

## MVF-2600

### Marmonix Vortex Air Flow Meter

#### Overview:

Marmonix Vortex Air Flow Meter works based on Carmen and Strouhal relevant spiral produce and on the theory of the flow relationship. As shown in picture, In the meter body vertical insert a triangular prism root namely the happening of the body, when eddies of medium flow through the table body, in triangular prism behind the alternate produce in opposite directions regular karman swirl, its spiral separation and the flow of the medium frequency  $F$  speed by sensing head is proportional to the  $V$  detected the number of spiral, can measure the flow velocity, again according to the table body mouth.

#### Features:

- Flange & body: integrally forged pieces, it will avoid break down into pieces. 100% SS304 material, we can provide material report.
- Circuit Board: Digital circuit board, anti-most of the supplier use analog circuit board, digital circuit board enjoy the advantages of anti-vibration and anti-interference.
- Flow converter: Distinctive modular design, amateurs can operate, disassemble and assemble easily, it will avoid accident risks.
- welding: adopt the advanced fish scale technology, which makes the welding seam looks nice and smooth.
- Our medium temperature sensor can measure highest temperature around  $350^{\circ}\text{C}$ , normal it is  $-40\sim 250^{\circ}\text{C}$

#### Application:

- Liquid
- Dry gas
- Wet gas
- Wet steam
- Saturated steam
- Superheated steam



## SPECIFICATION

<b>Size</b>	DN15-DN300mm (flange and flange card), DN100-DN2000mm (Insertion)
<b>Medium Temperature</b>	Liquid, Gas, Steam
<b>Accuracy</b>	±0.75% of read (liquid), ±1.0% of read (gas and steam)
<b>Nominal pressure</b>	1.6MPa,2.5MPa,4.0MPa
<b>Protection Grade</b>	IP65
<b>EX-proof Class</b>	Ex d II B T6 Gb
<b>Body Material</b>	SS304,SS316
<b>Medium Temperature</b>	-20°C~+100°C, -20°C~+250°C, -20°C~+350°C
<b>Signal Output</b>	4~20 mA (two wire), pulse (three wires)
<b>Power supply</b>	24VDC, 3.6V lithium
<b>Ambient Temperature</b>	-25°C~+55°C
<b>Humidity</b>	5~90% RH
<b>Pressure loss</b>	Resistance coefficient CD≤ 2.4
<b>Connection</b>	Flange: DN15-DN300 Flange Card: DN15-DN300 Insertion: DN100-DN2000
<b>Communication</b>	RS485

## MODEL SELECTION

**Table 1: Connection Model**

Mark No	1	2	3	4
<b>Connection</b>	Flange	Flange card	Inserted type	others

**Table 2: Measured Medium**

Mark No	1	2	3	4	5
<b>Medium</b>	Liquid	Common Gas	Saturated Steam	Superheated Steam	others

**Table 3: Caliber Size (mm)**

**Flange and flange card connection**

<b>Mark No</b>	150	200	250	320	400	500	650	800	101	125	151	201	251	301
<b>Caliber</b>	15	20	25	32	40	50	65	80	100	125	150	200	250	300

**Insertion Type**

<b>Caliber</b>	10	12	15	20	25	30	35	40	50	60	70	80	90	100	120	140	160	180	200
	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mark no</b>	10	12	15	20	25	30	35	40	50	60	70	80	90	102	122	142	162	182	202
		5	1	1	1	1	1	1	1	1	1	1	1						

**Table 4: Special Mark**

<b>Mark No</b>	Mo mark	M	B	X	G	W	Y	Z
<b>Format</b>	Common	Standard Signal Output	Intrinsically Safe Explosion-proof	Scene Shows	High Temperature	Temperature Compensation	Pressure Compensation	Temperature Pressure Compensation

Medium	Liquid (m <sup>3</sup> /h)		Gas (m <sup>3</sup> /h)	
	(T=20°C po =1000 Kg/m <sup>3</sup> )		(T=20°C 101325 Pa Air)	
Condition				
DN (mm)	Standard	Extend	Standard	Extend
20	1~8	0.6~12	5~50	5~60
25	1.5~12	0.8~16	8~80	8~120
40	2.5~30	1.5~40	20~200	18~300
50	3~50	2~60	30~300	30~500
65	5~80	3~90	50~500	50~900
80	8~120	5~150	80~1000	60~1200
100	12~200	6~240	100~1000	100~2000
125	20~300	13~390	150~1600	150~3000
150	30~400	15~600	250~2500	200~4000
200	40~800	30~1200	400~4000	350~8000
250	80~1200	40~1600	600~6000	500~12000
300	100~1800	1000~10000	1000~10000	600~18000

## FLOW RANGE

Diameter (mm)	Working Number	Flow Range			Pressure Loss kpa		
		Water L/h		Air m <sup>3</sup> /h	Water Kpa		Air
		Normal Type	Anti-corrosion	Normal type Anti-corrosion type	Normal Type	Anti-corrosion	
15	1A	2.5~25	--	0.07~0.7	6.5	-	7.1
	1B	4.0~40	2.5~25	0.11~1.1	6.5	5.5	7.2
	1C	6.3~63	4.0~40	0.18~1.8	6.6	5.5	7.3
	1D	10~100	6.3~63	0.28~2.8	6.6	5.6	7.5
	1E	16~160	10~100	0.48~4.8	6.8	5.6	8
	1F	25~250	16~160	0.7~7.0	7	5.8	10.8
	1G	40~400	25~250	1.0~10	8.6	6.1	10
	1H	63~630	40~400	1.6~16	11.1	7.3	14
25	2A	100~1000	63~630	3~30	7	5.9	7.7
	2B	160~1600	100~1000	4.5~45	8	6	8.8
	2C	250~2500	160~1600	7~70	10.8	6.8	12
	2D	400~4000	250~2500	11~110	15.8	9.2	19
40	4A	500~5000	300~3000	12~120	10.8	8.6	9.8
	4B	600~6000	350~3500	16~160	12.6	10.4	16.5
50	5A	630~6300	400~4000	18~180	8.1	6.8	8.6
	5B	1000~10000	630~6300	25~250	11	9.4	10.4
	5C	1600~16000	1000~10000	40~400	17	14.5	15.5
80	8A	2500~25000	1600~16000	60~600	8.1	6.9	12.9
	8B	4000~40000	2500~25000	80~800	9.5	8	18.5
100	10A	6300~63000	4000~40000	100~1000	15	8.5	19.2
150	15A	20000~100000	--	600~3000	19.2	--	20.3