

## MVF-2700

### Marmonix Natural gas vortex flow meter

#### Overview:

Marmonix Natural gas vortex flow meter works based on Carman 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.

#### Application:

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

#### 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  $-40\sim 250^{\circ}\text{C}$



## 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 IIB T6 Gb
<b>Body Material</b>	SS304,SS316
<b>Medium Temperature</b>	-20℃~+100℃, -20℃~+250℃, -20℃~+350℃
<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℃~+55℃
<b>Humidity</b>	5~90% RH
<b>Pressure loss</b>	Resistance coefficient $CD \leq 2.4$
<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**

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

**Insertion Type**

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

**Table 4: Special Mark**

Mark No	Mo mark	M	B	X	G	W	Y	Z
Format	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