

# Proline Promass A 200 Coriolis flowmeter

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



More information and current pricing:

[www.us.endress.com/8A2B](http://www.us.endress.com/8A2B)

## 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 ensures safe processes.

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## Features and specifications

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### Liquids

**Measuring principle**

Coriolis

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**Product headline**

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

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

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**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).

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**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).

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**Nominal diameter range**

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

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**Wetted materials**

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

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**Measured variables**

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

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## Liquids

**Max. measurement error**Mass flow (liquid):  $\pm 0.1$  %Volume flow (liquid):  $\pm 0.1$  %Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

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**Measuring range**0 to 450 kg/h (0 to 16.54 lb/min)

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**Max. process pressure**430.9 bar (6250 psi)

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**Medium temperature range**-50 to 205 °C (-58 to 401 °F)

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**Ambient temperature range**-40 to 60 °C (-40 to +140 °F)

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**Sensor housing material**Stainless steel, 1.4404 (316L)

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**Transmitter housing material**

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

AlSi10MG, coated

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**Degree of protection**IP66/67, Type 4X enclosure

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**Display/Operation**

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

Configuration via local display and operating tools possible

Remote display available

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**Outputs**

4-20 mA HART (passive)

4-20 mA (passive)

Pulse/frequency/switch output (passive)

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**Inputs**None

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## Liquids

**Digital communication**

HART, PROFIBUS PA, FOUNDATION Fieldbus

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**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)

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**Hazardous area approvals**

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

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**Product safety**

CE, C-TICK

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**Functional safety**

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

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**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)

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**Pressure approvals and certificates**

CRN

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**Material certificates**

3.1 material

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**Hygienic approvals and certificates**

3-A, cGMP

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## Gas

**Measuring principle**

Coriolis

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## Gas

**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

**Max. measurement error**

Mass flow (liquid):  $\pm 0.1$  %

Volume flow (liquid):  $\pm 0.1$  %

Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

**Measuring range**

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

## Gas

**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

**Digital communication**

HART, PROFIBUS PA, FOUNDATION Fieldbus

**Gas****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)

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**Hazardous area approvals**

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

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**Product safety**

CE, C-TICK

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**Functional safety**

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

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**Metrological approvals and certificates**

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**Pressure approvals and certificates**

CRN

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**Material certificates**

3.1 material

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**Hygienic approvals and certificates**

3-A, cGMP

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**Density/Concentration****Measuring principle**

Coriolis

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## Density/Concentration

### Product headline

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

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### Sensor features

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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

### Max. measurement error

Mass flow (liquid):  $\pm 0.1$  %

Volume flow (liquid):  $\pm 0.1$  %

Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

### Measuring range

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



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**Density/Concentration****Max. process pressure**430.9 bar (6250 psi)

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**Medium temperature range**-50 to 205 °C (-58 to 401 °F)

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**Ambient temperature range**-40 to 60 °C (-40 to +140 °F)

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**Sensor housing material**Stainless steel, 1.4404 (316L)

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**Transmitter housing material**Stainless steel, CF-3M (316L, 1.4404)  
AlSi10MG, coated

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**Degree of protection**IP66/67, Type 4X enclosure

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**Display/Operation**4-line backlit display with touch control (operation from outside)  
Configuration via local display and operating tools possible  
Remote display available

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**Outputs**4-20 mA HART (passive)  
4-20 mA (passive)  
Pulse/frequency/switch output (passive)

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**Inputs**None

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**Digital communication**HART, PROFIBUS PA, FOUNDATION Fieldbus

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**Density/Concentration****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**

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**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**

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**Pressure approvals and certificates**

PED, CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3-A, cGMP

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