



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

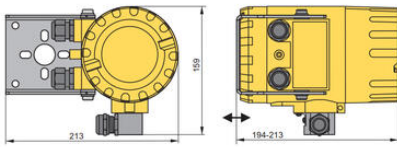
Please refer to the datasheet further down the page under Downloads.

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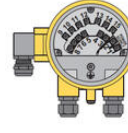
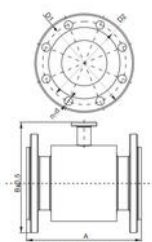
Specifications

IP Class	IP67
Operating Voltage AC Max	260
Operating Voltage AC Min	90
Temperature ambient from	-20
Temperature ambient to	60
Temperature range of media from	-25
Temperature range of media to	130
Trykmodstand max	16
Weight	3,5

Dimensions of control unit



Dimensions [mm]							Weight
DN	PN	A	B	D1	D2	φ	
10		153	80	80	14	4	2,5
15	15	155	85	85	14	4	2,5
20	20	160	90	90	14	4	3
25	25	165	95	95	14	4	3,5
32	32	182	100	100	18	4	6
40	40	188	110	110	18	4	6
50	50	191	120	120	18	4	7
65	65	209	140	140	18	4	8,5
80	80	224	160	160	18	4	10
100	100	245	200	180	18	4	12
125	125	276	230	210	18	4	15
150	150	305	260	240	22	4	20
200	200	375	320	290	22	4	25
250	250	430	400	350	26	12	58
300	300	460	430	380	26	12	60
400	400	540	500	450	30	16	80
500	500	610	580	520	30	16	100
600	600	680	660	600	30	16	120
800	800	790	770	710	33	20	180
1000	1000	870	860	790	36	20	250
1500	1500	1020	1010	940	36	24	300
2000	2000	1140	1130	1060	36	28	450
3000	3000	1290	1280	1210	42	36	550



	Terminal	Description
Power supply	1	90...260V AC
	2	0V
Binary output 1	3	reverse polarity protection, galvanic insulation, galvanic
	4	ground
Pulse/frequency output	5	reverse polarity protection, galvanic insulation, galvanic
	6	ground
Current output 4-20 mA	7	0V
	8	active
	9	passive (optional)
Communication	10	RS 485 A
	11	RS 485 B
	12	DMZ shield
Binary input (passive)	13	reverse polarity protection, galvanic insulation, galvanic
	14	ground
Binary output 2	15	reverse polarity protection, galvanic insulation, galvanic
	16	ground

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Flow value table in [m³/h]					
DN	v=0.3m/s	v=0.5m/s	v=0.7m/s	v=1.0m/s	v=1.5m/s
10	0.005	0.008	0.014	0.021	0.032
15	0.010	0.016	0.026	0.039	0.059
20	0.015	0.024	0.039	0.058	0.087
25	0.020	0.032	0.051	0.076	0.115
32	0.028	0.045	0.071	0.106	0.159
40	0.037	0.058	0.092	0.137	0.207
50	0.049	0.076	0.121	0.180	0.271
65	0.064	0.100	0.156	0.231	0.350
80	0.083	0.128	0.196	0.288	0.437
100	0.108	0.167	0.258	0.380	0.567
125	0.140	0.217	0.331	0.483	0.724
150	0.180	0.280	0.424	0.612	0.917
200	0.240	0.373	0.561	0.804	1.197
250	0.310	0.480	0.720	1.032	1.547
300	0.390	0.600	0.900	1.296	1.957
400	0.520	0.800	1.200	1.728	2.597
500	0.670	1.040	1.560	2.232	3.397
600	0.840	1.310	1.960	2.832	4.397
800	1.120	1.740	2.640	3.744	5.597
1000	1.440	2.280	3.480	4.896	7.297

Standard Series		
DN	Standard flow rate [m³/h]	Flow rate range [m³/h]
10	0.01	0.01 - 0.7
15	0.02	0.02 - 1.8
20	0.03	0.03 - 3.8
25	0.04	0.04 - 5.8
32	0.06	0.06 - 9.8
40	0.08	0.08 - 14.7
50	0.11	0.11 - 21.7
65	0.15	0.15 - 32.7
80	0.20	0.20 - 47.7
100	0.27	0.27 - 67.7
125	0.36	0.36 - 92.7
150	0.48	0.48 - 127.7
200	0.64	0.64 - 177.7
250	0.84	0.84 - 247.7
300	1.08	1.08 - 337.7
400	1.44	1.44 - 477.7
500	1.80	1.80 - 647.7
600	2.16	2.16 - 887.7
800	2.88	2.88 - 1247.7
1000	3.60	3.60 - 1717.7

Optimal flow speed v=0.3m/s