

# Proline Promag P 100 electromagnetic flowmeter

The flowmeter for highest medium temperatures with an ultra-compact transmitter



More information and current pricing:

[www.casc.endress.com/5P1B](http://www.casc.endress.com/5P1B)

## Benefits:

- Versatile applications – wide variety of wetted materials
- Energy-saving flow measurement – no pressure loss due to cross-section constriction
- Maintenance-free – no moving parts
- Space-saving transmitter – full functionality on the smallest footprint
- 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** 4 dm<sup>3</sup>/min to 9600 m<sup>3</sup>/h (1 to 44 000 gal/min)
- **Medium temperature range** Liner material PFA:  $-20$  to  $+150$  °C ( $-4$  to  $+302$  °F) Liner material PFA high - temperature:  $-20$  to  $+180$  °C ( $-4$  to  $+356$  °F) Liner material PTFE:  $-40$  to  $+130$  °C ( $-40$  to  $+266$  °F)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Liner: PFA, PTFE Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum; Titanium Duplex 1.4462 (UNS S31803)

**Field of application:** Promag P is dedicated to chemical and process applications with corrosive liquids and high medium temperatures. Its ultra-compact transmitter delivers full performance on the smallest

footprint and enables seamless system integration, making Promag P 100 the preferred choice for skid builders, equipment manufacturers and system integrators. Heartbeat Technology ensures compliance and process safety at all times.

## Features and specifications

### Liquids

#### Measuring principle

Electromagnetic

#### Product headline

The flowmeter for highest medium temperatures with an ultra-compact transmitter.

Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.

#### Sensor features

Diverse applications – wide variety of wetted materials. Energy - saving flow measurement – no pressure loss due to cross section constriction.

Maintenance - free – no moving parts.

Nominal diameter: max. DN 600 (24"). All common Ex approvals. Liner made of PTFE or PFA.

#### Transmitter features

Space - saving transmitter – full functionality on the smallest footprint.

Time - saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology.

Robust, ultra-compact transmitter housing. Local display available.

#### Nominal diameter range

DN 15 to 600 (½ to 24")

#### Wetted materials

Liner: PFA, PTFE

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

Tantalum; Platinum; Titanium

Duplex 1.4462 (UNS S31803)

## Liquids

**Measured variables**

Volume flow, conductivity, mass flow, corrected volume flow, corrected conductivity

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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**

4 dm<sup>3</sup>/min to 9600 m<sup>3</sup>/h (1 to 44 000 gal/min)

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**Max. process pressure**

PN 40, Class 300, 20K

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**Medium temperature range**

Liner material PFA:  $-20$  to  $+150$  °C ( $-4$  to  $+302$  °F)

Liner material PFA high - temperature:  $-20$  to  $+180$  °C ( $-4$  to  $+356$  °F)

Liner material PTFE:  $-40$  to  $+130$  °C ( $-40$  to  $+266$  °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 15 to 300 ( $\frac{1}{2}$  to 12"): AlSi10Mg, coated

DN 350 to 600 (14 to 24"): Carbon steel with protective varnish

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**Transmitter housing material**

AlSi10Mg, coated

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**Degree of protection**

IP66/67, type 4X enclosure

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**Display/Operation**

4 - line backlit display available (no local operation)

Configuration via web browser and operating tools possible

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## Liquids

### Outputs

4 - 20 mA HART (active)  
Pulse/frequency/switch output (passive)

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### Inputs

None

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### Digital communication

HART, PROFIBUS DP, Modbus RS485, EtherNet/IP, PROFINET

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### Power supply

DC 20 to 30 V

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### Hazardous area approvals

ATEX, IECEx, cCSAus, INMETRO

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### Other approvals and certificates

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### Product safety

CE, C-Tick

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### Metrological approvals and certificates

Calibration 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 (TÜV SÜD attestation)

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### Marine approvals and certificates

LR approval, DNV GL approval, ABS approval, BV approval

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### Pressure approvals and certificates

PED, CRN

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### Material certificates

3.1 material

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### Hygienic approvals and certificates

Drinking water approval: ACS, NSF 61, WRAS

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