

# Proline Promass E 200 Coriolis flowmeter

## Genuine loop-powered mid-range Coriolis flowmeter



More information and current pricing:

[www.endress.com/8E2C](http://www.endress.com/8E2C)

### 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
- Convenient device wiring – separate connection compartment
- Safe operation – no need to open the device due to display with touch control, background lighting
- Integrated verification – Heartbeat Technology

### Specs at a glance

- **Max. measurement error** Mass flow (liquid):  $\pm 0.25\%$  (standard)  
Volume flow (liquid):  $\pm 0.25\%$  Mass flow (gas):  $\pm 0.50\%$  Density (liquid):  $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 70 000 kg/h (0 to 2570 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 a reliable solution accurately measuring liquids and gases in a wide range of standard applications in the chemical industry. With genuine loop-powered technology, Proline E 200 enables cost-effective and seamless integration into existing infrastructures. The flowmeter offers highest operational safety in hazardous areas thanks to its intrinsically safe design (Ex ia). Heartbeat Technology ensures process safety at all times.

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## Features and specifications

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### Liquids

**Measuring principle**

Coriolis

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**Product headline**

Genuine loop-powered flowmeter for minimized cost of ownership. 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, 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).

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**Transmitter features**

Convenient device wiring – separate connection compartment. Safe operation – no need to open the device due to display with touch control, background lighting. Integrated verification – Heartbeat Technology. Loop-powered technology. Robust dual-compartment housing. Plant safety: worldwide approvals (SIL, Haz. area).

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**Nominal diameter range**

DN 8 to 50 (3/8 to 2")

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**Wetted materials**

Measuring tube: 1.4539 (904L)

Connection: 1.4404 (316/316L)

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**Measured variables**

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

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## Liquids

**Max. measurement error**

Mass flow (liquid):  $\pm 0.25$  % (standard)

Volume flow (liquid):  $\pm 0.25$  %

Mass flow (gas):  $\pm 0.50$  %

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

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**Measuring range**

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

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**Max. process pressure**

PN 100, Class 600, 63K

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**Medium temperature range**

-40 to +150 °C (-40 to +302 °F)

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**Ambient temperature range**

-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**

AlSi10Mg, coated

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**Degree of protection**

IP66/67, type 4X enclosure

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**Display/Operation**

4-line backlit display with touch control

(operation from outside)

Configuration via local display and operating tools possible

Remote display available

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**Outputs**

4-20 mA HART (passive)

4-20 mA (passive)

Pulse/frequency/switch output (passive)

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## Liquids

**Inputs**

None

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**Digital communication**

HART, PROFIBUS PA, FOUNDATION Fieldbus

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**Power supply**

DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch)

DC 18 to 30 V (20 mA HART, 4-20 mA)

DC 9 to 32 V (PROFIBUS PA)

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**Hazardous area approvals**

ATEX, IECEx, cCSAus, JPN, UK Ex

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**Product safety**

CE, C-Tick

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**Functional safety**

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

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**Metrological approvals and certificates**

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

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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, EHEDG, cGMP

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## Gas

**Measuring principle**

Coriolis

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## Gas

**Product headline**

Genuine loop-powered flowmeter for minimized cost of ownership. 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**

Convenient device wiring – separate connection compartment. Safe operation – no need to open the device due to display with touch control, background lighting. Integrated verification – Heartbeat Technology. Loop-powered technology. Robust dual-compartment housing. Plant safety: worldwide approvals (SIL, Haz. area).

**Nominal diameter range**

DN 8 to 50 ( $\frac{3}{8}$  to 2")

**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

**Max. measurement error**

Mass flow (liquid):  $\pm 0.25$  % (standard)

Volume flow (liquid):  $\pm 0.25$  %

Mass flow (gas):  $\pm 0.50$  %

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

## Gas

**Measuring range**

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

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**Max. process pressure**

PN 100, Class 600, 63K

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**Medium temperature range**

-40 to +150 °C (-40 to +302 °F)

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**Ambient temperature range**

-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**

AlSi10Mg, coated

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**Degree of protection**

IP66/67, type 4X enclosure

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**Display/Operation**

4-line backlit display with touch control

(operation from outside)

Configuration via local display and operating tools possible

Remote display available

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**Outputs**

4-20 mA HART (passive)

4-20 mA (passive)

Pulse/frequency/switch output (passive)

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**Inputs**

None

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**Digital communication**

HART, PROFIBUS PA, FOUNDATION Fieldbus

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**Gas****Power supply**

DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch)

DC 18 to 30 V (20 mA HART, 4-20 mA)

DC 9 to 32 V (PROFIBUS PA)

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**Hazardous area approvals**

ATEX, IECEx, cCSAus, JPN, UK Ex

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**Product safety**

CE, C-Tick, EAC marking

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**Functional safety**

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

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**Metrological approvals and certificates**

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

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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, EHEDG, cGMP

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**Density/Concentration****Measuring principle**

Coriolis

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**Product headline**

Genuine loop-powered flowmeter for minimized cost of ownership. Accurate measurement of liquids and gases for a wide range of standard applications.

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## Density/Concentration

### 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

Convenient device wiring – separate connection compartment. Safe operation – no need to open the device due to display with touch control, background lighting. Integrated verification – Heartbeat Technology. Loop-powered technology. Robust dual-compartment housing. Plant safety: worldwide approvals (SIL, Haz. area).

### Nominal diameter range

DN 8 to 50 ( $\frac{3}{8}$  to 2")

### 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

### Max. measurement error

Mass flow (liquid):  $\pm 0.25$  % (standard)

Volume flow (liquid):  $\pm 0.25$  %

Mass flow (gas):  $\pm 0.50$  %

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

### Measuring range

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

### Max. process pressure

PN 100, Class 600, 63K



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**Density/Concentration****Medium temperature range**

–40 to +150 °C (–40 to +302 °F)

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**Ambient temperature range**

–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**

AlSi10Mg, coated

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**Degree of protection**

IP66/67, type 4X enclosure

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**Display/Operation**

4-line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Remote display available

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**Outputs**

4-20 mA HART (passive)

4-20 mA (passive)

Pulse/frequency/switch output (passive)

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**Inputs**

None

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**Digital communication**

HART, PROFIBUS PA, FOUNDATION Fieldbus

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**Power supply**

DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch)

DC 18 to 30 V (20 mA HART, 4-20 mA)

DC 9 to 32 V (PROFIBUS PA)

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**Hazardous area approvals**

ATEX, IECEx, cCSAus, JPN, UK Ex

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Density/Concentration

**Product safety**

CE, C-Tick

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**Functional safety**

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

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**Metrological approvals and certificates**

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

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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, EHEDG, cGMP

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More information [www.endress.com/8E2C](http://www.endress.com/8E2C)