

Proline Prosonic Flow 93W ultrasonic flowmeter

Device with automatic frequency scan for max. measuring performance with a wide range of outputs



More information and current pricing:

www.endress.com/93W

Benefits:

- Low capital investment – cost-effectiveness increases with pipe diameter (up to DN 4000)
- Long-term stable signal - maintenance-free permanent mounting from outside with coupling pads
- Process transparency – diagnostic capability
- Highest performance – extended functionality and diagnostics
- Flexible data transfer options – numerous communication types
- Automatic recovery of data for servicing

Specs at a glance

- **Max. measurement error** Volume flow: $\pm 3\%$ o.r. for DN15 $\pm 2\%$ o.r. for DN25 to 200 $\pm 2\%$ o.r. above DN200
- **Measuring range** 0.3 to 10 m/s (1 to 33 ft/s)
- **Medium temperature range** Clamp-on: -20 to $+80$ °C (-4 to $+176$ °F) Insertion version: -40 to $+80$ °C
- **Max. process pressure** N/A
- **Wetted materials** Clamp on system: Sensor holder 1.4308/CF-8 Sensor housing 1.4301/304 Strapping bands 1.4301/304

Field of application: The Prosonic Flow W clamp-on sensor was specially designed for water and wastewater applications. Combined with the Prosonic Flow 93 transmitter with touch control, four-line display and extended functionality, Prosonic Flow 93W offers high accuracy in standard applications in the water industry.

Features and specifications

Liquids

Measuring principle

Ultrasonic flow

Product headline

Device with automatic frequency scan for max. measuring performance with a wide range of outputs.

Clamp-on flow measurement of process water, salt water, demineralized water, drinking & wastewater.

Sensor features

Low capital investment – cost-effectiveness increases with pipe diameter (up to DN 4000/156"). Long-term stable signal – maintenance-free permanent mounting from outside with coupling pads. Process transparency – diagnostic capability.

Medium temperature: -20 to +80 °C (-4 to +176 °F). Degree of protection IP68 (Type 6P enclosure) for pipes under water. Shock and vibration resistance according to IEC 68-2-6.

Transmitter features

Highest performance – extended functionality and diagnostics. Flexible data transfer options – numerous communication types. Automatic recovery of data for servicing.

Aluminium transmitter housing. 4 - line backlit display with touch control. HART, PROFIBUS PA/DP, FOUNDATION Fieldbus.

Nominal diameter range

Single channel, 1 or 2 paths : DN15 to 4000 (1/2 to 160")

Dual channel, 1 or 2 paths : DN15 to 4000 (1/2 to 160")

Wetted materials

Clamp on system:

Sensor holder 1.4308/CF-8

Sensor housing 1.4301/304

Strapping bands 1.4301/304

Measured variables

Volume flow channel 1&2, average volume flow, volume flow difference, sound velocity, flow velocity, totalizer

Liquids**Max. measurement error**

Volume flow:

±3% o.r. for DN15

±2% o.r. for DN25 to 200

±2% o.r. above DN200

Measuring range

0.3 to 10 m/s (1 to 33 ft/s)

Max. process pressure

N/A

Medium temperature range

Clamp-on: -20 to +80 °C (-4 to +176 °F)

Insertion version: -40 to +80 °C

Ambient temperature range

-20 to +60 °C (-4 to +140 °F)

Sensor housing material

N/A

Transmitter housing material

Wall-mounted housing: powder-coated die-cast aluminum

Degree of protection

IP67, type 4X for transmitter, IP68 (option)

IP67 type 4X for sensors

IP68 type 6P for sensors (option). Transmitter: IP67, type 4X enclosure

Display/Operation

4 lines backlit display with three optical keys

Outputs

1x 4-20 mA HART

1x Pulse/frequency/switch output (passive)

Inputs

N/A

Liquids

Digital communication

HART, PROFIBUS PA, PROFIBUS DP, FOUNDATION Fieldbus

Power supply

AC 85 to 260 V

AC 20 to 55 V

DC 16 to 62 V

Hazardous area approvals

ATEX, FM, CSA

Other approvals and certificates

Flowmeter verification for DN15, 25, 40, 50, 100, 250, 400 only

Marine certificate

EAC marking

Product safety

CE, C-Tick, EAC marking

Metrological approvals and certificates

Flowmeter verification for DN15, 25, 40, 50, 100, 250, 400 only

Marine approvals and certificates

Marine certificate

More information www.endress.com/93W