

Ultrasonic measurement

Time-of-Flight

Prosonic FMU44

Cost effective device for sophisticated level measurement in liquids and bulk solids for up to 20m



More information and current pricing:

www.endress.com/FMU44

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** +/- 4mm 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: 20 m (66 ft), Solids: 10 m (33 ft)
- **Main wetted parts** PVDF

Field of application: The Prosonic FMU44 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

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

Ambient temperature

-40 °C ... 80 °C
(-40 °F ... 176 °F)

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)

Main wetted parts

PVDF

Process connection

Flange
DN100, ASME 4", JIS 10K 100
DN150, ASME 6", JIS 10K 150
DN200, ASME 8", JIS 10K 200
Mounting bracket

Continuous / Liquids

Blocking distance

0.5 m (1.9 ft)

Max. measurement distance

Liquids: 20 m (66 ft),

Solids: 10 m (33 ft)

Communication

4...20 mA HART

Certificates / Approvals

ATEX, FM, CSA, IEC, INMETRO, NEPSI

Application limits

Fast filling and discharging rate:

FMU90 + FDU9x

Level limit detection:

FMU90 + FDU9x

Continuous / Solids

Measuring principle

Ultrasonic

Characteristic / Application

Compact ultrasonic transmitter

Supply / Communication

2-wire HART

Accuracy

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

Ambient temperature

-40 °C ... 80 °C

(-40 °F ... 176 °F)

Continuous / Solids**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)

Main wetted parts

PVDF

Process connection

Flange
DN100, ASME 4", JIS 10K 100
DN150, ASME 6", JIS 10K 150
DN200, ASME 8", JIS 10K 200
Mounting bracket

Blocking distance

0.5 m (1.9 ft)

Max. measurement distance

Liquids: 20 m (66 ft),
Solids: 10 m (33 ft)

Communication

4...20 mA HART

Certificates / Approvals

ATEX, FM, CSA, IEC, INMETRO, NEPSI

Application limits

Take notice of range diagram

More information www.endress.com/FMU44