

Ultrasonic measurement Time-of-Flight Prosonic FDU93

Ultrasonic sensor for level and flow measurement for connection to FMU9x (measuring range up to 25m)



More information and current pricing:

www.at.endress.com/FDU93

Benefits:

- Integrated temperature sensor for Time-of-Flight correction. Accurate measurements are possible, even if temperature changes are present
- Suited for rough ambient conditions thanks to separate installation from the transmitter (up to 300m)
- Reduced build-up formation because of the self-cleaning effect
- Integrated automatic sensor detection for transmitters FMU90/ FMU95 for simple commissioning
- Weather resistant and flood-proof (IP 68)
- Non-contact measurement method minimizes service requirements
- International Dust-Ex and Gas-Ex certificates available

Specs at a glance

- **Process temperature** -40 °C ... 95 °C (-40 °F ... 203 °F)
- **Process pressure absolute / max. overpressure limit** 0.7 bar ... 3 bar abs (10 psi ... 43 psi)
- **Max. measurement distance** 15 m (50 ft)
- **Accuracy** +/- 2mm + 0.17% of measured distance
- **Main wetted parts** UP (unsaturated polyester) Silicon / Al PTFE coated

Field of application: The FDU93 ultrasonic sensor for continuous, non-contact and maintenance-free level measurement of fluids, pastes, sludges and powdery to coarse bulk materials. But also for flow measurement in open channels and measuring weirs. The measurement is unaffected by dielectric constant, density or humidity and also

unaffected by build-up due to the self-cleaning effect of sensors. Suited for explosion hazardous areas. Maximum measuring range in liquids 25m (85ft), solids 15m (50ft).

Features and specifications

Continuous / Solids

Measuring principle

Ultrasonic

Characteristic / Application

Separated version with field housing or top hat rail housing for control cabinet instrumentation, 300m in-between sensor and transmitter

Supply / Communication

4-wire (HART , Profibus DP)

Accuracy

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(-40 °F ... 203 °F)

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Silicon / Al PTFE coated

Process connection

G / NPT 1"

Continuous / Solids**Blocking distance**0.6 m (2 ft)

Max. measurement distance15 m (50 ft)

Communication

Transmitter:

4 ... 20 mA HART

Profibus DP

Certificates / ApprovalsATEX, FM, CSA, IEC Ex, INMETRO, NEPSI, EAC Ex

OptionsSecond 4...20mA output

Components

Transmitter:

FMU90

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Transmitter:
FMU90, FMU95

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