

RBMAG

battery powered electromagnetic flow meter

Misura di portata per liquidi conduttivi

Dn da 10 a 1000 mm

Accuratezza della misura: $\pm 0.2\%$; $\pm 0.5\%$

Trasmissione dati wireless (in attesa)

Alimentazione a batteria, autonomia 5 anni



The battery powered RBmag flowmeters are ideal for remote monitoring application where there are no external power supplies available.

TECHNICAL FEATURES

Flow Rate Range

RBmag is able to process signals from fluids with flow rates of up to 10m / s in both directions (bidirectional meter).

Range / Lining material

PTFE DN10 to DN500

RUBBER DN65 to DN2000

Sensor pipe material

SS321

Housing material

aluminium

Electrodes material

SS316L - Hastelloy C - Titanium - Tantalum - Platinum

Measure range

$<0.1\text{m}^3/\text{h}$ \div $>110000\text{m}^3/\text{h}$

Accuracy

$\pm 0.5\%$ standard; $\pm 0.2\%$ optional

Repeatability

$\pm 0.1\%$

Fluid conductivity

$>5\mu\text{S}/\text{cm}$.

Power supply

Battery

Ambient Temperature Limits

Remote version operating temperature: RUBBER -10 to $+80^\circ\text{C}$;

PTFE -40 to $+150^\circ\text{C}$

Compact version operating temperature: RUBBER -10 to $+80^\circ\text{C}$;

PTFE -40 to $+100^\circ\text{C}$

Storage temperature: -40 to 85°C

Communication protocol

Modbus (opt.)

Output

Frequency: 0.1-5000 Hz

Pulse: open collector

Reverse Flow

Allow measure reverse flow.

Output Testing

Frequency Source: Transmitter can be commanded to supply a specified test frequency between 0.1 and 5000 Hz.

Start-up Time

0.5 seconds

Low Flow Cutoff

Adjustable between 0.0 and $9.9\%Q_{\text{max}}$. Below selected value, output is driven to the zero flow rate signal level.

Humidity Limits

0-100% RH to 150°F (65°C), not condensing.

Damping

Adjustable between 0.1 and 99 seconds.

Compact version IP rating

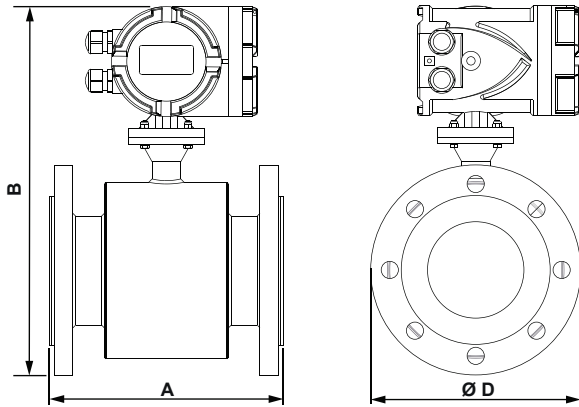
IP67

Remote version IP rating

sensor IP67 / IP68 (by request) - converter IP67

Anti-condensation filter

Anti-condensation filter installed on converter



DN (mm)	A (mm)	PN 16 - PN 40	
		B (mm)	ØD (mm)
10	200	295	90
15		295	95
20		300	105
25		300	115
32		315	140
40		335	150
50		344	165
65		360	185
80		375	200

DN (mm)	A (mm)	PN 10		PN 16		PN 40	
		B (mm)	ØD (mm)	B (mm)	ØD (mm)	B (mm)	ØD (mm)
100	250	-	-	400	220	410	235
125	250	-	-	420	250	435	270
150	300	-	-	460	285	468	300
200	350	520	340	520	340	538	375
250	450	570	395	575	405	598	450
300	500	620	445	620	460	648	515
350	550	670	505	678	520	708	580
400	600	730	565	738	580	778	660
450	600	780	615	793	640	816	685
500	600	830	670	850	715	870	755
600	600	930	780	960	840	985	890
700	700	1050	895	1080	910	-	-
800	800	1165	1015	1170	1025	-	-
900	900	1270	1115	1275	1125	-	-
1000	1000	1360	1230	1375	1255	-	-

RBMAG Battery electromagnetic flowmeter

For conductive fluids. With sensor pipe in SS321
 Medium ambient temperature range: -20° to 75°C
 Housing protection degree for electronic: IP67

Version	
E	Remote - accuracy 0.2% up to DN250 (fm DN300 on 0.3%) - standard cable length 5m (over 5m, price each additional meter - max 50m)
F	Remote - standard cable length 5m (over 5m, price each additional meter) max 50m)
W	Compact - accuracy 0.2% up to DN250 (fm DN300 on 0.3%) - max temperature of the fluid 100°C
Y	Compact - max temperature of the fluid 100°C
DN flange / Max. pressure / Lining (temperature range of the fluid)	
0010B2	DN10 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,14 ÷ 2,9m3/h; UNI 1092-1 standard
0010E2	DN10 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,14 ÷ 2,9m3/h; UNI 1092-1 standard
0015B2	DN15 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,3 ÷ 6m3/h; UNI 1092-1 standard
0015E2	DN15 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,3 ÷ 6m3/h; UNI 1092-1 standard
0020B2	DN20 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,5 ÷ 12m3/h; UNI 1092-1 standard
0020E2	DN20 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,5 ÷ 12m3/h; UNI 1092-1 standard
0025B2	DN25 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,6 ÷ 18m3/h; UNI 1092-1 standard
0025E2	DN25 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,6 ÷ 18m3/h; UNI 1092-1 standard
0032B2	DN32 / 4.0MPa / PTFE (-40° ÷ +150°C); range 1 ÷ 30m3/h; UNI 1092-1 standard
0032E2	DN32 / 1.6MPa / PTFE (-40° ÷ +150°C); range 1 ÷ 30m3/h; UNI 1092-1 standard
0040B2	DN40 / 4.0MPa / PTFE (-40° ÷ +150°C); range 1,8 ÷ 42m3/h; UNI 1092-1 standard
0040E2	DN40 / 1.6MPa / PTFE (-40° ÷ +150°C); range 1,8 ÷ 42m3/h; UNI 1092-1 standard
0050B2	DN50 / 4.0MPa / PTFE (-40° ÷ +150°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
0050E2	DN50 / 1.6MPa / PTFE (-40° ÷ +150°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
0065B1	DN65 / 4.0MPa / Neoprene (-10° ÷ +80°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0065B2	DN65 / 4.0MPa / PTFE (-40° ÷ +150°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0065E1	DN65 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0065E2	DN65 / 1.6MPa / PTFE (-40° ÷ +150°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0080B1	DN80 / 4.0MPa / Neoprene (-10° ÷ +80°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0080B2	DN80 / 4.0MPa / PTFE (-40° ÷ +150°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0080E1	DN80 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0080E2	DN80 / 1.6MPa / PTFE (-40° ÷ +150°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0100B1	DN100 / 4.0MPa / Neoprene (-10° ÷ +80°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0100B2	DN100 / 4.0MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0100E1	DN100 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0100E2	DN100 / 1.6MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0125B1	DN125 / 4.0MPa / Neoprene (-10° ÷ +80°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0125B2	DN125 / 4.0MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0125E1	DN125 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0125E2	DN125 / 1.6MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0150B1	DN150 / 4.0MPa / Neoprene (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
0150B2	DN150 / 4.0MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
0150E1	DN150 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
0150E2	DN150 / 1.6MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 1092-1 standard

0200C1	DN200 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0200C2	DN200 / 1.0MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0200E1	DN200 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0200E2	DN200 / 1.6MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0250C1	DN250 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0250C2	DN250 / 1.0MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0250E1	DN250 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0250E2	DN250 / 1.6MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0300C1	DN300 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0300C2	DN300 / 1.0MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0300E1	DN300 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0300E2	DN300 / 1.6MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0350C1	DN350 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0350C2	DN350 / 1.0MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0350E1	DN350 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0350E2	DN350 / 1.6MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0400C1	DN400 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0400C2	DN400 / 1.0MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0400E1	DN400 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0400E2	DN400 / 1.6MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0450C1	DN450 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 270 ÷ 5400m3/h; UNI 1092-1 standard
0450C2	DN450 / 1.0MPa / PTFE (-40° ÷ +150°C); range 270 ÷ 5400m3/h; UNI 1092-1 standard
0450E1	DN450 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 270 ÷ 5400m3/h; UNI 1092-1 standard
0450E2	DN450 / 1.6MPa / PTFE (-40° ÷ +150°C); range 270 ÷ 5400m3/h; UNI 1092-1 standard
0500C1	DN500 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0500C2	DN500 / 1.0MPa / PTFE (-40° ÷ +150°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0500E1	DN500 / 1.6MPa / Neoprene (-10° ÷ +80°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0500E2	DN500 / 1.6MPa / PTFE (-40° ÷ +150°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0600C1	DN600 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 490 ÷ 9600m3/h; UNI 1092-1 standard
0700C1	DN700 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 680 ÷ 13500m3/h; UNI 1092-1 standard
0800C1	DN800 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 900 ÷ 18000m3/h; UNI 1092-1 standard
0900C1	DN900 / 1.0MPa / Neoprene (-10° ÷ +80°C); range 1200 ÷ 22500m3/h; UNI 1092-1 standard
1000C1	DN1000 / 1.0MPa / Neoprene (-10° ÷ +80°C); (-10° ÷ +80°C); range 1450 ÷ 28000m3/h; UNI 1092-1 standard

Process connection

B	DIN (UNI 1092-1) flange
D	ANSI flange (price on request)
Z	Special

Electrodes material

1	SS316L Stainless steel
3	Hastelloy C
4	Titanium
5	Tantalum
6	Platinum

Power supply

D	Battery - 5 years life
----------	------------------------

Accessories

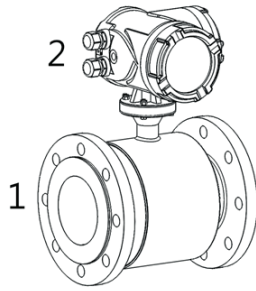
0	None
1	316SS or Hastelloy C grounding rings for plastic pipe installation (price on request)
3	3rd electrode - price on request

Output

A	Pulse output
E	Pulse output + MODBUS

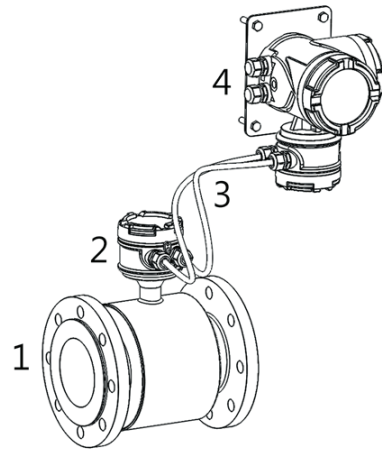
Pipe protection degree

1	IP67
2	IP68 (only for remote version)



COMPACT VERSION

- 1. Sensor
- 2. Converter



REMOTE VERSION

- 1. Sensor
- 2. Connection housing
- 3. Connection cables
- 4. Converter, wall mounting

