

Proline Promass A 200 Coriolis flowmeter

Genuine loop-powered flowmeter for accurate measurement of lowest flow rates



Benefits:

- Space-saving installation – compact, lightweight sensor
- Highest product quality – self-drainable measuring tube design in all line sizes
- Optimum process safety – resistant to corrosive ambient conditions and internal clogging
- Convenient device wiring – separate connection compartment
- Safe operation – no need to open the device due to display with touch control, background lighting
- Integrated verification – Heartbeat Technology

Specs at a glance

- **Max. measurement error** Mass flow (liquid): $\pm 0.1\%$ Volume flow (liquid): $\pm 0.1\%$ Mass flow (gas): $\pm 0.35\%$ Density (liquid): $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 450 kg/h (0 to 16.54 lb/min)
- **Medium temperature range** -50 to 205 °C (-58 to 401 °F)
- **Max. process pressure** 430.9 bar (6250 psi)
- **Wetted materials** Measuring tube: stainless steel, 1.4435 (316/316L); Alloy C22

Field of application: The compact Promass A is ideal for continuous process control in demanding applications. Its unique self-drainable single-tube system enables accurate measurement of liquids and gases at lowest flow rates and high pressure. With its cost-effective genuine loop-powered technology and intrinsically safe design (Ex ia), Promass A 200 offers highest operational safety in hazardous areas. Heartbeat Technology enables safe processes.

Features and specifications

Liquids

Measuring principle

Coriolis

Product headline

Genuine loop-powered flowmeter for accurate measurement of lowest flow rates.

Suitable for applications with smallest flow quantities in the chemical industry.

Sensor features

Space-saving installation – compact, lightweight sensor. Highest product quality – self-drainable measuring tube design in all line sizes. Optimum process safety – resistant to corrosive ambient conditions and internal clogging.

Nominal diameter: DN 1 to 4 ($\frac{1}{24}$ to $\frac{1}{8}$ "). Process pressure up to 430.9 bar (6250 psi). Medium temperature up to +205 °C (+401 °F).

Transmitter features

Convenient device wiring – separate connection compartment. Safe operation – no need to open the device due to display with touch control, background lighting. Integrated verification – Heartbeat Technology. Loop-powered technology. Robust dual-compartment housing. Plant safety: worldwide approvals (SIL, Haz. area).

Nominal diameter range

DN 1 to 4 ($\frac{1}{24}$ to $\frac{1}{8}$ ")

Wetted materials

Measuring tube: stainless steel, 1.4435 (316/316L); Alloy C22

Measured variables

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

Liquids

Max. measurement errorMass flow (liquid): $\pm 0.1\%$ Volume flow (liquid): $\pm 0.1\%$ Mass flow (gas): $\pm 0.35\%$ Density (liquid): $\pm 0.0005\text{ g/cm}^3$ **Measuring range**

0 to 450 kg/h (0 to 16.54 lb/min)

Max. process pressure

430.9 bar (6250 psi)

Medium temperature range

-50 to 205 °C (-58 to 401 °F)

Ambient temperature range

-40 to 60 °C (-40 to +140 °F)

Sensor housing material

Stainless steel, 1.4404 (316L)

Transmitter housing material

Stainless steel, CF-3M (316L, 1.4404)

AlSi10MG, coated

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

Outputs

4-20 mA HART (passive)

4-20 mA (passive)

Pulse/frequency/switch output (passive)

Inputs

None

Liquids

Digital communication

HART, PROFIBUS PA, FOUNDATION Fieldbus

Power supply

DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch)

DC 18 to 30 V (20 mA HART, 4-20 mA)

DC 9 to 32 V (PROFIBUS PA)

Hazardous area approvals

ATEX, IECEx, cCSAus, INMETRO, NEPSI, UK Ex

Product safety

CE, C-TICK

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

CRN

Material certificates

3.1 material

Hygienic approvals and certificates

3-A, cGMP

Gas

Measuring principle

Coriolis

Gas

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DN 1 to 4 ($\frac{1}{24}$ to $\frac{1}{8}$ ")

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Transmitter housing material

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AlSi10MG, coated

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

Outputs

4-20 mA HART (passive)

4-20 mA (passive)

Pulse/frequency/switch output (passive)

Inputs

None

Digital communication

HART, PROFIBUS PA, FOUNDATION Fieldbus

Gas**Power supply**

DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch)

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Density/Concentration**Measuring principle**

Coriolis

Density/Concentration

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Transmitter housing material

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AlSi10MG, coated

Degree of protectionIP66/67, 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

Outputs

4-20 mA HART (passive)

4-20 mA (passive)

Pulse/frequency/switch output (passive)

InputsNone

Digital communicationHART, PROFIBUS PA, FOUNDATION Fieldbus

Density/Concentration**Power supply**

DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch)

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PED, CRN

Material certificates

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Hygienic approvals and certificates

3-A, cGMP



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