

# Proline Promass S 100 Coriolis flowmeter

Easy-to-clean flowmeter with self-drainable single-tube system and an ultra-compact transmitter



## Benefits:

- Reduced installation costs – fully self-drainable tube design enables compact horizontal mounting
- 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):  $\pm 0.10\%$  Volume flow (liquid):  $\pm 0.10\%$  Mass flow (gas):  $\pm 0.50\%$  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**  $-50$  to  $+150 \text{ }^\circ\text{C}$  ( $-58$  to  $+302 \text{ }^\circ\text{F}$ )
- **Max. process pressure** PN 40, Class 150, 20K
- **Wetted materials** Measuring tube: 1.4435 (316L) Connection: 1.4435 (316L); 1.4404 (316/316L)

More information and current pricing:

[www.sg.endress.com/8S1C](http://www.sg.endress.com/8S1C)

**Field of application:** Promass S is at the forefront in hygienic design – Endress+Hauser's industry-optimized measurement solution meets all the hygienic requirements for installation in the Food and Beverage industry. Combined with the smallest transmitter housing available today it delivers full performance on the smallest footprint. Designed for applications where space is a premium, Promass S 100 will be the

preferred choice for system integrators, skid builders and equipment manufacturer.

## Features and specifications

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### Liquids

#### Measuring principle

Coriolis

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#### Product headline

Easy-to-clean flowmeter with self-drainable single-tube system and an ultra-compact transmitter.

Dedicated to applications requiring optimal cleanability under hygienic conditions.

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#### Sensor features

Increased process safety – easily cleanable and fully self-drainable tube design. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs.

Large range of hygienic process connections. 3-A and EHEDG conform. Fast recovery from CIP/SIP.

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#### 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.

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#### Nominal diameter range

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

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#### Wetted materials

Measuring tube: 1.4435 (316L)

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

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## Liquids

**Measured variables**

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

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**Max. measurement error**

Mass flow (liquid):  $\pm 0.10$  %

Volume flow (liquid):  $\pm 0.10$  %

Mass flow (gas):  $\pm 0.50$  %

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

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**Measuring range**

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

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**Max. process pressure**

PN 40, Class 150, 20K

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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 (304), 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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**Liquids****Outputs**

4 - 20 mA HART (active)  
Pulse/frequency/switch output (passive)

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**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), NAMUR  
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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**Density/Concentration****Measuring principle**

Coriolis

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## Density/Concentration

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Dedicated to applications requiring optimal cleanability under hygienic conditions.

### Sensor features

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Large range of hygienic process connections. 3-A and EHEDG conform. 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):  $\pm 0.10$  %

Volume flow (liquid):  $\pm 0.10$  %

Mass flow (gas):  $\pm 0.50$  %

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

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**Density/Concentration****Measuring range**

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

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**Max. process pressure**

PN 40, Class 150, 20K

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**Medium temperature range**

-50 to +150 °C (-58 to +302 °F)

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Standard: IP66/67, type 4X enclosure

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**Outputs**

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Pulse/frequency/switch output (passive)

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**Inputs**

None

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**Digital communication**

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

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**Density/Concentration****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), NAMUR

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**Pressure approvals and certificates**

PED, CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3 - A, EHEDG, cGMP

**Gas****Measuring principle**

Coriolis

**Hygienic approvals and certificates**

cGMP

More information [www.sg.endress.com/8S1C](http://www.sg.endress.com/8S1C)