

RPMAGM

MID certified electromagnetic flowmeter

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Dn 10 ÷ 250

Accuracy: class II

RUBBER / PTFE lining

Power supply 85 ÷ 265 Vac o 12; 24 Vac/Vdc

Configuration and displaying via VL701with O-LED display



RPmagM with MID certification is suitable for all industrial processes where fiscal and custody transfer are required. It complies to 2014/32/EU directive and to OIML R 49-1/2/3, EN 14154-1/2/3, ISO 4064-1/2/5 standards. Various materials for lining are available, as well as electrodes made of Hastelloy C, tantalum and titanium. The converter can be supplied with most common communication systems such as MODBUS RTU.

TECHNICAL FEATURES

Flow rate range

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

Range dimension / lining material

PTFE DN10 ÷ DN250 / RUBBER DN10 ÷ DN2500

Sensor material

SS321

Housing material

epoxy painted aluminium

Electrodes material

SS316L - Hastelloy C - Titanium - Tantalum - Platinum

Measure range

$R=Q3/Q1 \leq 200$; $Q2/Q1=1,6$

Accuracy

Class II

Repeatability

$\pm 0,1\%$

Fluid conductivity

$> 5\mu S/cm$.

Power supply

85÷265Vac, 24Vac/dc, 12Vdc.

Consumption

6W, max. 8W.

Temperature class

T50

Ambient Temperature Limits

Remote version operating temperature: RUBBER -10 ÷ +80°C;

PTFE -40 ÷ +150°C

Compact version operating temperature: RUBBER -10 ÷ +80°C;

PTFE -40 ÷ +100°C

Storage temperature: -40÷85°C

Communication protocol

Modbus

Data Logger

Internal data logger via USB pen drive for event counter variations

Output

4÷20mA: 0÷500Ω

Frequency output: 0,1÷10000 Hz

Pulse output: 24Vdc galvanically isolated or open collector

galvanically isolated 24V 20mA (opt)

Alarm output: 2 relays, 3A 230Vac N.O.

Reverse Flow

Allows measure and totalization of reverse flow.

Output Testing

Relays output: Transmitter can switch relays at testing value.

Current Source: Transmitter can be commanded to supply a specified test current between 4.0 and 20.0 mA.

Frequency Source: Transmitter can be commanded to supply a specified test frequency between 1 and 10000 Hz.

Humidity Limits

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

Damping

Adjustable between 1 and 99 seconds.

Compact version IP rating

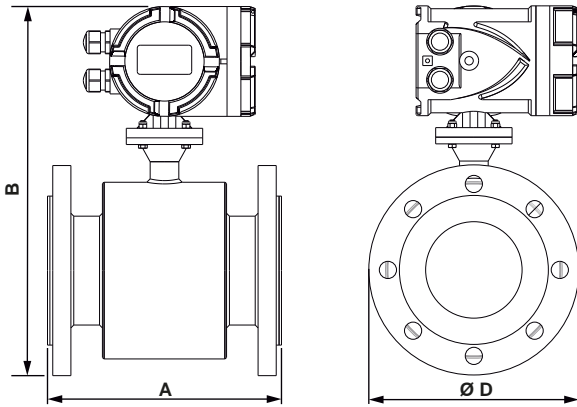
IP67

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 |

RPmagM**Electromagnetic flowmeter MID**

In compliance with directive 2014/32/EU
 (standard OIML R 49-1/2/3 - EN 14154-1/2/3 - ISO 4064-1/2/5)
 For conductive waters. Sensor pipe in SS321
 Medium ambient temperature range: $+5^{\circ} \pm 40^{\circ}\text{C}$
 IP67 electronic housing with anticondensation filter
 2 alarm relays (min/max)

| Version | |
|--|---|
| C | Remote - acc. Class 2 - Temp. Class T50 - cable length 3m - n.2 4+20mA input |
| N | Compact - acc. Class 2 - Temp. Class T50 - n.2 4+20mA input |
| DN flange / Max. pressure / Lining (temperature range of the fluid) | |
| 0010E2 | DN10 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,0125 ÷ 3,125m ³ /h; standard UNI 1092-1 |
| 0015E2 | DN15 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,0315 ÷ 7,875m ³ /h; standard UNI 1092-1 |
| 0020E2 | DN20 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,05 ÷ 12,5m ³ /h; standard UNI 1092-1 |
| 0025E2 | DN25 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,08 ÷ 20m ³ /h; standard UNI 1092-1 |
| 0032E2 | DN32 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,125 ÷ 31,25m ³ /h; UNI 1092-1 standard |
| 0040E2 | DN40 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,2 ÷ 50m ³ /h; standard UNI 1092-1 |
| 0050E2 | DN50 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 3 ÷ 66m ³ /h; standard UNI 1092-1 |
| 0065E1 | DN65 / 1.6MPa / Neoprene ($-10^{\circ} \pm +80^{\circ}\text{C}$); range 0,315 ÷ 78,75m ³ /h; standard UNI 1092-1 |
| 0065E2 | DN65 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,315 ÷ 78,75m ³ /h; standard UNI 1092-1 |
| 0080E1 | DN80 / 1.6MPa / Neoprene ($-10^{\circ} \pm +80^{\circ}\text{C}$); range 0,8 ÷ 200m ³ /h; standard UNI 1092-1 |
| 0080E2 | DN80 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 0,8 ÷ 200m ³ /h; standard UNI 1092-1 |
| 0100E1 | DN100 / 1.6MPa / Neoprene ($-10^{\circ} \pm +80^{\circ}\text{C}$); range 1,25 ÷ 312,5m ³ /h; standard UNI 1092-1 |
| 0100E2 | DN100 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 1,25 ÷ 312,5m ³ /h; standard UNI 1092-1 |
| 0125E1 | DN125 / 1.6MPa / Neoprene ($-10^{\circ} \pm +80^{\circ}\text{C}$); range 1,25 ÷ 312,5m ³ /h; standard UNI 1092-1 |
| 0125E2 | DN125 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 1,25 ÷ 312,5m ³ /h; standard UNI 1092-1 |
| 0150E1 | DN150 / 1.6MPa / Neoprene ($-10^{\circ} \pm +80^{\circ}\text{C}$); range 2 ÷ 500m ³ /h; standard UNI 1092-1 |
| 0150E2 | DN150 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 30 ÷ 600m ³ /h; standard UNI 1092-1 |
| 0200E1 | DN200 / 1.6MPa / Neoprene ($-10^{\circ} \pm +80^{\circ}\text{C}$); range 3,15 ÷ 787,5m ³ /h; standard UNI 1092-1 |
| 0200E2 | DN200 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 3,15 ÷ 787,5m ³ /h; standard UNI 1092-1 |
| 0250E1 | DN250 / 1.6MPa / Neoprene ($-10^{\circ} \pm +80^{\circ}\text{C}$); range 3,15 ÷ 787,5m ³ /h; standard UNI 1092-1 |
| 0250E2 | DN250 / 1.6MPa / PTFE ($-40^{\circ} \pm +150^{\circ}\text{C}$); range 3,15 ÷ 787,5m ³ /h; standard UNI 1092-1 |
| Process connection | |
| B | DIN flange (UNI 1092-1) |
| 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 | |
| A | 85+265Vac |
| B | 24Vdc / 24Vac |
| D | 12Vdc |
| Z | Special |
| Accessories | |
| 0 | None |
| 1 | 316SS or Hastelloy C grounding rings for plastic pipe installation (price on request) |
| 2 | Protective rings against inner lining abrasion (price on request) |
| 3 | 3rd electrode - price on request |
| Output | |
| C | >PENDING< 4+20mA + pulse output + HART - with galvanic separation |
| E | 4+20mA + pulse + MODBUS RTU with galvanic separation |
| Pipe protection degree | |
| 1 | IP67 |
| 2 | IP68 - only for remote version |