Vortex street flow sensor FM300





principle characteristics

The FM300 series intelligent vortex flow meter is based on the kamen vortex flow principle to measure the flow rate of steam, gas and viscosity liquid. It is a new type of flowmeter with international advanced level. It has the advantages that other flowmeters cannot have. It will occupy a dominant position in the flow meter in the future.

FM300 series intelligent vortex street flow transmitter is a new type of stress type vortex street flow transmitter. The transmitter can output voltage pulse frequency signal or 4-20ma standard signal, easy to use with the control system.

Technical parameters

- ◇ Caliber: DN25-DN300
- ◇ Measuring medium: saturated steam, superheated steam, liquid, gas
- ◇ accuracy: ±1.0%
- ◇ measurement repeatability: 0.3% (R)
- ◇ Nominal pressure: 1.6Mpa, 2.5 Mpa, 4.0 Mpa and above
- ◇ fluid temperature: -40~250°C(normal type), 100~350°C(high temperature type)
- ◇ Output signal: three-wire pulse output or two-wire 4-20mA standard current
- ◇ working power supply: +24VDC
- ◇ Working environment: temperature -25~60°C, humidity ≤90%RH

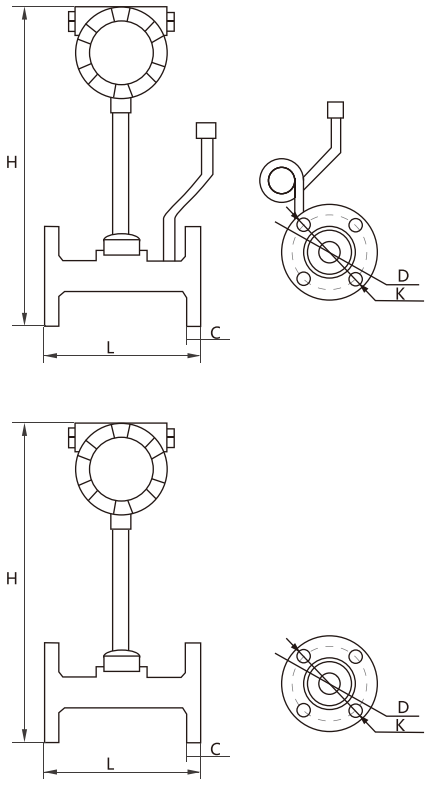
product application

The product can be widely used in petroleum, chemical, metallurgy, electric power, medicine, textile and tap water, natural gas station water supply, gas supply pipeline metering and control.

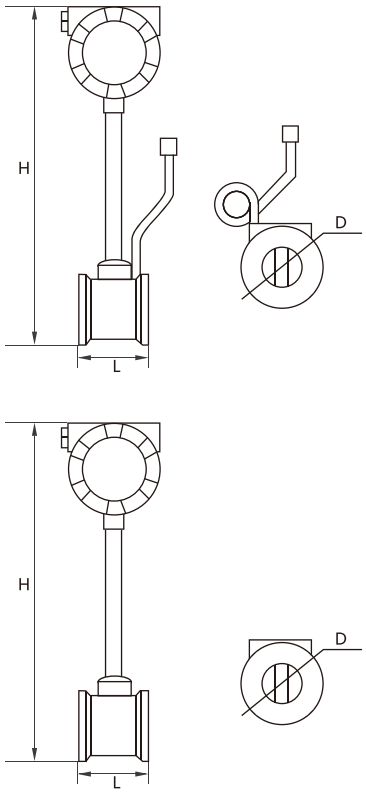
Range sheet

size （mm）	liquid (normal temperature water m³/h)		gas (Standard conditions air m³/h)		steam (Dry saturated steam m³/h)	
	minimum	maximum	minimum	maximum	minimum	maximum
25	0.9	14	8.3	80	8	120
40	2.5	35	18	200	20	300
50	3.3	55	30	400	30	450
65	6	80	50	700	60	800
80	10	130	70	1000	100	1300
100	20	200	120	1800	200	2000
125	30	300	180	2500	300	3000
150	25	450	240	3500	450	4500
200	40	900	480	7000	900	9000
250	60	1200	600	10000	1200	15000
300	100	1600	1000	14000	1400	18500

Size chart (mm)



DN15-DN300 Flange connection dimensions



DN15-DN300 Clamp connection dimensions

Dimension table 1 (flange connection)

Nominal diameter (mm)	length of the meter L (mm)	Meter height H (mm)	flange diameter D (mm)	flange thickness C (mm)	Flange connection		Bolt hole number	Bolt specification	Piping specification
					Bolt hole spacing K (mm)	Bolt hole Diameter (mm)			
15	180	415	95	14	65	14	4	M 12x60	Φ 18x1.5
20	180	420	105	16	75	14	4	M 12x60	Φ 25x2.5
25	180	425	115	16	85	14	4	M 12x60	Φ 32x3.5
32	180	435	140	18	100	18	4	M 16x70	Φ 39x4.5
40	180	435	150	18	110	18	4	M 16x70	Φ 48x4
50	180	440	165	20	125	18	4	M 16x70	Φ 59x4.5
65	200	460	185	20	145	18	4	M 16x70	Φ 74x4.5
80	200	490	200	20	160	18	8	M 16x70	Φ 89x4.5
100	200	510	220	22	180	18	8	M 16x70	Φ 109x4.5
125	220	535	250	22	210	18	8	M 16x70	Φ 134x4.5
150	220	570	285	24	240	22	8	M 16x90	Φ 159x4.5
200	220	625	340	24	295	22	12	M 16x90	Φ 219x9
250	250	685	405	26	355	26	12	M 24x110	Φ 273x11
300	300	710	460	28	410	26	12	M 24x110	Φ 325x12

Dimensions table 2 (clamping connection)

Nominal diameter (mm)	Flange clamp is installed				
	meter length L (mm)	installation length L (mm)	Meter height H (mm)	End face diameter D (mm)	Piping specification
15	80	116	400	68	Φ18x1.5
20	80	116	400	68	Φ25x2.5
25	80	116	400	68	Φ32x3.5
32	80	116	400	68	Φ39x3.5
40	80	116	404	80	Φ49x4.5
50	80	116	412	88	Φ59x4.5
65	80	116	428	105	Φ74x4.5
80	80	116	446	120	Φ89x4.5
100	80	118	472	148	Φ109x4.5
125	85	124	492	174	Φ134x4.5
150	90	135	515	196	Φ159x4.5
200	105	150	570	250	Φ219x9
250	120	166	620	300	Φ273x11
300	135	185	670	350	Φ325x12

(1) the above parameters are suitable for flange connection type vortex flowmeter with pressure class of 1.6mpa.
(2) flange-connected vortex flowmeter is not equipped with pipe flange and bolts when it leaves the factory, users need to buy separately.

Selection table

FM300-	F	1	-	025	L	S	F	A	-	detailed
FM300-										Vortex street flow sensor
	F									Flange type
	K									Card mounted
		1								liquid
		2								general gas
		3								Saturated steam
		4								Superheated steam
			-							CAL：DN25-DN300
				025						2.5MPa
				040						4.0MPa
					L					ordinary
					H					High temperature type
						S				Stainless steel
							F			Pulse output
							A			4-20mA With display
								0		No explosion-proof
								1		Explosion-proof type
									-	No temperature pressure compensation
									-TP	With temperature and pressure compensation
Note: special customization is supported										