

# Proline Promag H 100 elektromagnetische flowmeter

De specialist voor hygiënische toepassingen met een ultra-compacte transmitter



## Voordelen:

- Multivariabele meting van flow, temperatuur en geleidbaarheid
- Flexibel installatieconcept – talrijke hygiënische procesaansluitingen
- Energiebesparende flowmeting – geen drukverlies door vernauwing van de doorsnede
- Ruimtebesparende transmitter – volledige functionaliteit in een zeer kleine ruimte
- Tijdbesparende lokale bediening zonder aanvullende software en hardware – geïntegreerde webserver
- Geïntegreerde verificatie – Heartbeat Technology
- Onderhoudsvrij – geen bewegende onderdelen

## Overzicht specificaties

- **Max. meetfout** 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

Meer informatie en actuele prijzen:

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

**Toepassingsgebied:** Promag H is de gewenste sensor voor hygiënische toepassingen met de hoogste eisen in de voedingsmiddelen- en

drankindustrie en de life sciences-industrie. De ultracompacte transmitter levert maximale prestaties in een zeer kleine ruimte en zorgt voor naadloze systeemintegratie, waardoor de Promag H 100 de voorkeur heeft van skidbouwers, machinefabrieken en systeemintegrators. Heartbeat Technology waarborgt de compatibiliteit en de procesveiligheid.

## Kenmerken en specificaties

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### Liquids

#### Meetprincipe

Electromagnetic

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#### 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.

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#### 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.

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#### 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.

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#### 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. meetfout

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 GL 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

3-A, liner and seals acc. to FDA, cGMP

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