Ultrasonic measurement Time-of-Flight Prosonic FMU41

Cost effective device for sophisticated level measurement in liquids and bulk solids for up to 8m

More information and current pricing:
www.ch.endress.com/FMU41

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** +/- 2 mm or +/- 0,2 % of set measuring range 1)
- **Process temperature** -40 °C ... 80 °C (-40 °F ... 176 °F)
- **Process pressure absolute / max. overpressure limit** 0.7 bar ... 3 bar abs (10 psi ... 44 psi)
- **Max. measurement distance** 3.5 m (11 ft)
- **Main wetted parts** PVDF

Field of application: The Prosonic FMU41 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 / Solids

Measuring principle
Ultrasonic

Characteristic / Application
Compact ultrasonic transmitter

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

Accuracy
+/- 2 mm or +/- 0,2 % of set measuring range 1)

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

Process temperature
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(-40 °F ... 176 °F)

Process pressure absolute / max. overpressure limit
0.7 bar ... 3 bar abs
(10 psi ... 44 psi)

Main wetted parts
PVDF

Process connection
G / NPT 2"

Blocking distance
0.35 m (1.15 ft)

Continuous / Solids

Max. measurement distance
3.5 m (11 ft)

Communication
4 ... 20 mA HART
PROFIBUS PA
FOUNDATION Fieldbus

Certificates / Approvals
ATEX, FM, CSA, TIIS, INMETRO, NEPSI

Application limits
Take notice of range diagram

Liquids

Measuring principle
Ultrasonic

Product headline
Compact ultrasonic measuring instrument
Cost effective solution for open channels

Max. measurement error
Low accuracy

Measuring range
Measuring distance 0,4...8m [1.3...26ft]

Max. process pressure
atm.

Medium temperature range
-40°C...80°C
(-40°F...176°F)

Degree of protection
IP68

Liquids

Outputs
4...20mA(Hart),PA,FF

Inputs
2-wire 16-36V DC
4-wire 16-36V DC
90-253V AC 50/60Hz

Digital communication
PROFIBUS PA, FOUNDATION Fieldbus

Hazardous area approvals
ATEX, FM, CSA

Continuous / Liquids

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Application limits
Application limits

More information **www.ch.endress.com/FMU41**

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