

# Micropilot M FMR231



More information and current pricing:

[www.casc.endress.com/FMR231](http://www.casc.endress.com/FMR231)

## Benefits:

- Non-contact measurement: Measurement is almost independent from product properties
- 2-wire technology, low price: A real alternative to differential pressure, floats and displacers.  
2-wire technology reduces wiring costs and allows easy implementation into existing systems
- Easy commissioning, documentation and diagnostics via Endress+Hauser operating software
- Easy on-site operation via menu-driven alphanumeric display
- Used for level monitoring (MIN, MAX) up to SIL2 as per IEC 61508/IEC 61511-1
- HART or PROFIBUS PA respectively FOUNDATION Fieldbus protocol
- Option: Gastight feedthrough to improve the process safety

## Specs at a glance

- **Accuracy** +/- 10 mm
- **Process temperature** -40 °C...+150 °C (-40 °F...+302 °F)
- **Process pressure / max. overpressure limit** Vacuum...40 bar (Vacuum...580 psi)
- **Max. measurement distance** Max. measurement distance
- **Main wetted parts** PTFE, PPS + 316L

**Field of application:** Micropilot FMR231 has its strengths wherever high chemical compatibility is required. Rod antenna with inactive length: Reliable measurement in narrow nozzles, with condensation and build-up in the nozzle. The FMR231 is used for continuous, non-contact level measurement of liquids, pastes, slurries and solids. The measurement is not affected by changing media, temperature changes, gas blankets or vapors.

## Features and specifications

## Continuous / Liquids

**Measuring principle**

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**Characteristic / Application**Characteristic / Application

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**Supply / Communication**2-wire (HART / PROFIBUS PA / FOUNDATION  
Fieldbus)

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**Frequency**C-band (~6 GHz)

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**Accuracy**+/- 10 mm

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**Ambient temperature**-40 °C...+80 °C  
(-40 °F...+176 °F)

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**Process temperature**-40 °C...+150 °C  
(-40 °F...+302 °F)

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**Process pressure / max. overpressure limit**Vacuum...40 bar  
(Vacuum...580 psi)

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**Main wetted parts**PTFE, PPS + 316L

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**Process connection**Thread:  
NPT 1 1/2, R 1 1/2  
Flange:  
DN50...DN150,  
ASME 2"...6",  
JIS 10K

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**Continuous / Liquids****Process connection hygienic**

Tri-Clamp ISO2852  
DIN11864-1  
DIN11851

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**Application**

Application

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**Max. measurement distance**

Max. measurement distance

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**Communication**

4...20 mA HART  
PROFIBUS PA  
FOUNDATION Fieldbus

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**Certificates / Approvals**

ATEX, FM, CSA, IECEX, TIIS, NEPSI  
Overfill prevention WHG  
SIL  
EN10204-3.1  
Marine GL/ABS/NK

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**Application limits**

Application limits

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