

Promass 40E



More information and current pricing:

www.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 $+140 \text{ }^\circ\text{C}$ (-40 to $+284 \text{ }^\circ\text{F}$)
- **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

Liquids

Measuring principle

Coriolis

Liquids

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.

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 (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

Max. measurement error

Mass flow (liquid): ±0.5 %

Volume flow (liquid): ±0.5 %

Mass flow (gas): ±1.0 %

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

Liquids

Medium temperature range

-40 to +140 °C (-40 to +284 °F)

Ambient temperature range

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

Option: -40 to +60 °C (-40 to +140 °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

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

Liquids

Product safety

CE, C-tick, EAC marking

Metrological approvals and certificates

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

Marine approvals and certificates

Marine approval

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

Hygienic approvals and certificates

3-A

Gas

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Coriolis

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Gas

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

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Connection: 1.4404 (316/316L)

Measured variables

Mass flow, volume flow, corrected volume flow

Max. measurement error

Mass flow (liquid): ± 0.5 %

Volume flow (liquid): ± 0.5 %

Mass flow (gas): ± 1.0 %

Density (liquid): ± 0.0005 g/cm³

Measuring range

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Max. process pressure

PN 100, Class 600, 63K

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Gas	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
	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

Gas

Metrological approvals and certificates

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

Marine approvals and certificates

Marine approval

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

Hygienic approvals and certificates

3-A

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