Ventilumix (USA)

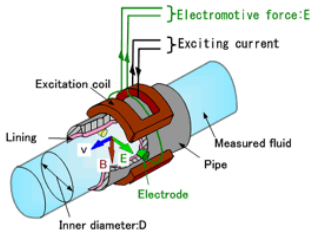
DATASHEET

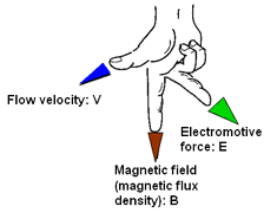
ELECTROMAGNETIC FLOWMETER

Electromagnetic Flow Meter:

Introduction:

Ventilumix Corporation specialized in designing electromagnetic flow meter. the electromagnetic flow meter types contains stainless steel electromagnetic flow meter, carbon steel electromagnetic flow meter, smart electromagnetic flow meter , plug in electromagnetic flow meter, battery operated electromagnetic flow meter and sanitary flow meter.





Function:

- The electromagnetic flow meter measures both instantaneous and cumulative flow, employing a two-way measurement system to accurately monitor the total flow amounts in both forward and reverse directions.
- Lower limit of flow alarm, flow limit alarm, pipeline empty pipe alarm, instrument failure alarm.
- Flow limit setting and flow Range setting
- Anti radio interference function .
- Total flow is recorded in hours/minutes/seconds
- Output: pulse signal, output current signal.
- Automatic control system through communication cable or wireless mode LORA, LORAWAN, NB-IOT, GPRS & 4G.

Application:

- Water supply and drainage projects
- Paper pulp and black liquor in the paper industry.
- Ore pulp in the non-ferrous metallurgical industry.
- Coal slurry in the coal preparation plant
- Strong corrosive liquid in the chemical industry.
- Iron and steel industry
- Pharmaceutical industry.
- Food industry
- Bioengineering and other places.

Technical Specification:

Nominal Dia (mm)	**DN 15~DN 3000**
Accuracy	± 0.2%, ± 0.3%,±0.5%(flowrate<1m/s) .(Optional)
Measuring Range	0.5m/s~10m/s
Conductivity of medium	more than 5μS/cm
Display Unit	Standard Unit in M3, Litre, GPM & etc
Process Temperature	-20°C~160°C
Process Pressure	6Bar, 40Bar (Optional)
Sensor Protection Class	IP65,IP67,IP68.(Optional)
Material of Construction	MS/SS304/SS316/SS316L
Electrode Material	SS316L, Hastelloy B/C, Tantalum,Ti,Stainless steel coated tungsten carbide,Platinum iridium alloy.etc.
Liner material	Neoprene, Polyurethane rubber, natural rubber, Teflon(PFA), Polytetrafluoroethylene (PTFE),ceramics.etc
Flange Standard	ANSI/DIN/GB/JIS
End Connection	Flange/ Insertion
Power Supply	AC220 V/DC24 V/DC3.6V
Output	Std. 4 – 20 mA,0Hz~5kHz
Cable Length	Std 10 meters(Customizable)
Installation	Inline Flange Type.
Communication	Std RS485,RS485 Modbus RTU (RS232,MODBUS,HART,PROFIBUS-DP,Optional)
Display	LCD Display
Version	Smart /Remote

Flow Rate Comparison Table:

Nominal Diameter DN		Full Scale (m^3/h)			Full Scale (US Gal/min)		
Mm	Inches	V= 0.01 m/s (Least)	V= 1 m/s	V= 15 m/s (utmost)	V= 0.03 ft/s	V= 3.2 ft/s	V= 49 ft/s (utmost)
15	0.5	0.0064	0.6362	9.5426	0.03	2.8	42.01
20	0.75	0.0113	1.131	16.96	0.05	4.98	74.67
25	1	0.0177	1.767	26.51	0.08	7.78	116.72
40	1.5	0.0452	4.524	67.86	0.2	19.92	298.78
50	2	0.0707	7.069	106.02	0.31	31.12	466.79
65	2.5	0.1195	11.95	179.18	0.53	52.58	788.7
80	3	0.1810	18.10	271.43	0.8	79.72	1196.25
100	4	0.2827	28.27	424.11	1.24	124.47	1869.91
150	6	0.6362	63.62	954.25	2.8	280.2	4201.16
200	8	1.1310	113.1	1696.46	4.98	498.23	7461.95
250	10	1.7671	176.7	2650.71	7.78	778.05	11674.86
300	12	2.5447	254.5	3817.03	11.2	1119.75	16809.09
350	14	3.4636	346.4	5195.40	15.25	1524.98	22868.87
400	16	4.5239	452.4	6785.84	19.91	1991.88	29865.61
450	18	5.7256	572.6	8588.32	25.21	2519.63	37832.11
500	20	7.0686	706.9	10602.87	31.13	3113.42	47118.58
600	24	10.1788	1018	15268.14	44.81	4481.12	67209.65
700	28	13.8544	1385	20781.63	60.99	6100.97	91508.85

Nominal Diameter DN		Full Scale (m^3/h)			Full Scale (US Gal/min)		
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800	32	18.0956	1810	27143.36	79.67	7969.19	119508.59
900	36	22.9022	2290	34353.31	100.84	10082.56	151253.04
1000	40	28.2743	2827	42411.50	124.49	12446.9	186732.18
1200	48	40.71.50	4072	61072.56	179.24	17928.47	268894.34
1400	56	55.4177	5542	83126.54	244	24400.69	365995.07
1600	64	72.3823	7238	108573.44	318.69	31867.95	478034.38
1800	72	91.6088	9161	137413.26	403.34	40334.66	605012.26
2000	80	113.0973	1130	169646	497.95	4975.24	746928.72
2200	88	136.8478	13685	205217.66	602.52	60253.23	903545.99
2400	96	162.8602	16286	244290.24	717.05	71705.09	1075577.4
2600	104	191.1343	19113	286701.40	841.54	84151.99	1262308
2800	112	18.0956	22167	27143.36	79.67	97598.35	119508.59
3000	120	22.9022	25447	34353.31	100.84	112039.8	151253.04

Electrode Material:

Electrode	Application
SS316L	Nitric acid, sulfuric acid with concentration <5% at room temperature, weak acid, alkali solution, sulfite under certain pressure, sea water, acetic acid and other media have strong corrosion resistance.
Hastelloy B Hastelloy C	It can resist the corrosion of oxidizing acids, such as nitric acid, mixed acid, or mixed medium of chromic acid and sulfuric acid, and also can resist the corrosion of oxidizing salts, such as fe++, cu++. Or hypochloric acid and alkali, seawater
Titanium	It is resistant to the corrosion of seawater, various chlorides, hypochlorites, chlorinated acids, organic acids, alkalis, etc., and is not resistant to the corrosion of relatively pure reducing acids (such as sulfuric acid and hydrochloric acid)
Tantalum	Excellent corrosion resistance. Except hydrofluoric acid, fuming sulfuric acid and alkali, it can resist the corrosion of almost all chemical media (including hydrochloric acid, nitric acid with boiling,oint and sulfuric acid below 175 ℃), but it is not resistant to corrosion in alkali.
Platinum-iridium	Good corrosion resistance to acid, alkali and various salts, But not resistant to nitromurlatic acid corrosion
Stainless steel coated with tungsten carbide	For non corrosive and strong abrasive media

Liner Material:

Liner materials	Application
Rubber(DN40~ DN1000)	0 °C ~ 80 °C non strong acid, strong alkali and strong oxidizing medium Masurable sewage and mud
PTFE (DN15≤DN1000)	1.-25°C~140°C 2. Strong corrosive media such as concentrated acid and alkali 3. Sanitary media
Polyurethane (DN15≤DN600)	1.-25°C~60°C 2. Neutral strong wear mineral slurry, coal slurry and slurry
PFA(DN10≤DN400)	1.-25 °C ~ 140°C non strong wear medium 2. sanitary media
P46(DN6≤DN300)	1.-25 °C ~ 100°C non strong wear medium 2. sanitary media
Ceramic Liner (DN50≤DN150)	1. 160°C ~ 200°C stable measurement in noisy applications 2. sanitary media

Electromagnetic Flowmeter Selection Table:

Basic Model	VCEM	B5	2	3	R	P2	T3	Q	R	2	xxxx
Flange Standard											
16 Bar		B4									
40 Bar		B5									
63 bar		B6									
ANSI 150		A1									
ANSI 300		A2									
Customization		C									
Liner Materials											
Rubber (DN40~DN1000)			1								
PTFE (DN15≤DN1000)			2								
Polyurethane (DN15≤DN600)			3								
PFA(DN10≤DN400)			4								
F46(DN6≤DN300)			5								
Electrode Material											
Stainless steel 316L				1							
Hastelloy C				2							
Hastelloy B				3							
Titanium				4							
Tantalum				5							
Platinum-iridium				6							
Display											
Integrated					I						
Remote					R						
Protection Grade											
IP65						P1					
IP67						P2					
IP68						P3					
Explosion-proof						P4					
Medium Temperature											
T≤80°C							T1				
T≤120°C							T2				
T≤220°C							T3				
Shell Material											
Carbon steel								S			
Stainless steel 304								P			
Stainless steel 316								Q			
Signal Output And Communication											
4~20 mA+ Pulse+RS485									R		
4~20 mA+ Pulse+HART									H		
Power Supply											
85~265VAC/45~63Hz										1	
16~36VDC										2	
3.6VDC										3	
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.