

Electromagnetic flowmeter BAMOFLO MAG 774



- Display with backlit keyboard
- From DN10 to DN1000
- Versions: Compact or remote converter
- Connections: flanges, threads, wafer and sanitary fittings
- Modular design with many additional options (MODBUS, HART, GSM)
- Approval for drinking water (PZH)

DESCRIPTION

Electromagnetic flowmeters are designed to measure the flow of a liquid with minimal electrical conductivity of 5 $\mu\text{S}/\text{cm}$.
The selection of the appropriate device: size, material or available options depends on the type of liquid being measured, its temperature and the specifications of operation.

The sensor has built-in electrodes that measure the flow on the principle of Faraday's cage. The signal coming from electrodes is sent to the converter placed on the flowmeter or to the remote converter (e.g. : on the wall).
Converter changes and amplifies the signal, displays measurement results and can receive additional modules, e.g. 4-20 mA output, relay or GSM module.



Sanitary version



Converter: Remote version

TECHNICAL FEATURES

Sensor

Connection size	DN 10 to DN 1000
Connection type	Flanges, thread, wafer, sanitary fittings
Number of electrodes	2 to 4 (fourth electrode for empty pipe detection)
Electrode material	AISI 316 Ti, Hastelloy C, Titanium, Tantalum, Platinum
Body material	Carbon steel, painted
Lining material	Soft or hard rubber, PTFE
Liquid temperature	0 to 150 °C
Accuracy	< 0.5 %
Nominal pressure	PN6, PN10, PN16, PN25, (PN40, PN64 - on request)
Protection	IP67 (IP68 optional)

Converter

Power supply	85...240 V AC, 10...36 V DC, 24 V AC
Consumption	5...8 VA
Display	LCD 2x16 characters (9,6 mm high) and keyboard
Protection	IP67
Output signal	0-20 mA, 4-20 mA (active/passive), 0-1 kHz, 0-10 kHz, 0-12 kHz, relays - galvanically isolated
Cable length (remote version)	Standard 6 m, up to 100 m max.
Additional modules	RS 232, RS 485 (MODBUS), HART, GSM modem, electrochemical electrode cleaning module

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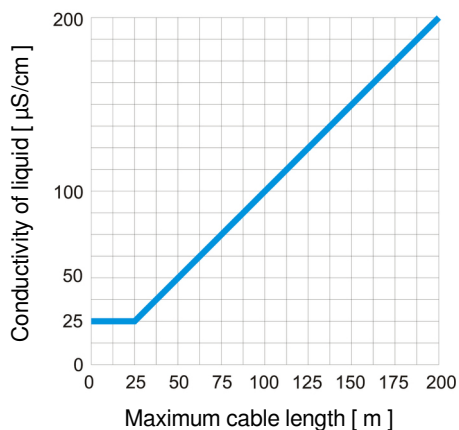
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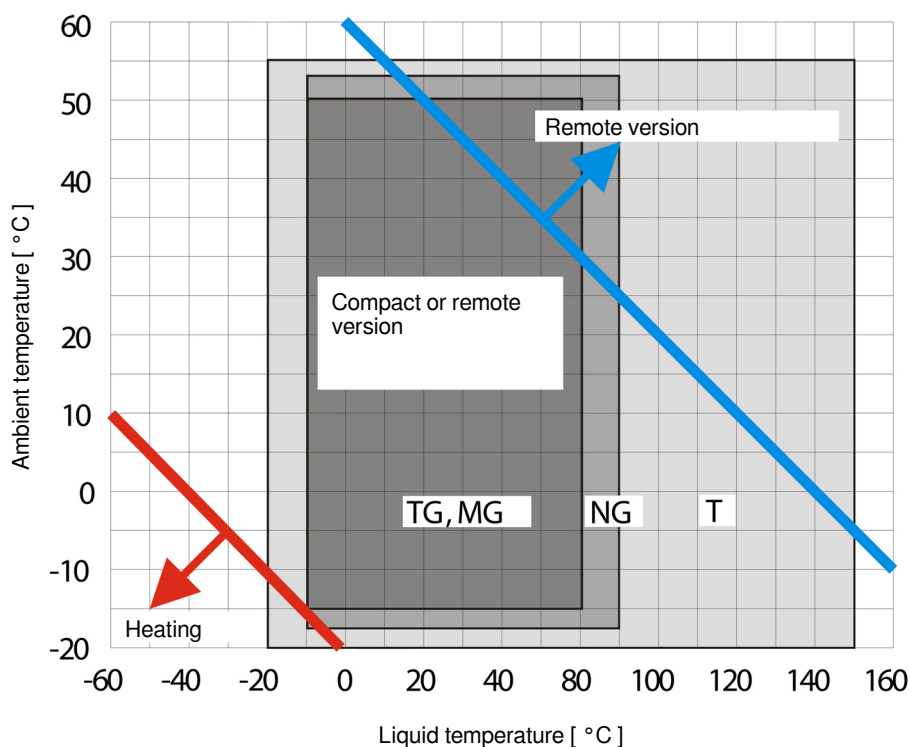
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DN		Flow (l/s)	
mm	[inches]	Qmin	Qmax
10	3/8"	0,0078	0,9424
15	1/2"	0,0176	2,120
20	3/4"	0,0314	3,769
25	1"	0,0490	5,890
32	1 1/4"	0,0804	9,650
40	1 1/2"	0,1256	15,07
50	2"	0,1963	23,56
65	2 1/2"	0,3318	39,81
80	3"	0,5026	60,31
100	4"	0,7853	94,24
125	5"	1,227	147,2
150	6"	1,767	212,0
200	8"	3,141	376,9
250	10"	4,908	589,0
300	12"	7,068	848,2
350	14"	9,621	1154
400	16"	12,56	1507
450	18"	15,90	1908
500	20"	19,63	2356
600	24"	28,27	3392
700	28"	38,48	4618
800	32"	50,26	6031
900	39"	63,61	7634
1000	40"	78,53	9424



TG - Technical rubber with a hard structure; MG - Technical rubber with a soft structure;
 NG - Rubber resistant to aggressive liquids; T - PTFE

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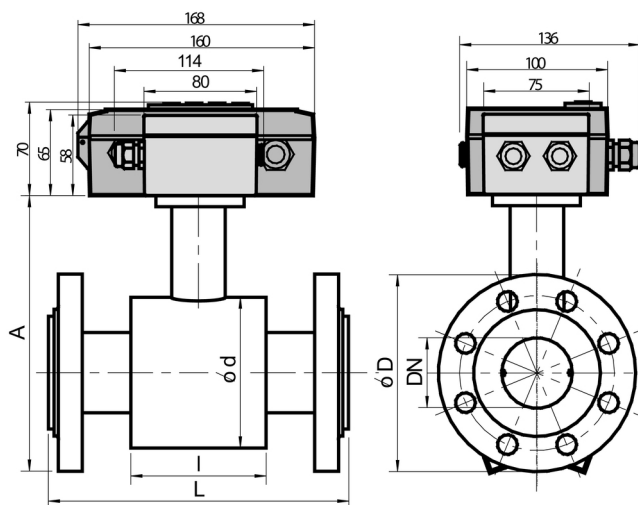
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DIMENSIONS

Sensor with flange connections



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DN		PN [bar]	D [mm]	d [mm]	A [mm]	L*		I [mm]	Weight ** [kg]
[mm]	[inches]					ISO 13359; EN14154 [mm]	Optional [mm]		
15	1/2	16	95	62	164	200	138	66	3,5
20	3/4	16	105	62	170	200	138	66	3,5
25	1	16	115	72	180	200	215	96	3,5
32	1 1/4	16	135	82	199	200	215	96	6
40	1 1/2	16	145	92	209	200	215	96	7
50	2	16	160	107	223	200	215	96	8
65	2 1/2	16	180	127	244	200	215	96	10
80	3	16	195	142	260	200	215	96	12
100	4	16	215	162	280	250	215	96	16
125	5	16	245	192	310	250	305	126	21
150	6	16	280	218	340	300	305	126	28
200	8	16	335	274	398	350	380	211	35
250	10	10	405	370	480	450	380	211	42,5
300	12	10	440	420	535	500	515	320	55
350	14	10	500	480	584	550	515	320	65
400	16	10	565	530	642	600	515	320	94
450	18	10	565	530	642	600	515	320	94
500	20	10	670	640	752	600	515	320	122
600	24	10	780	760	870	600	615	320	158
700	28	10	895	880	990	700	715	420	230
800	32	6	1010	980	1100	800	815	420	325
900	36	6	1115	1040	1185	900	815	520	420
1000	40	6	1220	1140	1290	1000	1015	520	510
1200	48	6	1455	1340	1510	1200	1015	520	680

* Standard construction length meets ISO 13359

Construction length tolerance DN ≤200 : +0/-2 mm

DN >200 : +0/-3 mm

** Weight of PDIN sensor without converter and terminal box

- weight of terminal box has to be added for remote version - 0,25 kg

- weight of converter has to be added for compact version - 0,9 kg

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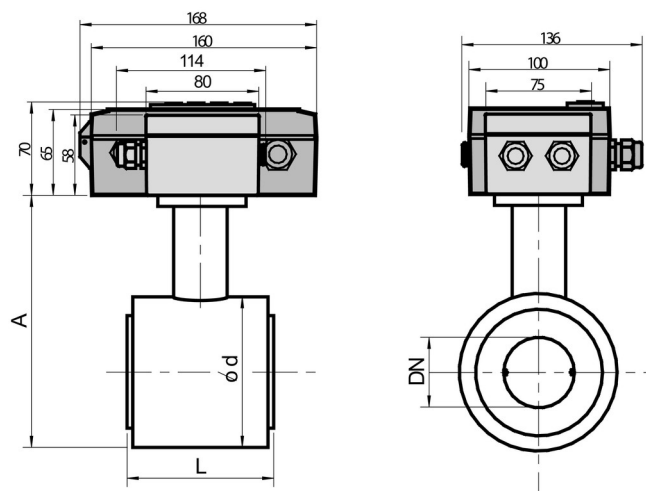
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Sensor with wafer connections



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DN		D [mm]	A [mm]	L*			Weight ** [kg]
[mm]	[inches]			TG, MG lining [mm]	NG lining [mm]	PTFE lining [mm]	
10	3/8	62	145	-	-	62	0,8
15	1/2	62	145	74	72	70	0,9
20	3/4	62	145	74	72	70	1,1
25	1	72	158	104	102	100	1,5
32	1 1/4	82	168	104	102	100	1,8
40	1 1/2	92	179	104	102	100	2,2
50	2	107	192	104	102	100	2,8
65	2 1/2	127	212	104	102	100	3,2
80	3	142	227	104	102	100	3,5
100	4	162	247	104	102	100	4
125	5	192	277	134	132	130	6
150	6	218	303	134	132	130	8

* Standard construction length meets ISO 13359
Construction length tolerance: +0/-2 mm
** Weight of the sensor without converter and terminal box
- weight of terminal box has to be added for remote version - 0,25 kg
- weight of converter has to be added for compact version - 0,9 kg

The sensor is designed for installation between flanges and for clamp mounts (not supplied). For sensor sizes DN20..DN200, flanges in the corresponding sizes are used.
For sensor sizes DN10 and DN15 the flanges DN20 have to be used, because the sensor body is bigger than space between openings of corresponding flanges.



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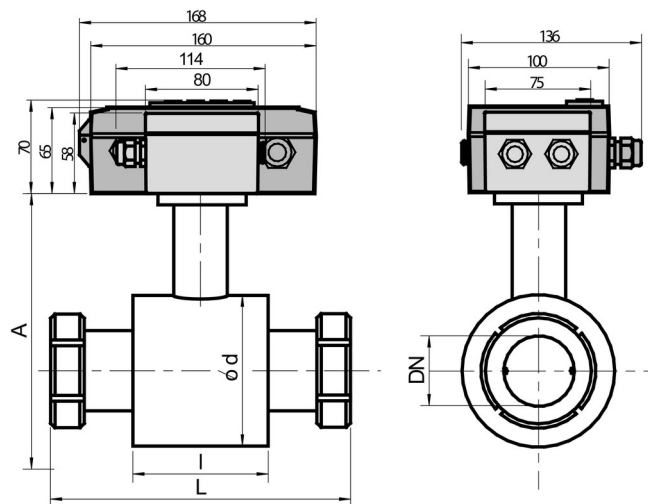
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Sensor with aseptic connections



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DN		d [mm]	l [mm]	A* [mm]	L*		Weight**
[mm]	[inches]				ISO 13359; EN 14154 [mm]	Optional [mm]	
15	1/2	62	66	145	200	134	0,9
20	3/4	62	66	145	200	150	1,1
25	1	72	96	158	200	213	1,5
32	1 1/4	82	96	168	200	213	1,8
40	1 1/2	92	96	179	200	213	2,2
50	2	107	96	192	200	213	2,8
65	2 1/2	127	96	212	200	213	3,2
80	3	142	96	227	200	213	3,5
100	4	162	96	247	250	213	4
125	5	192	126	277	250	301	6
150	6	218	126	303	300	301	8

* Standard construction length meets ISO 13359
Construction length tolerance: +0/-2 mm
** Weight of the sensor without converter and terminal box
- weight of terminal box has to be added for remote version - 0,25 kg
- weight of converter has to be added for compact version - 0,9 kg

The sensor is connected to the pipeline using an aseptic screwed fitting that meets DIN 11 851 standard. Part of the fitting with cap nut is firmly fixed to the sensor. Welded counterpart with male thread and sealing are part of delivery. This sensor version is suitable for foodstuff flow. Non-conducting lining of the sensor extends over its edges to avoid both leakage and deposits of measured liquid on edges. Due to cap nuts, the sensor can be easily deinstalled and comfortably cleaned.



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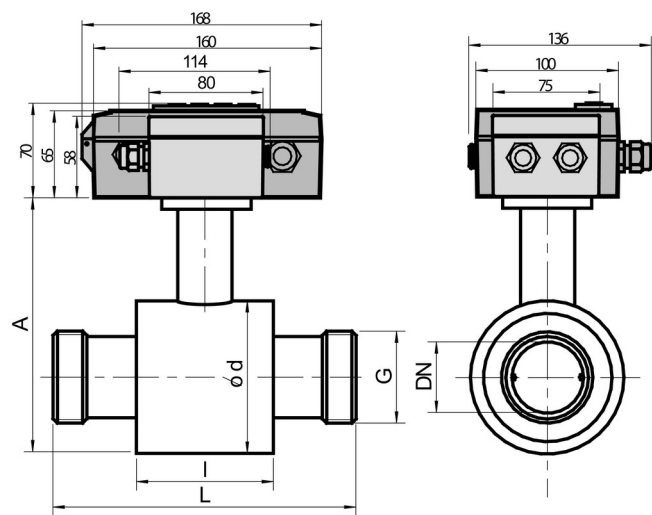
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Sensor with threaded connections



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DN		Thread G [inches]	d [mm]	l [mm]	A [mm]	L*		Weight** [kg]
[mm]	[inches]					ISO 13359; EN 14154 [mm]	Optional [mm]	
15	1/2	1"	62	66	145	200	143	0,9
20	3/4	1 1/4"	62	66	145	200	150	1,1
25	1	1 1/2"	72	96	158	200	213	1,5
32	1 1/4	2"	82	96	168	200	213	1,8
40	1 1/2	2 1/2"	92	96	179	200	213	2,2
50	2	3"	107	96	192	200	213	2,8
65	2 1/2	3 1/2"	127	96	212	200	213	3,2
80	3	4"	142	96	227	200	213	3,5

* Standard construction length meets ISO 13359
Construction length tolerance: +0/-2 mm
** Weight of the sensor without converter and terminal box
- weight of terminal box has to be added for remote version - 0,25 kg
- weight of converter has to be added for compact version - 0,9 kg

The sensor is connected to the pipeline using a fitting with a cap nut and a gasket. Both ends of measuring tube are equipped with male tube thread. Adjacent tubes have to be equipped with fitting with cap nut and sealed using gasket (not included).



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