

**Safety Precautions:**

- Installation, initial start-up and maintenance may only be performed by trained personnel! All applicable European and national regulations regarding installation of electrical equipment must be adhered to.
- The device may only be operated under the conditions specified in the operating instructions!

Functions Description:

With EF-probes the level of conductive liquids can be detected.

Its function is based on the conductive measurement, i.e. the electrical resistance between the reference electrode and the probe electrode is measured.

- A high resistance is measured, if the conductive liquid is not wetting the electrode
 - A low resistance is measured, if the conductive liquid is wetting the electrode and “connecting” the electrodes
- The connected resistive amplifier relay ES2001 detects this change of resistance and switches the attached relay contacts.
- EF 16 electrodes are equipped with one electrode
 - EFC is equipped with a probe electrode and reference electrode (housing)

Technische Daten:

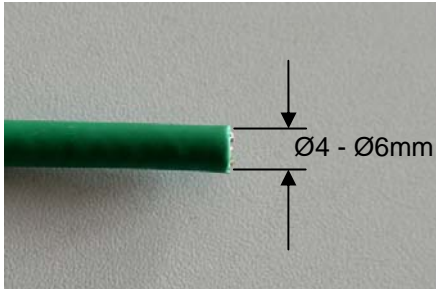
Housing:	Stainless steel (316L)
Electrode:	Stainless steel (316L)
Insolation:	Delrin (Polyacetal)
Max. temperature:	100°C
Attachment:	hanging on cable
Cable length:	on request (max. 300m, dependent on cable capacity and media resistance)

The coaxial cable of EFC electrodes is coated in PVC

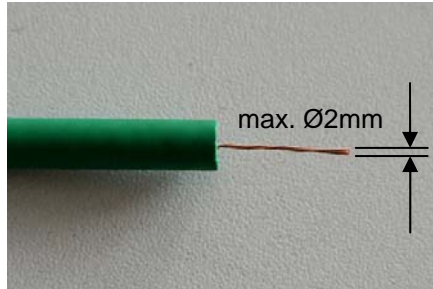
CE Mark:

The device fulfills the legal requirements of applicable EU-guidelines

Mounting of probe EF:



Cable with outer diameter Ø4 - Ø6mm, conductor Ø2mm
alternative: coaxial cable



Skinning ca. 15mm
alternative: remove coat, shield and dielectric



Putting on the upper part (with thread)



Placing neoprene sealing (Ø10.5x2 - 14.5mm)



Placing brass washer (Ø10x2 - 0.6mm)



placing brass turning piece (ca. Ø8x8.5mm, tip with cone)



Placing brass turning piece up till cable coating



folding the conductor



Putting on stainless turning piece

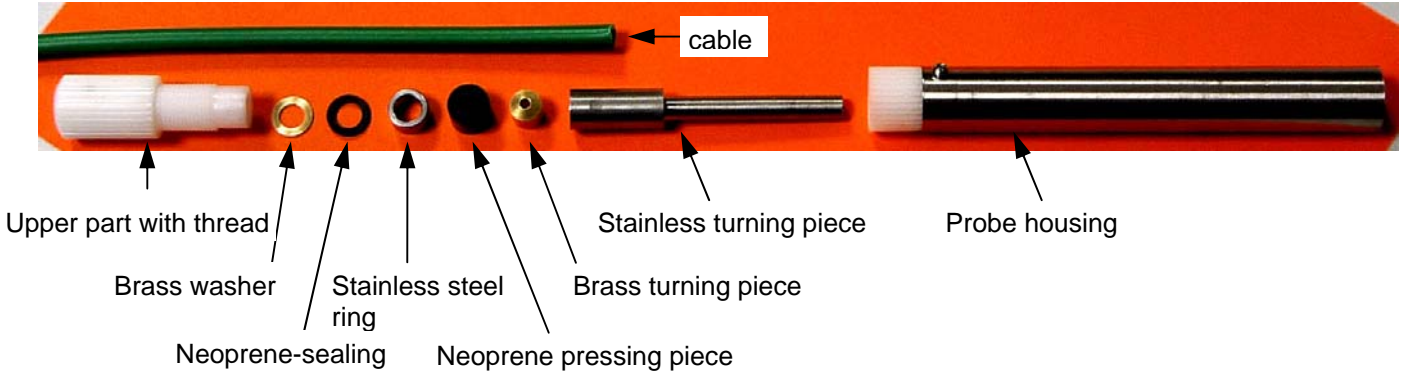


Putting on the probe housing and screwing it with the upper part



Mounting of coaxial probe EFC:

Components of the probe:



Beading of upper part with thread, brass washer, neoprene sealing and stainless steel ring on the cable



Skinning the cable



Sliding the stainless steel ring to the leading edge of the coating and putting the shield over it.

**CONDUCTIVE LEVEL ELECTRODE
EF / EFC**

Mounting of coaxial probe EFC (continuation):



Skinning the dielectric



Beading on of the neoprene pressing piece and brass turning piece



Putting on the stainless steel turning piece



Inserting the cable with the components in the probe housing



Screwing the threaded upper part of the probe into the housing and fixing the contact screw

CAUTION: Check the correct electrical connection between the probe housing and the cable shield and between the inner conductor of the probe and the inner conductor of the cable with a conventional multimeter after assembly of the probe. An electrical connection between the cable shield and the inner conductor of the cable is **incorrect**.