

# Proline Promass A 200 coriolis-flowmeter

Originele lusgevoede flowmeter voor  
nauwkeurige metingen van zeer kleine flows



Meer informatie en actuele prijzen:

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

## Voordelen:

- Ruimtebesparende installatie – compacte, lichtgewicht sensor
- Hoge productkwaliteit – zelflozende meetbuis in alle leidingmaten
- Optimale procesveiligheid – bestand tegen corrosieve omgevingsomstandigheden en inwendige verstopping
- Handige instrumentbedrading – gescheiden aansluitcompartiment
- Veilige bediening – geen noodzaak om het instrument te openen dankzij display met aanraakbediening en achtergrondverlichting
- Geïntegreerde verificatie – Heartbeat Technology

## Overzicht specificaties

- **Max. meetfout** 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  $205 \text{ }^\circ\text{C}$  ( $-58$  to  $401 \text{ }^\circ\text{F}$ )
- **Max. process pressure** 430.9 bar (6250 psi)
- **Wetted materials** Measuring tube: stainless steel, 1.4435 (316/316L); Alloy C22

**Toepassingsgebied:** De compacte Promass A is ideaal voor een continue procesbewaking onder zware omstandigheden. Het unieke zelflozende systeem met één buis maakt nauwkeurige metingen van vloeistoffen en gassen mogelijk bij de kleinste flows en onder hoge druk. Met zijn kostenefficiënte originele lusgevoede technologie en intrinsiek veilige ontwerp (Ex ia) biedt de Promass A 200 een hoge operationele veiligheid in gevaarlijke omgevingen. De Heartbeat Technology zorgt voor veilige processen.

## Kenmerken en specificaties

## Gas

**Meetprincipe**

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 ( $\frac{1}{2}$ " 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 ( $\frac{1}{2}$ " 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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**Max. meetfout**

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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## Gas

**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

**Digital communication**

HART, PROFIBUS PA, FOUNDATION Fieldbus

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**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

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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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**Liquids****Meetprincipe**

Coriolis

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## Liquids

### 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. meetfout

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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## Liquids

**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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**Liquids****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

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**Product safety**

CE, C-TICK

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**Functional safety**

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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****Meetprincipe**

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

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### 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. meetfout

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**

ATEX, IECEx, cCSAus, INMETRO, NEPSI

**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

Meer informatie [www.be.endress.com/8A2B](http://www.be.endress.com/8A2B)