OEM Automatic Ltd
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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 elctrode materials which are 316Ti, Platinium 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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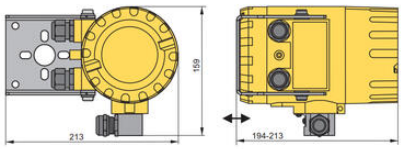
TECHNICAL DATA

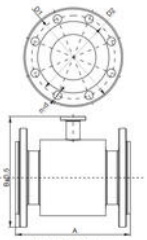
Classification accuracy	± 0.5% of scale value according to EN837-1
Connection	DN50 PN16
IP class	IP67
Material of body	Carbon steel
Material of wetted parts	PTFE
Pressure resistance max	16 bar
Signal type	4-20 mA
Supply voltage ac max	260 V AC
Supply voltage ac min	90 V AC

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

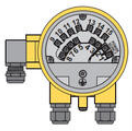
Dimensions of control unit



DN	PN	A	B	D1	D2	d	n	Weight kg
10	150 or 200	153	90	60	14	4	2,5
15		155	95	65	14	4	2,5
20		160	105	75	14	4	3
25		167	115	85	14	4	3,5
32		180	140	100	18	4	5
40		185	150	110	18	4	6
50	200	191	165	125	18	4	7
65		209	185	145	18	4	8
80		224	200	160	18	8	9,5
100	250	245	220	180	18	8	12
125		276	250	210	18	8	15
150	300	305	285	240	22	8	20
200	350	375	340	295	22	12	36
250	400	430	405	355	26	12	58
300	500	487	460	410	26	12	70
350	600	542	520	470	26	16	85
400		615	580	525	30	16	100
450		657	640	585	30	20	120
500		750	715	650	33	20	160
600		870	840	770	36	20	190
700	700	927	910	840	36	24	260
800	800	1050	1025	950	39	24	350
900	900	1145	1125	1050	39	28	450
1000	1000	1285	1250	1170	42	28	550



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



	Terminal	Description	
Power supply	1	90...260V AC	(-) 10...36V DC (+) (on request)
	2		
Binary output 1	3	reverse polarity protection, galvanic insulation, passive	
	4		
Pulse/frequency output	5	reverse polarity protection, galvanic insulation, passive	
	6		
Current output 4-20 mA	7	(+)	active
	8	(-)	(passive on request)
Communication	9	RS 485 A	
	10	RS 485 B	
	11	RS 485 GND / shield	
Binary input (passive)	12	reverse polarity protection, galvanic insulation	
	13		
Binary output 2	14	reverse polarity protection, galvanic insulation, passive	
	15		

DN	PN	A	B	D1	D2	d	n	Weight kg
10	150 or 200	153	90	60	14	4	2,5
15		155	95	65	14	4	2,5
20		160	105	75	14	4	3
25		167	115	85	14	4	3,5
32		180	140	100	18	4	5
40		185	150	110	18	4	6
50	200	191	165	125	18	4	7
65		209	185	145	18	4	8
80		224	200	160	18	8	9,5
100	250	245	220	180	18	8	12
125		276	250	210	18	8	15
150	300	305	285	240	22	8	20
200	350	375	340	295	22	12	36
250	400	430	405	355	26	12	58
300	500	487	460	410	26	12	70
350	600	542	520	470	26	16	85
400		615	580	525	30	16	100
450		657	640	585	30	20	120
500		750	715	650	33	20	160
600		870	840	770	36	20	190
700	700	927	910	840	36	24	260
800	800	1050	1025	950	39	24	350
900	900	1145	1125	1050	39	28	450
1000	1000	1285	1250	1170	42	28	550

DN	PN	A	B	D1	D2	d	n	Weight kg
10	150 or 200	153	90	60	14	4	2,5
15		155	95	65	14	4	2,5
20		160	105	75	14	4	3
25		167	115	85	14	4	3,5
32		180	140	100	18	4	5
40		185	150	110	18	4	6
50	200	191	165	125	18	4	7
65		209	185	145	18	4	8
80		224	200	160	18	8	9,5
100	250	245	220	180	18	8	12
125		276	250	210	18	8	15
150	300	305	285	240	22	8	20
200	350	375	340	295	22	12	36
250	400	430	405	355	26	12	58
300	500	487	460	410	26	12	70
350	600	542	520	470	26	16	85
400		615	580	525	30	16	100
450		657	640	585	30	20	120
500		750	715	650	33	20	160
600		870	840	770	36	20	190
700	700	927	960	875	42	24	260
800	800	1050	1085	990	48	24	350
900	900	1145	1185	1090	48	28	450
1000	1000	1285	1320	1210	56	28	550

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15		155	95	65	14	4	2,5
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25		167	115	85	14	4	3,5
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100	250	245	220	180	18	8	12
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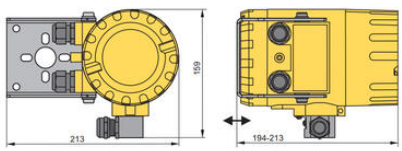
700	700	927	960	875	42	24	260
800	800	1050	1085	990	48	24	350
900	900	1145	1185	1090	48	28	450
1000	1000	1285	1320	1210	56	28	550

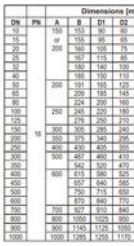
Flow value table in [m³/h]						
DN	v=0,3m/s	v=1m/s	v=3m/s	v=5m/s	v=8m/s	v=10m/s
10	0,085	0,283	0,848	1,414	2,262	2,827
15	0,191	0,636	1,909	2,545	3,181	3,817
20	0,339	1,131	3,393	5,655	9,048	11,310
25	0,530	1,767	5,301	8,836	14,137	17,671
32	0,869	2,895	8,686	14,476	23,162	28,953
40	1,357	4,524	13,572	22,619	36,191	45,239
50	2,121	7,069	21,206	35,343	56,549	70,686
65	3,584	11,946	35,838	59,729	95,567	119,46
80	5,429	18,096	54,287	90,478	144,76	180,96
100	8,482	28,274	84,823	141,37	226,19	282,74
125	13,254	44,179	132,54	220,89	353,43	441,787
150	19,085	63,617	190,85	318,087	508,94	636,17
200	33,929	113,10	339,30	565,49	904,78	1130,9
250	53,014	176,71	530,14	883,57	1413,7	1767,1
300	76,341	254,47	763,41	1272,3	2035,7	2544,7
350	103,90	346,36	1039,1	1731,8	2770,9	3463,6
400	135,72	452,39	1357,2	2261,9	3619,1	4523,9
500	212,06	706,86	2120,6	3534,3	5654,9	7068,6
600	305,36	1017,9	3053,6	5089,4	8143,0	10178,7
800	542,87	1809,6	5428,7	9047,8	14476,4	18095,5
1000	848,23	2827,4	8482,3	14137,1	22619,4	28274,3

Optimal flow speed v=3m/s

Standard Qmax and recommended Qmax range		
DN	Standard flow rate [m3/h]	Flow rate range [m3/h]
10	1	1 - 1,7
15	2	2 - 3,8
20	4	3,8 - 6,8
25	5	5 - 10,6
32	10	9 - 17,4
40	15	14 - 27,1
50	20	20 - 42,4
65	30	30 - 72
80	50	50 - 109
100	100	85 - 170
125	150	130 - 265
150	200	190 - 380
200	360	340 - 660
250	500	500 - 1060
300	760	760 - 1530
350	1000	1000 - 2080
400	1300	1300 - 2700
500	2000	
600	3000	consult manufacturer
800	5000	
1000	8000	

Dimensions of control unit





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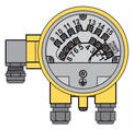

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80	50	50 - 109
100	100	85 - 170
125	150	130 - 265
150	200	190 - 380
200	360	340 - 660
250	500	500 - 1060
300	760	760 - 1530
350	1000	1000 - 2080
400	1300	1300 - 2700
500	2000	
600	3000	consult manufacturer
800	5000	
1000	8000	