

# M-910 *Electromagnetic Flowmeter*



## Pipe mechanical dimensions

Diameter DN [mm]	Length [mm]
10	150
15 - 80	200
100 - 125	250
150	300
200	350
250	450
300	500
350	550
400 - 600	600
700	700
800	800

## Main Features:

- Range of diameter 10 to 800 mm
- Compact version IP67, remote version sensor IP68
- Mounting of electronic unit in two work planes
- Power supply 115/230 VAC auto selectable or 24VACDC, 50/60 Hz
- Non-touch basic manual control with magnetic pointer
- Programmable datalogger and real time as standard
- Remote control RS485, RS232
- 3 programmable digital outputs, digital input, analog output 4-20mA
- Dosing feature using digital input
- Pipe and electronic self diagnostic

## Application:

- Water and wastewater flowrate and total volume measuring
- Chemical industry (acids, alkaline solutions)

## Technical data

Nominal size	DN10 to DN800
Nominal pressure	PN10 to PN40 (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 value 1 % (0.1 to 0.5 m/s) of reading value
Maximal medium temperature	70°C (158°F) for rubber liner 130°C (266°F) for PTFE liner in remote version
Ambient temperature	-20 to 60 °C (-4 to 140°F)
Power supply	<ul style="list-style-type: none"> <li>• 115/230V ( +10%, -15%), 50/60Hz, auto selectable</li> <li>• 12V, 24V, 48V DC/50/60Hz as option</li> </ul>
Power consumption	10 VA
Liner	<ul style="list-style-type: none"> <li>• hard rubber</li> <li>• PTFE</li> </ul>
Electrodes	<ul style="list-style-type: none"> <li>• CrNi (stainless) steel 1.4571</li> <li>• Hastelloy C276</li> <li>• Tantalum</li> </ul>
Measuring tube	Stainless steel 1.4201, dimensions according to DIN 17457
Flange	Steel 1.0402 or higher Dimensions according to EN1092, DIN2501 (BS 4504), ANSI B16.5, Sanitary (DIN11851 or Tri Clamp), flangeless wafer style
Protection category	Compact version: IP67 Remote version: sensor IP68, converter IP65 (optionally IP67)
Outputs	<ul style="list-style-type: none"> <li>• Frequency 0 to 12 kHz with programmable flowrate and function</li> <li>• Pulse 0 to 50 Hz with programmable volume, function and pulse width</li> <li>• Relay contacts 100V/0.5A with programmable function</li> <li>• Current loop 4 to 20 mA with programmable flowrate and function</li> </ul>
Input	Digital input with programmable function
Communication	RS485, RS232
Displayed values	<ul style="list-style-type: none"> <li>• Flowrate (m<sup>3</sup>/h, l/s, US.Gal/min, user)</li> <li>• Volume (m<sup>3</sup>, l, US.Gal, user)</li> <li>• Positive, total, negative and auxiliary (clearable, daily) volume</li> </ul>
Control	<ul style="list-style-type: none"> <li>• Keyboard</li> <li>• Magnetic pointer</li> <li>• RS232 and RS485</li> </ul>
Low-flow cutoff	Programmable value
Time constant	Settable in range 1 to 20 s
Other features	<ul style="list-style-type: none"> <li>• Test of excitation coils, status of pipe line and electronic unit</li> <li>• Diagnostic of internal temperature and power supply voltages</li> <li>• Real time circuit for datalogging</li> <li>• Datalogger memory up to 15000 values (programmable sample rate)</li> <li>• Registration of min. and max. flowrate including date and time</li> </ul>
Conformity requirements	<ul style="list-style-type: none"> <li>• LVD (safety) according to EN 61010-1, EN61010-1/A2</li> <li>• PED according to directive 97/23/EC</li> <li>• 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</li> </ul>

**Inductive flow meter M-910** is a device designed for measuring, indicating and storing flow and passed through volume data of conductive liquids. Flow meter M-910 records both positive and negative flow. As there are neither moving nor mechanical parts in the flow profile the device can be applied to measure extremely polluted liquids containing even solid pollution. The only limitation is that the device can be used solely with conductive liquids.

**Range of applications.** Inductive flow meter M-910 is designed to be used in the chemical industry, paper industry, waterworks maintenance, waste-water maintenance etc.

**Features.** Inductive flow meter M-910 is a highly accurate and stable device. The construction of the M-910 indicator uses components with a 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 high noise of power supplying). 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.** Flow meter M-910 is equipped with six isolated outputs and one isolated input as standard. Digital outputs (frequency, pulse and relays) and input are user configurable. Current output 4-20 mA can be used as passive or active type. For communication are available RS232 and RS485 outputs.