Proline Prosonic Flow W 400 ultrasonic clamp-on flowmeter

Reliable, flexible, zero maintenance – noninvasive flow measurement, consistently accurate, even in limited spaces

More information and current pricing:
www.endress.com/9W4B

Benefits:

- **Flexible mounting** – FlowDC reduces inlet runs to a minimum
- **Reliable measurement performance** – proven sensors in combination with maintenance-free mounting system deliver long-term stable signals
- **Low capital investment** – cost-effectiveness increases with the pipe diameter (up to DN 4000/160")
- **User-friendly operation** – the web server offers full remote access, while the device's display offers convenient on-site interaction
- **Transparent process insights** – Heartbeat Technology with its integrated diagnostics, verification and monitoring functions enable compliance and process safety at all times

Specs at a glance

- **Max. measurement error** Volume flow: ±3% o.r. for DN15 ±2% o.r. for DN25 to 200 ±2% o.r. above DN200
- **Measuring range** 0 to 15 m/s (0 to 50 ft/s)
- **Medium temperature range** –40 to +130 °C (–40 to +266 °F)
- **Max. process pressure** N/A

Field of application: Prosonic Flow W 400 is the ultrasonic clamp-on flowmeter of choice for safe, cost-effective and maintenance-free measurement of conductive and non-conductive liquids. It measures flow noninvasively and bidirectionally, independent of pressure, density and conductivity, and without process interruption. FlowDC makes mounting as flexible as never before. The specified accuracy is maintained at an inlet run of only 2 x DN, even in the case of disturbed flow profiles.

Features and specifications

Liquids

Measuring principle

Ultrasonic flow

Product headline

Clamp-on meter with Heartbeat Technology and web server for the water and wastewater industry.
Short inlet run thanks to FlowDC.
Bidirectional measurement for water and wastewater as well as process water and hydropower plants.

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. Reliable measurement on various pipe materials – sensor for GRP and plastic pipes available.
Mounting without process interruption. Wide nominal diameter range: DN 15 to 4000 (½ to 160"). Medium temperature up to +130 °C (+266 °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

DN15 to 4000 (1/2 to 160")

Sensor materials

Clamp on system:
Sensor holder 1.4301 (304), 1.4404 (316L)
Sensor housing 1.4301 (304), 1.4404 (316L)
Strapping bands 1.4301 (304), 1.4404 (316L)

Liquids

Measured variables
Volume flow, Flow velocity, Sound velocity

Max. measurement error
Volume flow:
±3% o.r. for DN15
±2% o.r. for DN25 to 200
±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 +130 °C (–40 to +266 °F)

Ambient temperature range
Sensor DN 15 to 65: -40 to 130°C
Sensor DN 50 to 4000: -40 to 130°C

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

Liquids

Outputs
3 ouputs:
4-20 mA/4-20 mA HART (active)
Pulse/frequency/switch output (passive)
Pulse/frequency/switch output (passive)
Modbus RS485

Inputs
Status input

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 for all frequencies except 0.3 MHz, reference line size: 5 MHz DN 50, all other frequencies DN 100
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

More information **www.endress.com/9W4B**