

Proline Promass H 500 Coriolis flowmeter

Chemically resistant single-tube flowmeter, as remote version with up to 4 I/Os



Thông tin thêm và mức tính giá hiện tại:

www.apsc.endress.com/8H5B

Lợi ích:

- Maximum safety for chemically aggressive fluids – corrosion-resistant wetted parts
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in/outlet run needs
- Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses
- Reduced complexity and variety – freely configurable I/O functionality
- Integrated verification – Heartbeat Technology

Tổng quan về thông số kỹ thuật

- **Max. measurement error** Mass flow (liquid): $\pm 0.10\%$ Volume flow (liquid): $\pm 0.10\%$ Mass flow (gas, Tantalum only): $\pm 0.50\%$ Density (liquid): $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 70 000 kg/h (0 to 2570 lb/min)
- **Medium temperature range** Tantalum: -50 to $+150$ °C (-58 to $+302$ °F) Zirconium: -50 to $+205$ °C (-58 to $+401$ °F)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Measuring tube: Tantalum 2.5W; 702 (UNS R60702) Connection: Tantalum; 702 (UNS R60702)

Phạm vi ứng dụng: The highly accurate Promass H is destined for applications requiring maximum corrosion resistance and guarantees optimal safety for chemically aggressive fluids. With its innovative remote transmitter Promass H 500 maximizes installation flexibility and operational safety in demanding environments. Heartbeat Technology ensures process safety at all times.

Tín năng và thông số kỹ thuật

Density

Measuring principle

Coriolis

Product Headline

Chemically resistant single-tube flowmeter, as remote version with up to 4 I/Os.

Highly accurate measurement of liquids and gases in applications requiring highest corrosion resistance.

Sensor features

Maximum safety for chemically aggressive fluids – corrosion - resistant wetted parts. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs.

Measuring tube made of Tantalum, Zirconium. Nominal diameter: DN 8 to 50 ($\frac{3}{8}$ to 2"). Medium temperature up to +205 °C (+401 °F).

Transmitter features

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Remote version with up to 4 I/Os. Backlit display with touch control and WLAN access. Standard cable between sensor and transmitter.

Liquids

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Nominal diameter range

DN 8 to 50 ($\frac{3}{8}$ to 2")

Wetted materials

Measuring tube: Tantalum 2.5W; 702 (UNS R60702)

Connection: Tantalum; 702 (UNS R60702)

Measured variables

Mass flow, density, temperature, volume flow, corrected volume flow, reference density, concentration

Max. measurement error

Mass flow (liquid): ± 0.10 %

Volume flow (liquid): ± 0.10 %

Mass flow (gas, Tantalum only): ± 0.50 %

Density (liquid): ± 0.0005 g/cm³

Measuring range

0 to 70 000 kg/h (0 to 2570 lb/min)

Max. process pressure

PN 40, Class 300, 20K

Liquids

Medium temperature range

Tantalum: -50 to +150 °C (-58 to +302 °F)

Zirconium: -50 to +205 °C (-58 to +401 °F)

Ambient temperature range

Standard: -40 to +60 °C (-40 to +140 °F)

Option: -50 to +60 °C (-58 to +140 °F)

Sensor housing material

1.4301 (304), corrosion resistant

Sensor connection housing (standard): AlSi10Mg, coated

Sensor connection housing (option): 1.4301 (304); 1.4404 (316L);

1.4409 (CF3M) similar to 316L

Transmitter housing material

AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat

Degree of protection

Sensor remote version (standard): IP66/67, type 4X enclosure

Sensor remote version (option): IP69. Transmitter remote version:

IP66/67, Type 4X enclosure

Display/Operation

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

Configuration via local display and operating tools possible

Outputs

4 outputs:

4-20 mA HART (active/passive)

4-20 mA WirelessHART

4-20 mA (active/passive)

Pulse/frequency/switch output (active/passive)

Double pulse output (active/passive)

Relay output

Inputs

Status input

4-20 mA input

Liquids

Digital communication

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA

Power supply

DC 24 V

AC 100 to 230 V

AC 100 to 230 V / DC 24 V (non-hazardous area)

Hazardous area approvals

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC

Product safety

CE, C-tick, EAC marking

Functional safety

Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511

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)

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

Gas

Measuring principle

Coriolis

Gas

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Measuring tube made of Tantalum, Zirconium. Nominal diameter: DN 8 to 50 ($\frac{3}{8}$ to 2"). Medium temperature up to +205 °C (+401 °F).

Transmitter features

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Remote version with up to 4 I/Os. Backlit display with touch control and WLAN access. Standard cable between sensor and transmitter.

Nominal diameter range

DN 8 to 50 ($\frac{3}{8}$ to 2")

Wetted materials

Measuring tube: Tantalum 2.5W; 702 (UNS R60702)

Connection: Tantalum; 702 (UNS R60702)

Measured variables

Mass flow, density, temperature, volume flow, corrected volume flow, reference density, concentration

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Mass flow (liquid): ± 0.10 %

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Mass flow (gas, Tantalum only): ± 0.50 %

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Gas

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0 to 70 000 kg/h (0 to 2570 lb/min)

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PN 40, Class 300, 20K

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Configuration via local display and operating tools possible

Gas**Outputs**

4 outputs:

4-20 mA HART (active/passive)

4-20 mA WirelessHART

4-20 mA (active/passive)

Pulse/frequency/switch output (active/passive)

Double pulse output (active/passive)

Relay output

Inputs

Status input

4-20 mA input

Digital communication

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA

Power supply

DC 24 V

AC 100 to 230 V

AC 100 to 230 V / DC 24 V (non-hazardous area)

Hazardous area approvals

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC

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Density/Concentration

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Density/Concentration**Display/Operation**

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

Configuration via local display and operating tools possible

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