

Cubemass Coriolis flowmeter

Compact sensor for smallest quantities with easy system integration



More information and current pricing:

www.us.endress.com/8CM

Benefits:

- Measuring accurately smallest quantities of liquids and gases
- Space-saving installation – compact single-tube design
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Suitable for skids – lightweight sensor
- Cost savings – very low power consumption
- Fast commissioning – pre-configured devices
- Automatic recovery of data for servicing

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 $+200 \text{ }^\circ\text{C}$ (-58 to $+392 \text{ }^\circ\text{F}$)
- **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 is the proven sensor for the measurement of smallest flow rates in skids, test rigs and industrial robotics, e.g. in applications like lacquering or surface finishing. Neither high pressure nor alternating flow conditions compromise its accuracy. Equipment manufacturers value Cubemass as compact Coriolis sensor.

Features and specifications

Gas

Measuring principle

Coriolis

Product headline

Compact sensor for smallest quantities with easy system integration.
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 +200 °C (+392 °F).

Transmitter features

Cost savings – very low power consumption. Fast commissioning – pre-configured devices. Automatic recovery of data for servicing.
Robust transmitter housing. Modbus RS485. Pulse output.

Nominal diameter range

DN 1 to 6 ($\frac{1}{2}$ " 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)

Gas

Max. process pressure

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

Medium temperature range

-50 to +200 °C (-58 to +392 °F)

Ambient temperature range

Standard: -20 to +60 °C (-4 to +140 °F)

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

Sensor housing material

1.4301 (304), corrosion resistant

Transmitter housing material

Powder - coated die - cast aluminium

Degree of protection

IP67, type 4X enclosure

Display/Operation

No local operation

Configuration via operating tools possible

Outputs

Pulse/frequency/switch output (passive), phase - shifted pulse

Inputs

None

Digital communication

Modbus RS485

Power supply

DC 10 to 30 V

AC 20 to 28 V

Hazardous area approvals

ATEX, IECEx, NEC/CEC, NEPSI

Gas**Other approvals and certificates**

3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR CRN

Liquids**Measuring principle**

Coriolis

Product headline

Compact sensor for smallest quantities with easy system integration. 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 +200 °C (+392 °F).

Transmitter features

Cost savings – very low power consumption. Fast commissioning – pre-configured devices. Automatic recovery of data for servicing. Robust transmitter housing. Modbus RS485. Pulse output.

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

Liquids

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

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CRN

Metrological approvals and certificates

3.1 material

Pressure approvals and certificates

CRN

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