Proline Promass E 100
Coriolis flowmeter

Mid-range Coriolis flowmeter with an ultra-compact transmitter

More information and current pricing:
www.sg.endress.com/8E1C

Benefits:

- Cost-effective – multipurpose device; an alternative to conventional volumetric flowmeters
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in-/outlet run needs
- 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

Specs at a glance

- **Max. measurement error** Mass flow (liquid): ±0.15 % (standard), ±0.10 % (option) Volume flow (liquid): ±0.15 % Mass flow (gas): ±0.50 % Density (liquid): ±0.0005 g/cm³
- **Measuring range** 0 to 180 000 kg/h (0 to 6600 lb/min)
- **Medium temperature range** –40 to +150 °C (–40 to +302°F)
- **Max. process pressure** PN 100, Class 600, 63K
- **Wetted materials** Measuring tube: 1.4539 (904L) Connection: 1.4404 (316/316L)

Field of application: The robust Promass E has a long-standing reputation as reliable solution accurately measuring liquids and gases in a wide range of standard applications. Its ultra-compact transmitter delivers full performance on the smallest footprint and enables seamless system integration, making Promass E 100 the preferred choice for skid builders, equipment manufacturers and system integrators. Heartbeat Technology ensures measurement reliability and compliant verification.

Features and specifications

Gas

Measuring principle
Coriolis

Product headline
Flowmeter with minimized total cost of ownership and an ultra-compact transmitter.
Accurate measurement of liquids and gases for a wide range of standard applications.

Sensor features
Cost - effective – multi - purpose device; an alternative to conventional volumetric flowmeters. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs.
Compact dual-tube sensor. Medium temperature up to +150 °C (+302 °F). Process pressure up to 100 bar (1450 psi).

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 80 (⅜ to 3")

Wetted materials
Measuring tube: 1.4539 (904L)
Connection: 1.4404 (316/316L)

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

Gas

Max. measurement error

Mass flow (liquid): ±0.15 % (standard), ±0.10 % (option)
Volume flow (liquid): ±0.15 %
Mass flow (gas): ±0.50 %
Density (liquid): ±0.0005 g/cm³

Measuring range

0 to 180 000 kg/h (0 to 6600 lb/min)

Max. process pressure

PN 100, Class 600, 63K

Medium temperature range

–40 to +150 °C (–40 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

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)

Gas

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

Product safety
CE, C-Tick, EAC marking

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)

Marine approvals and certificates
LR approval, DNV GL approval, ABS approval, BV approval

Pressure approvals and certificates
PED, CRN

Material certificates
3.1 material

Hygienic approvals and certificates
3-A, EHEDG, cGMP

Liquids

Measuring principle
Coriolis

Liquids

Product headline

Flowmeter with minimized total cost of ownership and an ultra-compact transmitter.
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Sensor features

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Compact dual-tube sensor. Medium temperature up to +150 °C (+302 °F). Process pressure up to 100 bar (1450 psi).

Transmitter features

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Nominal diameter range

DN 8 to 80 (⅜ to 3")

Wetted materials

Measuring tube: 1.4539 (904L)
Connection: 1.4404 (316/316L)

Measured variables

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

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Liquids

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More information **www.sg.endress.com/8E1C**

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