Radar measurement
Time-of-Flight
Micropilot FMR20

Level measurement in liquids for water & wastewater and utilities in all industries

Benefits:
- Non-contact radar with commissioning via HART or wireless via Bluetooth® app or with remote display
- Most compact radar due to unique radar chip design offering perfect fit in limited space applications
- Best price-performance-ratio radar
- Perfect application fit for water & wastewater and utilities in all industries (IP66, 68 / NEMA4x, 6P)
- Full PVDF body to resist outdoor conditions, sealed wiring and fully potted electronics eliminates water ingress and allows operation under harsh environmental conditions
- Easy setup with three main parameters suits for most applications
- Simple, safe and secure wireless remote access via Bluetooth® – even in hazardous areas or places difficult to reach

Specs at a glance
- Accuracy +/- 2 mm (0,08")
- Process temperature -40...+80°C (-40...+176°F)
- Process pressure absolute / max. overpressure limit -1...3 bar (-14,5...43 psi)
- Max. measurement distance DN40: 15 m (49.2 ft), DN80: 20 m (65.6 ft)
- Main wetted parts PVDF, PBT

Field of application: Micropilot FMR20 offers continuous non-contact level and flow (via linearization table) measurement and is a perfect application fit for the water & wastewater industry and utilities across all industries. Commissioning is possible via HART or wireless via app using
Bluetooth® or with remote display. Signal curves can be shown via app on every Bluetooth®-enabled smartphone/tablet (iOS, Android). With the compact design, thanks to unique chip, the device is ideal for limited space applications.

## Features and specifications

### Continuous / Liquids

**Measuring principle**
Level radar

**Characteristic / Application**
- Water & Wastewater (e.g. basins / channels / rivers / dams / lift stations / storm water basins / pump control)
- Utility applications in all industries
- Storage tanks

**Specialties**
Bluetooth® commissioning,

**Operation and maintenance**
SmartBlue App

**Supply / Communication**
2-wire (HART, 4...20 mA, Modbus),

Bluetooth® wireless technology and App (optional)

**Frequency**
K-band (~26 GHz)

**Accuracy**
+/- 2 mm (0,08")

**Process temperature**
-40...+80°C (-40...+176°F)

**Process pressure absolute / max. overpressure limit**
-1...3 bar (-14,5...43 psi)
Continuous / Liquids

**Main wetted parts**
PVDF, PBT

**Process connection**
Thread:

G1", NPT1", G1 1/2", NPT1 1/2", G2", NPT2"

Flange:

UNI DN80….DN150 (3"...6")

**Max. measurement distance**
DN40: 15 m (49.2 ft),
DN80: 20 m (65.6 ft)

**Communication**
4...20mA HART

Modbus

Bluetooth® wireless technology

**Certificates / Approvals**
ATEX, CSA C/US, IEC Ex, NEPSI, EAC, JPN Ex, INMETRO

**Options**
Remote operation via SmartBlue App using Bluetooth®,

Remote HART indicator RIA15 in order structure,

Flooding protection tube,

Different mounting possibilities
Continuous / Liquids

Application limits
FMR5x;

Ammoniacal gas phase:
FMR54 in stilling well;

Strong build-up formation:
FMR54 with air purge;
Only PTFE resistant:
FMR52;

Custody transfer measurement:
FMR5xx or NMR8x

More information www.endress.com/FMR20