

# Micropilot FMR66B – 80 GHz radar sensor

## Highest performance in every application



More information and current pricing:

[www.endress.com/FMR66B](http://www.endress.com/FMR66B)

### Benefits:

- Easy handling through intuitive operation and wizards, for commissioning and verification
- Easier troubleshooting thanks to recommended actions in the display
- Safety by Design: Device development according to IEC 61508
- Increased productivity because of process monitoring, verification and diagnostics during operation with Heartbeat Technology
- Easy device integration into asset management systems through digital communication

### Specs at a glance

- **Accuracy** +/- 3 mm (0.12 in)
- **Process temperature** -40 ... +130 °C (-40 ... +266 °F)
- **Process pressure / max. overpressure limit** Vacuum...16 bar (232 psi)
- **Max. measurement distance** 50 m (164 ft)
- **Main wetted parts** PVDF or PTFE

**Field of application:** The Micropilot FMR66B belongs to the new generation of 80 GHz radar sensors. It is suitable for continuous, non-contact level measurement in simple solid applications. Wizards guide through commissioning, retesting and verification of the instrument and guarantee easy handling. The small beam angle is perfect for measurements in narrow silos. Heartbeat Technology detects unwanted anomalies, such as buildup, for increased productivity.

### Features and specifications

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**Continuous / Solids****Measuring principle**

Level radar solid

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**Characteristic / Application**

For simple applications:

Reliable, non-contact measurement of levels  
in silos or storage tanks for bulk solids

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**Specialities**

Heartbeat Verification + Monitoring, 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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**Antenna**

1-1/2" / 40mm encapsulated, PVDF  
2" / 50mm Drip-off, PTFE

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**Accuracy**

+/- 3 mm (0.12 in)

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**Ambient temperature**

-40 ... +85 °C (-40 ... +185 °F)

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**Process temperature**

-40 ... +130 °C (-40 ... +266 °F)

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**Process pressure / max. overpressure limit**

Vacuum...16 bar (232 psi)

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**Continuous / Solids****Main wetted parts**PVDF or PTFE

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**Process connection**

Thread:

G1-1/2", MNPT1-1/2"

Flange:

UNI DN80...DN150

Mounting bracket

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**Max. measurement distance**50 m (164 ft)

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**Communication**

4...20 mA HART

Additional analog or switch output

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**SIL

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**Design approvals**

Declaration of Conformity ASME B31.3;

CRN approval

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**Hygienic approvals**

EU Food Contact Material (EC) 1935/2004

US Food Contact Material FDA CFR 21

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**Marine approval**ABS, LR, BV, RINA, DNV

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## Continuous / Solids

### Options

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

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### Application limits

DK < 1.6

Reduction of the max. possible measuring range due to:  
Media with poor reflective properties cone of repose  
extremely loose surface of bulk solids, e.g. bulk solids with a  
low bulk density during pneumatic filling buildup, especially of  
moist products.

Alternative for these applications: FMR67B

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