Proline Cubemass C 100
Coriolis flowmeter

Compact sensor for smallest quantities with an ultra-compact transmitter

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): ±0.1 %
  - Volume flow (liquid): ±0.1 %
  - Mass flow (gas): ±0.5 %
  - Density (liquid): ±0.0005 g/cm³
- **Measuring range** 0 to 1000 kg/h (0 to 37 lb/min)
- **Medium temperature range** −50 to +205 °C (−58 to +401 °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
Liquids

**Measuring principle**
Coriolis

**Product headline**
Compact sensor for smallest quantities with an ultra-compact transmitter.
Measuring accurately smallest quantities of liquids and gases.

**Sensor features**
Nominal diameter: DN 1 to 6 (½" to ¾"). Process pressure up to 400 bar (5800 psi). Medium temperature up to +205 °C (+401 °F).

**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.

**Nominal diameter range**
DN 1 to 6 (½" to ¾")

**Wetted materials**
Measuring tube: 1.4539 (904L)
Connection: 1.4539 (904L); 1.4404 (316/316L)

**Measured variables**
Mass flow, density, temperature, volume flow, corrected volume flow, reference density, concentration

**Max. measurement error**
Mass flow (liquid): ±0.1 %
Volume flow (liquid): ±0.1 %
Mass flow (gas): ±0.5 %
Density (liquid): ±0.0005 g/cm3
**Liquids**

<table>
<thead>
<tr>
<th><strong>Measuring range</strong></th>
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</table>
| **Ambient temperature range** | Standard: −40 to +60 °C (−40 to +140 °F)  
Option: −50 to +60 °C (−58 to +140 °F) |
| **Sensor housing material** | 1.4301 (304), corrosion resistant |
| **Transmitter housing material** | Compact: AlSi10Mg, coated  
Compact/ultra-compact: 1.4301 (304) |
| **Degree of protection** | Standard: IP66/67, type 4X enclosure |
| **Display/Operation** | 4-line backlit display available (no local operation)  
Configuration via web browser and operating tools possible |
| **Outputs** | 4-20 mA HART (active)  
Pulse/frequency/switch output (passive) |
| **Inputs** | None |
| **Digital communication** | HART, Modbus RS485, EtherNet/IP, PROFIBUS DP, PROFINET |
| **Power supply** | DC 20 to 30 V |
Liquids

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

Gas

Measuring principle
Coriolis

Product headline
Compact sensor for smallest quantities with an ultra-compact transmitter.
Measuring accurately smallest quantities of liquids and gases.

Sensor features
Nominal diameter: DN 1 to 6 (1/2", 3/4"). Process pressure up to 400 bar (5800 psi). Medium temperature up to +205 °C (+401 °F).
Transmitter features

Nominal diameter range
DN 1 to 6 (½₄ to ¼”)

Wetted materials
Measuring tube: 1.4539 (904L)
Connection: 1.4539 (904L); 1.4404 (316/316L)

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

Max. measurement error
Mass flow (liquid): ±0.1 %
Volume flow (liquid): ±0.1 %
Mass flow (gas): ±0.5 %
Density (liquid): ±0.0005 g/cm³

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

Max. process pressure
PN 40, Class 300, 10K, 400 bar (5800 psi)

Medium temperature range
-50 to +205 °C (-58 to +401 °F)

Ambient temperature range
Standard: -40 to +60 °C (-40 to +140 °F)
Option: -50 to +60 °C (-58 to +140 °F)

Sensor housing material
1.4301 (304), corrosion resistant
## Proline Cubemass C 100 / 8C1B

### Gas

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<tr>
<th>Feature</th>
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<td><strong>Degree of protection</strong></td>
<td>Standard: IP66/67, type 4X enclosure</td>
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<td><strong>Display/Operation</strong></td>
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<td><strong>Outputs</strong></td>
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Proline Cubemass C 100 / 8C1B

Gas

Density/Concentration

**Measuring principle**
Coriolis

**Product headline**
Compact sensor for smallest quantities with an ultra-compact transmitter.
Measuring accurately smallest quantities of liquids and gases.

**Sensor features**
Nominal diameter: DN 1 to 6 (1/2 to 1/4”). Process pressure up to 400 bar (5800 psi). Medium temperature up to +205 °C (+401 °F).

**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.

**Nominal diameter range**
DN 1 to 6 (1/2 to 1/4”)

**Wetted materials**
Measuring tube: 1.4539 (904L)
Connection: 1.4539 (904L); 1.4404 (316/316L)

**Measured variables**
Mass flow, density, temperature, volume flow, corrected volume flow, reference density, concentration
Density/Concentration

**Max. measurement error**
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**Measuring range**
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**Max. process pressure**
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**Medium temperature range**
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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)

**Sensor housing material**
1.4301 (304), corrosion resistant

**Transmitter housing material**
Compact: AlSi10Mg, coated
Compact/ultra-compact: 1.4301 (304)

**Degree of protection**
Standard: IP66/67, type 4X enclosure

**Display/Operation**
4-line backlit display available (no local operation)
Configuration via web browser and operating tools possible

**Outputs**
- 4-20 mA HART (active)
- Pulse/frequency/switch output (passive)

**Inputs**
None
Density/Concentration

**Digital communication**
HART, Modbus RS485, EtherNet/IP, PROFIBUS DP, PROFINET

**Power supply**
DC 20 to 30 V

**Hazardous area approvals**
ATEX, IECEx, cCSAus, INMETRO, NEPSI

**Product safety**
CE, C-Tick

**Metrological approvals and certificates**
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**Pressure approvals and certificates**
CRN

**Material certificates**
3.1 material

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