

P-High pressure Series PRESSURE MASS FLOWMETER

High Pressure Mass Flow Meter

ETRANS – CMASS003-4-8-15 Datasheet

Precise Measurement,
Ultimate Control

www.enelean.com



High Pressure Mass Flow Meter

MODEL CMASS003-4-8-15



Application Areas

Hydrogen Energy & Refueling Stations
Oil & Gas Upstream and Downstream
High-Pressure Chemical Processing
Cryogenic Gas Liquefaction (LNG/Liquid Nitrogen)
Industrial Gas Cylinder Refilling
Automotive Engine & Valve Testing
Marine & Offshore Engineering
Power Generation & Turbine Control

Features

- Ultra-High Pressure Compatibility (Up to 90MPa)
- High-Precision Mass Flow Measurement ($\pm 0.1\%$)
- Direct Density and Temperature Sensing
- Compact and Integrated Sensor Design
- Corrosion-Resistant 316L Stainless Steel Construction
- Advanced Digital Communication (Modbus RTU, HART, 4-20mA)
- Certified Explosion-Proof and SIL Safety
- Real-Time 3-Line Backlit Interface
- Wide Fluid Media Versatility (Hydrogen, CNG, LNG)
- Maintenance-Free Solid-State Technology

Description

High-Precision Flow Measurement Solutions for Demanding Environments

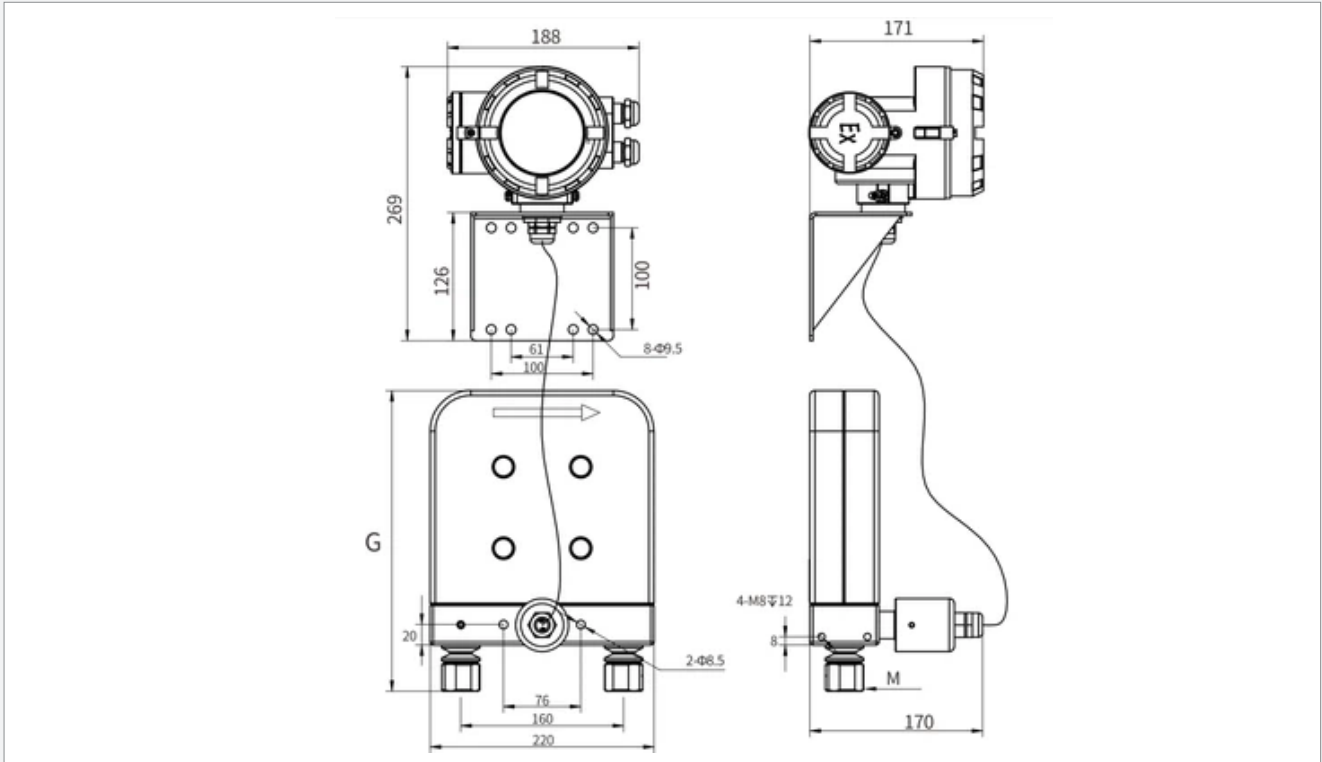
At Enelsan, we are committed to delivering cutting-edge industrial solutions that ensure operational excellence and safety. In collaboration with Colisen Sensor Technology, we offer the High-Pressure Coriolis Mass Flow Meter, specifically engineered for extreme environments such as hydrogen energy (H70/H35), CNG refueling, and high-pressure industrial gas applications. This advanced meter provides direct mass flow measurement with exceptional accuracy of up to $\pm 0.1\%$, remaining unaffected by changes in fluid density, viscosity, or pressure, thus ensuring reliable data for critical custody transfer and process control.

Rugged Design Meets Advanced Connectivity

Designed to withstand pressures up to 90MPa, these flow meters feature a compact, integrated 316L stainless steel construction that simplifies installation in space-constrained systems. Beyond its robust physical build, the device supports a wide range of industrial communication protocols, including Modbus RS-485, Hart, and 4-20mA, allowing for seamless integration into existing PLC or DCS architectures. By choosing Reinmeer's high-pressure flow solutions, you invest in a future-proof technology that combines long-term stability with the highest safety standards, including CCS and Explosion-proof certifications.



Diameters



Model and diameter

MODEL	G	Max.W.P	M
RM-CMASS003	275	≤90MPa	9/16-18 UNF Female thread
		≤50MPa	
		≤40MPa	
RM-CMASS004	275	≤35MPa	9/16-18 UNF Female thread
RM-CMASS008	296	≤30MPa	3/4 Card sleeve
		≤45MPa	13/16-16 UNF Female thread
RM-CMASS015	296	≤30MPa	3/4 Card sleeve
		≤45MPa	13/16-16 UNF Female thread

High Pressure Mass Flow Meter
MODEL CMASS003-4-8-15



Transmitter Specifications

Certification: Transmitter & Sensor Assembly	CCS Certification, CPA, Explosion proof certificate(ex)
Power Supply	220VAC/24VDC Self-adaption
Output signal	Hart,4 to 20mA current loop active, Modbus RTU/RS-485, Pulse active
Display;Operate	3-line backlight; Touch key control
Protection grade	IP66,IP67
Housing material	304 stainless steel, ZL401 (Transmitter)
Electrical connection	1/2 NPT,M20*1.5
Measuring Tube Material; Wetted Parts Surface Finish	316L (default), titanium/Ha C alloy/ tantalum (optional); polishable.
Process connection	Thread
Accuracy	±0.1%,±0.15%, ±0.2%, ±0.5 %, ±1.0%
Transmitter software	CLS100 (default), optional CLS200, CLS300
>>Other certifications	Explosion proof certificate, SIL, CCS, 3-A, EAC

In fields such as hydrogen energy, CNG, and other high-pressure gas applications, precise, safe, and reliable flow measurement is the core of operations. Our high-pressure Coriolis mass flow meter series is specifically designed to handle extreme pressure conditions, offering you flawless metering solutions.

Wide Application Fields
This series of flow meters is the ideal choice for the following high-pressure gas metering scenarios:

Hydrogen Energy Industry: Hydrogen refueling stations (H70/H35), hydrogen production plants, hydrogen fuel cell testing platforms, hydrogen storage system metering.

CNG (Compressed Natural Gas) Field: CNG refueling stations, mother/child station trade transfer metering, compressor outlet flow measurement.

High-Pressure Industrial Gases: Various high-pressure cylinder refilling (such as helium, oxygen, argon), special gas metering, purge gas flow control.

Research & Testing Platforms: Laboratory R&D, engine testing stands, valve and pipe testing systems requiring precise high-pressure gas metering.

Overall Dimension (unit : mm)



Contact us

Enelsan Istanbul Office Address
Şerifali, Barbaros Cd. No: 60, 34775 Ümraniye/İstanbul

Enelsan Factory 1 Address
Çerkeşli OSB Mahallesi İmes 4 Bulvarı No: 11 Dilovası/Kocaeli

Enelsan Factory 2 Address
Çerkeşli OSB Mahallesi İmes 14. Cadde No: 17 Dilovası/Kocaeli

Phone: +90 262 754 63 13
Fax: +90 262 754 93 93
sales@enelsan.com