

CNGmass

Coriolis flow measurement

The compact device for natural gas measurement in dispensers

Small in size Great in performance

- Excellent measuring performance also under high process pressure up to 350 bar
- Space-saving compact design
- No inlet and outlet runs
- Cost-effective operation: maintenance-free, no moving parts or seals
- Multivariable: simultaneous measurement of mass flow, density and temperature
- Direct mass measurement, including conversions to other units of measure
- Traceable measurement results ensured by our own accredited calibration facilities according to ISO/IEC 17025







CNGmass

The natural gas specialist

At over 22 000 gas stations worldwide, more and more people are fueling their vehicles with environmentally friendly natural gas. And over 17 million vehicle owners trust that the quantity of gas they put in their tanks is billed accurately and reliably.

The new CNGmass, specially designed for dispensers, helps to keep things this way. With this Coriolis flow-meter mass flow can be measured with the highest accuracy independent of pressure and temperature. Thanks to its robust and compact design, the CNGmass fits in every dispenser. It has no moving parts or seals and is absolutely maintenance-free.

As a multivariable flowmeter, the CNGmass simultaneously measures the mass flow, density and the temperature of natural gas. This data can be transmitted directly to the dispenser controller via an integrated Modbus RS485 interface.

And last, but not least, highly skilled technicians and service engineers from our worldwide service and sales organizations are there to support you in any emergency. One more reason to trust Endress+Hauser as your partner.



The complete solution from one supplier

As a single-source supplier, Endress+Hauser ensures that you get everything you need from one hand:

- Flowmeters
- Pressure measuring devices
- Temperature measuring devices



Technical data

Transmitter

Operation	Via operating tool, e.g. "FieldCare" from Endress+Hauser
Power supply	DC 20 to 30 V
Ambient temperature	-40 to +60 °C (-40 to +140 °F)
Degree of protection	IP66 and IP67 (Type 4X enclosure)
Dimensions (L × W × H)	DN 8 (3/8"): 214 (8.4) × 136 (5.35) × 266 (10.5) mm (in) DN 15 (1/2"): 267 (10.5) × 136 (5.35) × 277 (10.9) mm (in) DN 25 (1"): 316 (12.4) × 136 (5.35) × 276 (10.9) mm (in)
Galvanic isolation	All circuits for outputs and power supply are galvanically isolated from each other
Outputs / Communication	Modbus RS485
Ex approvals	ATEX, IECEx, INMETRO, NEPSI, cCSAus
Ignition protection type	Intrinsically safe (Ex ia); with Safety Barrier for Ex zones

Sensor

Nominal diameters	DN 8 (3/8"), DN 15 (1/2"), DN 25 (1")
Max. measured error	±0.5% of the quantity filled in typical CNG fueling (mass flow)
Measuring range	DN 8 (3/8"): max. 30 kg/min (66 lb/min) DN 15 (1/2"): max. 80 kg/min (175 lb/min) DN 25 (1"): max. 150 kg/min (330 lb/min)
Process connections	Internal thread: G 1/2" (DN 8), G 3/4" (DN 15), G 1" (DN 25)
Process pressure	Max. 350 bar (5080 psi)
Process temperature	-50 to +125 °C (-58 to +257 °F)
Materials	Stainless steel (housing, process connections, measuring tubes)
Subject to modification	

The CNGmass measuring system fulfills the EMC requirements according to IEC/EN 61326 and NAMUR NE21. It also conforms to the requirements of the EU and ACMA directives and thus carries the  and  mark.

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