

Proline Cubemass C 300 coriolis-flowmeter

Compacte sensor voor minimale hoeveelheden met een compacte, makkelijk bereikbare transmitter



Meer informatie en actuele prijzen:

www.be.endress.com/8C3B

Voordelen:

- Ruimtebesparende installatie – compacte, enkelbuis-ontwerp
- Minder procesmeetpunten – multivariabele meting (flow, dichtheid, temperatuur)
- Geschikt voor skids – lichtgewicht sensor
- Volledige toegang tot proces- en diagnose-informatie – talrijke, vrij te combineren I/O's en procesbussen
- Verminderde complexiteit en verscheidenheid – vrij configureerbare I/O-functionaliteit
- Geïntegreerde verificatie – Heartbeat Technology

Overzicht specificaties

- **Max. meetfout** Mass flow (liquid): $\pm 0.10\%$ Volume flow (liquid): $\pm 0.10\%$ Mass flow (gas): $\pm 0.50\%$ 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)

Toepassingsgebied: De Cubemass C is de ideale sensor voor het meten van minimale flows in skids, testtrigs en industriële robotica. De nauwkeurigheid wordt niet beïnvloed door hoge drukken of wisselende flowomstandigheden. Met zijn compacte transmitter biedt de Cubemass C 300 een hoge flexibiliteit wat betreft bediening en systeemintegratie: toegang vanaf één zijde, weergave op afstand en verbeterde

connectiviteitsopties. Bovendien garandeert de Heartbeat Technology betrouwbare metingen en verificaties volgens de regels.

Kenmerken en specificaties

Liquids

Meetprincipe

Coriolis

Product headline

Compact sensor for smallest quantities with a compact, easily accessible 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

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Compact dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access. Remote 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

Liquids

Max. meetfout

Mass flow (liquid): ± 0.10 %

Volume flow (liquid): ± 0.10 %

Mass flow (gas): ± 0.50 %

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

AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L

Degree of protection

IP66/67, type 4X enclosure

Display/Operation

4-line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Remote display available

Liquids

Outputs

3 outputs:

4-20 mA HART (active/passive)

4-20 mA WirelessHART

4-20 mA (active/passive)

Pulse/frequency/switch output (active/passive)

Double pulse output (active/passive)

Relay output

Inputs

Status input

4-20 mA input

Digital communication

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA

Power supply

DC 24 V

AC 100 to 230 V

AC 100 to 230 V / DC 24 V (non-hazardous area)"

Hazardous area approvals

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC, UK Ex

Product safety

CE, C-tick, EAC marking

Functional safety

Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511

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)

Liquids**Pressure approvals and certificates**

CRN

Material certificates

3.1 material

Gas**Meetprincipe**

Coriolis

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Compact sensor for smallest quantities with a compact, easily accessible transmitter.

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

Transmitter features

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Compact dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.

Nominal diameter rangeDN 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)

Gas

Measured variables

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

Max. meetfout

Mass flow (liquid): ± 0.10 %

Volume flow (liquid): ± 0.10 %

Mass flow (gas, Tantalum only): ± 0.50 %

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

Tantalum: -50 to $+150$ °C (-58 to $+302$ °F)

Zirconium: -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

AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L

Degree of protection

IP66/67, type 4X enclosure

Display/Operation

4-line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Remote display available"

Gas**Outputs**

3 outputs:

4-20 mA HART (active/passive)

4-20 mA WirelessHART

4-20 mA (active/passive)

Pulse/frequency/switch output (active/passive)

Double pulse output (active/passive)

Relay output

Inputs

Status input

4-20 mA input

Digital communication

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA

Power supply

DC 24 V

AC 100 to 230 V

AC 100 to 230 V / DC 24 V (non-hazardous area)

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ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC, UK Ex

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Gas

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

Density/Concentration

Meetprincipe

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Density/Concentration

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Sensor housing material

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Transmitter housing material

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Degree of protection

IP66/67, type 4X enclosure

Display/Operation

4-line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Remote display available

Density/Concentration**Outputs**

3 outputs:

4-20 mA HART (active/passive)

4-20 mA WirelessHART

4-20 mA (active/passive)

Pulse/frequency/switch output (active/passive)

Double pulse output (active/passive)

Relay output

Inputs

Status input

4-20 mA input

Digital communication

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Power supply

DC 24 V

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Density/Concentration

Pressure approvals and certificates

CRN

Material certificates

3.1 material

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