

Micropilot FMR62B – 80 GHz radar sensor

Smart Safety for your process



More information and current pricing:

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

Characteristic / Application

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

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

Supply / Communication

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

Frequency

W-Band (~80 GHz)

Accuracy

+/-1 mm (0.04 in)

Ambient temperature

-40 ... +85 °C (-40 ... +185 °F)

Process temperature

-196 ... +450 °C (-321 ... +842 °F)

Process pressure / max. overpressure limit

Vacuum...160 bar (2320 psi)

Main wetted parts

316L or PTFE (clad 316L flanges)

Continuous / Liquids

Process connection

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

Max. measurement distance

80 m (262 ft)

Communication

4...20 mA HART
Additional analog or switch output
PROFIBUS PA
PROFINET with Ethernet-APL
Bluetooth® wireless
technology and app (optional)

Certificates / Approvals

IEC Ex, ATEX, CSA C/US, EAC Ex, JPN Ex, KC Ex,
INMETRO Ex, NEPSI Ex, UK Ex

Safety approvals

Overfill protection WHG;
SIL 2/ SIL 3

Continuous / Liquids

Design approvals

Acceptance test certificate 3.1, EN10204;
NACE MR0175 / ISO 15156;
NACE MR0103 / ISO 17945;
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)

Hygienic approvals

EU Food Contact Material (EC) 1935/2004;
US Food Contact Material FDA CFR 21

Marine approval

ABS, LR, BV, RINA, DNV

Options

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

Application limits

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

More information www.endress.com/FMR62B