

Model Selection

Basic Type	1	2	3	4	5	6	7	8	9	10	11	12	Explanation
AEM	-												electromagnetic flowmeter
	015												DN mm:15
	020												DN mm:20
	025												DN mm:25
	X												Others in Table 7
		C											GB Standard flange CLASS type HG20615,ASME 16.5
		P											GB Standard flange PN type HG20592,EN1092-1
		J											JIS Standard flange
		4											Others
			Y										Pressure in Table 8
				A									220VAC
				D									24VDC
				B									3.6V battery
				T									Others
					1								PTFE:F4
					2								CR
					3								FEP:F46
					4								PP
					5								PFA
					6								PU
					7								ETFE:F40
					8								Others
						1							316L stainless steel
						2							Monel
						3							Hastelloy C
						4							Titanium
						5							Tantalum
						6							Carbide
						7							Platinum iridium alloy
							1						Separate IP65
							2						Separate IP65 EX
							3						Separate IP68
							4						Integral IP65
							5						Separate IP68 EX
							6						Integral IP65 EX
								1					(4~20)mA+Pulse
								2					(4~20)mA+Pulse+RS485/MO
													DBUS
								3					(4~20)mA+Pulse+HART
													Others
									1				No need
									2				Grounding ring
									3				Imported protective flange
										US			America
										CN			China
										RU			Russia
											E		English
											C		Chinese
											R		Russian
											S		Spanish
												X	None
												ATX	ATEX for Europe
												UL	UL for American
												IEC	IECEX for International
												NPS	NEPSI for China

Example: AEM-150P40D11612KREX

Means: AEM electromagnetic flowmeter, DN 150mm, nominal pressure 4.0MPa, Flange standard GB9119-2110, powered by+24VDC, lining material PTFE, Electrode material 316L stainless steel, Integral type, Exedia II CT4(only H2), output signal 4~20mA, annex is grounding ring, customer is from Korea, system language is English, and no requirement for explosion-proof certificate

X:

Code	DN	Code	DN	Code	DN
032	32	300	300	121	1200
040	40	350	350	141	1400
050	50	400	400	161	1600
065	65	450	450	181	1800
080	80	500	500	201	2000
100	100	600	600	221	2200
125	125	700	700	241	2400
150	150	800	800	261	2600
200	200	900	900	281	2800
250	250	101	1000	301	3000

Y:

Code	P6	P10	P16	P25	P40	P63
PN (MPa)	0.6	1.0	1.6	2.5	4.0	6.3
Code	C150	C300	C600	C900	C1500	C2500
PN (MPa)	2.0	5.0	11	15	26	42



Global supplier of fluid measurement solutions

AEM Electromagnetic Flowmeter

- Measurement not affected by liquid state changes
- No pressure loss, low failure rate
- Intelligent self-diagnostic function
- Zero point stability, no drift
- Easy installation, strong anti-interference ability



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Introduction

AEM Series Electromagnetic Flowmeter (named below as AEM) a type of flowmeter that utilizes Faraday's electromagnetic induction principle. This product adopts the latest international technology and is widely used in industries such as chemical, power, metallurgy, drainage, sewage treatment, liquid high-pressure metering, medicine, food, environmental protection, etc. It is used to measure the volume flow rate of conductive liquids and slurries in closed pipelines.



Feature

- Independence:** The measurement is not affected by changes in liquid density, viscosity, temperature, pressure and conductivity
- Energy saving and low fault:** no moving and blocking parts in the measuring tube, no blockage, no loss
- Widely used:** conductive liquid, containing fiber, solid particles, suspended liquid
- Easy installation:** low requirements for straight pipe section (first 5D after 2D)
- Protection:** IP68、IP66, DN15~ DN1200, intrinsic immersion structure
- High intelligence:** backlit LCD display, high integration, double isolation, parameter setting, menu operation. Chinese display, memory function, reliable programming, password lock and access, small signal cutting, non-linear correction, two-way measurement
- SMT technology:** intelligent self-test and self-diagnosis function, upper and lower limit alarm, excitation alarm, air traffic control alarm
- SMART excitation:** low power consumption, zero stability, no drift, reliable operation
- Multiple output:** current output (4~20) mA current, frequency (1~5000)Hz,RS485/Modbus, HART
- Lining and electrode:** lining and electrode materials have a variety of choices, suitable for different media
- Ultra-low EMJ switching power supply:** large power supply range, good anti-interference performance

Specification

DN(mm)	DN15-DN3000
Accuracy	0.5%, 1.0%
Repeatability	Not exceeding 1/3 of the absolute maximum of allowable error value
Ambient temperature	(-20 ~ +55) °C
Relative humidity	(5~90)%
Mechanical vibration	frequency (10~55Hz) amplitude 0.20mm
Environmental electromagnetic field	≤300A/m
Medium temperature	related to lining material, Integrated type ≤ +80°C, take the lower value
Nominal pressure	(0.6~42.0)MPa
Fluid conductivity	≥5μ/cm; battery powered type ≥20 μS/cm
Power supply	24DC10VA, (85~265)V AC10VA, 3.6V lithium battery
Output signal	4~20mA current, frequency 1~5000Hz, RS485/modbus, HART
Electrode material	316L stainless steel, Hastelloy, Chin, tantalum, lead carbide, tungsten carbide, Monel
Lining material	polytetrafluoroethylene, rubber, F46, PVC, polyurethane
Flange material	carbon steel, and other materials customized
Measuring catheter	1Cr18Ni9Ti
Explosion-proof	Exd bebia II CT4/T5Gb
Flange standard	PN6~PN63 GB/T 9119-2010 RF、Class600~Class2500 GB/T 9115-2010 RJ

The material for electrode and lining can be selected based on the corrosiveness, oxidability, abrasiveness, temperature, and pressure of the measuring medium. Please refer to the instruction manual for details.

Flow Range

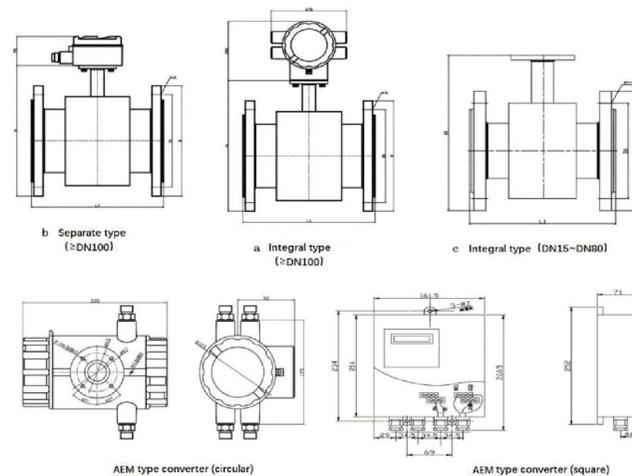
DN (mm)	Flow Range(m³/h)	
	Flow Velocity 0.3~1.0m/s	Flow Velocity 1.0~10m/s
15	0.19~0.64	0.64~6.4
20	0.34~1.33	1.13~11.3
25	0.53~1.77	1.77~17.7
32	0.87~2.89	2.89~28.9
40	1.35~4.50	4.50~45.0
50	2.13~7.10	7.10~71.0
65	3.57~11.9	11.9~119
80	5.43~18.1	18.1~181
100	8.49~28.3	28.3~283
125	13.3~44.2	44.2~442
150	19.1~63.6	63.6~636
200	33.9~113	113~1130
250	53.1~177	177~1770
300	76.2~254	254~2540
350	104~346	346~3460

DN (mm)	Flow Range(m³/h)	
	Flow Velocity 0.3~1.0m/s	Flow Velocity 1.0~10m/s
400	136~452	452~4520
450	172~572	572~5720
500	212~707	707~7070
600	306~1020	1020~10200
700	416~1385	1385~13850
800	543~1810	1810~18100
900	687~2290	2290~22900
1000	849~2830	2830~28300
1200	1221~4070	4070~40700
1400	1662~5540	5540~55400
1600	2172~7240	7240~72400
1800	2748~9160	9160~91600
2000	3393~11310	11310~113100
2200	4100~13680	13680~136800
2400	4480~16280	16280~162800

The above is the flow range of electromagnetic flowmeter <6.3MPa powered by 220V or 24V. The flow range of battery powered flowmeter is 0.7-7m/s, with accuracy of 1.0%. The inner diameter of the high-pressure electromagnetic flowmeter should be smaller than the nominal diameter, and at least one smaller diameter should be selected, with flow range of 0.7-7m/s and accuracy of 0.1%.

Class900~1500, 10~25MPa, advise: Range ratio 1:10

DN (mm)	Flow range(m³/h) Flow (0.5~10)m/s
25	0.3~6.0
40	0.5~10
50	1.5~30
65	2.5~50
80	3.5~70
100	5~100
150	9~180
200	12.5~250
250	20~400



Dimension

DN (mm)	PN16 1.6MPa						(KG)
	External dimensions of sensors, L1 include lining (±5mm)						
	L1	H	D1	D	n	d	
15	210	175	65	95	4	14	6
25	210	188	85	115	4	14	8
32	210	200	100	140	4	18	9
40	210	210	110	150	4	18	10
50	210	226	125	165	4	18	12
65	210	243	145	185	8	18	15
80	210	263	160	200	8	18	18
100	260	280	180	220	8	18	22
125	260	325	210	250	8	18	26
150	310	340	240	285	8	22	30
200	360	395	295	340	12	22	32
250	460	445	355	405	12	26	42
300	510	510	410	460	12	26	55
350	560	570	470	520	16	26	80
400	610	630	525	580	16	30	110
450	610	690	585	640	20	30	140
500	610	760	650	715	33	30	200
600	610	880	770	840	36	30	260

DN (mm)	PN160 Class 900lb						(KG)
	External dimensions of sensors (±5mm)						
	L1	H	D1	D	n	d	
25	320	235	101.6	150	4	26	17
40	350	250	123.8	180	4	29	19
50	350	290	165.1	215	8	26	30
65	370	330	190.5	245	8	29	35
80	400	330	190.5	240	8	26	40
100	400	345	235	290	8	32	45
150	500	435	317.5	380	12	32	60
200	500	460	393.7	470	12	39	80
250	600	497	470	545	16	39	90

DN (mm)	PN25 2.5MPa						(KG)
	External dimensions of sensors, L1 include lining (±5mm)						
	L1	H	D1	D	n	d	
15	210	175	65	95	4	14	6
25	210	188	85	115	4	14	8
32	210	200	100	140	4	18	9
40	210	210	110	150	4	18	10
50	210	226	125	165	4	18	12
65	210	243	145	185	8	18	15
80	210	263	160	200	8	18	18
100	260	300	190	235	8	22	35
125	260	345	220	270	8	26	45
150	310	365	250	300	8	26	55
200	360	405	310	360	12	26	62
250	460	480	370	425	12	30	65
300	510	540	430	485	16	30	70
350	560	570	490	555	16	33	77
400	610	630	550	620	16	36	115
450	610	690	600	670	20	36	165
500	610	760	660	730	20	36	220
600	610	880	770	845	20	39	285

DN (mm)	PN250 Class 1500lb						(KG)
	External dimensions of sensors (±5mm)						
	L1	H	D1	D	n	d	
25	320	235	101.6	150	4	26	17
40	350	250	123.8	180	4	29	19
50	350	290	165.1	215	8	26	30
65	370	330	190.5	245	8	29	35
80	400	350	203.2	265	8	32	50
100	400	365	241.3	310	8	35	60
150	500	440	317.5	395	12	39	75
200	500	475	393.7	485	12	45	90
250	600	545	482.6	585	12	51	98

DN (mm)	PN40 4.0MPa						(KG)
	External dimensions of sensors, L1 include lining (±5mm)						
	L1	H	D1	D	n	d	
15	210	175	65	95	4	14	6
25	210	188	85	115	4	14	12
32	210	200	100	140	4	18	16
40	210	210	110	150	4	18	18
50	210	226	125	165	4	18	22
65	210	243	145	185	8	18	25
80	210	263	160	200	8	18	27
100	260	300	190	235	8	22	40
125	260	345	220	270	8	26	55
150	310	365	250	300	8	26	63
200	360	415	320	375	12	30	75
250	460	485	385	450	12	33	82
300	510	570	450	515	16	33	87
350	560	570	510	580	16	36	105
400	610	630	585	660	16	39	138
450	660	690	610	685	20	39	185
500	660	760	670	755	20	42	240
600	660	880	795	890	20	48	305

DN (mm)	PN63 6.3MPa						(KG)
	External dimensions of sensors, L1 include lining (±5mm)						
	L1	H	D1	D	n	d	
15	270	240	75	105	4	14	12
25	270	240	100	140	4	18	18
32	270	240	110	155	4	22	25
40	270	250	125	170	4	22	32
50	270	260	135	180	4	22	35
65	280	275	160	205	8	22	41
80	280	290	170	215	8	22	55
100	310	300	200	250	8	26	62
125	320	310	240	295	8	30	67
150	340	320	280	345	8	36	76
200	410	320	345	415	12	36	88
250	560	320	400	470	12	36	102
300	560	350	460	530	16	36	115
350	610	350	525	600	16	39	128
400	660	400	585	670	16	42	165
450	320	310	240	295	8	30	67
500	340	320	280	345	8	36	76
600	410	320	345	415	12	36	88

Application

