

# Proline Promass P 300 Coriolis flowmeter

Specialist for life sciences with a compact,  
easily accessible transmitter



More information and current pricing:

[www.cz.endress.com/8P3B](http://www.cz.endress.com/8P3B)

## Benefits:

- Highest process quality – fully compliant to industry requirements
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in/outlet run needs
- Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses
- Reduced complexity and variety – freely configurable I/O functionality
- Integrated verification – Heartbeat Technology

## Specs at a glance

- **Max. measurement error** Mass flow (liquid):  $\pm 0.10\%$  Volume flow (liquid):  $\pm 0.10\%$  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** Standard:  $-50$  to  $+150 \text{ }^\circ\text{C}$  ( $-58$  to  $+302 \text{ }^\circ\text{F}$ ) Option:  $-50$  to  $+205 \text{ }^\circ\text{C}$  ( $-58$  to  $+401 \text{ }^\circ\text{F}$ )
- **Max. process pressure** PN 40, Class 150, 20K
- **Wetted materials** Measuring tube: 1.4435 (316L) Connection: 1.4435 (316L); 1.4404 (316/316L)

**Field of application:** Promass P is the specialist for sterile processes in the life sciences industry. It is dedicated to biotech applications requiring highest compliance with guidelines and regulations. With its compact transmitter Promass P 300 offers high flexibility in terms of operation and system integration: access from one side, remote display and improved connectivity options. Heartbeat Technology ensures compliance and 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**

Specialist for life sciences with a compact, easily accessible transmitter. Dedicated to applications under sterile conditions in the life sciences industry.

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**Sensor features**

Highest process quality – fully compliant to industry requirements. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs. ASME BPE, 3 - A and EHEDG conform & low delta ferrite. Electropolished measuring tube in 1.4435 (316L). Fast recovery from CIP/SIP.

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**Transmitter features**

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology. Compact hygienic dual-compartment housing with IP69 and up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.

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**Nominal diameter range**

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

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**Wetted materials**

Measuring tube: 1.4435 (316L)  
Connection: 1.4435 (316L); 1.4404 (316/316L)

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**Measured variables**

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

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## Liquids

**Max. measurement error**

Mass flow (liquid):  $\pm 0.10\%$

Volume flow (liquid):  $\pm 0.10\%$

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

Density (liquid):  $\pm 0.0005\text{ g/cm}^3$

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**Medium temperature range**

Standard:  $-50$  to  $+150\text{ }^\circ\text{C}$  ( $-58$  to  $+302\text{ }^\circ\text{F}$ )

Option:  $-50$  to  $+205\text{ }^\circ\text{C}$  ( $-58$  to  $+401\text{ }^\circ\text{F}$ )

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**Ambient temperature range**

Standard:  $-40$  to  $+60\text{ }^\circ\text{C}$  ( $-40$  to  $+140\text{ }^\circ\text{F}$ )

Option:  $-50$  to  $+60\text{ }^\circ\text{C}$  ( $-58$  to  $+140\text{ }^\circ\text{F}$ )

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**Sensor housing material**

1.4301 (304), corrosion resistant

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**Transmitter housing material**

AlSi10Mg, coated; stainless steel for hygienic transmitter design

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**Degree of protection**

IP66/67, type 4X enclosure

IP69

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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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## Liquids

### Outputs

3 outputs:

4-20 mA HART (active/passive)

4-20 mA WirelessHART

4-20 mA (active/passive)

Pulse/frequency/switch output (active/passive)

Double pulse output (active/passive)

Relay output

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### Inputs

Status input

4-20 mA input

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### Digital communication

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA

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### Power supply

DC 24 V

AC 100 to 230 V

AC 100 to 230 V / DC 24 V (non-hazardous area)

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### Hazardous area approvals

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC, 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)

Heartbeat Technology complies with the requirements for measurement traceability according to ISO 9001:2015 – Section 7.1.5.2 a (TÜV SÜD attestation)

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## Liquids

**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, ASME BPE, ISPE, cGMP

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## Gas

**Measuring principle**

Coriolis

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Specialist for life sciences with a compact, easily accessible transmitter. Dedicated to applications under sterile conditions in the life sciences industry.

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**Hygienic approvals and certificates**

cGMP

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## Density

**Measuring principle**

Coriolis

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## Density

### Transmitter features

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Compact hygienic dual-compartment housing with IP69 and up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.

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## Density/Concentration

### Measuring principle

Coriolis

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