



IFC 070 Quick Start

Electromagnetic signal converter

Electronic Revision ER 4.0.2_

The documentation is only complete when used in combination with the relevant documentation for the sensor.

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Warnings and symbols used



DANGER!

This information refers to the immediate danger when working with electricity.



DANGER!

These warnings must be observed without fail. Even partial disregard of this warning can lead to serious health problems and even death. There is also the risk of seriously damaging the device or parts of the operator's plant.



WARNING!

Disregarding this safety warning, even if only in part, poses the risk of serious health problems. There is also the risk of damaging the device or parts of the operator's plant.



CAUTION!

Disregarding these instructions can result in damage to the device or to parts of the operator's plant.



INFORMATION!

These instructions contain important information for the handling of the device.



HANDLING

- This symbol designates all instructions for actions to be carried out by the operator in the specified sequence.

RESULT

This symbol refers to all important consequences of the previous actions.

Safety instructions for the operator



CAUTION!

Installation, assembly, start-up and maintenance may only be performed by appropriately trained personnel. The regional occupational health and safety directives must always be observed.



LEGAL NOTICE!

The responsibility as to the suitability and intended use of this device rests solely with the user. The supplier assumes no responsibility in the event of improper use by the customer. Improper installation and operation may lead to loss of warranty. In addition, the "Terms and Conditions of Sale" apply which form the basis of the purchase contract.



INFORMATION!

- *Further information can be found on the supplied CD-ROM in the manual, on the data sheet, in special manuals, certificates and on the manufacturer's website.*
- *If you need to return the device to the manufacturer or supplier, please fill out the form contained on the CD-ROM and send it with the device. Unfortunately, the manufacturer cannot repair or inspect the device without the completed form.*

2.1 Notes on installation

**INFORMATION!**

Inspect the cartons carefully for damage or signs of rough handling. Report damage to the carrier and to the local office of the manufacturer.

**INFORMATION!**

Check the packing list to check if you received completely all that you ordered.

**INFORMATION!**

Look at the device nameplate to ensure that the device is delivered according to your order. Check for the correct supply voltage printed on the nameplate.

2.2 Scope of delivery

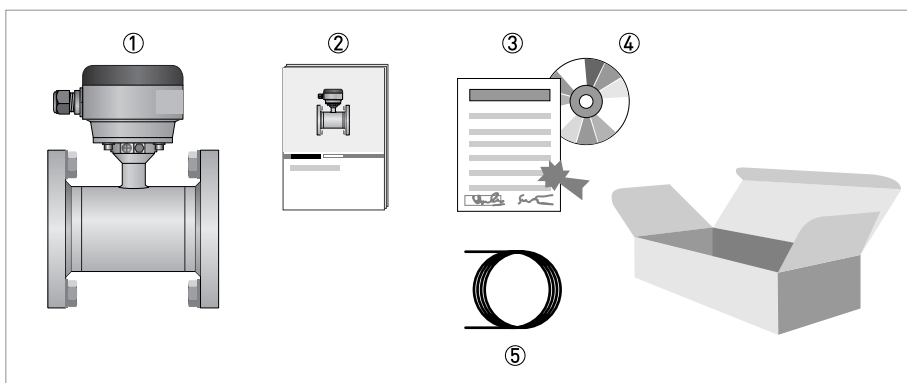


Figure 2-1: Scope of delivery

- ① Ordered flowmeter
- ② Quick Start
- ③ Factory calibration report
- ④ CD-ROM with product documentation
- ⑤ Cable (remote versions only)

2.3 Transport

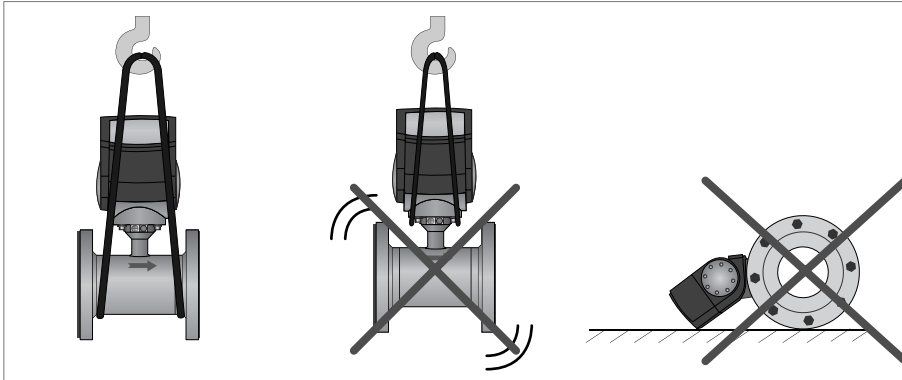


Figure 2-2: Transport

2.4 Pre-installation requirements

Make sure that you have all necessary tools available:

- Allen key (4 mm)
- Small screwdriver
- Wrench for cable glands
- Wrench for wall mounting bracket (remote version only)
- Torque wrench for installing flowmeter in pipeline

2.5 Installation requirements

2.5.1 Vibration

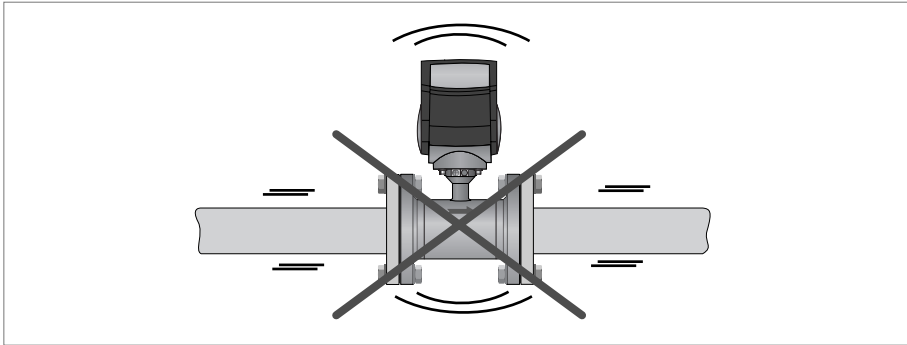


Figure 2-3: Vibration

2.5.2 Magnetic field

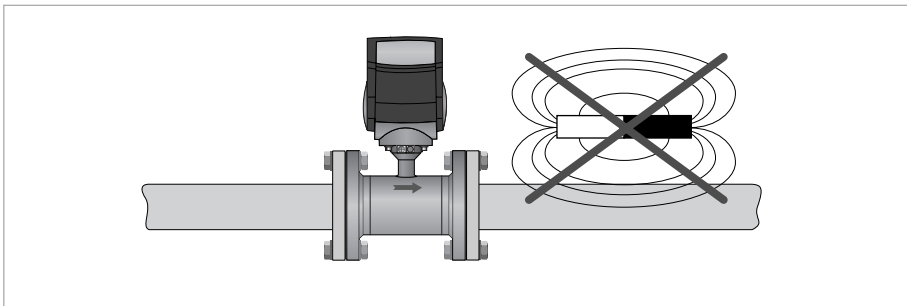


Figure 2-4: Magnetic field

2.5.3 Installation of converter



INFORMATION!

Only applicable for remote versions.



- Mount converter with mounting plate on wall or standpipe.
- Keep distance between sensor and signal converter as short as possible.
- Observe length of the delivered signal cable.

3.1 Safety instructions

**DANGER!**

All work on the electrical connections may only be carried out with the power disconnected. Take note of the voltage data on the nameplate!

**DANGER!**

Observe the national regulations for electrical installations!

**WARNING!**

Observe without fail the local occupational health and safety regulations. Any work done on the electrical components of the measuring device may only be carried out by properly trained specialists.

**INFORMATION!**

Look at the device nameplate to ensure that the device is delivered according to your order. Check for the correct supply voltage printed on the nameplate.

3.2 Grounding

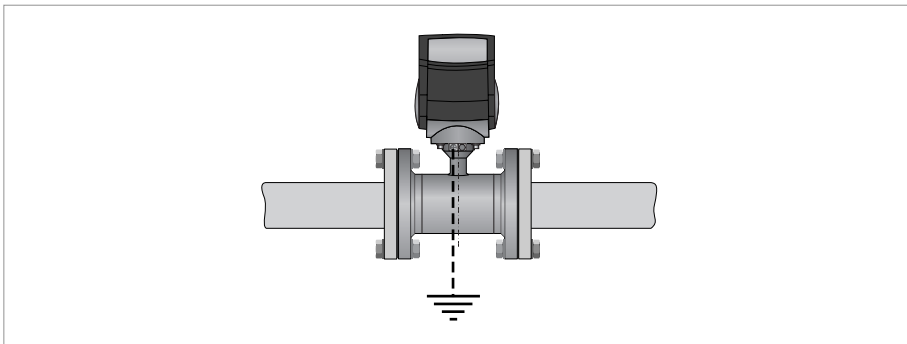


Figure 3-1: Grounding

3.3 Signal cable



CAUTION!

To ensure smooth functioning, always use the signal cables included in the delivery.



INFORMATION!

You only receive a signal cable if you ordered a remote version.

3.4 Connection of signal cable



INFORMATION!

The signal cable is only used with remote versions. The standard WSC-cable includes both electrode and field current leads, the optional type A/B cable is only used for the electrodes. In that case, the field current cable is no part of the supply.

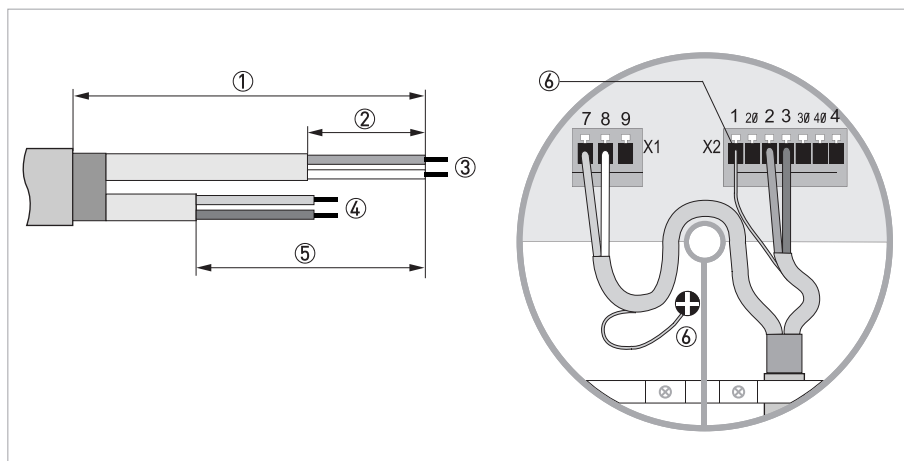


Figure 3-2: Cable connection at converter side, standard cable

- ① cable length: 13 cm / 5"
- ② cable length: 5 cm / 2"
- ③ brown + white cable, used for field current
- ④ pink and grey cable, used for electrode signals
- ⑤ cable length: 8 cm / 3"
- ⑥ Shield (terminal 1 of connector X2 + U-clamp)



- Prepare appropriate cable lengths (①...③)
- Connect the shield to the U-clamp, the brown cable to terminal 7 and the white to terminal 8.
- Connect the shield to terminal 1, the pink cable (white in case of type A or B cable) to terminal 2 and the grey (red in case of type A or B cable) to terminal 3.

4.1 Connection of battery



CAUTION!

Please connect battery before first use, see relevant chapter for your type of battery. Each converter is always delivered with a disconnected battery.

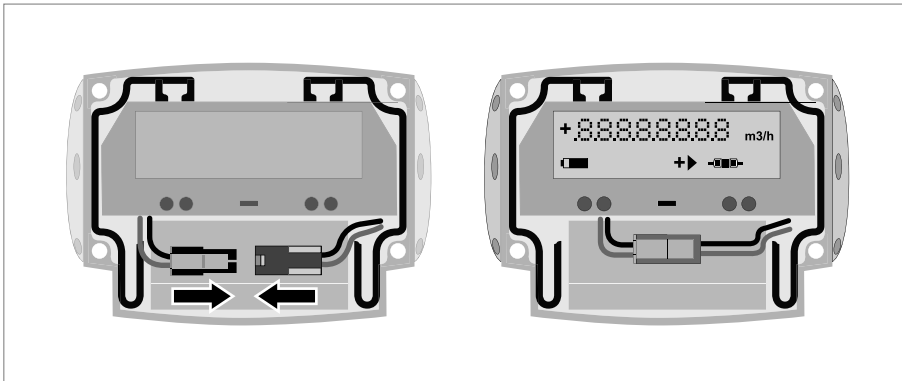


Figure 4-1: Connecting battery

4.1.1 Internal battery



- Remove the blue protection cap.
- Loosen the 4 Allen bolts (4 mm).
- Remove the cover.
- Fasten the battery connector to the internal connector in the converter.
- Check that the display lights up.
- Put the cover back.



WARNING!

Make sure that the battery cable is not jammed by the cover.



- Tighten the 4 Allen bolts.
- Put the blue protection cap back.



INFORMATION!

The instrument now operates with factory set parameters.

For configuration of these settings, please refer to the handbook and/or the documentation of the converter.

4.1.2 External battery



- Remove the blue protection cap.
- Loosen the 4 Allen bolts (4 mm).
- Remove the cover.
- Remove one of the blind cable glands in the bottom of the converter housing.
- Remove the metal strip at the bottom of the housing (2 screws).
- Lead the cable of the external battery through the gland opening and mount the attached cable gland loosely.
- Pull the cable to the top of the electronics.
- Fasten the battery connector to the internal connector in the converter.
- Check that the display lights up.
- Refit the metal strip at the bottom of the housing.
- Tighten the cable gland.
- Put the cover back.



WARNING!

Make sure that the battery cable is not jammed by the cover.



- Tighten the 4 Allen bolts.
- Put the blue protection cap back.



INFORMATION!

The instrument now operates with factory set parameters.

For configuration of these settings, please refer to the handbook and/or the documentation of the converter.





KROHNE product overview

- Electromagnetic flowmeters
- Variable area flowmeters
- Ultrasonic flowmeters
- Mass flowmeters
- Vortex flowmeters
- Flow controllers
- Level meters
- Temperature meters
- Pressure meters
- Analysis products
- Measuring systems for the oil and gas industry
- Measuring systems for sea-going tankers

Head Office KROHNE Messtechnik GmbH
Ludwig-Krohne-Str. 5
D-47058 Duisburg (Germany)
Tel.: +49 (0)203 301 0
Fax: +49 (0)203 301 10389
info@krohne.de

The current list of all KROHNE contacts and addresses can be found at:
www.krohne.com

KROHNE