



Installation Manual



SERIES 300 Operator Interfaces
SERIES 400 Panel PC
SERIES 500 Thin Clients
Device platform EAGLE
ET-xx6 / MT-xx6



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1 Intended use and location

The ET-/MT-xx6-A-* HMI devices with the EAGLE device platform are equipment for installation in hazardous areas and can be operated in zones 1, 2, 21 and 22 according to ATEX Directive. All HMI devices have a modular structure, which makes changes and maintenance easy. They can be integrated into control cabinets or panels, etc.

2 Warning

2.1 Touch operation

Incorrect / phantom operation:

Incorrect operation of the touch screen may result in accidental functions and errors. The device will then be unable to execute functions, may execute them incorrectly or in a way not intended.

- Do not realise safety-relevant functions via the touch screen
- Avoid accidental multi-touches
- Do not touch the touch screen across a large area
- Use a touch pen only for the capacitive touch screen
- Before operating the device, thoroughly acquaint yourself with the multi-touch functions of the operating system and the application
- Switch off the device for cleaning and maintenance

Conductive liquids on the touch screen can result in incorrect or phantom operations. This applies in particular to salt water.

- Avoid contamination of the touch screen surface with salt water

Protect the device against rain, snow and splashes, since excessive amounts of standing or running water will disrupt operation and may cause erratic cursor movement.

This protection can be achieved by using a canopy or some other protective roof-type construction. Offshore, strong winds, saltwater and rain will have to also be taken into consideration.

Touch screen damage:

Only touch the touch screen with your finger or a suitable pen.

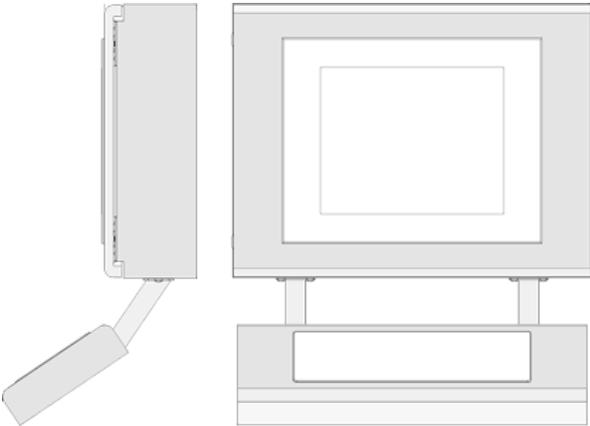
- Do not touch the screen with pointed or sharp instruments as this may damage the touch screen, substantially reduce its service life or result in total black-out

Foil membrane blistering / air-pockets:

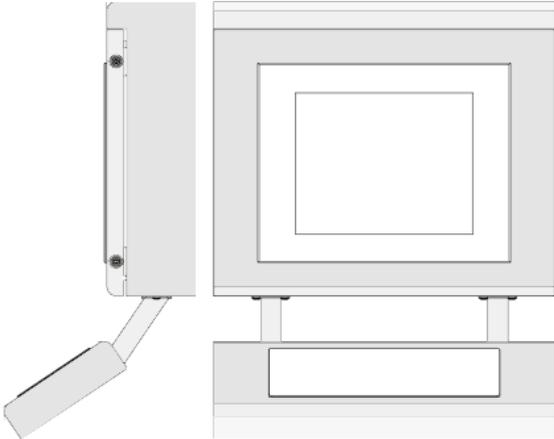
Extreme ambient conditions (high humidity, temperature) may, in rare cases, result in blistering or air-pockets underneath the foil touch screen. This does not impede functionality and is a purely optical phenomenon.

3 Enclosure types

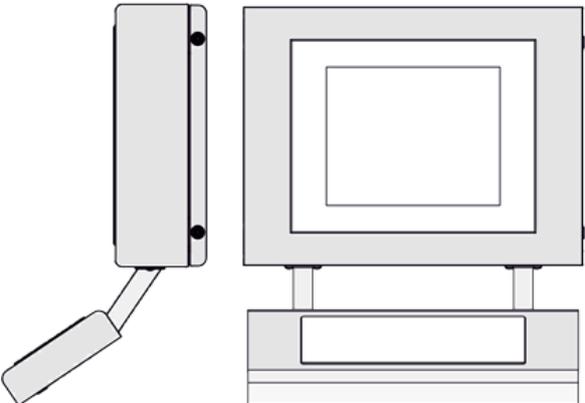
HSG-xx6-VxA-FR
with front door as standard



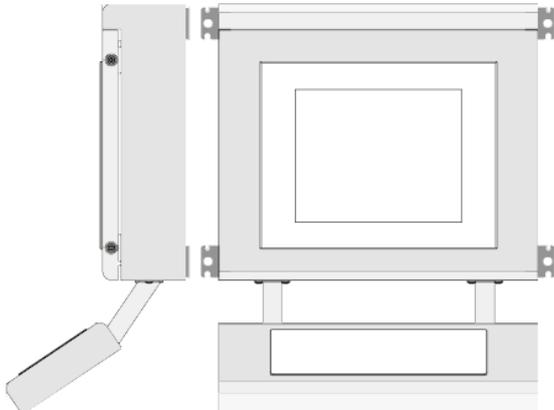
HSG-xx6-VxA-CFR
with front door for cleanroom



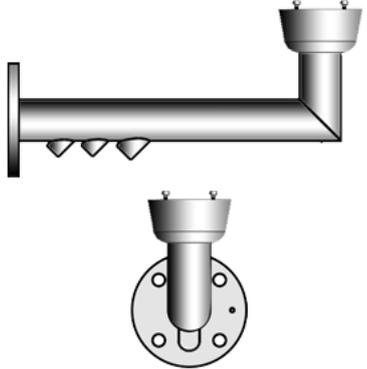
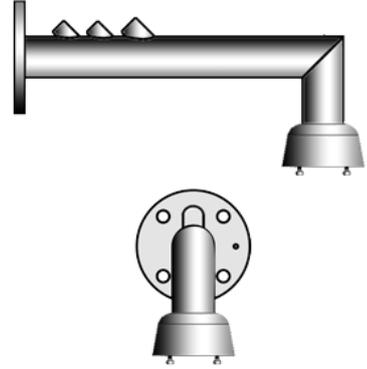
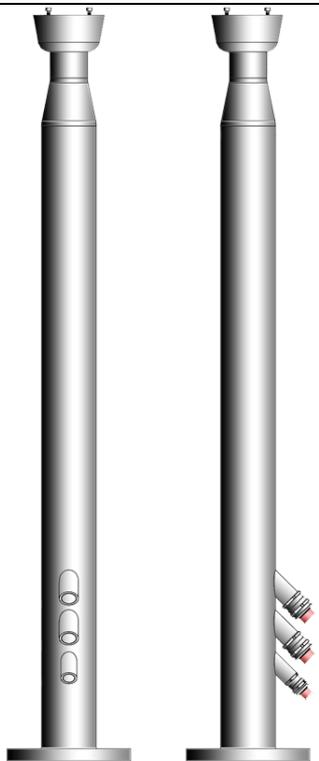
HSG-xx6-VxA-BD
with rear door (Backdoor)



HSG-xx6-VxA-FRS
wall mounting
for 10.4" and 15" panel-mount devices only



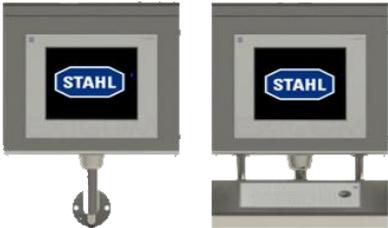
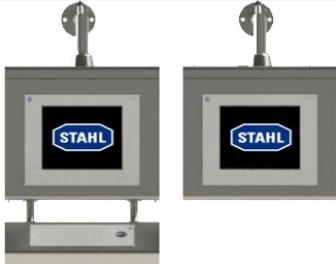
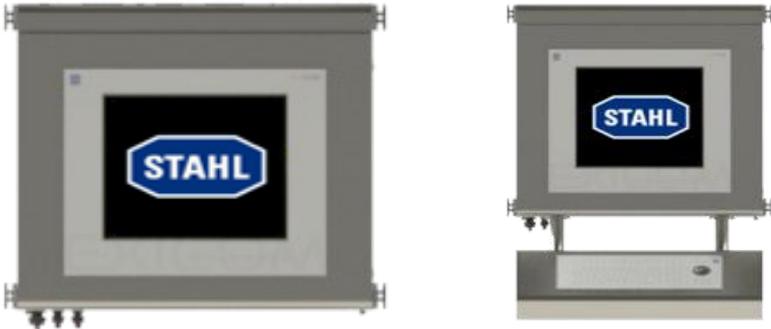
4 Versions mounted on stand or elbow

mounted upright on elbow	mounted hanging from elbow
	
MPFL stand	
	

5 Mounting

In regards of different applications and ambient conditions we recommend following installation types:

5.1 Mounting options

Mounted on stand	Ceiling mounting
	
Elbow upright mounting	Mounted hanging from elbow
	
Wall mounting (for 10.4" and 15" panel-mount devices only)	
	

5.2 Recommended mounting type

The following recommended mounting types are the result of trying out many different types over the years. Please follow these recommendations to ensure the optimum mounting type for your device.

Before deciding on how to mount the device you need to check the vibration and shock conditions. We cannot accept any responsibility if you select an unsuitable mounting type that results in damage or failure of the device.

Conditions present at the point of installation	Mounting / installation type		Recommendation
No vibration and no shocks		Mounting on stand, with / without external keyboard	No restriction
		Ceiling mount with MPFL stand with / without external keyboard	No restriction
		Mounted on elbow standing with / without external keyboard	No restriction
		Mounted on elbow hanging with / without external keyboard	No restriction
		Wall mounting with / without external keyboard	No restriction
Vibration sinusoidal acc. to IEC 60068-2-6 and DNV Certification No. 2.4: 5 ... 13.2 Hz: ±1 mm 13.2 ... 100 Hz: ±0.7 g X, Y, Z axes acc. to IEC 60068-2-6: 10 Hz, 1 g 450 Hz, 1 g Change cycle 1 oct/min Operating mode 1.2 X, Y, Z axes		Mounting on stand, with / without external keyboard	Not recommended
		Ceiling mounting with MPFL stand, with / without external keyboard	Not recommended
		Mounted on elbow standing with / without external keyboard	Not recommended
		Mounted on elbow hanging, with / without external keyboard	Not recommended
		Wall mounting with / without external keyboard	No restriction

5.3 Assembly notes

- The tightening torques for the cable glands depend on the cables and wires used. This means the user has to determine the required torques.
- The stand / wall bracket must be mounted with at least 4 fastening points. The type of wall fixing used must be suitable for the wall material.

6 Tools



- 1x side cutter
- 1x wire stripping knife
- 1x wire stripper
- 1x spanner AF 10
- 1x spanner AF 13
- 1x spanner AF 14
- 1x spanner AF 24
- 1x spanner AF 30
- 1x Phillips screwdriver size 1
- 1x Phillips screwdriver size 2
- 1x flat-bladed screwdriver 2.5 mm
- 1x Allen key 5 mm

NOTE

Mounting the stand or wall-mounting will require other tools not specified here.

7 Mechanical Installation

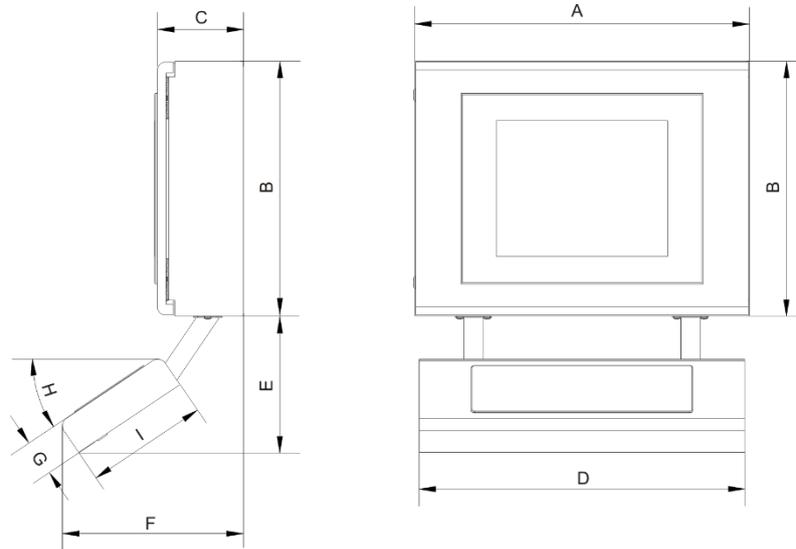
CAUTION

Always have two people mount the devices.

7.1 Dimensions

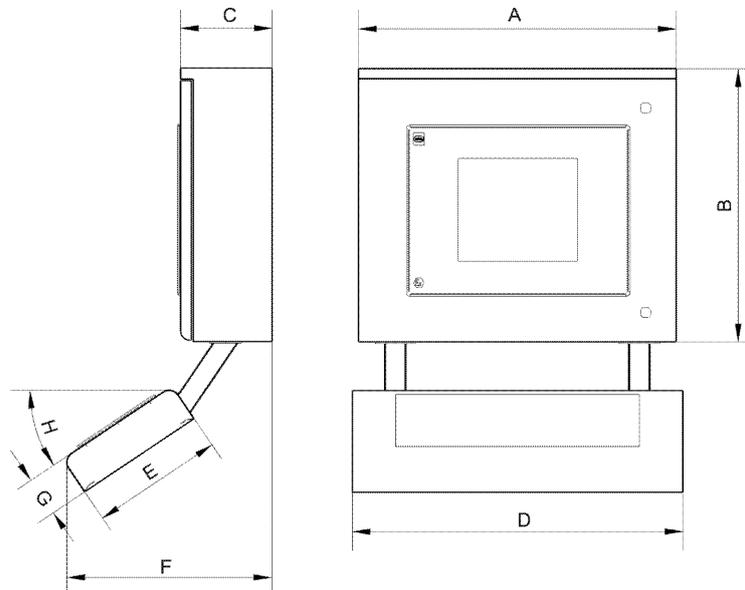
Dimensions in mm.

HSG-xx6-VxA-FR



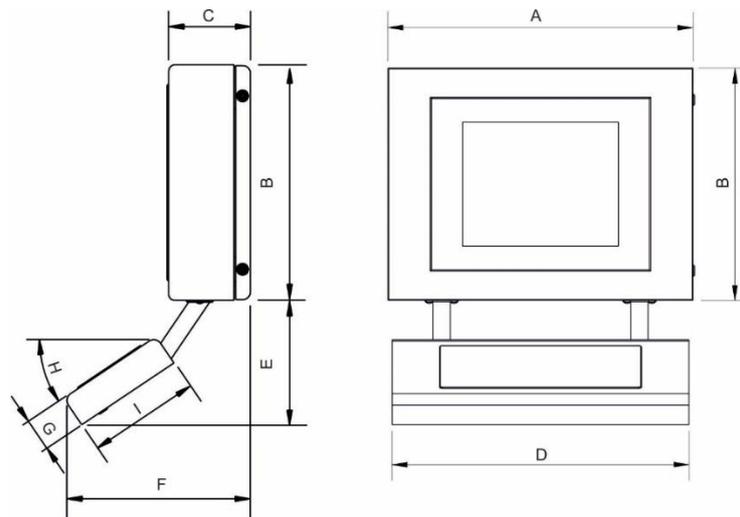
Device	A	B	C	D	E	F	G	H	I
ET-/MT-x06									
ET-/MT-x16	625	516	190	720	304	400	78	34°	270
ET-/MT-x36									
ET-/MT-x56	740	568	190	720	304	400	78	34°	270

HSG-xx6-VxA-CFR



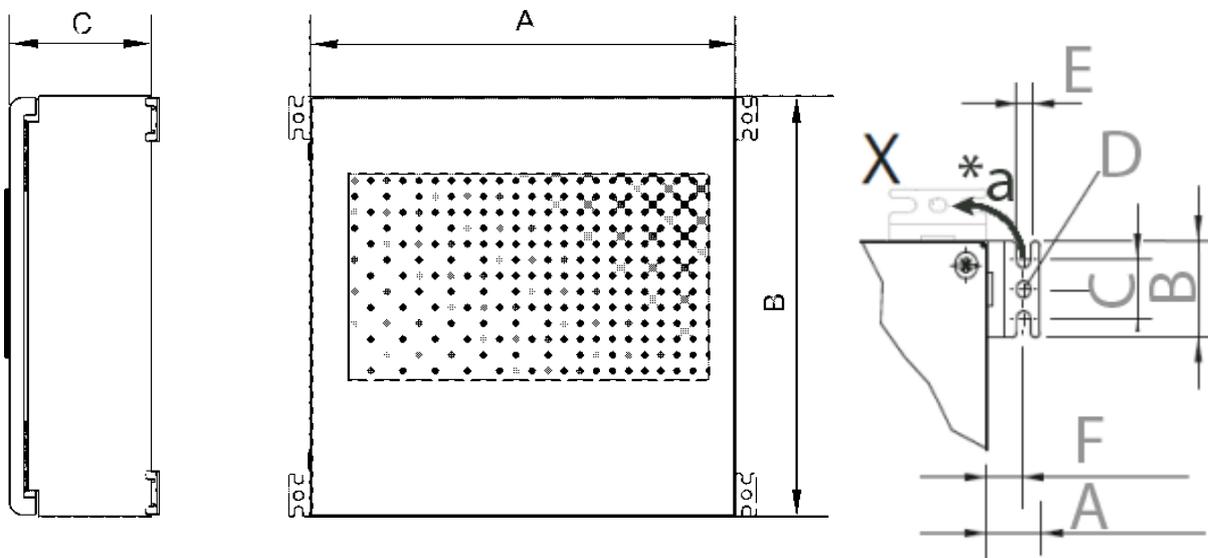
Device	A	B	C	D	E	F	G	H	I
ET-/MT-x06									
ET-/MT-x16	625	542	190	720	304	406	78	34°	270
ET-/MT-x36									
ET-/MT-x56	720	627	190	720	304	406	78	34°	270

HSG-xx6-VxA-BD



Device	A	B	C	D	E	F	G	H	I
ET-/MT-x06	625	542	195	720	304	442	78	34°	270
ET-/MT-x16									
ET-/MT-x36									
ET-/MT-x56	740	568	195	720	304	442	78	34°	270

HSG-xx6-VxA-FRS



X	Mounting tongue for wall mounting
*a	Alternative mounting position of the mounting tongues

NOTE Choose suitable mounting screws, rawplugs and bolts depending on the actual local requirements and possibilities.

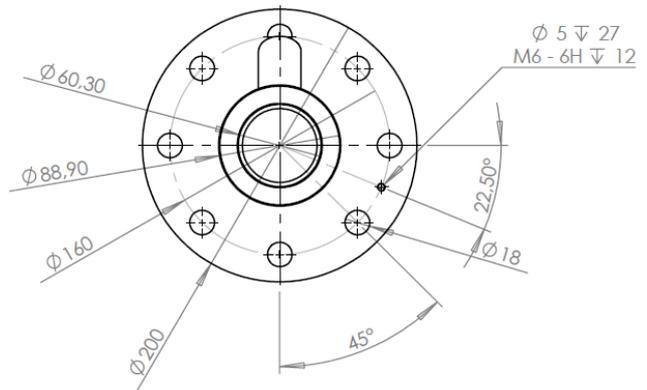
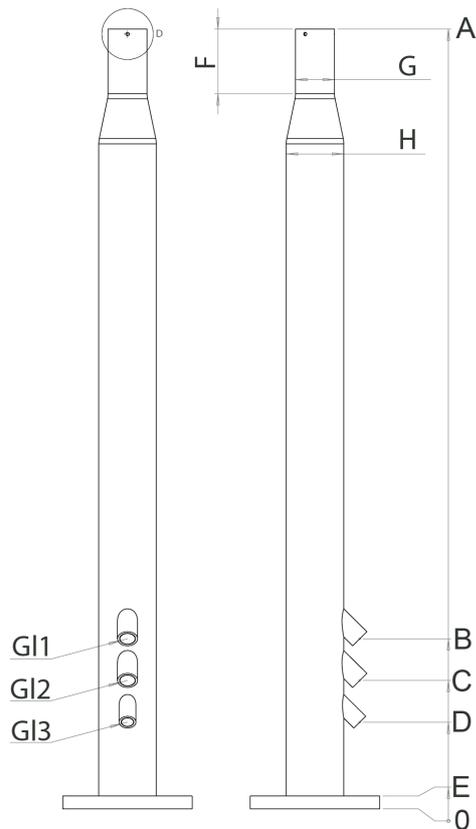
Enclosure dimensions	A	B	C			
		560	435	190		
Mounting tongue dimensions	A	B	C	D	E	F
		30	55	35	10.5	10.5

7.2 Stand mounting

7.2.1 View



7.2.2 MPFL Stand



Dimensions in mm.

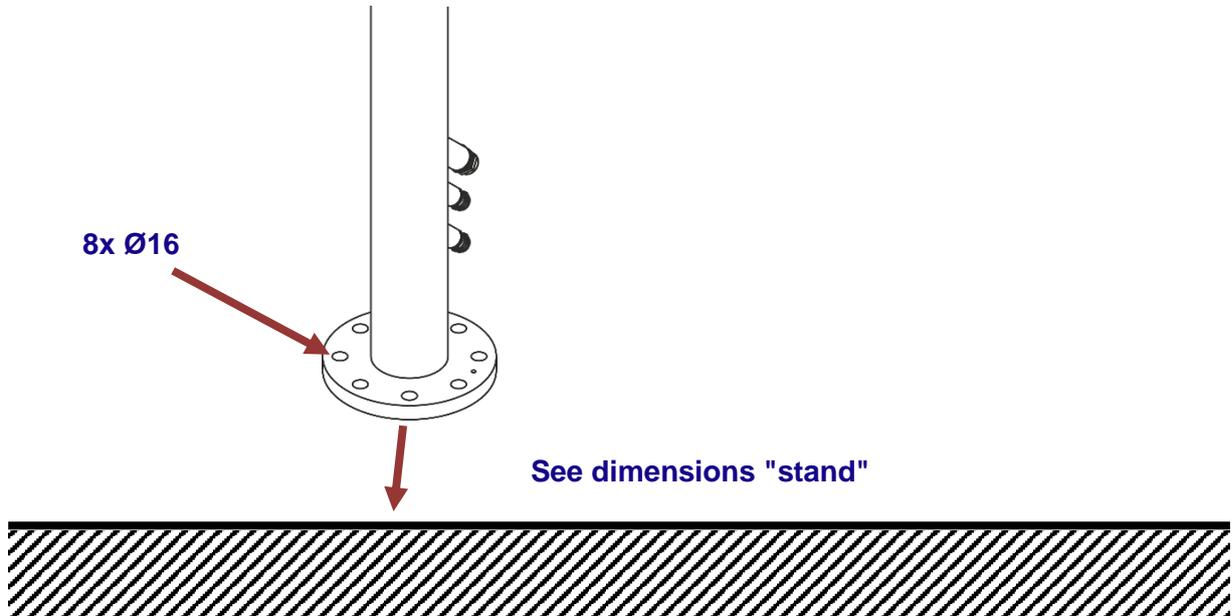
Stand							
A	B	C	D	E	F	G	H
1216	265	200	135	20	101	Ø 60.3	Ø 88.9

Cable glands		
G1	G2	G3
M25 x 1.5	M25 x 1.5	M20 x 1.5

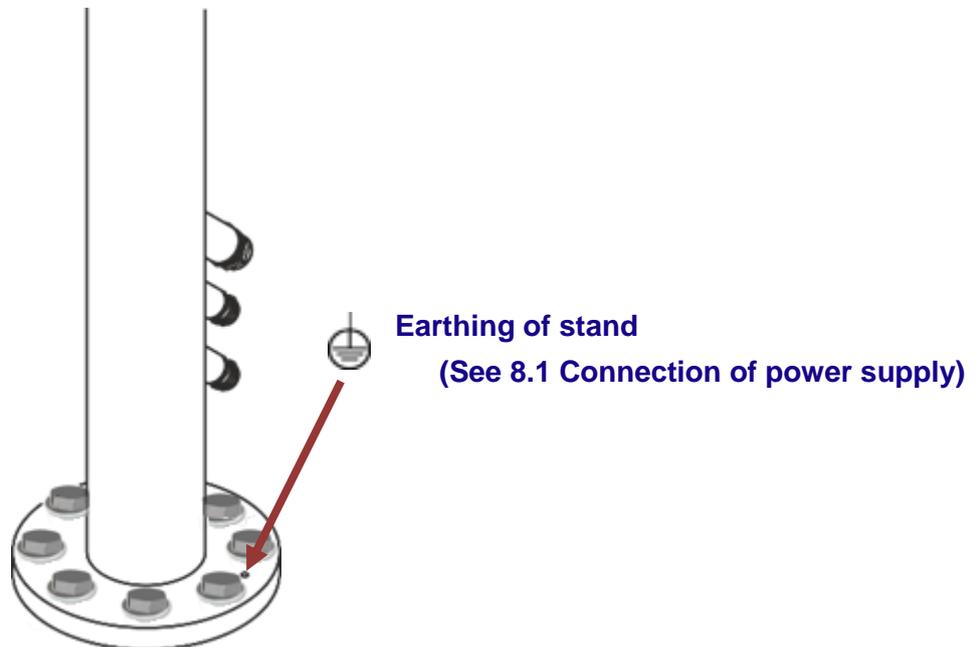
7.2.3 Mounting – Step by step

1

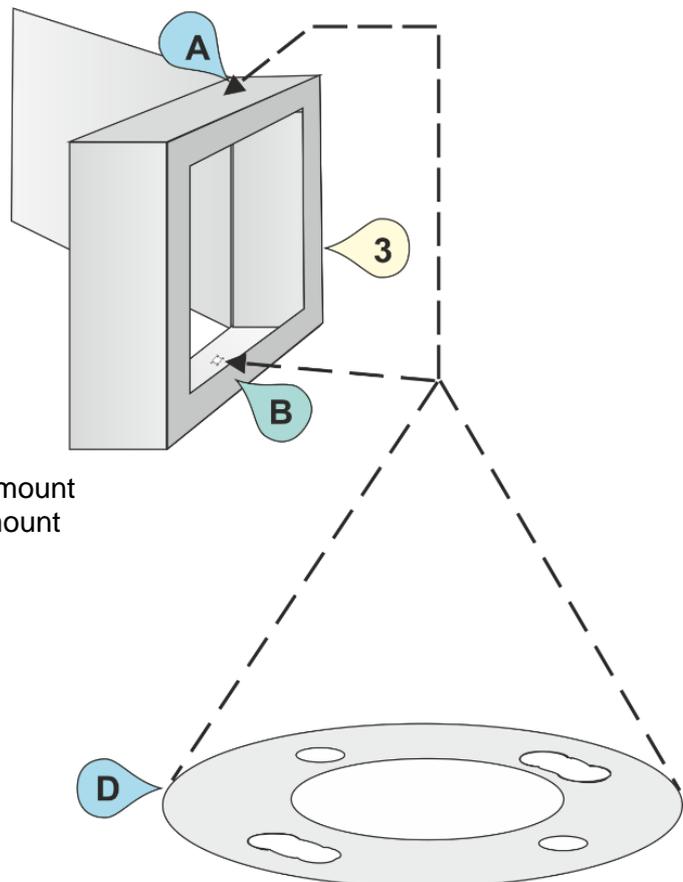
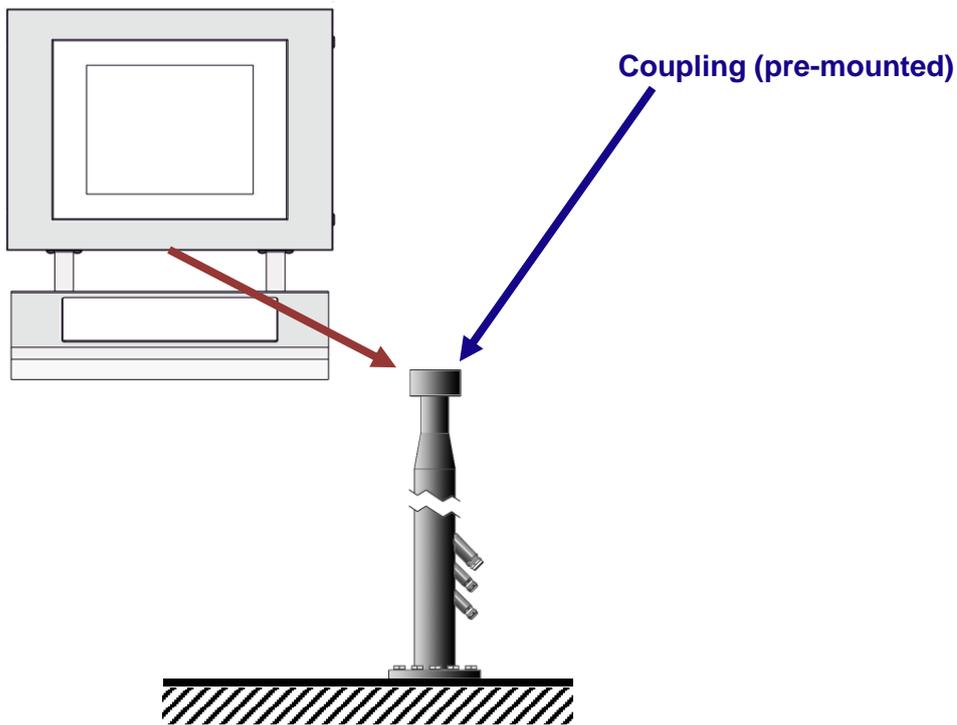
NOTE Choose suitable mounting screws, rawplugs and bolts depending on the actual local requirements and possibilities.



2



3

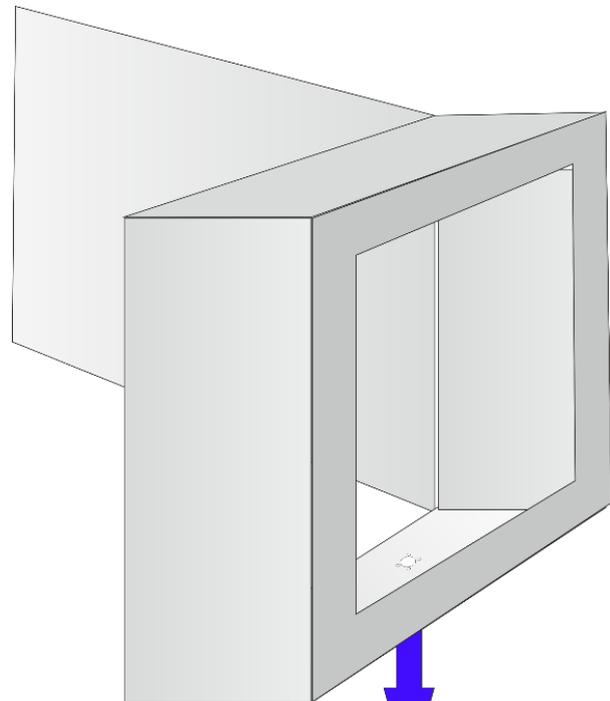
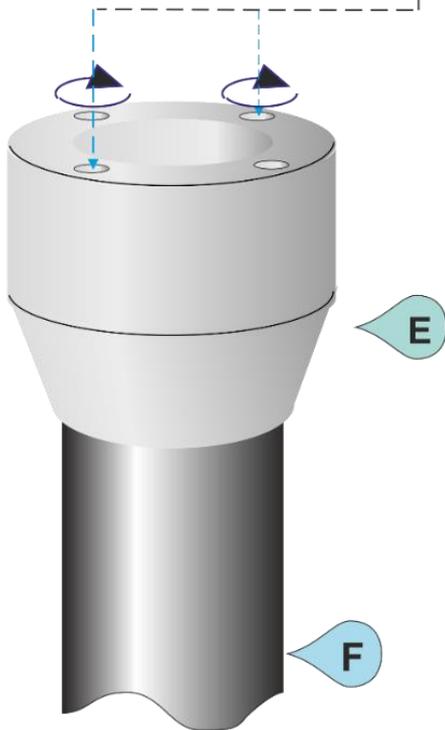
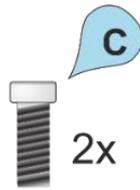


- A** mounting holes, for hanging mount
- B** mounting holes, for upright mount
- 3** enclosure operating device

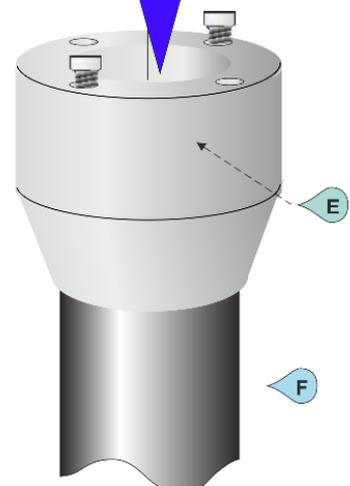
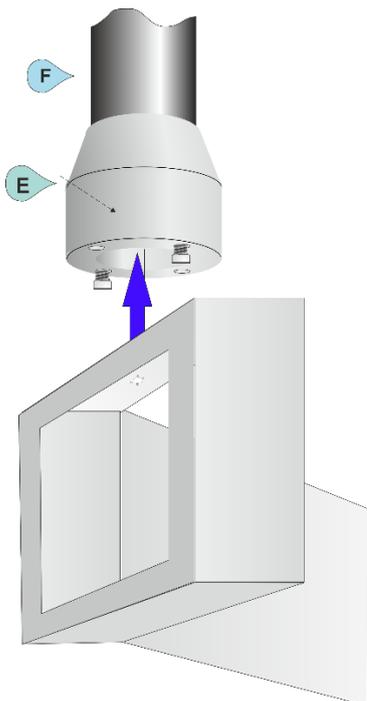
- D** mounting holes in the enclosure of the operating device

4

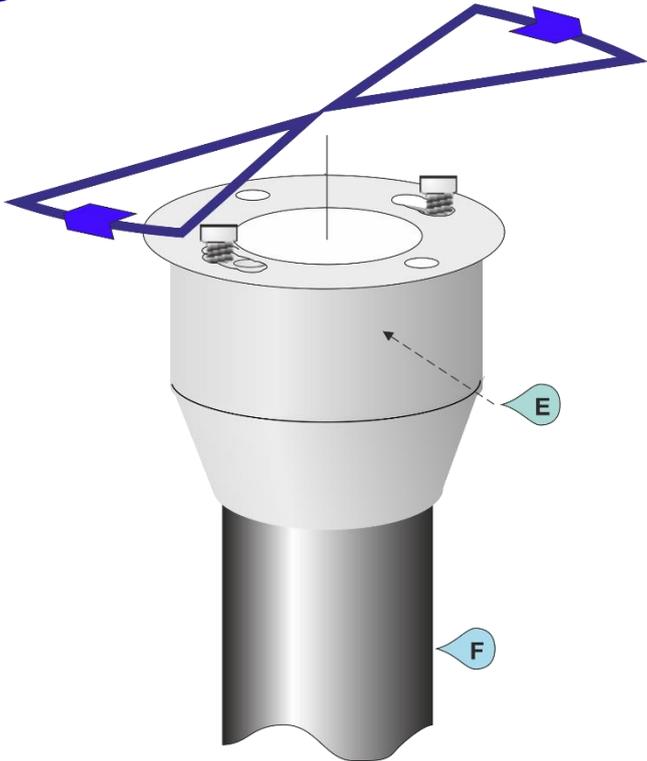
C M6 Allen screw
E mounting coupling
F stand / wall bracket



5

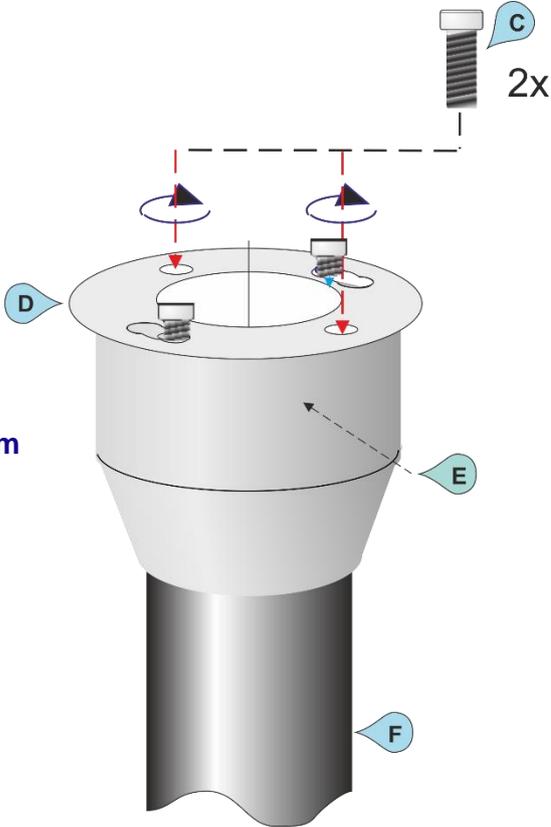


6

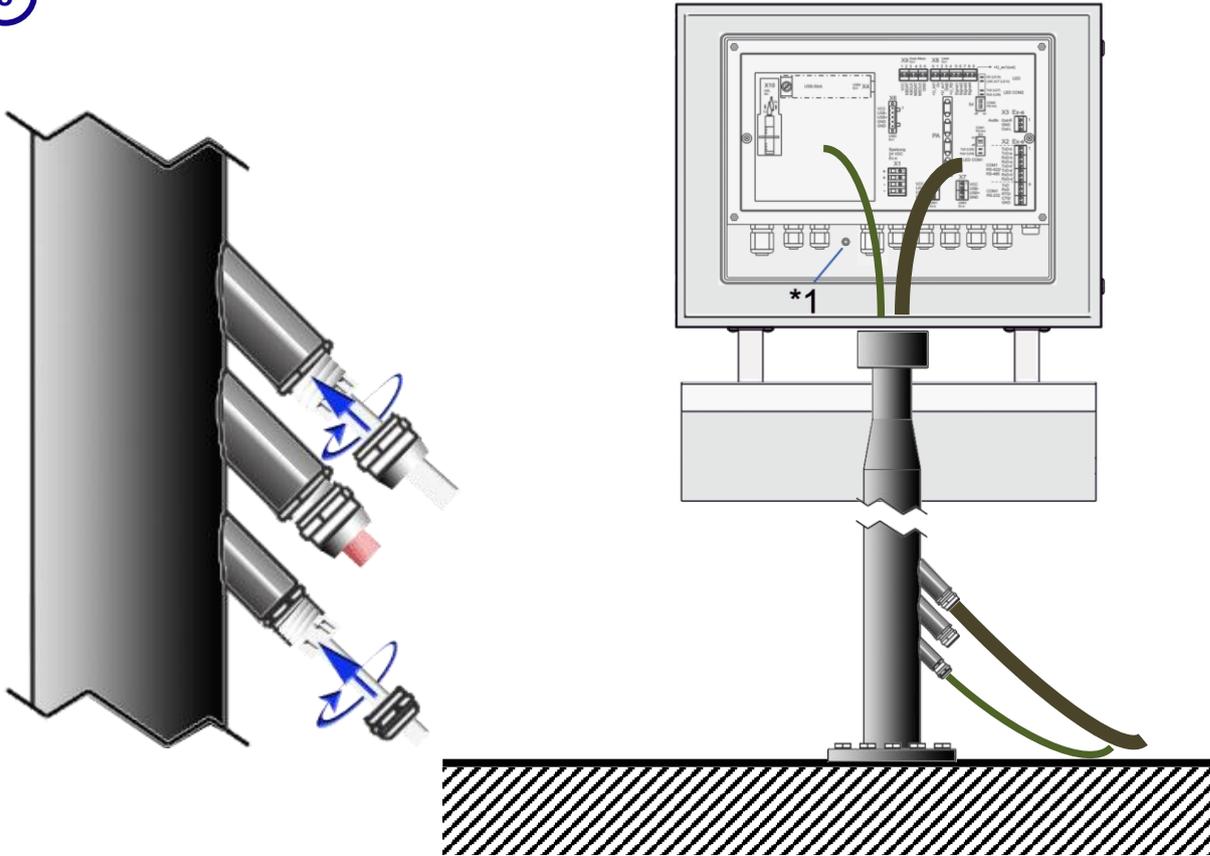


7

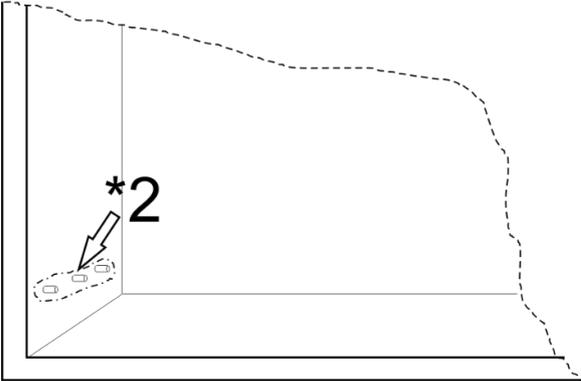
tighten all 4 screws with a torque of 10 Nm



8

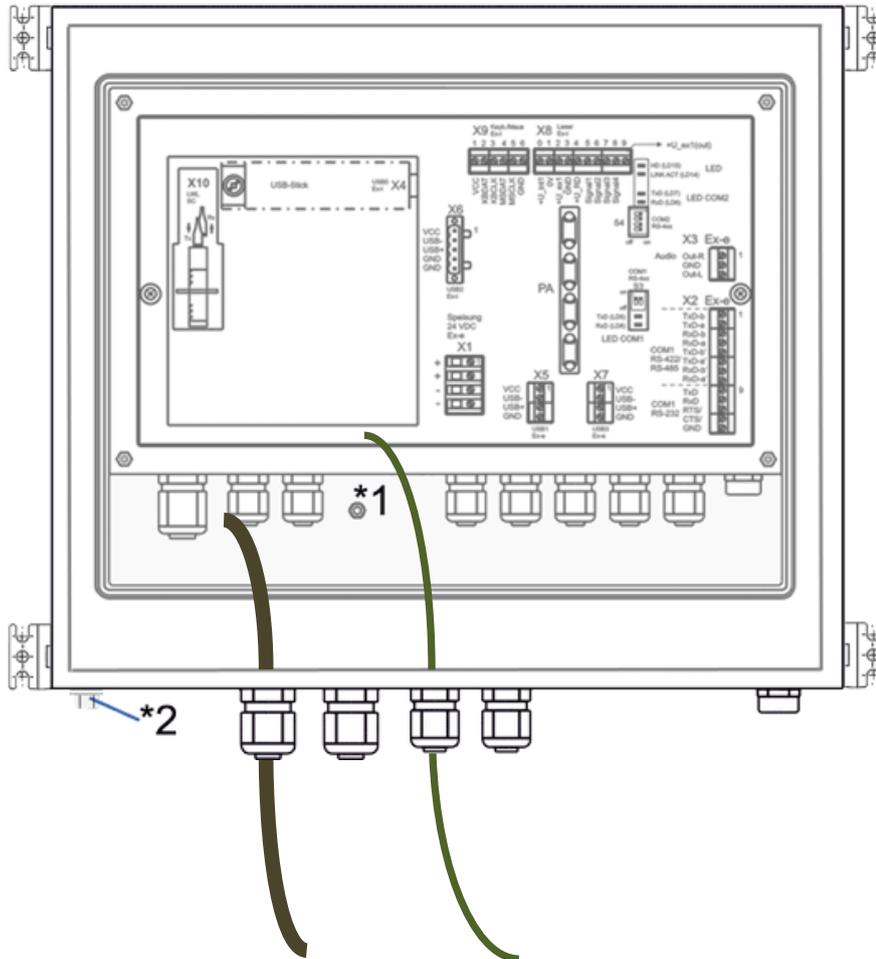


***1** Connection bolt for equipotential bonding. Already wired to the multiple connection (*2) in operator stations (OS).

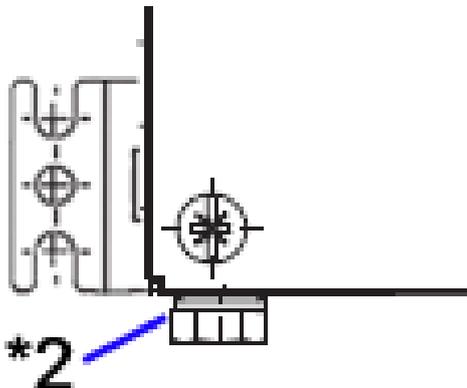


8a

FRS enclosure



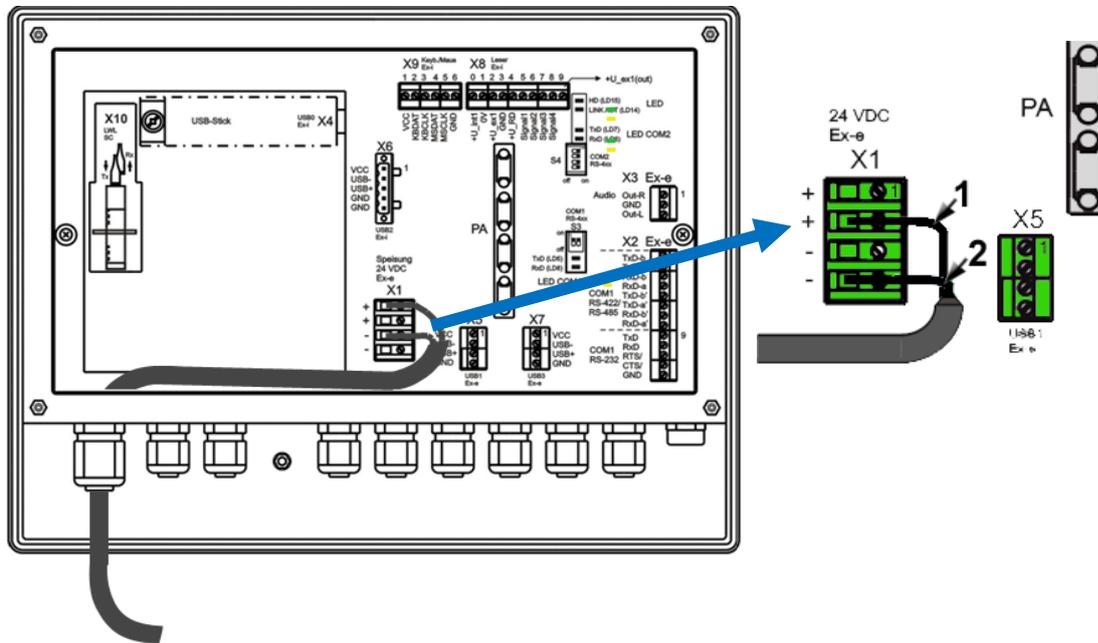
*1	Connection bolt for equipotential bonding. Already wired in operator stations (OS).
*2	Connection for equipotential bonding. See 8.1 Connection power supply



8 Electrical Installation

8.1 Connection of the X1 power supply

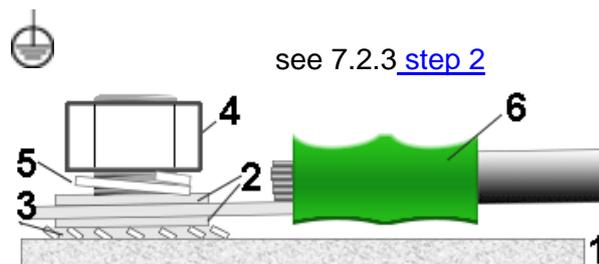
9



Pin	Signal name	Description
1	+24 VDC	Power supply +24 VDC
2		
3	Earth	Power supply 0 VDC
4		

8.2 Stand or enclosure equipotential bonding / earthing

10

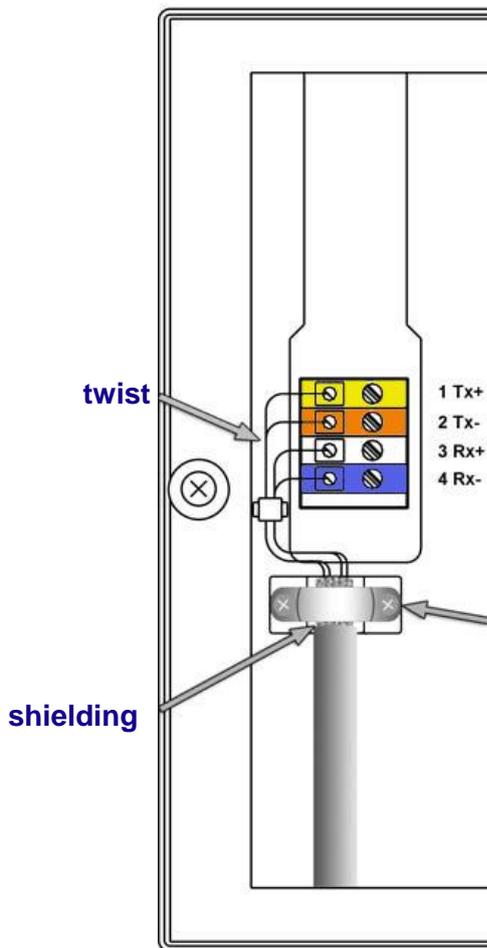
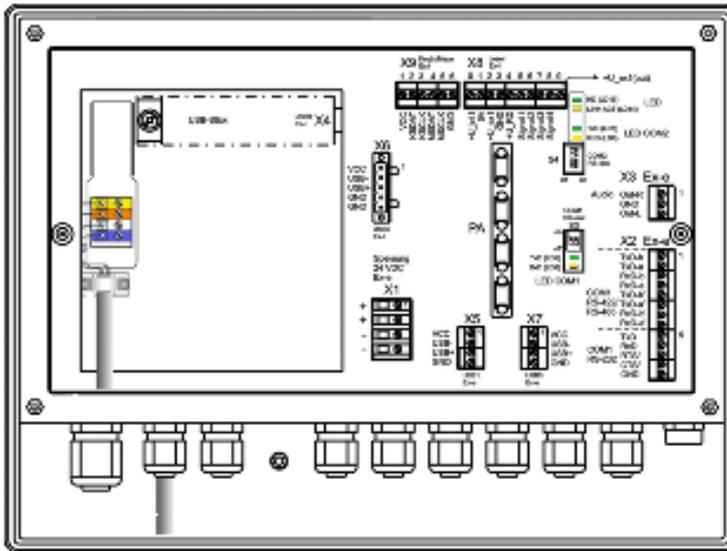


- 1 = Stand mounting plate
- 2 = Washer 2x
- 3 = Toothed washer
- 4 = Hexagon screw M6x16
- 5 = Split washer
- 6 = Cable lug with eyelet

8.3 Ethernet interface TX / FX

8.3.1 Ethernet interface copper connection TX (X11)

11



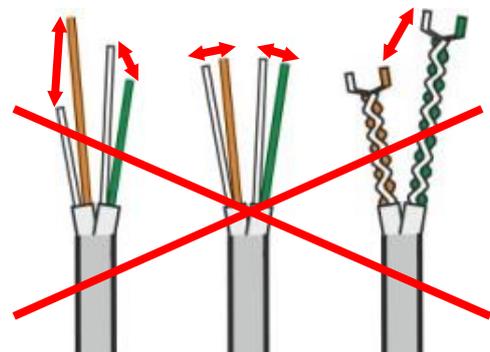
e.g. cable:
VB-TP-CAT5-Exe-RJ45-Patch



correct



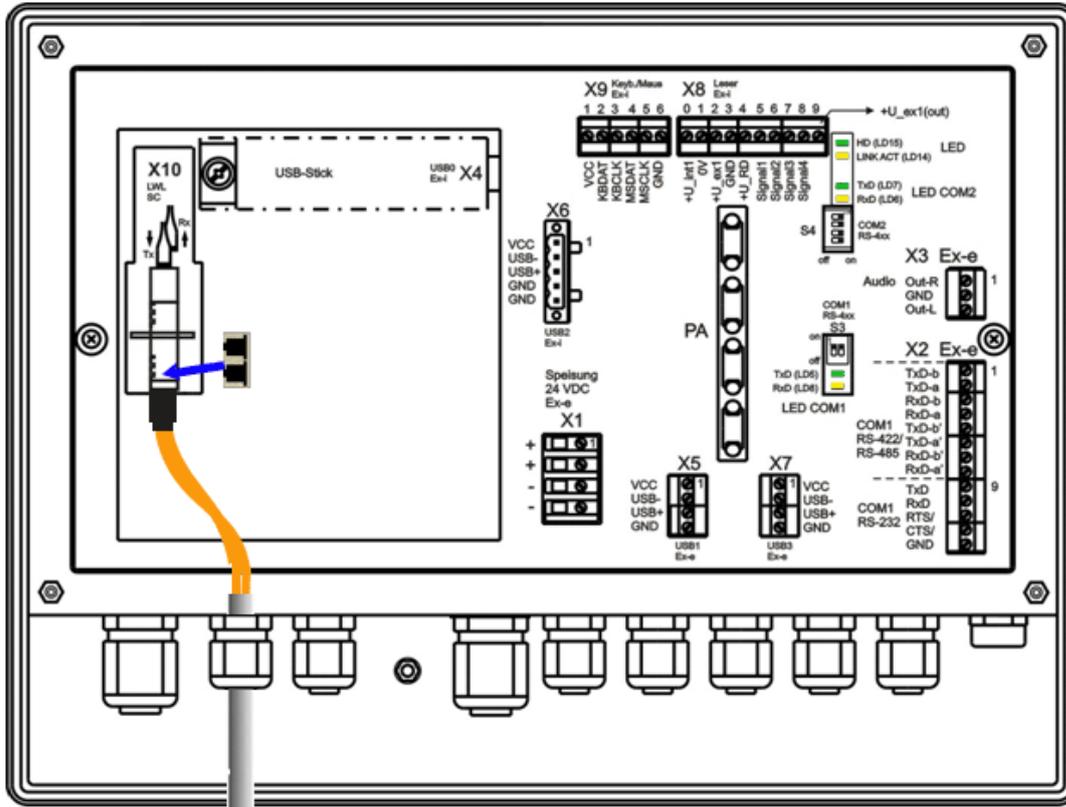
wrong



Pin	Signal	Colour	Note	Connection
1	Tx+	Yellow	twist 	100Base-TX interface
2	Tx-	Orange		
3	Rx+	White		
4	Rx-	Blue		

8.3.2 Ethernet optical fiber interface FX (X10)

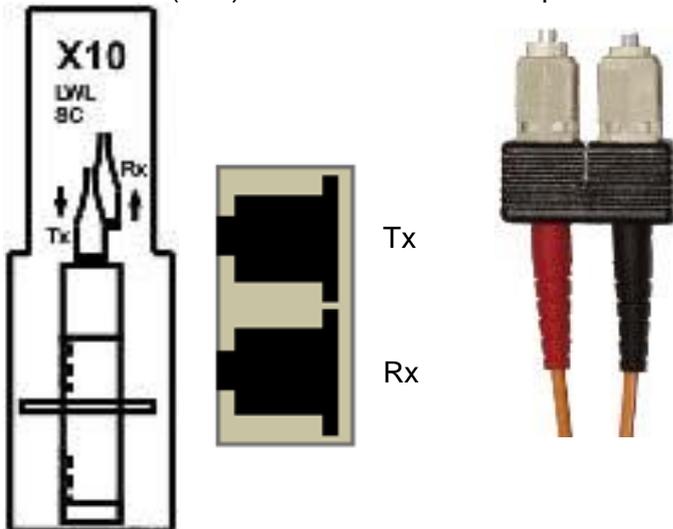
12



Multi-mode optical fibre cable with 62.5 µm core cross section and 125 µm external cross section.

Ethernet FX (X10)

SC duplex connector



9 Release notes

The chapter entitled "Release Notes" contains all the changes made in every version of the Instructions.

Version 01.00.00

- First edition

Version 01.00.01

- Correction version number in section Release notes
- Change of title on cover page
- Change of image on cover page
- Deletion of section Warnings (as contents already contained in Operating Instructions)
- Correction on description of vibration (sinusoidal)
- Addition of 10.4" devices to FR / CFR / BD enclosure versions
- Correction enclosure dimensions for FR / CFR / BD versions
- Correction wall mounted enclosure, changes to FRS and limited to 10.4" and 15" devices
- Text, layout and formal corrections

Version 01.00.02

- Addition of section "Warning - Touch operation"
- Changing HW Rev at cover for BT / BS devices

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