



**[DEMO] ENDRESS + HAUSER | 80GHZ RADAR
MEASUREMENT MICROPILOT FMR60**

\$2,800.00 – \$3,880.00

**THE STANDARD SENSOR FOR HIGHEST DEMANDS IN LIQUID
LEVEL MEASUREMENT WITH 80GHZ TECHNOLOGY**

Micropilot FMR60 is the first 80GHz radar developed according to the international functional safety directive IEC 61508. The free space radar offers maximum reliability due to the drip-off antenna, improved algorithms and small beam angle. It is used for continuous non-contact level measurement of liquids, pastes and slurries. The measurement is not affected by changing media, temperature changes, gas blankets or vapors. It also possesses the smart sensor functionality Heartbeat Technology.



SKU: N/A

Categories: [Level Measurement](#), [Process Instrumentation](#), [Radar Level Measurement](#)

Tags: [80GHz](#), [E+H](#), [Endress Hauser](#), [FMR60](#), [Level](#), [Level Transmitter](#), [Micropilot FMR60](#), [Process Instrumentation](#), [Radar](#), [Radar Level Transmitter](#)



MICROPILOT FMR60

Application

- Continuous, non-contact level measurement of liquids, pastes and sludges
- PTFE drip-off antenna
- Maximum measuring range: 50 m (164 ft)
- Temperature: -40 to +130 °C (-40 to +266 °F)
- Pressure: -1 to +16 bar (-14.5 to +232 psi)
- Accuracy: ± 1 mm (0.04 in)
- International explosion protection certificates; WHG
- Linearity protocol (3-point, 5-point)



Your benefits

- Innovative drip-off antenna made of PTFE for maximum system availability
- Reliable measurement thanks to improved focusing and small beam angle, particularly in vessels with many internal fittings
- Safety by design - ensures highest safety
- Easy, guided commissioning with intuitive user interface in local language
- Reliable measurement even in variable product and process conditions
- Maximum reliability thanks to multi-echo tracking
- HistoROM configuration memory makes for easier commissioning, maintenance and diagnostics
- SIL2 as per IEC 61508, SIL3 for homogeneous or diverse redundancy, 3rd party approved
- Easy proof testing for SIL and WHG
- Seamless integration in process control and asset management systems
- RFID TAG - easy identification of measuring points for improved data access
- Heartbeat Technology

<https://youtu.be/QV3XVMGcxR0>

THE MICROPILOT FMR 6X FAMILY



ADDITIONAL INFORMATION

Process Connections	Thread ISO228 G1-1/2, 316L, Thread ANSI MNPT1-1/2, 316L, UNI flange 3"/DN80/80, PP, UNI flange 4"/DN100/100, PP, UNI flange 6"/DN150/150, PP, UNI flange 3"/DN80/80, 316L, UNI flange 4"/DN100/100, 316L, UNI flange 6"/DN150/150, 316L
Electrical Connection	Thread NPT1/2, Gland M20, Thread M20, Thread G1/2
Display Operation	SD02 PB, SD03 PB+illum., Prepared for display FHX50
Housing Material	Alu, coated, Plastic PBT
Seal	FKM Viton GLT, EPDM
Power Supply; Output	2-wire; 4-20mA HART, 2-wire; 4-20mA HART, switch output
Approval	ATEX, NEPSI, JPN, Non-hazardous area
Characteristic / Application	For basic level measurement in liquids, pastes and slurries; non affected by changing media, temperature changes, gas blankets or vapor; For applications with many obstacles due to the very small beam angle.
Specialities	• Heartbeat Technology, • SIL 2/3 according to IEC 61508, • Bluetooth® commissioning, • Operation and maintenance SmartBlue App, Safety and reliability with Multi-Echo Tracking • HistoROM
Supply / Communication	2-wire (HART) Bluetooth® wireless technology and App (optional)
Frequency	W-band (~80 GHz)
Accuracy	+/- 1 mm (0.04 in)
Ambient Temperature	-40...+80 °C (-40...+176 °F)
Process Temperature	-40...+130 °C (-40...+266 °F)
Process Pressure Absolute / Max. Overpressure Limit	Vacuum ...16 bar (Vacuum ... 232 psi)
Main Wetted Parts	PTFE antenna PP or 316L process connections
Antenna	Drip-off, PTFE 50mm/2"
Process Connection	Thread: G1-1/2", MNPT1-1/2"; Flange: UNI DN80...DN150 (3"...6")
Display Operations	C : SD02 4-line, push buttons + data backup function, E: SD03 4-line, illum., touch control + data backup function, L: Prepared for display FHX50 + M12 connection
Max. Measurement Distance	50 m (164 ft)
Communication	4...20 mA HART, Additional switch, Bluetooth® wireless technology
Certificates / Approvals	ATEX, FM, CSA C/US, IEC Ex, INMETRO, NEPSI, EAC
Seals	FKM Viton GLT, -40...130oC/-40...266oF, EPDM, -40...130oC/-40...266oF
Housing Materials	C: GT20 dual compartment, Alu, coated, A: GT19 dual compartment, plastic PBT
Approvals	AA: Non-hazardous area, BB: ATEX II 1/2G Ex ia IIC T6 Ga/Gb, BA: ATEX II 1G Ex ia IIC T6 Ga
Safety Approvals	Overfill protection WHG SIL 2, SIL 3
Design Approvals	EN 10204-3.1
Options	• Display, • Customized parameterization, • Remote operation via SmartBlue App using Bluetooth®, • Gas-tight feed through, • PWIS free
Application limits	• Process temp. > 130 °C (266 °F) -> FMR62 • Very aggressive media -> FMR62 • Strong turbulences and foam, stilling well and bypass -> FMR5x, FMP5x
Country of Origin	Germany