

# Cubemass Coriolis flowmeter

## Compact sensor for smallest quantities with easy system integration



More information and current pricing:

[www.jp.endress.com/8CM](http://www.jp.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

## Liquids

### Measuring principle

Coriolis

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### Product headline

Compact sensor for smallest quantities with easy system integration.  
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 ( $\frac{1}{2}$ " to  $\frac{1}{4}$ "). Process pressure up to 400 bar (5800 psi). Medium temperature up to +200 °C (+392 °F).

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### 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.

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### Nominal diameter range

DN 1 to 6 ( $\frac{1}{2}$ " to  $\frac{1}{4}$ ")

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### Wetted materials

Measuring tube: 1.4539 (904L)  
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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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### Measuring range

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## Liquids

**Max. process pressure**

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

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**Medium temperature range**

-50 to +200 °C (-58 to +392 °F)

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**Ambient temperature range**

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

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

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**Sensor housing material**

1.4301 (304), corrosion resistant

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**Transmitter housing material**

Powder - coated die - cast aluminium

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**Degree of protection**

IP67, type 4X enclosure

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**Display/Operation**

No local operation

Configuration via operating tools possible

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**Outputs**

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

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**Inputs**

None

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**Digital communication**

Modbus RS485

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**Power supply**

DC 10 to 30 V

AC 20 to 28 V

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**Hazardous area approvals**

ATEX, IECEx, NEC/CEC, NEPSI

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## Liquids

### Other approvals and certificates

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

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### Metrological approvals and certificates

3.1 material

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### Pressure approvals and certificates

CRN

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## Gas

### Measuring principle

Coriolis

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