

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

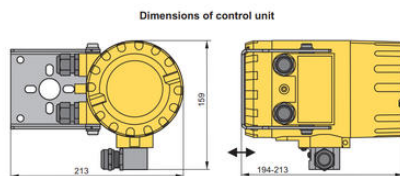
Temperature ambient from -20 °C

Temperature ambient to 60 °C

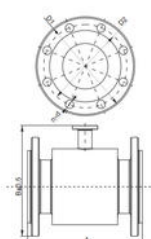
Temperature of media from -25 °C

Temperature of media to 130 °C

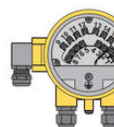
Weight 3,5 kg



		Dimensions [mm]						Weight	
DN	PN	A	B	D1	D2	E	H	kg	
10	150	153	80	80	14	4	2,5		
15	150	153	80	85	14	4	2,5		
20	150	153	80	90	14	4	2,5		
25	150	153	85	95	14	4	3,5		
32	150	153	90	100	14	4	4		
40	150	153	110	115	14	4	6		
50	150	153	125	130	14	4	7		
65	200	180	145	150	14	4	10		
80	200	224	200	160	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	25	12	30		
250	400	430	400	350	30	15	50		
300	400	490	460	410	32	16	60		
350	400	540	500	470	35	16	80		
400	600	610	580	520	35	18	100		
450	600	657	630	560	35	20	120		
500	600	700	670	600	35	20	150		
600	800	870	840	770	35	20	180		
700	1000	1027	990	890	35	24	250		
800	1000	1050	1020	920	35	24	250		
900	1000	1140	1100	1000	35	28	450		
1000	1000	1280	1240	1120	42	38	550		



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



Terminal	Description
1	90...280V AC (1-1)
2	50...280V DC (2-2)
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

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	0,509	1,529	2,545	3,817
20	0,237	0,735	2,205	3,688	5,475
25	0,313	0,961	2,881	4,851	7,333
32	0,389	1,187	3,557	6,014	9,191
40	0,465	1,413	4,233	7,177	11,049
50	0,541	1,639	4,909	8,340	12,907
65	0,617	1,865	5,585	9,503	14,765
80	0,693	2,091	6,261	10,666	16,623
100	0,839	2,517	7,537	12,829	19,741
125	1,013	3,021	9,045	15,383	23,659
150	1,187	3,525	10,553	17,937	27,577
200	1,571	4,689	14,073	23,881	36,765
250	1,955	5,853	17,593	29,825	45,953
300	2,339	7,017	21,113	35,769	55,141
350	2,723	8,181	24,633	41,713	64,329
400	3,107	9,345	28,153	47,657	73,517
450	3,491	10,509	31,673	53,601	82,705
500	3,875	11,673	35,193	59,545	91,893
600	4,639	13,937	42,213	70,689	109,081
700	5,403	16,201	49,233	81,833	126,269
800	6,167	18,465	56,253	92,977	143,457
900	6,931	20,729	63,273	104,121	160,645
1000	7,695	22,993	70,293	115,265	177,833

Standard device and recommended device range		
DN	Standard flow rate [m³/h]	Flow rate range [m³/h]
10	0,085	0,085 - 0,161
15	0,161	0,161 - 0,237
20	0,237	0,237 - 0,313
25	0,313	0,313 - 0,389
32	0,389	0,389 - 0,465
40	0,465	0,465 - 0,541
50	0,541	0,541 - 0,617
65	0,617	0,617 - 0,693
80	0,693	0,693 - 0,769
100	0,839	0,839 - 0,915
125	1,013	1,013 - 1,089
150	1,187	1,187 - 1,263
200	1,571	1,571 - 1,647
250	1,955	1,955 - 2,031
300	2,339	2,339 - 2,415
350	2,723	2,723 - 2,799
400	3,107	3,107 - 3,183
450	3,491	3,491 - 3,567
500	3,875	3,875 - 3,951
600	4,639	4,639 - 4,715
700	5,403	5,403 - 5,479
800	6,167	6,167 - 6,243
900	6,931	6,931 - 7,007
1000	7,695	7,695 - 7,771

Optimal flow speed v=3m/s