

Proline Cubemass C 100 Coriolis flowmeter

Compact sensor for smallest quantities with an ultra-compact transmitter



More information and current pricing:

www.cz.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

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

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).

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

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

Max. measurement error

Mass flow (liquid): ± 0.1 %

Volume flow (liquid): ± 0.1 %

Mass flow (gas): ± 0.5 %

Density (liquid): ± 0.0005 g/cm³

Density/Concentration**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

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

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

Product headline

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

Measuring accurately smallest quantities of liquids and gases.

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 ($\frac{1}{2}$ " 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
connector. Local display available.

Nominal diameter range

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

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

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

Liquids

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

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

Liquids**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

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).

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

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

Gas

Max. measurement errorMass 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

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

Gas

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

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

More information www.cz.endress.com/8C1B