

Proline Promass X 300 Coriolis flowmeter

Highest capacity four-tube flowmeter with a compact, easily accessible transmitter



Thông tin thêm và mức tính giá hiện tại:

www.apsc.endress.com/8X3B

Lợi ích:

- Increased profit – single installation point providing premium accuracy for large quantities
- 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): $\pm 0.10\%$ (standard), 0.05% (option) Volume flow (liquid): $\pm 0.10\%$ Mass flow (gas): $\pm 0.35\%$ Density (liquid): $\pm 0.0005\text{ g/cm}^3$
- **Measuring range** 0 to 4100 t/h (0 to 4520 tn. sh./h)
- **Medium temperature range** -50 to $+180\text{ }^\circ\text{C}$ (-58 to $+356\text{ }^\circ\text{F}$)
- **Max. process pressure** PN 100, Class 600
- **Wetted materials** Measuring tube: 1.4404 (316/316L)
Connection: 1.4404 (316/316L)

Phạm vi ứng dụng: The patented four-tube Promass X provides premium accuracy (0.05%) for highest capacity and offers an outstanding performance in on- and offshore applications in the oil and gas industry. With its compact transmitter Promass X 300 offers a high flexibility in terms of operation and system integration: access from one side, remote display and improved connectivity options. Heartbeat Technology ensures process safety at all times.

Tín năng và thông số kỹ thuật

Gas

Measuring principle

Coriolis

Product headline

Highest capacity four-tube flowmeter with a compact, easily accessible transmitter.

For highest flow rates and outstanding performance in on/offshore oil and gas applications.

Sensor features

Increased profit – single installation point providing premium accuracy for large quantities. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs.

Nominal diameter: DN 300 to 400 (12 to 16"). Four-tube system with low pressure drop. Complete exterior design made of 1.4435 (316L).

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.

Compact dual-compartment housing with up to 3 I/Os.

Nominal diameter range

DN 300 to 400 (12 to 16")

Wetted materials

Measuring tube: 1.4404 (316/316L)

Connection: 1.4404 (316/316L)

Measured variables

Mass flow, density, temperature, volume flow, corrected volume flow (API tables), reference density, concentration

Gas

Max. measurement error

Mass flow (liquid): $\pm 0.10\%$ (standard), 0.05% (option)

Volume flow (liquid): $\pm 0.10\%$

Mass flow (gas): $\pm 0.35\%$

Density (liquid): $\pm 0.0005\text{ g/cm}^3$

Measuring range

0 to 4100 t/h (0 to 4520 tn. sh./h)

Max. process pressure

PN 100, Class 600

Medium temperature range

-50 to $+180\text{ }^\circ\text{C}$ (-58 to $+356\text{ }^\circ\text{F}$)

Ambient temperature range

Standard: -40 to $+60\text{ }^\circ\text{C}$ (-40 to $+140\text{ }^\circ\text{F}$)

Option: -50 to $+60\text{ }^\circ\text{C}$ (-58 to $+140\text{ }^\circ\text{F}$)

Sensor housing material

1.4404 (316L), highest corrosion resistance

Transmitter housing material

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

Degree of protection

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

Remote display available

Gas**Outputs**

3 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, UK Ex

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

Gas

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)

MI-005 Liquids other than water (Hydrocarbons), LPG, cryogenic
MI-002, PTB

Marine approvals and certificates

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

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

NACE MR0175/MR0103, PMI; welding test acc. to EN ISO, ASME, NORSOK

Density/Concentration

Measuring principle

Coriolis

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For highest flow rates and outstanding performance in on/offshore oil and gas applications.

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Density/Concentration

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.

Compact dual-compartment housing with up to 3 I/Os.

Nominal diameter range

DN 300 to 400 (12 to 16")

Wetted materials

Measuring tube: 1.4404 (316/316L)

Connection: 1.4404 (316/316L)

Measured variables

Mass flow, density, temperature, volume flow, corrected volume flow (API tables), reference density, concentration

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Mass flow (liquid): ± 0.10 % (standard), 0.05 % (option)

Volume flow (liquid): ± 0.10 %

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Measuring range

0 to 4100 t/h (0 to 4520 tn. sh./h)

Max. process pressure

PN 100, Class 600

Medium temperature range

-50 to +180 °C (-58 to +356 °F)

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

Sensor housing material

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Density/Concentration

Transmitter housing material

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IP66/67, type 4X enclosure

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

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Remote display available"

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3 outputs:

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4-20 mA WirelessHART

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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, UK Ex

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Density/Concentration

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Liquids

Measuring principle

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