

# Micropilot FMR60B – 80 GHz radar sensor

## More simplicity for your application



More information and current pricing:

[www.endress.com/FMR60B](http://www.endress.com/FMR60B)

### Benefits:

- Easy handling through intuitive operation and wizards, for commissioning and verification
- Easier troubleshooting through recommended actions shown on the display
- Reduction of systematic errors through guided SIL-locking, verification and proof testing
- Safety by design: Device development according to IEC 61508
- Increased productivity thanks to process monitoring, verification and diagnostics in the running process with Heartbeat Technology

### Specs at a glance

- **Accuracy** +/-1 mm (0.04 in)
- **Process temperature** -40 ... +200 °C (-40 ... +392 °F)
- **Process pressure / max. overpressure limit** Vacuum...20 bar (290 psi)
- **Max. measurement distance** 50 m (164 ft)
- **Main wetted parts** PVDF, PTFE or PEEK

**Field of application:** Micropilot FMR60B is part of the new generation of 80 GHz radar sensors. It is used for continuous non-contact level measurement in simple liquid applications with small process connections. Wizards guide users through commissioning, proof tests and verification of the devices and thus guarantee a simple operation. Heartbeat Technology offers verification and monitoring functions to identify anomalies for more safety and increased productivity.

### Features and specifications

## Continuous / Liquids

### Measuring principle

Level radar

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### Characteristic / Application

For simple continuous non-contact level measurements in liquids, pastes, and slurries; Not influenced by changing media,  
temperature differences, gas phases or steam;  
For vessels with many internals

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### Specialities

Heartbeat Technology;  
SIL 2 according to IEC 61508;  
Bluetooth® commissioning;  
Operation and maintenance with SmartBlue App;  
HistoROM;  
RFID TAG for easy identification

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### Supply / Communication

2-wire (HART/ PROFIBUS PA)  
PROFINET with Ethernet-APL  
Bluetooth® wireless technology

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### Frequency

W-Band (~80 GHz)

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### Accuracy

+/-1 mm (0.04 in)

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### Ambient temperature

-40 ... +85 °C (-40 ... +185 °F)

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### Process temperature

-40 ... +200 °C (-40 ... +392 °F)

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### Process pressure / max. overpressure limit

Vacuum...20 bar (290 psi)

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## Continuous / Liquids

**Main wetted parts**

PVDF, PTFE or PEEK

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**Process connection**

Thread: G3/4" and 1-1/2", MNPT 3/4" and 1-1/2";

Flange: UNI DN80...DN150;

Mounting bracket

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**Max. measurement distance**

50 m (164 ft)

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**Communication**

HART/ PROFIBUS PA

PROFINET with Ethernet-APL

Bluetooth® wireless

technology and app (optional)

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**Certificates / Approvals**

IEC Ex, ATEX, CSA C/US, EAC Ex, JPN Ex, KC Ex,

INMETRO Ex, NEPSI Ex, UK Ex

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**Safety approvals**

Overfill protection WHG;

SIL 2

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**Design approvals**

Acceptance test certificate 3.1, EN10204;

EU Food Contact Material (EC) 1935/2004;

US Food Contact Material FDA CFR 21;

Declaration of Conformity ASME B31.3;

AD2000;

PMI test;

CRN approval

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**Marine approval**

KR, ABS, LR, BV, RINA, DNV GL

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## Continuous / Liquids

### Options

Display,  
Customized settings,  
App 'SmartBlue' for commissioning  
and operation via Bluetooth  
Gas-tight implementation;  
Overvoltage protection;  
PWIS free

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### Application limits

Process temp.  $< -40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) or  $> 200^{\circ}\text{C}$  ( $392^{\circ}\text{F}$ ) -> FMR62B  
Very aggressive media -> FMR62B  
Turbulences, stilling well and bypass -> FMR62B  
Strong foam and interfaces --> FMP5x

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More information [www.endress.com/FMR60B](http://www.endress.com/FMR60B)