

Proline Promass P 100 Coriolis flowmeter

The specialist for life sciences with an ultra-compact transmitter



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): ± 0.1 % Volume flow (liquid): ± 0.1 % Density (liquid): ± 0.0005 g/cm³
- **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

Liquids

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

Max. measurement error

Mass flow (liquid): ± 0.1 %
Volume flow (liquid): ± 0.1 %
Density (liquid): ± 0.0005 g/cm³

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

Density/Concentration

Measuring principle

Coriolis

Density/Concentration

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

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Ambient temperature range

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Sensor housing material1.4301 (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)

InputsNone

Digital communicationHART, Modbus RS485, EtherNet/IP, PROFIBUS DP, PROFINET

Power supplyDC 20 to 30 V

Density/Concentration

Hazardous area approvals

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info@lenntech.com Tel. +31-152-610-900

www.lenntech.com Fax. +31-152-616-289