Micropilot FMR63B – 80 GHz radar sensor

More simplicity with the specialist for hygienic applications

Benefits:
- Fulfils highest compliance requirements of the industry
- Easy handling through intuitive operation and wizards, for commissioning and verification
- Increased productivity thanks to process monitoring, verification also of the radar’s accuracy and diagnostics in the running process with Heartbeat Technology
- Simple Display of device status – A change in the backlighting from green to red highlights errors immediately
- Simple device integration into asset management systems through digital communication

Specs at a glance
- **Accuracy** +/-1 mm (0.04 in)
- **Process temperature** -40 °C ... +200 °C (-40 °F ... +392 °F)
- **Process pressure / max. overpressure limit** Vacuum...25 bar (363 psi)
- **Max. measurement distance** 80 m (262 ft)
- **Main wetted parts** PEEK or PTFE

Field of application: Micropilot FMR63B is part of the new generation of 80 GHz radar sensors. Thanks to its complete hygienic design it is suitable for continuous non-contact level measurement in hygienic applications. Wizards guide users through commissioning, proof tests and verification of the devices and thus guarantee a simple operation. Heartbeat Technology offers verification and monitoring functions to identify anomalies or checking the measurement accuracy.

Features and specifications
**Continuous / Liquids**

<table>
<thead>
<tr>
<th><strong>Measuring principle</strong></th>
<th>Level radar</th>
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</thead>
<tbody>
<tr>
<td><strong>Characteristic / Application</strong></td>
<td>Premium device for continuous non-contact level measurement with hygienic requirements (ASME BPE, USP Class VI);</td>
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<tr>
<td><strong>Specialities</strong></td>
<td>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</td>
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<tr>
<td><strong>Supply / Communication</strong></td>
<td>2-wire (HART/ PROFIBUS PA) PROFINET with Ethernet-APL Bluetooth® wireless technology</td>
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<tr>
<td><strong>Frequency</strong></td>
<td>W-Band (~80 GHz)</td>
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<tr>
<td><strong>Accuracy</strong></td>
<td>+/-1 mm (0.04 in)</td>
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<tr>
<td><strong>Ambient temperature</strong></td>
<td>-40 °C ... +85 °C (-40 °F ... +185 °F)</td>
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<tr>
<td><strong>Process temperature</strong></td>
<td>-40 °C ... +200 °C (-40 °F ... +392 °F)</td>
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</table>
## Continuous / Liquids

### Process connection
- **Thread**: M24

### Process connection hygienic
- NEUMO BioControl;
- Slotted-nut DIN11851;
- Varivent;
- Tri-Clamp ISO2852

### Max. measurement distance
- 80 m (262 ft)

### Communication
- HART/ 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;
- KTW drinking water approval W270;
- NSF/ANSI 61 drinking water approval;
- SIL 2 / SIL 3

### Design approvals
- Acceptance test certificate 3.1, EN10204;
- EU Food Contact Material (EC) 1935/2004;
- US Food Contact Material FDA CFR 21;
- Declaration of Conformity ASME B31.3;
- Conformity to cGMP;
- CoC ASME BPE;
- CRN approval
Continuous / Liquids

**Hygienic approvals**

3-A;  
EHEDG;  
CoC-ASME BPE

**Options**

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

**Application limits**

Process temp. > 200°C (392°F) -> FMR62  
Strong foam, stilling well and bypass (>10 m) -> FMR5x,FMP5x

More information [www.us.endress.com/FMR63B](http://www.us.endress.com/FMR63B)