

# Proline Cubemass C 100 Coriolis flowmeter

## Compact sensor for smallest quantities with an ultra-compact transmitter



More information and current pricing:

[www.at.endress.com/8C1B](http://www.at.endress.com/8C1B)

### Benefits:

- Space-saving installation – compact single-tube design
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Suitable for skids – lightweight sensor
- Space-saving transmitter – full functionality on the smallest footprint
- Time-saving local operation without additional software and hardware – integrated web server
- Integrated verification – Heartbeat Technology

### Specs at a glance

- **Max. measurement error** Mass flow (liquid):  $\pm 0.1\%$  Volume flow (liquid):  $\pm 0.1\%$  Mass flow (gas):  $\pm 0.5\%$  Density (liquid):  $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 1000 kg/h (0 to 37 lb/min)
- **Medium temperature range**  $-50$  to  $+205 \text{ }^\circ\text{C}$  ( $-58$  to  $+401 \text{ }^\circ\text{F}$ )
- **Max. process pressure** PN 40, Class 300, 10K, 400 bar (5800 psi)
- **Wetted materials** Measuring tube: 1.4539 (904L) Connection: 1.4539 (904L); 1.4404 (316/316L)

**Field of application:** Cubemass C is the ideal sensor for the measurement of smallest flow rates in skids, test rigs and industrial robotics. Neither high pressure nor alternating flow conditions compromise its accuracy. The ultra-compact transmitter delivers full performance on the smallest footprint and enables seamless system integration. Heartbeat Technology ensures measurement reliability and compliant verification.

### Features and specifications

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## Density/Concentration

### Measuring principle

Coriolis

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### Product headline

Compact sensor for smallest quantities with an ultra-compact transmitter.

Measuring accurately smallest quantities of liquids and gases.

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### Sensor features

Space-saving installation – compact single-tube design. Fewer process measuring points – multivariable measurement (flow, density, temperature). Suitable for skids – lightweight sensor.

Nominal diameter: DN 1 to 6 ( $\frac{1}{24}$  to  $\frac{1}{4}$ " ). Process pressure up to 400 bar (5800 psi). Medium temperature up to +205 °C (+401 °F).

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### Transmitter features

Space - saving transmitter – full functionality on the smallest footprint. Time - saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Robust, ultra-compact transmitter housing. Pre - configured plug connector. Local display available.

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### Nominal diameter range

DN 1 to 6 ( $\frac{1}{24}$  to  $\frac{1}{4}$ " )

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### Wetted materials

Measuring tube: 1.4539 (904L)

Connection: 1.4539 (904L); 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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### Max. measurement error

Mass flow (liquid):  $\pm 0.1$  %

Volume flow (liquid):  $\pm 0.1$  %

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

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

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**Density/Concentration****Measuring range**

0 to 1000 kg/h (0 to 37 lb/min)

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**Max. process pressure**

PN 40, Class 300, 10K, 400 bar (5800 psi)

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**Medium temperature range**

-50 to +205 °C (-58 to +401 °F)

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**Ambient temperature range**

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

Option: -50 to +60 °C (-58 to +140 °F)

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**Sensor housing material**

1.4301 (304), corrosion resistant

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**Transmitter housing material**

Compact: AlSi10Mg, coated

Compact/ultra - compact: 1.4301 (304)

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**Degree of protection**

Standard: IP66/67, type 4X enclosure

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**Display/Operation**

4 - line backlit display available (no local operation)

Configuration via web browser and operating tools possible

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**Outputs**

4 - 20 mA HART (active)

Pulse/frequency/switch output (passive)

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**Inputs**

None

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**Digital communication**

HART, Modbus RS485, EtherNet/IP, PROFIBUS DP, PROFINET

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**Power supply**

DC 20 to 30 V

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## Density/Concentration

### Hazardous area approvals

ATEX, IECEx, cCSAus, INMETRO, NEPSI

### Product safety

CE, C-Tick

### 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)

### Pressure approvals and certificates

CRN

### Material certificates

3.1 material

## Liquids

### Measuring principle

Coriolis

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Space-saving installation – compact single-tube design. Fewer process measuring points – multivariable measurement (flow, density, temperature). Suitable for skids – lightweight sensor.

Nominal diameter: DN 1 to 6 ( $\frac{1}{2}$ " to  $\frac{1}{4}$ "). Process pressure up to 400 bar (5800 psi). Medium temperature up to +205 °C (+401 °F).

## Liquids

### Transmitter features

Space - saving transmitter – full functionality on the smallest footprint.  
Time - saving local operation without additional software and hardware  
– integrated web server. Integrated verification – Heartbeat Technology.  
Robust, ultra-compact transmitter housing. Pre - configured plug  
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### Nominal diameter range

DN 1 to 6 ( $\frac{1}{24}$  to  $\frac{1}{4}$ " )

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### Measured variables

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**Liquids****Material certificates**

3.1 material

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**Gas****Measuring principle**

Coriolis

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**Measured variables**

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

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## Gas

**Max. measurement error**Mass flow (liquid):  $\pm 0.1$  %Volume flow (liquid):  $\pm 0.1$  %Mass flow (gas):  $\pm 0.5$  %Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>**Measuring range**

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Gas

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**Pressure approvals and certificates**

CRN

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**Material certificates**

3.1 material

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