Proline Promag W 400 electromagnetic flowmeter

Versatile standard flowmeter for the water and wastewater industry

More information and current pricing:
www.endress.com/5W4C

Benefits:

- Reliable measurement at constant accuracy with 0 x DN inlet run and no pressure loss
- Flexible engineering – sensor with fixed or lap-joint process connections
- Application fitness – EN ISO 12944 corrosion protection for underground or underwater installation
- Improved plant availability – sensor compliant with industry-specific requirements
- Safe operation – no need to open the device
- Time-saving local operation without additional software and hardware – integrated web server
- Integrated verification and build-up detection – Heartbeat Technology

Specs at a glance

- **Max. measurement error** Volume flow (standard): ±0.5 % o.r. ± 1 mm/s (0.04 in/s) Volume flow (option): ±0.2 % o.r. ± 2 mm/s (0.08 in/s), Flat Spec
- **Measuring range** 9 dm³/min to 162 000 m³/h (2.5 gal/min to 100 000 gal/min)
- **Medium temperature range** Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) Liner material polyurethane: –20 to +50 °C (–4 to +122 °F) Liner material PTFE: –20 to +90 °C (–4 to +194 °F)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) Liner material polyurethane: –20 to +50 °C (–4 to +122 °F) Liner material PTFE: –20 to +90 °C (–4 to +194 °F) Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum

Field of application: With its international approvals for custody transfer as well as drinking water, Promag W serves the broadest variety of applications. It is available as both compact or remote version. Promag W 400 saves time and costs thanks to the broad functionality of its transmitter optimized for Water & Wastewater. In addition, Heartbeat Technology ensures measurement reliability and compliant verification.

Features and specifications

Liquids

Measuring principle

Electromagnetic

Product headline

Versatile standard flowmeter for the water and wastewater industry.
Reliable measurement at constant accuracy with 0 x DN inlet run and no pressure loss.
Ideal for water measurement, e.g. drinking water, utility water and industrial/municipal wastewater.

Sensor features

Flexible engineering – sensor with fixed or lap-joint process connections. Application fitness – EN ISO 12944 corrosion protection for underground or underwater installation. Improved plant availability – sensor compliant with industry-specific requirements.
International drinking water approvals. Degree of protection IP68 (Type 6P enclosure). Approved for custody transfer to MI-001/OIML R49.

Transmitter features

Safe operation – no need to open the device due to display with touch control, background lighting. Time - saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology.
Transmitter housing made of durable polycarbonate or aluminium.
WLAN access. Integrated data logger: measured values monitoring.

Nominal diameter range

DN 25 to 2400 (1 to 90")

Liquids

Wetted materials

Liner material hard rubber: 0 to +80 °C (+32 to +176 °F)
Liner material polyurethane: −20 to +50 °C (−4 to +122 °F)
Liner material PTFE: −20 to +90 °C (−4 to +194 °F)
Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum

Measured variables

Volume flow, conductivity, mass flow

Max. measurement error

Volume flow (standard): ±0.5 % o.r. ± 1 mm/s (0.04 in/s)
Volume flow (option): ±0.2 % o.r. ± 2 mm/s (0.08 in/s), Flat Spec

Measuring range

9 dm^3/min to 162 000 m^3/h (2.5 gal/min to 100 000 gal/min)

Max. process pressure

PN 40, Class 300, 20K

Medium temperature range

Liner material hard rubber: 0 to +80 °C (+32 to +176 °F)
Liner material polyurethane: −20 to +50 °C (−4 to +122 °F)
Liner material PTFE: −20 to +90 °C (−4 to +194 °F)

Ambient temperature range

Liner material hard rubber: 0 to +80 °C (+32 to +176 °F)
Liner material polyurethane: −20 to +50 °C (−4 to +122 °F)

Sensor housing material

DN 25 to 300 (1 to 12"): AlSi10Mg, coated
DN 25 to 2000 (1 to 78"): Carbon steel with protective varnish
Sensor connection housing (standard): AlSi10Mg, coated
Sensor connection housing (option): Polycarbonate

Transmitter housing material

Polycarbonat; AlSi10Mg, coated

Liquids

Degree of protection

Compact version: IP66/67, type 4X enclosure
Sensor remote version (standard): IP66/67, type 4X enclosure
Sensor remote version (option): IP68, type 6P enclosure, with protective varnish
according to EN ISO 12944 C5 - M/Im1/Im2/Im3
Transmitter remote version: IP66/67, Type 4X enclosure

Display/Operation

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

Outputs

3 ouputs:
0 - 20 mA/4 - 20 mA HART (active)
Pulse/frequency/switch output (passive)
Pulse/frequency output (passive)
Switch output (passive)

Inputs

Status input

Digital communication

HART, PROFIBUS DP, EtherNet/IP, Modbus RS485

Power supply

AC 100...240 V / AC/DC 24 V

Hazardous area approvals

cCSAus

Metrological approvals and certificates

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR
Custody transfer according to MI - 001 or OIML R49 (optional class I in combination with ODN inlet run)

Pressure approvals and certificates

CRN

Liquids

Material certificates

3.1 material

Hygienic approvals and certificates

Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920

More information **www.endress.com/5W4C**

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