

# Proline Promag W 400 electromagnetic flowmeter

Versatile standard flowmeter for the water  
and wastewater industry



## 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

More information and current pricing:

[www.be.endress.com/5W4C](http://www.be.endress.com/5W4C)

## Specs at a glance

- **Max. measurement error** Volume flow (standard):  $\pm 0.5\%$  o.r.  $\pm 1$  mm/s (0.04 in/s) Volume flow (option):  $\pm 0.2\%$  o.r.  $\pm 2$  mm/s (0.08 in/s), Flat Spec
- **Measuring range** 9 dm<sup>3</sup>/min to 162 000 m<sup>3</sup>/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

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### Measured variables

Volume flow, conductivity, mass flow

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### Max. measurement error

Volume flow (standard):  $\pm 0.5$  % o.r.  $\pm 1$  mm/s (0.04 in/s)

Volume flow (option):  $\pm 0.2$  % o.r.  $\pm 2$  mm/s (0.08 in/s), Flat Spec

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### Measuring range

9 dm<sup>3</sup>/min to 162 000 m<sup>3</sup>/h (2.5 gal/min to 100 000 gal/min)

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### Max. process pressure

PN 40, Class 300, 20K

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### 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)

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### 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)

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### 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

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### Transmitter housing material

Polycarbonat; AlSi10Mg, coated

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## 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 outputs:

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

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### Material certificates

3.1 material

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### Hygienic approvals and certificates

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

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More information [www.be.endress.com/5W4C](http://www.be.endress.com/5W4C)