



PEM-1000 SZÉRIA - ÁRAMLÁSMÉRŐ

Elektromágneses (Magflow)

PEMDN0050PN16.1

ALW 4–20 mA, DN50, PN16, 316TI/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

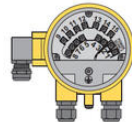
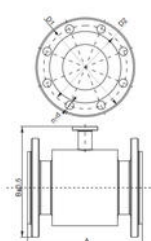
Csatlakozás	DN50 PN16
IP-osztály	IP67
Jeltípus	4–20 mA
Környezeti hőmérséklet eddig:	60 °C
Környezeti hőmérséklet ettől:	-20 °C
Közeghőmérséklet eddig:	130 °C
Közeghőmérséklet ettől:	-25 °C
Max. nyomásellenállás	16 bar
Max. tápfeszültség, AC	260 V AC
Méréstechnológia	Elektromágneses
Min. tápfeszültség, AC	90 V AC
Osztályozási pontosság	A skálaérték ± 0,5%-a az EN 837-1-nek megfelelően
Test anyaga	Carbon steel

Vízzel érintkező alkatrészek anyaga

3,5 kg

PTFE

		Dimensions [mm]						Weight
Dr.	Pr.	A	B	D1	D2	d	h	
53		150	553	50	60	14	4	2.5
55		150	555	60	60	14	4	2.5
56		150	556	60	60	14	4	2.5
57		150	557	155	65	14	4	3.5
58		150	558	140	100	14	4	6
59		150	559	155	110	14	4	6
60	200	191	105	125	145	18	4	7
61	200	209	105	145	145	18	4	8
62	200	224	105	160	145	18	4	9
63	200	245	220	160	160	18	4	12
64	200	275	250	230	160	18	4	15
65	200	300	275	250	160	18	4	17
66	200	315	340	255	22	12	4	20
67	400	430	455	265	22	12	4	23
68	400	445	455	265	22	12	4	23
69	400	460	455	265	22	12	4	24
70	400	475	455	265	22	12	4	25
71	400	542	530	435	30	16	18	85
72	400	615	580	435	30	16	18	100
73	400	657	640	435	30	16	18	115
74	400	710	640	435	30	16	18	130
75	500	750	715	660	57	20	100	150
76	500	870	640	735	36	20	100	180
77	500	940	740	840	36	20	100	210
78	800	1000	5025	5025	30	24	200	250
79	800	1145	1145	1050	30	28	280	450



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

		Dimensions [mm]							Weight
Size	FR	A	B	C	D	E	F	G	
15	150	135	95	80	14	4	8	2.5	
15	150	135	95	85	14	4	8	2.5	
20	200	180	125	100	16	5	10	3.5	
25	250	230	155	115	18	6	13	5.5	
30	300	280	180	140	19	6	15	6.5	
35	350	330	205	160	21	7	17	8.5	
40	400	380	230	180	22	8	19	10.5	
50	500	490	265	215	24	9	22	14.5	
60	600	590	300	240	26	10	25	19.5	
70	700	690	335	270	28	11	28	25.5	
80	800	790	370	300	30	12	30	32.5	
90	900	890	405	330	32	13	33	40.5	
100	1000	990	440	360	34	14	36	49.5	
125	1250	1240	510	410	38	16	41	71.5	
150	1500	1490	580	460	42	18	46	100.5	
175	1750	1740	650	510	46	20	51	131.5	
200	2000	1990	720	560	50	22	56	165.5	
250	2500	2490	840	660	58	26	66	250.5	
300	3000	2990	960	760	66	30	76	340.5	
350	3500	3490	1080	860	74	34	86	440.5	
400	4000	3990	1200	960	82	38	96	550.5	
450	4500	4490	1320	1060	90	42	106	670.5	
500	5000	4990	1440	1160	98	46	116	800.5	
550	5500	5490	1560	1260	106	50	126	940.5	
600	6000	5990	1680	1360	114	54	136	1090.5	
650	6500	6490	1800	1460	122	58	146	1250.5	
700	7000	6990	1920	1560	130	62	156	1420.5	
750	7500	7490	2040	1660	138	66	166	1600.5	
800	8000	7990	2160	1760	146	70	176	1790.5	
850	8500	8490	2280	1860	154	74	186	1990.5	
900	9000	8990	2400	1960	162	78	196	2200.5	
950	9500	9490	2520	2060	170	82	206	2420.5	
1000	10000	9990	2640	2160	178	86	216	2650.5	

		Dimensions [mm]						Weight
DN	PN	A	B	D1	D2	d	h	
10	150	153	80	62	14	4	2,5	
15	175	150	85	65	14	4	2,5	
20	200	177	115	85	14	4	3,5	
25	225	180	140	100	18	4	5	
32	250	180	162	110	18	4	5	
40	280	181	190	125	18	4	7	
50	300	209	185	140	18	4	9	
63	350	274	200	152	18	4	13,5	
80	400	308	225	165	22	5	18	
100	450	328	250	180	22	5	22	
125	500	378	275	200	26	6	28	
160	550	390	305	200	26	6	30	
200	600	420	330	220	26	6	36	
250	650	430	360	240	30	7	45	
320	700	460	400	260	33	12	58	
400	750	487	415	265	33	16	75	
500	800	500	450	310	36	16	85	
630	850	575	500	360	36	16	105	
800	900	657	565	410	39	20	120	
1000	950	750	610	430	42	20	150	

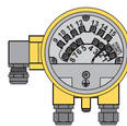
DN	Flow rate table (m ³ /h)				
	v _{0.5m/s}	v _{1.0m/s}	v _{1.5m/s}	v _{2.0m/s}	v _{2.5m/s}
5	0.085	0.263	0.448	1.414	2.282
5	0.181	0.588	1.009	3.460	5.411
5	0.213	0.651	1.132	3.942	6.187
5	0.245	0.714	1.255	4.424	6.963
5	0.306	0.927	1.558	5.486	8.437
5	0.367	1.140	1.861	6.548	10.000
5	0.428	1.353	2.164	7.610	11.563
5	0.489	1.566	2.467	8.672	13.125
5	0.550	1.779	2.770	9.734	14.688
5	0.611	1.992	3.073	10.796	16.250
5	0.672	2.205	3.376	11.858	17.813
5	0.733	2.418	3.679	12.920	19.375
5	0.794	2.631	3.982	13.982	20.938
5	0.855	2.844	4.285	15.044	22.500
5	0.916	3.057	4.588	16.106	24.063
5	0.977	3.270	4.891	17.168	25.625
5	1.038	3.483	5.194	18.230	27.188
5	1.099	3.696	5.497	19.292	28.750
5	1.160	3.909	5.800	20.354	30.313
5	1.221	4.122	6.103	21.416	31.875
5	1.282	4.335	6.406	22.478	33.438
5	1.343	4.548	6.709	23.540	35.000
5	1.404	4.761	7.012	24.602	36.563
5	1.465	4.974	7.315	25.664	38.125
5	1.526	5.187	7.618	26.726	39.688
5	1.587	5.400	7.921	27.788	41.250
5	1.648	5.613	8.224	28.850	42.813
5	1.709	5.826	8.527	29.912	44.375
5	1.770	6.039	8.830	30.974	45.938
5	1.831	6.252	9.133	32.036	47.500
5	1.892	6.465	9.436	33.098	49.063
5	1.953	6.678	9.739	34.160	50.625
5	2.014	6.891	10.042	35.222	52.188
5	2.075	7.104	10.345	36.284	53.750
5	2.136	7.317	10.648	37.346	55.313
5	2.197	7.530	10.951	38.408	56.875
5	2.258	7.743	11.254	39.470	58.438
5	2.319	7.956	11.557	40.532	60.000
5	2.380	8.169	11.860	41.594	61.563
5	2.441	8.382	12.163	42.656	63.125
5	2.502	8.595	12.466	43.718	64.688
5	2.563	8.808	12.769	44.780	66.250
5	2.624	9.021	13.072	45.842	67.813
5	2.685	9.234	13.375	46.904	69.375
5	2.746	9.447	13.678	47.966	70.938
5	2.807	9.660	13.981	49.028	72.500
5	2.868	9.873	14.284	50.090	74.063
5	2.929	10.086	14.587	51.152	75.625
5	2.990	10.299	14.890	52.214	77.188
5	3.051	10.512	15.193	53.276	78.750
5	3.112	10.725	15.496	54.338	80.313
5	3.173	10.938	15.799	55.400	81.875
5	3.234	11.151	16.102	56.462	83.438
5	3.295	11.364	16.405	57.524	85.000
5	3.356	11.577	16.708	58.586	86.563
5	3.417	11.790	17.011	59.648	88.125
5	3.478	12.003	17.314	60.710	89.688
5	3.539	12.216	17.617	61.772	91.250
5	3.600	12.429	17.920	62.834	92.813
5	3.661	12.642	18.223	63.896	94.375
5	3.722	12.855	18.526	64.958	95.938
5	3.783	13.068	18.829		

Standard Gears and recommended Gears (ratio)		
DN	Standard Flow rate (m ³ /h)	Flow rate (m ³ /h)
10	1	1 ~ 1.7
15	2	1.7 ~ 3.8
25	4	3.8 ~ 6.8
35	5	5 ~ 10.8
50	10	9 ~ 17.4
75	15	14 ~ 27.1
100	20	20 ~ 42.4
150	30	30 ~ 57.7
200	40	50 ~ 102
250	50	63 ~ 121
300	60	75 ~ 135
400	80	100 ~ 200
500	100	125 ~ 250
600	120	150 ~ 265
800	150	180 ~ 380
1000	200	240 ~ 500
1200	250	300 ~ 550
1500	300	360 ~ 650
2000	400	480 ~ 1000
2500	500	600 ~ 1250
3000	600	720 ~ 1530
4000	800	960 ~ 2080
5000	1000	1200 ~ 2600
6000	1200	1440 ~ 2720
8000	1500	consult manufacturer
10000	2000	
15000	3000	
20000	4000	
30000	6000	
40000	8000	

		Dimensions [mm]					Weight
DN	PN	A	B	C	Q	E	
15	150	153	80	40	14	4	2.5
20		155	85	45	14	4	2.5
25	200	157	90	50	14	4	3
32		163	95	55	14	4	3.5
40		168	100	58	14	4	4
50		173	105	62	14	4	4.5
63	201	191	120	72	18	4	7
80		199	125	75	18	4	7.5
100		204	130	78	18	4	8
125		210	135	82	18	4	8.5
160	250	243	160	100	18	6	12
200		270	200	120	18	6	15
250		300	220	130	18	6	17
320	315	351	260	150	22	12	26
400		370	280	160	22	12	30
500		403	320	180	22	12	36
630		442	360	200	22	12	45
800	600	542	500	240	26	18	65
1000		600	560	260	26	18	80
1250		660	600	280	26	18	95
1600		750	710	350	30	20	160
2000		840	800	400	30	20	180
2500		960	920	450	30	20	220
3200		1090	1050	500	30	20	250
4000		1240	1200	560	30	20	300
5000		1410	1380	630	30	20	350

		Dimensions [mm]						Weight
DN	PN	A	B	C	D	E	F	
10	150	553	90	60	34	4	2.5	
15	200	585	100	60	34	4	2.5	
20	250	617	110	60	34	4	2.5	
25	300	650	120	60	34	4	2.5	
32	350	682	130	60	34	4	3.8	
40	400	714	140	58	34	4	3.8	
50	500	811	165	58	34	4	7.5	
63	630	918	185	58	34	4	7.5	
80	800	1015	205	58	34	4	11	
100	1000	1112	225	58	34	4	15	
125	1250	1210	245	58	34	4	15	
160	1600	1307	265	58	34	4	15	
200	2000	1404	285	58	34	4	15	
250	2500	1501	305	58	34	4	15	
320	3200	1600	325	58	34	4	15	
400	4000	1700	345	58	34	4	15	
500	5000	1800	365	58	34	4	15	
630	6300	1900	385	58	34	4	15	
800	8000	2000	405	58	34	4	15	
1000	10000	2100	425	58	34	4	15	
1250	12500	2200	445	58	34	4	15	
1600	16000	2300	465	58	34	4	15	
2000	20000	2400	485	58	34	4	15	
2500	25000	2500	505	58	34	4	15	
3200	32000	2600	525	58	34	4	15	
4000	40000	2700	545	58	34	4	15	
5000	50000	2800	565	58	34	4	15	
6300	63000	2900	585	58	34	4	15	
8000	80000	3000	605	58	34	4	15	
10000	100000	3100	625	58	34	4	15	
12500	125000	3200	645	58	34	4	15	
16000	160000	3300	665	58	34	4	15	
20000	200000	3400	685	58	34	4	15	
25000	250000	3500	705	58	34	4	15	
32000	320000	3600	725	58	34	4	15	
40000	400000	3700	745	58	34	4	15	
50000	500000	3800	765	58	34	4	15	
63000	630000	3900	785	58	34	4	15	
80000	800000	4000	805	58	34	4	15	
100000	1000000	4100	825	58	34	4	15	
125000	1250000	4200	845	58	34	4	15	
160000	1600000	4300	865	58	34	4	15	
200000	2000000	4400	885	58	34	4	15	
250000	2500000	4500	905	58	34	4	15	
320000	3200000	4600	925	58	34	4	15	
400000	4000000	4700	945	58	34	4	15	
500000	5000000	4800	965	58	34	4	15	
630000	6300000	4900	985	58	34	4	15	

Dn	Pn	Dimensions [mm]						Height
		A	B	D1	D2	a	b	
10	200	153	80	60	14	4	2,5	
15		155	85	65	14	4	3	
20		157	90	70	14	4	3,5	
25		159	95	75	14	4	4	
30		161	100	80	14	4	4,5	
32	200	180	140	130	18	4	5	
35		182	145	135	18	4	5,5	
40		184	150	140	18	4	6	
45		186	155	145	18	4	6,5	
50		188	160	150	18	4	7	
55	250	209	185	165	18	4	8	
60		212	190	170	18	4	8,5	
65		215	195	175	18	4	9	
70		218	200	180	18	4	9,5	
75		221	205	185	18	4	10	
80	300	236	219	200	20	8	15	
85		239	224	205	20	8	15,5	
90		242	229	210	20	8	16	
95		245	234	215	20	8	16,5	
100		248	239	220	20	8	17	
105	400	305	300	280	28	8	20	
110		308	305	285	28	8	20,5	
115		311	310	290	28	8	21	
120		314	315	295	28	8	21,5	
125		317	320	300	28	8	22	
130	400	400	400	380	33	12	58	
135		403	403	383	33	12	58,5	
140		406	406	386	33	12	59	
145		409	409	389	33	12	59,5	
150		412	412	392	33	12	60	
155	600	487	515	455	33	16	75	
160		490	518	458	33	16	75,5	
165		493	521	461	33	16	76	
170		496	524	464	33	16	76,5	
175		499	527	467	33	16	77	
180	600	615	680	590	38	16	100	
185		618	683	593	38	16	100,5	
190		621	686	596	38	16	101	
195		624	689	599	38	16	101,5	
200		627	692	602	38	16	102	
205	800	750	755	675	42	20	120	
210		753	758	678	42	20	120,5	
215		756	761	681	42	20	121	
220		759	764	684	42	20	121,5	
225		762	767	687	42	20	122	



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

DN	Flow water table (m^3/s)					
	$w=0.3m/s$	$w=0.4m/s$	$w=0.5m/s$	$w=0.6m/s$	$w=0.7m/s$	$w=0.8m/s$
0	0.080	0.263	0.448	1.414	2.252	2.827
5	0.180	0.460	0.601	2.455	3.191	3.766
10	0.330	0.713	0.921	3.496	4.432	5.007
15	0.480	0.966	1.251	4.537	5.673	6.248
20	0.630	1.219	1.581	5.578	6.914	7.489
40	1.307	2.524	3.172	22.619	27.501	33.229
60	1.960	3.786	4.758	34.439	42.752	51.982
80	2.613	5.048	6.340	46.259	57.003	69.235
100	3.266	6.310	7.922	58.079	71.254	86.488
120	3.919	7.572	9.504	69.899	85.505	103.741
140	4.572	8.834	11.086	81.719	99.756	120.994
160	5.225	10.096	12.668	93.539	114.007	138.247
180	5.878	11.358	14.250	105.359	128.258	155.500
200	6.531	12.620	15.832	117.179	142.509	172.753
220	7.184	13.882	17.414	128.999	156.760	190.006
240	7.837	15.144	18.996	140.819	171.011	207.259
260	8.490	16.406	20.578	152.639	185.262	224.512
280	9.143	17.668	22.160	164.459	199.513	241.765
300	9.796	18.930	23.742	176.279	213.764	259.018
320	10.449	20.192	25.324	188.099	228.015	276.271
340	11.102	21.454	26.906	199.919	242.266	293.524
360	11.755	22.716	28.488	211.739	256.517	310.777
380	12.408	23.978	30.070	223.559	270.768	328.030
400	13.061	25.240	31.652	235.379	285.019	345.283
420	13.714	26.502	33.234	247.199	299.270	362.536
440	14.367	27.764	34.816	259.019	313.521	379.789
460	15.020	29.026	36.398	270.839	327.772	397.042
480	15.673	30.288	37.980	282.659	342.023	414.295
500	16.326	31.550	39.562	294.479	356.274	431.548
520	16.979	32.812	41.144	306.299	370.525	448.801
540	17.632	34.074	42.726	318.119	384.776	466.054
560	18.285	35.336	44.308	329.939	399.027	483.307
580	18.938	36.598	45.890	341.759	413.278	500.560
600	19.591	37.860	47.472	353.579	427.529	517.813
620	20.244	39.122	49.054	365.399	441.780	535.066
640	20.897	40.384	50.636	377.219	456.031	552.319
660	21.550	41.646	52.218	389.039	470.282	569.572
680	22.203	42.908	53.800	400.859	484.533	586.825
700	22.856	44.170	55.382	412.679	498.784	604.078
720	23.509	45.432	56.964	424.499	513.035	621.331
740	24.162	46.694	58.546	436.319	527.286	638.584
760	24.815	47.956	60.128	448.139	541.537	655.837
780	25.468	49.218	61.710	459.959	555.788	673.090
800	26.121	50.480	63.292	471.779	570.039	690.343
820	26.774	51.742	64.874	483.599	584.290	707.596
840	27.427	53.004	66.456	495.419	598.541	724.849
860	28.080	54.266	68.038	507.239	612.792	742.102
880	28.733	55.528	69.620	519.059	627.043	759.355
900	29.386	56.790	71.202	530		

Standard Gmax and recommended Gmax range		
DN	Standard flow rate [m ³ /h]	Flow rate range [m ³ /h]
10	1	1 - 1.7
15	2	2 - 3.8
20	4	3.5 - 6.8
25	5	5 - 10.8
32	10	9 - 17.4
40	15	14 - 27.1
50	20	20 - 42.4
75	35	30 - 75
80	50	50 - 100
100	100	85 - 170
125	150	130 - 265
150	200	190 - 380
200	300	240 - 640
250	400	320 - 800
300	500	400 - 1,000
400	700	560 - 1,500
500	1,000	800 - 2,000
600	1,300	1,000 - 2,700
800	2,000	consult manufacturers
1,000	3,000	
1,200	4,000	