Micropilot FMR62B – 80 GHz radar sensor

Smart Safety for your process

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**
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;
SIL 2 / SIL 3
Continuous / Liquids

**Design approvals**
- Acceptance test certificate 3.1, EN10204;
- NACE MR0175 / ISO 15156;
- NACE MR0103 / ISO 17945;
- EU Food Contact Material (EC) 1935/2004;
- US Food Contact Material FDA CFR 21;
- 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)

**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