

## APLISENS - PEM-1000 SERIES FLOW METER

Electromagnetic (Magflow)

PEMDN0050PN16.1

- 0,085..28,274,3 m<sup>3</sup>/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 1m<sup>3</sup>/h all the way up to 40" (DN1000) which offers 8000m<sup>3</sup>/h with a total of twenty one different pipe size/m<sup>3</sup>/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

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

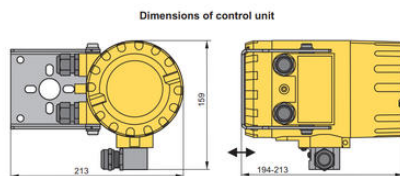
Temperature ambient from -20 °C

Temperature ambient to 60 °C

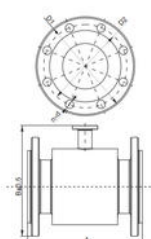
Temperature of media from -25 °C

Temperature of media to 130 °C

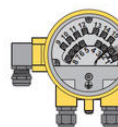
Weight 3,5 kg



		Dimensions [mm]						Weight	
DN	PN	A	B	D1	D2	E	H	kg	
10	150	153	80	80	14	4	2,5		
15	150	153	80	80	14	4	2,5		
20	150	153	80	80	14	4	2,5		
25	150	153	80	80	14	4	2,5		
32	150	153	80	80	14	4	2,5		
40	150	153	80	80	14	4	2,5		
50	150	153	80	80	14	4	2,5		
65	200	193	145	145	14	4	7		
80	200	224	200	180	18	8	8,5		
100	200	245	220	180	18	8	11		
125	200	275	250	210	18	8	13		
150	200	305	280	240	22	12	20		
175	200	335	310	270	22	12	22		
200	200	365	340	300	26	12	30		
250	400	430	400	360	30	16	50		
300	400	490	460	420	34	16	60		
350	400	540	500	470	38	16	80		
400	600	610	580	540	38	18	100		
450	600	650	620	580	42	20	120		
500	600	700	670	630	42	20	150		
600	800	870	840	770	38	20	200		
700	1000	1020	990	900	38	24	250		
800	1000	1050	1020	930	38	24	250		
900	1150	1120	1090	1000	38	28	400		
1000	1200	1200	1170	1080	42	28	500		



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



Terminal	Description
1	90...280V AC (1-1) 50...50V DC (on board)
2	reverse polarity protection, galvanic insulation, passive
3	reverse polarity protection, galvanic insulation, passive
4	reverse polarity protection, galvanic insulation, passive
5	reverse polarity protection, galvanic insulation, passive
6	active (passive on request)
7	active (passive on request)
8	active (passive on request)
9	active (passive on request)
10	active (passive on request)
11	active (passive on request)
12	active (passive on request)
13	reverse polarity protection, galvanic insulation
14	reverse polarity protection, galvanic insulation
15	reverse polarity protection, galvanic insulation

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500	600	700	670	630	42	20	150		
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Flow value table in [m³/h]					
DN	v=0,3m/s	v=1m/s	v=3m/s	v=5m/s	v=10m/s
10	0,085	0,283	0,848	1,414	2,282
15	0,161	0,516	1,549	2,585	3,817
20	0,237	0,733	2,165	3,658	5,453
25	0,313	0,950	2,781	4,731	7,089
32	0,389	1,167	3,397	5,804	8,725
40	0,465	1,384	4,013	6,877	10,361
50	0,541	1,601	4,629	7,950	11,997
65	0,644	1,918	5,450	9,423	14,271
80	0,747	2,235	6,281	10,896	16,545
100	0,850	2,552	7,112	12,369	18,819
125	1,024	3,039	8,453	14,710	22,414
150	1,200	3,526	9,794	17,051	26,009
200	1,539	4,413	12,245	21,312	32,514
250	1,878	5,300	14,696	25,573	39,019
300	2,217	6,187	17,147	29,834	45,524
350	2,556	7,074	19,598	34,095	52,029
400	2,895	7,961	22,049	38,356	58,534
450	3,234	8,848	24,500	42,617	65,039
500	3,573	9,735	26,951	46,878	71,544
600	4,212	11,544	31,402	54,139	82,049
700	4,851	13,353	35,853	61,400	92,554
800	5,490	15,162	40,304	68,661	103,059
900	6,129	16,971	44,755	75,922	113,564
1000	6,768	18,780	49,206	83,183	124,069

Standard device and recommended device range		
DN	Standard flow rate [m³/h]	Flow rate range [m³/h]
10	0,085	0,085 - 0,283
15	0,161	0,161 - 0,516
20	0,237	0,237 - 0,733
25	0,313	0,313 - 0,950
32	0,389	0,389 - 1,167
40	0,465	0,465 - 1,384
50	0,541	0,541 - 1,601
65	0,644	0,644 - 1,918
80	0,747	0,747 - 2,235
100	0,850	0,850 - 2,552
125	1,024	1,024 - 3,039
150	1,200	1,200 - 3,526
200	1,539	1,539 - 4,413
250	1,878	1,878 - 5,300
300	2,217	2,217 - 6,187
350	2,556	2,556 - 7,074
400	2,895	2,895 - 7,961
450	3,234	3,234 - 8,848
500	3,573	3,573 - 9,735
600	4,212	4,212 - 11,544
700	4,851	4,851 - 13,353
800	5,490	5,490 - 15,162
900	6,129	6,129 - 16,971
1000	6,768	6,768 - 18,780

Optimal flow speed v=3m/s