

# Proline Promass S 300 Coriolis flowmeter

Easy-to-clean, self-drainable single-tube system with a compact, easily accessible transmitter



More information and current pricing:

[www.de.endress.com/8S3B](http://www.de.endress.com/8S3B)

## Benefits:

- 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
- Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses
- Reduced complexity and variety – freely configurable I/O functionality
- 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  $+150$  °C ( $-58$  to  $+302$  °F)
- **Max. process pressure** PN 40, Class 150, 20K
- **Wetted materials** Measuring tube: 1.4435 (316L) Connection: 1.4435 (316L); 1.4404 (316/316L)

**Field of application:** Promass S is at the forefront in hygienic design and dedicated to applications in the food and beverage industry requiring optimal cleanability. The self-drainable single-tube system ensures careful treatment of fluids. With its compact transmitter Promass S 300 offers high flexibility in terms of operation and system integration: access

from one side, remote display and improved connectivity options. Heartbeat Technology ensures process safety at all times.

## Features and specifications

### Liquids

#### Measuring principle

Coriolis

#### Product headline

Easy-to-clean, self-drainable single-tube system with a compact, easily accessible transmitter.

Dedicated to applications requiring optimal cleanability under hygienic conditions.

#### 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.

#### Transmitter features

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Compact hygienic dual-compartment housing with IP69 and up to 3 I/Os. Backlit display with touch control and WLAN access. Remote 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)

## 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

AlSi10Mg, coated; stainless steel for hygienic transmitter design

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### Degree of protection

IP66/67, type 4X enclosure

IP69

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### Display/Operation

4-line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Remote display available

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## Liquids

### Outputs

3 outputs:

4-20 mA HART (active/passive)

4-20 mA WirelessHART

4-20 mA (active/passive)

Pulse/frequency/switch output (active/passive)

Double pulse output (active/passive)

Relay output

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### Inputs

Status input

4-20 mA input

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### Digital communication

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA

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### Power supply

DC 24 V

AC 100 to 230 V

AC 100 to 230 V / DC 24 V (non-hazardous area)

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### Hazardous area approvals

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC, UK Ex

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### Product safety

CE, C-tick, EAC marking

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### Functional safety

Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511

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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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## Liquids

**Pressure approvals and certificates**

PED, CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3-A, EHEDG, cGMP

## Gas

**Measuring principle**

Coriolis

**Sensor features**

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

**Hygienic approvals and certificates**

cGMP

## Density

**Measuring principle**

Coriolis

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## Density/Concentration

### Measuring principle

Coriolis

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**Ambient temperature range**Standard:  $-40$  to  $+60\text{ }^\circ\text{C}$  ( $-40$  to  $+140\text{ }^\circ\text{F}$ )Option:  $-50$  to  $+60\text{ }^\circ\text{C}$  ( $-58$  to  $+140\text{ }^\circ\text{F}$ )

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**Transmitter housing material**AlSi10Mg, coated; stainless steel for hygienic transmitter design

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**Degree of protection**

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**Digital communication**

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**Power supply**

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