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): ±0.1 %
  - Volume flow (liquid): ±0.1 %
  - Mass flow (gas): ±0.35 %
  - Density (liquid): ±0.0005 g/cm³
- **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.
### 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 (¹⁄₂₄ to 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.

**Nominal diameter range**
DN 1 to 4 (¹⁄₂₄ to 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 error**
- Mass flow (liquid): ±0.1 %
- Volume flow (liquid): ±0.1 %
- Mass flow (gas): ±0.35 %
- Density (liquid): ±0.0005 g/cm³

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- 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/slot 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
**Product headline**
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Nominal diameter: DN 1 to 4 (¹/₂₄ to ¹/₈”). Process pressure up to 430.9 bar (6250 psi). Medium temperature up to +205 °C (+401 °F).

**Transmitter features**

**Nominal diameter range**
DN 1 to 4 (¹/₂₄ to 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): ±0.1 %
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**Measuring range**
0 to 450 kg/h (0 to 16.54 lb/min)
## Gas

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<td><strong>Max. process pressure</strong></td>
<td>430.9 bar (6250 psi)</td>
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<tr>
<td><strong>Medium temperature range</strong></td>
<td>-50 to 205 °C (-58 to 401 °F)</td>
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<td><strong>Ambient temperature range</strong></td>
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<td><strong>Sensor housing material</strong></td>
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<td><strong>Degree of protection</strong></td>
<td>IP66/67, Type 4X enclosure</td>
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<tr>
<td><strong>Display/Operation</strong></td>
<td>4-line backlit display with touch control (operation from outside)</td>
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<td></td>
<td>Configuration via local display and operating tools possible</td>
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<td></td>
<td>Remote display available</td>
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<tr>
<td><strong>Outputs</strong></td>
<td>4-20 mA HART (passive)</td>
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<td><strong>Inputs</strong></td>
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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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- ATEX, IECEx, cCSAus, INMETRO, NEPSI, UK Ex

**Product safety**
- CE, C-TICK

**Functional safety**
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**Pressure approvals and certificates**
- CRN

**Material certificates**
- 3.1 material

**Hygienic approvals and certificates**
- 3-A, cGMP

### Density/Concentration

**Measuring principle**
- Coriolis
Densities/Concentrations

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**Wetted materials**
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**Measured variables**
Mass flow, density, temperature, volume flow, corrected volume flow, reference density

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Density/Concentration

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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
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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**Pressure approvals and certificates**
- PED, CRN

**Material certificates**
- 3.1 material

**Hygienic approvals and certificates**
- 3-A, cGMP