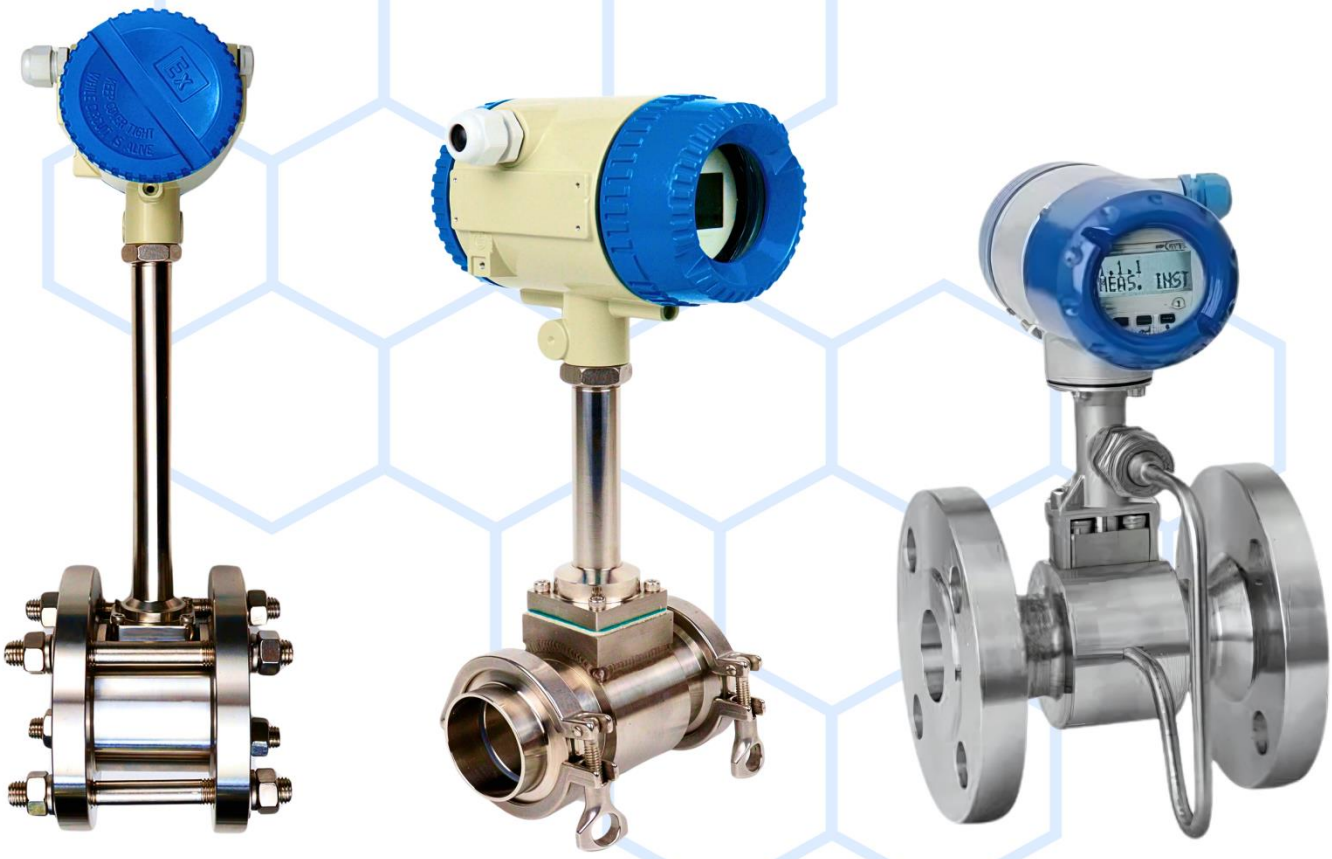
Ventilumix (USA)



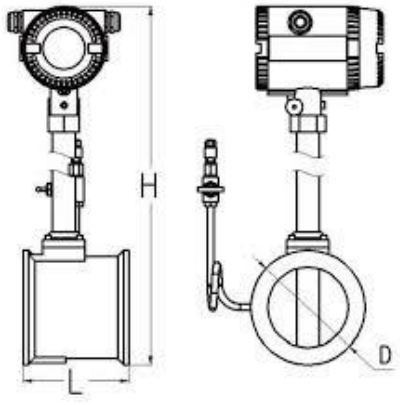
DATASHEET

VORTEX FLOWMETER

Vortex Flow Meter:

Introduction:

A vortex flow meter is a type of velocity flow meter based on the Carmen vortex street theory. It measures the fluid flow by detecting the frequency of vortices shed from a bluff body, typically a triangular column, placed in the flow stream. The piezoelectric crystal sensors capture these vortex frequencies, providing accurate flow measurement. Vortex flow meters are extensively used across various industries, including petroleum, chemical, and power generation sectors, due to their reliability and precision.



Features :

- Simple structure, no moving parts no wear, high reliability.
- High accuracy and good reliability, don't need on-site debugging.
- Unique design of the amplification board, gas or liquid can be used.
- Can be long-distance transmission of flow signals, and computer networking , centralized management.
- It has a variety of data transmission methods, including 4-20ma output, frequency output, RS485.
- Modbus, Hart communication.

Technical Specification:

Description	Specification
Diameter	DN15-DN1500
Measuring medium	Liquid, gas, steam (saturated steam, superheated steam).
Accuracy level	1%, 1.5%
Repeatability	Within ±0.2%
Maximum use pressure	Due to different flange specifications, it is generally 16Bar. In special cases, 25Bar-40Bar can be customized according to the conditions of the measured medium.
Operating temperature range	-10°C ~+350°C.
Environmental conditions	Temperature:- 30°C --+60°C, humidity:- 5%--90%
Power supply	24V DC
Output signal	Pulse output, 4-20mA analog signal & Pulse output / 4-20mA output (Both)
Communication	No-output, RS485 & HART
Explosion-proof model	EXiallBT4 or EXiallBT5

Flow Range:

Diameter (mm)	Liquid (Test medium: water at room)		Gas(T=20°C, P=1Bar(a))	
	Flow range (m^3/h)	Extended flow range (m^3/h)	Flow range (Nm^3/h)	Extended flow range (Nm^3/h)
15	0.8-6	0.5-8	6-40	5-50
20	1-8	0.6-12	8-50	6-60
25	1.5-1.2	0.8-16	10-80	8-120
40	2.5-30	2-40	25-200	20-300
50	3-50	2.5-60	30-300	25-500
65	5-80	4-100	50-500	40-800
80	8-120	6-160	80-800	60-1200
100	12-200	8-250	120-1200	100-2000
125	20-300	12-400	160-1600	150-3000
150	30-400	18-600	250-2500	200-4000
200	50-800	30-1200	400-4000	350-8000
250	80-1200	40-1600	600-6000	500-12000
300	100-1600	60-2500	1000-10000	600-16000

Flow Range:

The mass flow measuring range of saturated steam.

Serial No	G.P (Bar)	Temp (°C)	Density (kg/m³)	DN(20) (kg/h)		DN(25) (kg/h)		DN(40) (kg/h)		DN(50) (kg/h)		DN(80) (t/h)	
				Q min	Q max	Q min	Q max	Q Min	Q Max	Q Min	Q max	Q min	Q max
1	1	120	1.13	6.2	68	7.5	140	18	360	31	560	0.08	1.4
2	2	134	1.65	7.6	99	9.2	200	23	520	38	820	0.09	2.1
3	3	144	2.16	9.1	130	11	260	28	690	45	1100	0.11	2.7
4	4	152	2.67	10	160	12	320	31	850	51	1300	0.12	3.4
5	5	159	3.17	12	190	14	380	35	1000	57	1600	0.14	4.0
6	6	165	3.67	13	220	15	440	38	1200	64	1800	0.15	4.6
7	7	170	4.16	14	250	17	500	42	1300	71	2100	0.17	5.2
8	9	180	5.15	16	300	19	610	48	1600	81	2600	0.19	6.5
9	11	188	6.13	18	360	21	740	54	1900	92	3100	0.21	7.7
10	13	195	7.11	20	420	23	850	59	2300	100	3600	0.24	9.0
11	15	201	8.09	22	480	26	970	65	2600	110	4000	0.26	10
12	19	212	10.1	25	600	30	1200	74	3200	120	5000	0.30	13
13	24	224	12.5	29	750	34	1500	86	4000	140	6300	0.34	16
14	29	234	15.0	33	900	39	1800	98	4800	160	7500	0.39	19
15	39	250	20.1	40	1200	48	2400	120	6400	200	10000	0.48	25

Serial No	G.P (Bar)	Temp (°C)	Density (kg/m³)	DN(100) (t/h)		DN(150) (t/h)		DN(200) (t/h)		DN(250) (t/h)		DN(300) (t/h)	
				Q min	Q max	Q min	Q max	Q Min	Q Max	Q min	Q max	Q min	Q max
1	1	120	1.13	0.10	2.2	0.25	5.0	0.40	9.0	0.60	14	0.74	20
2	2	134	1.65	0.12	3.3	0.31	7.3	0.44	13	0.70	20	0.91	29
3	3	144	2.16	0.14	4.3	0.37	9.6	0.58	17	0.90	26	1.1	38
4	4	152	2.67	0.16	5.3	0.42	12	0.67	21	1.0	33	1.2	47
5	5	159	3.17	0.18	6.3	0.47	14	0.76	25	1.1	39	1.4	56
6	6	165	3.67	0.20	7.3	0.50	16	0.81	29	1.2	45	1.6	65
7	7	170	4.16	0.22	8.3	0.54	18	0.87	33	1.3	51	1.7	74
8	9	180	5.15	0.25	10	0.63	23	1.0	41	1.4	63	1.9	92
9	11	188	6.13	0.29	12	0.73	27	1.2	49	1.7	75	2.2	110
10	13	195	7.11	0.32	14	0.81	32	1.3	57	1.8	87	2.4	120
11	15	201	8.09	0.35	16	0.89	36	1.4	65	2	99	2.6	160
12	19	212	10.1	0.40	20	1.0	45	1.6	80	2.4	120	3.0	180
13	24	224	12.5	0.45	25	1.1	56	1.8	100	2.8	150	3.5	220
14	29	234	15.0	0.51	30	1.3	67	2.1	120	3.1	180	4.0	270
15	39	250	20.1	0.62	40	1.6	89	2.4	160	3.8	240	4.8	360

Vortex Flowmeter Selection Table:

Basic Model	VCVF	VCVF-1	F	W	1	B	G	S	A	7	1	xxxx
Series												
Vortex flowmeter with integral Temperature & Pressure sensor		VCVF-1										
Vortex flowmeter		VCVF-2										
Process Connection												
Insertion Type			I									
Flange Type (DIN & GB)			F									
Wafer Type			W									
Tri Clamp			T									
Customized			C									
Sensor Material												
Without display				O								
With display				W								
Pressure Rating												
16 bar					1							
25 bar					2							
40 Bar					3							
Communication Output												
No output						A						
RS485						B						
HART						C						
Medium												
Liquid							L					
Steam							S					
Gas							G					
Medium Temperature												
Standard (T -40℃~250℃)								S				
Customized (250℃~330℃)								C				
Transmitter Enclosure												
Aluminum									A			
Output												
No output										6		
Pulse output										7		
4-20mA output										8		
Pulse output / 4-20mA output (Both)										9		
Power Supply												
24VDC											1	
Pipe Size												
Please use 4 digit pipe size, such as DN50=0050, DN300=0300												XXXX

Remark:
Please specify the flow rate alongside the selected model number.
The model selected in 1st line is the standard with no accessories.
We reserve the right to modify specifications as necessary.