



Product information
Video front-door station
AVC11010-0010



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Safety instructions

General safety regulations

! Attention! Mounting, installation, commissioning and repair of electronic devices have to be carried out only by qualified electricians. The latest accident prevention regulations must be observed.

For working on systems with main connection of 230 V alternating voltage, the safety requirements according to DIN VDE 0100 must be observed.

When installing TCS: BUS[®] systems, the general safety regulations for telecommunication systems according to VDE 0800 must be observed. Inter alia:

- separated conduit of heavy current and low current lines,

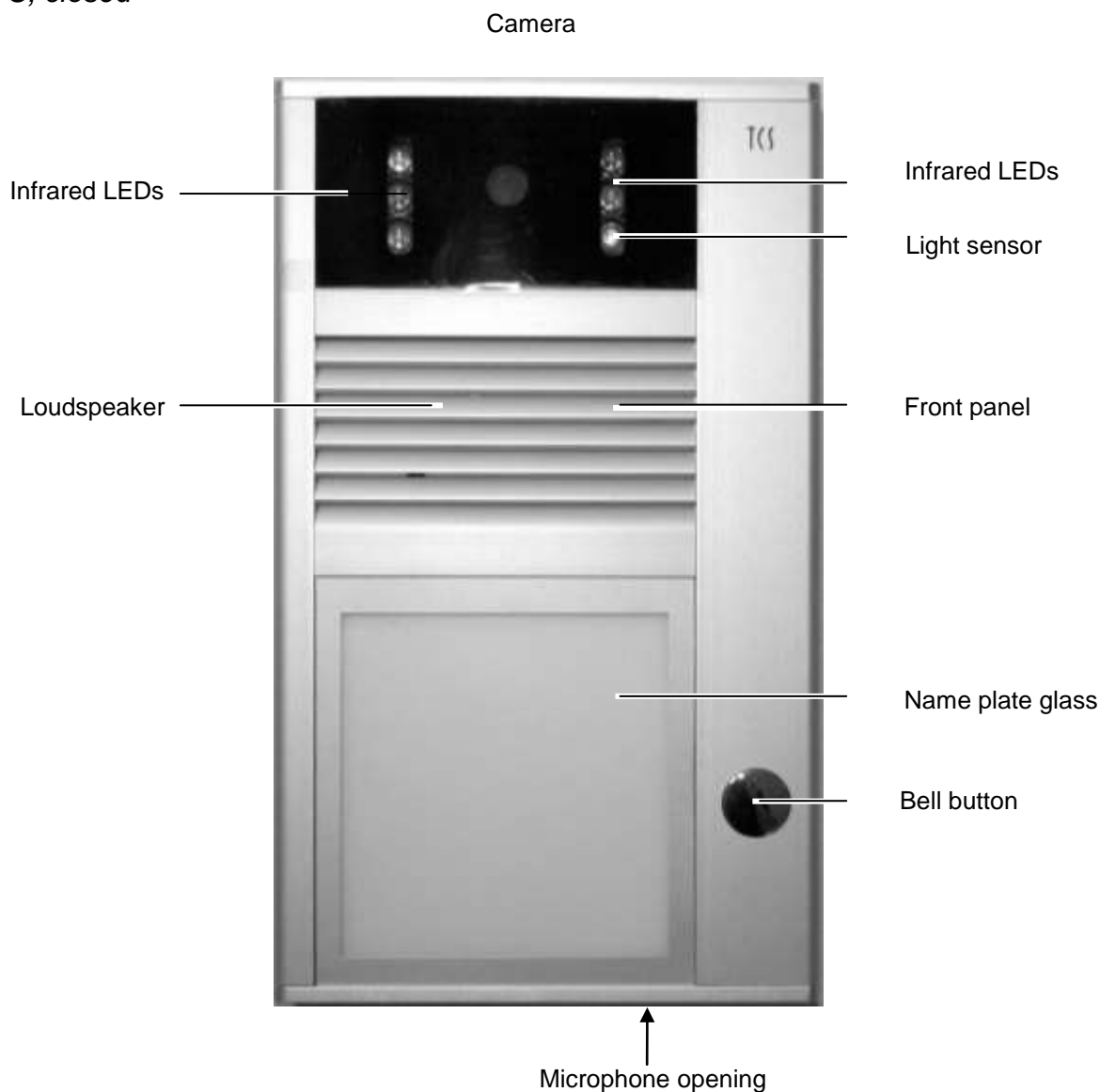
- minimum distance of 10 cm in case of a common conduit,
- use of separators between heavy and low current lines within shared cable ducts,
- use of standard communication lines, e.g. J-Y (St) Y with 0.8 mm diameter,
- existing lines (modernisation) with deviating cross-sections can be used in compliance with the loop resistance.

Installation – protective measures

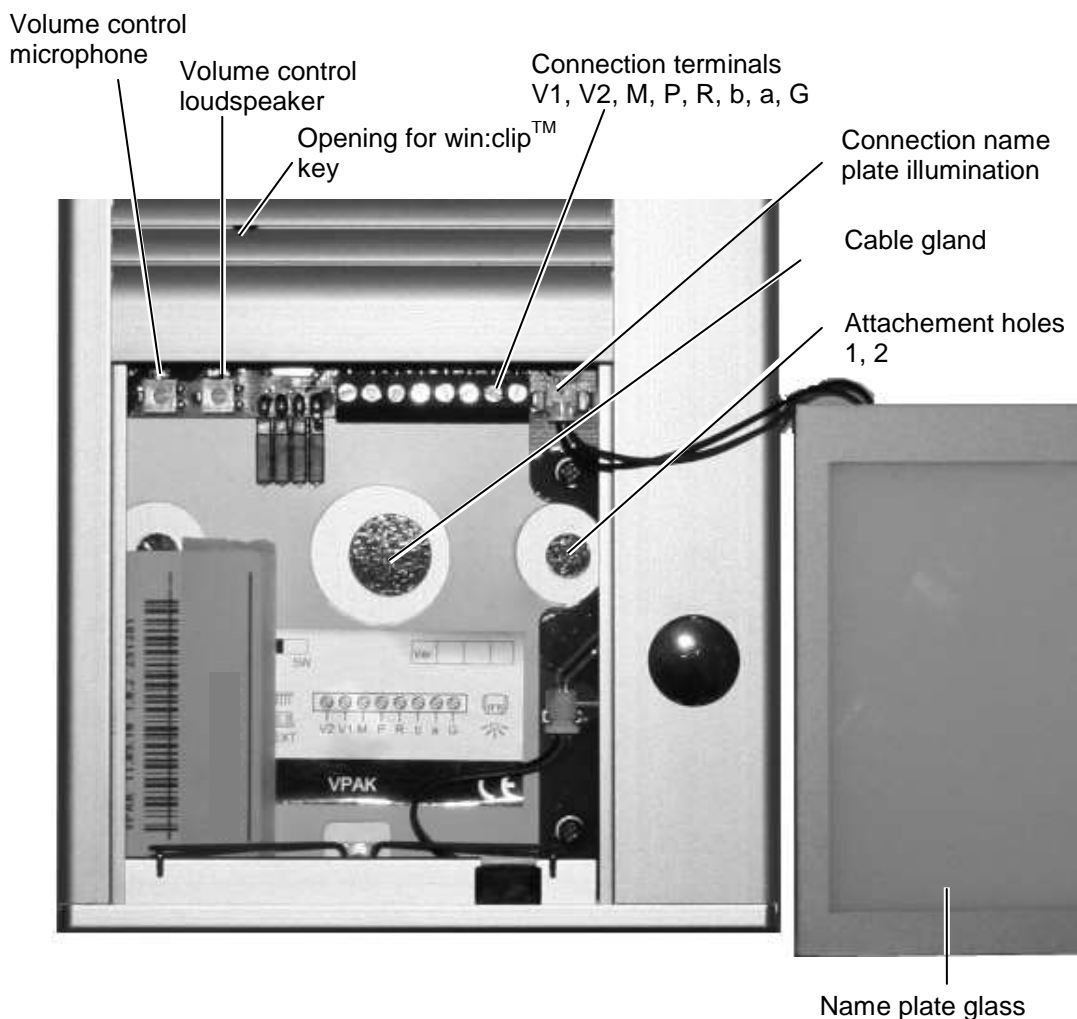
! With suitable measures to protect against lightning, it has to be ensured that a voltage of 32 V DC is not exceeded at the connections.

Device overview

AVC, closed



AVC, name plate glass removed



Technical data

Supply voltage:	+ 24 V ± 8 % (via power supply and control unit)
Housing:	aluminium, anodised
Name plate glass:	acrylic glass
Weight	380 g
Acceptable ambient temperature:	- 20 °C ... + 50 °C
Input current:	I(a) = 0.4 mA, I(P) = 140 mA
Max. input current:	I(Pmax) = 156 mA

Camera

bw camera CCD sensor	380 TVL
Focal length:	f = 3.6 mm
Light sensitivity:	0.2 Lux
Diagonal detection angle:	90°
Video output symmetric:	1 Vss BAS

Intended use

The VPAK is a video front-door station in compact design (projection 16 mm) to be used outdoors.

The stations are suitable for surface-mount.

Short description

- win:clip™ principle
- metal housing made of robust aluminium profiles
- bell buttons made of metal with gold-plated, maintenance-free contacts
- long-living and energy-saving name plate illumination with light sensor
- shatter-proof name plate glass
- acknowledgement tone when pressing the bell button
- conversation time ex works: 56 seconds / adjustable with Service Device
- volume and microphone sensitivity can be adjusted manually
- plug-in memory to remove front-door stations which are identical in construction
- R-terminal to connect an extended function door release
- door release time at R-terminal ex works 3 seconds / adjustable with Service Device
- door stand-by time (to control the short-term memory in indoor stations), ex works: 56 seconds
- voice connection during the door stand-by time

Installation

Notes on the installation site

- For a good quality of the video image, the camera should not be oriented directly towards solar radiation, strong sources of light, bright or strongly reflecting walls.
- To guarantee a flawless function of the microphone, a distance of **5 cm** must be ensured below the device!

Mounting height

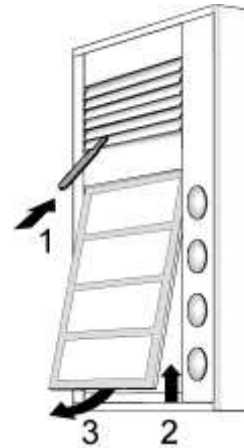
The mounting height of the video front-door station is to be selected according to the detection area of the camera (see illustration). Persons with an above-average height are detected with a mounting height of 160 cm above the ground.

win:clip system

The device is equipped with the win:clip system to open and close the station without using any screws.

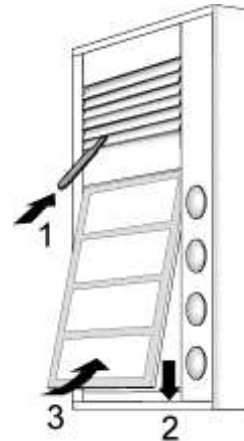
Open the housing

1. Push the enclosed win:clip key into the small opening within the loudspeaker cover.
Press the key into the opening until stop and keep it in this position.
2. Push the name plate glass slightly upwards until it jumps out.
3. Put out the glass carefully.
4. Remove the win:clip key.



Close the housing

1. Connect the plug of the name plate illumination (see installation).
2. Push the enclosed win:clip key into the small opening within the loudspeaker cover.
Press the key into the opening until stop and keep it in this position.
3. Push the name plate glass under the loudspeaker cover.
4. Press the name plate glass onto the device. Push it slightly downwards until it snaps-in.
5. Remove the win:clip key.



Install the front-door station

1. Open the front-door station (see win:clip system).
2. Perforate carefully the foam cover on the backside of the device.
3. Insert the lines through the cable gland.
4. Install the front-door station at both attachment holes with suitable screws to the wall.

! Please observe that no line is clamped below the spacer at the backside of the front-door station.

Connect the lines

General note

! Connect the lines with the enclosed small screwdriver to prevent damaging the device.

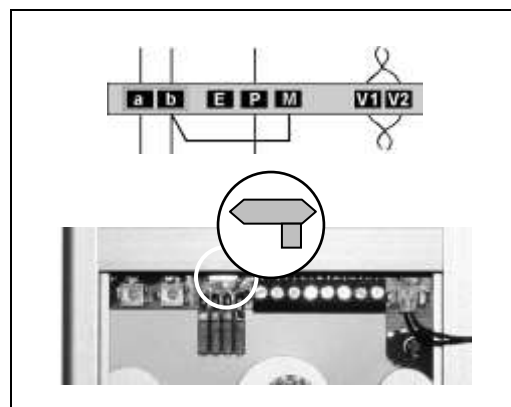
Connecting

- Strip the cable ends.
- Connect the lines depending on the type of system and according to the wiring diagram in the product information *Video home:pack*.


5-wire special operation

If there are only 5 wires available, you can use the 5-wire special operation.

- The M-wire is to be connected to b via a bridge.
- The slide switch in the video front-door station must be set to "right" in 5-wire operation ("5W").



Commissioning

!  First install the system completely, than connect it to the main voltage!

- Install all devices of the system completely.
- V1 and V2 must not be connected to P-, a- or b-wire. When connecting the video wires V1 (+) and V2 (-) please observe the polarity.
- Check the a-, b- and P-wire against each other on short-circuits.
- Switch ON the mains voltage.
Both LEDs of the video indoor station are blinking 3 x green. The system is ready to operate.

Function check name plate illumination



The video front-door station is equipped with a light sensor. When the environment is sufficiently illuminated, the name plate illumination turns OFF.

- Check the function of the sensor by covering it. The name plate illumination turns ON.

Set volume of microphone and loudspeaker

! Use the enclosed small screwdriver for the setting!

Ex works the volumes are set on an average value. A modification is not always necessary. Please observe when setting the values: The amplification of the loudspeaker and the microphone cannot be set independently of one another. Too high volumes cause a feedback effect (whistling).

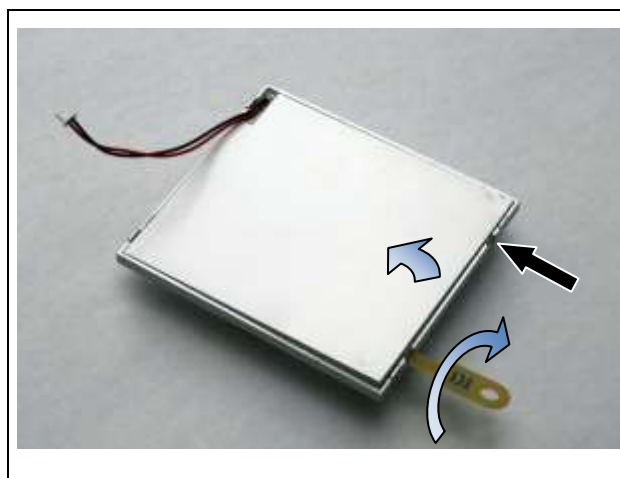
Volume control	
Microphone	Loudspeaker
Regulate the volume at the indoor station	Regulate the volume at the front-door station
	

Labelling the name plate

- Label the enclosed name plate foil (special foil).

*We recommend to print out the name plates on a resistant special foil.
Order foils directly from TCS: writable polyester foil for name plates DIN A4.*

- Open the video front-door station. Remove the name plate glass carefully. Pull off the plug of the name plate illumination.
- Open the name plate glass: Insert the win:clip key into the small opening and twist the key.
- Put in the prepared foil and close the name plate glass again.



General information on the conduit in TCS video systems

6-wire operation

The 6-wire operation is the standard operating mode. Video operation which use two separated ground lines (b and M).

The conduit is determined by structural conditions and is only limited by length.

- Please observe when selecting the length of the cable: the loop resistance must not exceed a max. of 8 Ω at a-b and M-P (table 1).
- If the loop resistance is > 8 Ω : plan multiple wiring of the strands (double twisted lines).
- optimal strand or star formed wiring

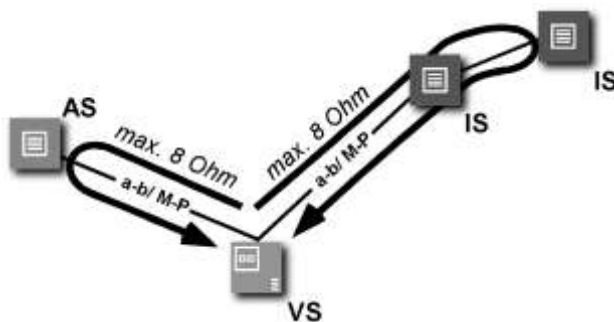
- Do not use more than 20 video indoor stations per strand. In systems with more video indoor stations plan to use video distributors (FVY1200, FVY1400).
- Up to 64 front-door stations (16 from them video front-door stations) and an unlimited number of indoor stations can be connected polarity-free (a/b) in one system (polarity-free only with 6-wire operation). Therefore a suitable power supply and control unit is to be used.

Table 1: Loop resistances

line length a-b/ M-P in m	line diameter	
	0.6 mm	0.8 mm
	loop resistance in Ω	
10	1.28	0.71
20	2.55	1.43
30	3.83	2.14
40	5.10	2.86
50	6.38	3.57
60	7.65	4.29
70		5.00
80		5.71
90		6.43
100		7.14

Principle loop resistance

None of the devices (AS, IS or FE) should be further than 20 Ohm away from the power supply and control unit (VS).



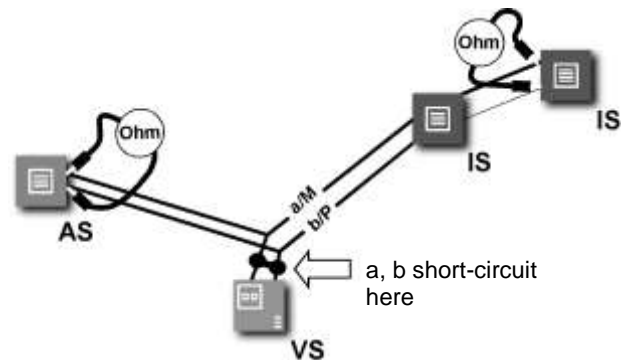
8 Ohm:

max. 65 m distance AS-VS by 0.6 mm diameter
max. 115 m distance AS-VS by 0.8 mm diameter

Measure loop resistance

Rule:

- Switch off the 230 V / 50 Hz of the VS.
- Install a-b short-circuit at the VS.
- Other devices are not disturbing the measurement, they can stay connected.
- Measure the resistance at a/b at the last IS or AS.



AS front-door station
VS power supply and control unit
IS indoor station
FE extended function

Cleaning

- ! Avoid water from entering the device!
- Do not use any abrasive detergents!

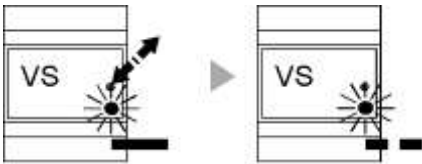
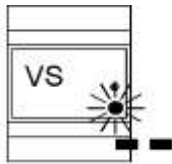

Clean the device with a dry or slightly wet cloth.
Remove stronger stains with a mild household cleaner.

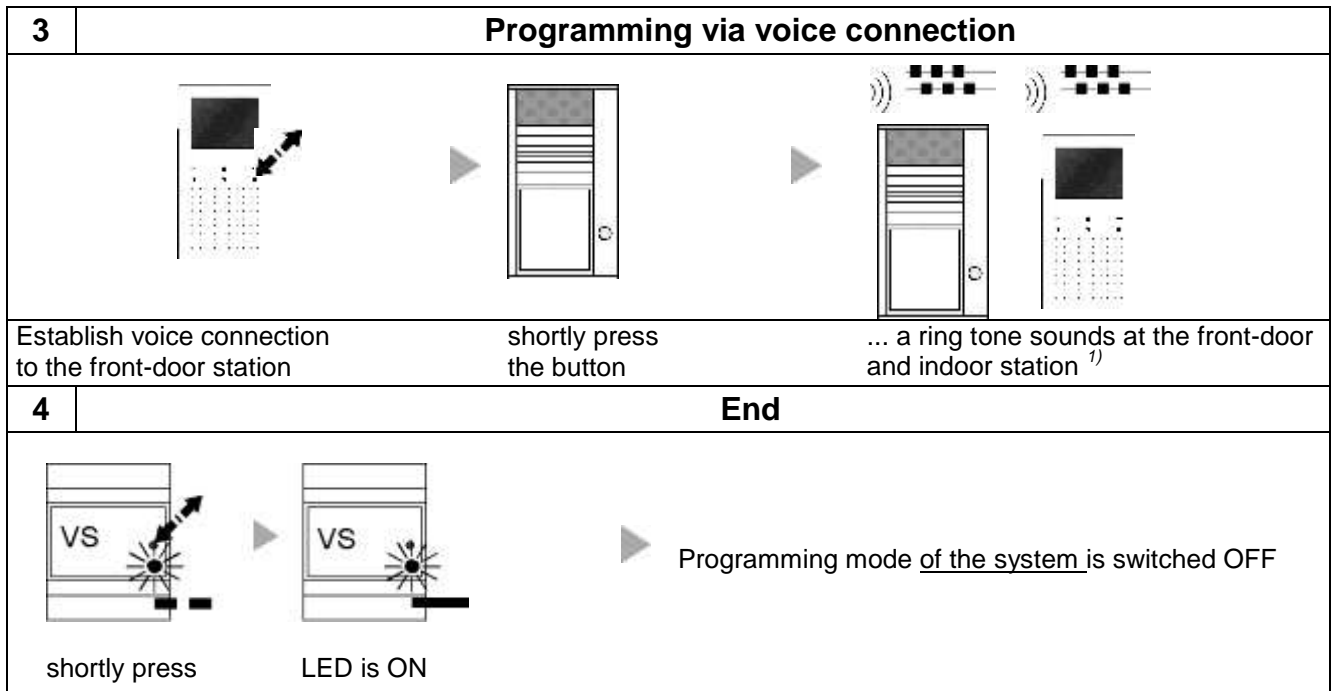
Repair

Replacing an indoor station – programming bell buttons

Basics

- All devices at the TCS:BUS have a unique serial number.
- Programming a bell button means that the serial number of an indoor station is allocated to the bell button of a front-door station and is further stored within the EEPROM of the front-door station.
- Ensure that the new indoor station is connected to the TCS:BUS and the mains voltage is switched ON (the operation LED at the power supply and control unit is ON). Further ensure that the access to the flat is granted during the programming.
- This instruction describes the allocation of a serial number to a bell button without setting a programming lock. To deactivate a programming lock, a Service Device TCSK-01 or the configuration software configo™ is needed.

1	Initiate	
Power supply and control unit		
		<p>▶ Programming mode <u>of the system</u> is switched ON</p>
shortly press	LED blinks	
2	Delete a button^{a)}	
		
Press until the delete-tone melody sounds ¹⁾	release	




a) Not necessary, if the bell buttons have not been programmed, compare product information of the front-door station.
 1) If there sounds a Progsper tone instead, the front-door station is equipped with a programming lock.
 The programming lock can be deactivated only with the Service Device TCSK-01 or the configuration software *configo*TM.

Legend

Shortly press the button		Busy tone	
Press button until		Negative acknowledgement tone (bell button already programmed)	
Release the button			
LED blinks		Negative acknowledgement signal (NoProg tone)	
LED blinks quickly		Delete-tone melody	
LED is ON		Prog2 tone (start of the programming of the 2. serial no.)	
Ring tone		Repeat	
Progsper tone		Further	
Period of time (e.g. 6 s)			

Conformity

-  The device meets the requirements of the EU directive 2004/108/EG by respecting the standards: EN 61000-6-3, EN 61000-6-1.
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 material used are recyclable. Please do help protecting our environment and dispose the device via a collecting point for electronic scrapp.



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.
- Please contact the **TCS HOTLINE**.

Service

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

Head quarters

TCS TürControlSysteme AG, Geschwister-Scholl-Str. 7, 39307 Genthin, Germany
Phone: +49 (0) 3933/879910, FAX: +49 (0) 3933/879911, Mail: info@tcsag.de,
www.tcsag.de