



OXY HUES

Coriolis Mass Flow Meter





Introduction



We OXY HUES Engineering is a Hi-Tech technology and Manufacturing enterprise completely owned and managed by Al Fajr Marine & Marineflex with its head office in Abu Dhabi U.A.E and our branches currently operating in Abu Dhabi, Dubai, Sharjah, Ajman, Muscat, Seeb,

Salalah, Gudaibiya, Muharraq, Dammam, Jeddah, Mumbai and Qingdao China.

The parent company AFM which started in 1995, is the largest stockiest, distributor and biggest networked company in GCC for the supply and service of Marine accessories and its operational base in U.A.E, Oman, Bahrain, Saudi Arabia, India and China.

The factory covers an area of 4000m², equipped with advanced production and test facilities. Oxy Hues started to research oil and gas equipment in 2004 first, and then focuses on the research, development, production, sale and service of mass flow meter. After years of effort, it learned the core technology and manufacturing technique in this area; the products reach domestic leading level, and meet the international standards. Difficulty has been solved to measure fluid (liquid/gas) at high/low temperature, at a low flow rate and at a large pressure fluctuation, meeting the need for quick-acting and high accuracy in the market. Besides, solution is available for special requirements, including design, installation, test & other services. As a technology enterprise, Oxy Hues communicates and cooperates with different research institutes to keep technology updated. In the meantime, it concentrates on quality management as well. With its high accuracy, wide range ability and reliable performance, Oxy Hues meter has been applied in many kinds of industries during the last 8 years. Unlike others who only focus on the measurement of liquid at normal pressure & temperature, Oxy Hues has conquered the difficulty in the measurement under severe conditions, such as high pressure, high viscosity, high & low temperature. Take CNG (compressed natural gas) for example. As the saying goes, the meter can measure anything else if it can measure CNG. It is quite hard to measure gas under high pressure. The sensor must be able to bear high pressure; in this way, the thickness of flow tube must be increased, so the transmitter shall be more sensitive to detect the signal; however, Oxy Hues made it. Oxy Hues first model is specially designed for CNG dispenser, and now thousands of this model are put into use on the market.

We are dedicated to delivering reliable, repeatable, high-performance Coriolis flow meters to the customers we serve.





Factory equipment

Oxy Hues has modernized workshops and advanced completed production & testing facilities, with the ability to design, produce, install and debug according to your special requirements for the application of all industries.

Calibration System

The calibration system is designed according to the highest standards, "static quality method verification certificate of water flow standard device" certified, with several pipelines, completely software control, and real-time report..



Main Parameters



Model	Diameter (mm)	Max. flow (kg/min)	Max. working pressure (MPa)	Accuracy grade	Zero stability (kg/h)
CG-06	6	20	4	0.1, 0.15, 0.2	0.04
CG-15	15	50	25	0.1, 0.15, 0.2	0.12
CNG-15	15	70	25	0.1, 0.15, 0.2	0.19
CNG-20	20	120	25	0.1, 0.15, 0.2	0.36
CG-25	25	200	4	0.1, 0.15, 0.2	0.62
CG-40	40	500	4	0.1, 0.15, 0.2	1.60
CG-50	50	1000	4	0.1, 0.15, 0.2	2.38
CG-80	80	3000	4	0.1, 0.15, 0.2	7.05
CG-100	100	5000	4	0.1, 0.15, 0.2	12.0



Calibration Lab Uncertainty: 0.05%

Production & Testing Equipment



Static-free workshop



Burn-in area



METTLER TOLEDO IND560



CNC pipe bending machine



Assembly line



Vacuum brazing furnace



CORIOLIS MASS FLOW METER

- RS232, RS485, Pulse, 4-20mA, HART & ModBus RTU Output are available
- Each meter is tested with METTLER TOLEDO instruments with accuracy 0.014%
- A dedicated team of applications engineers provides site engineering and design services, etc

CORIOLIS MASS FLOW METER

- Accuracy is $\pm 0.1\%$
- The warranty is 2-year
- The lead time for production is 7-day





CORIOLIS MASS FLOW METER

- No moving parts result in no maintenance or repair
- With no flow conditioning or straight pipe run required
- One meter can measure flow rate, density & temperature

MASS FLOW METER

Introduction



Mass flow meter is a device that measures the mass of a fluid traveling through a tube, in accordance with Coriolis Principle. Coriolis mass flow meter can directly measure fluid mass flow, and has great influence on processing and measuring methods in energy & chemical industries. Compared with traditional volumetric flow measurement, it has following advantages:

1. High accuracy: Generally from 0.1% - 0.5%.
2. Wide application: Besides common fluid, mass flow meter can measure fluids such as non-Newtonian fluid, all kinds of slurry, suspensions, etc.
3. Convenient installation: No specific requirement of choosing upstream or downstream pipe.
4. High reliability

Other Features



Requires low maintenance, because of no movable parts.



Shows many parameters simultaneously, such as mass flow, temperature, density, etc.



Not affected by the fluid, saving design & installation cost.



One sensor can be used for various fluids.

Mass Flow Meter CG-06



Model No.	CG-06
Nominal diameter	6mm
Max. flow rate	20 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	0.04kg/h
Repeatability	0.05%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/-40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN15 Flange(on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	530*320*250mm
G.W.	8.6kgs

Mark:
The above parameters are for our standard models.
Please contact our sales team if you have any special requirement.



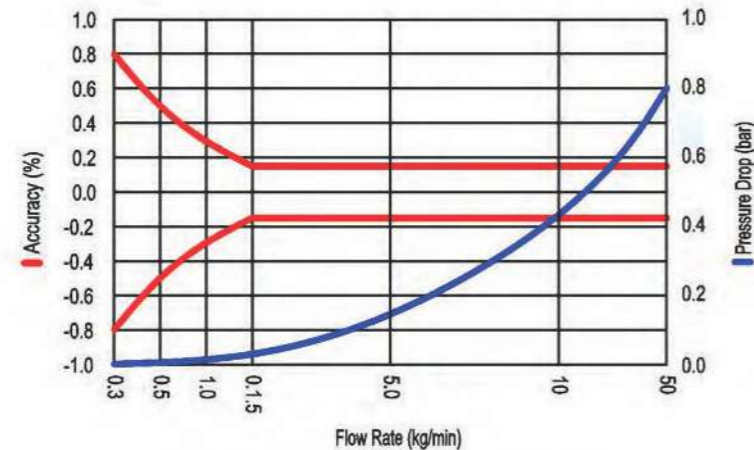
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CG-15



Model No.	CG-15
Nominal diameter	15mm
Max. flow rate	50 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	0.12kg/h
Repeatability	0.05%
MWP.	25MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	Nut 32X1.5(on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓔ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	580*350*250mm
G.W.	12kgs

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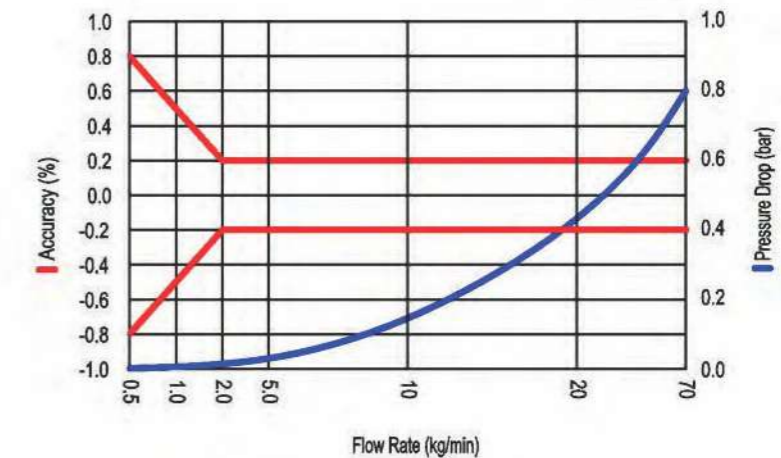
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CNG-15



Model No.	CNG-15
Nominal diameter	15mm
Max. flow rate	70 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	0.19kg/h
Repeatability	0.05%
MWP.	25MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	Nut 32X1.5 (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓔ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	580*350*250mm
G.W.	14kgs

Mark:
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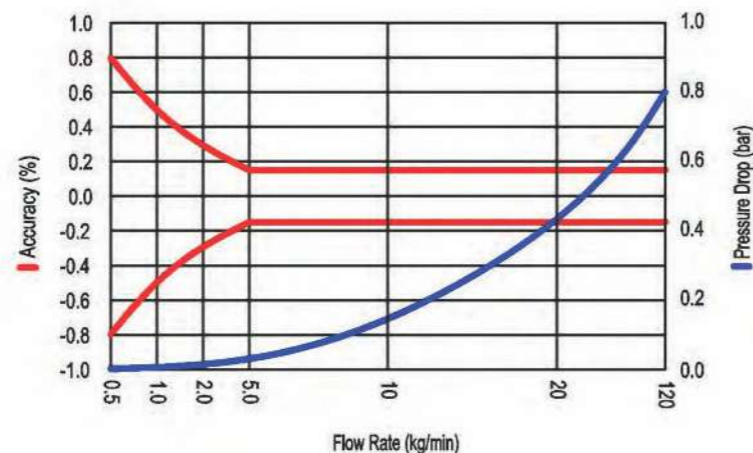
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CNG-20



Model No.	CNG-20
Nominal diameter	20mm
Max. flow rate	120 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	0.36kg/h
Repeatability	0.05%
MWP.	25MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C / -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	Nut 42X2 (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓔ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	ATEX
Package size	700*420*210mm
G.W.	21kgs

Mark:
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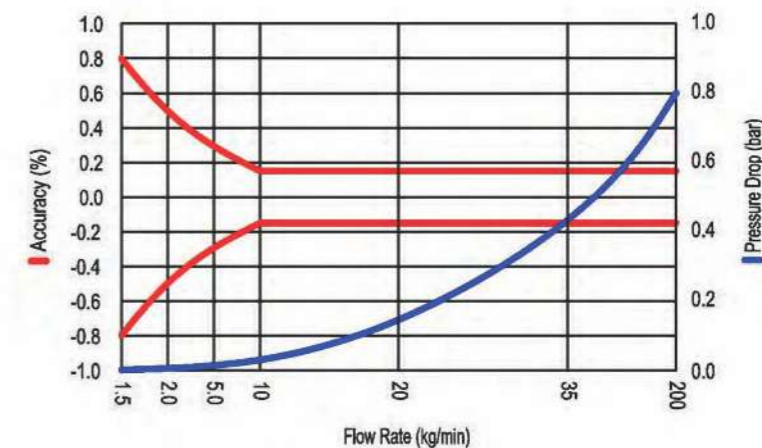
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CG-25



Model No.	CG-25
Nominal diameter	25mm
Max. flow rate	200 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	0.62kg/h
Repeatability	0.05%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C / -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN25 flange (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓔ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	665*660*315mm
G.W.	23kgs

Mark:
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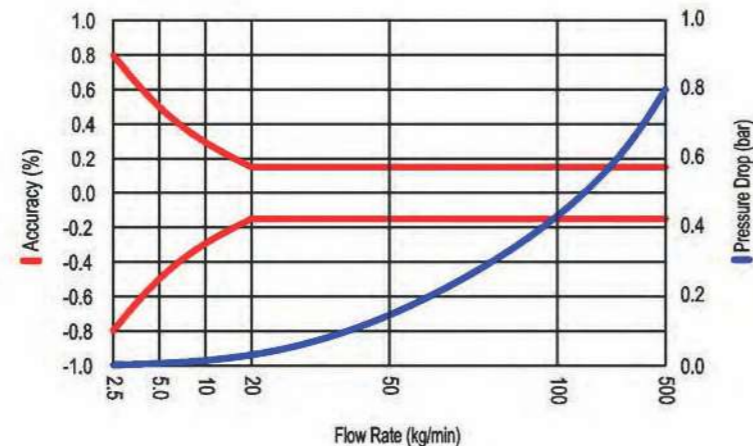
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CG-40



Model No.	CG-40
Nominal diameter	40mm
Max. flow rate	500 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	1.6kg/h
Repeatability	0.05%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN40 flange (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓜ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	796*736*428mm
G.W.	45kgs

Mark:
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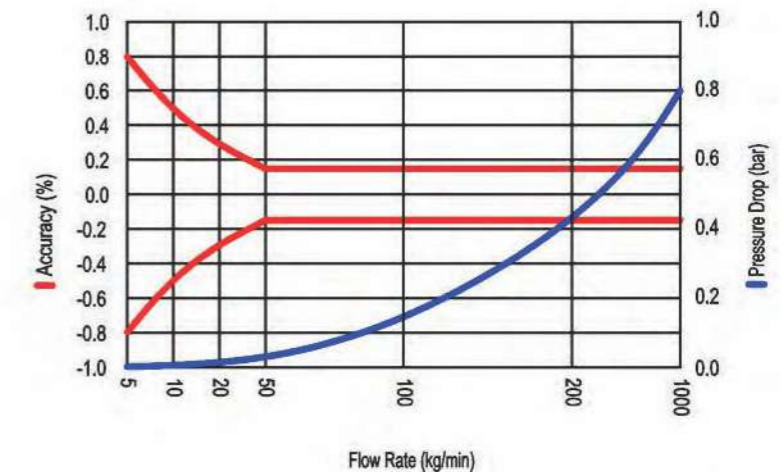
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CG-50



Model No.	CG-50
Nominal diameter	50mm
Max. flow rate	1000kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	2.38kg/h
Repeatability	0.05%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN50 flange (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓜ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	866*716*428mm
G.W.	60kgs

Mark:
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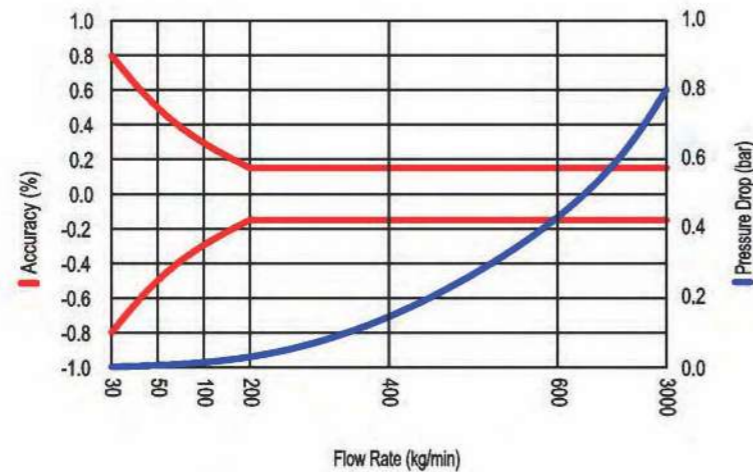
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CG-80



Model No.	CG-80
Nominal diameter	80mm
Max. flow rate	3000 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	7.05kg/h
Repeatability	0.05%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN80 flange (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓔ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	1056*896*478mm
G.W.	114kgs

Mark:
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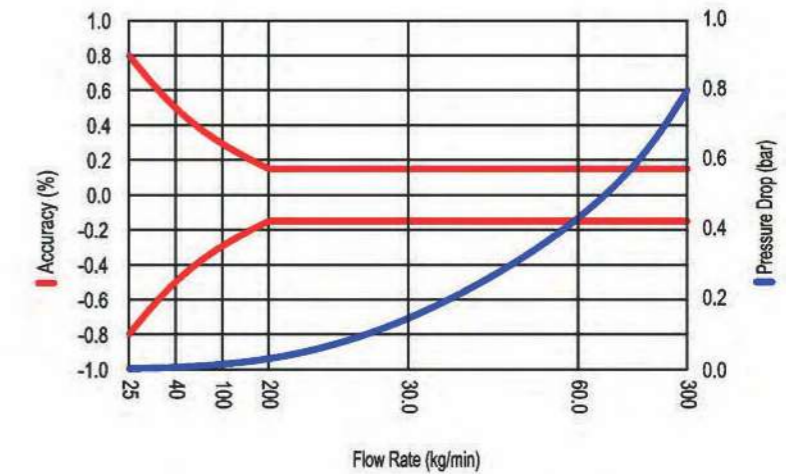
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter CG-100



Model No.	CG-100
Nominal diameter	100mm
Max. flow rate	5000kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	12kg/h
Repeatability	0.05%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN100 flange (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓔ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	1560*860*440mm
G.W.	200kgs

Mark:
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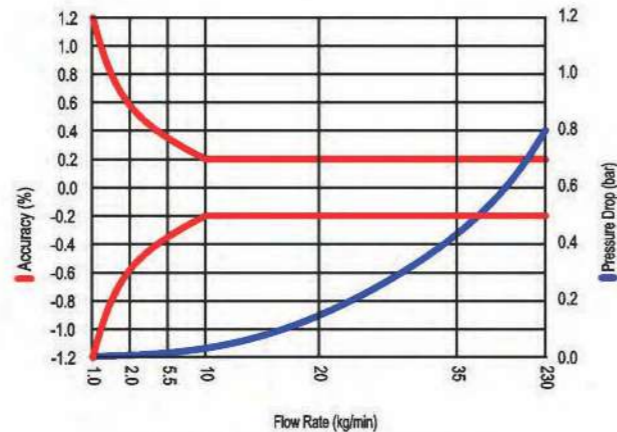
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter MS-25



Model No.	MS-25
Nominal diameter	25mm
Max. flow rate	230 kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	0.93kg/h
Repeatability	0.10%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN25 flange (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	⊕ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Package size	640*415*210mm
G.W.	19.5kgs

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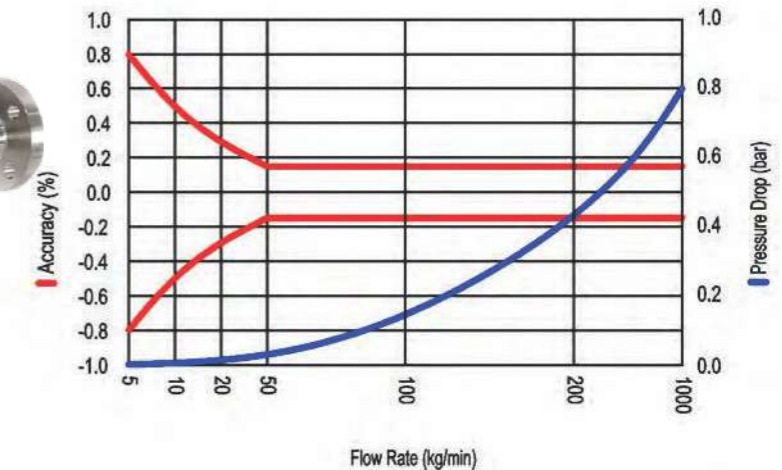
Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Mass Flow Meter MS-50



Model No.	MS-50
Nominal diameter	50mm
Max. flow rate	1000kg/min
Liquid accuracy	±0.1% , ±0.15% , ±0.2% , ±0.5%
Temp. accuracy	±1°C ±0.5% of reading
Density accuracy	±0.002g/cm ³
Zero stability	2.38kg/h
Repeatability	0.05%
MWP.	4MPa
Operating voltage	AC85~265V/ DC12~24V
Ingress protection	IP65 / IP67
Fluid temperature	-200~+200°C
Operating temp.	-30°C~+60°C/ -40°C~+60°C
Vibrating tube	Stainless steel 316L
End connection	DN50 flange (on request)
Output	RS485, Pulse, 4-20mA & HART
Ex-mark	⊕ II 2G Ex db IIC T6...T1 Gb
Warranty	2-year
Certificate	CE, ATEX
Package size	866*716*428mm
G.W.	60kgs

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Calibration Condition: Fluid: Water; Temp.: 16~28°C
The accuracy from ±0.8~0.15% are just for reference.

Transmitter F231



Specifications

Operating temp.	-30°C~+60°C/-40°C~+60°C
RH	≤95%, non condensing
Atmospheric Pressure	86~106 kPa
Operating voltage	AC85~265V/ DC12~24V
Communication port	RS485, Pulse, 4-20mA & HART
Ex-mark	Ⓔ II 2G Ex db [ib] IIC T6...T1 Gb

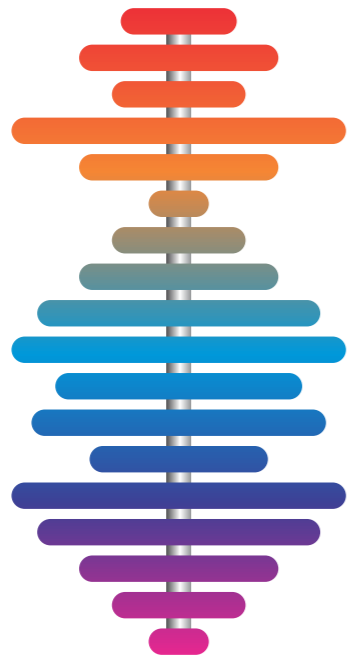


Application Scope



Mass flow meter can be applied to the following industries.

- ▶ Alternative Energy
- ▶ Oil & Gas
- ▶ Chemical
- ▶ Food & Beverage
- ▶ Industrial Energy
- ▶ Marine
- ▶ Power
- ▶ Pulp & Paper
- ▶ Refining
- ▶ Others



OXY HUES