

Ultrasonic measurement Time-of-Flight Prosonic FMU90

Transmitter in housing for field or top hat rail
mounting for up to 2 sensors
FDU90/91/92/93/95



Benefits:

- Simple, menu-guided operation with 6-line plain text display, 15 languages selectable
- Envelope curves on the display for quick and simple diagnosis
- Easy operation, diagnosis and measuring point documentation with the supplied "FieldCare" operating program
- Time-of-Flight correction via integrated or external temperature sensors
- Linearisation (up to 32 points, freely configurable) for the most common flumes and weirs pre-programmed and selectable
- Online calculation of the flume-/weir-flows via integrated flow curves
- Automatic detection of the sensors FDU9x

More information and current pricing:

www.at.endress.com/FMU90

Specs at a glance

- **Accuracy** +/- 2mm + 0.17% of measured distance

Field of application: Prosonic FMU90 separated version with field housing or top hat rail housing for control cabinet instrumentation are suited for continuous, non-contact level measurement of fluids, pastes, sludge and powdery to coarse bulk solids. Also the flow measurement in open channels and weirs is possible as the simultaneous measurement of level and flow in a storm water overflow basin with only 1 sensor. Up to 6 relays for tendency alarm, flow pulse output or backwater/sludge alarm, 1 or 2 channel version.

Features and specifications

Continuous / Liquids

Measuring principle

Ultrasonic

Characteristic / Application

Separated version with Field housing or top hat rail housing for control cabinet instrumentation, up to 6 relays for pump / rake / limit control, 1 or 2 channel version

Specialities

Protection Class IP 66 / NEMA 4x
automatic sensor recognition of FDU9x sensors
option: flow measurement for open channel and weirs or additional pump control functions

Supply / Communication

90 ... 253 VAC
10.5 ... 32 VDC
up to 2x 4...20mA HART
Profibus DP

Accuracy

+/- 2mm + 0.17% of measured distance

Ambient temperature

-40 °C ... 60 °C
(-40 °F ... 140 °F)

Communication

up to 2x 4 ... 20 mA HART
Profibus DP

Certificates / Approvals

ATEX, CSA

Options

Illuminated display, 6 line graphic display with country specific menu guidance, on-site diagnosis with envelope curve on display

Continuous / Liquids

Components

Sensors FDU9x

Liquids

Measuring principle

Ultrasonic

Product headline

Separated version with field housing or top hat rail housing for control cabinet instrumentation, up to 6 relays for tendency alarm, flow pulse output or backwater / sludge alarm, 1 or 2 channel version

Sensor features

pre-programed flow curves for typical open channel measurement

Degree of protection

IP66 (Fieldhousing)

IP20 (top hat rail housing)

Display/Operation

Illuminated display, 6 line graphic display with country specific menu guidance, on-site diagnosis with envelope curve on display

Outputs

4...20mA HART

Optional:

second 4...20 mA output (e.g. for 2 times flow measurement)

1 relay (standard)

Optional:

3 or 6 relays

Inputs

up to 2 FDU9x sensors

Digital communication

HART, Profibus DP

Liquids**Hazardous area approvals**

FMU allowed to operate FDU9x in Ex-zone

Continuous / Solids**Measuring principle**

Ultrasonic

Characteristic / Application

Separated version with Field housing or top hat rail housing for control cabinet instrumentation, up to 6 relays for limit control, 1 or 2 channel version

Specialities

Protection Class IP 66 / NEMA 4x
automatic sensor recognition of FDU9x sensors

Supply / Communication

90 ... 253 VAC
10.5 ... 32 VDC
up to 2x 4...20mA HART
Profibus DP

Accuracy

+/- 2mm + 0.17% of measured distance

Ambient temperature

-40 °C ... 60 °C
(-4 °F ... 140 °F)

Communication

up to 2x 4 ... 20 mA HART
Profibus DP

Certificates / Approvals

ATEX, CSA

Continuous / Solids

Options

Illuminated display, 6 line graphic display with country specific menu guidance, on-site diagnosis with envelope curve on display

Components

Sensors FDU9x

More information www.at.endress.com/FMU90