

# Proline Promass P 100 Coriolis flowmeter

The specialist for life sciences with an ultra-compact transmitter



More information and current pricing:

[www.th.endress.com/8P1B](http://www.th.endress.com/8P1B)

## Benefits:

- Highest process quality – fully compliant to industry requirements
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in/outlet run needs
- Space-saving transmitter – full functionality on smallest footprint
- Time-saving local operation without additional software and hardware – integrated web server
- 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):  $\pm 0.5\%$  Density (liquid):  $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 70 000 kg/h (0 to 2570 lb/min)
- **Medium temperature range** Standard:  $-50$  to  $+150$  °C ( $-58$  to  $+302$  °F) Option:  $-50$  to  $+205$  °C ( $-58$  to  $+401$  °F)
- **Max. process pressure** PN 63, Class 300, 40K
- **Wetted materials** Measuring tube: 1.4435 (316L) Connection: 1.4435 (316L); 1.4404 (316/316L)

**Field of application:** Promass P 100 offers the enhanced performance of a bent tube meter and the drainability of a straight tube meter without any compromise. Combined with the smallest transmitter housing available today it delivers full performance on the smallest footprint. Designed for applications in sterile environments where space is a premium, Promass P 100 will be the preferred choice for system integrators, skid builders and equipment manufacturers.

---

## Features and specifications

---

### Density/Concentration

**Measuring principle**

Coriolis

---

**Product headline**

Specialist for life sciences with an ultra-compact transmitter. Dedicated to applications under sterile conditions in the life sciences industry.

---

**Sensor features**

Highest process quality – fully compliant to industry requirements. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs. ASME BPE, 3 - A and EHEDG conform & low delta ferrite. Electropolished measuring tube in 1.4435 (316L). Fast recovery from CIP/SIP.

---

**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 50 ( $\frac{3}{8}$  to 2")

---

**Wetted materials**

Measuring tube: 1.4435 (316L)

Connection: 1.4435 (316L); 1.4404 (316/316L)

---

**Measured variables**

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

---

---

**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):  $\pm 0.0005 \text{ g/cm}^3$ 

---

**Measuring range**0 to 70 000 kg/h (0 to 2570 lb/min)

---

**Max. process pressure**PN 63, Class 300, 40K

---

**Medium temperature range**Standard:  $-50$  to  $+150$  °C ( $-58$  to  $+302$  °F)Option:  $-50$  to  $+205$  °C ( $-58$  to  $+401$  °F)

---

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

---

**Sensor housing material**1.4301 (304), corrosion resistant

---

**Transmitter housing material**

Compact: AlSi10Mg, coated

Compact/ultra - compact: 1.4301 (304)

---

**Degree of protection**

Standard: IP66/67, type 4X enclosure

Option: IP69

---

**Display/Operation**

4 - line backlit display available (no local operation)

Configuration via web browser and operating tools possible

---

**Outputs**

4 - 20 mA HART (active)

Pulse/frequency/switch output (passive)

---

---

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

None

---

**Digital communication**

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

---

**Power supply**

DC 20 to 30 V

---

**Hazardous area approvals**

ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC

---

**Product safety**

CE, C-Tick, EAC marking

---

**Metrological approvals and certificates**

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)

Heartbeat Verification: Heartbeat Technology complies with requirements for traceable verification according to ISO 9001:2008, chapter 7.6. a (TUV attestation)

---

**Pressure approvals and certificates**

PED, CRN

---

**Material certificates**

3.1 material

---

**Hygienic approvals and certificates**

3-A, EHEDG, ASME BPE, ISPE, cGMP

---

**Liquids****Measuring principle**

Coriolis

## Liquids

### Product headline

Specialist for life sciences with an ultra-compact transmitter.  
Dedicated to applications under sterile conditions in the life sciences industry.

### Sensor features

Highest process quality – fully compliant to industry requirements. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs. ASME BPE, 3 - A and EHEDG conform & low delta ferrite. Electropolished measuring tube in 1.4435 (316L). Fast recovery from CIP/SIP.

### 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 50 ( $\frac{3}{8}$  to 2")

### Wetted materials

Measuring tube: 1.4435 (316L)

Connection: 1.4435 (316L); 1.4404 (316/316L)

### Measured variables

Mass flow, density, temperature, volume flow, corrected volume flow, reference 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):  $\pm 0.0005$  g/cm<sup>3</sup>

## Liquids

**Measuring range**

0 to 70 000 kg/h (0 to 2570 lb/min)

---

**Max. process pressure**

PN 63, Class 300, 40K

---

**Medium temperature range**

Standard: -50 to +150 °C (-58 to +302 °F)

Option: -50 to +205 °C (-58 to +401 °F)

---

**Ambient temperature range**

Standard: -40 to +60 °C (-40 to +140 °F)

Option: -50 to +60 °C (-58 to +140 °F)

---

**Sensor housing material**

1.4301 (304), corrosion resistant

---

**Transmitter housing material**

Compact: AlSi10Mg, coated

Compact/ultra - compact: 1.4301 (304)

---

**Degree of protection**

Standard: IP66/67, type 4X enclosure

Option: IP69

---

**Display/Operation**

4 - line backlit display available (no local operation)

Configuration via web browser and operating tools possible

---

**Outputs**

4 - 20 mA HART (active)

Pulse/frequency/switch output (passive)

---

**Inputs**

None

---

**Digital communication**

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

---

## Liquids

### Power supply

DC 20 to 30 V

### Hazardous area approvals

ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC

### Product safety

CE, C-Tick, EAC marking

### Metrological approvals and certificates

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)

Heartbeat Verification: Heartbeat Technology complies with requirements for traceable verification according to ISO 9001:2008, chapter 7.6. a (TUV attestation)

### Pressure approvals and certificates

PED, CRN

### Material certificates

3.1 material

### Hygienic approvals and certificates

3-A, EHEDG, ASME BPE, ISPE, cGMP

## Gas

### Measuring principle

Coriolis

### Hygienic approvals and certificates

cGMP

More information [www.th.endress.com/8P1B](http://www.th.endress.com/8P1B)