

# CNGmass DCI Coriolis flowmeter

## Refueling application flowmeter with seamless system integration



More information and current pricing:

[www.endress.com/8DF](http://www.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  $+150$  °C ( $-58$  to  $+302$  °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

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### Product headline

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

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### 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).

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### 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.

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### Nominal diameter range

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

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### Wetted materials

Measuring tube: 1.4435 (316L)

Connection: 1.4404 (316)

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### Measured variables

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

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### Max. measurement error

Mass flow:  $\pm 0.5$  % of batch

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### Measuring range

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

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## Liquids

**Max. process pressure**

350 bar (5080 psi)

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**Medium temperature range**

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

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**Display/Operation**

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

Configuration via local display and operating tools possible

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**Outputs**

4 modular outputs:

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

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

Relay

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**Inputs**

1 modular input: status

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**Digital communication**

HART, Modbus RS485

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**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)

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## Liquids

### Hazardous area approvals

ATEX, IECEx, NEPSI, JPN

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### Other approvals and certificates

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

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### Metrological approvals and certificates

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

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### Pressure approvals and certificates

CRN

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### Material certificates

3.1 material

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## Gas

### Measuring principle

Coriolis

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### Product headline

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

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### 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).

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## Gas

**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:  $\pm 0.5$  % of batch

**Measuring range**

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

**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

## Gas

**Degree of protection**

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

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**Display/Operation**

4-line backlit display with touch control (operation from outside)  
Configuration via local display and operating tools possible

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**Outputs**

4 modular outputs:  
0-20 mA (active)/4-20 mA (active/passive)  
Pulse/frequency/switch output (passive), phase-shifted pulse  
Relay

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**Inputs**

1 modular input: status

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**Digital communication**

HART, Modbus RS485

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**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)

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**Hazardous area approvals**

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**Other approvals and certificates**

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

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