Proline Prosonic Flow E 100 ultrasonic flowmeter

Economical Ultrasonic flowmeter with integrated temperature measurement

More information and current pricing:
www.endress.com/9E1B

Benefits:

- Long-term stability – reliable, robust sensor
- Reducing further measuring point – multivariable device
- Dependable flow measurement – high turndown (200:1)
- Time-saving local operation without additional software and hardware – integrated web server
- Extended calibration intervals – integrated device verification due to Heartbeat Technology
- Easy commissioning – brief parameter explanations

Specs at a glance

- **Max. measurement error** Volume flow: - ± 0.5 % o.r. ± 0.02% o.f.s. for 0.5 to 10 m/s (1.6 to 33 ft/s) - ± 0.07 % o.f.s. for flow velocities < 0.5 m/s (1.64 ft/s)
- **Measuring range** 0.025 to 5 m/s (0.02 to 16.4 ft/s) 0 to 6360 dm3/min (0 to 1680 gal/min)
- **Medium temperature range** 0 to 150° (17.8 to 302 °F)
- **Max. process pressure** PN 25 / ASME Cl. 150
- **Wetted materials** Measuring tube: 1.4301 (F304) Process Connection: 1.4571; 1.4404 (F316L); 1.0038 (S235JR); 1,4306 (F304L); 1.4307 (F304L); A105

Field of application: Measuring of demineralized water in utilities, for example in boiler condensate return lines, requires reliable devices. Prosonic Flow E 100 provides economical and accurate bidirectional flow measurement across all industries. With its integrated temperature measurement, Prosonic Flow E 100 proves to be a multivariable flowmeter for considerable additional value in your plant. Heartbeat

Technology ensures measurement reliability and enables extension of recalibration cycles.

Features and specifications

Liquids

Measuring principle

Ultrasonic flow

Product headline

Economical Ultrasonic flowmeter with integrated temperature measurement.
Bidirectional measuring of demineralized water applications for Utilities, e.g. boiler condensate return lines.

Sensor features

Long-term stability – reliable, robust sensor. Reducing further measuring point – multivariable device. Dependable flow measurement – high turndown (200:1).
Measurement accuracy up to ±0.5 % (flow) or according to EN 1434 Cl. 2, ±2.0 °C (± 3.6 °F) (temperature). Process temperatures up to 150 °C (302 °F). Entire meter housing made of stainless steel.

Transmitter features

Time-saving local operation without additional software and hardware – integrated web server. Extended calibration intervals – integrated device verification due to Heartbeat Technology. Easy commissioning – brief parameter explanations.
4-20 mA HART, pulse/frequency output. Local display for reading and monitoring available. Robust transmitter housing.

Nominal diameter range

DN 50 to 150 (2"to 6")

Wetted materials

Measuring tube: 1.4301 (F304)
Process Connection: 1.4571; 1.4404 (F316L); 1.0038 (S235JR); 1,4306 (F304L); 1.4307 (F304L); A105

Liquids

Measured variables
Volume flow, calculated mass flow, flow velocity, sound velocity, temperature

Max. measurement error
Volume flow:
- ± 0.5 % o.r. ± 0.02% o.f.s. for 0.5 to 10 m/s (1.6 to 33 ft/s)
- ± 0.07 % o.f.s. for flow velocities < 0.5 m/s (1.64 ft/s)

Measuring range
0.025 to 5 m/s (0.02 to 16.4 ft/s)
0 to 6360 dm3/min (0 to 1680 gal/min)

Max. process pressure
PN 25 / ASME Cl. 150

Medium temperature range
0 to 150° (17.8 to 302 °F)

Ambient temperature range
-20 to 60 °C (-4 to 140 °F)

Sensor housing material
Stainless steel

Transmitter housing material
Compact:
AlSi10Mg, coated
Stainless steel, 1.4301

Degree of protection
Standard: IP66/67, Type 4X enclosure
With opened housing: IP20, Type 1 enclosure

Display/Operation
4 - line backlit display available (no local operation)
Configuration via web browser and operating tools possible

Liquids

Outputs
4 - 20 mA HART (active)
Pulse/frequency/switch output (passive)

Inputs
None

Power supply
DC 19.2 to 28.8 V

Hazardous area approvals
None

Product safety
CE, C-Tick, EAC marking

Metrological approvals and certificates
Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)
Heartbeat Technology complies with the requirements for measurement traceability according to ISO 9001:2015 – Section 7.1.5.2 a (TÜV SÜD attestation)
Calibration according to EN 1434 Class 2

Pressure approvals and certificates
PED

Material certificates
3.1 material

More information **www.endress.com/9E1B**