



Brief Operating Instructions

Liquicap T FMI21

Capacitance level measurement



These Brief Operating Instructions are not a substitute for the Operating Instructions pertaining to the device. Detailed information can be found in the Operating Instructions and the additional documentation.

Available for all device versions via:

- Internet: www.endress.com/deviceviewer
- Smartphone/tablet: Endress+Hauser Operations app

Basic safety instructions

Manufacturer's address

Manufacturer: Endress+Hauser SE+Co. KG, Hauptstraße 1, D-79689 Maulburg or www.endress.com.

Place of manufacture: See nameplate.

Requirements for the personnel

The operating personnel must fulfill the following requirements:

- ▶ Trained, qualified specialists: must have a relevant qualification for this specific function and task
- ▶ Are authorized by the plant operator
- ▶ Are familiar with national regulations
- ▶ They must have read and understood the instructions in the manual, supplementary documentation and certificates (depending on the application) prior to starting work
- ▶ They must follow instructions and comply with basic conditions

Intended use

Device for continuous level measurement in conductive liquids ($> 30 \mu\text{S}/\text{cm}$). Suitable for use in aggressive liquids (e.g. acids and bases). The device can be used in conjunction with the Fieldgate FXA42 (remote measured value interrogation using Internet technology) for material stockkeeping and to optimize logistics (inventory management).

Workplace safety

When working on and with the device:

- ▶ Wear the required personal protective equipment as per national regulations.

Operational safety

Risk of injury!

- ▶ Operate the device only if it is in proper technical condition, free from errors and faults.
- ▶ The operator is responsible for the trouble-free operation of the device.

When performing configuration, testing, and maintenance work on the device, alternative supervisory measures must be taken to guarantee the operational safety and process safety.



For WHG applications, see the associated WHG documents.

Hazardous area

When using the measuring system in Ex-areas, the appropriate national standards and regulations must be observed. Separate Ex documentation, which constitutes an integral part of this documentation, is supplied with the device. The installation procedures, connection data and safety instructions it contains must be observed.



- Make sure that the technical staff has adequate training.
- The special mechanical and safety-related requirements for the measuring points must be observed.

Product safety

This product is designed in accordance with good engineering practice to meet state-of-the-art safety requirements and has been tested and left the factory in a condition in which it is safe to operate.

Mounting

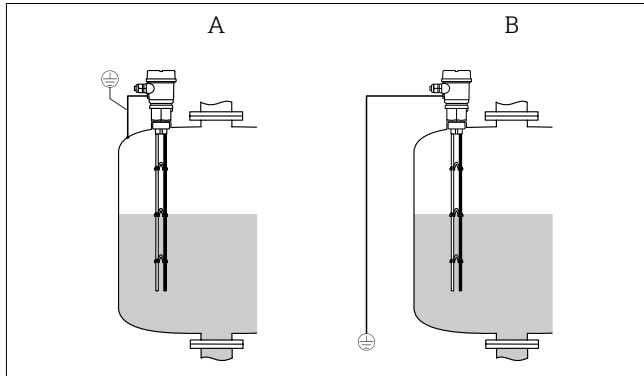
Mounting requirements

- Do not handle the probe by the rods!
- Do not bend the rods!
- Do not pull the rods apart!
- If necessary, shorten the rods.

See additional associated documentation.

Mounting the device

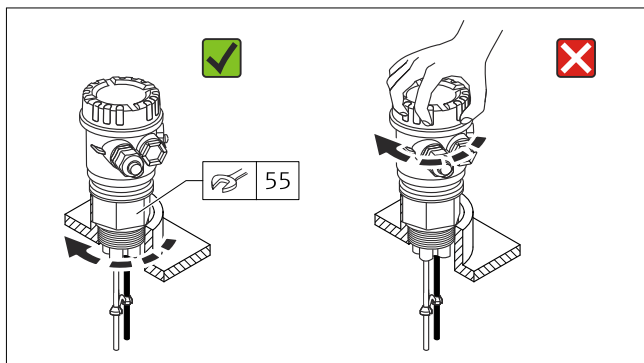
The probe can be mounted on top of the tank.



A Metal tank
B Plastic tank

G 1½

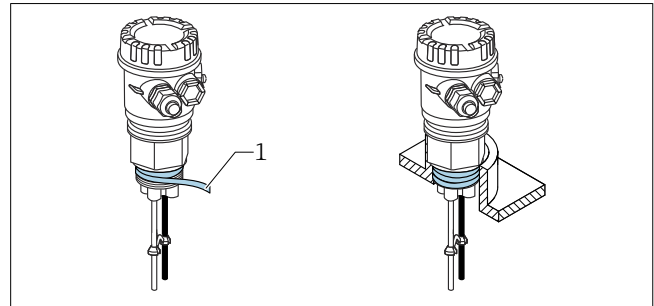
- i** Maximum pressure p_e 10 bar (145 psi)
Maximum torque 80 to 100 Nm (59.0 to 73.7 lbf ft)



1 Mounting the G 1½ probe

NPT 1½

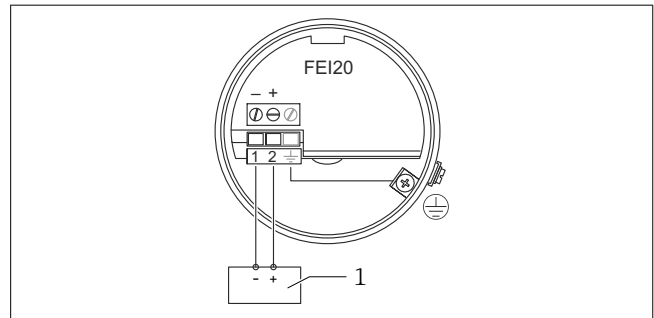
- i** Maximum pressure p_e is 10 bar (145 psi)
Maximum torque 40 to 80 Nm (29.5 to 59.0 lbf ft)



2 Mounting the NPT 1½ probe

- 1 PTFE sealing tape

Electrical connection



3 Connecting the electronic insert FEI20, with optional display

- 1 Transmitter power supply unit, e.g. RN22, RMA42, FXA42

Supply voltage: 10 to 30 V_{DC} reverse polarity protection (integrated)

See additional associated documentation.

Ensuring the degree of protection

Testing according to IEC 60529 and NEMA 250

IP66 NEMA4X