

CORIOLIS MASS FLOW METER

I-SYSTEM CORIOLIS MASS FLOW METER

Flow Measurement

& Monitoring



DESCRIPTION

The KF910 Coriolis mass flow meter can be used for direct measurement of mass flow rate and density. A Coriolis flow meter consists of two parallel tubes that are made to oscillate using a magnet. When fluid is flowing through the tube, it generates the Coriolis forces, causing the tubes to twist in proportion to the mass flow rate. The magnitude of this twisting is measured by the sensors as a phase shift between the inlet and outlet of the tubes. The phase shift is used to measure the mass flow rate. The tubes also oscillate at their own resonant frequency in proportion to the density of the medium through the tubes. This effect is used to derive the density of the medium.

TECHNICAL FEATURES

Size (mm)	10 to 150
Measuring medium	Liquid, air
Temperature range	Compact: -50 to 125°C / Remote: -50 to 200°C High temperature remote: -50 to 300°C Low temperature remote: -150 to 125°C
Tube design	U-shape tube, straight tube
Converter	Digital
Working voltage	DC24V, AC220V
Communication	RS485
Nominal pressure (MPa)	1.6, 2.5, 4.0, 6.3
Output signal	Pulse, 4-20mA
Accuracy	

FEATURES

- ✓ Measurement of mass flow rate, density and speed
- ✓ High accuracy and repeatability
- ✓ No dependence on flow direction
- ✓ U-shape and straight tube design
- ✓ Suitable to measure high viscosity and non-Newtonian fluids; slurry containing solid phase components
- ✓ Explosion proof

Accuracy	0.1 Grade	0.15 Grade
Intrinsic Error	±0.10%	±0.15%
Repeatability	±0.05%	±0.075%

Accuracy	0.2 Grade	0.5 Grade
Intrinsic Error	±0.20%	±0.5%
Repeatability	±0.10%	±0.25%

Accuracy is determined based on temperature range between 20 - 25°C and pressure between 0.1 - 0.2 MPa

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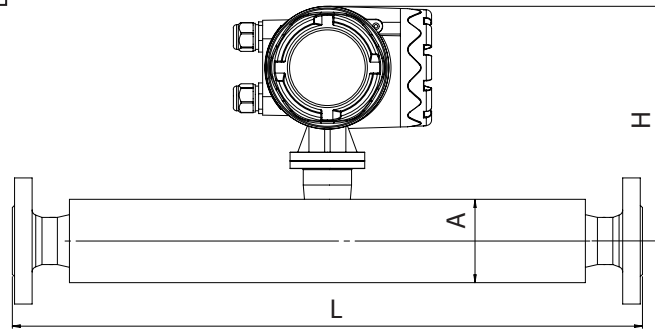
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MEASURING RANGE

DN (mm)	Flow Range (kg/h)	0.1, 0.15 Grade Flow Range (kg/h)	0.2, 0.5 Grade Flow Range (kg/h)	Zero Point Stability (kg/h)
15	30 - 3000	150 - 3000	100 - 3000	0.38
25	80 - 8000	400 - 8000	300 - 8000	1.00
40	320 - 32000	2000 - 32000	1500 - 32000	4.00
50	500 - 35000	3500 - 35000	2500 - 35000	6.25
80	1400 - 140000	6000 - 140000	6000 - 140000	17.5
100	2000 - 200000	15000 - 200000	10000 - 200000	25.0
150	5000 - 500000	35000 - 500000	25000 - 500000	62.5

DIMENSION/DRAWING

Straight Tube Design



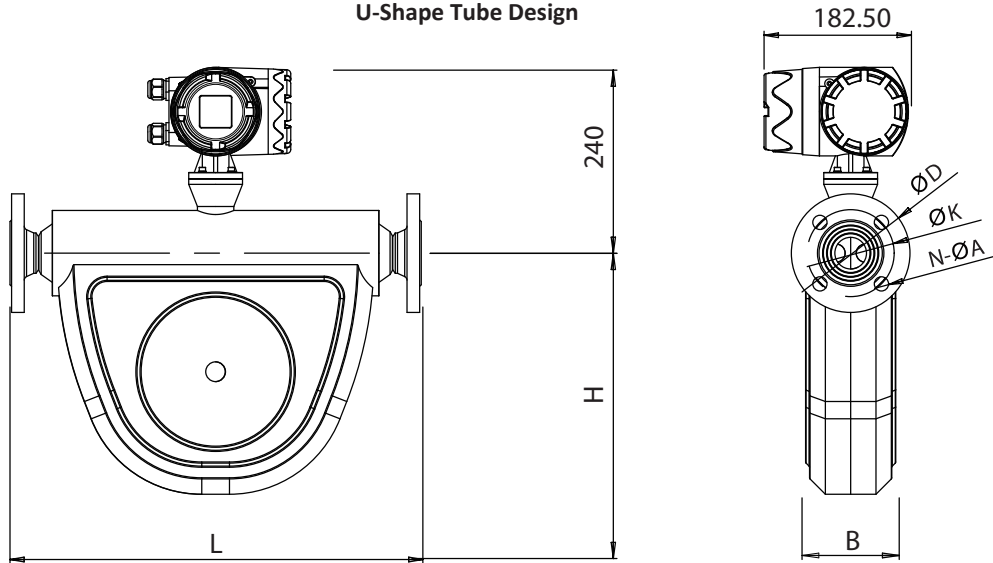
DN (mm)	Pressure	L (mm)	A (mm)	H (mm)
15	PN40	498	76	202
20		498	76	202
25		531	89	214
32		531	89	214
40		620	114	226
50		712	133	236
65		712	133	236
80	PN16	880	168	254
100		1200	190	265

DN (mm)	0.2, 0.5 Grade Flow Range (kg/h)
15	300 - 3000
20	300 - 3000
25	1500 - 15000
32	1500 - 15000
40	3500 - 35000
50	5000 - 50000
65	5000 - 50000
80	15000 - 150000
100	20000 - 200000



DIMENSION/DRAWING

U-Shape Tube Design



DN (mm)	Pressure	L (mm)	D (mm)	K (mm)	n-øA (mm)	B (mm)	H (mm)
10	PN40	304	90	60	4-14	57	138
15		304	95	65	4-14	60	168
20		330	105	75	4-14	73	190
25		420	115	85	4-14	70	230
32		430	140	100	4-18	70	230
40		520	150	110	4-18	103	303
50		532	165	125	4-18	103	303
65		538	185	145	8-18	103	303
80		600	200	160	8-18	150	400
100	PN16	700	220	180	8-18	180	500
125		800	250	210	8-18	200	650
150		1000	285	240	8-22	240	800

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