

CNGmass DCI Coriolis flowmeter

Refueling application flowmeter with seamless system integration



More information and current pricing:

www.de.endress.com/8DF

Benefits:

- Excellent operational safety – reliable under extreme process conditions
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in/outlet run needs
- High flexibility in system integration – wide range of communication interfaces
- Fast commissioning – pre-configured devices
- Automatic recovery of data for servicing

Specs at a glance

- **Max. measurement error** Mass flow: $\pm 0.5\%$ of batch
- **Measuring range** 0 to 150 kg/min (0 to 330 lb/min)
- **Medium temperature range** -50 to $+150\text{ }^{\circ}\text{C}$ (-58 to $+302\text{ }^{\circ}\text{F}$)
- **Max. process pressure** 350 bar (5080 psi)
- **Wetted materials** Measuring tube: 1.4435 (316L) Connection: 1.4404 (316)

Field of application: CNGmass DCI is specially designed for refueling with environmentally friendly natural gas (CNG). The natural gas volume can be both measured with precision and displayed directly onsite. The device is operated from the outside via "Touch Control" and can be operated at any time during maintenance. A MODBUS interface is included for optimal data exchange.

Features and specifications

Liquids

Measuring principle

Coriolis

Product headline

The refueling application flowmeter with seamless system integration. Accurate measurement of compressed natural gas (CNG) in high pressure refueling applications.

Sensor features

Excellent operational safety – reliable under extreme process conditions. Fewer process measuring points – multivariable measurement (flow, density, temp). Space-saving installation – no in/outlet run needs. Flow rates up to 150 kg/min (330 lb/min). Process pressure up to 350 bar (5080 psi).

Transmitter features

High flexibility in system integration – wide range of communication interfaces. Fast commissioning – preconfigured devices. Automatic recovery of data for servicing. Device in compact or remote version. Flexible outputs and Modbus RS485.

Nominal diameter range

DN 8 to 25 ($\frac{3}{8}$ to 1")

Wetted materials

Measuring tube: 1.4435 (316L)

Connection: 1.4404 (316)

Measured variables

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

Max. measurement error

Mass flow: ± 0.5 % of batch

Measuring range

0 to 150 kg/min (0 to 330 lb/min)

Liquids

Max. process pressure

350 bar (5080 psi)

Medium temperature range

-50 to +150 °C (-58 to +302 °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. Remote transmitter: IP67, type 4X enclosure

Display/Operation

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

Configuration via local display and operating tools possible

Outputs

4 modular outputs:

0-20 mA (active)/4-20 mA (active/passive)

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

Relay

Inputs

1 modular input: status

Digital communication

HART, Modbus RS485

Power supply

DC 16 to 62 V

AC 85 to 260 V (45 to 65 Hz)

AC 20 to 55 V (45 to 65 Hz)

Liquids

Hazardous area approvals

ATEX, IECEx, NEPSI, JPN

Other approvals and certificates

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

Metrological approvals and certificates

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), custody transfer

Pressure approvals and certificates

CRN

Material certificates

3.1 material

Gas

Measuring principle

Coriolis

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DN 8 to 25 (3/8 to 1")

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Transmitter housing material

Powder-coated die-cast aluminium

Gas

Degree of protection

IP67, type 4X enclosure. Remote transmitter: IP67, type 4X enclosure

Display/Operation

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

Configuration via local display and operating tools possible

Outputs

4 modular outputs:

0-20 mA (active)/4-20 mA (active/passive)

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

Relay

Inputs

1 modular input: status

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