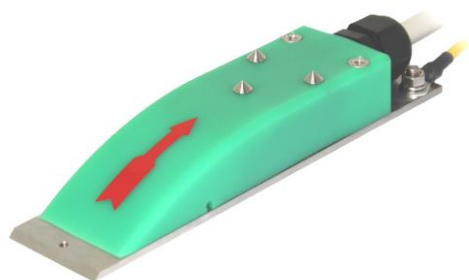


EMV-500™

Electromagnetic Velocity Open Channel Flow Meter



EMV-500™ SIZE A



EMV-500™ SIZE B

The EMV-500™ is a water/wastewater electromagnetic velocity open channel flow meter sensor which is available in two sizes:

- SIZE A is suited for pipes or channels from 150 mm to 500 mm diameter
- SIZE B is suited for pipes or channels from 500 mm to 2.000 mm diameter.

The sensor is encapsulated in an IP68 submersible ultra high molecular polyethylene body to be mounted with a special sensor mounting band in the pipe.

When combined with the appropriate level sensor, the EMV-500™ constitutes an efficient electromagnetic area/velocity flow meter measuring both velocity and level in the same cross-section (or slice of pipe). This is a requirement necessary for accurate flow rate measurement using the continuity equation: $Q = \bar{v} \times A$

In addition, electromagnetic sensors are totally unaffected by the concentration of debris or dilution of wastewater by rain.



FLOW-TRONIC NV

www.flow-tronic.com

Technical Specifications

Velocity Measurement

Method	Electromagnetic (Faraday's Law)
Range	0 to +2,5 m/s (other ranges available up to 10 m/s, must be specified at ordering time)
Accuracy	±1% of measured value or ±0,03 m/s (whatever value is bigger)

Min. conductivity of the medium needed 10µS/cm

Velocity Measurement Method

The principle of magnetic-inductive flow measurements utilizes the Faraday's law, where a conductor moving in a magnetic field induces a voltage of amplitude proportional to the velocity of the conductor. The conductor is the media being measured.

Material & Dimensions

Material	Ultra High Molecular Polyethylene (PE-UHM) Stainless steel 316 electrodes
Protection rate	IP68
Dimensions	Size A: 165 mm L, 40 mm W, 25 mm H Size B: 190 mm L, 60 mm W, 45 mm H
Weight	Size A: 0,300 Kg (without cable) Size B: 0,750 Kg (without cable)

Operating Temperature Range and Pressure

0° to 80°C (depending on pressure)
Max. pressure 4 bar (depending on temperature)

Sensor Cable

Material	Polyurethane jacketed
Length	10 m (standard) 20 m, 30 m or length up to 100 m (optional)

Converter for EMV-500™ (included)

Operating temp.	-10° to +50°C
Protection rate	IP66
Power supply	18-36 VDC
Output	One 4-20 mA analog output for velocity (m/s) to be connected to a PLC or the UNI-TRANS™ for flow conversion
Max. impedance	500 Ohm

Application fields

- Drinking water supplies
- Water treatment plants
- Cooling water control and monitoring
- Chemical and pharmaceutical plants
- Flow measurements in industry

Specifications are subject to change without notice
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