



# Brief Operating Instructions Liquipoint T FTW31

Conductive point 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](http://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](http://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

The device may only be used as a point level switch in conductive liquids, e.g. for overflow prevention, leakage monitoring, dry running protection, two-point control of pumps or multiple point detection.

## Mounting

Required tools:

Open-ended wrench or socket wrench 55 AF



The rods can be shortened depending on the installation conditions, see additional documentation.

### Mounting requirements

#### Rod probes

- Devices with two- to five-rod probes can be installed in vessels or tanks, see diagram
- Only two-rod probes can be installed in pipes, see diagram
- Use a socket wrench for measuring points that are difficult to access
- \* Only for two-rod probes, see graphic

### Workplace safety

When working on and with the device:

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

### Operational safety

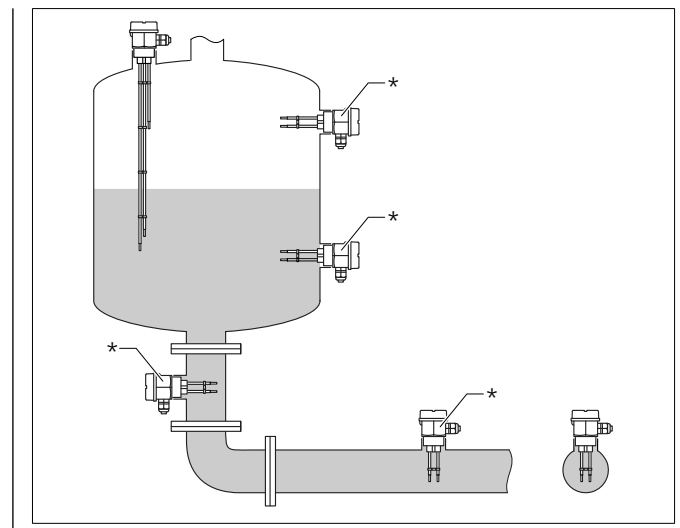
- ▶ Operate the device only if it is in proper technical condition, free from errors and faults.
- ▶ The operator is responsible for trouble-free operation of the device.

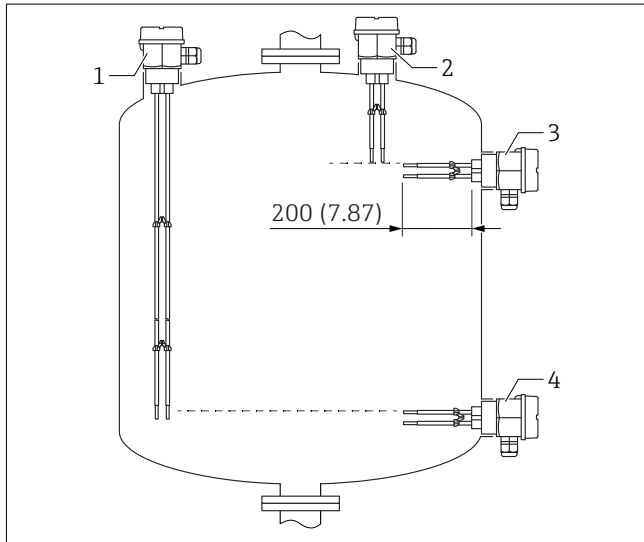


For WHG applications, see the associated WHG documents.

### 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.





1 Positions of the rod probes in the tank

- 1 Vertical installation, MIN detection; probe length adapted to the point level; the rods must not touch the container!
- 2 Vertical installation, MAX detection; probe length adapted to the point level
- 3 Lateral installation, MAX detection, maximum probe length 200 mm (7,87 in) (applies only to two-rod probes).
- 4 Lateral installation, MIN detection, maximum probe length 200 mm (7,87 in) (applies only to two-rod probes).

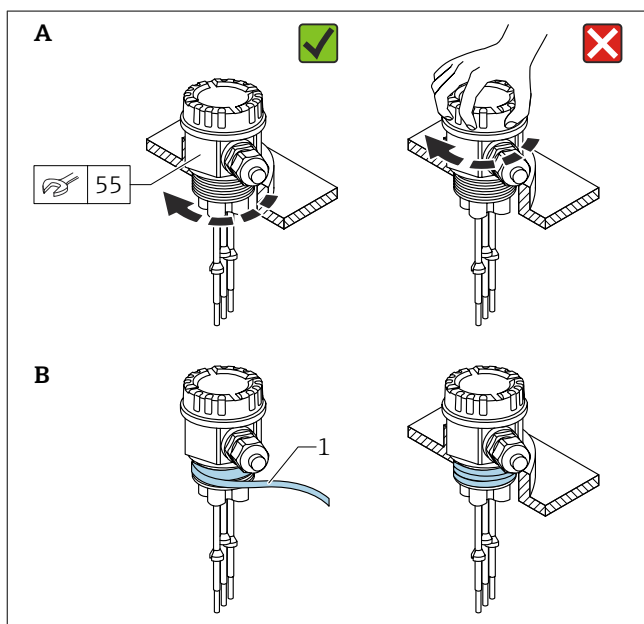


**Vertical installation:**

If the sensor is not completely covered by the medium or if there are air bubbles on the sensor, this may interfere with the measurement.

**Mounting the device**

- Tighten by the hexagonal nut only
- Torque for G 1½ thread: 80 to 100 Nm (59 to 73 lbf ft)
- Torque for NPT 1½ thread: 40 to 80 Nm (30 to 59 lbf ft)



2 Tightening the device

- 1 PTFE tape
- A G 1½ version
- B NPT 1½ version

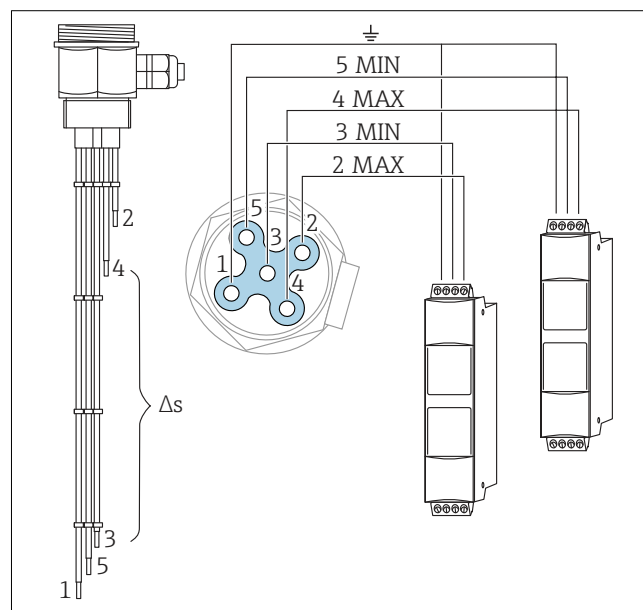
**Electrical connection**

**i** An easily accessible power switch must be provided in the proximity of the device in the building installation. The power switch must be marked as a disconnector for the device.

**i** Comply with national standards and regulations!

The device can be connected to an evaluation unit either directly or via an electronic insert. Connection via electronic insert, see additional documentation.

*Direct connection*



3 Sample connection of a five-rod probe to two evaluation units

$\Delta s$  Two-point control/point level detection

*Connection via an electronic insert*

**i** See additional documentation on the Endress+Hauser website: [www.endress.com](http://www.endress.com) → Downloads.

**Ensuring the degree of protection**

Testing according to IEC 60529 and NEMA 250  
IP66 NEMA4X

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