REINMEER

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Dust-laden White Oil Coriolis Mass Flowmeter

W-Micro bend tube Series

RM-CMASS025GW

Data sheet

High-Temperature Stability & Solid-Liquid Expert:
Precision Measurement for Dust-Laden Media.

LIQUID GAS

Coriolis Flow Flowmeter

RM-CMASS025GW

Application Areas

Chemical Processing
Petrochemical Industry
Energy & Power
Oil & Gas Explor
Marine & Aviationation
Multiphase Flow Research

Features

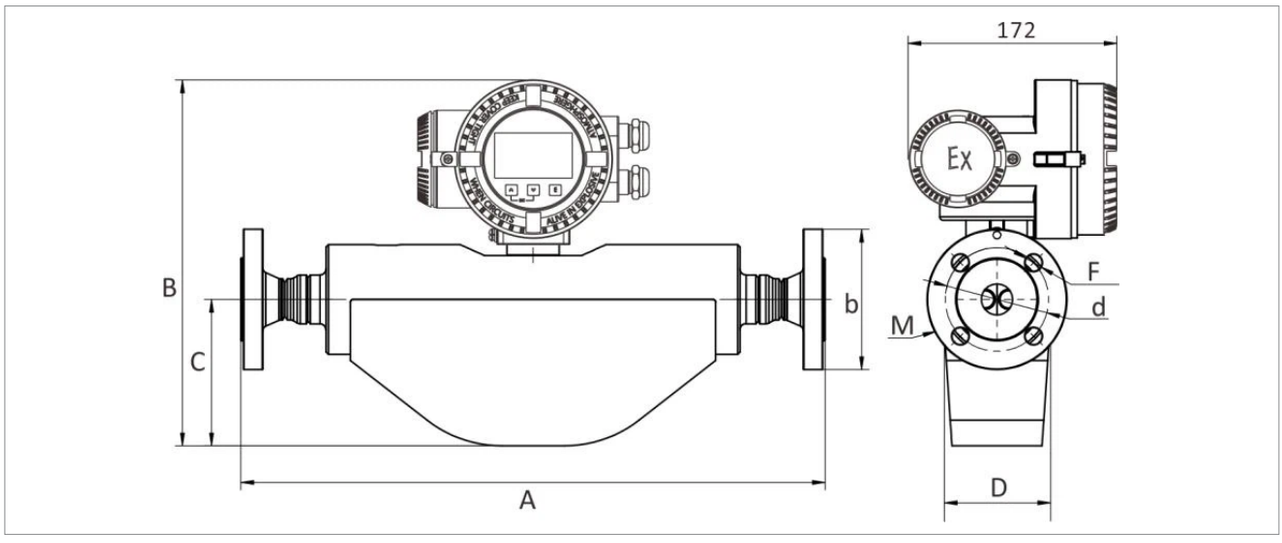
- High-Temperature Resilience: Capable of stable operation in environments reaching up to 250°C.
- Solid-Liquid Expertise: Optimized for dust-laden and particle-containing media without clogging risk.
- Multi-Parameter Output: Real-time simultaneous measurement of mass flow, density, and temperature.
- Micro-Bend Design: Compact structural configuration that mini-
- mizes installation space and prevents particle deposition.
- Superior Accuracy: High-precision measurement with ±0.2% accuracy and 0.1% repeatability.
- Wear-Resistant Construction: Built with specialized materials (316L/Titanium) to withstand abrasive media.
- High Turndown Ratio: Reliable performance across a wide flow range (30 to 166.67 L/min).
- Maintenance-Free: No moving parts design reduces mechanical wear and long-term operational costs.

Description

The Reinmeer CMASS025GW represents the pinnacle of precision engineering, specifically designed to tackle the most demanding challenges in industrial flow measurement. Built to excel in high-temperature environments, this Coriolis mass flow meter provides unparalleled stability when handling complex media, such as dust-laden white oil. By integrating advanced micro-bend sensor technology, Reinmeer ensures that even solid-liquid mixtures are measured with extreme accuracy, preventing common issues like clogging or sedimentation that often plague traditional devices.

Commitment to reliability is at the heart of the Reinmeer brand. The CMASS025GW model offers a robust solution for processes requiring simultaneous monitoring of mass flow, density, and volume. Its durable, wear-resistant construction and maintenance-free design make it an indispensable asset for industries aiming to optimize their process control and product quality. Whether operating under low-pressure conditions or extreme thermal stress, Reinmeer delivers a consistent and high-precision performance you can trust.

Diameters



Model and diameter

MODEL	A	B	C	D	E	F	d	b	M
CMASS008	439	277	100	68	288	4-Φ14	Ø65	Ø95	HG/T 20592 DN15 PN40 Flange
CMASS015	460	284	103	76	305	4-Φ14	Ø65	Ø95	HG/T 20592 DN15 PN40 Flange
CMASS025	480	300	120	90	353	4-Φ14	Ø85	Ø115	HG/T 20592 DN25 PN40 Flange
CMASS040	816	401	200	125	416	4-Φ18	Ø110	Ø150	HG/T 20592 DN40 PN40 Flange
CMASS050	816	401	200	125	467	4-Φ16	Ø125	Ø165	HG/T 20592 DN50 PN40 Flange
CMASS080	954	567	300	170	423	8-Φ18	Ø160	Ø200	HG/T 20592 DN80 PN40 Flange
CMASS100	1111	552	292	196	500	8-Φ22	Ø190	Ø235	HG/T 20592 DN100 PN40 Flange

Typical Application Scenarios

- Solid-containing white oil pipeline measurement
- High-temperature process media flow monitoring
- Chemical process solid-containing liquid measurement
- Special oil product blending systems
- Industrial additive precision injection systems
- High-temperature lubricant production and distribution
- Process control in solid-liquid mixture applications

Coriolis Flow Flowmeter
RM-CMASS008

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Datasheet RM-CMASS025GW

Transmitter Specifications

Certification: Transmitter & Sensor Assembly	CCS Certification, CPA, Explosion proof certificate(ex)
Power Supply	220VAC/24VDC
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,Flange,Sanitary high-speed interface
Accuracy class	±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

Core Product Advantages

High-Temperature Solid-Containing Expert: Optimized for high-temperature solid-containing applications such as dust-containing white oil, with temperature resistance up to 250°C
Dual-Parameter Output: Simultaneously outputs mass flow, density, and volumetric flow parameters
Wear-Resistant Design: Special materials and flow path design provide abrasion resistance and anti-clogging protection
Wide Range Measurement: Broad turndown ratio covering 30~166.67L/min flow range
No Moving Parts: Low wear, maintenance-free, suitable for long-term continuous operation
High-Precision Measurement: Accuracy ±0.2%, repeatability 0.1%, ensuring measurement accuracy
Compact Structural Design: Micro-bend tube design occupies less space compared to other tube types, enabling easier installation

1. Precision Measurement of High-Temperature Solid-Containing Media

Challenge: Dust-containing white oil under high-temperature conditions (<200°C) contains solid particles that can clog pipelines, making traditional flow meters unable to provide stable measurement.
Solution: Utilizing high-temperature specialized sensor design and wear-resistant materials with integrated temperature sensors. With a maximum temperature resistance of 250°C and micro-bend design that prevents particle deposition and clogging, ensuring stable operation in high-temperature solid-containing conditions.

2. Stable Output Amid Changing Media Properties

Challenge: The density and viscosity of dust-containing white oil change significantly with temperature, causing large measurement errors in traditional volumetric flow meters.
Solution: The Coriolis principle directly measures mass flow while simultaneously outputting density and volumetric flow, unaffected by changes in media properties, achieving measurement accuracy up to ±0.2%.

3. High-Precision Measurement in Medium-Low Flow Ranges

Challenge: Common flow rates of 30~50L/min and maximum flow of 166.67L/min present accuracy challenges for traditional flow meters in medium-low flow ranges.
Solution: Optimized sensor sensitivity with a turndown ratio of 100:1, ensuring high-precision measurement within the 30~166.67L/min range.

4. Adaptability to High-Temperature and Low-Pressure Conditions

Challenge: The combination of 0.6MPa low pressure and <200°C high temperature places extreme demands on the flow meter's sealing and stability.
Solution: Using high-temperature sealing materials and reinforced structural design with micro-bend tube configuration, ensuring long-term stable operation under 0.6MPa low-pressure, high-temperature solid-containing conditions.

Contact us

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