

# Outdoor video communication

For one-family homes and apartment houses



Front-door stations series VPDS | VPES in 20 mm aluminium case for surface-mount with integrated video camera for up to 88 flats



Front-door stations with video series VPUK with 3 mm thick front panel for flush mounting, optionally available in natural or bronze anodised aluminium, white powder-coated or with a polished stainless steel front panel

For commercial properties



Display station AD3 with graphical display, vertical or horizontal, for up to 1000 residential units



Product information  
"Radio system extent"

Brochure of 24 pages in A4  
about system, components, performance  
parameters and prices

Art.No. VF6017

More information and technical support for planning on  
[www.tcs-germany.com](http://www.tcs-germany.com)



# Video communication

Video in-house stations  
and the options for crosslinking

Presented by:



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## Video communication offering functional diversity Series IMM



Individual functionality from a single source – this is a brief explanation of the concept of these multifaceted in-house stations.

The aim: to establish a single series design with features uniquely diverse and individually combinable to meet all indoor requirements.

The advantage: Door communication systems can be individually designed and equipped with customised features, especially for medium-sized and larger projects. But despite their diverse functions and individuality, the systems still remain easy to plan and install and, later, to manage.

So take advantage of this new planning freedom and react to any special requests by your property developers with just a smile, because you have a single series at your fingertips!

Magdeburg\_ "Green Citadel" built to plans by the architect Hundertwasser



Video in-house station for hands-free talking with comfort keypad

### In-house stations

The two basic models of the series – either a traditional version with receiver or a handsfree version – comprise a practical set of easy-to-operate basic functions in a modern, compact design.

Moreover, both basic models can be extended to include video display and comfort keypad.

### Comfort keypad with LED display

The comfort keypad gives the product range a unique diversity of applications and allows to use it even in the most demanding product environments – either as in-house stations with advanced internal communication, for display and switching functions in an office or commercial environment, or even as a communication and control centre in reception.

The comfort keypad consists of 10 keys and an integrated LED display for each key and acts, as such, as the user interface for the diverse range of functions offered by the extent™ radio system, which allows the central mapping and switching of house functions.

### IMM with video

The series also offers video communication using the 2.4" colour video display. The display is perfectly integrated visually and guarantees convincing picture quality.

The IMM series offers the widest possible range of individually selectable functions and convincing ease of use, combined in a uniquely compact format that allows the product to be easily integrated into any conceivable environment.

### Individual functions

The comfort keypad can be easily added to the two basic models, making them ideal, e.g., for advanced internal communication, switching control functions or centralised status displays.

The video display is available for video communication. It can also be combined with the keypad to offer maximum functionality, especially for challenging projects.

All models can be adapted to owners' requirements in terms not just of functions, but also design, with casings available in pure white and silver.

### The basic functions at a glance

- : 1(2) large operating button(s) for door release (and call reception)
- : 3 small operating buttons for light switching, ring tone muting (with red LED display) and one control function
- : choice of 13 ring tones
- : acoustic and visual differentiation of front-door, apartment-door and internal calls
- : continuous adjustment of the ring tone volume
- : 1 function key, assignable to a control function or internal call, automatic door release, call diversion
- : acoustic ring tone distinction between 2 doors
- : optional call diversion to other in-house stations
- : 1 parallel call and floor-door release function can be activated



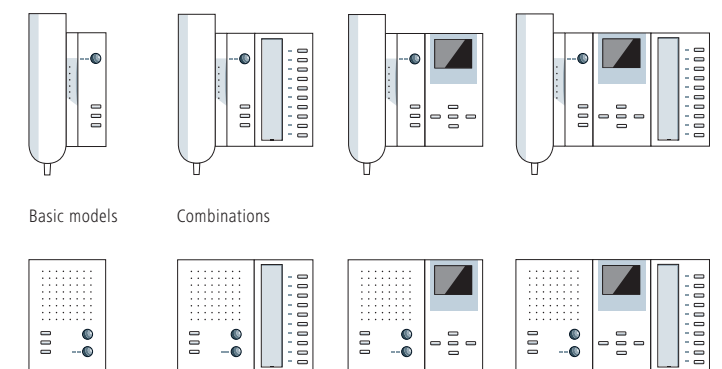
Video in-house station with handset



Video in-house station with handset and comfort keypad



Video in-house station for hands-free talking



Basic models

Combinations



## From video communication in budget projects with VME ...



Hamburg\_Hansecenter

"E" denotes the entry-level option for video systems.

The VME video in-house station combines basic functionality with an attractive design to form a product that is very successfully deployed, especially in price-sensitive system projects.

Combined with the appropriate front-door stations, very competitive system concepts can be compiled for small and medium-sized residential and commercial projects or, together with the display front-door stations, for larger systems.

These concepts repeatedly convince cost-conscious property developers and investors with budget projects who appreciate, above all, the excellent price-to-quality ratio.



VME30-WS for surface-mount with black/white video



VME30-WS for flush-mount with flush-mount box and mounting frame with black/white video



VMH30-WS for flush-mount with flush-mount box and mounting frame with black/white video



VMH30C-WS for flush-mount with flush-mount box and mounting frame with color video



VMF30C-WS for flush-mount with flush-mount box and mounting frame with color video, casing in silver

## ... up to challenging renovation projects with series VM30

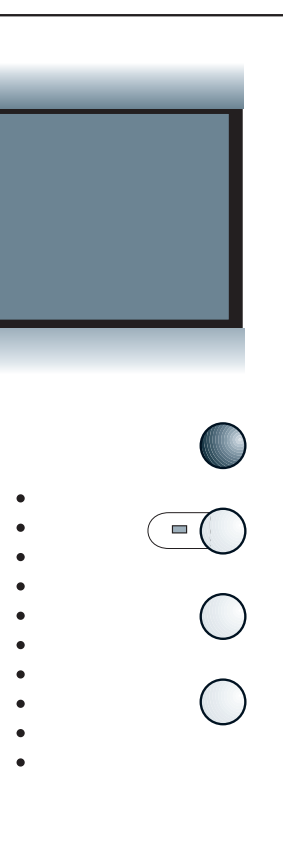


Leipzig\_Altstadtviertel

In addition to its entry-level models, the VM30 series also offers an extensive diversity of models in a classic design.

The provision of up to three keys for switching house functions clearly underlines their suitability, especially, for residential projects requiring challenging functionality. First-rate user convenience and the wide range of functions and price categories are just some of their convincing benefits.

All of the central product features of the series can be customised to client requirements: models with receivers or convenient hands-free function; b/w or brilliant colour video; quick surface-mounting or elegant flush-mounting; white or silver casing – property owners are free to choose.



- 4" screen diagonal
- blue-colored door release button
- ring tone mute with optical display (LED)
- icon button for switching on or between camera(s)
- control function

### A new approach to basic functionality

In addition to the basic door release and image display functions, operators can also use a control function. For safety reasons and to protect privacy, the VME has a privacy function and is equipped with automatic call cut-off. The equipment offers 3 fixed ring tones to distinguish between front door, apartment door and internal call.

### The basic functions at a glance

- 4" screen diagonal
- door release and ring tone mute buttons (visual display)
- icon button for switching on or between camera(s)
- acoustic and visual differentiation of front-door, apartment-door and internal calls
- continuous adjustment of ring tone volume and brightness
- 1 function key, assignable to a control function or internal call, automatic door release, call diversion
- acoustic ring tone distinction between 2 doors
- optionally available in pure white or silver
- optionally available for surface, flush and desktop mounting

### Ideal for installing large systems

The VM30 series offers more local freedom thanks to its two-phase assembly.

The connecting lines are connected to the base plate or flush-mounted box as the first step. The easy-access connections of the installation are then very simple to check.

Once construction is completed, the in-house station is clicked on to the base plate. This protects it against dirt and theft during the construction phase.



### Desktop accessories for office applications

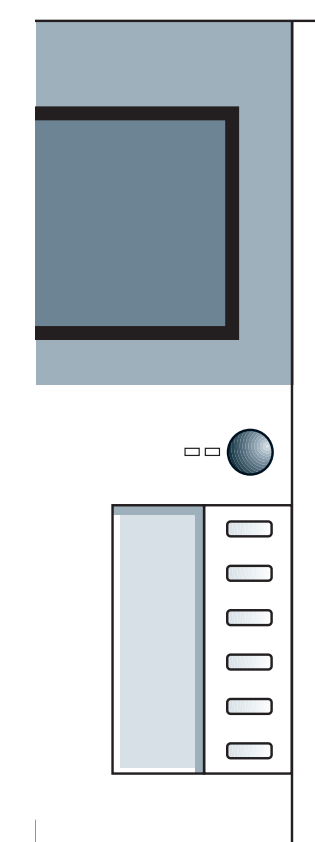
In addition to wall-mounting, the VM30 can also be placed on a desktop for office applications.

To this end, the video in-house station is positioned correctly using a desktop base.



### The basic functions at a glance

- optional with black/white or color video
  - optional in duplex-/simplex communication or hands-free talking
  - optional in white or silver
  - optional in surface-, flush-\* or desktop-mount\*
  - blue-colored door release button, flat-door release can be activated
  - function key to switch on monitor and switch between different cameras
  - acoustic and optical call distinction for front-door, flat-door and internal call b/w video
  - ring tone mute with optical display
  - up to 3 function keys ex works: configured with control function/alternate allocation: specific internal call, automatic door release, redirecting
  - selection from 13 ringtones, VMF: 4 polyphonic ringtones among them
  - acoustic call distinction for 2 doors
  - ring tone volume, brightness (and contrast) manually adjustable
- \* Flush-mount-set or desktop accessory necessary



- blue-colored door release button
- control function 1
- control function 2
- light switch button
- ring tone mute with optical display (LED)
- switch on monitor and switch between different cameras
- control function 2

### Convincing planning benefits

The VM30 series is part of TCS' video system, appreciated by planners and electricians for its easy design, installation and configuration. Just a few components are all it takes to implement simple systems for classic single-family homes or complex building communication systems in wide-area business and office complexes. The installation is based on TCS-BUS technology with centralised power supply. This offers the advantage of being able to combine the installation of video systems with other components, such as alarm bells, additional in-house stations or, e.g., access control or building automation components. In addition, the systems can be easily extended at low cost at any time following their initial installation, thus ensuring up-to-date functionality into the future.

### Enhanced functionality

Up to three additional keys for switching house functions make the series an ideal component part of building automation. They can be used, for example, to operate a garage door or an alarm system, in addition to their standard functions of switching lights and releasing doors.





## Premium quality video communication Series Skyline



If you demand the highest standards of design quality and user convenience when opting for a door communication system, then the Skyline series sets its very own standards.

The hands-free video in-house stations incorporate a representative, large colour video display into an exclusive aluminium front panel. The sophisticated anodised finish and the high-resolution display add convincing value to any product environment and meet the requirements of even the most demanding property owners and architects.

The Master version even incorporates a surveillance and alarm system, providing an integrated safety concept for residential areas or entire buildings.



Skyline Comfort  
made of anodised aluminium

### Premium design – Skyline Comfort

The generous product design made from top quality aluminium and the sophisticated anodised finish create the framework for a comfortable display size. Combined with a hands-free function, these constitute premium design.

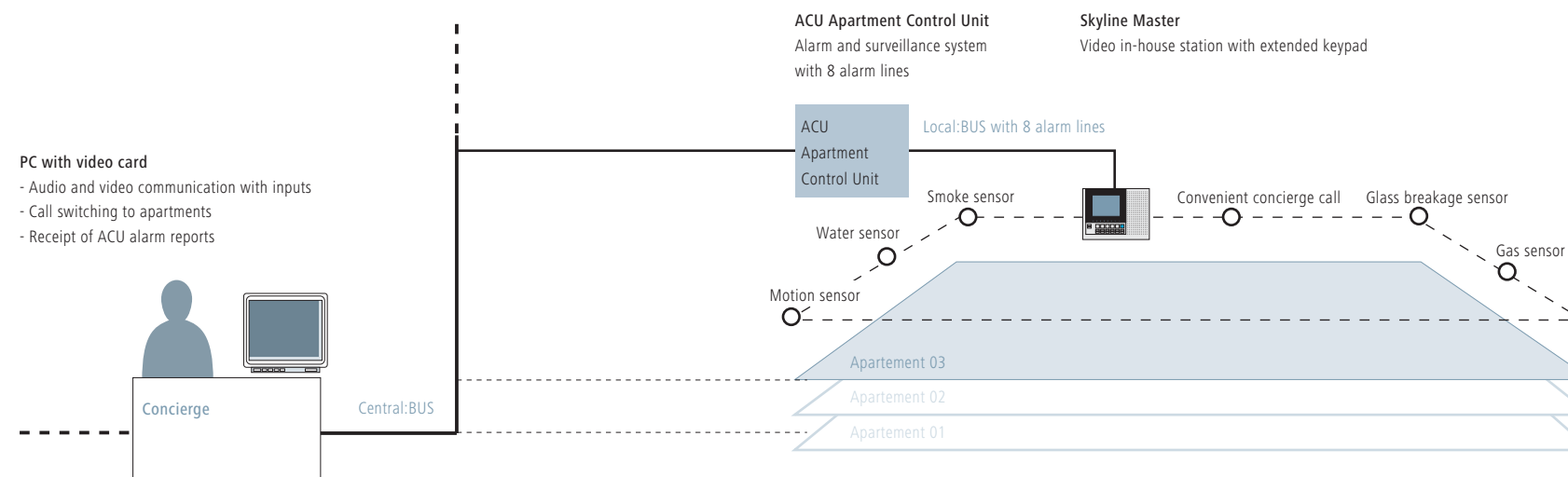
### Design combined with safety – Skyline Master

Unlike the Skyline Comfort, the Master version includes an extendable keypad for controlling the ACU Apartment Control Unit – a top quality surveillance and alarm system. Offering up to eight alarm lines, for example, for reporting glass breakage, movement, smoke or gas, and alarm lines for emergency switches, the system can be adapted to specific project requirements.

### The Skyline Comfort functions at a glance

- : high-resolution 5.6" colour display
- : sophisticated anodised aluminium casing
- : hands-free function, switchable to simplex communication
- : door release and ring tone mute buttons (visual display)
- : call acceptance button or push-to-talk button
- : icon button for switching on or between camera(s)
- : light button, for internal call or control function use
- : 1 function key, assignable to a control function or internal call, automatic door release, call diversion
- : acoustic and visual differentiation of front-door, apartment-door and internal calls
- : choice of 13 ring tones
- : adjustment of ring tone volume and brightness
- : visual short-term memory for door calls
- : visual engaged display during ongoing communication
- : compact product format, measuring 215 x 280 x 5 mm

### The functional principle of the ACU (Apartment Control Unit) surveillance and alarm system



Skyline Master with  
extended keypad for operating  
the ACU alarm system



## Linking up video and telecommunication systems



Door communication system function on the basis of someone being available to react to a door call and, possibly, to open the door. But what happens if no-one is there?

By linking the intercom to a telephone, door calls can be automatically diverted to fixed numbers in public telephone networks if nobody is present. As such, activating the intercom on a private front door or, e.g. on an office front door outside of office hours, triggers a telephone call to a fixed line or mobile telephone.

In return, the in-house and front-door stations of an intercom system can be called from a fixed line or mobile telephone.

Even switching commands or status reports can be transmitted from the TCS system this way.



### Possibilities offered by a telephone connection

A telephone connection allows a diverse extension of the communication options offered by the intercom system and the use of central system functions from a remote location.

In addition to forwarding calls, status reports and switching commands, e.g. for releasing doors or switching lights or electrical equipment, can also be exchanged.

### Call diversion during absence

The intercom system is connected to an existing telecommunication system via TK-interface. The relevant telephone numbers are stored in this TK-interface for dialling.

A control function key on the (video) in-house station can then be allocated to activate call diversion, for example to a mobile telephone (see illustration on page 11).

### Cost benefits in commercial applications

Particularly in commercial environments, a TK-interface offers numerous options for the cost-efficient installation of complex building communication systems, for example, by connecting all desks or telephones to the door intercom.

Central system functions are distributed across the in-house telephone network throughout the entire building:

- a ring at the front-door station turns into a telephone call within the in-house network
- once the telephone call has been accepted, functions, such as door release, light switching, and additional control and switching commands, can be triggered.

A telephone connection enables up to 10 building functions to be switched by telephone.

### Alarm reports

If a connected alarm system triggers an alarm, the TK-interface dials the (emergency) numbers stored by the user. With the receipt of an alarm report, a switching contact (lighting, signal transmitter) can be activated in reverse via telephone. A room can be acoustically monitored via telephone call-back.

Application scheme of a telecommunication connection in residential usage



Diversion of calls from the front-door or in-house station to the public telephone network

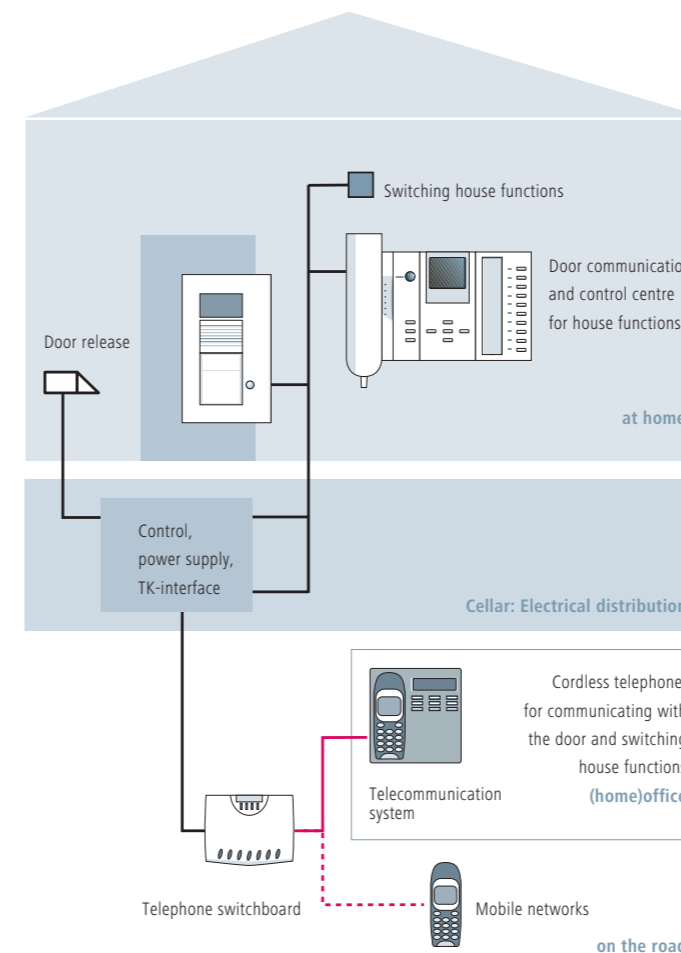
Status and alarm reports

Calls from public telephone networks to the front-door or in-house station

Remote control of electrical consumers / actuators via telephone networks



**public telephone networks (fixed line, mobile networks)**





## Linking up video systems with networks or the internet



„TCS:Server“ is the solution for companies, office communities or private operators with home offices who want to use the video communication offered by their intercom system not just on in-house stations but also on their PCs.

The TCS:Server links TCS video systems to in-house IP-based networks or even to the internet.



This enables global access, not just to video images, but also to central system functions within the network or via the internet:

- Examining camera images
- displaying status reports
- opening doors or switching electrical equipment

The TCS:Server is operated using a standard internet browser – regardless of the software and free of any licence fees.

### Use in corporate networks

In large office or administrative networks, especially, the TCS:Server allows functions of the TCS:BUS system to be accessed from PC desks.

This access includes video communication and the switching of building functions linked to the TCS:BUS.

### Areas of application

- in commercial and office environments, combined with a telecommunication system and corporate network
- in residential environments with video systems and, possibly, the extent™ home automation radio system

### System functions that can be accessed via TCS:Server

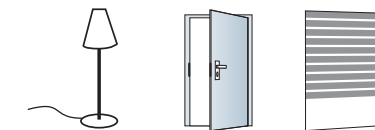
- Loading video images from front-door stations and cameras
- Overview of status reports of sensors (such as OPEN | CLOSE or ON | OFF)
- Triggering individual system functions (e.g. door release)
- Using actuators to switch house functions

### Operator-friendly benefits

The use of the TCS:Server offers unique advantages, since access does not require any installation of software or hardware on the PC.

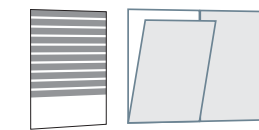
As such, licence fees per desk are not incurred either.

Moreover, the TCS:Server is so compact that you cannot see it. It simply hides in the electrical distribution unit.



### Switching house functions from a PC

e.g. Open | Close door; Switch light On | Off; Central shutdown of all electrical consumers



### Displaying house functions on a PC

e.g. Raise | Lower blind or Open | Close window  
e.g. Switch light On | Off

Provider of  
Telecommunication system



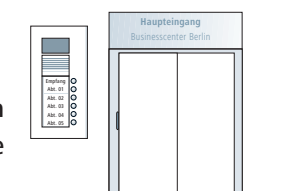
Voice connection  
via telephone

Video connection  
via PC

Video door communication  
and door release

### PC video surveillance

e.g. outdoor areas or car parks





# Video system and TV system networking



Safety in private housing can be considerably increased by video surveillance of the property. This only becomes user-friendly during the evening while the user is watching TV, his visitors push the doorbell and the video picture is shown on the TV screen as an insert. The user can then simply open the door using his TV remote control without having to go to the door.

To achieve this level of luxury, the video door intercom is connected to the TV. Video images provided by the intercom can be inserted into the TV picture.

In order to observe his premises, the user can also switch his TV to the door video image without anyone having to press the doorbell.



Mapping with internal TV function "picture within a picture"

## Video systems with TV connection

If the video door intercom system is connected to the TV, the video images can be displays on a TV screen, as an alternative to the display on the in-house station.

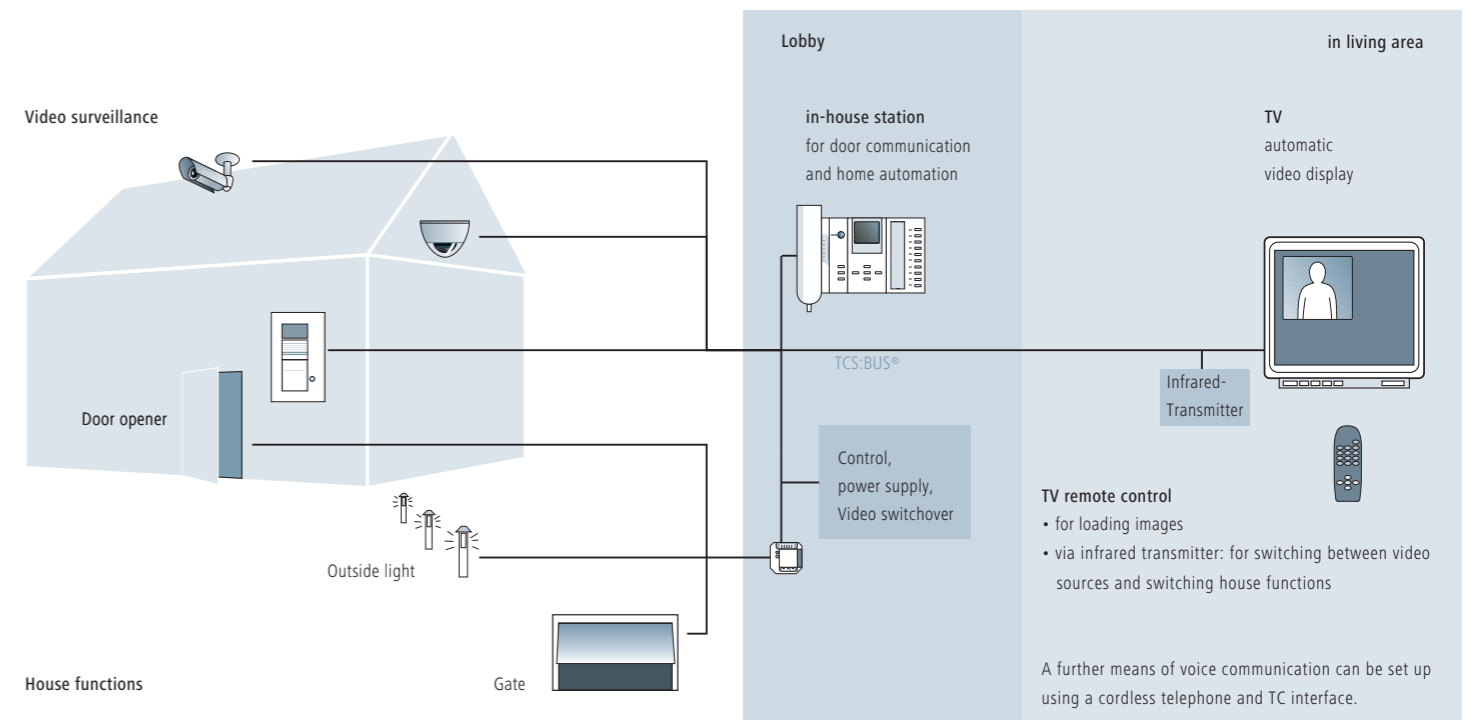
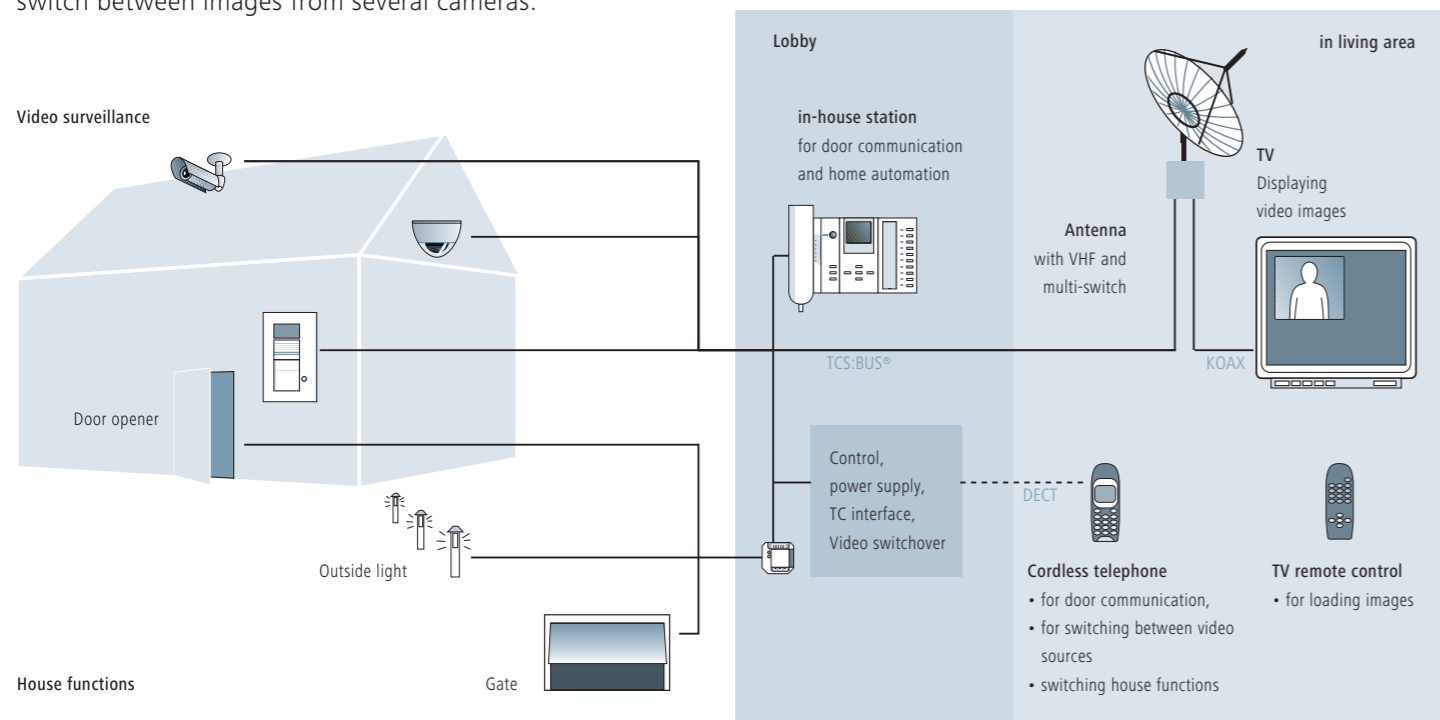
Additionally, the TV's remote control can be used to switch between images from several cameras.

### 1. Can be upgraded during renovation works

TV display of video images via TCS:BUS connection to the existing antenna:

### 2. When planning new buildings

Direct display of the video image on a TV via SCART (requires TV connection to TCS:BUS):





## Linking up video and building automation systems



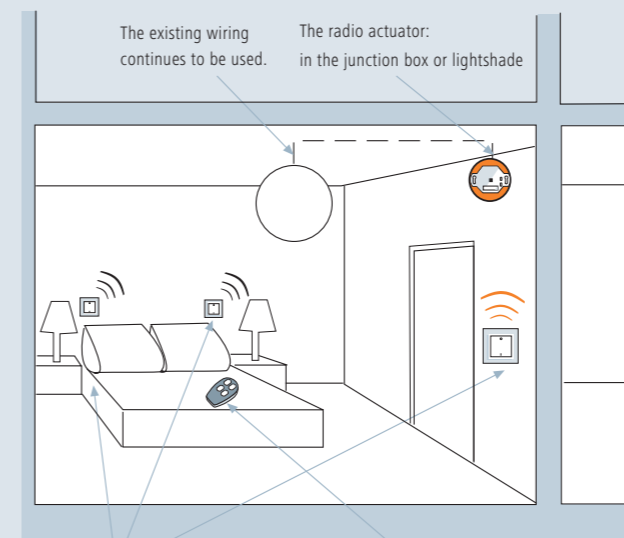
extent™ is a solution for adding convenient functions to classic door intercom systems to meet individual customer requirements.

The in-house station is used both for central status displays and for controlling home functions and electrical appliances. The radio remote control even allows the mobile operation of the door intercom functions from anywhere in the house.

extent™ is simple to install, with no extra work involved. Quick, clean and flexible. The best thing about extent™ is: its functions are wireless, since it is radio-based and, since they do not need batteries, the radio sensors are maintenance-free.

The radio switches are simply stuck on and can therefore be relocated at any time, flexibly, and in the twinkling of an eye.

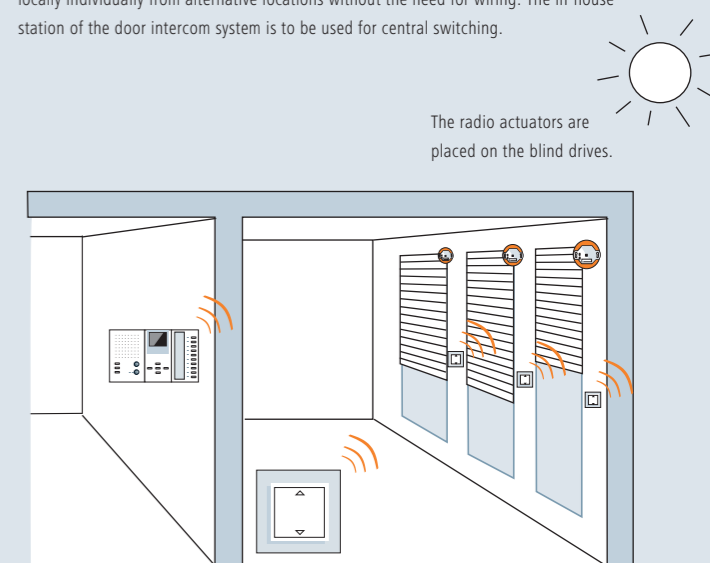
The home owner would like to have the option of switching a light in the bedroom by remote control and from the bed – without major wiring works. The extent™ radio sensors and actuators can provide alternative switching locations and modes of operation without any need for wiring.



The old light switch has been replaced by three new radio sensor buttons.

The light can also be switched using the radio sensor remote control.

The home owner would like to have the option of operating the blinds centrally, in groups and locally individually from alternative locations without the need for wiring. The in-house station of the door intercom system is to be used for central switching.



**Central switching**  
using the comfort keypad of the IMM series of in-house stations

**Group switching**  
via a single radio button

**Local switching**  
via individual radio buttons

### extent™ – the link between video communication and home automation

The extent™ radio system offers a wide range of individual options for extending video door intercom systems via radio to include the local, central, and even mobile switching of house functions. Individual conditions, such as ON | OFF or OPEN | CLOSED can be centrally displayed on the video in-house station.

#### Better control and improved safety

By indicating whether windows or doors are open or closed, extent™ simply guarantees better control and enhanced safety.

#### Reduced energy consumption

Energy costs can be improved by centrally switching off individual or entire groups of electrical consumers, e.g. when leaving the building.

#### Enhanced comfort in the home

The mounting of the extent™ radio sensors is extremely practical. They are simply stuck on and can therefore be mounted where needed and on any suitable materials – flexibly, since they can be moved from one site to another at any time.

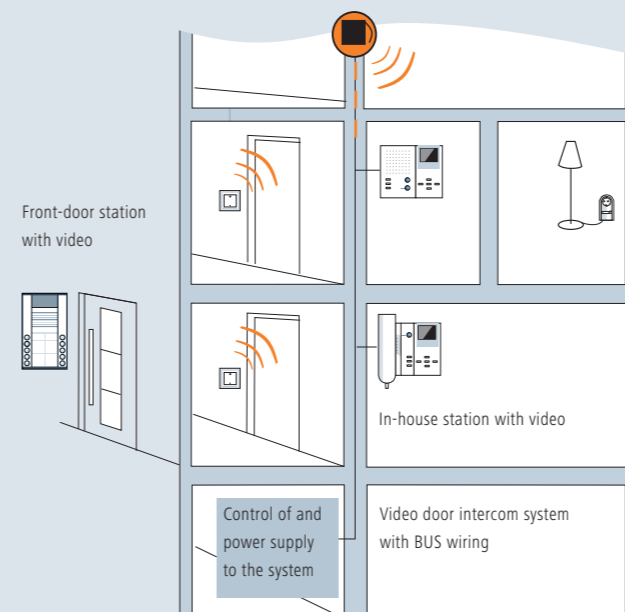
#### The benefits of using extent™

- : it simplifies control options, thus enhancing safety
- : it offers 3 modes of operation, thus raising comfort in the home and user convenience: central, local and mobile operation
- : it offers sensible equipment synergies between the intercom operating elements and home functions
- : the radio transmission is bioconstructively safe since it requires only minimal transmission times and power
- : its central shutdown functions reduce energy consumption

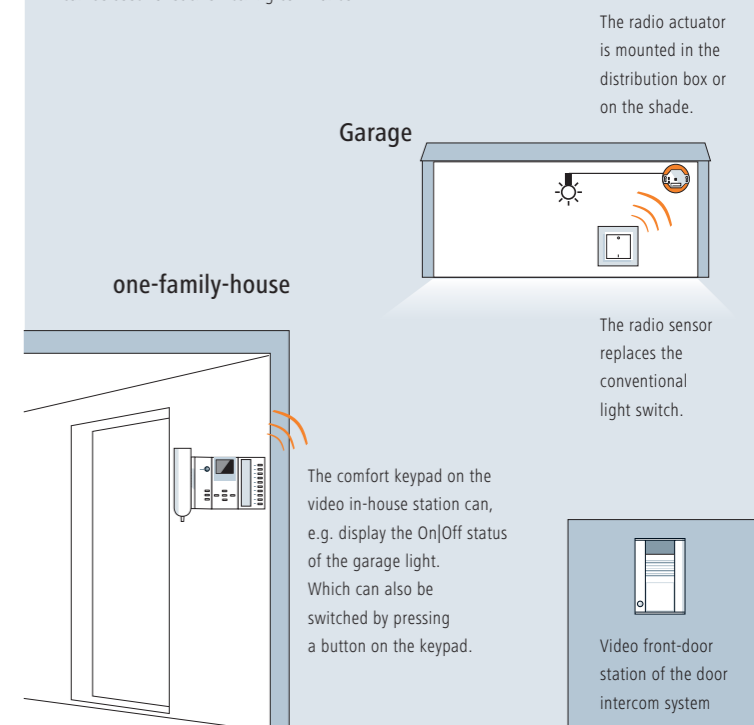
#### The benefits of installing extent™

- : interference-free radio transmission at a high transmission frequency
- : radio-based and therefore wireless, so can be installed without the need to subsequently renovate
- : a flexible system that can be easily adapted and extended at any time
- : quick to install
- : battery-free and therefore long-term maintenance-free radio sensors

Floor switch buttons can also be retrofitted simply and quickly without the need for wiring. Radio sensors from the extent™ range are simply stuck next to the apartment doors and an EnOcean radio interface integrated into the door intercom system. The EnOcean radio interface then transmits the radio-based ring command from the floor switch buttons to the video door intercom system, thus causing the in-house stations to ring. In addition, a connected light can signal intercom calls by multiple flashing.



The home owner of a video door intercom system would like to extend the system to include garage light switching on the in-house station – without the need for extensive wiring. With extent™, the comfort keypad of the IMM series of in-house stations can be used for such switching commands.



Video front-door station of the door intercom system