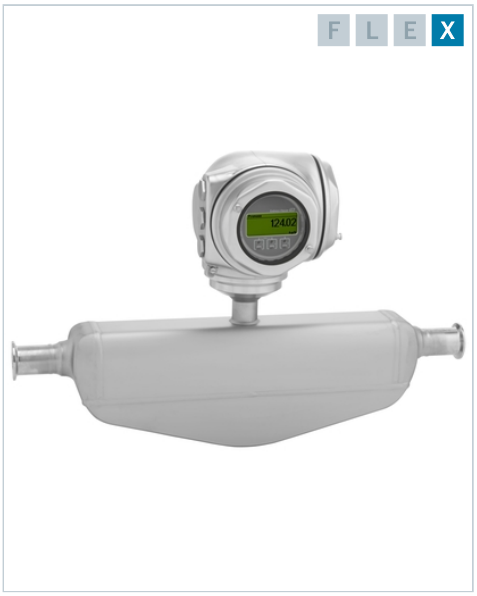
Proline Promass S 300
Coriolis flowmeter

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



More information and current pricing:
www.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): ±0.10 % Volume flow (liquid): ±0.10 % Mass flow (gas): ±0.50 % Density (liquid): ±0.0005 g/cm³
- **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

Gas

Measuring principle
Coriolis

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.

Hygienic approvals and certificates
cGMP

Density

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.

Density/Concentration

Measuring principle
Coriolis

Density/Concentration

Product headline

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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 (⅜ 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): ±0.10 %
Volume flow (liquid): ±0.10 %
Mass flow (gas): ±0.50 %
Density (liquid): ±0.0005 g/cm³

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

Max. process pressure
PN 40, Class 150, 20K

Medium temperature range
−50 to +150 °C (−58 to +302 °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
AlSi10Mg, coated; stainless steel for hygenic transmitter design

Degree of protection
IP66/67, type 4X enclosure
IP69

Display/Operation
4-line backlit display with touch + control (operation from outside)
Configuration via local display and operating tools possible
Remote display available

Density/Concentration

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

Inputs

Status input
4-20 mA input

Digital communication

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

Power supply

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

Hazardous area approvals

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

Product safety

CE, C-tick, EAC marking

Functional safety

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

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)

Density/Concentration

Pressure approvals and certificates
PED, CRN

Material certificates
3.1 material

Hygienic approvals and certificates
3-A, EHEDG, cGMP

Liquids

Measuring principle
Coriolis

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Liquids

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Liquids

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Configuration via local display and operating tools possible
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4-20 mA WirelessHART
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