

# Proline Promag H 100 electromagnetic flowmeter

The specialist for hygienic applications with  
an ultra-compact transmitter



More information and current pricing:

[www.endress.com/5H1B](http://www.endress.com/5H1B)

## Benefits:

- Multivariable measurement for flow, temperature and conductivity
- Flexible installation concept – numerous hygienic process connections
- Energy-saving flow measurement – no pressure loss due to cross-section constriction
- 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
- Maintenance-free – no moving parts

## 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** 0.06 dm<sup>3</sup>/min to 600 m<sup>3</sup>/h (0.015 to 2650 gal/min)
- **Medium temperature range** -20 to +150 °C (-4 to +302 °F)
- **Max. process pressure** PN 40, Class 150, 20K
- **Wetted materials** Liner: PFA Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum Process Connections: stainless steel, 1.4404 (F316L); PVDF; PVC adhesive sleeve Seals: O-ring seal (EPDM, FKM, Kalrez), aseptic molded seal (EPDM, FKM, silicone) Grounding Rings: stainless steel, 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); tantalum

**Field of application:** Promag H is the preferred sensor for hygienic applications with highest requirements in the food and beverage and life sciences industries. The ultra-compact transmitter provides full

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

## Features and specifications

### Liquids

#### Measuring principle

Electromagnetic

#### Product headline

Specialist for hygienic applications with an ultra-compact transmitter. Multivariable measurement of flow, temperature and conductivity. Dedicated to demanding applications in the food and beverage as well as in life sciences industries.

#### Sensor features

Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross section constriction. Maintenance-free – no moving parts. Integrated temperature measurement. Sensor housing made of stainless steel (3-A, EHEDG). Wetted materials CIP, SIP cleanable.

#### 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. High degree of protection: IP69. Local display available.

#### Nominal diameter range

DN 2 to 150 (1/12 to 6")

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## Liquids

### Wetted materials

Liner: PFA

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

Process Connections: stainless steel, 1.4404 (F316L); PVDF; PVC  
adhesive sleeve

Seals: O-ring seal (EPDM, FKM, Kalrez), aseptic molded seal (EPDM,  
FKM, silicone)

Grounding Rings: stainless steel, 1.4435 (316L); Alloy C22, 2.4602  
(UNS N06022); tantalum

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### Measured variables

Volume flow, temperature, 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

0.06 dm<sup>3</sup>/min to 600 m<sup>3</sup>/h (0.015 to 2650 gal/min)

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### Max. process pressure

PN 40, Class 150, 20K

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### Medium temperature range

-20 to +150 °C (-4 to +302 °F)

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### Ambient temperature range

-40 to +60 °C (-40 to +140 °F)

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### Sensor housing material

1.4301 (304), corrosion resistant

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### Transmitter housing material

Compact: AlSi10Mg, coated

Compact/ultra-compact: 1.4301 (304)

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## Liquids

### Degree of protection

Standard: IP66/67, type 4X enclosure

Option: IP69

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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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### 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, EAC

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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 Verification: Heartbeat Technology complies with requirements for traceable verification according to ISO 9001:2008, chapter 7.6. a (TUV attestation)

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### Marine approvals and certificates

LR approval, DNV approval, ABS approval, BV approval

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### Pressure approvals and certificates

PED, CRN

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## Liquids

### Material certificates

3.1 material

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### Hygienic approvals and certificates

Sanitary approval: EHEDG, 3-A, liner and seals acc. to FDA, cGMP

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