Micropilot FMR67B – 80 GHz radar sensor

Highest performance for demanding applications

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

<table>
<thead>
<tr>
<th><strong>Process pressure / max. overpressure limit</strong></th>
<th>Vacuum...160 bar (2320 psi)</th>
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</thead>
<tbody>
<tr>
<td><strong>Main wetted parts</strong></td>
<td>Horn antenna: 316L / 1.4404, Al2O3 (ceramic), graphite Flush / Drip-off antenna: PTFE</td>
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<tr>
<td><strong>Process connection</strong></td>
<td>Flange: Standard or UNI DN80...DN250</td>
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<tr>
<td><strong>Max. measurement distance</strong></td>
<td>125 m (410 ft)</td>
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<tr>
<td><strong>Communication</strong></td>
<td>HART/ PROFIBUS PA, PROFINET with Ethernet-APL, Bluetooth® wireless technology and app (optional)</td>
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<td><strong>Certificates / Approvals</strong></td>
<td>IEC Ex, ATEX, CSA C/US, EAC Ex, JPN Ex, KC Ex, INMETRO Ex, NEPSI Ex, UK Ex</td>
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<td><strong>Safety approvals</strong></td>
<td>SIL2, SIL3</td>
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<td><strong>Design approvals</strong></td>
<td>Acceptance test certificate 3.1, EN10204; NACE MR0175 / ISO 15156; EU Food Contact Material (EC) 1935/2004; US Food Contact Material FDA CFR 21; Declaration of Conformity ASME B31.3; CRN approval</td>
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<td><strong>Marine approval</strong></td>
<td>ABS, LR, BV, RINA, DNV</td>
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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

More information www.endress.com/FMR67B