



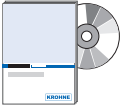
OPTIWAVE 7300 C Quick Start

Non-contact Radar (FMCW) Level Meter



KROHNE

General safety notes



You can find additional information on the CD-ROM provided, in the manual, the data sheet, special manuals and certificates.



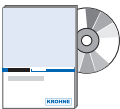
Installation, mounting, commissioning, and maintenance can be performed only by trained personnel.



Responsibility for suitability and intended use of this instrument rests solely with the user.

The supplier accepts no liability for inappropriate use by the customer.

Improper installation and operation may lead to loss of warranty. Moreover, the "general terms and conditions" on the back of the bill apply, which form the basis for the sales contract.

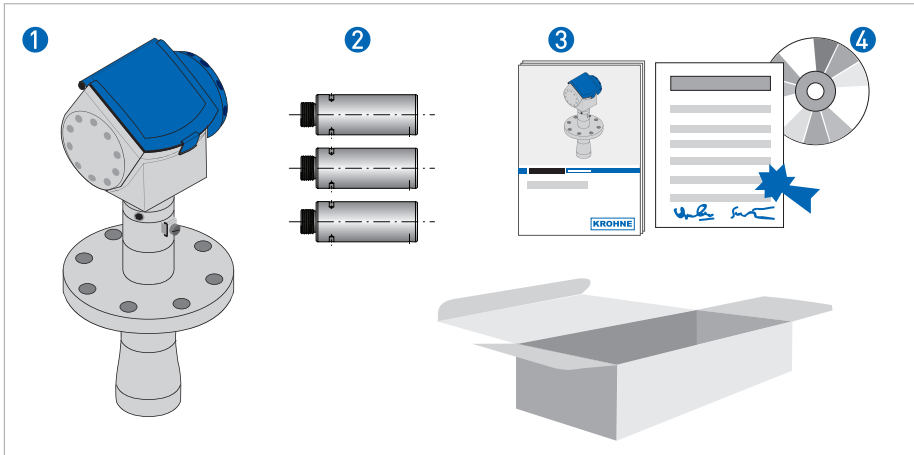


If you have to send the device back to the manufacturer or supplier, fill out the form contained on the CD-ROM and enclose it with the device. Unless this form is completely filled out, it will unfortunately not be possible for KROHNE to perform repair or inspection.



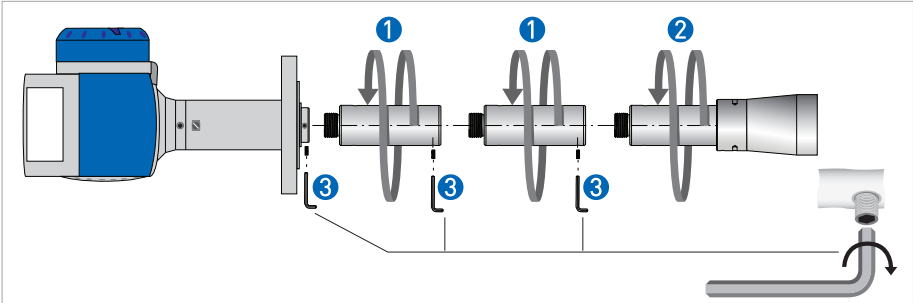
Respect general and local electrical safety requirements.

Scope of delivery



- 1 Signal converter and antenna in compact version
- 2 Antenna extensions for the long antenna (option)
- 3 Quick Start
- 4 CD-ROM (including Handbook, Quick Start, Technical Datasheet, and related software)

How to attach antenna extensions (long antennas only)



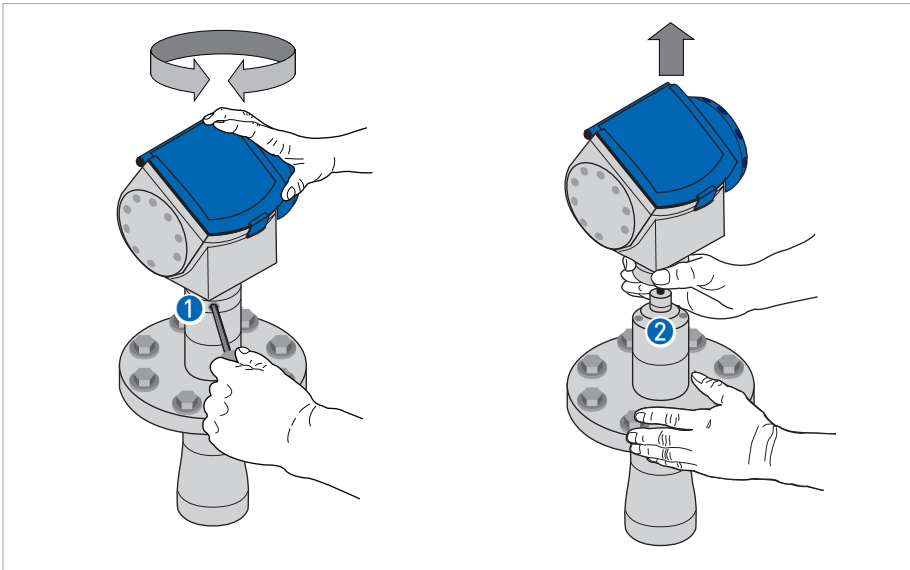
- Attach the antenna extensions ① to the flange.
- Attach the antenna ②.
- Make sure the antenna extensions are fully engaged.
- Use a 3 mm Allen wrench to tighten the locking screws ③.
- If you attach more or less extensions than were initially ordered, change the antenna extension value in the OPTIWAVE program mode. Use the display screen or PACTware™.
 - ➔ Antenna extension = antenna extension length x number of extensions
- If you attach more extensions than were initially ordered, change the blocking distance value in the user interface.
 - ➔ Minimum blocking distance = antenna length + (antenna extension length x number of extensions) + 0.1 m / 4"

How to turn or remove the converter



NOTE!

The converter turns 360°. The converter can also be removed under process conditions.



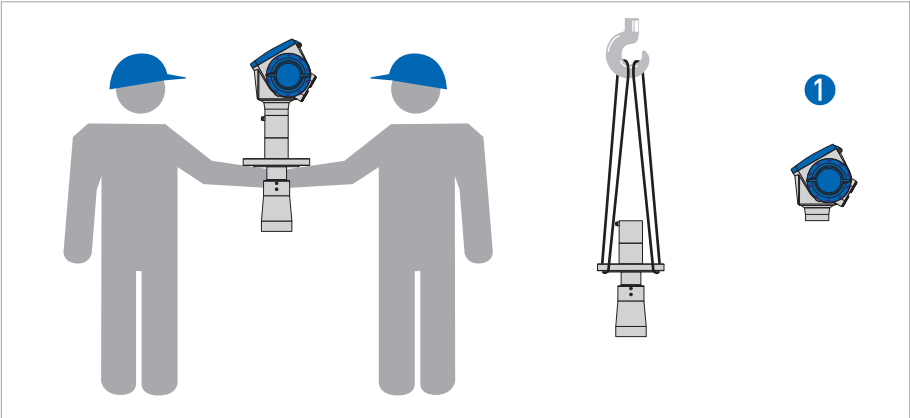
- Loosen the housing locking screw ① with a 5 mm Allen wrench.
- Turn the housing to the correct position, or
- Remove the housing.
- Tighten the housing locking screw ①.



CAUTION!

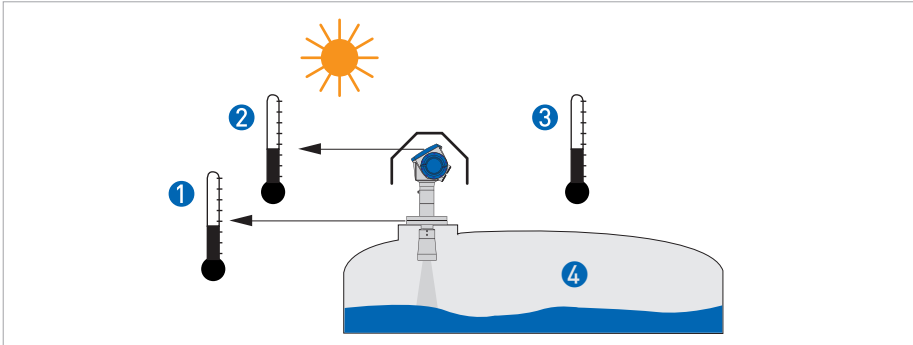
If you remove the housing, put a cover on the wave guide hole in the flange assembly ②.

Transport



- 1 Remove the converter before you lift the instrument with a hoist

Pressure and temperature ranges



1 Flange temperature

FKM/FPM: $-40...200^{\circ}\text{C}$ / $-40...390^{\circ}\text{F}$; Kalrez 6375: $-20...200^{\circ}\text{C}$ / $-5...390^{\circ}\text{F}$

Ex instruments: see supplementary operating instructions

2 Ambient temperature for operation of the display

$-20...+60^{\circ}\text{C}$ / $-4...+140^{\circ}\text{F}$

If the ambient temperature is not between these limits, the display screen switches off automatically

3 Ambient temperature

Non-Ex devices: $-40...80^{\circ}\text{C}$ / $-40...175^{\circ}\text{F}$

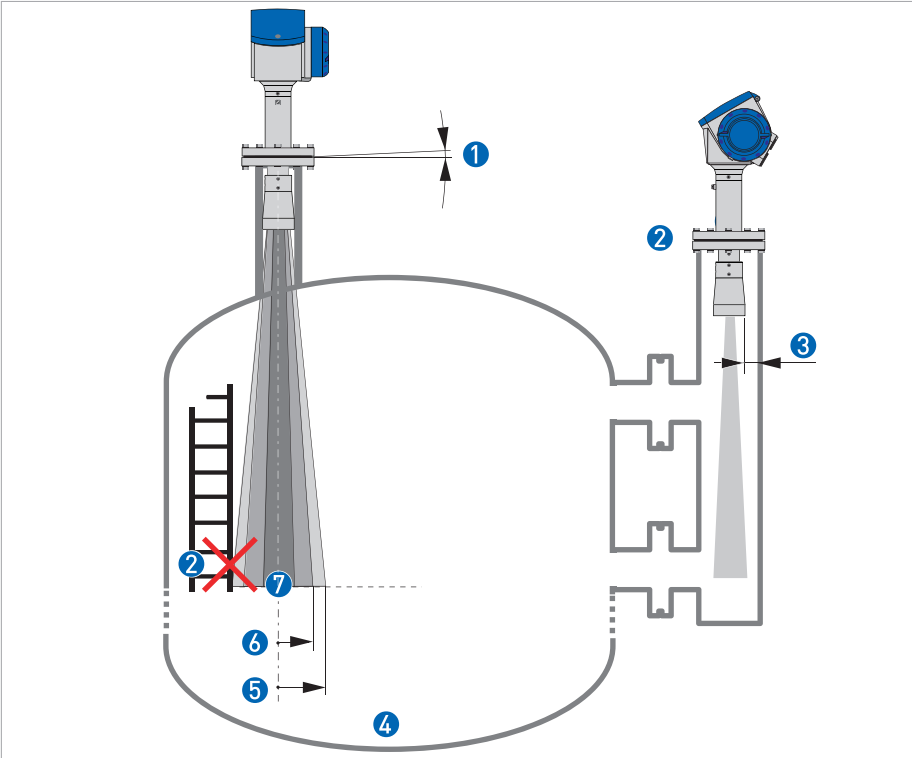
Ex instruments: see supplementary operating instructions

4 Process pressure

$-1...40$ bar / $-14.5...580$ psig

Installation recommendations

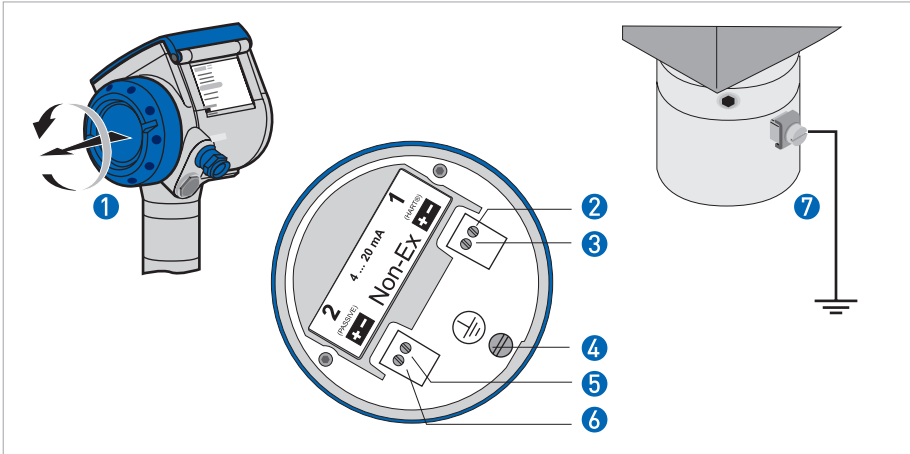
We recommend that you prepare the installation when the tank is empty.



- 1 Do not tilt the instrument more than 2°
- 2 If there are too many objects in the radar beam, do an empty spectrum scan (refer to the handbook) or install a bypass chamber or stilling well
- 3 2.5 mm / 0.1" max. for liquids with high dielectric constants
- 4 Curved and conical tank bottoms: Refer to the handbook for fine adjustment of the instrument
- 5 Radar beam of DN40 antenna: 180 mm/m or 7 1/8"/3.3 ft (20°)
- 6 Radar beam of DN50 antenna: 130 mm/m or 5 1/8"/3.3 ft (15°)
- 7 Radar beam of DN80 antenna: 90 mm/m or 3 1/2"/3.3 ft (10°)

Electrical installation: outputs 1 and 2

Terminal compartment



- ① Terminal compartment cover
- ② Terminal 1 current output -
- ③ Terminal 1 current output +
- ④ Grounding terminal in the housing
- ⑤ Terminal 2 current output -
- ⑥ Terminal 2 current output +
- ⑦ Grounding terminal on the connection piece between sensor and converter.

Wiring procedure



NOTE!

If the instrument has the second current output option, use a separate power supply to energize terminal 2.

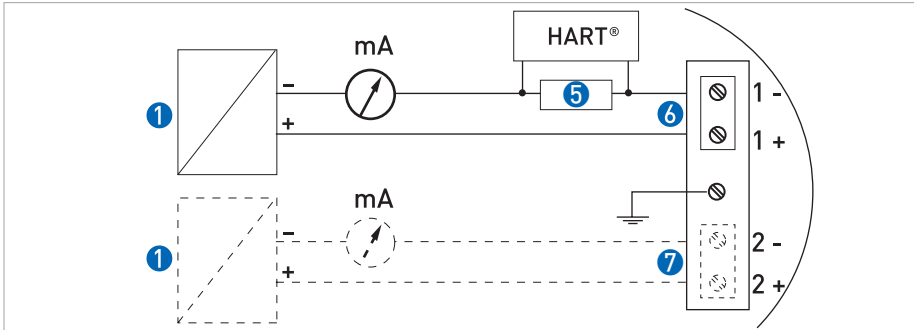


Obey the instructions that follow:

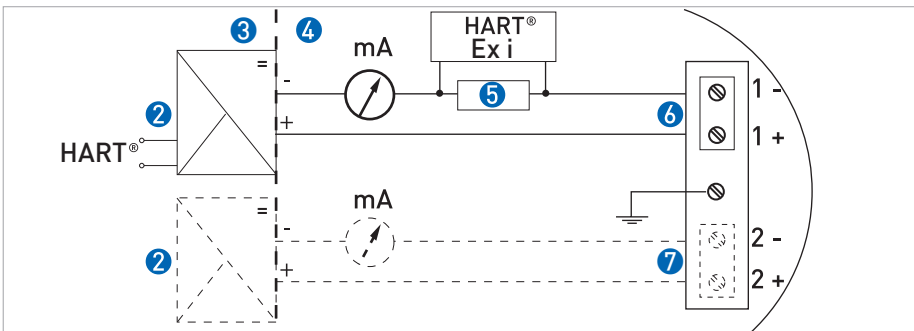
- Unscrew the housing lid ① of the electric terminal compartment.
- Wire the device using standard rules.
- Observe the correct polarity.
- Attach the ground to ④ or ⑦. Both terminals are technically equivalent.

Electrical connection for current output

Non-Ex

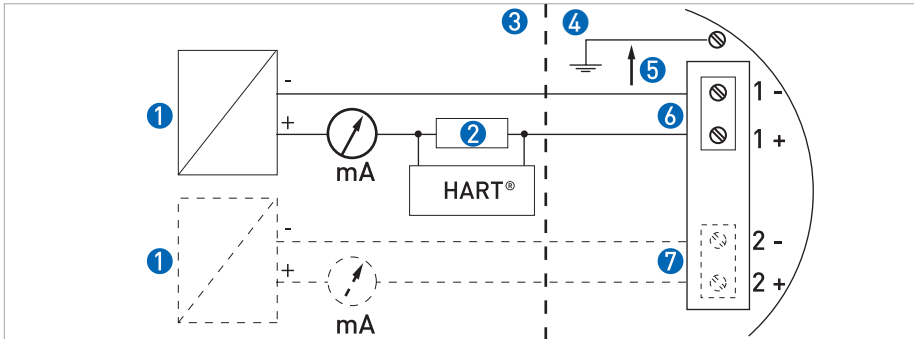


Ex i



- ① Power supply
- ② Intrinsically-safe power supply
- ③ Zone non-Ex
- ④ Zone Ex
- ⑤ Resistor for HART® communication
- ⑥ 14...30 VDC for an output of 22mA at the terminal (refer to caution)
- ⑦ 10...30 VDC for an output of 22mA at the terminal

Ex d



- ① Power supply
- ② Resistor for HART[®] communication
- ③ Non-Ex zone
- ④ Ex zone
- ⑤ $U \leq 5\text{ V}$
- ⑥ 20...36 VDC for an output of 22mA at the terminal (refer to caution)
- ⑦ 10...30 VDC for an output of 22mA at the terminal

**CAUTION!**

Make sure that you supply the correct voltage to the instrument terminal.

**CAUTION!**

If you remove the housing, put a cover on the wave guide hole in the flange assembly.

Protection category



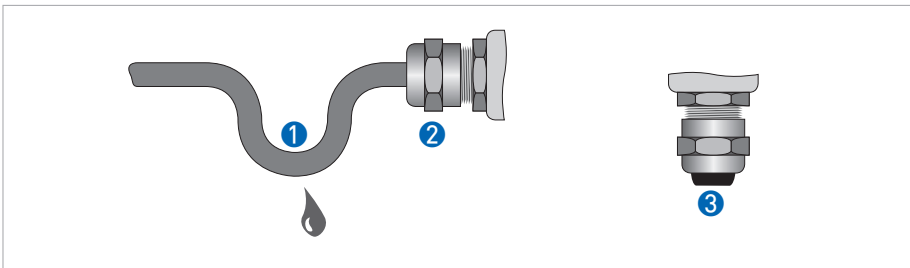
NOTE!

The instrument fulfills all requirements per protection class IP 67.



DANGER!

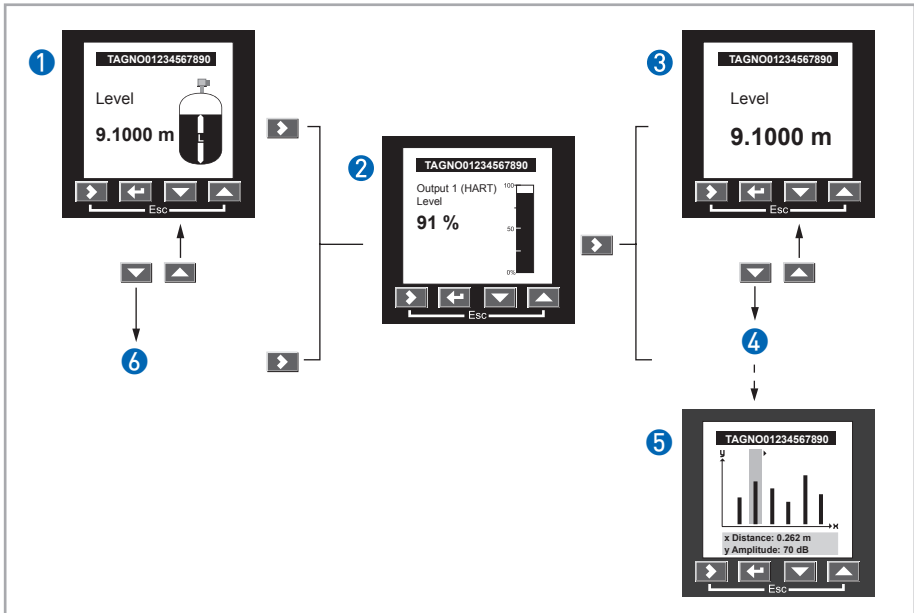
Make sure the cable gland is watertight.



- Make sure that the gaskets are not damaged.
- Make sure that the electrical cables are not damaged.
- Make sure that the electrical cables agree with the national electrical code.
- The cables are in a loop in front of the instrument ① so water cannot enter the housing.
- Tighten the cable glands ②.
- Close unused cable glands with dummy plugs ③.

User interface



Information for the operator




- ① Level measurement screen (with a stationary tank image)
- ② Percentage current output screen with an active bar graph (information depends on the output function)
- ③ Level measurement screen (text only, large characters)
- ④ Other information with text only (distance, volume...)
- ⑤ Signal screen - press > to move the cursor to another signal
- ⑥ Other information with a stationary tank image (distance, volume...)

Hot keys in measurement mode

Press a button for more than one second to get access to the hot key functions.

Hot key button	Hot key description
	Enter program mode
	Active screen is saved as the default screen

Press this button for more than three seconds to get access to the hot key function.

Hot key button	Hot key description
	Display language will change to English. Press again to go back to the language set in the user interface.

Contact

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