Planning and service.

Product documentation for planning and installation

In addition to this brochure the download area of the TCS website at www.tcsgermany.com contains an in-depth video handbook. All video components are documented on the website for the planning phase as "planning aids" and "tender texts" and for the installation phase as "product information".

Service

Besides the service software for the PC or Laptop, TCS also offers a mobile service device for the maintenance and service of systems: the TCSK-01.
This device permits a fast single-handed commissioning of systems and the configuration of functions in the products to be installed. Our customers are also supported by a TCS service advisor in their region, especially for the commissioning of large and complex systems.

Training

TCS offers regular training for the planning and installation of video systems in your region. Experienced staff will give valuableadvice for careful planning and uncomplicated installation.

Sales promotion

Architects, planners, and installation firms have the option to use samples of video products to offer support to their customers and to promote sales. Please contact TCS by visit our web page at

www.tcs-germany.com

for detailed information.

Ask us for advice!

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Video systems

From a family home to an office building.

TCS has proven that it is possible to develop a product and functional portfolio with great variety from a single and equally simple system. The patented 2-wire BUS technology enables building communication with only three basic components.

The enormous possibilities of this first BUS system in the industry became the standard for the development of building communication since 1995.

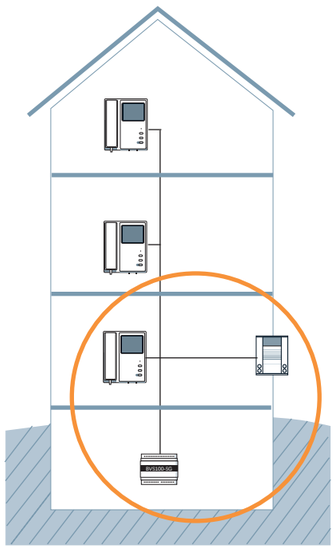
The principle:
clarity of technology in spite of a multitude of demands.

the system

Paris_Display AD3, Front-door station with graphic LC-display, code lock function and video for up to 500 flats

Hamburg_Display AD4, Front-door station with touch screen, video and access control module, concierge call, mail delivery lock and danger alert for up to 1000 flats

Vienna_Display AD2, Front-door station with LC-Display and video for up to 200 flats



Video systems in their most simple form consist of a front-door station, an in-house station and a power supply and control unit.

Der TCS BUS®

The TCS:BUS® is based on programmed logical links among system components to realize its functions instead of on wiring. This means that all system components use the same wiring cable. Each system component has a unique, unchangeable serial number and becomes an active bus component. The power supply to systems is provided centrally by a supply and control component.

Therefore, a simple TCS:BUS® system consists of only three components: a front-door station, an in-house station, and a power supply.
The TCS:BUS® allows a functionally mixed design: audio, video, access control and house automation components can be integrated within one system.

The principle of "actuator" and "sensor" is being utilised. The internal BUS communication works via the transmission of BUS protocol. Sensors transmit BUS protocols (e.g. front-door call from a front-door station), Actuators respond to transmitted BUS protocols (e.g. ringing of an in-house station or switching of a BUS relay).

... with video

Contents

Video stations – quality in timeless design.

Vienna_Display AD3, Front-door station with LC-Display, video and jog wheel for up to 500 flats

TCS video installations are based on the 2 wires of the TCS:BUS, a twisted wire pair for the video signal transfer, and a central power supply.

With this 6 wire technology TCS has developed a solid and uniform wiring basis for video systems which is also always compatible with audio and access control components. This installation technology guarantees a high functional reliability of systems and offers comprehensive extension options without a change to other installation technologies.

Due to this wiring technology the need of devices is also low, which brings clear cost advantages.

The main advantage for the installer is that he can rely on a uniform installation technology across the range and does not have to install a video system which is sensitive to line lengths or line materials.

Berlin_Front-door station VPDS08-EN with video for up to 8 flats

the products

Video front-door station

All front-door stations from TCS are manufactured from robust aluminium frames or massive metal front plates.

VPDS

VPES

VPUK

Säulen VPSD und VPSE

	VPDS	VPES	VPUK	Säulen VPSD und VPSE
Camera module	bw, color	bw, color	bw, color	bw, color
surface- / flush-mounted	surface-mount	surface-mount	flush-mount	free standing or surface-mount
product dimensions H x W x D in mm	204-242 x 135 x 20	166-280 x 135 x 20	252-340 x 150 x 3	1636 x 135 x 71
max. no. of flats	3 (22 with extension PDT)	18 (88 with extension PET)	24	5 or 20
Extensions	can be combined PDT	can be combined PET	can be engraved	height individually selectable

Video in-house station

A genuine design of white plastic cases and and an intuitive operation characterise the in-house video station series from TCS.

VME30

VMH30

VML30
simplex communication

	VME30	VMH30	VML30 simplex communication
picture tube in bw or TFT-display in color	bw	bw, color	bw, color
surface- / flush-mounted with flush-mount box	surface-, flush-mount	surface-, flush-mount	surface-, flush-mount
product dimensions H x W x D in mm	222 x 163 x 70	221 x 182 x 70	221 x 182 x 70
Extensions	desktop accessory	desktop accessory	desktop accessory

Accessories

For flush mounting you will need the flush-mount mounting set **VM30-UP** (see page 6).

desktop accessory **VMT30-EN**

AD1 with video

AD2 with video

AD3 with video

AD4 with video

	AD1 with video	AD2 with video	AD3 with video	AD4 with video
	bw, color	bw, color	bw, color	bw, color
	flush-mount	flush-mount	surface-, flush-mount	surface-, flush-mount
	425 x 150 x 3	425 x 150 x 3	545 x 200 x 53, 545 x 200 x 3	480 x 760 x 123, 480 x 760 x 8
	60	200	500	1000
	horizontal also possible	horizontal also possible	horizontal also possible	variable functional modules

Aluminium and a large colour display provide largesse for the interior.

IVW3000

	IVW3000
	colour
	surface-mount
	215 x 280 x 30
	individual functions

External cameras

Dome camera

Cylinder camera

VKA10

VKM10

	Dome camera	Cylinder camera	VKA10	VKM10
	sw, colour	sw, colour	sw, colour	sw, colour
	surface-, flush-mount	surface-mount	surface-mount	built in
	80 x 80 x 60	76 x 135 x 20	80 x 109 x 35	80 x 109 x 35
		zoom or super zoom, wide angle		

Single family and multi-family houses

Power supply and control unit
for small video systems with one line without distributor and parallel operation

VBVS05-SG

With two mounting sections the **surface-mount mounting set** offers increased safety and cleanliness during installation.

VM30-UP

Power supply and control unit
for systems with one line

BVS20-SG

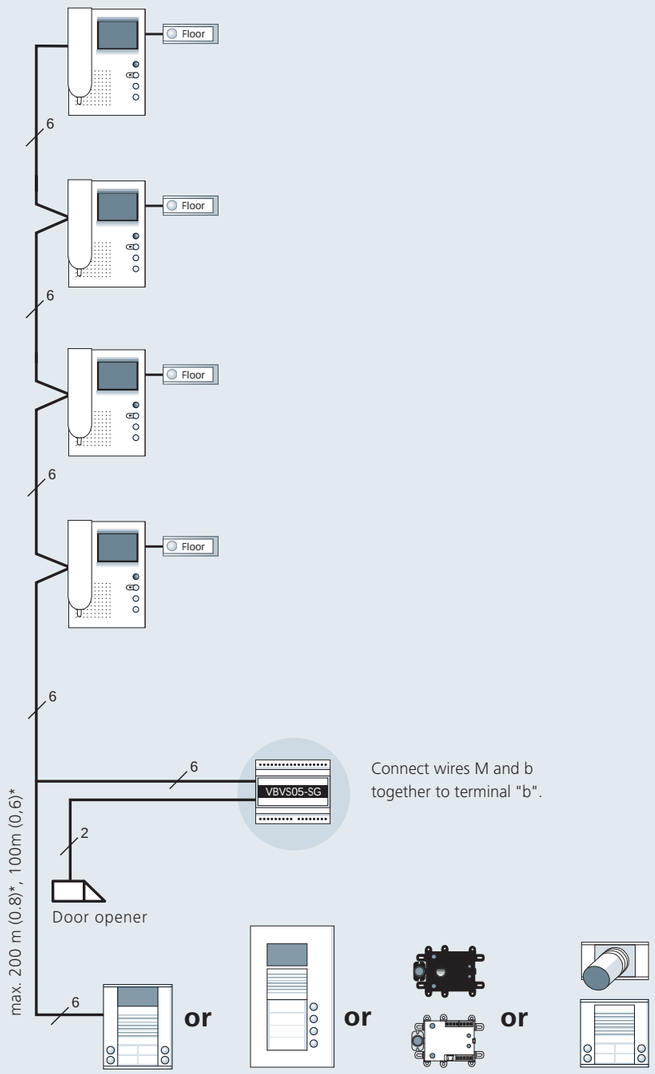
Power supply unit
for 2,5 A DC

NGV1011-0400

Compact video system for 1 to 4 in-house stations

Very compact video system with functionalities for standard house communication.

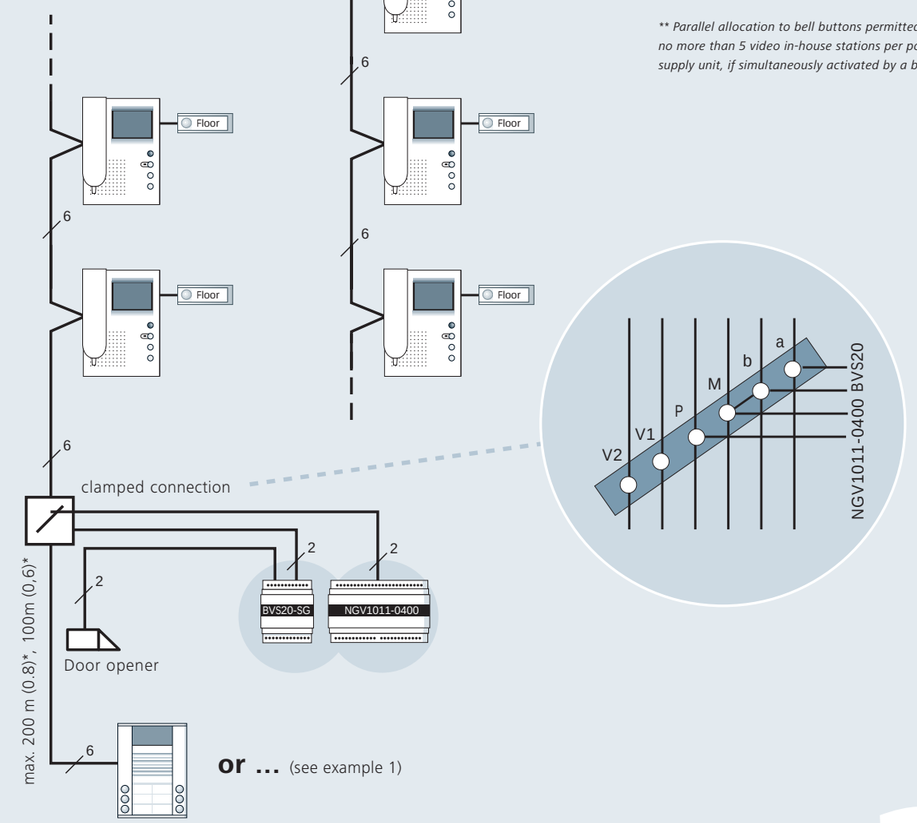
This system can be installed for up to four in-house video stations.



All video front-door stations or audio front-door stations with external camera are possible.

1

* For parallel connection 2 or 3 wire pairs must be used for M/P.



Standard systems with max. 6 video in-house stations

Unlike the previous copmact one, this video system can be functionally extended e.g. by parallel allocation**, internal voice calls or comfort functions.

It is used in multi-occupancy houses with a simple structure.

*** Parallel allocation to bell buttons permitted, but no more than 5 video in-house stations per power supply unit, if simultaneously activated by a bell button.*

All video front-door stations or audio front-door stations with external camera are possible.

2

examples

Urban residential or office buildings

Quad video distributor
adjusts 4 video amplification to compensate losses of cabling, with active amplifiers with best input/output performance, no loss or retroaction

FVY1400-0400

Dual video distributor
adjusts 2 video amplification to compensate losses of cabling, with active amplifiers with best input/output performance, no loss or retroaction

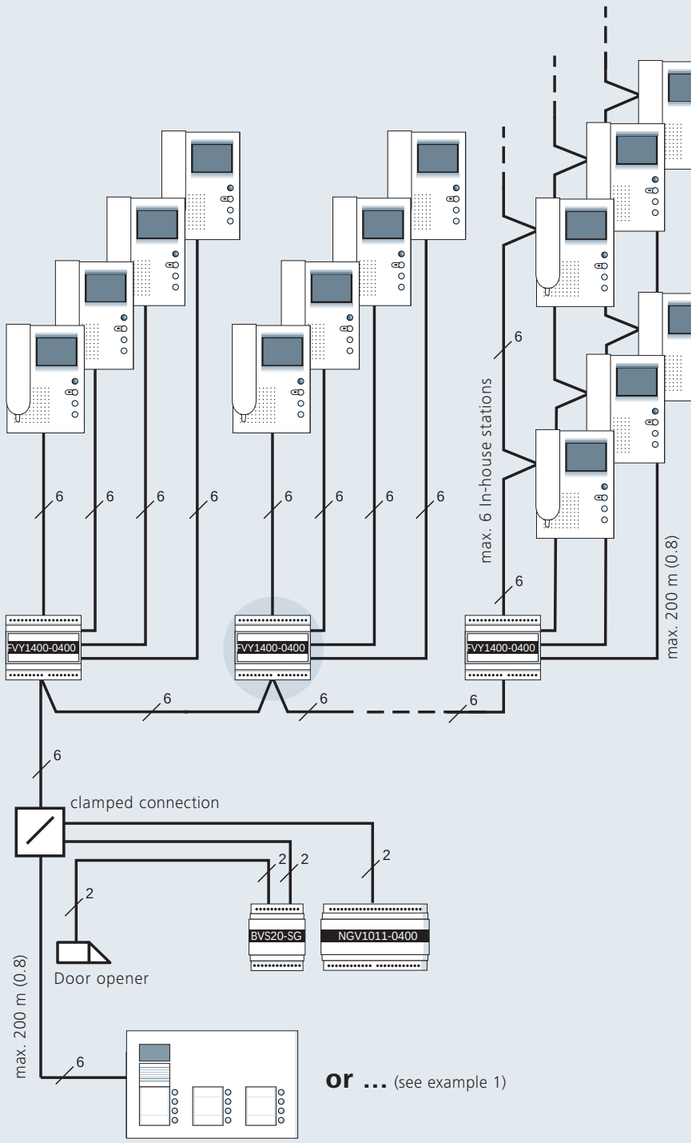
FVY1200-0600

Standard system up to 90 flats in star structure

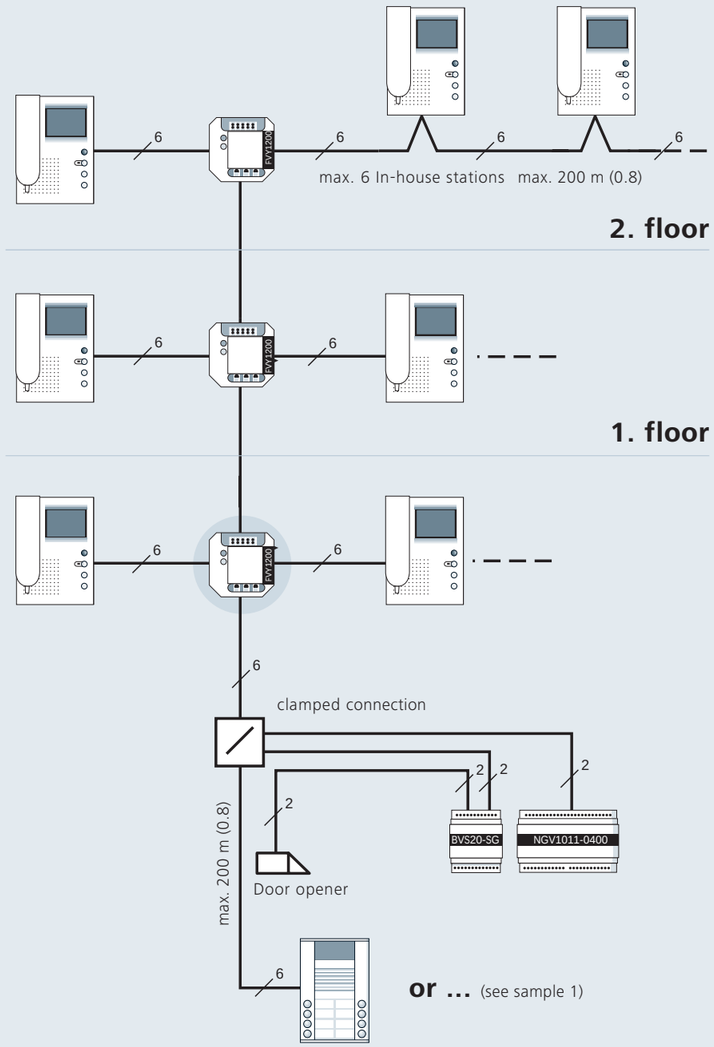
This system structure is mainly used in large and multi-storey buildings where the cabling is conducted in a star-form as to suit the particularities of the building.

Optionally up to six video in-house stations can be connected per line to each of the four outputs of the quad video distributor.

With more than 30 video in-house stations another power supply unit will be required.



All video front-door stations or audio front-door stations with external camera are possible.



All video front-door stations or audio front-door stations with external camera are possible.

Standard system up to 90 flats in rising line structure

This system structure is mainly used in large and multi-occupancy buildings where rising cables are possible.

A maximum of 90 video in-house stations can be connected to a maximum of 45 dual video distributors.

For parallel allocation an additional power supply unit has to be used.

1 power supply unit
= max 15 dual video distributors
max 30 video in-house stations

2 power supply units
= max 30 dual video distributors
max 60 video in-house stations

3 power supply units
= max 45 dual video distributors
max 90 video in-house stations

For more precise calculations use our video handbook, which can be downloaded from the internet at www.tcs-germany.de.

3

4

Residential, office and business complexes

Quad video switch
to select camera input as one-of-four scheme, cascadable up to 5 units with one-of-sixteen scheme

VSW04-SG

Floor video switch
for specific switching between floor-video-front-door station and main-video-front-door station to one video in-house station, to be used in connection with video distributor only

FVY1200-0600

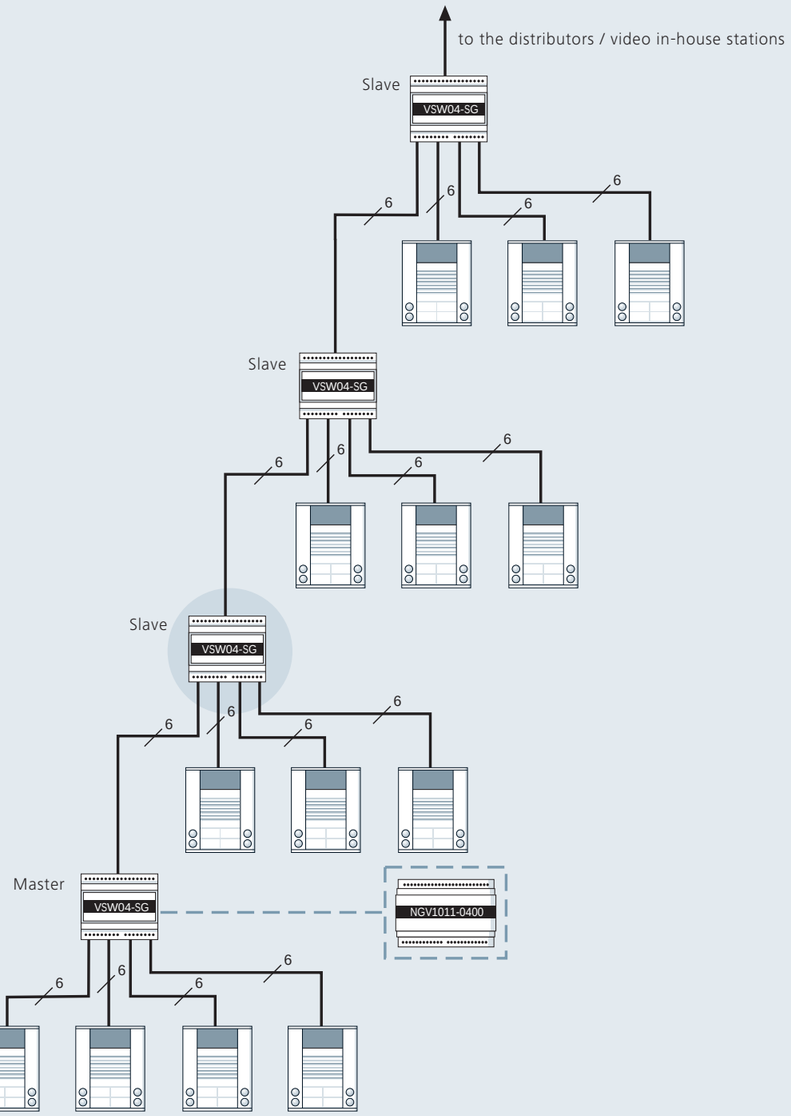
Systems with several front-door stations or cameras

All TCS video systems except the small compact system of supply and control unit (VBVS05-SG) can be retrofitted with the quad video switch. The cable topology to the video in-house stations can be in any form in this respect.

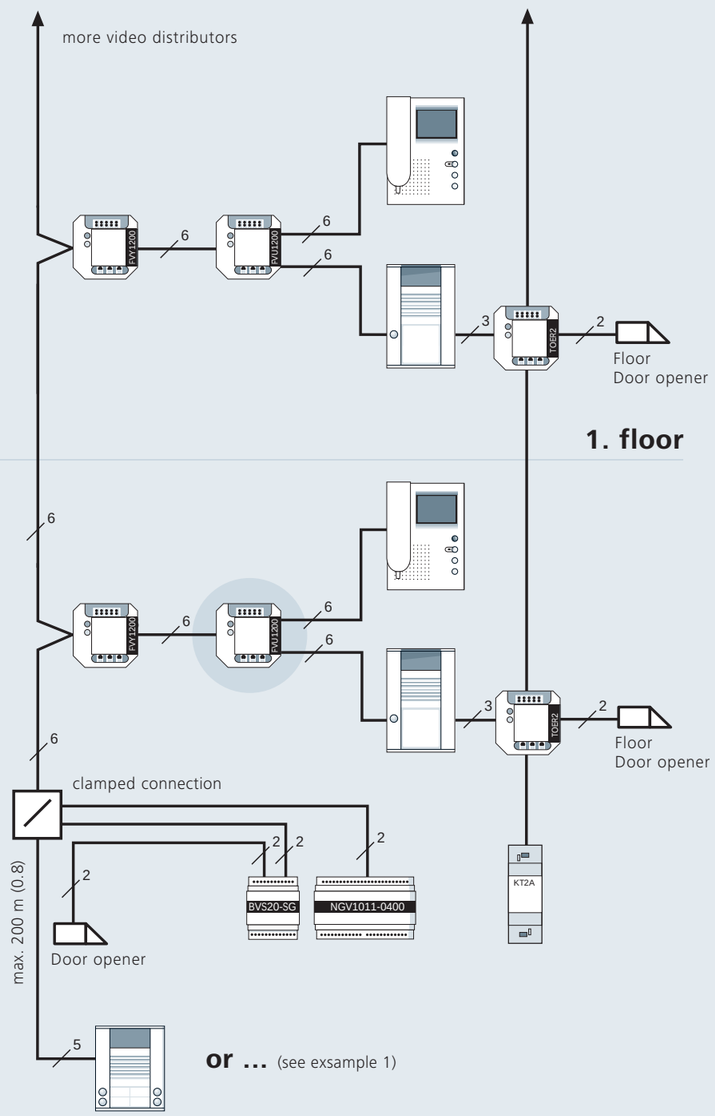
Power supply is via one or several power supply units, depending on the size of the system.

A maximum of 5 quad video switches VSW04 and 16 video front-door stations can be connected to one TCS:BUS.

Each combination of video front-doorstation is possible:
: video front-door station
: front-door station and external camera
: external camera only



All video front-door stations, audio front-door stations with external camera or external camera only are possible.



All video front-door stations or audio front-door stations with external camera are possible.

Systems with floor video front-door station

Every flat can be called via the central video front-door station(s) as well as the corresponding floor video front-door station, the image will be switched automatically.

The required floor video switch can be easily allocated manually or with the Service Device.

Additional advantages:
: impeccable structured wiring
: easy allocation of the power supply units used
: every power supply and control unit can supply:
max. 30 video front-door stations,
max. 30 video in-house stations and
max. 30 floor video switches
simultaneously

1 power supply unit
= 6 video front-door stations and
6 video in-house stations and
6 floor video switches

The P wires of the power supply unit must not be connected to each other!

Extensive system for residential blocks

Power supply and control unit
for subsystems with video with one line, specifically pre-configured delivered

VBVS30-SG

Power supply and control unit
for customized systems with long lines, combined with concierge front-door station PFSxx mulit-storeys and lift intercoms can be built up.

PSG01-SG

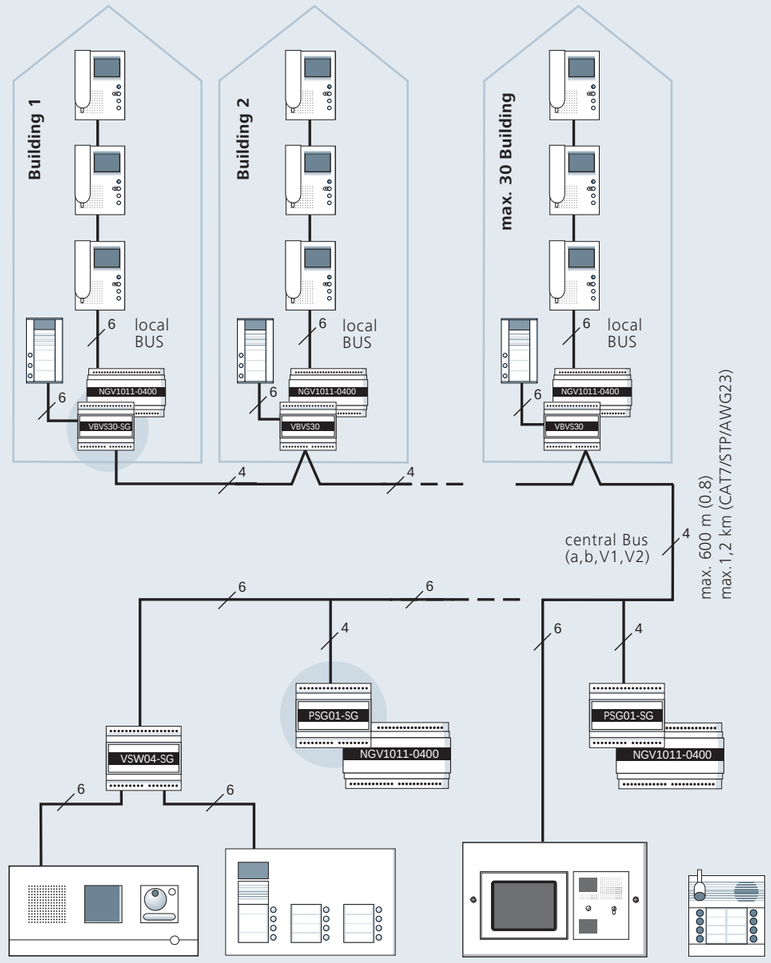
System for residential buildings

If video systems are to be used in several buildings, a central main video front-door station supports the whole system.

A local video front-door station is possible for each building. (automatic image switching) The distance between the main and the local stations can be up to 1,2 km.

Noise interference is avoided through electrical separation to protect earth loops.

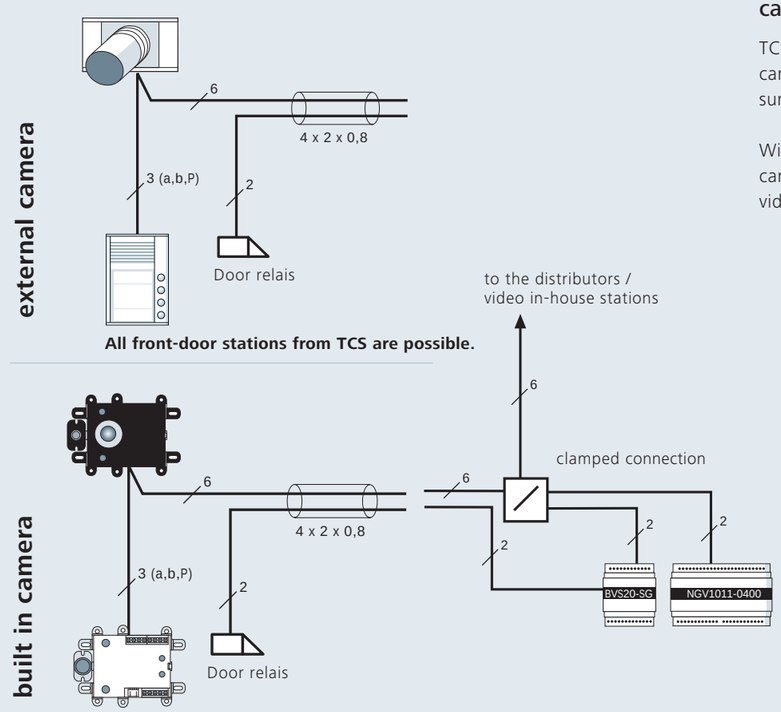
A maximum of 16 different combinations for the main video front-door station ensures high flexibility and adaptability to the desired customer requirements.

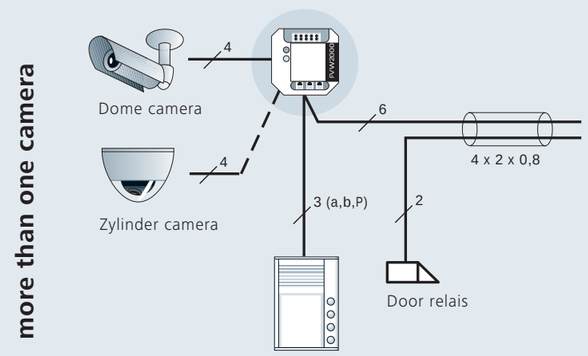


A maximum of 16 different combinations for the main video front-door station are possible.

Video transmitter
to connect cameras of different manufacturers with the video system, converts unbalanced composite video signals into balanced composite video signals

FVW2000-0600





All front-door stations from TCS are possible.

Surveillance

Video systems with external cameras, combinations

TCS offers a broad range of external cameras with varying optics for surface or flush mounting

Within a system the load of an external camera corresponds to that of a video front-door station.

7

8

System networking

HF Modulator
converts video signals
into signals for aerial systems,
which can be received
by TV

VHF05-GH

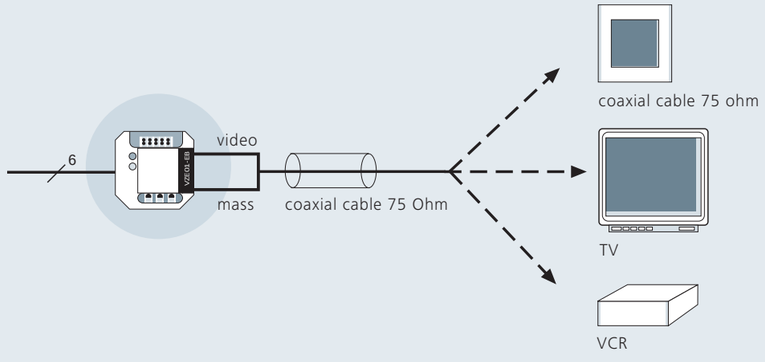
Video receiver
to link the video signal of any
TCS-installation to standard video
components such as video recorders,
CCTV-monitors, TV-sets or PCs
with AV input.
VZE01-EB

Extended video systems with networking of systems

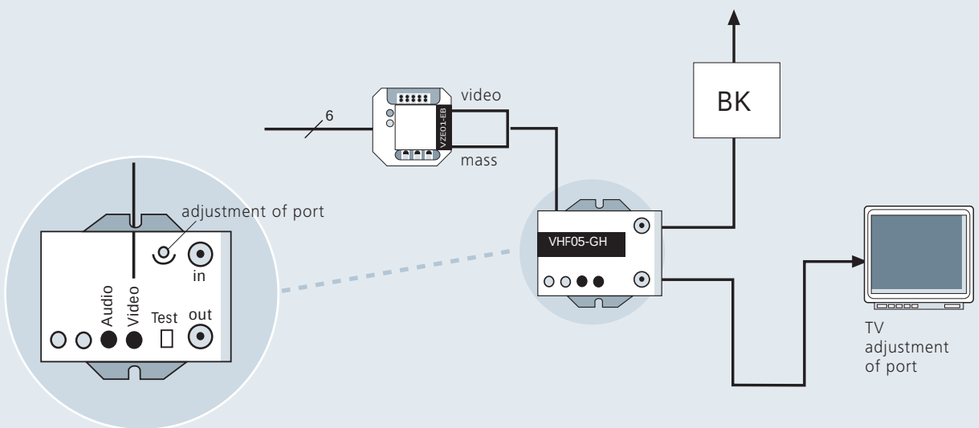
With the integration of interface components video systems from TCS can be linked to third party systems.

This is achieved by decoupling the TCS video signal onto monitors, surveillance systems, video recorders, PCs with TV/AV card, aerial systems or aerial entry TV etc.

Typcial third party systems are:
: Telecommunication
: Networks
: Internet



Decoupling of the TCS video system to monitors, surveillance cameras, video recorders, PCs with TV/AV card etc.



Decoupling of the TCS video system to aerial systems or aerial entry TV

Rules for the selection of location

image reproduction in
black and white

image reproduction in colour

For optimal results

Cameras must not be aligned to:
- direct back-lighting
- direct solar radiation
- a screen backround with high luminosity or extreme contrast
- intensively reflecting walls
- shiners and other sources of light

Optimal mounting height

- standing persons: appr. 160 cm (normal case)
- children, weelchair users: appr. 120 cm
- sitting in the car: appr. 100 - 120 cm
- sitting in the truck: appr. 180 - 220 cm

In any case please consider that the centre line poses the centre of the picture.

Horizontal and vertical capture range

normal image reproduction
with standard lens

The capture range is made up for a viewer distance of 30 to 90 cm (head's region).

wide-angle image repro-
duction with wide angle lens

For monitoring tasks outside this area the door-station are suitable only conditionally, as the objects will be displayed too small-sized.

enlarged image reproduction
with zoom lens

For these cases please use the extern cameras whis different optics (look at page 5 and 13).