

# Proline Promass I 100 coriolis-flowmeter

Combineert inline viscositeits- en  
flowmetingen met een ultracompacte  
transmitter



Meer informatie en actuele prijzen:

[www.be.endress.com/811B](http://www.be.endress.com/811B)

## Voordelen:

- Energiebesparend – ontwerp met 'full bore' zorgt voor minimaal drukverlies
- Minder procesmeetpunten – multivariabele meting (flow, dichtheid, temperatuur)
- Ruimtebesparende installatie – geen in-/uitlaatlengten
- Ruimtebesparende transmitter – volledige functionaliteit in een zeer kleine ruimte
- Tijdbesparende lokale bediening zonder aanvullende software en hardware – geïntegreerde webserver
- Geïntegreerde verificatie – Heartbeat Technology

## Overzicht specificaties

- **Max. measurement error** Mass flow (liquid):  $\pm 0.1$  % Volume flow (liquid):  $\pm 0.1$  % Mass flow (gas):  $\pm 0.5$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>
- **Measuring range** 0 to 180 000 kg/h (0 to 6600 lb/min)
- **Medium temperature range**  $-50$  to  $+150$  °C ( $-58$  to  $+302$  °F)
- **Max. process pressure** PN 100, Class 600, 63K
- **Wetted materials** Measuring tube: Titanium grade 9 Connection: Titanium grade 2

**Toepassingsgebied:** De rechte enkelbuis coriolis-flowmeter Promass I 100 is geschikt voor massaflow-, dichtheids en temperatuurmetingen. Optioneel kan het instrument ook inline worden ingezet voor viscositeitsmetingen. Samen met de kleinste transmitter die op dit moment verkrijgbaar is, levert het instrument uitstekende prestaties in

een zeer kleine ruimte. De Promass I 100 heeft de voorkeur van systeemintegrators, skidbouwers en productfabrikanten.

## Kenmerken en specificaties

### Density/Concentration

#### Meetprincipe

Coriolis

#### Product headline

Combines in-line viscosity and flow measurement with an ultra-compact transmitter.

Measuring liquids and gases in applications requiring low pressure loss and gentle fluid treatment.

#### Sensor features

Energy - saving – full-bore design enables minimal pressure loss. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs.

Straight, easy-to-clean single-tube system. TMB technology. Measuring tube made of Titanium.

#### Transmitter features

Space - saving transmitter – full functionality on the smallest footprint.

Time - saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology.

Robust, ultra-compact transmitter housing. Highest degree of protection: IP69. Local display available.

#### Nominal diameter range

DN 8 to 80 ( $\frac{3}{8}$  to 3")

#### Wetted materials

Measuring tube: Titanium grade 9

Connection: Titanium grade 2

#### Measured variables

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

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**Density/Concentration****Max. measurement error**Mass flow (liquid):  $\pm 0.1\%$ Volume flow (liquid):  $\pm 0.1\%$ Mass flow (gas):  $\pm 0.5\%$ Density (liquid):  $\pm 0.0005 \text{ g/cm}^3$ 

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**Measuring range**0 to 180 000 kg/h (0 to 6600 lb/min)

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**Max. process pressure**PN 100, Class 600, 63K

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**Medium temperature range** $-50$  to  $+150$  °C ( $-58$  to  $+302$  °F)

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**Ambient temperature range**Standard:  $-40$  to  $+60$  °C ( $-40$  to  $+140$  °F)Option:  $-50$  to  $+60$  °C ( $-58$  to  $+140$  °F)

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**Sensor housing material**1.4301/1.4307 (304L), corrosion resistant

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**Transmitter housing material**

Compact: AlSi10Mg, coated

Compact/ultra - compact: 1.4301 (304)

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**Degree of protection**

Standard: IP66/67, type 4X enclosure

Option: IP69

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**Display/Operation**

4 - line backlit display available (no local operation)

Configuration via web browser and operating tools possible

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**Outputs**

4 - 20 mA HART (active)

Pulse/frequency/switch output (passive)

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**Density/Concentration****Inputs**

None

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**Digital communication**

HART, Modbus RS485, EtherNet/IP, PROFIBUS DP, PROFINET

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**Power supply**

DC 20 to 30 V

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**Hazardous area approvals**

ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC

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**Product safety**

CE, C-Tick, EAC marking

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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**

PED, CRN

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**Material certificates**

3.1 material

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**Hygienic approvals and certificates**

3-A, EHEDG, cGMP

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**Gas****Meetprincipe**

Coriolis

## Gas

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**Measured variables**

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**Max. measurement error**

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

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

Mass flow (gas):  $\pm 0.5$  %

Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

## Gas

**Measuring range**

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**Max. process pressure**

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**Medium temperature range**

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**Viscosity****Meetprincipe**

Coriolis

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## Viscosity

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## Viscosity

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**Inputs**

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**Product safety**

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## Viscosity

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3.1 material

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## Liquids

### **Meetprincipe**

Coriolis

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## Liquids

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## Liquids

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