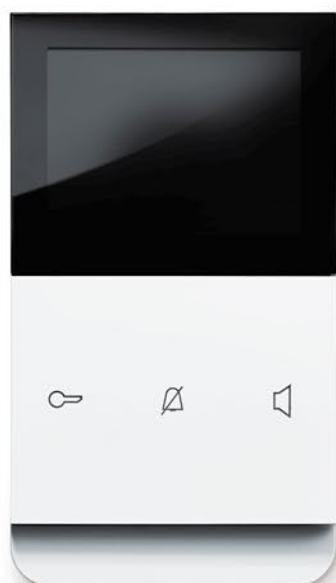# Door Communication systems

A tried-and-tested system: 2-wire technology transfers video, sound and control commands via just two wires. Calling, seeing, speaking, opening – a 2-wire system with a line coupler can connect 150 outdoor stations and 256 indoor stations. Due to the low number of components, this technology enables cost-effective solutions which are ideal for new systems, retrofits and renovations.
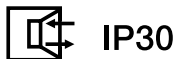
18

**Door communi-
cation systems**
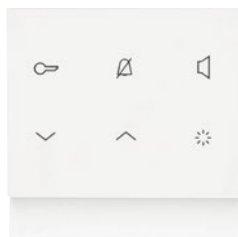
REK221X

IP30

ELCOM.TOUCH audio indoor stations kit

Dimensions (W x H x D):	93/92.5/16 mm
Operating temperature:	5 to 50 °C
Operating voltage via bus:	22 to 24 V DC

- 6 function buttons with symbols, 3 are illuminated (release door, mute ring tone, call/speak)
- 16 ring tone melodies
- door call, storey call or internal call assignment
- shut-off button for ring tone, with status LED
- ring tone volume and microphone sensitivity can be adjusted incrementally

- hands-free or Push-to-Talk
- acoustic and optical call signalling
- storey call forwarding to identically addressed indoor stations
- parallel call (up to 3 indoor stations in parallel operation)
- internal call to other indoor stations
- special functions lockable using DIP-switches
- connection terminal block with screw terminals
- rotary coding switch (one-man commissioning)

Description	Colour	Cat. ref.
indoor station audio angular surface-mounted 2-wire	polar white, glossy	**REK221X**
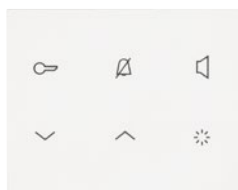
REA121X

IP30

ELCOM.TOUCH audio indoor stations

Dimensions without frame (W x H x D):	93/74.5/16 mm
Operating temperature:	5 to 50 °C
Operating voltage via bus:	22 to 24 V DC

- 6 function buttons with symbols, 3 are illuminated (release door, mute ring tone, call/speak)
- 16 ring tone melodies
- door call, storey call or internal call assignment
- shut-off button for ring tone, with status LED
- ring tone volume and microphone sensitivity can be adjusted incrementally

- hands-free or Push-to-Talk
- acoustic and optical call signalling
- storey call forwarding to identically addressed indoor stations
- parallel call (up to 3 indoor stations in parallel operation)
- internal call to other indoor stations
- special functions lockable using DIP-switches
- connection terminal block with screw terminals
- rotary coding switch (one-man commissioning)

Description	Colour	Cat. ref.
indoor station audio surface-mounted 2-wire	white, glossy	**REA122X**
indoor station audio surface-mounted 2-wire	white, matt, lacquered	**REA112X**
indoor station audio surface-mounted 2-wire	polar white, glossy	**REA121X**
indoor station audio surface-mounted 2-wire	polar white, matt	**REA111X**
indoor station audio surface-mounted 2-wire	black, glossy	**REA125X**
indoor station audio surface-mounted 2-wire	anthracite, matt, lacquered	**REA114X**
indoor station audio surface-mounted 2-wire	aluminium, matt, lacquered	**REA113X**

WD1219

ELCOM.TOUCH audio frame angular

Design line	Colour	Cat. ref.
Berker S.1	white, glossy	**WD1219**
Berker Q.3	white, matt	**WD1212**
Berker S.1/K.1/R.3	polar white, glossy	**WD1221**
Berker S.1/B.7/Q.3	polar white, matt	**WD1211**
Berker R.3	black, glossy	**WD1225**
Berker B.3/B.7/Q.3/K.1	anthracite, matt	**WD1217**
Berker B.7/Q.3	aluminium, matt, lacquered	**WD1213**
Berker B.3/B.7/Q.3/K.5	aluminium, metal matt-finished	**WD1253**
Berker K.5/R.3	stainless steel, metal matt-finished	**WD1263**
Berker B.7	stainless steel, metal brushed	**WD1243**
Berker B.7/R.3	glass, polar white	**WD1231**
Berker B.7	glass, aluminium	**WD1233**
Berker B.7/R.3	glass, black	**WD1235**

ELCOM.TOUCH audio frame round

| Design line	Colour	Cat. ref.
Berker Q.1	white, matt	**WD1112**
Berker R.1/R.classic series/1930 series	polar white, glossy	**WD1121**
Berker Q.1/Q.7	polar white, matt	**WD1111**
Berker R.1/R.classic series/1930 series	black, glossy	**WD1125**
Berker Q.1/Q.7/R.1	anthracite, matt	**WD1117**
Berker Q.1/Q.7	aluminium, matt, lacquered	**WD1113**
Berker Q.7/R.1/R.classic series	aluminium, metal matt-finished	**WD1153**
Berker R.1/R.classic series	stainless steel, metal matt-finished	**WD1163**
Berker Q.7/R.1/R.classic series/glass series	glass, polar white	**WD1131**
Berker Q.7/R.1/R.classic series	glass, black	**WD1135**

WD1112

ELCOM.TOUCH video indoor stations kit

Display diagonal:	8.9 cm (3.5")
Resolution of graphical display:	320 x 240 px
Dimensions (W x H x D):	93/163.5/16 mm
Power consumption (operation):	5 W
Operating temperature:	5 to 50 °C
Operating voltage via bus:	22 to 24 V DC

- 3 function buttons with illuminated symbols for: release door, mute ring tone, call/speak
- Touch (capacitive) with mechanical feedback
- 16 ring tone melodies
- door call, storey call or internal call assignment
- shut-off button for ring tone, with status LED
- illuminated TFT colour display
- display of moving camera pictures from video door stations or external cameras
- icon bar for displaying menu button assignment
- Display brightness and contrast can be adjusted in stages

- ring tone volume and microphone sensitivity can be adjusted incrementally
- hands-free or Push-to-Talk
- acoustic and optical call signalling via LED and display
- storey call forwarding to identically addressed indoor stations
- parallel call (up to 3 indoor stations in parallel operation)
- internal call to other indoor stations
- manual swicth on/change-over of cameras
- special functions and extended menu lockable using DIP-switches
- outgoing calls to door stations with display of the door address
- connection terminal block with screw terminals
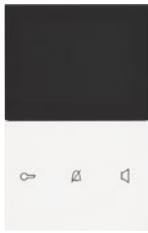- rotary coding switch (one-man commissioning)
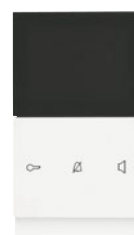
REK621X

IP30

Colour	Cat. ref.
polar white, glossy	**REK621X**

REA651X

ELCOM.TOUCH video indoor station comfort

Display diagonal	8.9 cm (3.5")
Resolution of graphical display	320 x 240 px
Dimensions without frame (W x H x D):	93 x 144.5 x 16 mm
Operating temperature:	5 … 50 °C
Operating voltage via bus:	24 V DC
Current consumption (operation):	≤ 220 mA

- flat surface-mounted installation or onto wall box
- for vertical mounting
- 3 Touch buttons with illuminated symbols for: release door, mute ring tone, call/speak
- Touch buttons (capacitive) with mechanical feedback
- 16 ring tone melodies
- door call, storey call and internal call assignment
- shut-off button for ring tone, with status LED
- 3 menu operation buttons for settings and for triggering the functions appearing in the display
- menu access and change-over by horizontal swipe movement on the touch user interface
- illuminated TFT colour display
- display of the calling door/indoor station number
- display of moving camera pictures from video outdoor stations or external cameras
- icon bar for displaying menu button assignment
- display brightness and contrast can be adjusted in stages
- ring tone volume and microphone sensitivity can be adjusted incrementally

- hands-free or Push-to-Talk
- acoustic and optical call signalling via LED and video image display
- storey call forwarding
- parallel operation of up to 3 indoor stations
- automatic display switch off after 3 minutes
- call waiting during current call
- Concierge call
- image memory function in in connection with IP gateway 2-wire
- manual camera and door activation/change-over
- automatic door release (automatic door release)
- storey door release automatic
- direct door release
- internal connection
- 8 internal call destinations can be configured
- parallel call to call push-button intercom device address 0
- special functions and extended menu lockable using DIP-switches
- privacy function
- video privacy function
- manual camera activation lockable
- connection terminal block with screw terminals
- connection for for storey call push-button
- connection for optional additional infeed
- connection forintegrated relay contact 24 V/1 A
- drehfix® coding switch (one-man commissioning)

Colour	Cat. ref.
polar white, matt, plastic	**REA651X**
white, matt	**REA652X**
aluminium, matt, lacquered	**REA653X**
anthracite, matt, lacquered	**REA654X**
polar white, glossy	**REA661X**
white, glossy	**REA662X**
black, glossy	**REA665X**

WD2219

ELCOM.TOUCH video frame angular

Design line	Colour	Cat. ref.
Berker S.1	white, glossy	**WD2219**
Berker Q.3	white, matt	**WD2212**
Berker S.1/K.1/R.3	polar white, glossy	**WD2221**
Berker S.1/B.7/Q.3	polar white, matt	**WD2211**
Berker R.3	black, glossy	**WD2225**
Berker B.3/B.7/Q.3/K.1	anthracite, matt	**WD2217**
Berker B.7/Q.3	aluminium, matt, lacquered	**WD2213**
Berker B.3/B.7/Q.3/K.5	aluminium, metal matt-finished	**WD2253**
Berker K.5/R.3	stainless steel, metal matt-finished	**WD2263**
Berker B.7	stainless steel, metal brushed	**WD2243**
Berker B.7/R.3	glass, polar white	**WD2231**
Berker B.7	glass, aluminium	**WD2233**
Berker B.7/R.3	glass, black	**WD2235**

ELCOM.TOUCH video frame round

WD2112

Design line	Colour	Cat. ref.
Berker Q.1	white, matt	**WD2112**
Berker R.1/R.classic series/1930 series	polar white, glossy	**WD2121**
Berker Q.1/Q.7	polar white, matt	**WD2111**
Berker R.1/R.classic series/1930 series	black, glossy	**WD2125**
Berker Q.1/Q.7/R.1	anthracite, matt	**WD2117**
Berker Q.1/Q.7	aluminium, matt, lacquered	WD2113
Berker Q.7/R.1/R.classic series	aluminium, metal matt-finished	**WD2153**
Berker R.1/R.classic series	stainless steel, metal matt-finished	**WD2163**
Berker Q.7/R.1/R.classic series, glass series	glass, polar white	**WD2131**
Berker Q.7/R.1/R.classic series	glass, black	**WD2135**

ELCOM.FON indoor station

Dimensions without frame (W x H x D): 93 x 74.3 x 16 mm
Operating temperature: 5 … 45 °C
Operating voltage via bus: 24 V DC
Current consumption (operation): ≤ 180 mA

- flat surface-mounted installation or installation onto wall box
- for vertical mounting
- screw fastening via supporting plate possible
- for door release, with status LED / for call switch off, with status LED / for hallway light / for programming
- push-buttons with tactile feedback
- 16 ring tone melodies
- door call, storey call and internal call assignment
- shut-off button for ring tone, with status LED
- tap-proof if handset is off-hook
- comfortable magnetic holder for handset with reed contact

- including spiral cable and RJ11 connector plug
- volume for hearing and speaking adjustable
- full duplex handset mode
- acoustic and optical call signalling
- storey call forwarding
- parallel operation of up to 3 indoor stations
- concierge call
- automatic display switch off after 3 minutes
- 2 pre-configured internal call destinations
- parallel call to call push-button intercom device address 0
- special functions via menu
- privacy function
- connection terminal block with screw terminals
- connection for for storey call push-button
- connection for optional additional infeed
- drehfix® coding switch (one-man commissioning)

REK241X

IP30

Colour	Cat. ref.
polar white, glossy	**REK241X**

Table supports

Colour: anthracite
Connection: RJ45
Length of connection cable: 3 m

REH002X

Description	Cat. ref.
table support for ELCOM.TOUCH / ELCOM.FON audio	**REH002X**
table support for ELCOM.TOUCH video	**REH003X**

REH003X
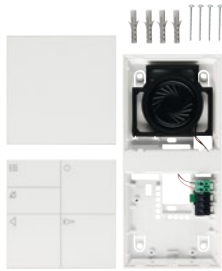
REA159X

IP30

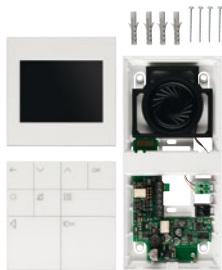### Indoor station audio comfort

Dimensions (W x H x D):	96/196/20 mm
Operating temperature:	5 to 40 °C
Operating voltage via bus:	19 to 25 V DC

Additional functions offered by comfort version
- Concierge call
- Automatic door release
- Switching functions
- Programmable integrated switching relay

- for call/speak for door release for call switch off, with status LED for hallway light for menu navigation
- capacitive buttons with blue status LED
- 16 ring tone melodies
- door call, storey call or internal call assignment
- sound volume for ring tone melody and control button tone continuously adjustable
- microphone sensitivity continuously adjustable
- full duplex hands-free mode
- acoustic and optical call signalling
- automatic display switch off after 3 minutes
- call waiting during current call
- parallel operation of up to 3 indoor stations

- storey call forwarding to identically addressed indoor stations
- automatic door release (automatic door release)
- floor door release automatic
- floor door release automatic via integrated relay
- direct door release
- call forwarding to another indoor station
- parallel call
- i2-BUS relay
- internal relay on the terminals KK
- internal call
- internal call F
- internal connection
- manual ON of the configured door station
- privacy function
- device configuration lockable via DIP-switch
- keylock for cleaning mode
- for floor call push-button
- at integrated relay contact 24 V/1 A
- for optional additional infeed

Description	Colour	Cat. ref.
indoor station audio comfort surface-mounted 2W video	white, glossy	**REA159X**

REA559X

IP30

Indoor station video comfort

Display diagonal:	8.9 cm (3.5'')
Resolution of graphical display:	320 x 240 px
Dimensions (W x H x D):	96/196/20 mm
Power consumption (operation):	4 W
Operating temperature:	5 to 40 °C
Operating voltage via bus:	19 to 25 V DC

Additional functions offered by comfort version
- Concierge call
- Automatic door release
- Switching functions
- Programmable integrated switching relay

- for call/speak for door release for call switch off, with status LED for hallway light for menu navigation
- capacitive buttons with blue status LED
- 16 ring tone melodies
- door call, storey call or internal call assignment
- shut-off button for ring tone, with status LED
- illuminated TFT colour display
- status displays for calling and speaking
- display of the calling door/internal station number
- symbol display for special functions of the configured buttons
- Display brightness incrementally adjustable
- Contrast incrementally adjustable
- Colour reproduction incrementally adjustable
- call volume adjustable
- sound volume for ring tone melody and control button tone continuously adjustable
- microphone sensitivity continuously adjustable
- half duplex intercom mode temporarily/permanently adjustable

- acoustic and optical call signalling via LED and display
- automatic display switch off after 3 minutes
- call waiting during current call
- parallel operation of up to 3 indoor stations
- floor call forwarding to identically addressed indoor stations
- manual camera and door activation/change-over
- automatic door release (automatic door release)
- floor door release automatic
- floor door release automatic via integrated relay
- direct door release
- call forwarding to another indoor station
- parallel call
- i2-BUS relay
- internal relay on the terminals KK
- internal call
- internal connection
- camera change-over at the calling door
- privacy function
- video privacy function
- manual camera activation lockable
- call on the door can be switched on/can be switched off
- keylock for cleaning mode
- for floor call push-button
- for optional additional infeed
- at integrated relay contact 24 V/1 A

Description	Colour	Cat. ref.
indoor station video comfort surface-mounted 2W video	white, glossy	**REA559X**

REH001X

Accessories for comfort indoor stations

Colour:	Stainless steel/glass glossy, metal brushed
Dimensions (W x H x D):	28/70/15 mm
Operating temperature:	-20 to 60 °C
Installation mode:	Built-in installation
Length of connection cable:	3 m

For use in office environments.

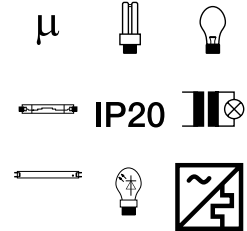| Description	Cat. ref.
universal desk console stainless steel/glass for comfort indoor intercom units	**REH001X**

:hager

Line power supply

System technology:	2-wire
Dimensions (W x H x D):	106/90/67 mm
Operating voltage:	230 V AC
Output voltage:	22 to 26 V DC
Width of rail mounted device (RMD)	6 modules
230 V incandescent and halogen lamps	2300 W
230 V retrofit LED lamps	440 W
Compact fluorescent lamps with electronic ballast	22 x 20 W
- parallel compensated	1000 VA/130 µF
- with electronic ballast	1000 W
- lead-lag circuit	1000 W
Cable length to door station	max. 100 m
Cable length to indoor station	max. 150 m
Door release unlocking time	1/10 s
Operating temperature	-5 to 45 °C
Power consumption	≈ 4.1 W

To supply the 2-wire system. Integrated audio output coupler. Overload and overheating protection.

RED011X

μ IP20

Description	Cat. ref.
bus line power supply with relay RMD	**RED011X**

Mains transformer

Nominal operating voltage alternating current:	230 V
Output voltage:	12 V
Insulation voltage:	4000 V
Total energy dissipation under rated current:	2.07 W
Conductor cross-section (flexible):	4 mm^2
Connection cross-section with rigid conductor:	6 mm^2
Operating temperature:	10 to 25 °C
Installation mode:	DIN rail (RMD)

Safety transformer with PTC fuse.

ST320

Description	Cat. ref.
safety transformer 230V/12V 18VA 2PLE	**ST320**

Access gate

Width of rail mounted device (RMD):	6 modules
Operating temperature:	-5 … 45 °C
Operating voltage:	21.6 ... 33 V= or 48 V= Power over Ethernet PoE according to IEEE802.3
Installation mode:	series installation

- with 2 USB jacks type A
- image memory function, protocols visitors for display on Touch indoor station video comfort and IP end devices
- compatible with web browsers from Internet Explorer 11, Chrome 32, Firefox 27, and Edge 20
- App for IOS as of version 7.1 and for Android as version 4.1 can be downloaded free of charge from the corresponding app store.

TJA510

Description	Cat. ref.
2-wire/IP gateway RMD with image memory	**TJA510**

Power supply, 24V DC, 1A

Width of rail mounted device (RMD):	4 modules
Operating temperature:	0 … 45 °C
Operating voltage:	230 V AC
Frequency:	50/60Hz
Output voltage:	24 V DC
Output current:	Max. 1 A
Conductor cross-section (flexible):	0.75 - 2.5 mm^2
Conductor cross-section (rigid):	0.75 - 2.5 mm^2

- with QuickConnect plug terminals
- for generating the required auxiliary voltage
- power supply: 230 V AC/50 Hz on QuickConnect terminals
- No. of outputs: 2
- For supplying : TJA510

TGA200

Description	Cat. ref.
Power supply, 24 V DC, 1 A	**TGA200**

Door communi-
cation systems

Line coupler

Dimensions (W x H x D):	106/90/67 mm	- coupling of single lines
Width of rail mounted device (RMD):	6 modules	- integrated switching relay for door release and
Video signal amplification:	20 dB	light (stair light timer)
Operating temperature:	5 to 40 °C	- Integrated video signal amplifier for door station
Installation mode:	Rail mounted device (RMD)	line
Device addressing: Rotary coding switch (one-man commissioning)		- for backbone cascading (2x RJ45)
Cable length to door station:	max. 100 m	- Power supply via video power supply unit
Cable length to indoor station:	max. 150 m	- infeed output for bus components
Backbone cabling:	Patch cable RJ45	- potential-free door release and light switching
Backbone terminator:	Switchable	contact
Backbone cable length:	< 300 m	- with connection for floating output
Door stations per system:	max. 150	- with power/overload, data traffic and backbone
Indoor stations per system:	max. 256	status LEDs
Line couplers per system:	max. 64	- door release protected against manipulation
Switching voltage door release contact:	24 V	installable
Switching voltage light contact:	max. 24 V	- 3 simultaneous voice channels in backbone

RED111X

IP20

- 1 voice channel in line
- simultaneous calls in multiple lines, if not occupied

Line coupler for connecting single lines in the 2-wire system via the backbone cable for systems with up to 256 subscribers and 150 main doors. Up to 64 line couplers with a backbone cable length of 300 m.

Description	Cat. ref.
line coupler 2-wire	**RED111X**

Line coupler accessories

RED013X power supply
Supplies power to the line coupler

TN002S - patch module RJ45, Cat.6, STP
Reference to Hager catalogue "Energy distribution + meter panel systems"

TN733 - patch cable set, Cat.6, S/FTP
Reference to Hager catalogue "Energy distribution + meter panel systems"

RED013X

IP20

Description	Cat. ref.
power supply RMD 2W video	**RED013X**
patch module RJ45 CAT6 STP for DIN rails	**TN002S**
patch cable set Cat.6, RJ45, 4 pc. @ 300 mm	**TN733**

Video distributor and branch

RED-612, RED-622 - video distributor 2gang
For video distribution from one incoming to two outgoing bus cables. Alternatively, for coupling 2 door stations.

RED-612: DIN rail version
RED-622: Flush-mounted version

RED-614, RED-624 - video distributor 4gang
For video distribution from one incoming to two outgoing bus cables. Alternatively, for coupling 4 door stations.

RED-614: DIN rail version
RED-624: Flush-mounted version

RED611X - video branch
For branching a stub line from the video bus cable. Alternatively, for coupling one (storey) door station.

RED611X: DIN rail version
RED621X: Flush-mounted version

RED612X

IP20

Description	Cat. ref.
video distributor 2-gang 2-wire RMD	**RED612X**
video distributor 2-gang 2-wire flush-mounted	**RED622X**
video distributor 4-gang 2-wire RMD	**RED614X**
video distributor 4-gang 2-wire flush-mounted	**RED624X**
video distributor/branch 2-wire RMD	**RED611X**
video distributor/branch 2-wire flush-mounted	**RED621X**

Output coupler for i2 audio

RED311X, RED321X - audio output coupler
For decoupling the i2 audio bus from the 2-wire system for the operation of audio components. 2D video looped through.

RED311X: DIN rail version
RED321X: Flush-mounted version

RED311X

Description	Cat. ref.
audio output coupler 2-wire RMD	**RED311X**
audio output coupler flush-mounted 2-wire	**RED321X**

IP20

Switching relay

Dimensions (W x H x D):	42/51/16 mm
Operating temperature:	5 to 40 °C
Installation mode:	For installation in flush-mounted wall box
Normally open contact switching voltage:	24 V
Normally open contact switching current:	1 A

RED114X - switching relay (universal)
for function-related switching and control functions such as: door release, light or function relay

- function-related switching and control functions
- switching of door release and light (stairway light timer)
- switching by function key on comfort indoor stations and door call signalling
- control by means of light, door release and comfort buttons of the indoor stations
- direct control of door release and light
- storey call function
- potential-free push-button input for control functions
- potential-free relay switching contact

RED114X

IP20

Description	Cat. ref.
switching relay 2-wire flush-mounted	**RED114X**

Switching relay

Switching relay 1gang with push-button input (universal)
For function-related switching and control functions such as: door release relay, light relay, function relay, door call signalling and door release/light direct control. (rail mounted device)

Switching relay 2gang (e.g. call switching relay)
With 2 potential-free switching contacts for subscriber-related switching functions. Addressable for 1-16 subscribers.

RED112X

Description	Cat. ref.
switching relay 1gang with input RMD i2 audio	**RED112X**
switching relay 2gang RMD i2 audio	**RED113X**

IP20

Outdoor cameras

Colour:	Stainless steel, metal brushed
Camera adjusting range horizontal/vertical:	± 90 °
Camera resolution:	320000 px
Camera light sensitivity F2.0:	0.2 lx
Camera objective:	12 mm
Camera CCD image sensor:	1/3"
Dimensions of camera rod (Ø x L):	24/83 mm
Dimensions of base (Ø x H):	104/25 mm
Video output, symmetrical:	1 Vpp, Z=100 ohms
Installation mode:	For wall and ceiling installation
Operating voltage via bus:	19 to 25 V DC

The rod cameras can be concealed in an inconspicuous position for discreet monitoring of the entrance area.

- stable, weatherproof stainless steel housing
- for discreet, inconspicuous positioning
- can be flexibly adjusted in any direction
- camera adjustment by ball joint with setscrew
- base housing made of brushed stainless steel
- camera rod made of brushed stainless steel
- rotary coding switch one-man commissioning
- device configuration via DIP-switch

REE500X

Description	Aperture angle horizontal	Aperture angle vertical	Cat. ref.
rod camera surface-mounted 2W video	63 °	49 °	**REE500X**
telescopic rod camera surface-mounted 2-wire	21 °	16 °	**REE501X**

Door communication systems

RED361X

Telephone gateway

Dimensions (W x H x D):	93/96/59 mm
Installation mode:	Rail mounting
Operating voltage via bus:	17 to 22 V DC
Operating temperature:	-20 to 60 °C
Width of rail mounted device (RMD):	6 modules

Telecommunication interface
Used to connect the i2 bus intercom system to the a/b port of a telephone system. This turns the intercom system into a telephony unit so it can be used as part of a telephone system installation.

The call variants can be changed over via the voice menu or defined as a chain call (engaged/no reply). During a conversation, up to 8 defined door stations can be dialled and the relevant door opened.

Programming is carried out via the integrated display and the keypad on the device, or conveniently via PC software and USB connection. The device does not need a separate power supply and is supplied via the i2 bus.

- connection to analogue telephone system interface
- call variant with 2 possible destination call numbers per subscriber
- up to 256 different subscribers/call destinations programmable
- configurable duration of calls
- automatic display switch-off after configured time
- parallel operation with up to 2 indoor stations
- supports i2BUS door, internal or storey calls
- integrated voice announcements for differentiating the type of call

- control of call acceptance and end of call
- switching of door release and light (stairway light timer)
- switching of up to 4 switching relays
- switching of door and camera switch
- direct selection and control of up to 8 door stations and their door releases
- control of the switching functions by DTMF post-dialling
- control code for door release, call acceptance and end of call adjustable
- door filter function for assignment of interface to specific door
- 8 individually configurable voice announcements for differentiating doors
- individually configurable call type, information and system announcements
- call variants 1, 2 or chain call adjustable
- call variant change-over by voice menu, display input or PC software
- internal calls to i2 bus indoor stations
- privacy function
- reject calls at the door
- calling of the voice menu with configurable PIN request adjustable
- call and talking duration individually adjustable for each call type
- device configuration and data backup via MS Windows PC and BTI-Term software
- device configuration via integrated two-row display by means of micro push-button
- menu language in English and German
- processes announcement sound files in WAV format up to 8 seconds in length

Description	Cat. ref.
PBX interface RMD i2 audio	**RED361X**

:hager

ELCOM.ONE front plates audio

Material / surface:	Makrolon
Colour:	Stainless steel, metal brushed
Dimensions of name plate (W x H):	75.5/32.6 mm, 75.5/14.5 mm
For labelling strip:	30 mm, 12 mm
Operating temperature:	-20 to 55 °C
Surface compensation:	17 mm

- device configuration via LED display
- Name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting
- door release during connection or at any time adjustable

- Volume, microphone sensitivity, door release function, camera and call button backlighting adjustable
- call button can be adjusted with light, door release or without function
- call push-button with acknowledge tone (can be switched off) and tactile feedback
- front plate with non-visible opening mechanics and safety rope
- with protection from vandalism
- loudspeaker and microphone protected against sabotage
- break-proof flush-mounted call buttons
- installation in surface-mounted or flush-mounted housings
- pluggable connection terminal block with screw terminals

REQ001X

IP44 IK07

Description	Installation in housing surface-/flush-mounted size	Dimensions front plate (W x H x D)	Cat. ref.
door station audio 1/1 2-wire	1	133.5/242/2 mm	**REQ001X**
door station audio 2/1 2-wire	1	133.5/242/2 mm	**REQ002X**
door station audio 4/1 2-wire	1	133.5/242/2 mm	**REQ004X**
door station audio 6/1 2-wire	2	133.5/295.8/2 mm	**REQ006X**
door station audio 8/1 2-wire	3	133.5/332/2 mm	**REQ008X**
door station audio 10/1 2-wire	4	133.5/385.8/2 mm	**REQ010X**
door station audio 12/1 2-wire	5	133.5/422/2 mm	**REQ012X**
door station audio 16/2 2-wire	6	225.5/332/2 mm	**REQ016X**
door station audio 20/2 2-wire	7	225.5/422/2 mm	**REQ020X**
door station audio 24/2 2-wire	7	225.5/422/2 mm	**REQ024X**

ELCOM.ONE front plates video

Colour:	Stainless steel, metal brushed
Material / surface:	scratch-proof camera cover; Makrolon
Camera aperture angle	
Swivel range horizontal/vertical:	42.5 °
Camera aperture angle horizontal:	82 °
Camera aperture angle vertical:	58 °
Dimensions of name plate (W x H):	75.5/32.6 mm, 75.5/14.5 mm
For labelling strip:	30 mm, 12 mm
Operating temperature:	-20 to 55 °C
Surface compensation:	17 mm

- device configuration via LED display
- camera adjustment by setscrew accessible from the front
- Name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting
- invisible, glare-free IR LED night lighting

- door release during connection or at any time adjustable
- Volume, microphone sensitivity, door release function, camera and call button backlighting adjustable
- call button can be adjusted with light, door release or without function
- call push-button with acknowledge tone (can be switched off) and tactile feedback
- front plate with non-visible opening mechanics and safety rope
- temperature controlled camera heating for clear view
- with protection from vandalism
- loudspeaker and microphone protected against sabotage
- break-proof flush-mounted call buttons
- installation in surface-mounted or flush-mounted housings
- pluggable connection terminal block with screw terminals

REQ501X

IP44

Description	Installation in housing surface-/flush-mounted size	Dimensions front plate (W x H x D)	Cat. ref.
door station video 1/1 2-wire	1	133.5/242/2 mm	**REQ501X**
door station video 2/1 2-wire	1	133.5/242/2 mm	**REQ502X**
door station video 4/1 2-wire	1	133.5/242/2 mm	**REQ504X**
door station video 6/1 2-wire	2	133.5/295.8/2 mm	**REQ506X**
door station video 8/1 2-wire	3	133.5/332/2 mm	**REQ508X**
door station video 10/1 2-wire	4	133.5/385.8/2 mm	**REQ510X**
door station video 12/1 2-wire	5	133.5/422/2 mm	**REQ512X**
door station video 16/2 2-wire	6	225.5/332/2 mm	**REQ516X**
door station video 20/2 2-wire	7	225.5/422/2 mm	**REQ520X**
door station video 24/2 2-wire	7	225.5/422/2 mm	**REQ524X**

Door communi-
cation systems
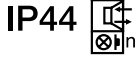
ELCOM.ONE front plates audio with status indication

REQ101X

IP44

Colour: Stainless steel, metal brushed
Material / surface: Makrolon
Dimensions of name plate (W x H): 75.5/32.6 mm,
75.5/14.5 mm
For labelling strip: 30 mm, 12 mm
Operating temperature: -20 to 55 °C
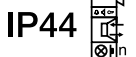Surface compensation: 17 mm

- device configuration via LED display
- with LED status display for bell, intercom connection and door release
- Name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting
- door release during connection or at any time adjustable

- Volume, microphone sensitivity, door release function, camera and call button backlighting adjustable
- call button can be adjusted with light, door release or without function
- call push-button with acknowledge tone (can be switched off) and tactile feedback
- front plate with non-visible opening mechanics and safety rope
- with protection from vandalism
- loudspeaker and microphone protected against sabotage
- break-proof flush-mounted call buttons
- installation in surface-mounted or flush-mounted housings
- pluggable connection terminal block with screw terminals

Description	Installation in housing surface-/ flush-mounted size	Dimensions front plate (W x H x D)	Cat. ref.
door station audio with LED 1/1 2-wire	1	133.5/242/2 mm	**REQ101X**
door station audio with LED 2/1 2-wire	1	133.5/242/2 mm	**REQ102X**
door station audio with LED 4/1 2-wire	3	133.5/332/2 mm	**REQ104X**
door station audio with LED 6/1 2-wire	3	133.5/332/2 mm	**REQ106X**
door station audio with LED 8/1 2-wire	5	133.5/422/2 mm	**REQ108X**
door station audio with LED 10/1 2-wire	5	133.5/422/2 mm	**REQ110X**
door station audio with LED 12/2 2-wire	6	225.5/332/2 mm	**REQ112X**
door station audio with LED 14/2 2-wire	6	225.5/332/2 mm	**REQ114X**
door station audio with LED 16/2 2-wire	7	225.5/422/2 mm	**REQ116X**
door station audio with LED 20/2 2-wire	7	225.5/422/2 mm	**REQ120X**
door station audio with LED 22/2 2-wire	7	225.5/422/2 mm	**REQ122X**

ELCOM.ONE front plates video with status indication

REQ601X

IP44

Colour: Stainless steel, metal brushed
Material / surface: Scratch-proof camera cover;
Makrolon
Camera aperture angle
Swivel range horizontal/vertical: 42.5 °
Camera aperture angle horizontal: 82 °
Camera aperture angle vertical: 58 °
Dimensions of name plate (W x H): 75.5/32.6 mm,
75.5/14.5 mm
For labelling strip: 30 mm, 12 mm
Operating temperature: -20 to 55 °C
Surface compensation: 17 mm

- device configuration via LED display
- with LED status display for bell, intercom connection and door release
- camera adjustment by setscrew accessible from the front
- Name plate can be changed from the front without any special tools

- durable, homogeneous, white LED call push-button backlighting
- invisible, glare-free IR LED night lighting
- door release during connection or at any time adjustable
- Volume, microphone sensitivity, door release function, camera and call button backlighting adjustable
- call button can be adjusted with light, door release or without function
- call push-button with acknowledge tone (can be switched off) and tactile feedback
- front plate with non-visible opening mechanics and safety rope
- temperature controlled camera heating for clear view
- with protection from vandalism
- loudspeaker and microphone protected against sabotage
- break-proof flush-mounted call buttons
- installation in surface-mounted or flush-mounted housings
- pluggable connection terminal block with screw terminals

Description	Installation in housing surface-/ flush-mounted size	Dimensions front plate (W x H x D)	Cat. ref.
door station video with LED 1/1 2-wire	1	133.5/242/2 mm	**REQ601X**
door station video with LED 2/1 2-wire	1	133.5/242/2 mm	**REQ602X**
door station video with LED 4/1 2-wire	3	133.5/332/2 mm	**REQ604X**
door station video with LED 6/1 2-wire	3	133.5/332/2 mm	**REQ606X**
door station video with LED 8/1 2-wire	5	133.5/422/2 mm	**REQ608X**
door station video with LED 10/1 2-wire	5	133.5/422/2 mm	**REQ610X**
door station video with LED 12/2 2-wire	6	225.5/332/2 mm	**REQ612X**
door station video with LED 14/2 2-wire	6	225.5/332/2 mm	**REQ614X**
door station video with LED 16/2 2-wire	7	225.5/422/2 mm	**REQ616X**
door station video with LED 20/2 2-wire	7	225.5/422/2 mm	**REQ620X**
door station video with LED 22/2 2-wire	7	225.5/422/2 mm	**REQ622X**

:hager

ELCOM.ONE flush-mounted housing

Colour: Stainless steel, metal natural

- cut-outs for cable entry at the side, rear, top and
  bottom
- with extendible wall anchors

REW111X

Description	Dimensions Flush-mounted housing (W x H x D)	Cat. ref.
housing size 1 flush-mounted for door station ONE	92/218/47 mm	**REW111X**
housing size 2 flush-mounted for door station ONE	92/270.2/47 mm	**REW112X**
housing size 3 flush-mounted for door station ONE	92/308/47 mm	**REW113X**
housing size 4 flush-mounted for door station ONE	92/361.8/47 mm	**REW114X**
housing size 5 flush-mounted for door station ONE	92/398/47 mm	**REW115X**
housing size 6 flush-mounted for door station ONE	184/308/47 mm	**REW126X**
housing size 7 flush-mounted for door station ONE	184/398/47 mm	**REW127X**

ELCOM.ONE surface-mounted housing

Colour: Black matt, aluminium powder-coated

- rear-side cable entry

REW211X

Description	Dimensions Surface-mounted housing (W x H x D)	Cat. ref.
housing size 1 surface-mounted for door station ONE	139.5/248.3/28.5 mm	**REW211X**
housing size 2 surface-mounted for door station ONE	139.5/302.1/28.5 mm	**REW212X**
housing size 3 surface-mounted for door station ONE	139.5/338.3/28.5 mm	**REW213X**
housing size 4 surface-mounted for door station ONE	139.5/392.1/28.5 mm	**REW214X**
housing size 5 surface-mounted for door station ONE	139.5/428.3/28.5 mm	**REW215X**
housing size 6 surface-mounted for door station ONE	231.5/338.3/29 mm	**REW226X**
housing size 7 surface-mounted for door station ONE	231.5/428.3/29 mm	**REW227X**

Door communi-
cation systems

REL101X

IP44
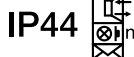
ELCOM.ONE letter box front audio

Colour:	Stainless steel, metal brushed
Dimensions of letter box flap (W x H):	279/58 mm
For labelling strip:	30 mm, 12 mm
Operating temperature:	-20 to 55 °C
LED operating voltage:	24 V DC
Surface compensation:	17 mm

- letter box flap flush-mounted with sealing, damped axle
- device configuration via LED display
- Name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting
- Volume, microphone sensitivity, door release

- function, camera and call button backlighting adjustable
- call button can be adjusted with light, door release or without function
- call push-button with acknowledge tone (can be switched off) and tactile feedback
- front plate with non-visible opening mechanics and safety rope
- with protection from vandalism
- loudspeaker and microphone protected against sabotage
- break-proof flush-mounted call buttons
- pluggable connection terminal block with screw terminals

Description	Cat. ref.
pass-through letter box front audio 1/1 2-wire	**REL101X**
pass-through letter box front audio 2/1 2-wire	**REL102X**

REL501X

ELCOM.ONE letter box front video

Colour:	Stainless steel, metal brushed
Dimensions of letter box flap (W x H):	279/58 mm
For labelling strip:	30 mm, 12 mm
Operating temperature:	-20 to 55 °C
LED operating voltage:	24 V DC
Surface compensation:	17 mm

- letter box flap flush-mounted with sealing, damped axle
- device configuration via LED display
- Name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting

- Volume, microphone sensitivity, door release function, camera and call button backlighting adjustable
- call button can be adjusted with light, door release or without function on the audio or video module
- call push-button with acknowledge tone (can be switched off on the audio or video module) and tactile feedback
- front plate with non-visible opening mechanics and safety rope
- with protection from vandalism
- loudspeaker and microphone protected against sabotage
- break-proof flush-mounted call buttons
- pluggable connection terminal block with screw terminals

Description	Cat. ref.
pass-through letter box front video 1/1 2-wire	**REL501X**
pass-through letter box front video 2/1 2-wire	**REL502X**

REW411X

IP44

ELCOM.ONE pass-through box

Colour:	Silver, metal zinc-plated
Material / surface:	Zinc-plated sheet steel

- removal door on the back with name plate, hinged right
- removal door white aluminium (similar to RAL

9006) coated
- removal door with security lock BKS-110 and 2 keys
- for letter box fronts ONE
- depth of 263 ... 383 mm extendible

Description	Dimensions (W x H x D)	Cat. ref.
pass-through box 1/1 263-383 mm	311.6/323.7/263 mm	**REW411X**
pass-through box 2/1 263-383 mm	311.6/449.1/263 mm	**REW412X**
pass-through box 1/1 383-503 mm	311.6/323.7/383 mm	**REW413X**
pass-through box 2/1 383-503 mm	311.6/449.1/383 mm	**REW414X**

The modesta range is ideal for urban spaces where requirements could not be more varied: residential and commercial spaces within the same building complex, public institutions, offices and doctor's surgeries.

The modular design really comes into its own in this context and ensures a long service life thanks to the robust metal construction.

ELCOM.MODESTA flush-mounted frame

Colour: Stainless steel, metal brushed

The consistent processing of high-quality stainless steel, paired with the variable, modular design, is completely uncompromising and meets the highest standards when it comes to prestigious commercial properties in city centres in particular.

- stainless steel housing with extendible assembly aid
- flush-mounted, rear screw connection of the modules in the frame for modesta stainless steel modules
- stainless steel flush-mounted housing with cable entries at the side and rear
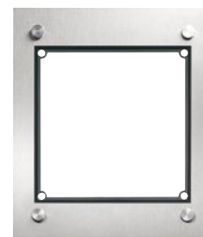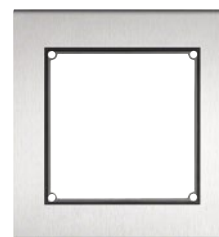
REM101X

Description	Dimensions front plate (W x H x D)	Cat. ref.
MODESTA frame 1/1 stainless steel matt, incl. flush-mounted frame	155/180/2 mm	**REM101X**
MODESTA frame 2/1 stainless steel matt, incl. flush-mounted frame	155/310/2 mm	**REM102X**
MODESTA frame 3/1 stainless steel matt, incl. flush-mounted frame	155/440/2 mm	**REM103X**
MODESTA frame 4/1 stainless steel matt, incl. flush-mounted frame	155/580/2 mm	**REM104X**
MODESTA frame 4/2 stainless steel matt, incl. flush-mounted frame	285/310/2 mm	**REM105X**
MODESTA frame 6/2 stainless steel matt, incl. flush-mounted frame	285/440/2 mm	**REM106X**

ELCOM.MODESTA surface-mounted frame

Colour: Stainless steel, metal brushed

The modesta frame system is one of the most flexible door station systems on the market in terms of its durability and variation options.

- stainless steel housing with extendible assembly aid
- flush-mounted, rear screw connection of the modules in the frame for modesta stainless steel modules
- screwless folding mechanism with spring fastener
- cable entries on rear side

REM201X

Description	Dimensions housing (W x H x D)	Cat. ref.
MODESTA frame 1/1 stainless steel matt, incl. surface-mounted frame	170/180/48 mm	**REM201X**
MODESTA frame 2/1 stainless steel matt, incl. surface-mounted frame	170/310/48 mm	**REM202X**
MODESTA frame 3/1 stainless steel matt, incl. surface-mounted frame	170/440/48 mm	**REM203X**
MODESTA frame 4/1 stainless steel matt, incl. surface-mounted frame	170/570/48 mm	**REM204X**
MODESTA frame 5/1 stainless steel matt, incl. surface-mounted frame	300/310/48 mm	**REM205X**
MODESTA frame 6/1 stainless steel matt, incl. surface-mounted frame	300/440/48 mm	**REM206X**

ELCOM.MODESTA pedestals

Colour: Stainless steel, metal brushed

Pedestals in stainless steel, matt brushed
Clear design, optimal alignment for visitors, flexible positioning and seamless integration as a style feature for modern architecture projects – these are the signs of high-quality communication and function pedestals. Thanks to the flexible modular design, the product is suitable for a multitude of applications and meets a huge range of requirements.

- flush-mounted, rear screw connection of the modules in the frame for modesta stainless steel modules
- rear side inspection flap with spring hinge
- closed with hexagon stainless steel screw M2,5 x 5 mm
- cable entries from the bottom into a double pipe in the pedestal body

REM401X

Description	Dimensions (W x H x D)	Cat. ref.
MODESTA pedestals 1/1 stainless steel matt brushed	345/1370/150 mm	**REM401X**
MODESTA pedestals 2/1 stainless steel matt brushed	345/1500/150 mm	**REM402X**
MODESTA pedestals 3/1 stainless steel matt brushed	345/1630/150 mm	**REM403X**
MODESTA pedestals 4/1 stainless steel matt brushed	345/1630/150 mm	**REM404X**
MODESTA pedestals 5/1 stainless steel matt brushed	475/1500/150 mm	**REM405X**
MODESTA pedestals 6/1 stainless steel matt brushed	475/1630/150 mm	**REM406X**

Door communi-
cation systems

REM505X

ELCOM.MODESTA letter box pedestals

Colour:	Stainless steel, metal brushed
Dimensions of letter box flap (W x H):	333/68 mm
Installation mode:	Free-standing

Letter box pedestals in stainless steel, matt brushed

Letter box communication pedestals are ideal for the entrance areas of commercial buildings and sophisticated home environments. The pedestals receive your post, regulate building communication and access control, provide information and create a sense of prestige. Innovative function features fulfil every wish with regard to ease of use and ergonomics.

- flush-mounted screw connection on support structure for modesta stainless steel modules
- rear side inspection flap with spring hinge
- closed with hexagon screw M2,5 x 5 mm
- with letter box security lock type 1, differing lockings
- letter box flap flush-mounted with sealing, damped axle
- letter box removal compartment on the back, hinged down, hydraulically damped
- cable entries from the bottom into a double pipe in the pedestal body

Description	Cat. ref.
MODESTA letter box pedestals 4/2 stainless steel matt brushed	**REM505X**
MODESTA letter box pedestals 6/2 stainless steel matt brushed	**REM506X**
MODESTA letter box pedestals front 4/2 stainless steel matt brushed	**REM515X**
MODESTA letter box pedestals front 6/2 stainless steel matt brushed	**REM516X**

REN101X

ELCOM.MODESTA REN push-button modules

Colour:	Stainless steel, metal brushed
Material / surface:	Makrolon
For labelling strip:	30 mm, 12 mm
Operating temperature:	-20 to 55 °C
Operating voltage:	24 V DC

- Name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting

- Twilight controlled call push-button backlighting with adjustable switch-on brightness level
- call button can be adjusted with light, door release or without function on the audio or video module
- call push-button with acknowledge tone (can be switched off on the audio or video module) and tactile feedback

Description	Number of call buttons	Cat. ref.
call push-button module with LED name plate 1/1 built-in 2-wire	1	**REN101X**
call push-button module with LED name plate 2/1 built-in 2-wire	2	**REN102X**
call push-button module with LED name plate 4/1 built-in 2-wire	4	**REN104X**

REN091X

ELCOM.MODESTA REN push-button modules with status indication

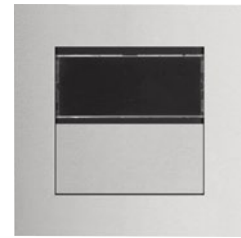| Colour: | Stainless steel, metal brushed |
For labelling strip:	30 mm, 12 mm
Dimensions of front plate (W x H x D):	120/120/2 mm
Dimensions of name plate (W x H):	75.5/32.6 mm, 75.5/14.5 mm

- with LED status display for bell, intercom connection and door release
- 2 connections for module connecting cable

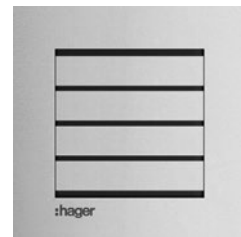| Description	Cat. ref.
call push-button module with LED name plate 1/1 and LED status indication built-in 2-wire	**REN091X**
call push-button module with LED name plate 2/1 and LED status indication built-in 2-wire	**REN092X**

ELCOM.MODESTA REN module status indication

Colour:	Stainless steel, metal brushed
Dimensions of front plate (W x H x D):	120/120/2 mm
Operating temperature:	-20 to 55 °C
Operating voltage:	24 V DC

- with LED status display for bell, intercom connection and door release
- 2 connections for module connecting cable

REN090X

Description	Cat. ref.
status indication module built-in 2-wire	**REN090X**

ELCOM.MODESTA loudspeaker module for REN push-button

Colour:	Stainless steel, metal brushed
Door release unlocking time:	1/10 s
Door release contact potential-free:	max. 24V/1A
Switching current for door release contact:	max. 1 A
Switching voltage for door release contact:	max. 24 V
Loudspeaker unit:	Loudspeaker volume adjustable; microphone sensitivity adjustable
Operating temperature:	-20 to 55 °C
Operating voltage:	24 V DC
Installation mode:	Built-in installation
Protection:	Loudspeaker and microphone protected against sabotage

- device configuration via LED display
- Volume, microphone sensitivity, door release function, camera and call button backlighting adjustable
- Call push-button acknowledge tone can be switched off
- Connection for module connecting cable
- pluggable connection terminal block with screw terminals

REN410X

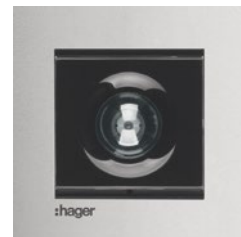| Description	Cat. ref.
audio module built-in 2-wire	**REN410X**

ELCOM.MODESTA camera/loudspeaker module for REN push-button

Colour:	Stainless steel, metal brushed
Material / surface:	Scratch-proof camera cover
Camera resolution (horizontal x vertical):	500/582 px
Camera aperture angle swivel range horizontal/vertical:	42.5 °
Camera aperture angle horizontal:	82 °
Camera aperture angle vertical:	58 °
Switching current for door release contact:	max. 1 A
Switching voltage for door release contact:	max. 24 V
Door release unlocking time:	1/10 s
Camera current consumption (operation):	240 mA
Heating:	Temperature-controlled camera heating for clear view
Protection:	Loudspeaker and microphone protected against sabotage
Operating temperature:	-20 to 55 °C
Operating voltage:	24 V DC
Installation mode:	Built-in installation

- device configuration via LED display
- invisible, glare-free IR LED night lighting
- Volume, microphone sensitivity, door release function, camera and call button backlighting adjustable
- Call push-button acknowledge tone can be switched off
- camera adjustment by setscrew accessible from the front
- Connection for module connecting cable
- pluggable connection terminal block with screw terminals

REN610X

Description	Cat. ref.
video module built-in 2-wire	**REN610X**

REN230X

IP44 ⊗|n (•)) ((⬚

ABC

ELCOM.MODESTA access modules

Transponder reader module
Access control without touch contact for max. 200 keys.

Transponder reader dummy module
Transponder reader dummy module for installing third-party card readers after providing and testing technical feasibility.

Fingerprint reader module
Access control consisting of internal unit and stainless steel scanner unit.

Code lock module
Code lock with 2 independent switching contacts.

Display call module
Call display for up to 256 resident entries with additional information.

Keyboard module for display call built-in
12-key stainless steel keypad for the display call module REN705. Code lock functions.

LAN interface
LAN interface for the display call module REN704X.

Description	Cat. ref.
transponder reader module built-in stainless steel matt modesta	**REN230X**
transponder reader dummy module built-in stainless steel matt modesta	**REN231X**
fingerprint reader module with control device built-in/RMD stainless steel matt modesta	**REN233X**
code lock module built-in stainless steel matt modesta	**REN232X**
display call module for modesta with German and English text	**REN705S**
display call module for modesta with French and English text	**REN705X**
display call module for modesta with Italian and English text	**REN705T**
display call module for modesta with Dutch and English text	**REN705N**
display lock module built-in stainless steel matt modesta	**REN704X**
LAN interface built-in for display call module	**REE001X**

REH213X

Transponder reader fob

Colour:	Black/white matt	RFID transponder for keypass as key chain standalone RFID access control without touch contact
Dimensions (W x H x D):	35/43/5 mm	
Packaging unit:	3/10 pieces	

Description	Cat. ref.
transponder fob/key chain 3 pieces black	**REH213X**
transponder fob/key chain 10 pieces black	**REH214X**

REH215X

Transponder reader card

Colour:	White glossy	RFID transponder for keypass in credit card size standalone RFID access control without touch contact
Dimensions (W x H x D):	85/54/1 mm	
Packaging unit:	3/10 pieces	

Description	Cat. ref.
transponder card/credit card size 3 pieces white	**REH215X**
transponder card/credit card size 10 pieces white	**REH216X**

REN701X

ELCOM.MODESTA function modules

House number module, single-digit
House number module in robust plug-in design.

House number module, two-digit
House number module in robust plug-in design.

Info module, LED-illuminated
Info module, illuminated with LED (white), visible surface: 80 x 80 mm

Description	Cat. ref.
house number module single-digit built-in stainless steel matt modesta	**REN701X**
house number module two-digit built-in stainless steel matt modesta	**REN702X**
LED info module built-in stainless steel matt modesta	**REN700X**
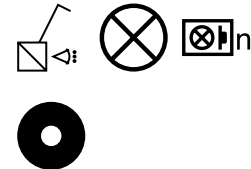
ELCOM.MODESTA connecting cable REN push-button

- For connecting the modesta module inputs and
  outputs depending on distance
- ribbon cable with connector

Description	Line length	Cat. ref.
module connecting cable 90 mm	90 mm	**REH301X**
module connecting cable 335 mm	335 mm	**REH302X**
module connecting cable 420 mm	420 mm	**REH305X**

REH301X

Cleaning kit for stainless steel

For cleaning ELCOM.ONE and ELCOM.MODESTA

Description	Cat. ref.
cleaning kit for stainless steel	**REH106X**

REH106X

Characteristics

elcom.home are sets, that facilitate the order of the different components by using an order number.

Sets consist of:
- ELCOM.TOUCH indoor intercom unit and design frame in ultra white
- ELCOM.ONE outdoor intercom unit
- ELCOM.ONE flush-mounted box or surface-mounted box
- bus line power supply
- Transformator 12 VAC, 18 VA

Video set flush-mounted

- REB521X for one residential unit consists of:
  REA518X, WD2218, REQ501X, REW111X, RED011X, ST320
- REB521X for two residential units consists of: 2 x REA518X, 2 x WD2218, REQ502X, REW111X, RED011X, ST320

REB521X

Description	Cat. ref.
video set 1 residential unit, angular, 2-wire, ELCOM.ONE flush-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB521X**
video set 2 residential units, angular, 2-wire,ELCOM.ONE flush-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB621X**

Video set surface-mounted

- REB721X for one residential unit consists of:
  REA518X, WD2218, REQ501X, REW211X, RED011X, ST320
- REB821X for two residential units consists of: 2 x REA518X, 2 x WD2218, REQ502X, REW211X, RED011X, ST320

REB721X

Description	Cat. ref.
video set 1 residential unit angular, 2-wire, ELCOM.ONE surface-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB721X**
video set 2 residential units, angular, 2-wire, ELCOM.ONE surface-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB821X**

Audio set flush-mounted

- REB121X for one residential unit consists of:
  REA118X, WD1218, REQ001X, REW111X, RED011X, ST320
- REB221X for two residential units consists of: 2 x REA118X, 2 x WD1218, REQ002X, REW111X, RED011X, ST320

REB121X

Description	Cat. ref.
audio set 1 residential unit, angular, 2-wire, ELCOM.ONE flush-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB121X**
audio set 2 residential units, angular, 2-wire, ELCOM.ONE flush-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB221X**

Audio set surface-mounted

- REB321X for one residential unit consists of:
  REA118X, WD1218, REQ001X, REW211X, RED011X, ST320
- REB421X for two residential units consists of: 2 x REA118X, 2 x WD1218, REQ002X, REW211X, RED011X, ST320

REB321X

Description	Cat. ref.
audio set 1 residential unit, angular, 2-wire, ELCOM.ONE surface-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB321X**
audio set 2 residential units, angular, 2-wire,ELCOM.ONE surface-mounted stainless steel matt, ELCOM.TOUCH ultra white matt	**REB421X**

Video set with plastic outdoor intercom unit

- REP501X for one residential unit consists of:
  REK621X, RED011X, ST320
- REP502X for two residential units consists of: 2 x
  REK621X, RED011X, ST320
- REP511X for one residential unit consists of:
  REK621X, RED011X, ST320
- REP512X for two residential units consists of: 2 x
 REK621X, RED011X, ST320

REP511X

IP54

Description	Cat. ref.
video set 1 residential unit, external station colour anthracite	**REP501X**
video set 2 residential unit, external station colour anthracite	**REP502X**
video set 1 residential unit, external station colour traffic white	**REP511X**
video set 2 residential unit, external station colour traffic white	**REP512X**

All video set with internal station ELCOM.TOUCH

Audio set with plastic outdoor intercom unit

- REP101X for one residential unit consists of:
  REK221X, RED011X, ST320
- REP102X for two residential units consists of: 2 x
  REK221X, RED011X, ST320
- REP111X for one residential unit consists of:
  REK221X, RED011X, ST320
- REP112X for two residential units consists of: 2 x
  REK221X, RED011X, ST320

REP101X

IP54

Description	Cat. ref.
audio set 1 residential unit, external station colour anthracite	**REP101X**
audio set 2 residential unit, external station colour anthracite	**REP102X**
audio set 1 residential unit, external station colour traffic white	**REP111X**
audio set 2 residential unit, external station colour traffic white	**REP112X**

All audio set with internal station ELCOM.TOUCH

Door communi-
cation systems
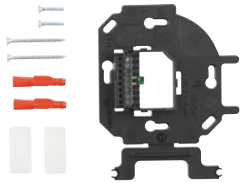
ELCOM.TOUCH Replacement set

Scope of delivery: 2 dowels 5 mm, 2 combination Phillips screws 3x30 mm, adhesive Klett pad; Supporting plate with terminal block and terminating resistor

Description	Cat. ref.
replacement set-indoor stations touch, plastic	**REH102X**
replacement set-indoor stations touch, stainless steel	**REH103X**

REH102X

Key ELCOM.ONE

Scope of delivery: opening tool; spring for housing flush-mounted/surface-mounted

Description	Cat. ref.
dismantling tool and spring	**REH100X**

REH100X

Replacement set-mechanism

Scope of delivery: 2 fastening elements with spring; Socket wrench 5.5 mm and 4 M3 flange nuts, 4 module-mounting screws M3x12.5 mm, nylon safety rope; Hexagon camera locating screw M2x10 mm and Hexagonal Metric 1.5 mm

- with video/audio module connection terminal block

Description	Cat. ref.
replacement mec. for outdoor station one	**REH103X**
replacement set-mechanism for flush-mounted box one	**REH105X**

REH103X

Replacement set-electronics

Scope of delivery: Set 1-row consisting of: 4 connecting cables 89, 55 and 2 x 33 mm Set 2-row consisting of 6 connecting cables 186, 55 and 4 x 33 mm

- 4 connecting cables for module inputs and outputs 89, 55 and 2 x 33 mm
- flat cable with 2 jacks each

Description	Cat. ref.
replacement set-electronics for outdoor stations 1-row one	**REH306X**
replacement set-electronics for outdoor stations 2-row one	**REH307X**

Call push-button modules

- name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting
- call button can be adjusted with light, door release or without function on the audio or video module
- call push-button with acknowledge tone (can be switched off on the audio or video module) and tactile feedback
- break-proof flush-mounted call push-buttons
- 2 connections for module connecting cable

REU021X

Description	Cat. ref.
call push-button semi module with LED name plate 1/1 built-in 2-wire	**REU021X**
call push-button semi module with LED name plate 2/1 built-in 2-wire	**REU022X**
call push-button with LED name plate 1/1 built-in 2-wire	**REU041X**
call push-button with LED name plate 2/1 built-in 2-wire	**REU042X**
call push-button with LED name plate 4/1 built-in 2-wire	**REU044X**

:hager

Replacement modules - Audio insert built-in 2-wire

Colour: black matt

- device configuration via LED display
- door release only during connection or at any time adjustable
- volume, microphone sensitivity, door release function
- and call push-button backlighting can be adjusted

- call push-button acknowledge tone can be switched off
- installation in surface-mounted or flush-mounted housings
- connection for module connecting cable
- pluggable connection terminal block with screw terminals

REU310X

Description	Cat. ref.
audio insert replacement built-in 2-wire	**REU310X**

Replacement modules - Video insert built-in 2-wire

Colour: black matt

- device configuration via LED display
- camera adjustment by setscrew accessible from the front
- invisible, glare-free IR LED night lighting
- door release only during connection or at any time adjustable
- volume, microphone sensitivity, door release function and call push-button backlighting can be adjusted

- call push-button acknowledge tone can be switched off
- installation in surface-mounted or flush-mounted housings
- connection for module connecting cable
- pluggable connection terminal block with screw terminals

REU510X

Description	Cat. ref.
video insert replacement built-in 2-wire	**REU510X**

Replacement modules - LED status indication module built-in 2-wire

Colour: Stainless steel, metal brushed

- with LED status indication for bell, intercom connection and door release
- break-proof, flush-mounted status indication
- 2 connections for module connecting cable

REU790X

Description	Cat. ref.
LED status indication module built-in 2-wire	**REU790X**

Replacement modules - call push-button module with LED name plate and LED status indication

- with LED status indication for bell,
- Intercom connection and door release
- Name plate can be changed from the front without any special tools
- durable, homogeneous, white LED call push-button backlighting

- Twilight controlled call push-button backlighting with adjustable switch-on brightness level
- break-proof, flush-mounted call push-button and status indication
- 2 connections for module connecting cable

REU791X

Description	Cat. ref.
call push-button module with LED name plate 1/1 and LED status indication built-in 2-wire	**REU791X**
call push-button module with LED name plate 2/1 and LED status indication built-in 2-wire	**REU792X**

Door communi-cation systems

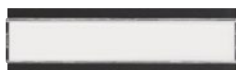### Replacement covers - Call push-button cover with name plate insert

Dimensions (W x H x D): 75.5 x 79.2 x 6.7 mm

- Name plate can be changed from the front
  without any special toolswith name plate insert

Description	Number of call buttons	Cat. ref.
call push-button cover 1/1 with name plate insert	1	**REU941X**
call push-button cover 2/1 with name plate insert	2	**REU942X**
call push-button cover 4/1 with name plate insert	4	**REU944X**

REU941X

Replacement covers - Name plate for letter box

- Name plate can be changed from the front without any special tools
- flush-mounted name plate

- with name plate insert

Description	Cat. ref.
name plate 1/4 module built-in for letter box	**REU911X**

REU911X

Replacement covers - Call push-button semi cover with name plate insert

- Name plate can be changed from the front without any special tools
- with name plate insert

Description	Cat. ref.
call push-button semi cover 1/1 with name plate insert	**REU921X**
call push-button semi cover 2/1 with name plate insert	**REU922X**

REU921X

Replacement covers - Status indication cover with name plate insert

- Name plate can be changed from the front without any special tools
- with name plate insert

Description	Cat. ref.
status indication cover 1/1 with name plate insert	**REU991X**
status indication cover 2/1 with name plate insert	**REU992X**

REU991X

Replacement covers

Description	Cat. ref.
video module replacement cover	**REU990X**
status indication cover 1/1 with name plate insert	**REU991X**
status indication cover 2/1 with name plate insert	**REU992X**

REU990X

Replacement set-mechanism

Scope of delivery: with 10 M3 modesta flange nuts;
with 2 modesta holding brackets for PLUS modules

Description	Cat. ref.
mechanical fixing set replacements for modesta	**REH104X**

REH104X

Dismantling tool ELCOM.MODESTA flush-mounted

- to dismantle the ELCOM.MODESTA flush-
  mounted frames

REH101X

Description	Cat. ref.
dismantling tool ZY ELCOM.MODESTA flush-mounted	**REH101X**

Replacement screw ELCOM.MODESTA

- special screws for fixing the ELCOM.MODESTA
  frame to the flush-mounted box
- can be mounted with ELCOM.MODESTA
  dismantling tool (REH101X)
- Material: stainless steel matt
- M5 x 22 mm

REH107X

Description	Cat. ref.
replacement screw ZY ELCOM.MODESTA	**REH107X**

Dismantling tool ELCOM.MODESTA surface-mounted

- to dismantle the ELCOM.MODESTA surface-
  mounted frames

REH108X

Description	Cat. ref.
dismantling tool ELCOM.MODESTA surface-mounted	**REH108X**

Replacement modules electronics

Colour: stainless steel, metal brushed, black glossy
Operating voltage: 24 V DC
Operating temperature: -20 … 55 °C
Installation mode: built in installation

- connection for module connecting cable
- pluggable connection terminal block with screw
  terminals
- device configuration via LED display
- door release only during connection or at any time
  adjustable

Description	Cat. ref.
audio module built-in 2-wire	**REU410X**
video module built-in 2-wire	**REU610X**

REU410X

Terminating resistors

Dimensions (W x H x D):   30 x 30 x 10 mm
Operating temperature: -20 … 60 °C

- connection to the terminal block of the indoor
  station
- for cable connection at the last terminal of a 2D
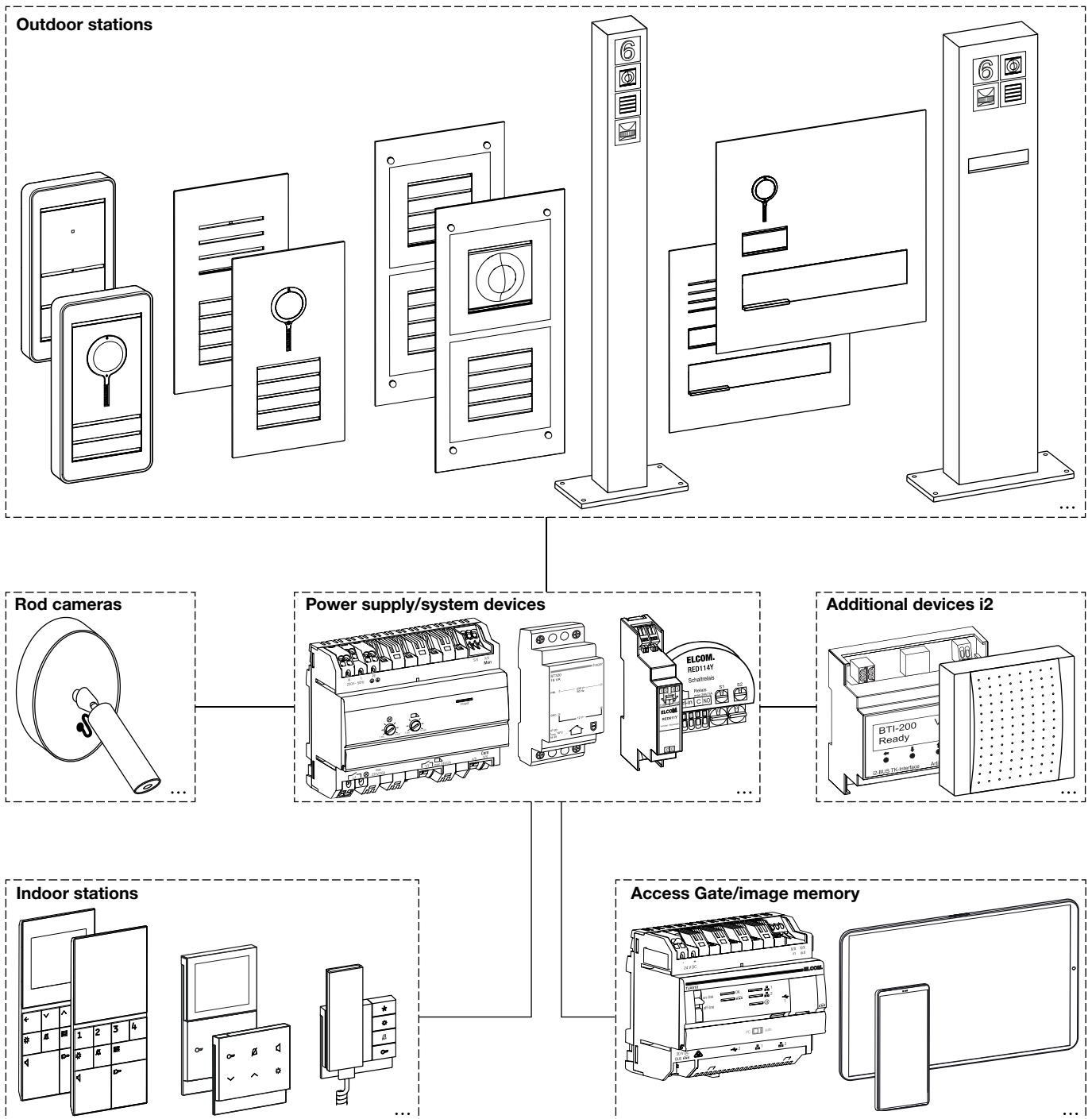 video line
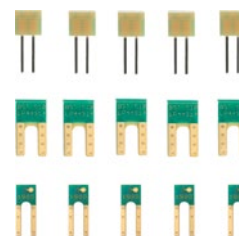
Description	Cat. ref.
terminator set (15 pieces)	**REH109X**

REH109X

Door communi-
cation systems

2-wire bus system for perfect audio, video, lighting, switching and control functions in door communication.
State-of-the-art, slim indoor stations which match the switch range, linked to outdoor stations and letter-box outdoor stations. The combination of a video camera and door loudspeaker in one module makes for compact outdoor stations. The easy-to-install 2-wire technology is designed both for detached houses and housing complexes with up to 256 connected devices and 150 outdoor stations. The anti-eavesdropping 2-wire bus technology, which is protected against polarity reversal, prevents faults and reduces the complexity of installation and wiring in new systems. Existing cables from doorbell or intercom systems in older buildings can be equipped with the latest functions thanks to the conductor-saving 2-wire technology. Additional functions and devices can be integrated at any time. i2 audio technology components such as telephone gateways can be integrated seamlessly via the **a/b** connection on the line power supply or via an audio output coupler.

When working on systems with a 230 V AC power connection, comply with the safety requirements of DIN VDE 0100.
When installing door communication systems, the general safety regulations for telecommunications systems according to VDE 0800 must be observed:

- Separate routing of power and door communication cables according to VDE 0800.
- Partitions between power and door communication cables in shared trunking.
- Use of standard telecommunications cables, e.g. J-Y (St) Y with 0.8 mm diameter.

Outdoor stations

...

Rod cameras

...

Power supply/system devices

...

Additional devices i2

...

Indoor stations

...

Access Gate/image memory

...

In video systems, video distributors must be used when there are 9 or more connected devices. A maximum of 8 video indoor stations per branch can be connected.

In pure audio systems, video distributors are unnecessary. A maximum of 16 indoor stations per branch can be freely wired-through with 2 cores.
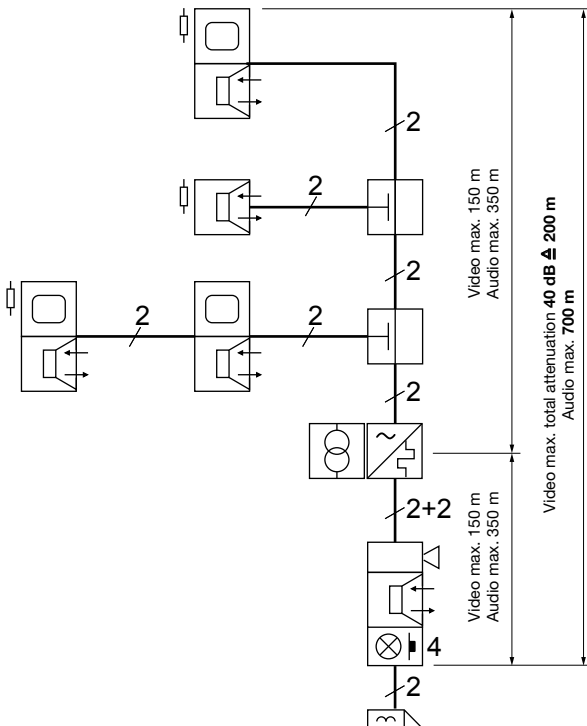
Note
We also recommend integrating video distributors in audio systems. This fulfils all the prerequisites for subsequently retrofitting a video system.

A star installation is advantageous because, in the event of a cable defect, only the affected branch becomes inoperative instead of the entire system.

Through installation
The bus cable X/X is wired-through from one indoor station to the next indoor station each with its own cable.

Star installation
Star installations are wired starting from a point and moving outwards in a star shape. Video distributors must be used. After the first indoor station, additional stations can be wired-through.

Stub installation with video distributor / branch
In a stub installation, wiring continues from the stub points (branches). Stub points can be connected to one another. In stub installations with video distributors or branches, no return line is needed.
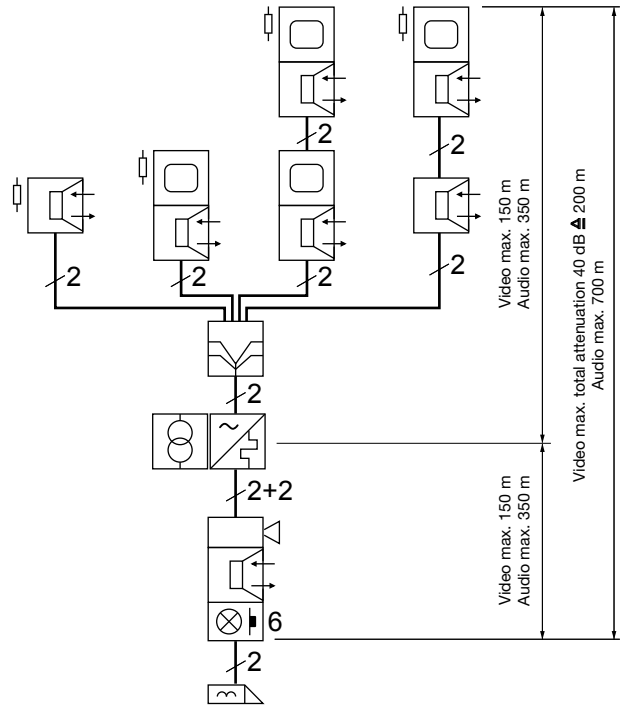
Stub installation without video distributor
In a stub installation, wiring continues from the stub points (branches). Stub points can be connected to one another. Without a video distributor (outgoing and incoming wires in a cable), wrapped cables (e.g. J-Y(ST)Y or CAT) must be used in pairs.

Door communi-
cation systems
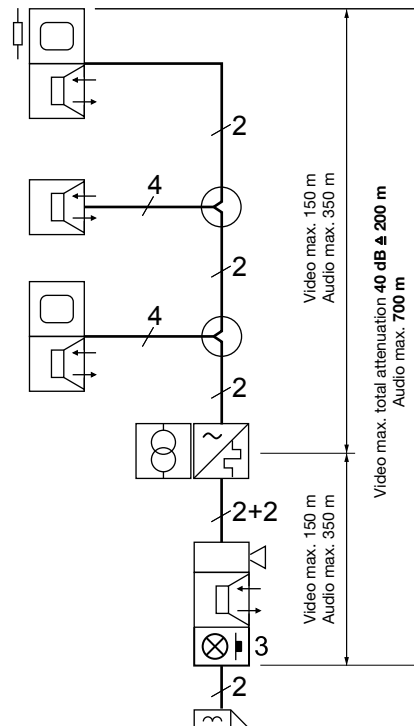
Maximum expansion

Maximum expansion with number of video indoor stations with n outdoor stations

Outdoor stations / floor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Video indoor station	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Minimum number of branches for video indoor stations	4				3				2				1			

Maximum expansion with number of audio indoor stations with n outdoor stations

Outdoor stations / floor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Audio indoor stations	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Minimum number of branches for audio indoor stations	2								1							

Maximum expansion with line couplers
With a maximum of 64 line couplers, a maximum of 256 indoor stations and 150 outdoor stations can be operated. Up to 3 simultaneous voice channels in backbone can be carried out The addition of connected outdoor stations and indoor stations must not exceed the line-coupler maximum expansion on 2 line couplers communicating via the backbone.

All bus cables connected to the line power supply and the longest bus coupler line of the system must not exceed the cable length of 1000 m.
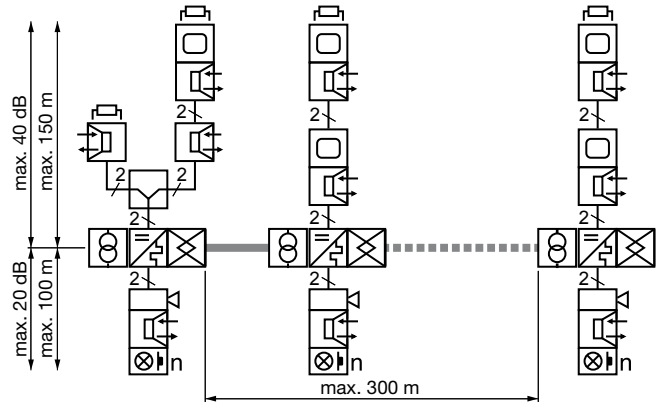
Maximum expansion for 2 communicating line couplers

Additional outdoor stations / floor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Addition of indoor stations	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2

Cable type and cable lengths
The following cables can be used for installing:
J-Y(ST)Y, A-2Y(L)2Y
Installation cables stranded in pairs, with shielding.
Recommended bus lead pairing: white/yellow
CAT-5/6/7 network cables stranded in pairs, with shielding.
Recommended bus lead pairing: orange/white
YR bell hose line; not stranded and without shielding. Recommended bus lead pairing: brown/yellow

The bus cable (**X/X**) must be installed on a stranded wire pair in the case of J-Y(ST)Y and CAT cables and on two adjacent wires in the case of YR cables.

Note
The cable length of all bus cables, inclusive coupler lines, may not exceed 1000 m.

For 2 indoor stations connected in parallel or an additional secondary signal device, the cable length must be reduced to 50% due to the higher current consumption. If 3 devices are connected, additional infeed is required.
Wire doubling of the 2-wire bus cable is not permitted.
To further improve the interference resistance, the cable shielding connected through can be earthed as a neutral point in the case of J-Y(ST)Y and CAT cables and in the case of YR cables all unused wires.

Cable type	Conductor Ø	Max. cable length	max. attenuation / loop resistance
Max. cable length per branch from the line power supply/coupler to the indoor stations			For each branch from the outdoor station to the last indoor station, a cable length of 200 m and an attenuation, including the video distributor, of 40 dB (20 dB for YR cables due to the lower interference resistance) must not be exceeded. From the line power supply/coupler to the outdoor station and from the line power supply/coupler to the last indoor station, a loop resistance of 15 Ω must not be exceeded.
J-Y(ST)Y	0.6 mm	75 m / 150 m with additional infeed	
	0.8 mm	150 m / 150 m with additional infeed	
CAT-5/6/7	0.5 mm	50 m / 100 m with additional infeed / 150 m with additional infeed wire doubling	
YR	0.8 mm	75 m / 75 m with additional infeed	
Max. cable length per branch from the line power supply/coupler to the outdoor stations			
J-Y(ST)Y	0.6 mm	75 m	
	0.8 mm	150 m (100 m for coupler)	
CAT-5/6/7	0.5 mm	50 m	
YR	0.8 mm	75 m	
Max. connection cable length between couplers			with CAT-5 cables the cable length is reduced to 200 m
CAT-6/7	0.5 mm	300 m	
Cable from the door release or outdoor station lighting to the ST320 transformer with a door-release current consumption of 1 A (0.5 A)			
J-Y(ST)Y	0.6 mm	1 A 30 m / 60 m with wire doubling 0.5 A 60 m / 120 m with wire doubling	Max. 3.5 Ω Max. (7 Ω)
	0.8 mm	1 A 50 m / 100 m with wire doubling 0.5 A 100 m / 200 m with wire doubling	Max. 3.5 Ω Max. (7 Ω)
CAT-5/6/7	0.5 mm	1 A 20 m / 40 m with wire doubling 0.5 A 40 m / 80 m with wire doubling	Max. 3.5 Ω Max. (7 Ω)
YR	0.8 mm	1 A 50 m / 100 m with wire doubling 0.5 A 100 m / 200 m with wire doubling	Max. 3.5 Ω Max. (7 Ω)
Cable from the indoor station to the storey push-button			
J-Y(ST)Y; CAT; YR		50 m	max. 15 Ω

The call push-buttons of the outdoor station are assigned to the indoor stations via the addressing. When first switching on the outdoor station, the call push-buttons are automatically assigned group and intercom device addresses in a particular sequence (as per the cabling on the rear side). The door address and the group and intercom device addresses of the call push-buttons and functions can also be entered manually on the device menu with the 7-segment display located on the rear side of the outdoor station. The group and intercom device address of the call button can be set easily on the drehfix® code switches of the relevant indoor station.

Note
Addressing is continued to the next group address 1 after the group and intercom device address 0/F.

Intercom device address

Group address
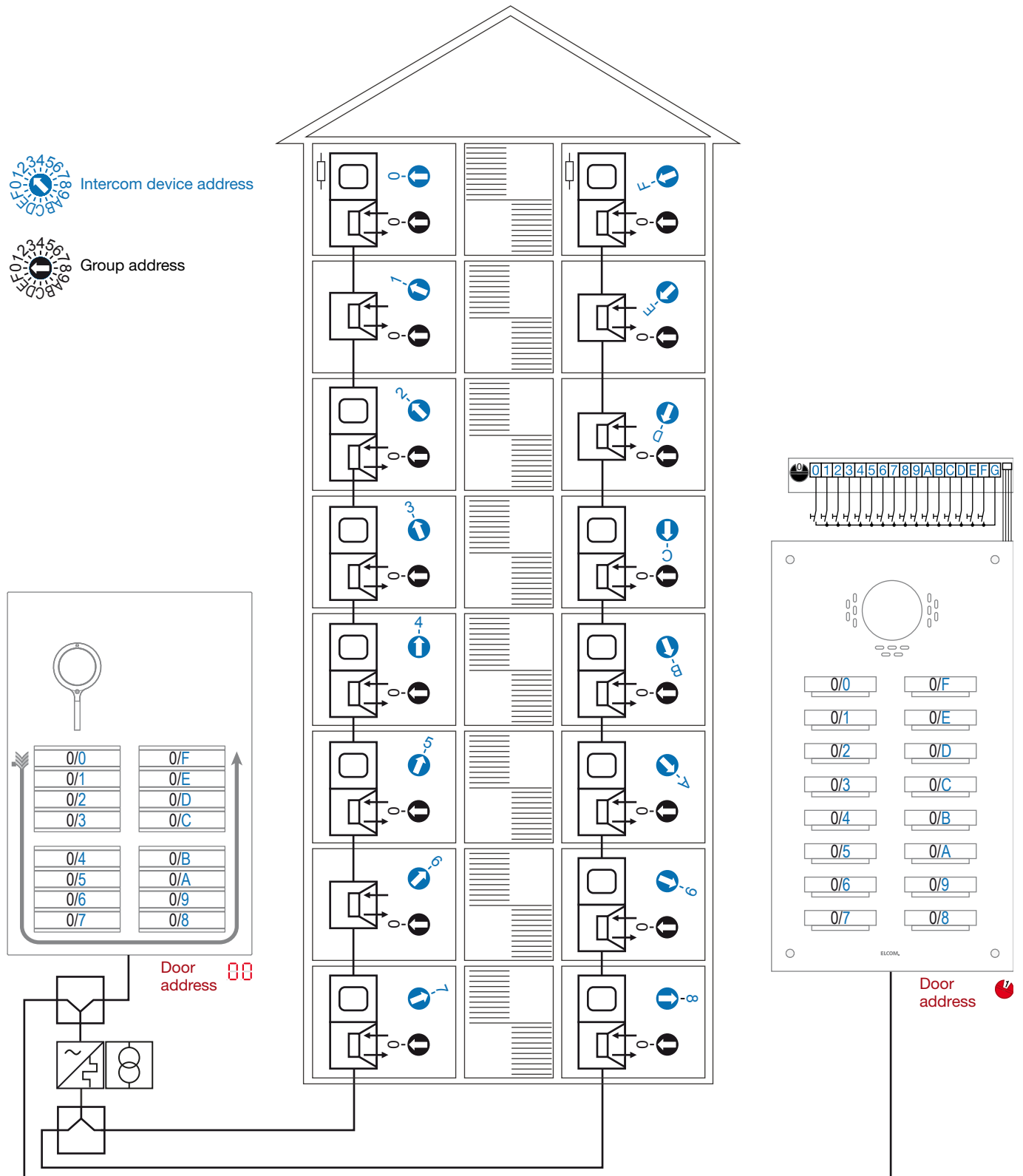
Door address

Door address

Parallel operation of indoor stations
An identical address can be used to operate a maximum of 3 indoor stations in parallel and to assign a shared call push-button. As the current consumption of the indoor stations is added up in this case, either the permissible cable length for 2 indoor stations is reduced by half or the additional infeed must be connected. In the case of 3 parallel indoor stations, the additional infeed (**S/S**) must be connected.

Storey call in parallel operation
In parallel operation, the storey call can be forwarded to the parallel indoor stations (max. 3) via the 2-wire bus. To do this, storey call forwarding must be activated in the first indoor station.
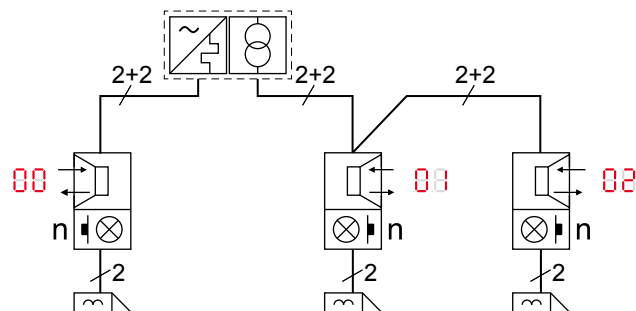
Operating multiple outdoor stations
In the case of multiple video outdoor stations, the bus cables of the individual outdoor stations must be coupled into the line via video distributors. In this case, the video distributor is operated "backwards", whereby the connections (**X/X**) act as inputs for the outdoor stations. In this case, the connection (**X1/X1**) is the output. Unused connections (**X/X**) on the video distributor must be terminated by attaching terminating resistors.

Operating multiple video outdoor stations

Note
Connection of the storey call push-button to multiple indoor stations in parallel is not permitted.

The storey call push-button cannot be lit up by the 2-wire bus. 12 V LED assemblies, on the separate, potential-free signalling contacts of the push-buttons, can be operated by the 12 V~ safety transformer to provide lighting.
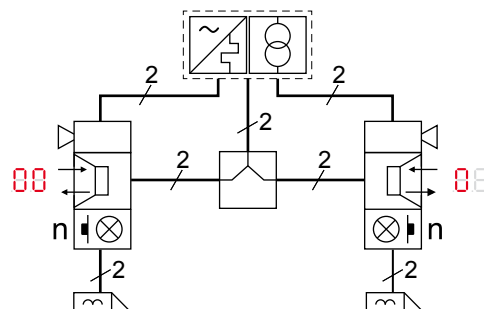
Operating multiple audio outdoor stations

Note
The video distributor is not necessary for exclusively audio outdoor stations. Audio outdoor stations can also be wired-through. However, we recommend installing a video distributor even for audio outdoor stations for the purposes of subsequent video retrofitting.

The door address can be set via the device menu with the 7-segment display on the rear side of the outdoor station. Double door addresses are not permitted!

Additional infeed S/S
To increase the range in the case of parallel indoor stations and/ or when using wire diameters of less than 0.8 mm, the additional infeed can be connected to the indoor stations. The additional infeed requires two extra wires (**S/S**) between the bus line power supply and the indoor station. In contrast to the bus cables (**X/X**), the additional infeed wires (**S/S**) can also be doubled and wired in any series, star or tree structure.

For example, with 3 audio indoor stations and one audio outdoor station in one through installation.
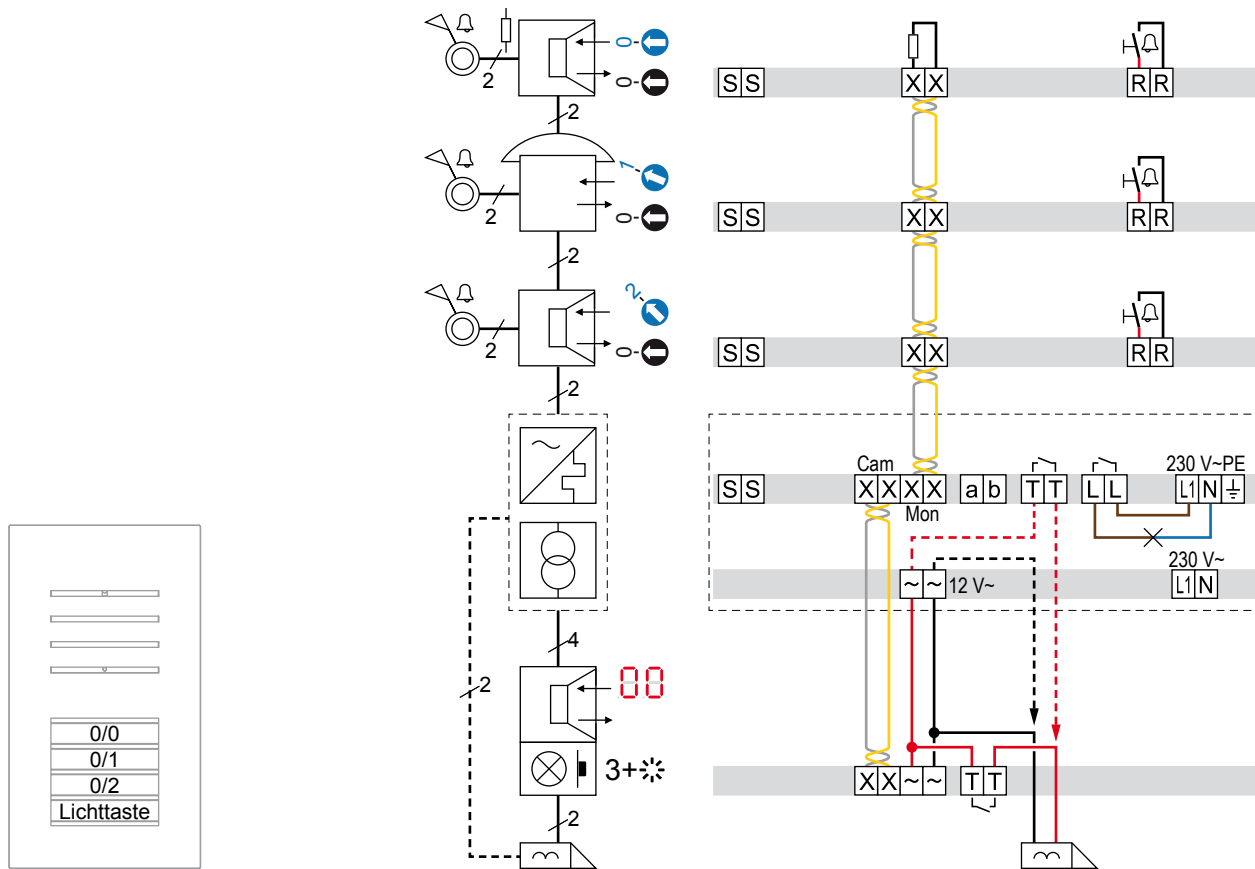
Note

In the version shown in dashed lines, which is protected against manipulation, the door release lead of the line power supply must not be routed through the outdoor station.

The terminating resistor remains in the indoor station at the end of the cable; in the preceding indoor stations this must be removed.

The bottom call push-button on the outdoor station is for switching the lighting and can be labelled with a light symbol.

In order to preserve the option of subsequently enhancing convenience using video devices, there should not be more than 8 indoor stations in each branch and 32 in each line.

Space required for the rail mounted devices in the distributor	8 modules
Adjustable door release unlocking time	1 ... 10 s
Adjustable delay time of potentialfree light contact (230 V suitable)	1 s ... 5 min
Adjustable call push-button backlighting	Duration OFF / ON and OFF depending on brightness / duration ON
Indoor station installation height (centre)	1.5 m (♿ 1.3 m)
Outdoor station installation height (centre of loudspeaker)	1.5 m

Maximum expansion[1] with number of audio indoor stations with n outdoor stations

| Outdoor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Audio indoor stations	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Minimum number of branches for audio indoor stations	2								3							

[1] With line couplers, a maximum of 256 indoor stations and 150 outdoor stations can be operated.
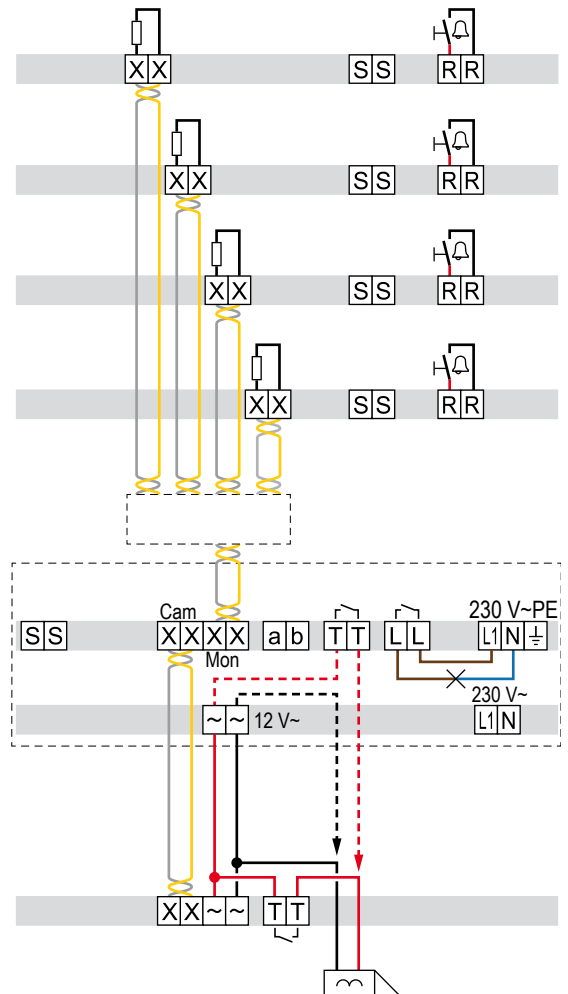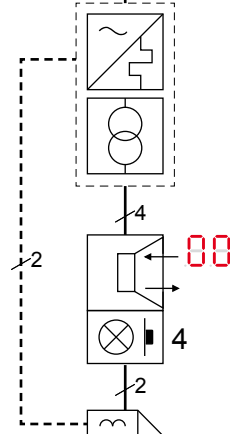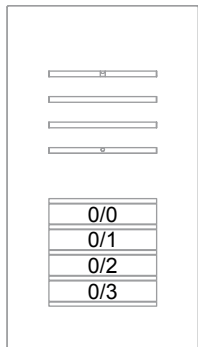
For example, with 4 audio indoor stations and one audio outdoor station in one star installation.

Note
Extremely fail-safe installation type because only the relevant indoor station affected goes down if there is an internal cable defect.
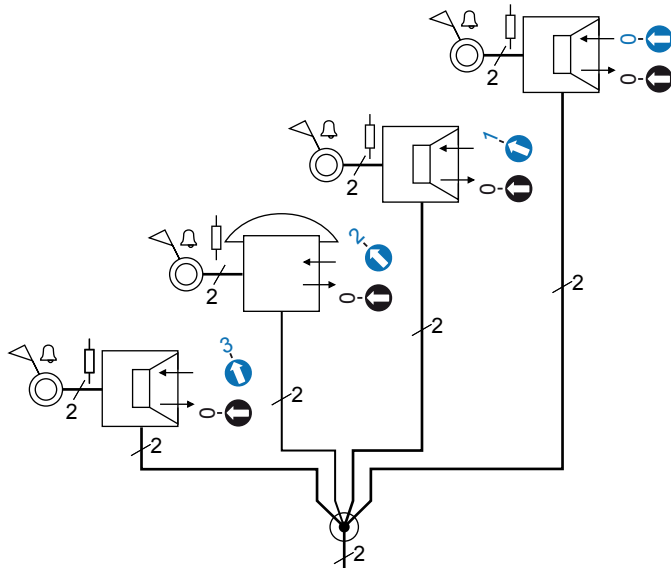
Example:
Automatic commissioning of 4 call push-buttons addressing

0/0
0/1
0/2
0/3

Planning information

Note
In the version shown in dashed lines, which is protected against manipulation, the door release lead of the line power supply must not be routed through the outdoor station.

All indoor stations are terminated with a terminating resistor.

In order to preserve the option of subsequently enhancing convenience using video devices, there should not be more than 8 indoor stations in each branch and 32 in each line. Instead of using a junction box, a video distributor should be used 4 times.
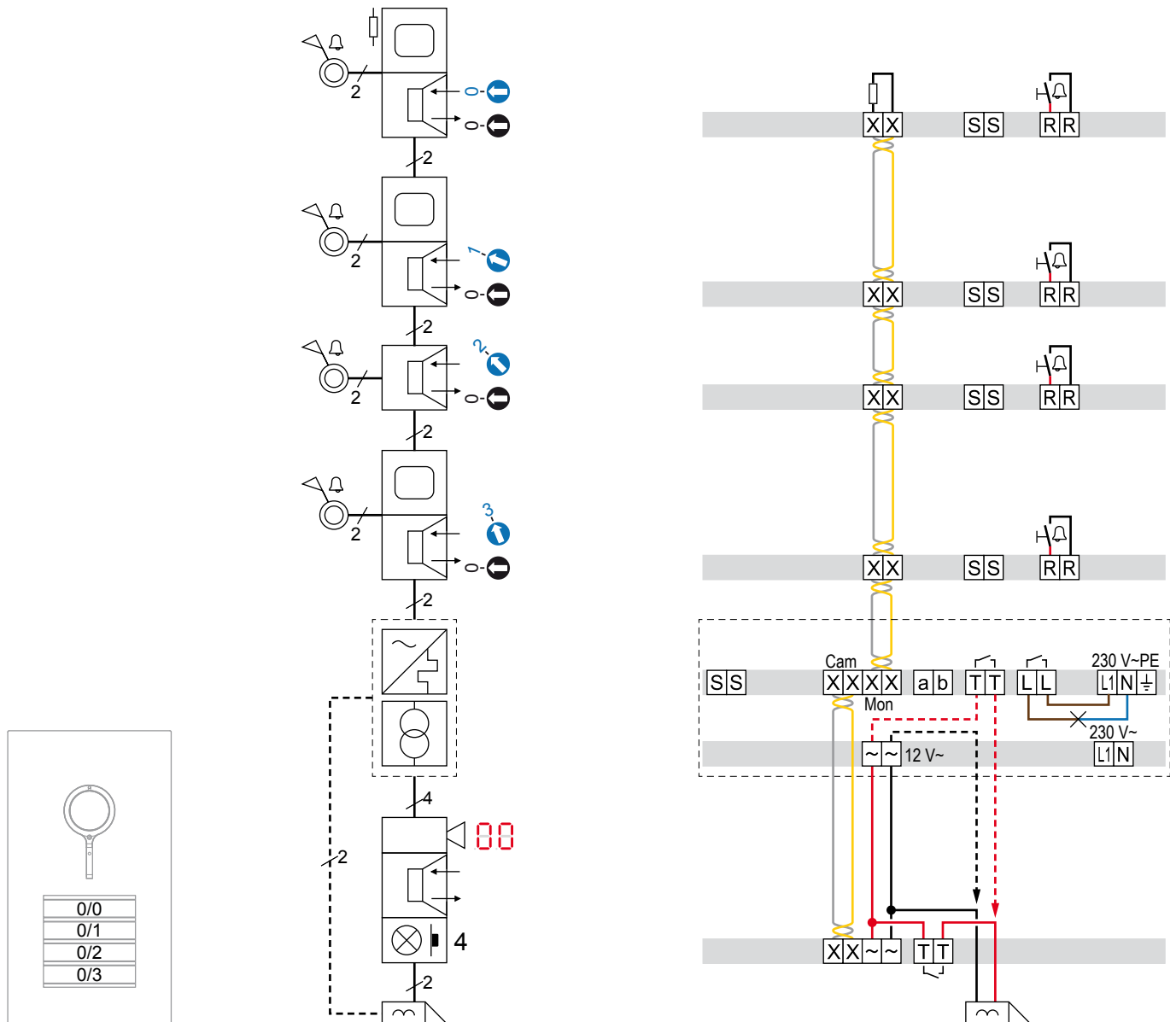
Space required for the rail mounted devices in the distributor	8 modules
Adjustable door release unlocking time	1 ... 10 s
Adjustable delay time of potentialfree light contact (230 V suitable)	1 s ... 5 min
Adjustable call push-button backlighting	Duration OFF / ON and OFF depending on brightness / duration ON
Indoor station installation height (centre)	1.5 m (♿ 1.3 m)
Outdoor station installation height (centre of loudspeaker)	1.5 m

Maximum expansion[1] with number of audio indoor stations with n outdoor stations

Outdoor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Audio indoor stations	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Minimum number of branches for audio indoor stations				2								3				

[1] With line couplers, a maximum of 256 indoor stations and 150 outdoor stations can be operated.

For example, with 3 video indoor stations, one audio indoor station and one video outdoor station in a single through installation.

Planning information

Note
In the version shown in dashed lines, which is protected against manipulation, the door release lead of the line power supply must not be routed through the outdoor station.

The terminating resistor remains in the indoor station at the end of the cable. In the preceding indoor stations this must be removed.

Wiring through the cable shield and single-sided earthing in the distributor increases interference resistance.

The conditions for selecting the installation location must be taken into account (see operating instructions).

Space required for the rail mounted devices in the distributor	8 modules
Adjustable door release unlocking time	1 ... 10 s
Adjustable delay time of potentialfree light contact (230 V suitable)	1 s ... 5 min
Adjustable call push-button backlighting	Duration OFF / ON and OFF depending on brightness / duration ON
Indoor station installation height (centre)	1.5 m (♿ 1.3 m)
Outdoor station installation height (centre of camera)	1.5 m

## Maximum expansion[1] with number of video indoor stations with n outdoor stations

Outdoor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Video indoor stations	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Minimum number of branches for video indoor stations	4				3				2				1			

[1] With line couplers, a maximum of 256 indoor stations and 150 outdoor stations can be operated.

For example, with 3 video indoor stations, one audio indoor station and one video outdoor station in a single star installation.
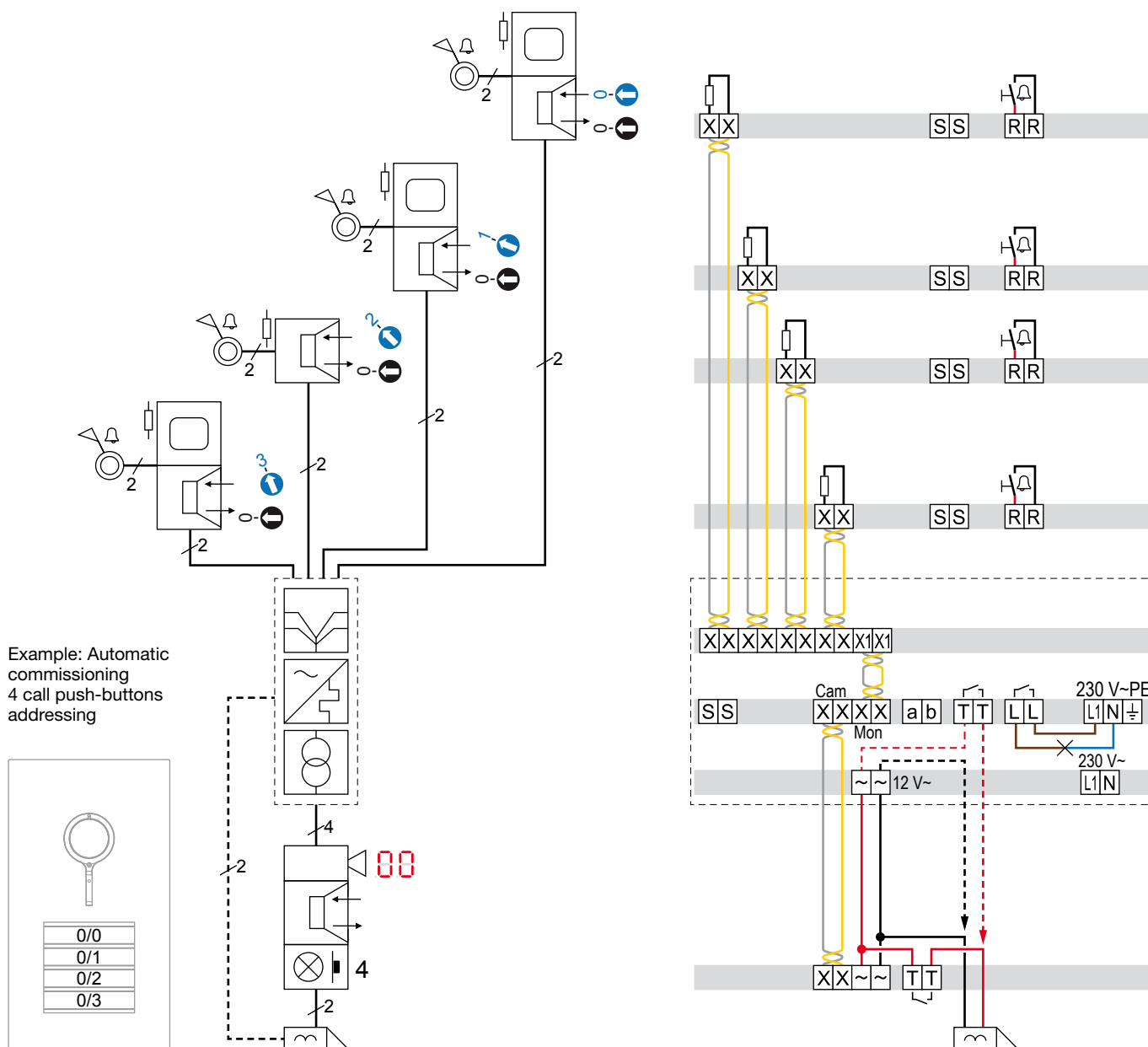
Example: Automatic commissioning 4 call push-buttons addressing
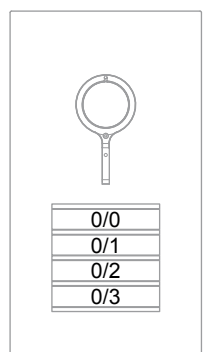
| 0/0 |
| 0/1 |
| 0/2 |
| 0/3 |

Planning information

Note

In the version shown in dashed lines, which is protected against manipulation, the door release lead of the line power supply must not be routed through the outdoor station.

The indoor stations are terminated with a terminating resistor.

The single-sided earthing of the cable shield in the distributor increases interference resistance.

The conditions for selecting the installation location must be taken into account (see operating instructions).

Space required for the rail mounted devices in the distributor	8 modules
Adjustable door release unlocking time	1 ... 10 s
Adjustable delay time of potentialfree light contact (230 V suitable)	1 s ... 5 min
Adjustable call push-button backlighting	Duration OFF / ON and OFF depending on brightness / duration ON
Indoor station installation height (centre)	1.5 m (♿ 1.3 m)
Outdoor station installation height (centre of camera)	1.5 m

Maximum expansion[1] with number of video indoor stations with n outdoor stations

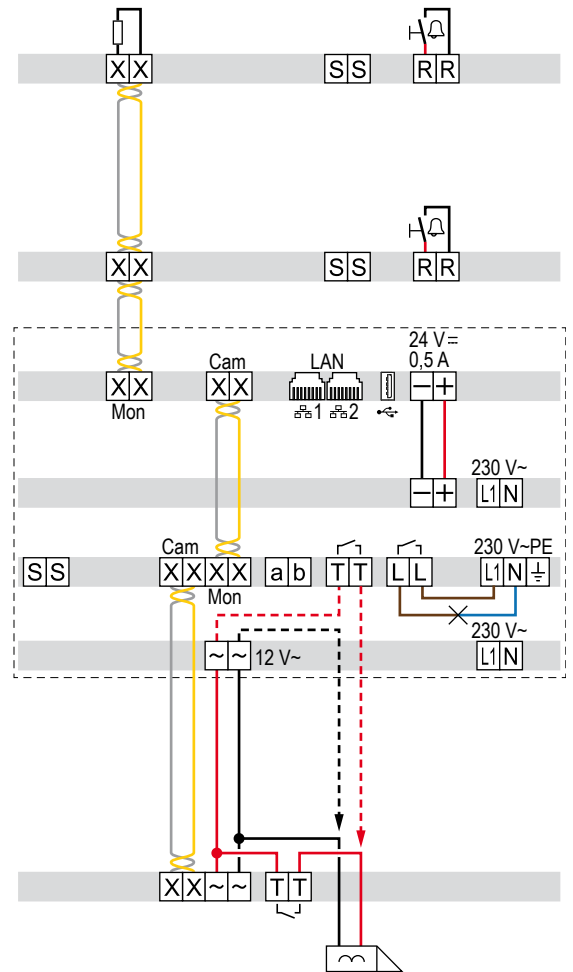| Outdoor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Video indoor stations	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Minimum number of branches for video indoor stations	4				3				2				1			

[1] With line couplers, a maximum of 256 indoor stations and 150 outdoor stations can be operated.

For example, with 3 parallel video indoor stations and one video outdoor station in one through installation.
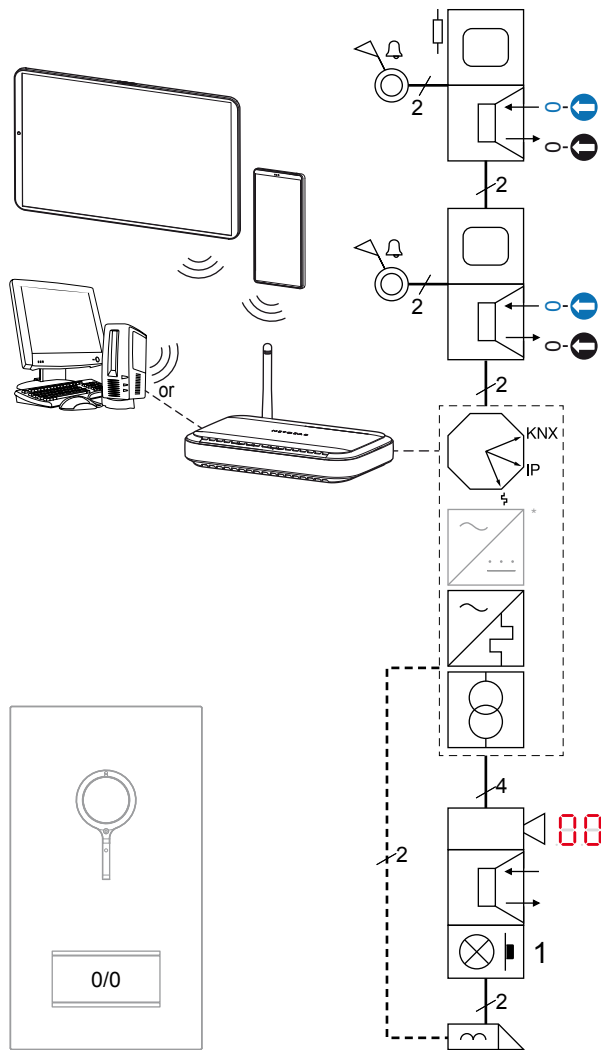
Note
The 2-wire IP KNX gateway can also be installed in a star installation for each branch/residential unit.

Planning information

Note
* The 2-wire Access Gate can be operated via PoE or a 24 V= power supply.

In the version shown in dashed lines, which is protected against manipulation, the door release lead of the line power supply must not be routed through the outdoor station.

The terminating resistor remains in the indoor station at the end of the cable. In the preceding indoor stations this must be removed.

Wiring through the cable shield and single-sided earthing in the distributor increases interference resistance.
Pay attention to camera detection area when selecting the installation location.
Observe maximum expansion; the 2-wire access gate places the equivalent load of an indoor station on the 2-wire bus.
After the Access Gate, a maximum of 2 indoor stations may be addressed in the same way in parallel operation.
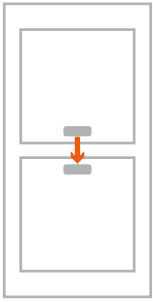
Space required for the rail mounted devices in the distributor	14 modules with POE power supply 17 modules with NGV-500
Adjustable door release unlocking time	1 ... 10 s
Adjustable delay time of potentialfree light contact (230 V suitable)	1 s ... 5 min
Adjustable call push-button backlighting	Duration OFF / ON and OFF depending on brightness / duration ON
Indoor station installation height (centre)	1.5 m (♿ 1.3 m)
Outdoor station installation height (centre of camera)	1.5 m

Maximum expansion[1] with number of video indoor stations with n outdoor stations

Outdoor stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Video indoor stations	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2
Minimum number of branches for video indoor stations	4				3				2				1			

[1] With line couplers, a maximum of 256 indoor stations and 150 outdoor stations can be operated.

For example: 3 video indoor stations and one video outdoor station in a star installation.
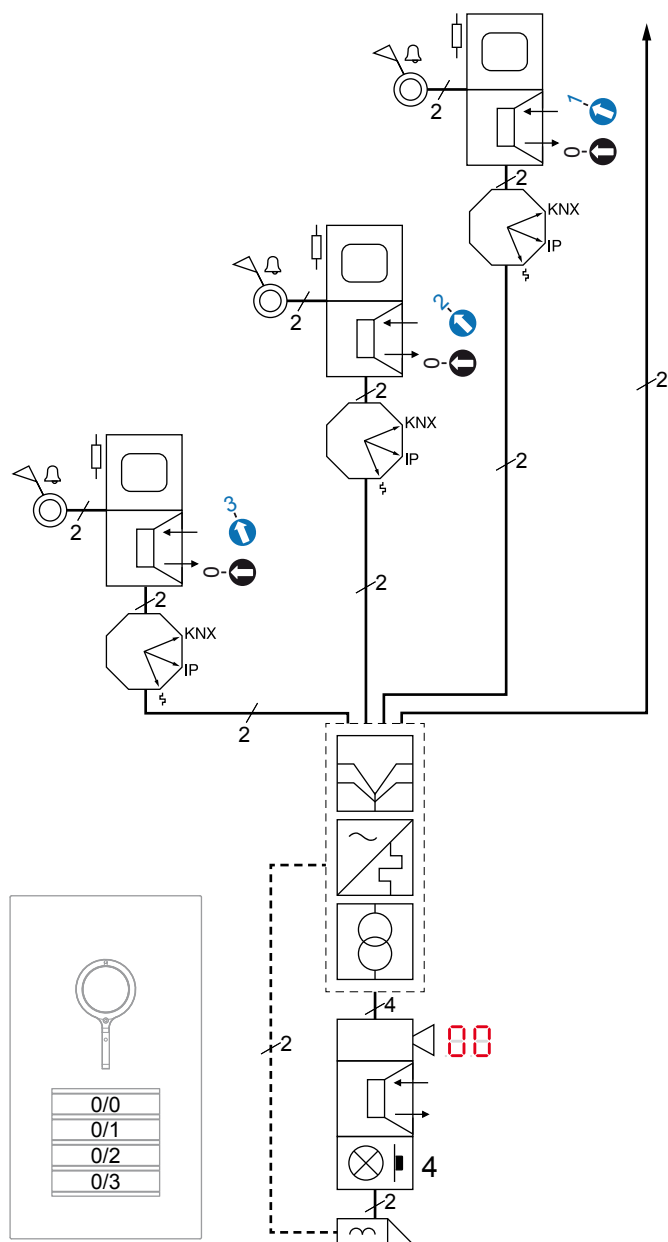
Note
The 2-wire Access Gate can also be installed in a star installation for each branch/residential unit.
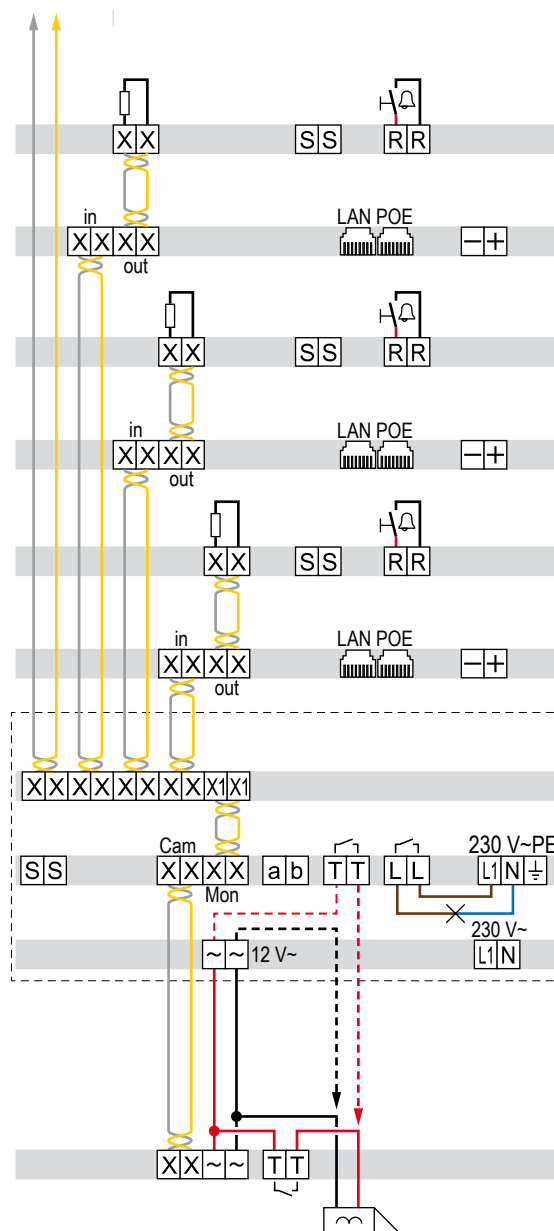
Planning information

Note
* The 2-wire Access Gate can be operated via PoE or a 24 V= power supply.

In the version shown in dashed lines, which is protected against manipulation, the door release lead of the line power supply must not be routed through the outdoor station.
Indoor stations at the end of the branch and non-connected distributor branches must be connected to a terminating resistor.

Wiring through the cable shield and single-sided earthing in the distributor increases interference resistance.
Pay attention to camera detection area when selecting the installation location.
Observe maximum expansion; the 2-wire access gate places the equivalent load of an indoor station on the 2-wire bus.
After the Access Gate, a maximum of 2 indoor stations may be addressed in the same way in parallel operation.

Space required for the rail mounted devices in the distributor	10 modules
Space required for Access Gate in the sub-distributor of the apartment	6 modules with POE 9 modules with NGV-500
Adjustable door release unlocking time	1 ... 10 s
Adjustable delay time of potentialfree light contact (230 V suitable)	1 s ... 5 min
Adjustable call push-button backlighting	Duration OFF / ON and OFF depending on brightness / duration ON
Indoor station installation height (centre)	1.5 m (♿ 1.3 m)
Outdoor station installation height (centre of camera)	1.5 m

REH301Y
— connecting cable REN push-button 90 mm
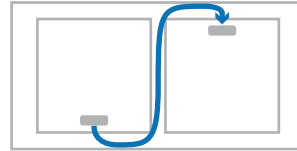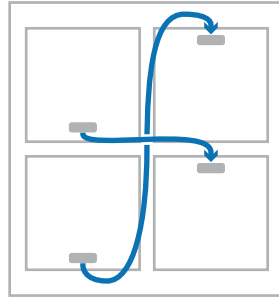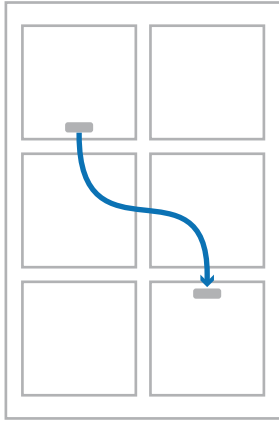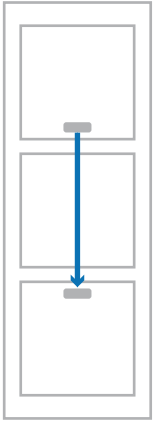
REH302Y
— connecting cable REN push-button 355 mm
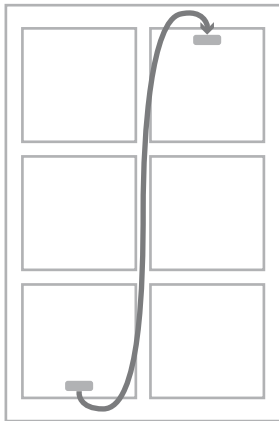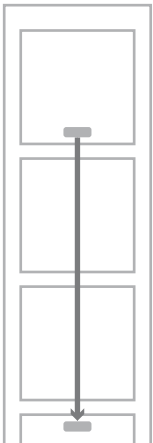
REH305Y
— connecting cable REN push-button 420 mm

System components/accessories

Switching symbols	Product
	Line power supply
	Safety transformer (Bell transformer)
	Power supply for coupler
	Line coupler with line power supply DC voltage supplied
	Line coupler with line power supply AC voltage supplied
	privacy function
	Storey call generator
	Video distributors / branches
/	Video distributor 2gang / 4gang
	Audio output coupler
/ ²	Switching relay / switching relay 2gang
	Switching relay with 1 input
	Bus automatic light
KNX IP	Access Gate
	PBX interface
	Door release
n	Call push-button connecting module
	Storey push-button (bell push-button)
	Key push-button 2 NO contacts
	Blind plug
	Pilot lamp/lighting module
	Terminating resistor
	Junction box/distribution box
	Distributor/housing

Indoor stations/signaling units

Switching symbols	Product
	Audio indoor station Audio module of an outdoor station
	Indoor station audio with receiver
	Indoor station video
	Bus secondary signal device

Outdoor stations/access control

Switching symbols	Product
n	Audio outdoor station with n call push-buttons (n e.g. 16/2 = outdoor station 2-row with 16 call push-buttons)
n	Audio outdoor station with status indication
n	Letter box station audio
	Video module of an outdoor station
n	Video outdoor station with n call push-buttons 8/1 = outdoor station 1-row with 8 call push-buttons
n	Video outdoor station with status indication
n	Letter box station video
	Rod camera
n / n	Call push-button / call push-button module
	Status display
n	Status indication with n call push-buttons illuminated
ABC	Display call module
	Code lock module / keyboard for display call module
	Code lock with 2 relay contacts
/	Fingerprint reader module / Evaluation Unit
	Transponder reader module
	Motion detector

Symbol/device details

Symbols	Detail
	Wrapped wire pair
2	Number of wires of a cable
	Group address of the indoor station
	Subscriber address of the indoor station
X X	Terminal labellling XX 2-wire bus cable RR floor call push-button SS additional infeed
	Symbol for light button
00	received line address and outdoor station-/ storey door address