

Proline Promass 40E Coriolis flowmeter

The flowmeter for minimized cost of ownership combined with a compact field transmitter



More information and current pricing:

www.casc.endress.com/40E

Benefits:

- Cost-effective – multi-purpose device; an alternative to conventional volumetric flowmeters
- Fewer process measuring points – multivariable measurement (flow, temperature)
- Space-saving installation – no in/outlet run needs
- Cost-effective – dedicated design for low-end applications and direct integration
- Safe operation – display provides easy readable process information
- Fully industry compliant – IEC/EN/NAMUR

Specs at a glance

- **Max. measurement error** Mass flow (liquid): $\pm 0.5\%$ Volume flow (liquid): $\pm 0.5\%$ Mass flow (gas): $\pm 1.0\%$ Density (liquid): $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 180 000 kg/h (0 to 6600 lb/min)
- **Medium temperature range** -40 to $+140$ °C (-40 to $+284$ °F)
- **Max. process pressure** PN 100, Class 600, 63K
- **Wetted materials** Measuring tube: 1.4539 (904L) Connection: 1.4404 (316/316L)

Field of application: Promass E has a long standing reputation as a cost efficient solution for basic Coriolis applications. Combined with the Promass 40 transmitter for low-end applications and direct integration, Promass 40E offers highly accurate measurement of liquids and gases for a wide range of applications.

Features and specifications

Gas

Measuring principle

Coriolis

Product headline

The flowmeter for minimized cost of ownership combined with a compact field transmitter. Highly accurate measurement of liquids and gases for a wide range of standard applications.

Product headline

The economical alternative to conventional volume flowmeters

Sensor features

Cost-effective – multi-purpose device; an alternative to conventional volumetric flowmeters. Fewer process measuring points – multivariable measurement (flow, temp). Space-saving installation – no in/outlet run needs. Compact dual-tube system. Medium temperature up to +140 °C (+284°F).

Transmitter features

Cost-effective – dedicated design for low-end applications and direct integration. Safe operation – display provides easy readable process information. Fully industry compliant – IEC/EN/NAMUR. 2-line backlit display without local operation. Device in compact version.

Nominal diameter range

DN 8 to 80 ($\frac{3}{8}$ to 3")

Wetted materials

Measuring tube: 1.4539 (904L)

Connection: 1.4404 (316/316L)

Measured variables

Mass flow, volume flow, corrected volume flow

Gas

Max. measurement errorMass flow (liquid): $\pm 0.5\%$ Volume flow (liquid): $\pm 0.5\%$ Mass flow (gas): $\pm 1.0\%$ Density (liquid): $\pm 0.0005\text{ g/cm}^3$ **Measuring range**

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Max. process pressure

PN 100, Class 600, 63K

Medium temperature range -40 to $+140\text{ }^\circ\text{C}$ (-40 to $+284\text{ }^\circ\text{F}$)**Ambient temperature range**Standard: -20 to $+60\text{ }^\circ\text{C}$ (-4 to $+140\text{ }^\circ\text{F}$)Option: -40 to $+60\text{ }^\circ\text{C}$ (-40 to $+140\text{ }^\circ\text{F}$)**Sensor housing material**

1.4301 (304), corrosion resistant

Transmitter housing material

Powder-coated die-cast aluminium

Degree of protection

IP67, type 4X enclosure

Display/Operation

2-line backlit display without push buttons (direct integration)

Configuration via operating tools possible

Outputs

3 outputs:

0-20 mA (active)/4-20 mA (active/passive)

Pulse/frequency/switch output (passive)

Inputs

Status input

Gas

Digital communication

HART

Power supply

DC 16 to 62 V

AC 85 to 260 V (45 to 65 Hz)

AC 20 to 55 V (45 to 65 Hz)

Hazardous area approvals

ATEX, IECEX, FM, CSA, NEPSI, JPN

Other approvals and certificates

3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR, marine

PED, CRN

3-A

Product safety

CE, C-tick, EAC marking

Metrological approvals and certificates

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Marine approvals and certificates

Marine approval

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

Hygienic approvals and certificates

3-A

Liquids

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Liquids

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