

Ultrasonic measurement

Time-of-Flight

Prosonic FMU42

Cost effective device for sophisticated level measurement in liquids and bulk solids for up to 10m



More information and current pricing:

www.endress.com/FMU42

Benefits:

- Reliable non-contact measurement
- Quick and simple commissioning via menu-guided on-site operation with four-line plain text display, 7 languages selectable
- Envelope curves on the on-site display for simple diagnosis
- Hermetically sealed and potted sensor
- Chemically resistant sensor out of PVDF
- Calibration without filling or discharging
- Integrated temperature sensor for automatic correction of the temperature dependent sound velocity

Specs at a glance

- **Accuracy** +/- 4 mm or +/- 0,2 % of set measuring range
- **Process temperature** -40 °C ... 80 °C (-40 °F ... 176 °F)
- **Process pressure / max. overpressure limit** 0.7 bar ... 2.5 bar abs (10 psi ... 36 psi)
- **Max. measurement distance** Liquids: 10 m (33 ft), Solids: 5 m (16 ft)
- **Main wetted parts** PVDF

Field of application: The Prosonic FMU42 sensor is suited for non-contact level measurement in fluids, pastes, coarse bulk material and flow measurement in open channels or at weirs. The two-wire or four-wire compact transmitter can be used in applications with storage tanks, agitators, on stockpiles and conveyor belts. The envelope curve can be shown on the on-site display for simple diagnosis. Linearization function

(up to 32 points) for conversion of the measured value into any unit of length, volume or flow rate.

Features and specifications

Continuous / Liquids

Measuring principle

Ultrasonic

Characteristic / Application

Compact ultrasonic transmitter

Supply / Communication

2-wire HART

Accuracy

+/- 4 mm or +/- 0,2 % of set measuring range

Ambient temperature

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(-40 °F ... 176 °F)

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Process pressure / max. overpressure limit

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(10 psi ... 36 psi)

Main wetted parts

PVDF

Process connection

Flange
DN80, ASME 3", JIS 10K 80
DN100, ASME 4", JIS 10K 100
Mounting bracket

Continuous / Liquids**Blocking distance**0.4 m (1.3 ft)

Max. measurement distance

Liquids: 10 m (33 ft),

Solids: 5 m (16 ft)

Communication4...20 mA HART

Certificates / ApprovalsATEX, FM, CSA, INMETRO, NEPSI

Application limits

Foam / high turbulence possible:

FMU44/FDU92

Fast filling and discharging

rate:

FMU90 + FDU9x

Level limit detection

FMU90 + FDU9x

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4...20 mA HART

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Take notice of range diagram

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