

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.casc.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 absolute / max. overpressure limit** 0.7 bar ... 2.5 bar abs (10 psi ... 36 psi)
- **Max. measurement distance** Max. measurement distance
- **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

2/4-wire (HART), PROFIBUS PA, FOUNDATION
Fieldbus

Accuracy

+/- 4 mm 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 absolute / max. overpressure limit

0.7 bar ... 2.5 bar abs
(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)

ApplicationApplication

Max. measurement distanceMax. measurement distance

Communication4 ... 20 mA HART
PROFIBUS PA
FOUNDATION Fieldbus

Certificates / ApprovalsATEX, FM, CSA, INMETRO, NEPSI

Application limitsApplication limits

Continuous / Solids**Measuring principle**Ultrasonic

Characteristic / ApplicationCompact ultrasonic transmitter

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Accuracy+/- 4 mm 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 absolute / max. overpressure limit

0.7 bar ... 2.5 bar abs
(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

Blocking distance

0.4 m (1.3 ft)

Max. measurement distance

5 m (16 ft)

Communication

4 ... 20 mA HART
PROFIBUS PA
FOUNDATION Fieldbus

Certificates / Approvals

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Application limits

Take notice of range diagram

More information www.casc.endress.com/FMU42