

Micropilot FMR67B – 80 GHz radar sensor

Highest performance for demanding applications



More information and current pricing:

www.endress.com/FMR67B

Benefits:

- Easy handling through intuitive operation and wizards, for commissioning and verification
- 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
- Simple device integration into asset management systems through digital communication
- Highly reliable measurement thanks to narrow beam angle and intelligent evaluation even in vessels with interfering installations

Specs at a glance

- **Accuracy** +/- 3 mm (0.12 in)
- **Process temperature** -40 ... +450 °C (-40 ... +842 °F)
- **Process pressure / max. overpressure limit** Vacuum...160 bar (2320 psi)
- **Max. measurement distance** 125 m (410 ft)
- **Main wetted parts** Horn antenna: 316L / 1.4404, Al2O3 (ceramic), graphite Flush / Drip-off antenna: PTFE

Field of application: Micropilot FMR67B is part of the new generation of 80 GHz radar sensors. It is suitable for continuous non-contact level measurement in demanding solid applications – even with extreme process temperatures. Wizards guide users through commissioning, proof tests and verification of the devices and thus guarantee a simple operation. The narrow beam angle is suitable for measurements in narrow silos. Heartbeat Technology identifies anomalies for increased safety and productivity.

Features and specifications

Continuous / Solids

Measuring principle

Level radar solid

Characteristic / Application

Reliable, non-contact level measurement for high silos, bunkers or stockpiles, especially with many installations, long measuring ranges and heavy buildup

Specialities

Heartbeat Verification + Monitoring, 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, Purge air connection, Alignment device

Supply / Communication

2-wire (HART/ PROFIBUS PA)

PROFINET with Ethernet-APL

Bluetooth® wireless technology

Frequency

W-Band (~80 GHz)

Antenna

2" / 50mm drip-off, PTFE

3" / 80mm flush, PTFE

2.6" / 65mm horn antenna, 316L

Accuracy

+/- 3 mm (0.12 in)

Ambient temperature

-40 ... +85 °C (-40 ... +185 °F)

Process temperature

-40 ... +450 °C (-40 ... +842 °F)

Continuous / Solids**Process pressure / max. overpressure limit**

Vacuum...160 bar (2320 psi)

Main wetted parts

Horn antenna: 316L / 1.4404, Al₂O₃ (ceramic),
graphite Flush / Drip-off antenna: PTFE

Process connection

Flange:
Standard or UNI DN80...DN250

Max. measurement distance

125 m (410 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

SIL2, SIL3

Design approvals

Acceptance test certificate 3.1, EN10204;
NACE MR0175 / ISO 15156;
Declaration of Conformity ASME B31.3;
CRN approval

Hygienic approvals

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

Continuous / Solids

Marine approval

ABS, LR, BV, RINA, DNV

Options

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

More information www.endress.com/FMR67B