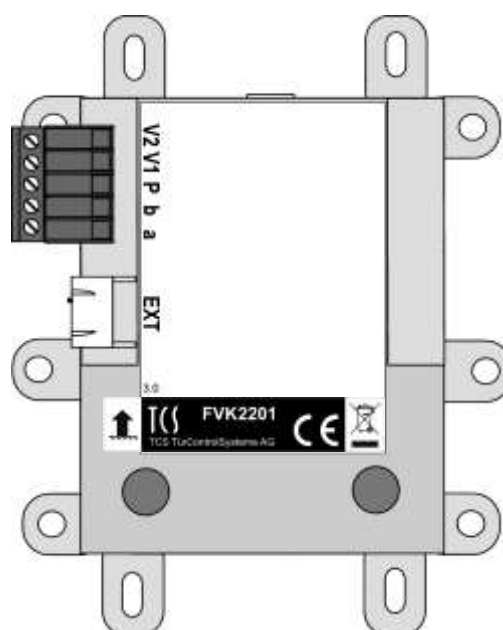
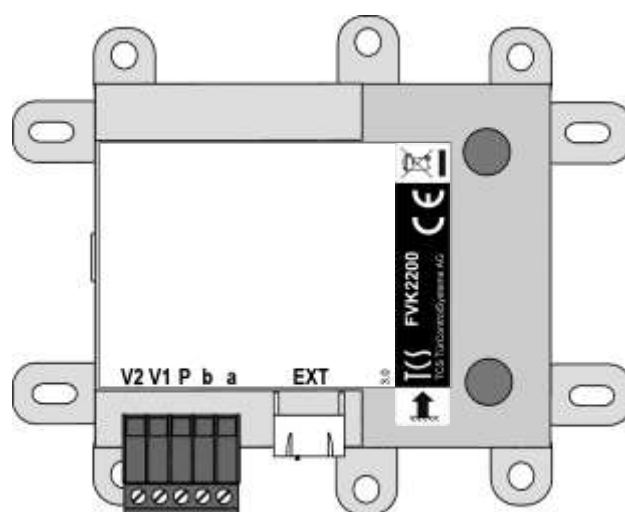


Product information

Built-in camera module color

FVK2200 and FVK2201



Safety notices

! Assembly, installation and commissioning must only be carried out by a qualified electrician!

For work on systems with 230 V AC mains voltage the safety requirements of DIN VDE 0100 must be observed.

When installing TCS:BUS systems the general safety rules for telecommunication systems in accordance with VDE 0800 must be observed:

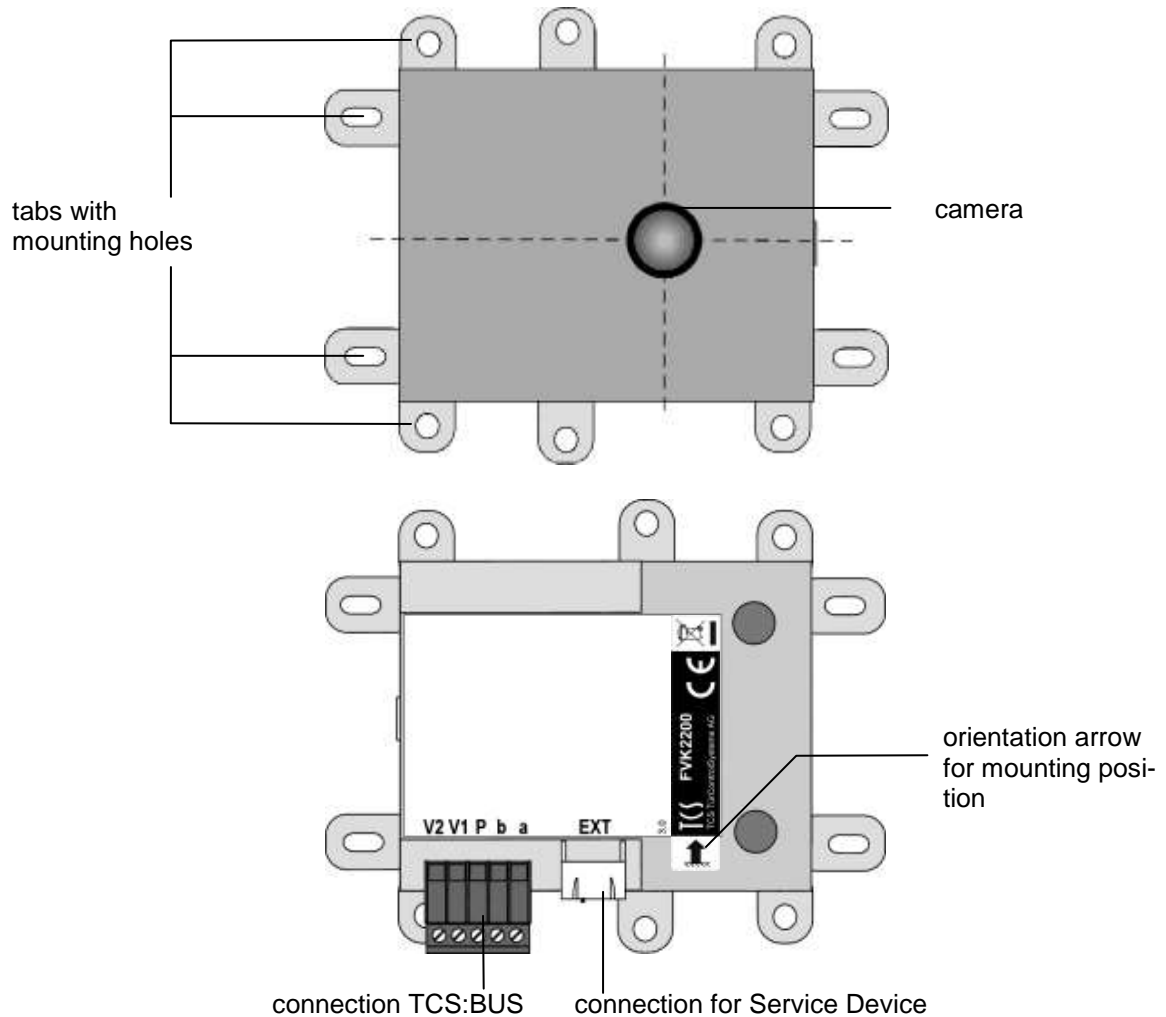
- separate cabling for high and low voltage lines,
- minimum distance of 10 cm for joint cabling arrangements,
- use of separators between high and low voltage lines in joint cable ducts,
- use of standard telecommunication cables, e. g. J-Y (St) Y with 0.8 mm diameter,
- existing cables (modernisation) with different cross sections may be used whilst taking account of the loop resistance.

! Suitable lightning protection must ensure that a voltage of 32 V DC will not be exceeded at the TCS:BUS wires a and b.

Scope of delivery

1 x built-in color camera FVK2200 (horizontal), FVK2201 (vertical)
1 x Product information

Device overview



Technical data

supply voltage:	18 ... 28 V DC, smoothed
housing:	plastics, black
dimensions (in mm):	H 80 x W 109 x D 35 (see dimensional drawing, page 5)
weight	100 g
operating temperature:	-20°C to 50°C
input current:	80 mA (26 V)
output impedance:	1 Vss FBAS, symmetrical
color camera	8,5 mm 1/3", Sony Super HAD
CCD sensor:	420 lines (TVL)
resolution:	0,2 Lux / 5 Lux color
photo sensitivity:	F 2.0, Board Lens
lens:	f=3.6 mm, 67 ° horizontal, 50 ° vertical, around 90 ° diagonal
focal length	

Based on the TCS video system with 6 wire technique.

Application

FVK2200 and FVK2201 are built-in camera modules for the connection to the TCS:BUS. The built in color camera FVK220x is suitable for installing into letterbox systems or other front panels provided by customer on site.

Brief description

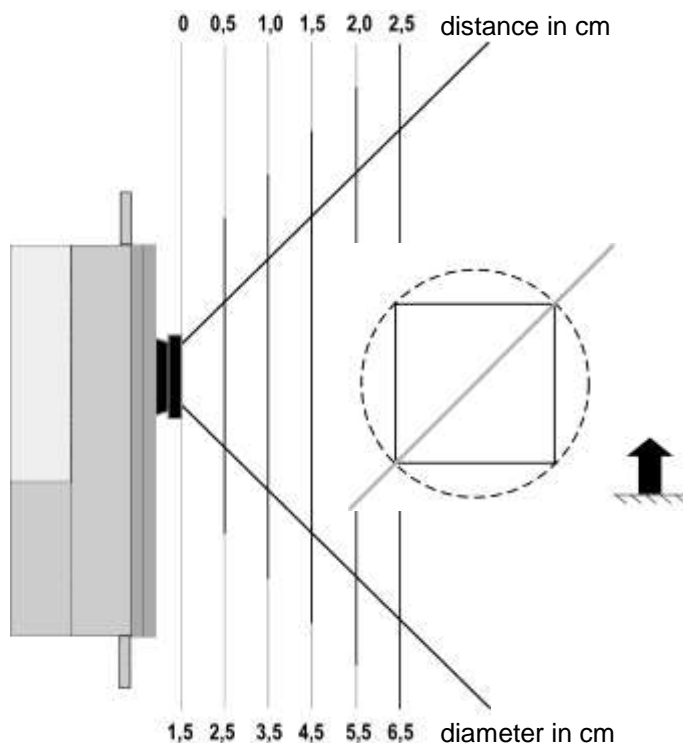
- can be swiveled manually $\pm 7^\circ$ H / V (in combination with assembly frame VKR)
- Auto Electronic Shutter (AES), Auto Gain Control (AGC), Auto White Balance(AWB).
- image recording is activated permanently
- automatic changeover between bw/color
- Connection for Service Device

Assembly

Notes on mounting

! The built-in camera modules have to be installed behind safety glass.

- Use the assembly frame VKR10 (see *Accessory*, page 8).
- Alternatively you can use a disc with a minimum diameter of 25 mm (when the disc is 2 mm thick, the distance to the objective is 1 mm, see illustration).



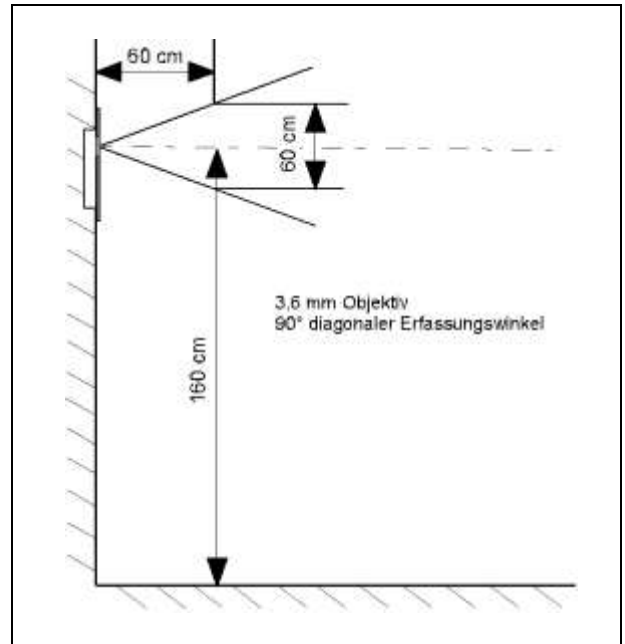
Installation location

To achieve a good video quality the camera do not point directly at:

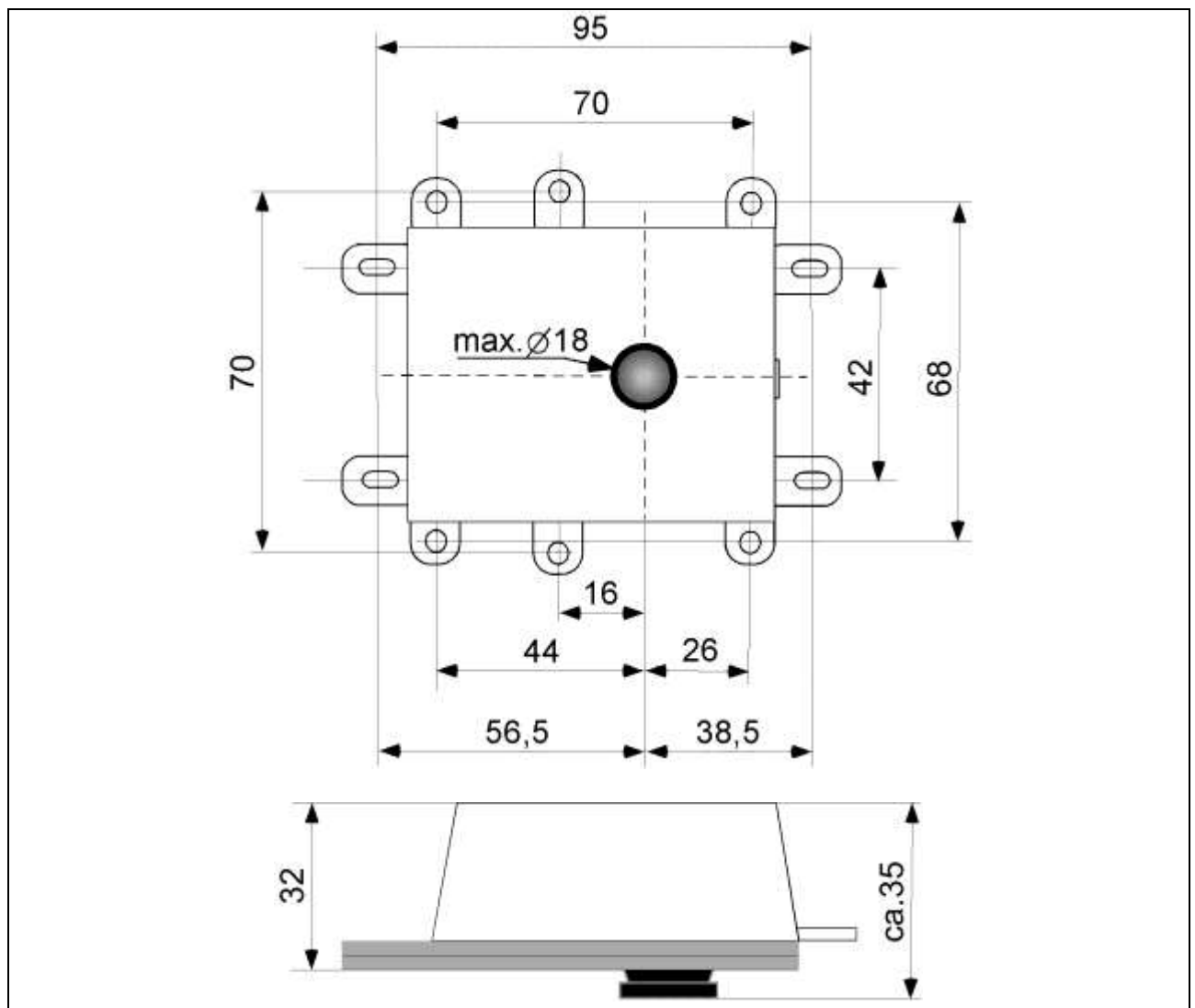
- sunlight,
- strong sources of light,
- bright or strongly reflecting walls.

Installation height

The installation height for the video front-door station must be selected under consideration of the field of capture of the camera (see figure). Persons with average body height are best captured with an installation height of 160 cm above floor level.



Installation dimensions



Positioning the device

The built-in camera can be mounted behind any front panel (e. g. bell button extensions or letterbox systems).

! The device has to be installed that way, that run off condensation or rain water cannot enter the device.

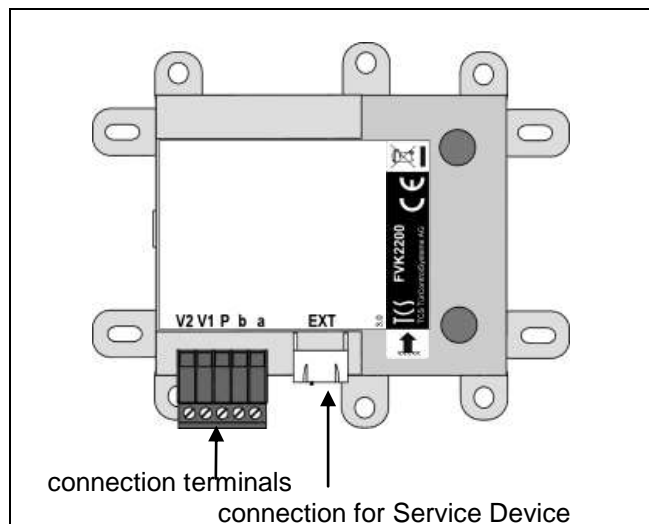
Position of installation

! Please note the installation position! The arrow on the type label must face upwards.

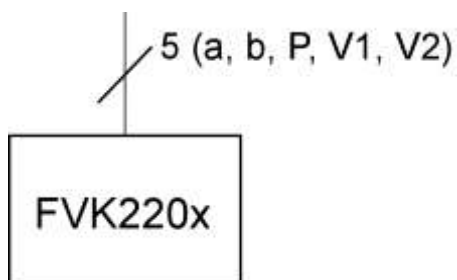
Cable connection

Connection

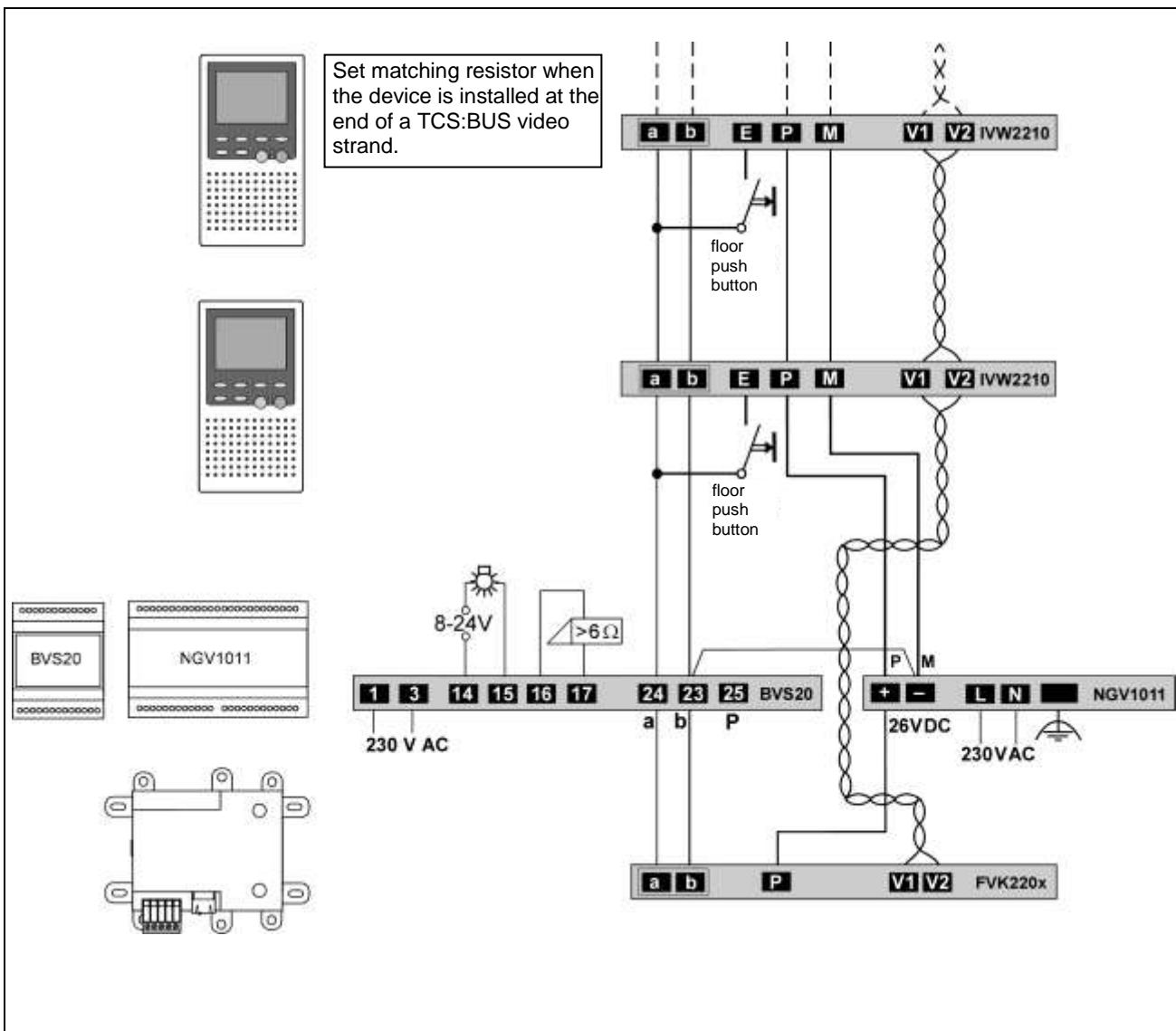
Connect the lines in accordance with inscription.



Connection plan



Wiring example



Commissioning



First install the system completely, then connect it to the power!

- Install the devices of the system completely.
- ! • Observe that V1 and V2 must **not** be connected to the a-, b- or P-wire. When connecting the video wires V1 (+) and V2 (-) the polarity must be observed.
- Check the a-, b- and P-wire against each other on short-circuits.
- Switch in the main power!

Conformity



The declarations of conformity are available under www.tcsag.de, Downloads, trade information.

Information on disposal



The adjoining symbol shows, that the device has to be disposed separately from domestic waste. The materials used are recyclable. Please do help protecting our environment and dispose the device via a collection point for electronic scrap.



Dispose the parts of the packaging in collecting tanks for cardboard and paper resp. plastics.

Warranty

We offer a **simplified processing** in case of warranty for electricians.

- Please note our **conditions of sale and delivery** download from www.tcsag.de, Downloads, trade information and included in our current catalogue.
- Please contact the **TCS HOTLINE**.

Accessory

Short text	Article number
assembly frame, anodised nature	VKR10-EN
assembly frame, white	VKR10-ES
assembly frame, stainless steel	VKR10-WS

Service

Please send your questions and inquiries to
hotline@tcsag.de

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