



PEM-1000 SZÉRIA - ÁRAMLÁSMÉRŐ

Elektromágneses (Magflow)

PEMDN0100PN16.2

ALW 4–20 mA, DN100, PN16, Hastelloy C/PTFE

- 0,085..28,274,3 m³/h
- 3/8" - 40" csatlakozási méret
- 1,6 MPa
- Savak, alkális, festékek, ragasztók, víz stb.
- 4-20mA vagy Impulzus/frekvencia



TERMÉKLEÍRÁS

Az Aplis PEM-1000 elektromágneses áramlásmérő egy rendkívül robusztus, nagy pontosságú áramlásmérő.

A minimális vezetőképesség 5 µS/cm, és például savak, festékek, paszták, víz és szennyvíz esetében használják.

Savak

Festékek

Paszták

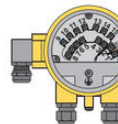
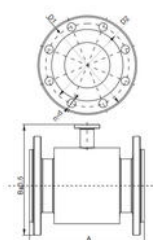
Víz, szennyvíz stb.

MŰSZAKI ADATOK

IP-osztály	IP67
Jeltípus	4–20 mA
Kábelhossz	8 m
Környezeti hőmérséklet eddig:	60 °C
Környezeti hőmérséklet ettől:	-20 °C
Közeghőmérséklet eddig:	130 °C
Közeghőmérséklet ettől:	-25 °C
Max. nyomásellenállás	16 bar
Max. tápfeszültség, AC	260 V AC
Méréstechnológia	Elektromágneses
Min. tápfeszültség, AC	85 V AC
Osztályozási pontosság	A skálaérték ± 0,5%-a az EN 837-1-nek megfelelően
Test anyaga	Szén/rozsdamentes acél

[illegible]

		Dimensions [mm]						Weight
Dn	Pr	A	B	D1	D2	d	h	
15		150	155	85	60	14	4	2.5
20		200	205	110	80	14	4	2.5
25		250	255	135	100	14	4	3.5
30		300	305	160	120	14	4	4
40		400	405	190	150	14	4	6
50		500	505	220	180	14	4	8
63		630	635	260	210	14	4	10
80		800	805	310	250	14	4	14
100		1000	1005	360	300	14	4	18
125		1250	1255	420	360	14	4	24
160		1600	1605	500	430	14	4	32
200		2000	2005	600	520	14	4	48
250		2500	2505	720	630	14	4	64
315		3150	3155	860	760	14	4	80
400		4000	4005	1000	900	14	4	112
500		5000	5005	1200	1100	14	4	160
630		6300	6305	1450	1350	14	4	200
800		8000	8005	1750	1650	14	4	280
1000		10000	10005	2100	2000	14	4	360
1250		12500	12505	2500	2400	14	4	480
1600		16000	16005	3000	2900	14	4	640
2000		20000	20005	3600	3500	14	4	800
2500		25000	25005	4300	4200	14	4	1000
3150		31500	31505	5100	5000	14	4	1280
4000		40000	40005	6000	5900	14	4	1600
5000		50000	50005	7200	7100	14	4	2000
6300		63000	63005	8600	8500	14	4	2560
8000		80000	80005	10000	9900	14	4	3200
10000		100000	100005	12000	11900	14	4	4000



	Terminal	Description
Power supply	2	90...260V AC (V)
	3	0...30V DC (on request)
Binary output 1	3	reverse polarity protection, galvanic insulation, passive
	4	
Pulse/frequency output	5	reverse polarity protection, galvanic insulation, passive
Current output 4-20 mA	7	(V) active (passive on request)
	8	
Communication	9	RS 485 A
	10	RS 485 B
	11	RS 485
Binary input (passive)	12	GND / shield
	13	reverse polarity protection, galvanic insulation
Binary output 2	14	reverse polarity protection, galvanic insulation

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

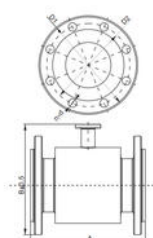
		Dimensions [mm]						Weight
D _h	FR	A	B	C	D	E	F	
15	200	150	155	80	80	14	4	3
15		155	85	85	14	4	2.5	
20		200	205	90	90	14	4	3.5
20		205	137	115	85	14	4	3.5
25		250	180	160	150	14	4	5
30	250	300	260	150	110	14	4	7
30		300	191	155	125	14	4	7
40		400	209	185	145	14	4	8
40		400	230	160	160	14	4	8
50		500	250	245	170	22	8	12
60	250	600	275	270	220	22	8	15
60		600	275	270	220	22	8	15
70		700	275	270	220	22	8	15
70		700	275	270	220	22	8	15
80		800	300	320	330	30	12	20
90	250	900	400	420	370	30	12	24
90		900	400	420	370	30	12	24
100		1000	420	450	400	30	12	26
100		1000	440	460	420	30	12	28
110		1100	460	500	490	30	14	30
120	250	1200	500	520	550	30	14	30
120		1200	520	550	580	30	14	32
130		1300	540	580	600	30	14	34
130		1300	560	600	620	30	14	36
140		1400	580	620	640	30	14	38
150	250	1500	600	640	660	30	14	40
150		1500	620	660	680	30	14	42
160		1600	640	680	700	30	14	44
160		1600	660	700	720	30	14	46
170		1700	680	720	740	30	14	48

		Dimensions [mm]						Weight
Size	Pin	A	B	C	D	E	F	
10		150	153	82	82	14	4	2.3
15		175	178	85	85	14	4	2.6
20		200	203	105	105	15	4	3.1
25		225	228	115	115	16	4	3.7
32		280	283	140	140	18	4	5
40		320	323	165	165	19	4	6
50		360	363	190	190	20	4	7
63		450	453	230	230	22	4	9
80		500	503	260	260	23	4	10
100		600	603	320	320	25	4	13
125		700	703	380	380	26	4	15
160		800	803	450	450	28	4	18
200		900	903	530	530	30	4	20
250		1000	1003	630	630	32	4	23
320		1100	1103	750	750	34	4	26
400		1200	1203	880	880	36	4	29
500		1300	1303	1020	1020	38	4	33
630		1400	1403	1180	1180	40	4	37
800		1500	1503	1380	1380	42	4	42
1000		1600	1603	1600	1600	44	4	48

DN	Flow value table in [m³/s]					
	$v_{0.005}$	$v_{0.01}$	$v_{0.02}$	$v_{0.05}$	$v_{0.1}$	$v_{0.2}$
5	0.0085	0.2803	0.8888	1.434	2.262	2.827
15	0.1381	0.6862	1.509	2.463	3.818	3.817
25	0.211	1.045	2.236	3.543	5.395	5.394
35	0.2650	1.267	2.531	3.836	5.937	5.937
45	0.3069	1.4595	2.801	4.1426	6.522	6.523
55	0.3402	1.634	3.046	4.461	7.156	7.157
65	0.3681	1.792	3.276	4.793	7.839	7.84
75	0.392	1.938	3.492	5.138	8.562	8.563
85	0.4129	2.075	3.695	5.495	9.325	9.326
95	0.431	2.204	3.886	5.864	10.128	10.129
105	0.4468	2.328	4.066	6.245	10.971	10.972
115	0.4605	2.448	4.236	6.638	11.854	11.855
125	0.4726	2.564	4.397	7.043	12.777	12.778
135	0.4833	2.677	4.551	7.459	13.74	13.741
145	0.4928	2.787	4.698	7.886	14.743	14.744
155	0.5013	2.894	4.84	8.324	15.786	15.787
165	0.5089	2.998	4.977	8.773	16.869	16.87
175	0.5157	3.099	5.11	9.233	17.992	17.993
185	0.5218	3.198	5.239	9.704	19.155	19.156
195	0.5273	3.294	5.364	10.186	20.358	20.359
205	0.5321	3.388	5.486	10.679	21.601	21.602
215	0.5363	3.48	5.605	11.183	22.884	22.885
225	0.5401	3.569	5.721	11.697	24.207	24.208
235	0.5436	3.656	5.835	12.221	25.57	25.571
245	0.5467	3.741	5.947	12.755	26.973	26.974
255	0.5495	3.824	6.057	13.3	28.415	28.416
265	0.5521	3.905	6.165	13.854	29.897	29.898
275	0.5546	3.984	6.271	14.418	31.419	31.42
285	0.5569	4.061	6.375	14.991	32.981	32.982
295	0.559	4.137	6.478	15.573	34.583	34.584
305	0.5609	4.211	6.579	16.164	36.225	36.226
315	0.5627	4.284	6.679	16.764	37.907	37.908
325	0.5643	4.355	6.777	17.373	39.629	39.63
335	0.5658	4.425	6.874	17.99	41.391	41.392
345	0.5672	4.494	6.969	18.615	43.193	43.194
355	0.5685	4.562	7.063	19.248	45.035	45.036
365	0.5697	4.629	7.155	19.89	46.917	46.918
375	0.5709	4.695	7.246	20.548	48.839	48.84
385	0.572	4.76	7.336	21.214	50.801	50.802
395	0.573	4.824	7.424	21.887	52.803	52.804
405	0.5741	4.887	7.511	22.567	54.845	54.846
415	0.5751	4.949	7.597	23.254	56.927	56.928
425	0.5761	5.01	7.682	23.947	59.049	59.05
435	0.577	5.069	7.766	24.646	61.211	61.212
445	0.578	5.128	7.849	25.351	63.413	63.414
455	0.5789	5.186	7.931	26.062	65.655	65.656
465	0.5798	5.243	8.012	26.779	67.937	67.938
475	0.5807	5.299	8.092	27.502	70.259	70.26
485	0.5815	5.355	8.171	28.231	72.621	72.622
495	0.5823	5.41	8.249	28.966	75.023	75.024
505	0.5831	5.464	8.326	29.707	77.465	77.466
515	0.5839	5.518	8.402	30.454	79.947	79.948
525	0.5846	5.57				

Standard Gmax and recommended Gmax range		
DN	Standard flow rate [m ³ /h]	Flow rate range [m ³ /h]
50	1	1 - 1.7
75	2	2 - 3.8
100	4	3.8 - 7.6
150	8	7.6 - 15.2
200	15	15.2 - 22.8
300	20	20 - 42.4
400	30	30 - 72
500	40	40 - 104
600	100	85 - 170
1250	150	130 - 265
1500	200	160 - 380
2000	300	340 - 660
2500	500	620 - 1260
3000	700	760 - 1520
3500	1000	1000 - 2000
4000	1300	1300 - 2700
5000	2000	
6000	3000	consult manufacturer
8000	5000	
10000	8000	

DN	PN	Dimensions [mm]						Weight
		A	B	C	D	E	F	
10	N	150	153	90	85	14	4	7.5
15		160	163	95	90	14	4	8
20		180	183	105	100	14	4	9
25		200	203	115	110	14	4	10
30		220	223	125	120	14	4	11
35		240	243	135	130	14	4	12
40		260	263	145	140	14	4	13
50		300	303	165	160	14	4	15
60		350	353	185	180	14	4	17
70		400	403	205	200	14	4	19
80	S	250	255	220	180	18	8	12
100		300	305	240	200	18	8	15
120		320	325	260	220	18	8	17
140		350	355	280	240	18	8	19
160		380	385	300	260	18	8	21
180		420	425	330	290	18	8	24
200		450	455	360	320	18	8	27
220		480	485	390	350	18	8	30
240		500	505	420	380	18	8	33
260		520	525	450	410	18	8	36
300	B	400	405	400	320	22	9	48
350		450	455	450	350	22	9	54
300		400	405	400	320	22	9	48
350		450	455	450	350	22	9	54
400		500	505	500	380	22	9	60
450		550	555	550	410	22	9	66
500		600	605	600	440	22	9	72
550		650	655	650	470	22	9	78
600		700	705	700	500	22	9	84
650		750	755	750	530	22	9	90
700	C	800	805	800	560	24	10	96
750		850	855	850	590	24	10	102
800		900	905	900	620	24	10	108
850		950	955	950	650	24	10	114

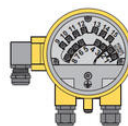


DN 10 – DN 150 $A \pm 5$ mm
DN 200 – DN 1000 $A \pm 10$ mm

		Dimensions [mm]						Weight
DN	PN	A	B	C	D	E	F	W
15	100	51	67	80	84	4	4	14
20	150	55	70	84	88	4	4	18
25	200	55	95	85	88	4	4	24
32	250	60	100	90	92	4	4	30
40		67	115	85	88	4	4	3.8
50		78	130	90	92	4	4	5.5
63		88	140	100	108	4	4	8
80		100	150	110	118	4	4	11
100	200	110	165	120	128	4	4	7
125		125	180	145	148	4	4	8
160		145	200	160	168	4	4	12
200	250	160	220	180	188	4	4	15
250		180	240	190	202	8	8	22
315		200	270	200	210	8	8	28
400	315	220	300	220	230	8	8	35
500	400	250	330	250	260	8	8	45
630	500	280	360	280	290	8	8	55
800	630	310	400	310	320	8	8	70
1000	800	350	450	350	360	16	16	90
1250	1000	400	500	400	410	16	16	110
1600	1250	450	560	450	460	16	16	140
2000	1600	500	630	500	510	16	16	170
2500	2000	560	700	560	570	16	16	210
3150	2500	630	780	630	640	16	16	250
4000	3150	720	900	720	730	20	20	300
5000	4000	800	1000	800	810	20	20	360
6300	5000	900	1100	900	910	20	20	420
8000	6300	1000	1250	1000	1010	20	20	500
10000	8000	1100	1400	1100	1110	20	20	600
12500	10000	1250	1600	1250	1260	20	20	720
16000	12500	1400	1800	1400	1410	20	20	880
20000	16000	1600	2000	1600	1610	20	20	1080
25000	20000	1800	2250	1800	1810	20	20	1320
31500	25000	2000	2500	2000	2010	20	20	1600
40000	31500	2250	2800	2250	2260	20	20	1920
50000	40000	2500	3150	2500	2510	20	20	2300
63000	50000	2800	3500	2800	2810	20	20	2760
80000	63000	3150	3900	3150	3160	20	20	3360
100000	80000	3500	4500	3500	3510	20	20	4080
125000	100000	4000	5000	4000	4010	20	20	4800
160000	125000	4500	5600	4500	4510	20	20	5760
200000	160000	5000	6300	5000	5010	20	20	6960
250000	200000	5600	7000	5600	5610	20	20	8400
315000	250000	6300	7800	6300	6310	20	20	10080
400000	315000	7200	9000	7200	7210	20	20	12000
500000	400000	8000	10000	8000	8010	20	20	14400

		Dimensions [mm]						Weight
DN	PN	A	B	C	d	e	f	
10		150	153	115	14	4	3	
15		200	203	145	14	4	3	
20		250	253	165	14	4	3	
25		300	303	185	14	4	3	
32		350	353	205	14	4	3	
40		400	403	225	14	4	3	
50		450	453	245	14	4	3	
63		500	503	265	14	4	3	
80		560	563	295	14	4	3	
100		630	633	335	14	4	3	
125		710	713	375	14	4	3	
160		800	803	425	14	4	3	
200		900	903	485	14	4	3	
250		1000	1003	545	14	4	3	
320		1120	1123	625	14	4	3	
400		1250	1253	715	14	4	3	
500		1400	1403	815	14	4	3	
630		1600	1603	935	14	4	3	
800		1800	1803	1065	14	4	3	
1000		2000	2003	1205	14	4	3	
1250		2250	2253	1365	14	4	3	
1600		2500	2503	1545	14	4	3	
2000		2800	2803	1745	14	4	3	
2500		3150	3153	1975	14	4	3	
3200		3500	3503	2235	14	4	3	
4000		3900	3903	2535	14	4	3	
5000		4500	4503	2885	14	4	3	
6300		5300	5303	3385	14	4	3	
8000		6300	6303	4035	14	4	3	
10000		7500	7503	4835	14	4	3	

Journal of Management Inquiry 22(1) 3-14
© The Author(s) 2013
Reprints and permissions: sagepub.com/journalsPermissions.nav
DOI: 10.1177/1056492613500911
<http://jmi.sagepub.com>



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

DN	Flow water table in [m/s]				
	$v_{0,3m/s}$	$v_{0,2m/s}$	$v_{0,1m/s}$	$v_{0,0m/s}$	$v_{0,0m/s}$
10	0,085	0,283	0,848	1,414	2,252
15	0,131	0,404	1,509	2,645	3,181
20	0,177	0,525	2,119	3,437	4,293
25	0,220	0,781	3,051	4,836	5,947
32	0,269	1,059	4,388	6,476	7,950
40	0,324	1,454	6,137	8,917	10,799
50	0,411	1,960	8,269	11,760	14,361
63	0,500	2,781	11,501	16,149	19,871
80	0,602	3,859	15,848	21,476	26,993
100	0,728	5,254	21,519	29,141	36,424
125	0,882	7,094	29,229	39,343	49,065
160	1,082	10,365	43,823	57,279	70,507
200	1,327	14,079	60,479	78,547	96,138
250	1,626	18,483	82,641	107,137	130,740
320	1,982	24,771	112,847	147,337	180,724
400	2,405	33,419	155,419	205,257	246,574
500	2,905	44,617	211,805	283,087	336,177
630	3,500	59,817	284,319	384,337	456,177
800	4,200	80,417	384,319	520,337	616,177
1000	5,000	105,617	512,319	688,337	824,177
1250	5,937	136,417	688,319	928,337	1,104,177
1600	7,261	184,417	928,319	1,272,337	1,504,177
2000	8,761	248,417	1,272,319	1,720,337	2,044,177
2500	10,521	328,417	1,720,319	2,320,337	2,804,177
3200	12,561	436,417	2,320,319	3,120,337	3,804,177
4000	14,921	584,417	3,120,319	4,160,337	5,044,177
5000	17,681	784,417	4,160,319	5,480,337	6,644,177
6300	20,881	1,064,417	5,480,319	7,240,337	8,924,177
8000	24,641	1,444,417	7,240,319	9,680,337	11,764,177
10000	28,961	1,924,417	9,680,319	12,920,337	15,404,177

Standard Gmax and recommended Gmax range		
DN	Standard flow rate [m ³ /h]	Flow rate range [m ³ /h]
10	5	5 - 5.7
15	9	9 - 9.8
20	14	13.5 - 14
25	5	5 - 10.8
32	10	9 - 17.4
40	15	14 - 27.1
50	20	20 - 42.4
63	30	30 - 73
80	50	35 - 139
100	100	65 - 170
125	150	130 - 205
150	200	190 - 340
200	300	340 - 660
250	400	600 - 1000
300	500	700 - 1500
350	700	1000 - 1500
400	1000	1000 - 2000
450	1300	1300 - 2700
500	2000	
600	3000	
800	5000	consult manufacturer
1000	8000	

1000	648.23	2
------	--------	---

Optimal flow speed $\mu\text{m}^3/\text{min}$