

ELECTROMAGNETIC FLOW METER.HIDROMAG

This electromagnetic flowmeter can be used to measure the volume flow of conductive fluid in a closed pipeline. It is widely used in the flow measurement and control in fields such as chemical and petroleum industries, metallurgy industry, water and waste-water, agriculture and irrigation, paper making, food and beverage industries as well as the pharmaceutical industry.+

The measuring principle of an electromagnetic flowmeter is based on the electromagnetic induction law of Farady. The sensor is mainly composed of a measuring tube with an isolate lining, two (2) electrodes, a coil and an iron core which produces the magnetic field. When a conductive fluid passes through the measuring tube, a voltage signal is induced on the electrodes. This signal is in direct proportion to the average flow velocity of the fluid. The signal is amplified and converted to produce the required display on screen.

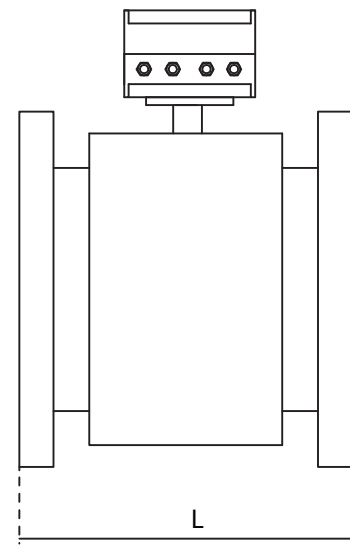


FEATURES

1. Measurement not affected by the variation of neither flow density, viscosity, temperature, pressure nor conductivity.
2. High accuracy measurement is guaranteed because of the linear measurement principle.
3. No obstruction in the pipe, no pressure-loss and lower requirement for straight pipeline.
4. Available from DN 50 to DN400 covers a wide range of pipe size.
5. A variety of liners and electrodes are available to satisfy different flow characteristics.
6. Programmable low frequency square wave field excitation, improving measurement stability and reducing power consumption.
7. Implementing 16 bits MCU, providing high integration and accuracy.
8. Full-digital processing, high noise resistance and reliable flow measurement.
9. High definition backlit LCD display.
10. Supports digital communication interfaces such as RS485 or RS232.
11. Intelligent "Empty Pipe Detection" and "Contaminated Electrodes" detection.
12. Compact version or remote to 100m.

INSTALLATIONS LENGTHS

DN	Presión (MPa)	L (mm.)	Kg)
50	1,6	200	17
65		250	25
80		250	29
100		250	31
125		250	36
150		300	41
200		350	45
250		450	50
300		500	60
350		500	145
400		500	180



STANDARD TECHNICAL CHARACTERISTICS

Power supply	11-40Vdc & 85-265Vac(45-63)Hz
Type	Compact / Remote
Protection	IP-65, Type Remote (IP 65 / 68)
Analog output	4-20mA / 0-10mA
Binary output	Pulses / Frequency
Interface	RS-232 / RS-485

Sensor material	Stainless steel 304
Temperature	-20 °C to 80 °C
Nominal pressure	PN-16 / PN-10 / PN-25
Electrodes	Stainless steel 316L
Flanges	Carbon steel
Lining	Neoprene
Relative humidity	5% to 90%

TRANSMITTER	
Power supply	220 VAC (45 - 63 HZ) 24 VDC.
Consumption	≤ 20 Watts.
Analog output	4 - 20 mA , 0 - 10 mA.
Binary output	PULSE, FRECUENCY (1 - 5000 HZ).
Interface	RS - 232, RS - 485, MODBUS, REMOTE.
Display	LCD AND KEYBOARD - 2 X 16 CHARACTERS.
Alarms	EMPTY PIPE DETECTION, HIGH LIMIT , LOW LIMIT.
Protection	IP65.
Min.Conductivity of the liquid	≥ 5uS/cm.
Range of temperature	-10 to 60 °C.

SENSOR	
Nominal diameter	DN-50 to DN - 400
Nominal pressure	PN-40, PN-25, PN - 16, PN - 10
Connections	FLANGED.
Electrodes material	STAINLESS STEEL 316L, HASTELLOY B, C, TITANIUM, TANTALUM.
Lining	TEFLON, NEOPRENE, POLYURETHANE.
Range of temperature	-20 to 120 °C.
Protection	IP65, IP68.
Installation	COMPACT-TYPE OR REMOTE-TYPE.
Peak flow rate	15 m/s.
Accuracy	± 0.5 %
Sensor material	STAINLESS STEEL 304.
Flanges material	CARBON STEEL
Grounding flange material	STAINLESS STEEL 304.
Relative humidity	5% to 90%

RANGE SELECTION FOR FLOWMETERS

DN (mm.)	Q.(0,5m/sg) m3/h	Q.(5m/sg) m3/h
50	3,53	35,34
65	5,97	59,70
80	9,05	90,45
100	14,14	141,35
125	22,09	220,88
150	31,81	318,05
200	56,50	565,00
250	88,35	883,50
300	127,20	1.272,00
350	173,15	1.731,50
400	226,15	2.261,50

ABACUS FOR ELECTION OF DIAMETER

