

Bont Vortex Flow Meter



Vortex Flow Meter
(Sanitary Clamp Type)



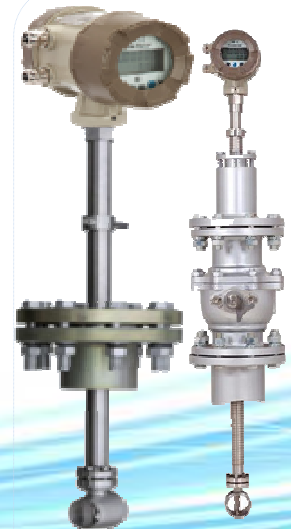
Vortex Flow Meter
(Flange Card Type)



Vortex Flow Meter
(Flange Connection Type)



Vortex Flow Meter
(Temperature Pressure
Compensation Type)



Vortex Flow Meter
(Inserted Type)

- Integrated pressure and temperature compensation.
- 4-20mA, pulse with HART or pulse with RS485 are selectable.
- Accuracy: $\pm 1.5\%$ of Rate / $\pm 1.0\%$ of Rate
- Diameter range: DN15-DN300
- Fluid Temp.: - 20...+350°C
- Housing Material: SS304 / SS316
- Application Range: Gas; liquid; steam
- EX-proof Class –ExiaI ICT6

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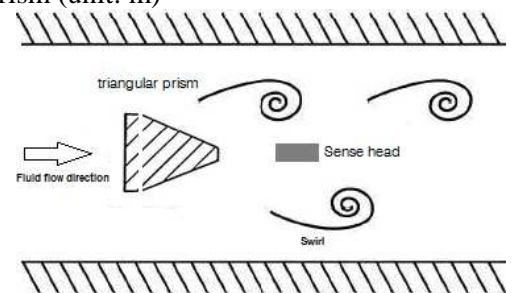
Computational formula as follows:

$$F = Sr * V / (1 - 1.27 * d/D) \dots \dots \dots \text{formula 1}$$

$$Q = 3600 * F / K \dots \dots \dots \text{formula 2}$$

$$M = Q * p \dots \dots \dots \text{formula 3}$$

- * F.....The liquid flow through the vortex triangular prism produce the vortex frequency (unit: Hz)
- * Sr.....Strouhal number (unit: dimensionless)
- * V.....Medium flow rate (unit: m/s)
- * d.....The width of Vortex flow meter internal triangle prism (unit: m)
- * D.....Vortex meter inner diameter (unit: m)
- * Q.....Instantaneous volume flow rate (unit: m³/h)
- * K.....Vortex meter coefficient (unit: pulse number/m³)
- * M.....Instantaneous quality flow rate (unit: kg/h)
- * P.....Fluid density (unit: kg/m³)



Flow Range

Size (mm)	Liquid(m ³ /h)	Gas(m ³ /h)
15	0.8~6	6~40
20	1~8	8~50
25	1.3~15	8~100
32	1.5~16	14~350
40	3~33	18~450
50	4~44	30~750
65	6~66	50~1250
80	13~140	70~1750
100	20~220	100~2500
125	36~400	200~5000
150	50~600	400~10000
200	100~1200	600~1500
250	150~1800	1000~25000
300	200~2400	
400	300~3600	
500	200~2400	
600	300~3600	

Note: There is a calculation for mass flow rate according to density, density is depends on the different temperature and pressure.

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Model & Selection

BT-VFM													
Connection	1									Flange			
	2									Sanitary Clamp			
	3									Inserted			
	4									Others (Pls Specified)			
Measured Medium	G									Gas			
	L									Liquid			
	S									Steam			
Diameter										Three Digitals ; for example : 010 : 10mm ; 050 : 50mm			
Combination			Z							Compact Type			
			F								Remote Type		
Convertor				N						No display; 24V DC; Pulse Output			
				A								No display; 24V DC; 4-20mA Output	
				B									Local display; Lithium Battery Power; No output
				C									Local display; 24V DC Power; 4-20mA Output; Optional backup power: Lithium Battery
				C1									Local display; 24V DC Power; 4-20mA Output; Modbus RS485 Communication Optional backup power: Lithium Battery
				D									Local display; 24V DC Power; 2-wire 4-20mA Output; Pulse Output
Explosion Rating					N					Safety Field without Explosion			
					E								ExdIIBT6
Flange Standard							-				DXX: D06,D10,D16, D25,D40 D06: DIN PN6; D10: DIN PN10 D16: DIN PN16; D25:DIN PN25 D40: DIN PN40		
							-AX					AX: A1 ,A3 ,A6 A1: ANSI 150#; A3: ANSI 300# A6: ANSI 600#	
							-GX					GX: G01 G02 G03 G04 GB standard G01:PN10 G02:PN16 G03:PN25 G04:PN40	
							-WF					Wafer Connection ; Mating Flange included	
Fluid Temperature								-T1			-20...+70°C		
								-T2					-20...+250°C
								-T3					-20...+350°C