

# Proline Promag L 400 electromagnetic flowmeter

Flowmeter for the water and wastewater industry with a weight-optimized sensor



More information and current pricing:

[www.casc.endress.com/5L4C](http://www.casc.endress.com/5L4C)

## Benefits:

- Reduced installation costs – flexible mounting by lap-joint flange concept (DN < 350/14")
- Energy-saving flow measurement – no pressure loss due to cross-section constriction
- Maintenance-free – no moving parts
- 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

## 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)
- **Measuring range** 9 dm<sup>3</sup>/min to 162 000 m<sup>3</sup>/h (2.5 gal/min to 1030 Mgal/d)
- **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 16, Class 150
- **Wetted materials** Liner: PTFE; Polyurethane; Hard rubber Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)

**Field of application:** The weight-optimized Promag L is suitable for applications in the water and wastewater industry. Due to its lap-joint flange concept, the flowmeter offers flexible and easy installation. Promag L 400 saves time and costs thanks to the broad functionality of

its water- and wastewater-optimized transmitter. In addition, Heartbeat Technology ensures compliance and process safety at all times.

## Features and specifications

### Liquids

#### Measuring principle

Electromagnetic

#### Product headline

Flowmeter for the water and wastewater industry with a weight-optimized sensor.

Suitable for applications in the water and wastewater industry.

#### Sensor features

Reduced installation costs – flexible mounting by lap - joint flange concept (DN < 350/14"). Energy - saving flow measurement – no pressure loss due to cross section constriction. Maintenance - free – no moving parts.

Up to 30 % less sensor weight. Nominal diameter: DN 25 to 2400 (1 to 90"). Maximum reduced installation length to DVGW/ISO.

#### 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

Lap joint flange, lap joint flange, stamped plate: DN 25 to 300 (1 to 12")

Fixed flange: DN 350 to 2400 (14 to 90")

#### Wetted materials

Liner: PTFE; Polyurethane; Hard rubber

Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)

## Liquids

### 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)

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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 1030 Mgal/d)

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### Max. process pressure

PN 16, Class 150

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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

Flange material carbon steel: -10 to +60 °C (+14 to +140 °F)

Flange material stainless steel: -40 to +60 °C (-40 to +140 °F)

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### Sensor housing material

DN 25 to 300 (1 to 12"): AlSi10Mg, coated

DN 350 to 2400 (14 to 90"): Carbon steel with protective varnish

Sensor connection housing: AlSi10Mg, coated

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### Transmitter housing material

Polycarbonat; AlSi10Mg, coated

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### 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

Transmitter remote version: IP66/67, Type 4X enclosure

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### Display/Operation

4 - line backlit display with touch control (operation from outside)

Configuration via local display, web browser and operating tools possible

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## Liquids

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### Outputs

3 outputs:

0 - 20 mA/4 - 20 mA HART (active)

Pulse/frequency/switch output (passive)

Pulse/frequency output (passive)

Switch output (passive)

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### Inputs

Status input

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### Digital communication

HART, PROFIBUS DP, EtherNet/IP, Modbus RS485

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### Power supply

AC 100 to 240 V / AC/DC 24 V

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### Hazardous area approvals

cCSAus

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### Metrological approvals and certificates

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR

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### Hygienic approvals and certificates

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

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