

...flow measurement  
& control...



**BELL**  
Flow Systems  
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## MAG 910E

# ELECTROMAGNETIC FLOWMETER

### Main Features:

- ↳ Diameters 10 to 800 mm
- ↳ Compact version IP67, remote version sensor IP67 (optionally IP68)
- ↳ Mounting of electronic unit in two working planes
- ↳ Power supply voltage selectable 94 to 260 VAC or 12,24,48 VAC/DC, 50/60 Hz
- ↳ Non-touch basic manual control with magnetic pointer
- ↳ 2 programmable digital outputs, analog output 4-20mA
- ↳ Empty pipe detection

### Application:

- ↳ Flow rate and volumetric flow measurement of all conductive liquids

Pipe dimensions	
Inner size DN [mm]	Length L [mm]
10 - 100	200
125 - 150	300
200 - 250	400
300 - 500	500
600	600
700	700
800	800

## Technical data

Nominal size	DN10 to DN800
Nominal pressure	PN10 to PN25 (depending on diameter)
Flow range	0.1 to 10 m/s (0.02 to 5000 l/s)
Accuracy	0.5 % (0.5 to 10 m/s) of reading 1 % (0.1 to 0.5 m/s) of reading
Maximum medium temperature	70°C (154°F) for rubber liner 130°C (200°F) for PTFE liner in remote version
Ambient temperature	-20 to 60 °C (-4 to 140°F)
Power supply	• 94 to 260 vac ( +10%, -15%), 50/60Hz, selectable • 12,24,48 VAC/DC/50/60Hz as an option
Power consumption	10 VA
Liner	• hard rubber • PTFE
Electrodes	• CrNi (stainless) steel 1.4571 • Hastelloy C276 • Tantalum
Measuring tube	Stainless steel 1.4201, dimensions according to DIN 17457
Flange	Steel 1.0402 or higher Dimensions according to DIN 2501 (BS 4504), ANSI B16.5
Protection category	• Compact version: IP67, optionally IP68 • Remote version: sensor IP68, converter IP67
Outputs	• Frequency 0 to 12 kHz with programmable flowrate and function • Pulse 0 to 50 Hz with programmable volume, function and pulse width • Current loop 4 to 20 mA with programmable flowrate and function
Communication	RS232
Displayed values	• Flowrate (m <sup>3</sup> /h, l/s, US.Gal/min, user) • Volume (m <sup>3</sup> , l, US.Gal, user) • Positive, total, negative and auxiliary (clearable, daily) volume
Control	• Magnetic pointer • RS232
Low-flow cutoff	Programmable value
Time constant	Settable in the range 1 to 20 s
Other features	• Test of excitation coils, empty pipe and electronic unit
Conformity requirements	• LVD (safety) according to EN 61010-1, EN61010-1/A2 • PED according to directive 97/23/EC • EMC according to EN 61000 part 3-2, 3-3, EN 61000 4-3, 4-4, 4-5, 4-6, 4-8, 4-11, EN 61000 part 6-2, EN 50081-1

**Inductive flowmeter MAG 910E** is an instrument designed for measuring, indicating and totalising the flow of conductive liquids. The flow meter MAG 910E records both positive and negative flow. As there are no moving or mechanical parts in the flow profile, the device can be used to measure extremely dirty liquids containing solids. The only limitation is that the device can be used solely with conductive liquids.

**Range of applications.** Inductive flow meter MAG 910E is designed for use in all process industries including the chemical, paper and water and waste-water industries.

**Features.** The inductive flow meter MAG 910E is a highly accurate and stable device. The construction of the M 910E indicator uses components with long-term time and temperature stability. Configuration data is backed up and can be recovered after a power failure. The back-up structure enables data recovery in case of a partial loss of data (as a result of e.g. high level electrostatic discharge or a noisy power supply). Internal CPU provides all functions usually built in electronic flow meters, incl. low flow rate correction, frequency response setting, bandwidth of sensitivity setting at low flow rates, etc.

**Inputs / Outputs.** The MAG 910E is equipped with four isolated outputs as standard. Digital outputs (frequency and pulse) are user configurable. Current output 4-20 mA can be used as passive or active type. RS 232 output is available for communication.