General Specifications

AEMG-F Series
Electromagnetic Flowmeter

KeyonTechs

GENERAL DESCRIPTION

AEMG-F Series is a flange type electromagnetic flowmeter ideal for conductive liquids. It comes in sizes from 6mm to 2400mm.

AEMG-F Series is widely used for drink water, waste water, food & beverage, pulp & paper and many other industrial fluid.



FEATURES

- Various liner and electrode satisfy most applications
- Flow Velocity range: 0.3-12m/s
- It comes any flanges such as, ANSI, DIN, JIS…etc
- Excellent for high pressure application
- Protection class: IP65 (Standard), IP67 available
- High accuracy of ±0.5% value of reading
- With forward/Reverse flowrate measurement function
- AC high-frequency switching power: 85-250VAC
- DC 24V switching power: 9-36VDC
- Modbus, HART, GPRS, PROFIBUS Communication
- Carbon steel and Stainless steel housing can be optional
- Display in instantaneous flow and accumulated flow

STANDARD SPECIFICATIONS

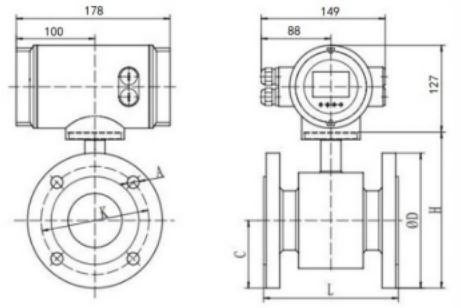
Measuring range	0.3-12m/s	**Conductivity**	More than 5μS/cm
Material	Measuring tube: SS304(standard) Flange: Carbon steel (Standard) SS304/316/316L (Option) Coil housing: Carbon steel (standard) SS304/316/316L (Option)	**Electrode**	316L Stainless Steel Titanium Tantalum Hastelloy B Hastelloy C Tungsten Carbide Platinu
Liner	Neoprene (DN40-DN2400) PTFE (DN10-DN1000) F46 (DN6-DN500) Polyurethane (DN10-DN500) PFA (DN10-DN500)	**Temperature**	-20~+60℃ (Neoprene) -20~+120℃ (PTFE) -40~+140℃ (F46) -10~+60℃ (Polyurethane) -40~+180℃ (PFA)
Protection	IP65 (standard) IP68 can be optional for sensor	**Flange Type**	DIN PN10/PN16/PN25/PN40 ANSI 150# / ANSI 300# / ANSI 600# JIS 10K / JIS 20K / JIS 30K
Explosion	Ex db ib mb IIC T6 Gb	**Ambient temp.**	-20~+60℃
Grounding electrode	SS316L electrode (standard configuration)	**Max. Pressure**	420bar

■ FLOW RANGE

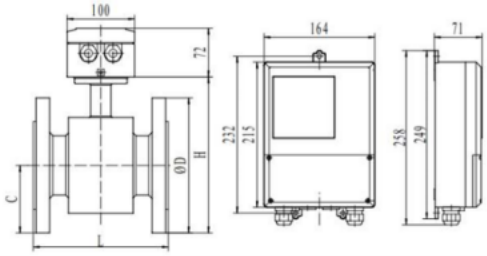
m/s / m^3/h / mm	0.3	1	2	3	4	5	12
6	0.0300	0.1017	0.2034	0.3051	0.4068	0.5085	1.2204
10	0.0840	0.2826	0.5652	0.8478	1.1304	1.4130	3.3912
15	0.1920	0.6362	1.2723	1.9085	2.5447	3.1809	7.6341
20	0.3390	0.131	2.2619	3.3929	4.5239	5.6549	13.5717
25	0.5310	1.7671	3.5343	5.3014	7.0686	8.8357	21.2058
32	0.8682	2.8938	5.7876	8.6814	11.5752	14.4690	34.7256
40	1.3560	4.5239	9.0478	13.5717	18.0956	22.6195	54.2868
50	2.1210	7.0686	14.1372	21.2058	28.2743	35.3429	84.8229
65	3.5850	11.9459	23.8918	35.8337	47.7836	59.7295	143.3508
80	5.4300	18.0956	36.1911	54.2867	72.3823	90.4779	217.1469
100	8.4810	28.2743	56.5487	84.8230	113.0973	141.3717	339.2919
150	19.0860	63.6173	127.2345	190.8518	254.4690	318.0863	763.4070
200	33.9300	113.0973	226.1947	339.2920	452.3893	565.4867	1357.1679
250	53.0130	176.7146	353.4292	530.1438	706.8583	883.5729	2120.5749
300	76.3410	254.469	508.9380	763.4070	1017.8760	1272.3450	3053.6280
350	103.9080	346.3606	692.7212	1039.0818	1385.4424	1731.8030	4156.3272
400	135.7170	452.3893	904.7787	1357.1680	1809.5574	2261.9467	5428.6722
450	171.7680	572.5553	1145.1105	1717.6658	2290.2210	2862.7763	6870.6630
500	212.0580	706.8583	1413.7167	2120.5750	2827.4334	3534.2917	8482.3002
600	305.3640	1017.876	2035.7520	3053.6281	4071.5041	5089.3801	12214.5123
700	415.6320	1385.4424	2770.8847	4156.3271	5541.7694	6927.2118	16625.3082
800	542.8680	1809.5574	3619.1147	5428.6721	7238.2295	9047.7868	21714.6885
900	687.0660	2290.221	4580.4421	6870.6631	9160.8842	11451.1052	27482.6526
1000	848.2290	2827.4334	5654.8668	8482.3002	11309.7336	14137.1669	33929.2008
1200	1221.4500	4071.5041	8143.0082	12214.5122	16286.0163	20357.5204	48858.0489
1400	1662.5310	5541.7694	11083.5389	16625.3083	22167.0778	27708.8472	66501.2334
1600	2171.4690	7238.2295	14476.4589	21714.6884	28952.9179	36191.1474	86858.7537
1800	2748.2640	9160.8842	18321.7684	27482.6225	36643.5367	45804.4209	109930.6101
2000	3392.9190	11309.7336	22619.4671	33929.2007	45238.9342	56548.6678	135716.8026
2200	4105.4319	13684.7776	27369.5551	41054.3328	54739.1103	68423.8880	164217.3311
2400	4885.8033	16286.0163	32572.0326	48858.0490	65144.0652	81430.0816	195432.1957

STANDARD SPECIFICATION

Compact type



Remote type



Size		Pressure	L	C	H	K	A	D
mm	inch	MPa	mm	mm	mm	mm	mm	mm
15	1/2"	4.0	200	48	149	65	14	95
20	3/4"		200	53	154	75	14	105
25	1"		200	58	159	85	14	115
32	1 1/4"		200	70	172	100	18	140
40	1 1/2"		200	75	189	110	18	150
50	2		200	83	197	125	18	165
65	2 1/2"		200	93	220	145	18	185
80	3"		200	100	227	160	18	200
100	4"	1.6	250	118	257	180	18	220
125	5"		250	135	289	210	18	250
150	6"		300	150	318	240	22	285
200	8"	1.0	350	170	379	295	22	340
250	10"		450	203	429	350	22	395
300	12"		500	230	482	400	22	445
350	14"		550	260	534	460	22	505
400	16"		600	290	594	515	26	565
450	18"		600	320	649	565	26	615
500	20"		600	358	697	620	26	670
600	24"		600	420	799	725	30	780
700	28"		700	448	909	840	30	895
800	32"		800	508	1019	950	33	1015
900	36"		900	558	1119	1050	33	1115
1000	40"	0.6	1000	615	1199	1120	33	1175
1200	48"		1200	728	1419	1340	33	1405
1400	56"		1400	815	1630	1560	35	1630
1600	64"		1600	915	1830	1760	35	1830
1800	72"		1800	1023	2040	1970	39	2045
2000	80"		2000	1133	2248	2180	42	2265
2200	88"		2200	1238	2453	2390	42	2475
2400	96"		2400	1343	2658	2600	42	2685

Ordering Code

AEMG - □□□ □ □□ □ □ □ □ □ □ □ □ □ □ □

[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14]

[1] Nominal Diameter(mm)/ [inches]			
002	032 [1¼]	250 [10"]	900 [36"]
003	040 [1½]	300 [12"]	102 [40"]
004	050 [2"]	350 [14"]	122 [48"]
006	065 [2½]	400 [16"]	142 [56"]
008	080 [3"]	400 [16"]	162 [64"]
010	100 [4"]	500 [20"]	182 [72"]
015 [½"]	125 [5"]	600 [24"]	202 [80"]
020 [¾"]	150 [6"]	700 [28"]	222 [88"]
025[1"]	200 [8"]	800 [32"]	242 [96"]

[2] Device Type	
F	Flange
I	Insertion
W	Wafer
K	Clamp

[3] Flange Rating	
06	0.6MPa (700...2400)
10	1.0MPa (200...1200)
16	1.6MPa (10...600)
20	ANSI 150 (15...600)
25	2.5MPa (10...600)
40	4.0MPa (10...150)
50	ANSI 300 (15...600)
99	Special

[4] Flange and Shell Material	
0	Carbon steel
4	304 Stainless Steel
6	316 Stainless Steel
9	Special

[5] Lining Material	
1	Soft Neoprene (≤2400)
2	Hard Neoprene (≤2400)
3	PTFE (≤2400)
4	Polyurethane (≤300)
5	PFA (≤250)
6	F46 (≤250)
7	Ceramics (≤250)
8	ETFE (≤600)
9	Nylon (≤2400, Insertion type only)

[6] Electrode Material	
1	316L Stainless Steel
2	Hastelloy C-22
3	Hastelloy B-10
4	titanium
5	tantalum
6	platinum/iridium Alloy
7	Tungsten Coated Stainless Steel
8	Ceramic

[7] Grounding and Lining Protection	
-0	Flange or body ground (10...2400)
-1	Earth ring (10...250)
-2	Ground electrode (25...2400)
-3	Inlet protection ring (50...300)

[8] Max. Process Temperature	
A	≤80℃ (All Linings)
B	≤120℃ (PTFE、PFA、F46)
C	≤180℃ (PTFE、PFA)

[9] Configuration - sensor/transmitter	
C	Compact (10...1000)
R	Remote (with 10m cable)

[10] Environmental Protection Class	
5	IP65
7	IP67
8	IP68(Remote Type Only)

[11] Power Supply	
-A	(85-265)VAC/(45-63)Hz
-D	(9-32)VDC
-B	3.6VDC lithium battery
-C	3.6VDC lithium battery +(85-265)VAC/(45-63)Hz
-F	3.6VDC lithium battery +(9-32)VDC

[12] Output and Input	
B	Basic Configuration (current, pulse and contact outputs)
M	Basic Configuration+MODBUS
H	Basic Configuration+HART
P	Basic Configuration+Profibus-DP

[13] Calibration Specification	
1	3 point, 0.5% accuracy
2	3 point, 0.2% accuracy
3	5 point, 0.5% accuracy
T	Other

[14] Special Functions	
/B	None
/T	Power off timer
/Q	Quantitative control
/H	Hourly accumulation
/J	Relay output
/S	High frequency slurry
/G	GPRS
/N	NB-IoT
/L	Ultra-low temperature
/P	Pressure sensor
/K	RTD
/C	Conductivity Sensor

Code	Ordering Code: AEMG-150F10011-0AC5-AM1/B
	A+K electromagnetic flowmeter; DN150, Flange type, 1.0MPa, Carbon steel flange and shell, Soft Neoprene lining, 316L stainless steel electrode; Flange grounding, Max. Process Temperaturee ≤ 80 ℃ , Compact – sensor/transmitter, Environmental Protection Class IP65; AC power supply, Basic configuration+MODBUS, 3 point, 0.5% accuracy.