

# 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](http://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.

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## Features and specifications

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### Liquids

**Measuring principle**

Coriolis

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**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.

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**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).

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**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.

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**Nominal diameter range**

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

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**Wetted materials**

Measuring tube: 1.4539 (904L)

Connection: 1.4404 (316/316L)

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**Measured variables**

Mass flow, volume flow, corrected volume flow

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**Max. measurement error**

Mass flow (liquid):  $\pm 0.5$  %

Volume flow (liquid):  $\pm 0.5$  %

Mass flow (gas):  $\pm 1.0$  %

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

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## Liquids

**Measuring range**

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

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**Max. process pressure**

PN 100, Class 600, 63K

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**Medium temperature range**

-40 to +140 °C (-40 to +284 °F)

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**Ambient temperature range**

Standard: -20 to +60 °C (-4 to +140 °F)

Option: -40 to +60 °C (-40 to +140 °F)

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**Sensor housing material**

1.4301 (304), corrosion resistant

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**Transmitter housing material**

Powder-coated die-cast aluminium

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**Degree of protection**

IP67, type 4X enclosure

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**Display/Operation**

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

Configuration via operating tools possible

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**Outputs**

3 outputs:

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

Pulse/frequency/switch output (passive)

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**Inputs**

Status input

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**Digital communication**

HART

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## Liquids

**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)

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**Hazardous area approvals**

ATEX, IECEx, FM, CSA, NEPSI, JPN

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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

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**Marine approvals and certificates**

Marine approval

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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

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## Gas

**Measuring principle**

Coriolis

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**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.

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**Product headline**

The economical alternative to conventional volume flowmeters

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## Gas

**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**

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Mass flow, volume flow, corrected volume flow

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Mass flow (gas):  $\pm 1.0$  %

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Standard: -20 to +60 °C (-4 to +140 °F)

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**Hazardous area approvals**

ATEX, IECEx, FM, CSA, NEPSI, JPN

## Gas

**Other approvals and certificates**

3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR, marine  
PED, CRN  
3-A

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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

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**Marine approvals and certificates**

Marine approval

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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

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