# **Brief Operating Instructions**

Free space radar

These Brief Operating Instructions are not a substitute for the Operating Instructions pertaining to the device.

Detailed information is provided in the Operating Instructions and other documentation.

Available for all device versions via:

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

## **Basic safety instructions**

## Requirements for the personnel

Personnel must meet the following requirements to perform their tasks:

- Trained specialists must have a qualification that is relevant to the specific function and task.
- Must be authorized by the plant owner/operator.
- Must be familiar with national regulations.
- Must have read and understood the instructions in the manual and supplementary documentation.
- They must follow instructions and comply with general policies.

#### Intended use

The Micropilot FWR30 is a battery-operated level sensor with cellular radio transmission.

## Application:

Independent radar sensor for remote monitoring of levels.

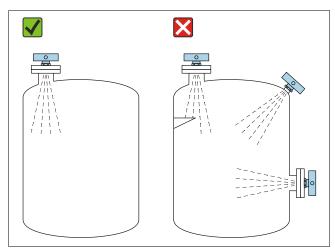
#### Operational safety

Risk of injury!

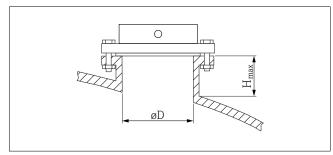
- Operate the device only if it is in proper technical condition, free from errors and faults.
- The operator is responsible for the trouble-free operation of the device.

# Mounting

- Mount the measuring device in a horizontal position so that it is parallel to the tank ceiling
  - Otherwise, undesired reflections from the surroundings can cause interference signals
- The radar antenna should never be covered by metal objects
- Do not mount any objects which may cause interference, such as tank internal fittings, grids or agitators, below or in the direct vicinity of the radar



Mounting on metal vessels and silos with threaded adapter



Maximum nozzle height and distance to wall

Diameter D [mm]	H <sub>max</sub> [mm]	Measuring distance [mm]	Radiation width <sup>1)</sup> [mm]
40	230	500	70
50	300	1000	140
80	520	2000	280
100	660	5000	699
150	1020	10000	1399

1) The beam angle is 8°.



For additional types of mounting, see the Operating Instructions.



# **Electrical connection**

Replaceable battery, standard size, lithium (D), 3.6 V, 19 Ah (included in the delivery)

Designation as per IEC: ER34615 (primary battery lithium thionyl chloride); product recommendation: Tadiran SL-2880 (Europe), Tadiran TL-4930 (outside of Europe)



The measuring device determines the battery charge state automatically. The LED flashes red every 10 seconds if the battery charge state is low or critical



Battery status is indicated as full, medium, low, critical.



In addition to the recommended battery types Tadiran SL-2880 (Europe), Tadiran TL-4930 (outside Europe), it is also possible to use the battery type Tadiran SL-2870 (Europe) or Tadiran TL-5930 (outside Europe). The indicated battery lives can differ in this case, however.

## **▲** CAUTION

## Risk of fire or burns if the device battery is handled incorrectly!

- Do not charge or open the battery, expose it to fire or heat it above 100 °C (212 °F).
- Only replace the battery with a ER34615 battery (lithium thionyl chloride primary battery, size D). The use of any other battery can present a fire or explosion hazard.
- Dispose of the used battery immediately as per national regulations.
- Keep used batteries out of the reach of children. Do not open used batteries or expose them to fire.

### Replacement battery

For use in North America: The replacement battery must have CSA/UL approval.

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