

# Micropilot FMR62B – 80 GHz radar sensor

## Smart Safety for your process



More information and current pricing:

[www.endress.com/FMR62B](http://www.endress.com/FMR62B)

### Benefits:

- Increased productivity thanks to process monitoring, verification, and diagnostics in the running process with Heartbeat Technology
- Safety by design: Device development according to IEC 61508 for SIL 2 and SIL 3 applications (e.g. in homogeneous redundancy)
- Reduction of systematic errors through guided SIL-locking, verification and proof testing
- Easy handling through intuitive operation and wizards, for commissioning and verifications
- Easier troubleshooting through recommended actions shown on the display

### Specs at a glance

- **Accuracy** +/-1 mm (0.04 in)
- **Process temperature** -196 ... +450 °C (-321 ... +842 °F)
- **Process pressure / max. overpressure limit** Vacuum...160 bar (2320 psi)
- **Max. measurement distance** 80 m (262 ft)
- **Main wetted parts** 316L or PTFE (clad 316L flanges)

**Field of application:** Micropilot FMR62B is part of the new generation of 80 GHz radar sensors. It is used for continuous non-contact level measurement in challenging liquid applications. It masters process requirements like high temperatures, high process pressure as well as changing media. Testing concepts for SIL-locking and proof tests reduces the risk of systematic errors. Heartbeat Technology offers verification and monitoring functions to identify anomalies for increased safety and productivity.

### Features and specifications

## Continuous / Liquids

### Measuring principle

Level radar

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### Characteristic / Application

Premium device for continuous non-contact level measurements, where aggressive media are used; For vessels with many internals

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### Specialities

Heartbeat Technology;  
SIL 2/3 according to IEC 61508;  
Bluetooth® commissioning;  
Operation and maintenance with SmartBlue App;  
HistoROM;  
RFID TAG for easy identification;  
Very narrow beam angle

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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

-196 ... +450 °C (-321 ... +842 °F)

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### Process pressure / max. overpressure limit

Vacuum...160 bar (2320 psi)

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### Main wetted parts

316L or PTFE (clad 316L flanges)

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## Continuous / Liquids

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### Process connection

Flange:  
DN50 ... DN150  
ASME 2" ... 8"

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### Max. measurement distance

80 m (262 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/ SIL 3

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## Continuous / Liquids

### Design approvals

Acceptance test certificate 3.1, EN10204;  
NACE MR0175 / ISO 15156;  
NACE MR0103 / ISO 17945;  
EU Food Contact Material (EC) 1935/2004;  
US Food Contact Material FDA CFR 21;  
Declaration of Conformity ASME B31.3;  
Conformity to cGMP;  
AD2000;  
PMI test;  
CRN approval;  
Helium leak test;  
Liquid penetrant test AD2000-HP5-3(PT);  
Liquid penetrant testing ISO23277-1 (PT);  
Liquid penetrant testing ASME VIII-1 (PT);  
Welding documentation (according to ISO or ASME)

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### Marine approval

ABS, LR, BV, RINA, DNV

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### 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

Strong turbulences and foam,  
long stilling wells (>12 m) and bypass -> FMR5x,FMP5x

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