

APLISENS - PEM-1000 SERIES FLOW METER

Electromagnetic (Magflow)

PEMDN0050PN16.1

- 0,085..28,274,3 m3/h
- 3/8" up to 40" pipe size
- 1,6 MPa
- Acids, alkalis, paints, pastes, water etc
- 4-20mA or Pulse/frequency



PRODUCT DESCRIPTION

The Aplisens PEM-1000 'Mag flow meter' is a very robust flowmeter for a wide range of applications at a competitive price.

The magnetic flowmeter is for bidirectional measurement of liquids with a minimum conductivity 5µS/cm such as acid/alkalis, paints, pastes and water/wastewater.

The PEM-1000 is available in two versions, one with a direct mounted display/sensor and the other with a separate display/sensor. The pipe size starts at 3/8" (DN10) which gives 1m3/h all the way up to 40" (DN1000) which offers 8000m3/h with a total of twenty one different pipe size/m3/h options inbetween. There is a choice of lining from soft or hard rubber to teflon and a choice of electrode materials which are 316Ti, Platinum Hastelloy, Tantalum and Titanium.

Application examples:

- Utility, water and wastewater processing

Please refer to the datasheet further down the page under Downloads.

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TECHNICAL DATA

Classification accuracy	± 0.5% of scale value according to EN837-1
Connection	DN50 PN16
IP class	IP67
Material of body	Carbon steel
Material of wetted parts	PTFE
Pressure resistance max	16 bar
Signal type	4-20 mA
Supply voltage ac max	260 V AC
Supply voltage ac min	90 V AC

Temperature ambient from -20 °C

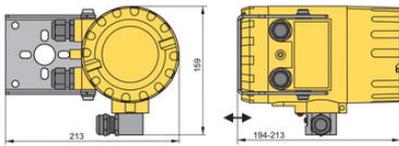
Temperature ambient to 60 °C

Temperature of media from -25 °C

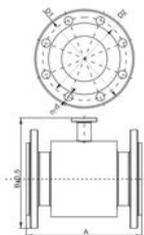
Temperature of media to 130 °C

Weight 3,5 kg

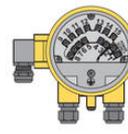
Dimensions of control unit



DN	PN	A	B	Ø1	Ø2	e	h	kg
10	150	153	80	80	14	4	2,5	0,1
15	or 150	153	85	85	14	4	2,5	0,1
20	200	162	95	95	14	4	3,5	0,1
25	250	180	110	110	14	4	6	0,1
40	400	195	125	125	14	4	7	0,1
50	500	209	145	145	14	4	8,5	0,1
80	800	224	180	180	14	8	13	0,1
100	1000	242	200	200	14	8	15	0,1
125	1250	276	230	230	14	8	17	0,1
150	1500	305	250	250	22	20	20	0,1
200	2000	375	325	325	22	20	22	0,1
250	2500	430	400	400	20	12	30	0,1
300	3000	485	460	460	18	12	32	0,1
400	4000	542	500	500	16	16	40	0,1
500	5000	615	560	560	16	16	50	0,1
600	6000	687	640	640	16	20	60	0,1
800	8000	792	750	750	16	20	80	0,1
1000	10000	870	830	830	16	20	100	0,1
1250	12500	1007	970	970	16	24	120	0,1
1500	15000	1105	1065	1065	16	24	150	0,1
2000	20000	1295	1255	1255	16	28	200	0,1
3000	30000	1585	1545	1545	16	32	300	0,1
4000	40000	1875	1835	1835	16	36	400	0,1



DN 10 - DN 150 A ± 5 mm
DN 200 - DN 1000 A ± 10 mm



Terminal	Description
1	90...280V AC (D1)
2	90...280V DC (D2)
3	reverse polarity protection, galvanic insulation, passive
4	reverse polarity protection, galvanic insulation, passive
5	reverse polarity protection, galvanic insulation, passive
6	reverse polarity protection, galvanic insulation, passive
7	active (passive on request)
8	active (passive on request)
9	active (passive on request)
10	active (passive on request)
11	GND (D3)
12	reverse polarity protection, galvanic insulation
13	reverse polarity protection, galvanic insulation
14	reverse polarity protection, galvanic insulation
15	reverse polarity protection, galvanic insulation

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400	4000	542	500	500	16	16	40	0,1
500	5000	615	560	560	16	16	50	0,1
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800	8000	792	750	750	16	20	80	0,1
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3000	30000	1585	1545	1545	16	32	300	0,1
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DN	Flow value table in [m³/h]				
	v=0,3m/s	v=1m/s	v=3m/s	v=5m/s	v=10m/s
10	0,085	0,283	0,848	1,411	2,282
15	0,181	0,536	1,609	2,826	3,817
20	0,319	0,933	2,805	4,620	6,910
25	0,480	1,387	4,205	6,820	10,121
32	0,669	1,959	5,856	9,524	14,219
40	0,900	2,634	7,920	12,813	19,299
50	1,200	3,500	10,500	17,000	25,500
63	1,569	4,634	13,902	22,173	33,260
80	2,100	6,300	18,900	29,700	45,000
100	2,700	8,100	24,300	39,600	59,400
125	3,375	10,125	30,375	48,563	72,844
150	4,050	12,150	36,450	58,050	87,075
200	5,400	16,200	48,600	77,400	115,200
250	6,750	20,250	60,750	96,750	144,000
300	8,100	24,300	72,900	116,100	172,800
400	10,800	32,400	97,200	154,800	230,400
500	13,500	40,500	121,500	193,500	288,000
600	16,200	48,600	145,800	232,200	345,600
800	21,600	64,800	194,400	310,200	460,800
1000	27,000	81,000	243,000	388,200	576,000

DN	Standard Orifice and recommended Orifice range	
	Standard Flow Rate [m³/h]	Flow rate range [m³/h]
10	0,1	1 - 1,7
15	0,2	2 - 3,6
20	0,4	4 - 7,2
25	0,6	6 - 10,8
32	1,0	10 - 18,0
40	1,5	15 - 27,0
50	2,2	22 - 39,6
63	3,0	30 - 54,0
80	4,2	42 - 75,6
100	5,4	54 - 97,2
125	6,8	68 - 122,4
150	8,1	81 - 140,4
200	10,8	108 - 187,2
250	13,5	135 - 230,4
300	16,2	162 - 280,8
400	21,6	216 - 374,4
500	27,0	270 - 468,0
600	32,4	324 - 561,6
800	43,2	432 - 751,2
1000	54,0	540 - 940,8

Optimal flow speed v=3m/s