

# Proline Promass P 500 Coriolis flowmeter

Specialist for life sciences, as remote version  
with up to 4 I/Os



More information and current pricing:

[www.at.endress.com/8P5B](http://www.at.endress.com/8P5B)

## 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  $+150$  °C ( $-58$  to  $+302$  °F) Option:  $-50$  to  $+205$  °C ( $-58$  to  $+401$  °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 innovative remote transmitter Promass P 500 maximizes installation flexibility and operational safety in demanding environments. Heartbeat Technology ensures compliance and process safety at all times.

## Features and specifications

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## Density/Concentration

### Measuring principle

Coriolis

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### Product headline

Specialist for life sciences, as remote version with up to 4 I/Os. 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).

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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.

Fast recovery from CIP/SIP. Remote version with up to 4 I/Os; hygienic sensor connection housing with IP69. Backlit display with touch control and WLAN access.

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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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**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

Sensor connection housing (standard): AlSi10Mg, coated

Sensor connection housing (option): 1.4301 (304); 1.4404 (316L)

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**Transmitter housing material**AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat

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**Degree of protection**

Sensor remote version (standard): IP66/67, type 4X enclosure

Sensor remote version (option): IP69. Transmitter remote version:

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

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## Density/Concentration

### Outputs

4 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

### Inputs

Status input

4-20 mA input

### Digital communication

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

### Power supply

DC 24 V

AC 100 to 230 V

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

### Hazardous area approvals

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC

### Product safety

CE, C-tick, EAC marking

### Functional safety

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

### 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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## Density/Concentration

### 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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## Liquids

### Measuring principle

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### Hygienic approvals and certificates

cGMP

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## Density

### Measuring principle

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## Density

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