

Features

MaxiFlo™ Coriolis Mass Flowmeter series MCM is a mass flow meter that measures mass flow, density and temperature of liquids, slurries and gases. And it even measures oil content in water.

It has no moving parts and doesn't require any special device for installation. And it doesn't require flow profile stabilization by means of flow straightener or straight pipe run either upstream or downstream. The wetted parts are made of high-grade stainless steel (SUS316L) and therefore can be used for corrosive liquids.

- DSP (digital signal processing) technology assures high accuracy of 0.1%, 0.2% and 0.5% of reading and a wide turndown ratio
- Can measure liquids of all types, slurries and gases.
- Wetted parts are made from high-grade stainless steel and can be used for corrosive liquids
- Mass flow, volume flow, density and temperature measurement without additional instruments
- Measurement accuracy is not affected by the flow profile (laminar or turbulent) and therefore, there's no need for flow profile stabilization by means of flow straightner or straight pipe sections either upstream or downstream
- Minimal pressure loss
- No moving parts in the flow, longer life and easy maintenance

Measuring Principle of Coriolis MFM

The mass flow-sensing element is composed of a pair of bent tubes, vibrators and displacement sensors. The trick here is to detect the Coriolis force applied on the tube by the flowing fluid inside the bent oscillating tube. In order to do that, the vibrators vibrate the bent tubes at the natural resonant frequency of the tubes. When there's a flow inside the tubes, the Coriolis force at work distorts the vibration of the tubes. This distortion can be measured using the displacement sensors. The amount of distortion is directly proportional to the mass flow of the fluid inside the tube. By accurately processing the displacement, the accurate mass flow is directly measured. Liquids, slurries and gases can be measured. It boasts strong immunity to noise, high accuracy, wide turndown ratio, stability and reliability.

100% Customer Satisfaction

MAXIFLO
Coriolis Mass Flowmeter (MCM Series)

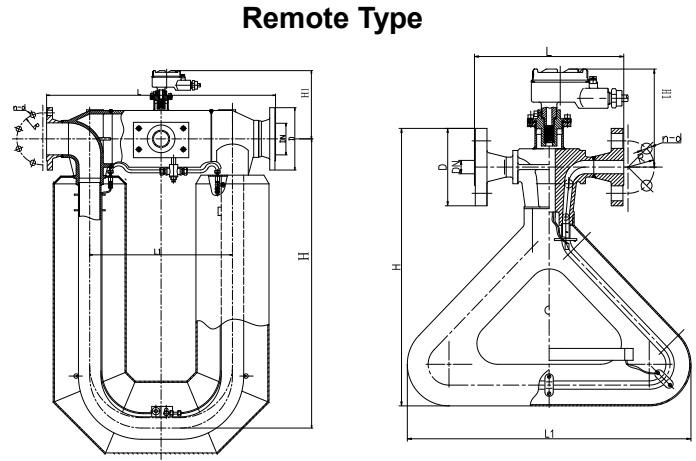
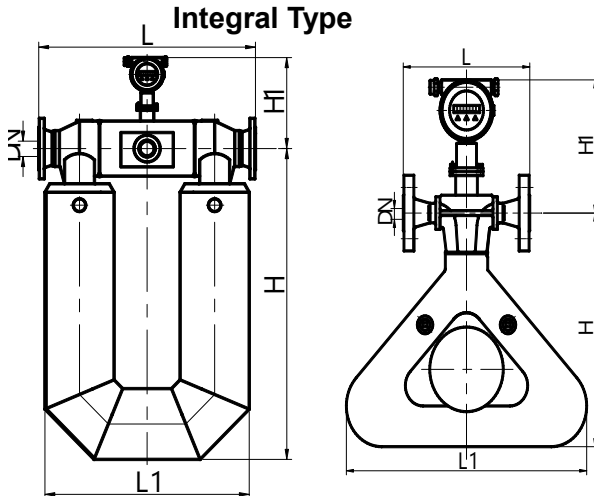
Coriolis Mass Flowmeter



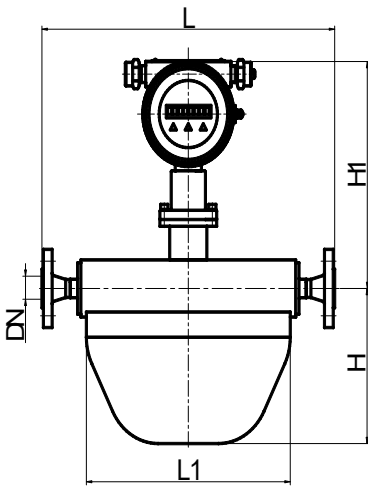
Flow Rates Table

For Liquids					
DN (mm)	Flow Range (kg/h)				Zero Stability (kg/h)
	Max. Range	0.1% Accuracy	0.2% Accuracy	0.5% Accuracy	
U Type					
10	10 ~ 1000	70 ~ 1000	50 ~ 1000		0.04
15	30 ~ 3000	150 ~ 3000	100 ~ 3000		0.12
25	80 ~ 8000	400 ~ 8000	300 ~ 8000		0.32
40	320 ~ 32000	2000 ~ 32000	1500 ~ 32000		1.2
50	500 ~ 50000	3500 ~ 50000	2500 ~ 50000		2
80	1400 ~ 140000	6000 ~ 140000	6000 ~ 120000		6
100	2000 ~ 200000	15000 ~ 200000	10000 ~ 200000		8
150	5000 ~ 500000	35000 ~ 500000	25000 ~ 500000		20
200	10000 ~ 1000000	70000 ~ 1000000	500000 ~ 1000000		40
Half-Circle Type					
3	1.2 ~ 120	10 ~ 120	8 ~ 120	6 ~ 120	0.004
8	8 ~ 800	80 ~ 800	55 ~ 800	40 ~ 800	0.035
10	10 ~ 1000	100 ~ 1000	70 ~ 1000	50 ~ 1000	0.045
15	20 ~ 3000	200 ~ 3000	200 ~ 3000	150 ~ 3000	0.09
25	80 ~ 8000	600 ~ 8000	400 ~ 8000	300 ~ 8000	0.25
40	240 ~ 24000	2400 ~ 24000	1200 ~ 24000	1000 ~ 24000	1
50	500 ~ 50000	5000 ~ 50000	2500 ~ 50000	2000 ~ 50000	2
80	800 ~ 120000	8000 ~ 120000	8000 ~ 120000	6000 ~ 120000	3.5
100	1500 ~ 200000	15000 ~ 200000	15000 ~ 200000	10000 ~ 200000	7
150	5000 ~ 500000	50000 ~ 500000	35000 ~ 500000	30000 ~ 500000	23
200	10000 ~ 1000000	100000 ~ 1000000	70000 ~ 1000000	50000 ~ 1000000	45
250	15000 ~ 1500000	150000 ~ 1500000	120000 ~ 1500000	75000 ~ 1500000	70
For Gases					
DN (mm)	Allowable Flow Range (kg/h)	Normal Flow Range with Accuracy 0.5% (kg/h)		Zero Stability (kg/h)	
15	15 ~ 3000	75 ~ 3000		0.12	
25	40 ~ 8000	200 ~ 8000		0.32	
40	160 ~ 32000	800 ~ 32000		1.2	
50	250 ~ 50000	1250 ~ 50000		2	
80	700 ~ 140000	3500 ~ 140000		6	
100	1000 ~ 200000	5000 ~ 200000		8	
150	2500 ~ 500000	12500 ~ 500000		20	

Outline Dimensions and Weights

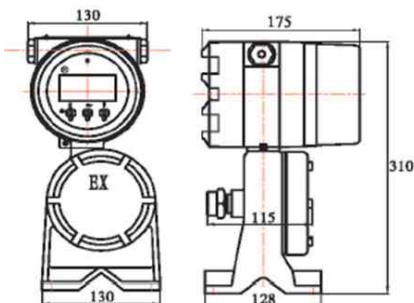


DN	L		L1	H	H1	
	≤ 4.0MPa	≥ 6.3MPa			Integral	Remote
10	150	170	350	290	260	190
15	180	194	350	300	260	190
25	200	248	450	420	280	210
40	520	547	470	660	280	210
50	558	588	550	710	290	220
80	780	808	710	1040	320	250
100	920	948	860	1140	350	280
150	1100	1140	1050	1520	380	310
200	1364	1410	1160	1655	420	350



DN	L		L1	H	H1	
	≤ 4.0MPa	≥ 6.3MPa			Integral	Remote
3	321	345	260	115	250	170
8	424	484	302	154	270	185
10	424	484	302	154	270	185
15	400	414	280	191	298	213
25	500	536	360	258	302	218
40	600	634	460	306	315	230
50	800	828	640	410	325	240
80	900	928	700	495	350	265
100	1130	1156	860	665	370	285
150	1450	1490	1200	905	400	316
200	1800	1845	1450	1175	426	342
250	1966	2006	1530	1300	426	342

Remote Transmitter



Technical Specifications

Transmitter	Integral / Remote Type		
Sensor	U type, half-circle type and triangular type		
Sizes	3 ~ 250mm		
Medium	Liquid, gas, slurry		
Measured Variables	Flow	- Accuracy / Repeatability (±%): Liquid 0.1 / 0.05, 0.2 / 0.1, 0.5 / 0.25 Gas: 0.5 / 0.25	
	Density	- Range: 0.2 ~ 3.0 g/cm ³ - Accuracy: ±0.02 g/cm ³ - Repeatability: 0.001 g/cm ³	
	Temperature	- Range: -150 ~ 400°C - Accuracy: ±1.0°C	
	Water-cut	- Measurement of water content in oil in % - Accuracy: ±2%	
Working Temperature	Integral type: -50 ~ 125°C Remote type: -50 ~ 200°C Remote type with high temperature option: -50 ~ 300°C Remote type with low temperature option: -150 ~ 125°C		
Working Pressure	1.6, 2.5, 4.0, 6.3 MPa High pressure available upon request		
Working Environment	Vibration	- Frequency: <2000Hz - Acceleration: <2G (Note: 1G = 9.8 $\frac{m}{s^2}$)	
	Temperature	- Operation: -40 ~ +55°C - Storage: -20 ~ +70°C	
	Humidity	at +25°C without condensation - Operation: <90% - Storage: <95%	
Output	4-20mA	- 2-wire, loop-powered - Load Resistance: 250 ~ 600 Ohm - Error: ±0.2% F.S	
	Frequency Pulse	- OCT (Open Collector, Dry Contact) - Range: 0 ~ 10 KHz - Error: ±0.075%	
	RS-485	MODBUS-RTU	
Power Supply	- DC: 18 ~ 30V, Consumption – 10 ~ 15W - AC: 85 ~ 265V, Consumption – 10 ~ 15W		
Ingress Protection	IP-67		
Explosion Proof	Integral Type	Exdib IIC T4 ~ 6	
	Remote Type	DN 10 ~ 80	Exib IIC T3 ~ 6
		DN 100 ~ 200	Exdib IIC T3 ~ 6

Model Selection Code

MCM-### - # - # - ## - ## - #

Nominal Size		###
Converter Type	Integral	I
	Remote	R
Sensor	U-shape sensor	U
	Half circle sensor	H
	Triangular sensor	T
Power	220 VAC	P1
	24 VDC	P2
Connections	JIS Flange	F1
	ANSI Flange	F2
	DIN Flange	F3
	Thread	F4
	Others	F5
Accuracy	0.1%	A
	0.2%	B
	0.5%	C
Options	4-20mA with HART	HT

For example: **MCM-050-I-H-P1-F1-C**

➔ A 50mm, 220VAC-powered Coriolis mass flow meter with an integral half-circle sensor with JIS flange to measure with an accuracy of 0.5%

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