

Proline Prosonic Flow I 400 ultrasonic flowmeter

Insertion flowmeter with Heartbeat Technology and web server for the water and wastewater industry



Benefits:

- Low capital investment – cost-effectiveness increases with pipe diameter (up to DN 4000/160")
- Long-term stable signal – maintenance-free direct installation of the sensor into the medium
- Process transparency – diagnostic capability
- Safe operation – no need to open the device due to display with touch control, background lighting
- Full remote access – web server
- Integrated diagnostics, verification and monitoring – Heartbeat Technology

Specs at a glance

- **Max. measurement error** Volume flow: $\pm 2\%$ o.r. above DN200
- **Measuring range** 0 to 15 m/s (0 to 50 ft/s)
- **Medium temperature range** -40 to $+80$ °C (-40 to $+176$ °F)
- **Max. process pressure** N/A
- **Wetted materials** Insertion system: Sensor holder 1.4301 (304), 1.4404 (316L) Sensor housing 1.4301 (304), 1.4404 (316L)

Field of application: Prosonic Flow I 400 combines insertion sensor technology with the benefits of our Proline 400 transmitters, such as Heartbeat Technology for safe process monitoring and web server access for easy installation and operation. Welded directly into the pipe wall, Prosonic Flow I 400 is especially suitable for large pipelines such as water distribution lines and projects where a fixed device installation is necessary.

Features and specifications

Liquids

Measuring principle

Ultrasonic flow

Product headline

Insertion meter with Heartbeat Technology and web server for the water and wastewater industry.

Bidirectional flow measurement of water and wastewater.

Sensor features

Low capital investment – cost-effectiveness increases with pipe diameter (up to DN 2000/80"). Long-term stable signal – maintenance-free permanent mounting from outside with coupling pads. Process transparency – diagnostic capability.

Supports two parallel measurement paths. For large diameters: DN 200 to 4000 (8 to 160"). Medium temperature: -40 to +80 °C (-40 to +176 °F).

Transmitter features

Safe operation – no need to open the device due to display with touch control, background lighting. Full remote access – web server. Integrated diagnostics, verification and monitoring – Heartbeat Technology.

Transmitter housing made of durable polycarbonate or aluminium.

Remote version for wall mounting. Integrated data logger: measured values monitoring.

Nominal diameter range

DN200 to 4000 (8 to 160")

Wetted materials

Insertion system:

Sensor holder 1.4301 (304), 1.4404 (316L)

Sensor housing 1.4301 (304), 1.4404 (316L)

Measured variables

Volume flow, Flow velocity, Sound velocity

Liquids

Max. measurement error

Volume flow: $\pm 2\%$ o.r. above DN200

Measuring range

0 to 15 m/s (0 to 50 ft/s)

Max. process pressure

N/A

Medium temperature range

-40 to +80 °C (-40 to +176 °F)

Ambient temperature range

-20 to 60°C (-4 to 140°F)

Sensor housing material

N/A

Transmitter housing material

Wall-mounted housing:
Polycarbonat; AlSi10Mg, coated

Degree of protection

Transmitter: IP66/67, Type 4X enclosure
Sensor: IP66/67, Type 4X enclosure, IP68, Type 6P enclosure (optional)

Display/Operation

4-line backlit display with touch control (operation from outside)
Configuration via local display, web browser and operating tools possible

Outputs

3 outputs:
4-20 mA/4-20 mA HART (active)
Pulse/frequency/switch output (passive)
Pulse/frequency/switch output (passive)

Inputs

Status input

Liquids

Digital communication

HART

Power supply

AC 100 to 240 V / AC/DC 24 V

Approvals

cCSAus

Other approvals and certificates

Other approvals and certificates

Product safety

CE, C-tick marking, EAC-marking

Metrological approvals and certificates

Flowmeter verification

Verification 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

Marine approvals and certificates

Marine approvals and certificates



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