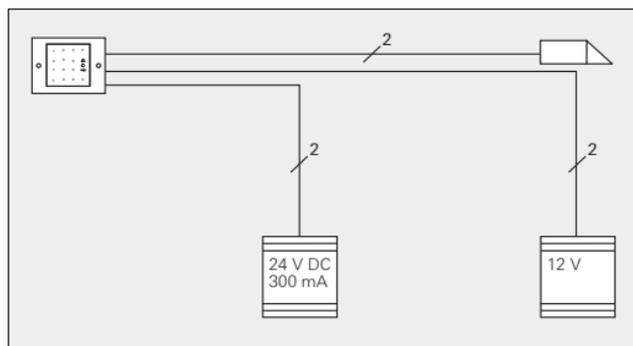
Fig. 95: Keypad in single operation

Safety note

When the keypad is operated as a single device, please observe the safety note on Page 118.

The keypad can be integrated in the door communication system via a connection cable with a door station or the built-in loudspeaker. As a result, the keypad can operate DCS switching actuators or trigger the door opener function.

Door communication system
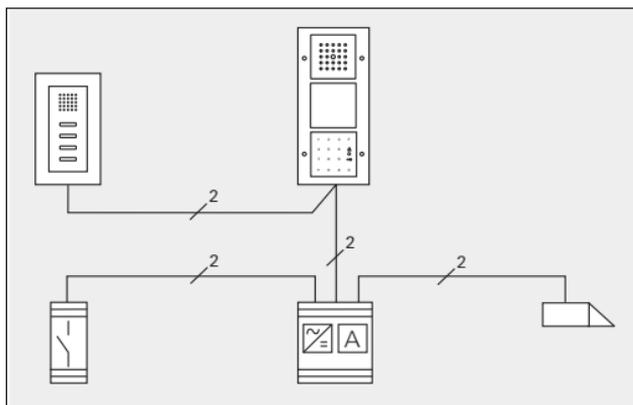
Fig. 96: Keypad in door communication system

In small buildings, the door call is triggered directly via the bell button. In large buildings, each home station can be assigned its own ID so that each home station can be specifically called with the keypad.

Trigger door call

The flush-mounted insert generates a 1-minute continuous tone when the keypad is pulled off. If the keypad is operated in the door communication system, the pull-off signal can also be forwarded to a DCS switching actuator, which then carries out a switching action.

Sabotage function

28.3 Transponder reader

The transponder reader features long-range transponder technology with convenient access control for inside and outside areas. The transponder reader responds to the signal from the active transponder key and the transponder card.

Transponder key	The battery-operated transponder key triggers a switching action in both the long-range area (approx. 1.50 m) and in the near field (approx. 6 cm).
Transponder card	The transponder card is a passive transponder and can only trigger functions in the near field (6 cm).
	Up to 250 transponder keys or transponder cards can be managed.
Programming card	A programming card is required for starting up and setting the transponder reader. One programming card is required per building. As many transponder readers as desired can be managed with it.
Connection terminals	The connection terminals can be pulled off for easier connection.

1 Relay 1 N.C. (NC contact)
2 Relay 1 COM
3 Relay 1 N.O. (NO contact)
4 Release
5 Release
6 GND door communication
7 COM bus door communication
8 Relay 2 N.O. (NO contact)
9 Relay 2 COM
10 Relay 2 N.C. (NC contact)
11 GND
12 + 24 VDC
13 GND for activation input
14 Activation input
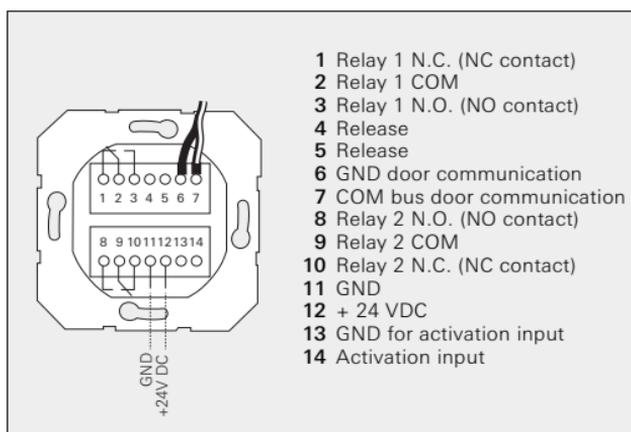
Fig. 97: Terminal assignment of transponder reader

Single operation	When operated as a single device, the zero-voltage relay of the transponder reader is used for the switching actions.
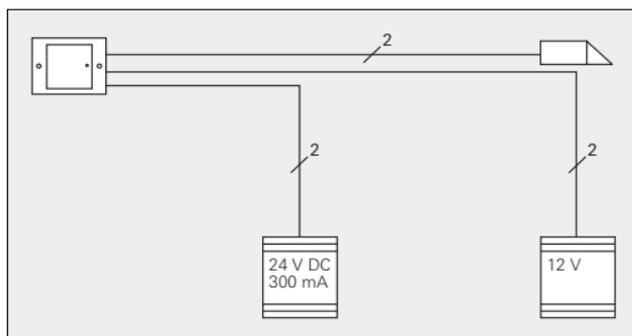
Fig. 98: Transponder reader in single operation

When the transponder reader is used in single operation, observe the safety note on Page 118.

Safety note

The transponder reader can be integrated in the door communication system via a connection cable with a door station or the built-in loudspeaker. As a result, the transponder reader can operate DCS switching actuators or trigger the door opener function.

Door communication system
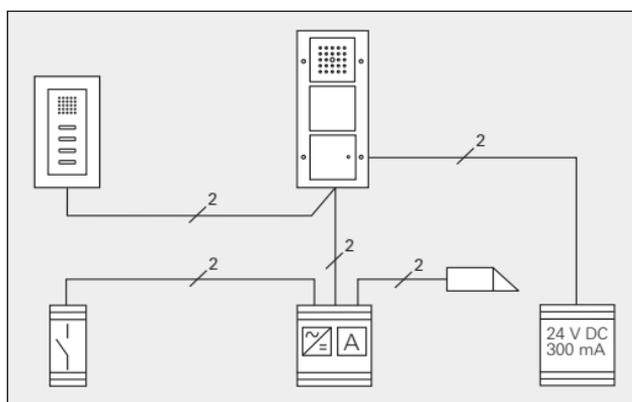
Fig. 99: Transponder reader in door communication system

Important: The transponder reader must always be supplied via an additional power supply. The transponder reader cannot be supplied with power via the 2-wire bus.

Additional power supply

29 Keyless In configuration

29.1 Keyless In in single operation

Safety note Gira Keyless In should not be installed as an individual device in safety-relevant area, as in this case the switching action is carried out via relay contacts present on the device. These contacts are freely accessible for unauthorised persons after dismantling the device.
A high level of security is ensured in combination with the Gira door communication system, as the switching action takes place bus controlled in the DCS switching actuator which is installed protected from unauthorised access.

Both star-shaped and looped-through wiring are possible in single operation.

Cable lengths for single operation The cable lengths are specified in the following in each case with the form "160/270 m", where the first value applies to a wire diameter of 0.6 mm and the second value for a wire diameter of 0.8 mm. The line lengths always define the length of the wire in a cable line from the power supply to the last device in the line.
In single operation the Keyless In devices are connected to the power supply via the 24 V screw connection, and several devices can be connected to one power supply.

On the 24 VDC, 300 mA power supply:

- 1 Transponder reader (150/240 m),
- 2 Fingerprint readers (160/270 m) or
- 8 Keypads (160/270 m).

On the 24 VDC, 700 mA power supply:

- 2 Transponder readers (80/125 m),
- 10 Fingerprint readers (75/115 m) or
- 20 Keypads (80/125 m).

If the specified cable lengths are not sufficient, the Keyless In devices can be distributed to several cable lines.

29.2 Keyless In in door communication system

The Keyless In devices are connected to the bus coupler of a door or home station via the 6-pole connection cable. The fingerprint reader and the keypad can be supplied via the 2-wire bus when operated in the door communication system. In this case, the jumpers between BUS and ZV must be mounted on the door communication bus coupler and (including in audio systems) the video control device must always be used.

Power supply via 2-wire bus

Note:
The transponder reader cannot be supplied via the 2-wire bus. It must always be connected to an additional power supply (24 VDC, 300 mA).

Important: A maximum of one transponder reader, one fingerprint reader and/or one keypad may be connected per door or home station.

The following tables show the number of devices in BUS-supplied door communication systems. The numbers of devices specified in the tables apply only for supply via the video control device.

Door station	Home station	Keyless In
1 - 3	1 - 9	10 FP or 12 KP

Built-in loudsp.	Home station	Keyless In
1 - 3	10 - 30	8 FP or 20 KP
1 - 3	31 - 50	4 FP or 18 KP
1 - 2	51 - 68	2 FP or 12 KP

Number of devices in audio systems (BUS-supplied)

Tab. 6: Number of Keyless In devices[*] in audio systems

---

[*] FP = Fingerprint reader, KP = Keypad
With mixed equipment, the specifications for FP apply

Number of devices in video systems (BUS-supplied)

Door station	Home station	Keyless In
1	1 - 3	4 FP or 4 KP
1	4 - 6	2 FP or 7 KP
1	7 - 9	1 FP or 10 KP
2	1 - 3	2 FP or 5 KP
2	4 - 6	8 KP
2	7 - 9	5 KP

Tab. 7: Number of Keyless In devices[*] in video systems

When using additional power supplies, the device restrictions are eliminated. In this case, the Keyless In devices in door communication systems can be integrated with the number of devices specified on Page 63.

Cable lengths for Keyless In devices on door stations

The following table shows the maximum cable lengths in cable lines with door stations. The cable lengths apply both for the supply via the 2-wire bus and via an additional power supply. To increase the number of devices in the entire system, the recommended additional power supplies (ZV) are used. However, this does not achieve an expansion of the cable lengths.

Number of devices			Audio cable length		Video cable length	
Door station	Finger-print	Keypad	0.6/0.8 mm	ZV	0.6/0.8 mm	ZV
1	0	0 - 1	170/300 m	300 mA	100/150 m	300 mA
1	1	0 - 1	170/300 m	300 mA	75/130 m	700 mA
2	0	0 - 2	170/300 m	300 mA	95/150 m	2 x 300 mA
2	1	0 - 2	150/240 m	300 mA	70/120 m	2 x 700 mA
2	2	0 - 2	100/160 m	700 mA	55/100 m	2 x 700 mA
3	0	0 - 3	170/300 m	300 mA	-	-
3	1	0 - 3	130/200 m	300 mA	-	-
3	2	0 - 3	95/150 m	700 mA	-	-
3	3	0 - 3	85/130 m	300 mA	-	-

Tab. 8: Maximum cable lengths in cable lines with door stations

---

[*] FP = Fingerprint reader, KP = Keypad
With mixed equipment, the specifications for FP apply

The following table shows the maximum cable lengths in cable lines with home stations, and the power supply is provided via the 2-wire bus.

Cable lengths for Keyless In devices on home stations (BUS-supplied)

Number of devices	Audio cable length	Video cable length
	0.6/0.8 mm	0.6/0.8 mm
Keypad		
1	110/170 m	80/140 m
2 - 4	100/160 m	75/130 m
5 - 10	90/140 m	65/110 m
11 - 14	80/125 m	-
15 - 20	70/110 m	-
Fingerprint		
1	100/160 m	75/130 m
2 - 4	85/130 m	65/110 m
4 - 10	60/95 m	-

Tab. 9: Maximum cable lengths in cable lines with home stations (BUS-supplied)[*]

The following table shows the maximum cable lengths in cable lines with home stations, and the power supply is provided via the specified additional power supply.

Cable lengths for Keyless In devices on home stations (with additional power supply)

Number of devices	Audio cable length		Video cable length	
	0.6/0.8 mm	ZV	0.6/0.8 mm	ZV
Keypad				
1 -10	170/300 m	300 mA	100/150 m	300 mA
11 - 15	170/300 m	300 mA	100/150 m	700 mA
16 - 20	150/240 m	300 mA	-	-
21 - 25	120/180 m	700 mA	-	-
26 - 30	100/160 m	700 mA	-	-
Fingerprint				
1	170/300 m	700 mA	100/150 m	700 mA
2 - 5	110/170 m	700 mA	85/150 m	700 mA
6 - 10	75/115 m	700 mA	-	-
Transponder				
1	150/240 m	300 mA	150/240 m	300 mA

Tab. 10: Maximum cable lengths in cable lines with home stations (with additional power supply)[*]

---

[*] With mixed equipment, the specifications for the fingerprint reader apply.

VideoTerminal One fingerprint reader and one keypad can be operated per VideoTerminal. The power supply of the Keyless In devices is provided via the VideoTerminal, which must always be operated with the additional power supply 24 VDC, 700 mA. In this case, the maximum cable length from the VideoTerminal to the additional power supply is 50/80 m.

Additional power supply If several Keyless In devices are supplied from a common additional power supply, free wires from the BUS line must be used to prevent interference couplings.

Start-up Observe the following when starting up Keyless In devices in the door communication system: Before beginning with the programming of the Keyless In devices, first the door communication components must be completely put into operation.

30 Examples of Keyless In

30.1 House with three fingerprint readers
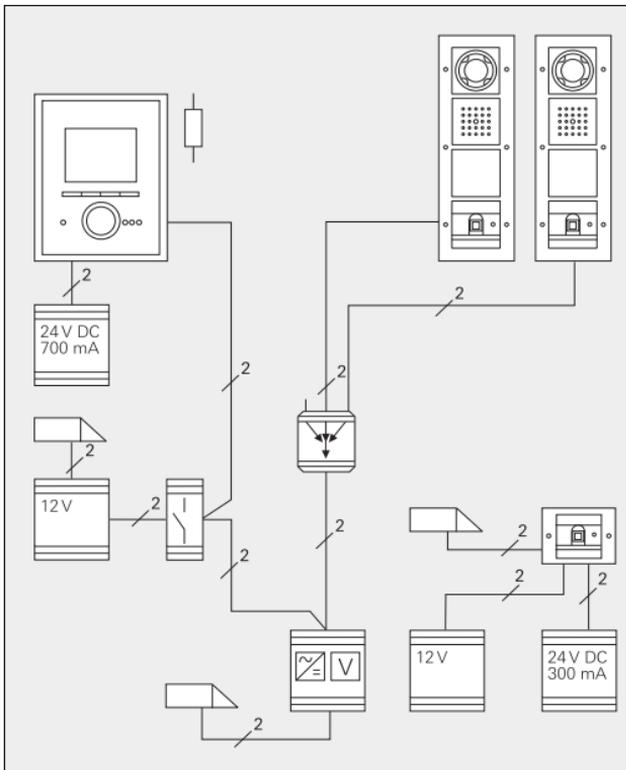
Fig. 100: Fingerprint installation example

The example shows a single-family house with a door station at the house entrance and a door station at the garden gate. Both door stations are equipped with fingerprint readers that operate the respective door or gate opener.

In addition, the garage door can be opened by the fingerprint reader installed separately from the door communication system. As the garage door operation was classified as not security-relevant, the relay contacts present on the device are used for the switching action in this example.

30.2 Student residence with keypad
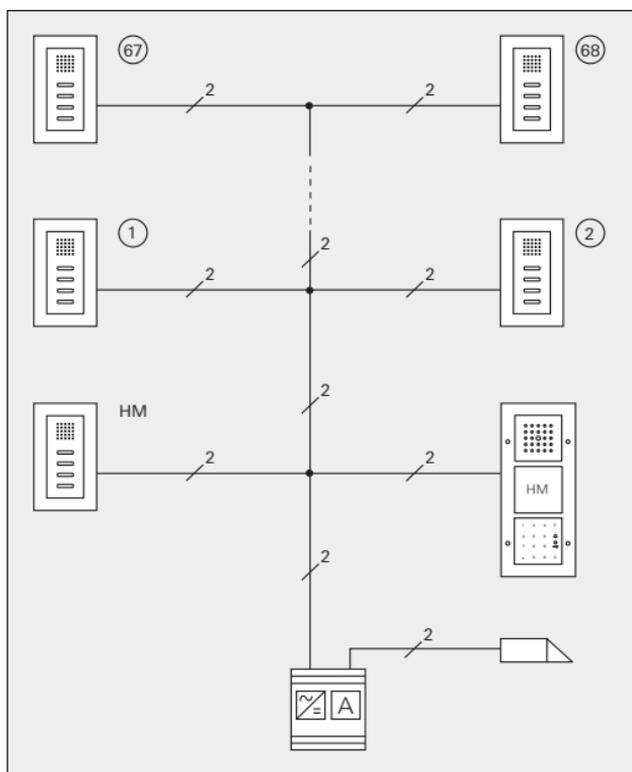
Fig. 101: Installation example of student residence

Specific door call In large housing facilities, e.g. student residence, it is possible to specifically call the individual home stations with the keypad. For this purpose, a separate ID is created in the keypad for each flat during starting up.

The home station in the caretaker's flat (CF) is called with the call button of the door station.

30.3 Senior citizen's residence with transponder reader
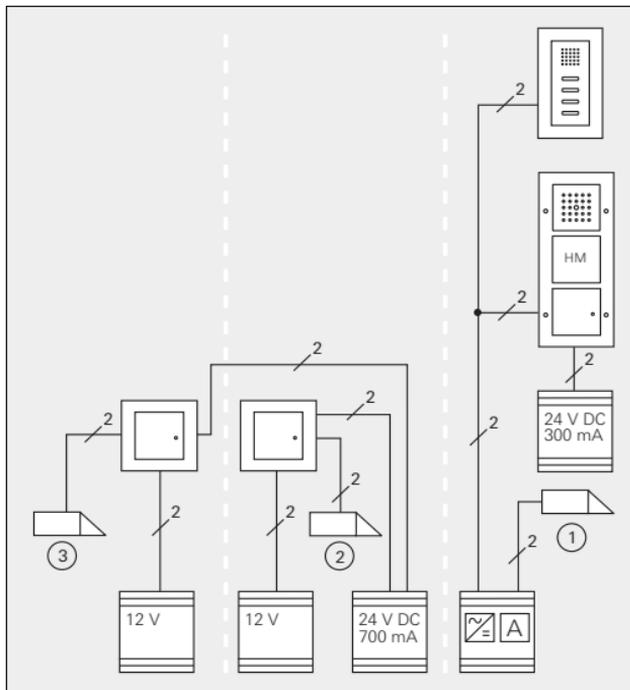
Fig. 102: Installation example for senior citizen's residence

All residents of the senior citizen's residence can open the main entrance door with their active transponder key. In addition, each resident has access to his/her own flat with the same transponder key (2), (3).

The nursing staff is equipped with a transponder card. Here it is possible to exactly define which nurse may enter which area of the residence or which flat with his/her transponder card.

Power supply

The transponder reader is supplied with power via an additional power supply, and two transponder readers can be connected to one additional 24 VDC, 700 mA supply.

30.4 Server room with transponder reader
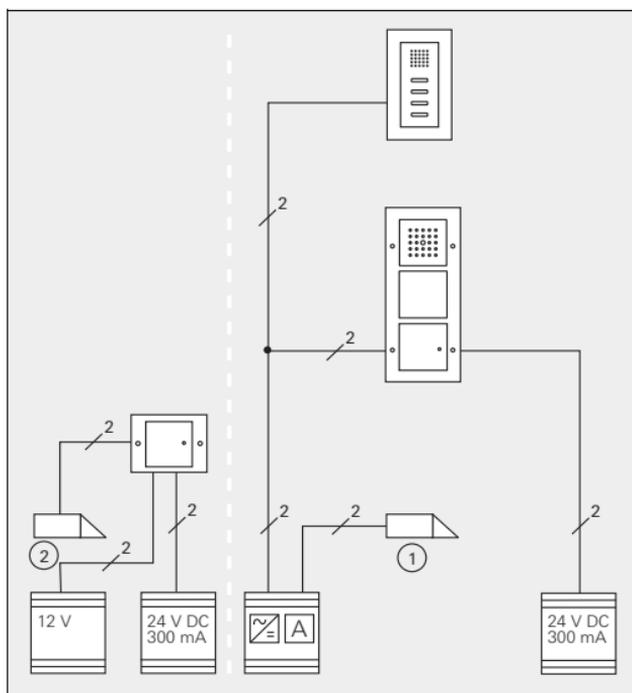
Fig. 103: Installation example of server room

In the commercial sector (e.g. smaller companies), special areas my be made accessible only to selected employees.

In the example shown, all employees of the company can operate the door opener at the main entrance (1) with their transponder card.

Only the employees of the IT department have access to the server room (2) with their transponder card.

30.5 Motor lock with fingerprint reader
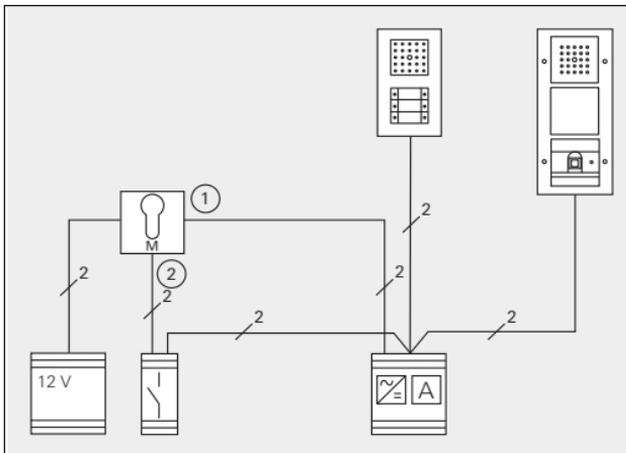
Fig. 104: Installation example of motor lock

The entrance door can be opened and closed with a common motor lock with a fingerprint.

The "Open" contact (1) of the motor lock is operated here via the door opener contact of the control device.
The "Close" contact (2) of the motor lock is operated via a DCS switching actuator.

Different user fingers are required for the two switching actions, e.g. the index finger for unlocking and the middle finger for locking.

31 Troubleshooting

31.1 Faulty topologies

Two frequently occurring errors in systems with the video function are shown in the two following illustrations.

Wiring without a video distributor and the incorrect connection of the video distributor lead to reflections of the video signal and result in poor picture qualities.

Incorrect!
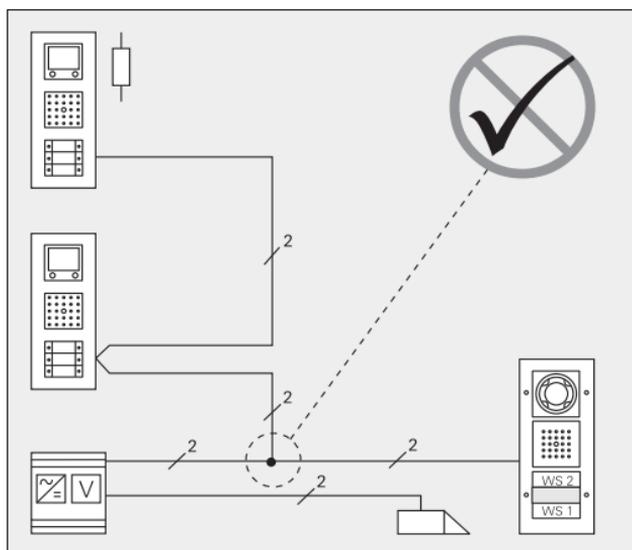
Fig. 105: Incorrect connection of a cable line in a topology with the video function

Incorrect!
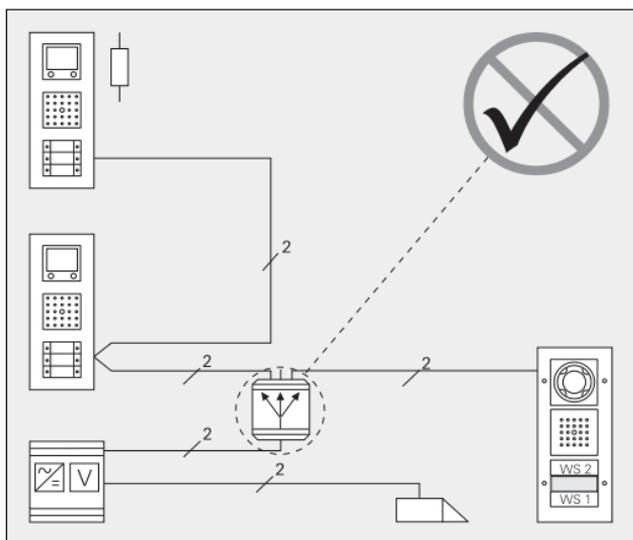
Fig. 106: Incorrect connection of the video distributor

Correct!
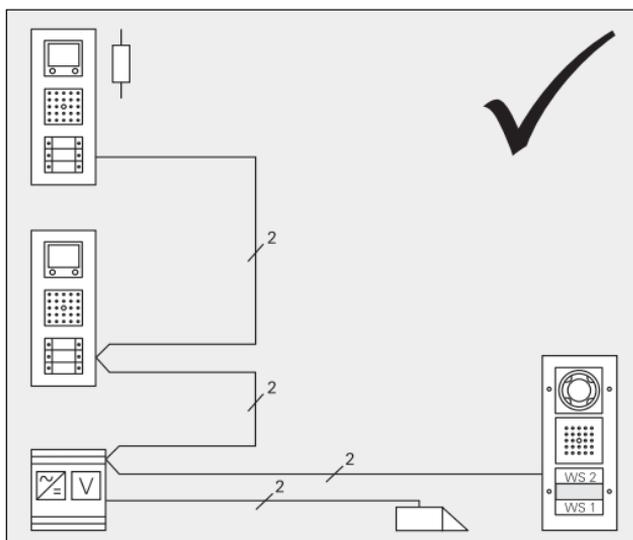
Fig. 107: Correct connection

This example shows the correct connection of the topology. The need for a video distributor can be eliminated by "looping through" the individual components.

31.2 Causes, solutions - Door communication

Error description	Possible Cause	Solution
Door opener does not function.	Door opener is not assigned to door station.	Assign door opener function to corresponding door station.
Overload/short-circuit indicator on control device lights up.	Bus is short-circuited at some point.	Check bus for short-circuit and eliminate if necessary.
	System is overloaded by too many devices.	Check whether permissible number of devices has been exceeded. If it has, connect colour cameras or call button illuminations to additional power supply.
	Connected bus use is defective.	Check bus users for general operation.
Floor call is not possible at a parallel home station.	Floor-call button has not been taught-in on parallel home station.	Teach-in floor-call button on parallel home station.
Floor call was only triggered once.	Cabling of floor-call button to home station is not just carried out to first home station.	Only connect floor-call button to one home station and teach-in additional home stations.
Home station cannot be taught-in.	Light button was pressed for 6 sec. instead of 3 sec. during programming.	Check function of home station in normal system state and repeat programming if necessary.
Voice connection only possible in one direction. Door call is produced at a home station with receiver, however no voice connection is possible.	A speech insert or top unit on door or home station is defective.	Check speech inserts and top units on door or home station and replace if necessary.
	Receiver cable is not properly engaged in receiver or receiver insert.	Check seating of receiver cable in receiver and receiver insert.
Call button illumination of door station does not function.	Call button illumination is only active when the jumpers are set between BUS and ZV.	Set the jumpers between ZV and BUS on bus coupler of door station.

Tab. 11: Errors - Causes - Solutions - Door communication system

Error Description	Possible Cause	Solution
Colour camera does not function.	No jumpers between terminals ZV and BUS.	Set the jumpers between ZV and BUS on bus coupler of door station.
Poor picture with parallel operation of several TFT colour displays.	More than one TFT colour display was configured as main display.	With parallel operation of several home stations with a TFT colour display, on display must be configured as a primary display and others as secondary display.
Brighter picture areas can be seen in TFT colour display.	Colour camera pointed directly at a light source.	Redirect colour camera.
In video systems: Poor picture Grainy picture Ghost images Snowy picture	Connection cable (2/6-pole) between flush-mounted inserts not connected.	Produce plug connection between flush-mounted inserts.
	Frequency not optimally set.	Correctly set frequency.
	Terminating resistances are set incorrectly.	Correctly set terminating resistances of home stations.
	Error in topology: • Blind branch line in topology or unused wires which are connected. • "Branch line" topology without using video distributors. • After a video home station, an audio home station was installed which is not connected via a video distributor. • Specified cable lengths exceeded. • Recommended cable material not used.	Check whether listed points apply and eliminate fault cause.

Tab. 12: Continuation of Errors - Causes - Solutions - Door communication system

Error Description	Possible Cause	Solution
TFT colour display remains dark after door call, however voice connection is possible.	No jumpers are set between ZV and BUS on home or door station.	Set the jumpers between ZV and BUS on bus coupler of the door or home station.
	Connection cable (2/6-pole) between flush-mounted inserts not connected.	Produce plug connections between flush-mounted inserts.
All LEDs flash rotationally in clockwise direction on surface-mounted video home station.	Additional power supply has failed.	Check additional power supply and supply cable.
Camera shows black-and-white picture instead of colour picture.	Frequency not optimally set.	Correctly set frequency on TFT colour display.
	Colour camera switches into black-and-white mode when brightness was < 1 lux during ringing. Camera remains in black-and-white mode, even when a light is switched on subsequently.	Switch illumination motion-dependent via an automatic control switch when someone approaches building.
Audio transmission in a video system is faulty. A clear humming noise can be heard.	"Function earth" on video control device missing.	Connect "function earth".
	A device subject to interference is installed next to video control device, e.g. doorbell transformer, devices with switched-mode power supplies, antenna power supply etc.	Check positioning of devices and cable routing sub-distribution. Do not position video control device next to devices subject to interference.
	2-wire bus was routed directly next to cables subject to interference (dimmer, telephone lines, etc.).	Ensure separate installation of 2-wire bus from 230 V cables subject to interference.
A 2nd camera is shown in colour display, although only one camera is installed in system.	A 2nd camera was taught-in in system previously (e.g. for test in workshop).	Delete camera assignments on TFT colour display, then teach-in camera again.

Tab. 13: Continuation of Errors - Causes - Solutions - Door communication system

31.3 Causes, solutions - Keyless In

Error Description	Possible Cause	Solution
Keypad: Door is not opened after entering PIN and pressing key button.	"Building Large" operating mode was accidentally selected during starting up.	Set "Building Small" operating mode with factory reset.
Fingerprint reader: Fingers detection continually becomes poorer over time.	Two possible errors when laying on user finger: • Finger positioned incorrectly • Finger laid on too lightly	Lay on finger correctly: The centre of the swirl of the fingerprint must be centred on the scanning surface of the fingerprint reader. Press on user finger somewhat more firmly when laying on.
Transponder reader: Startin up does not function, as no acknowledgement tones can be heard.	The acknowledgement tones were accidentally switched off.	Switch on the acknowledgement tones again. (Hold programming card in front of transponder reader for 9 sec.)
Transponder reader: The device was put into operation properly, however operation does not function.	Execution of switching actions may be caused with the programming card.	Switching actions can only be carried out with a transponder card or with a transponder key.
Transponder reader: The device does not function in the door communication system.	During the installation the BUS line of the transponder reader was disconnected and reconnected the wrong way around.	Connect the BUS line of the transponder reader correctly: • black to Terminal 6 • white to Terminal 7
No switching function in conjunction with a built-in loudspeaker.	Incompatibility of index versions used: Built-in loudspeakers up to Index 05 only function with Keyless In devices up to Index 02.	Use devices with compatible index versions.

Tab. 14: Errors - Causes - Solutions - Keyless In

32 Dimensions

Items	Variant		Dimensions in mm (W x H x D)
Door station	The dimensions of the door station are dependent on the TX_44 cover frame: TX_44 cover frame, 2-gang TX_44 cover frame, 3-gang TX_44 cover frame, 4-gang		 110 x 157 x 16 110 x 229 x 16 110 x 300 x 16
Expansions for door station	Colour camera insert Call button, Info module insert,		66 x 66 x 37 66 x 66 x 16
Surface-mounted door station	1-gang 3-gang 6-gang Video 1-gang Video 3-gang		110 x 181 x 19 110 x 181 x 19 110 x 253 x 19 110 x 253 x 40 110 x 253 x 40
Door station stainless steel audio	1-gang, 2-gang, 3-gang	Front panel: Flush-mtd. box:	160 x 218 x 3 140 x 198 x 40
	4-gang, 6-gang	Front panel: Flush-mtd. box:	160 x 285 x 3 140 x 265 x 40
	8-gang, 9-gang	Front panel: Flush-mtd. box:	160 x 352 x 3 140 x 332 x 40
	10-gang, 12-gang	Front panel: Flush-mtd. box:	270 x 285 x 3 250 x 265 x 40
Door station stainless steel video	1-gang, 2-gang	Front panel: Flush-mtd. box:	160 x 285 x 3 140 x 265 x 60
	3-gang, 4-gang	Front panel: Flush-mtd. box:	160 x 352 x 3 140 x 332 x 60
	6-gang, 8-gang, 9-gang	Front panel: Flush-mtd. box:	160 x 437 x 3 140 x 417 x 60
	10-gang, 12-gang	Front panel: Flush-mtd. box:	270 x 285 x 3 250 x 265 x 60
Built-in loudspeaker	Built-in loudspeaker		100 x 66 x 27
Add-on module for built-in loudspeaker	incl. fixing lug without fixing lug		66 x 65 x 27 66 x 55 x 27
Home station	The dimensions of the home station are dependent on the cover frame used. The dimensions are provided in the Technical Annex of the Gira Catalogue.		
Insert of home stations, call button, TFT colour display	System 55 F100		55 x 55 x * 70 x 70 x 11 *Depending on cover frame height

Tab. 15: Device dimensions of Gira door communication system

Items	Variant		Dimensions in mm (W x H x D)
Surface-mounted home station (without cover frame)	System55 F100		55 x 127 x 20 70 x 142 x 20
Surface-mounted home station video (without cover frame)	System55 (Integration in F100 via adapter frame)		55 x 127 x 21
Surface-mounted gong (without cover frame)	System55		55 x 127 x 20
VideoTerminal	in surface-mounted mounting frame in flush-mounted mounting frame		182 x 246 x 52 194 x 252 x 64

DRA devices	Audio control device
	Video control device
	DCS switching actuator
	Additional power supply
	    24 V DC 300 mA
	    24 V DC 700 mA
	DCS-TC-gateway
	DCS-IP-gateway		

Accessories	Flush-mounted DCS switching actuator DCS push button interface		43 x 28 x 15 43 x 28 x 15
	DCS-camera-gateway External camera		36 x 52 x 27 145 x 99 (∅ x H)
	Video amplifier Video multiplexer Video distributor		36 x 52 x 27 36 x 52 x 27 36 x 52 x 27
Interface devices	Gira Control 9	Cover frame Flush-mtd. box:	278 x 230 x 16 212 x 124 x 75
	Gira Control 19	Cover frame Flush-mtd. box:	546 x 330 x 15 528 x 312 x 80

Tab. 16: Continuation of device dimensions of Gira door communication system

33 Overview of Order Numbers

Items	Variant	Order number
Door stations + Accessories	Door station, 1-gang Door station, 3-gang	1260 .. 1261 ..
	Call button, 1-gang Call button, 3-gang	1262 00 1263 00
	Info module	1264 00
	Colour camera	1265 ..

	Installation profile
	  1-gang
	  2-gang
	  3-gang
	  4-gang
	Fastening set
		
		1274 00
		1275 00
		1276 00
		1277 00
		1257 00

Surface-mounted door station	1-gang 3-gang 6-gang	1266 .. 1267 .. 1268 ..
Surface-mounted door station video	1-gang 3-gang	1269 .. 1270 ..
Door station stainless steel audio	1-gang 2-gang 3-gang 4-gang 6-gang 8-gang 9-gang 10-gang 12-gang	2501 20 2502 20 2503 20 2504 20 2506 20 2508 20 2509 20 2510 20 2512 20
Door station stainless steel video	1-gang 2-gang 3-gang 4-gang 6-gang 8-gang 9-gang 10-gang 12-gang	2551 20 2552 20 2553 20 2554 20 2556 20 2558 20 2559 20 2560 20 2562 20
Built-in loudspeaker	Built-in loudspeaker Expansion module	1258 00 1259 00

Tab. 17: Order numbers of Gira door communication system

Items	Variant	Order number
Home Stations + Accessories	Surface-mounted home station	1250 ..
	Surface-mounted home station video	1279 ..
	Surface-mounted gong	1200 ..
	Home station Home station with receiver	1280 .. 1281 ..
	Call button, 1-gang Call button, 3-gang	1283 .. 1285 ..
	TFT colour display	1286 ..
VideoTerminal	VideoTerminal	2600 ..
	Surface-mounted mounting frame Flush-mounted mounting frame	1251 04 1252 04
Gateways	DCS-IP-gateway	2620 ..
	DCS-TV-gateway	2610 ..
	DCS-TC-gateway Programming set	1290 00 1291 00
Control devices	Audio control device Video control device	1287 00 1288 00
Additional power supply	24 V DC 300 mA 24 V DC 700 mA 12 V DC 2 A	1296 00 2570 00 5319 00
DCS switching actuators	DCS switching actuator DCS flush-mounted switching actuator	1289 00 1211 00
DCS push button interface	DCS push button interface	1210 00
Video accessories	DCS-camera-gateway External camera Video amplifier Video multiplexer Video distributor	1201 00 1220 00 1222 00 1224 00 1226 00
Keyless In	Keypad	2650 ..
	Fingerprint reader	2607 ..
	Transponder reader	2606 ..
	Programming card Transponder key active Transponder card	2608 00 2609 00 2611 00

Tab. 18: Order number Gira door communication system and Keyless In

34 www.gira-akademie.de – The online training course
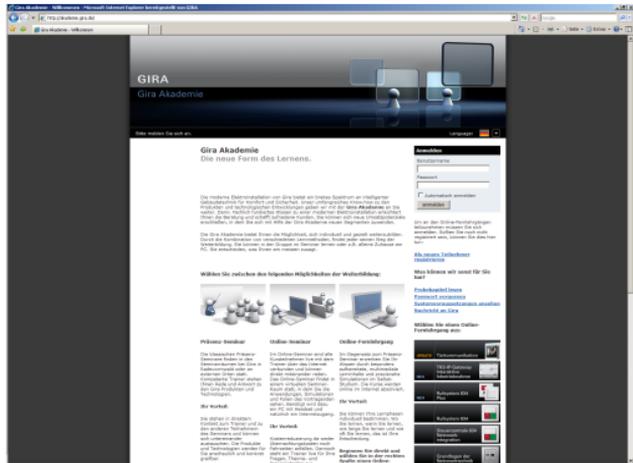
Fig. 108: Online training course on door communication system

At **www.akademie.gira.de** Gira offers online distance learning courses on "door communication" and the "DCS-IP-gateway" with which you can quickly and conveniently become an expert in the field of door communication. The online courses are completed on the Internet. You can decide for yourself where, when and how long you study and how often you want to repeat a lesson.

In addition to the foundations of door communication technology, the Gira online training course teaches everything you need to know about the Gira door communication system and the individual components.
In addition, the courses include which aspects must be considered when planning a door intercom and the phases of installation and start-up.

The online distance learning courses offer a wide range of interactive simulations, e.g. of system start-up. You can complete an examination at the end of each online distance learning course. If the exam is passed, you receive a certificate as a confirmation of completing the course.

35 Presentation

The pre-assembled, functional audio displays utilise original devices to make the high voice-rendition quality of the Gira door and home station audible and the mode of operation visible for your customers.

The audio presentation case contains:
- 1 display with the Gira door station 1-gang, TX_44, colour aluminium
- 1 display with the Gira surface-mounted home station and a bell button for simulating internal calls, E2 pure white glossy
- 1 ready-to-connect audio control device

Audio presentation case

Using the fully functional video displays, you can demonstrate the Gira door station including a colour camera in action and show how crystal clear the pictures are when they appear in the TFT colour display on the surface-mounted Gira home station video.

The video presentation case contains:
- 1 display with the Gira door station 1-gang and colour camera, TX_44, colour aluminium
- 1 display with the Gira surface-mounted home station video and a bell button for simulating internal calls, E2 pure white glossy
- 1 ready-to-connect video control device

Video presentation case

Your customers can experience the sound quality and convenience of hands-free functionality live using the functional display with the Gira home station. The audio presentation display is equipped with:

The audio presentation display is equipped with:
- 1 Gira home station, pure white glossy with 2-gang cover frame, Esprit, glass white

Home station audio

Home station video

Gira Türkommunikations-System GIRA
Gira door communication system
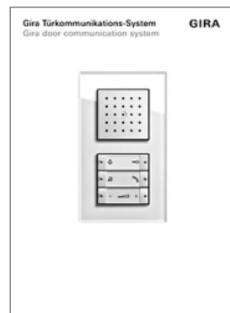
The functional display home station video is equipped with a 4.57 cm (1.8") TFT colour display.

The video presentation display is equipped with:
1 Gira home station with TFT colour display
4.57 cm (1.8"), pure white glossy with
3-gang cover frame, Esprit, glass white

Home station video

Gira Türkommunikations-System GIRA
Gira door communication system

For the F100 range, the functional display home station video is equipped with a 6.35 cm (2.5") TFT colour display.

The video presentation display is equipped with:
1 Gira home station with TFT colour display
6.35 cm (2.5"), with 3-gang cover frame,
F100, pure white glossy

VideoTerminal

Gira VideoTerminal GIRA

The pre-assembled and functional display VideoTerminal has a convincing 14.5 (5.7") display and convenient hands-free functionality.

The VideoTerminal presentation display is equipped with:
1 Gira VideoTerminal, glass white
1 flush-mounted mounting frame,
colour aluminium
1 ready-to-connect power supply 24 V DC 700 mA

The door station stainless steel not only looks elegant, it's also really tough. You can showcase that clearly using the display door station stainless steel.

The door station stainless steel presentation display is equipped with:
1 door station stainless steel audio, 4-gang

Door station stainless steel

The Control 9 Client and DCS-IP-gateway presentation display is plug-in ready and can be put into operation using the door communication system video presentation case.

The presentation display is equipped with:
1 Gira Control 9 Client
1 Gira DCS-IP-gateway
1 additional power supply 24 V DC 300 mA

Control 9 Client and DCS-IP-gateway
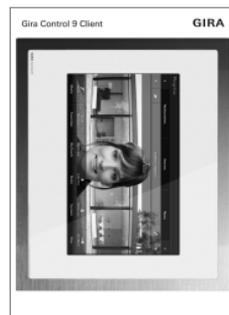
The pre-assembled and functional Keyless In display is equipped with:
1 Fingerprint reader, TX_44, colour aluminium
1 Keypad, TX_44, colour aluminium
1 transponder reader, TX_44, colour aluminium

The display's scope of supply also includes:
1 transponder card
1 transponder key
1 ready-to-connect plug-in power supply unit 24 V DC

Keyless In
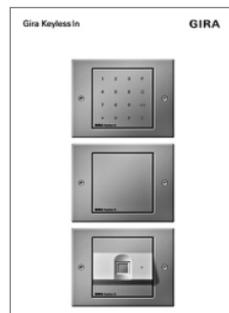
36 Adresses

Gira

Gira
Giersiepen GmbH & Co. KG
Electrical installation systems

Industriegebiet Mermbach
Dahlienstraße
42477 Radevormwald

P.O. Box 1220
42461 Radevormwald

Germany

Phone +49 (0) 21 95 - 602 - 0
Fax +49 (0) 21 95 - 602 - 119

www.gira.com
info@gira.com

Online training course

www.akademie.gira.de

Technical hotline

Phone +49 (0) 21 95 - 602 - 333
Fax +49 (0) 21 95 - 602 - 119
E-mail: export@gira.de

Inscription service

www.marking.gira.com

Renz

Erwin Renz
Metallwarenfabrik GmbH & Co. KG
Boschstraße 3
71737 Kirchberg/Murr

Phone +49 (0) 71 44 - 301 - 0
Fax +49 (0) 71 44 - 301 - 185

DRA devices/Accessories

Video control device		Audio control device	
Power supply 300 mA	24 V DC 300 mA	Power supply 700 mA	24 V DC 700 mA
Doorbell transformer	12 V	Power supply 2 A	12 V DC 2 A
DCS-TC-gateway		DCS switching actuator	
DCS-camera-gateway		DCS-TV-gateway	
DCS-IP-gateway	IP	Computer	
External camera		IP camera	IP
Video multiplexer		Video distributor	
Terminating element		Video amplifier	
IP telephone	IP	Motor lock	M
Switch	Switch	Door opener	
Bell button/ Floor-call button		Button illumination	
Telephone		Television	
Telephone connection			
AV modulator	AV	Antenna socket	
Telephone connection		Cable connection	TV
Telephone system		BK-Amplifier	
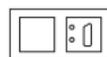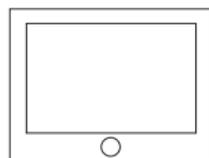
GIRA