

# Ultrasonic measurement Time-of-Flight Prosonic FMU41

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



Thông tin thêm và mức tính giá hiện tại:

[www.apsc.endress.com/FMU41](http://www.apsc.endress.com/FMU41)

## Lợi ích:

- 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

## Tổng quan về thông số kỹ thuật

- **Accuracy** +/- 2 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 ... 3 bar abs (10 psi ... 44 psi)
- **Max. measurement distance** Max. measurement distance
- **Main wetted parts** PVDF

**Phạm vi ứng dụng:** 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.

## Tín năng và thông số kỹ thuật

### 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

#### 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

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**Liquids****Hazardous area approvals**ATEX, FM, CSA

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**Continuous / Liquids****Measuring principle**Ultrasonic

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**Characteristic / Application**Compact ultrasonic transmitter

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

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

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

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**Process temperature**-40 °C ... 80 °C  
(-40 °F ... 176 °F)

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

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**Main wetted parts**PVDF

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**Process connection**G / NPT 2"

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**Blocking distance**0.35 m (1.15 ft)

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**Continuous / Liquids****Application**Application

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**Max. measurement distance**Max. measurement distance

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

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

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**Application limits**Application limits

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**Continuous / Solids****Measuring principle**Ultrasonic

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**Characteristic / Application**Compact ultrasonic transmitter

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

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

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

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**Process temperature**-40 °C ... 80 °C  
(-40 °F ... 176 °F)

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**Continuous / Solids****Process pressure absolute / max. overpressure limit**

0.7 bar ... 3 bar abs  
(10 psi ... 44 psi)

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**Main wetted parts**

PVDF

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**Process connection**

G / NPT 2"

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**Blocking distance**

0.35 m (1.15 ft)

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**Max. measurement distance**

3.5 m (11 ft)

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**Communication**

4 ... 20 mA HART  
PROFIBUS PA  
FOUNDATION Fieldbus

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**Certificates / Approvals**

ATEX, FM, CSA, TIIS, INMETRO, NEPSI

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**Application limits**

Take notice of range diagram

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