

# Electromagnetic Flow Meter

For industrial water, sea water, and other electrically conductive liquids

## Key Features

- Bi-directional - can measure flow in the forward and reverse directions
- Pipe Size: DN15 to DN150
- Accuracy:  $\pm 0.5\%$
- Two outputs as standard:
  - Digital - Modbus and
  - Analog - 4-20mA
- Power Supply: 24vDC
- Measure: Real-time flow, Accumulated flow, Flow velocity and Mass flow
- Unaffected by temperature, pressure or density of the liquid
- IP65 rating



## About

CAA Sensor's electromagnetic flow meter has no moving parts, rotating gears, turbines or bearings. It relies on two electrodes to measure the density of the magnetic field that results from an electrically conductive fluid, such as water, flowing through a pipe.

Electromagnetic flow meters can measure fluids containing solid contamination such as slurries, sludges and some chemicals. These flow meters provide real time flow rates, total volume, velocity and mass flow in a single unit with both Modbus RTU and 4-20mA outputs. The Bi-Directional ability allows the flow directions to be detected and recorded separately.

These flow meters are incredibly durable and made for most industrial environments.

## Applications

- Manufacturing and industrial use
- Electrically conductive fluids
- Permanent measurement
- Min flow velocity of 0.5m/s



More Info

## Specifications

Medium	
Liquid Medium	<ul style="list-style-type: none"> <li>• Industrial and Domestic Water</li> <li>• Sewage</li> <li>• Salt and Sea water</li> <li>• Non-Corrosive waste-water</li> <li>• Acetic and Nitric Acid</li> <li>• Potassium, Sodium, Ammonium and Calcium Hydroxides</li> <li>• Aqua Regia</li> <li>• Other liquids available on request</li> </ul>
Measurement Range	
Measurement Principal	Faraday's law of electromagnetic induction
Min flow velocity	0.5m/s (1.6 ft/sec)
Medium conductivity	>50us/cm
Medium Temperature Range	-20°C to +100°C -4°F to 212°F
Accuracy	
Measurement Accuracy	
• Flow speed > 1m/s	±0.5%
• Flow speed < 1m/s	±0.5% ±2mm/s
Repetitiveness	0.15%
Maximum Temperature Measurement Error	±0.1°C
Power Supply	
Power Requirement	24 VDC Max 15VA

Output	
Outputs	4-20 mA
	Modbus RTU (RS485)
Working Environment	
Ambient / working temperature	-10°C to +55°C 14°F to +158°F
Rated Pressure	0 - 16bar 0 - 232psi
Other	
Pipe Diameters	DN15-DN150 Other sizes available on request
Flange Connection	DIN
Display	In-built Monochrome LCD
IP Rating	IP65
Casing	304 Stainless Steel
Electrode	Titanium
Liner	PTFE
Bi-directional	Yes
Warranty	12 months

# Flow Range

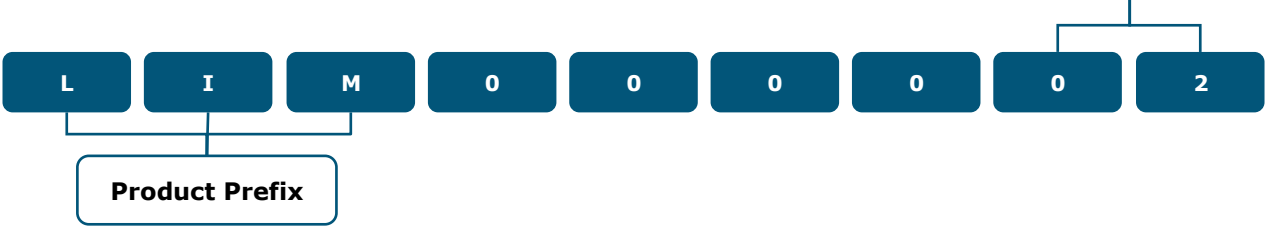
Pipe Size			Flow Range (m³/hr)		Flow Range (gpm)	
DN	ID (mm)	Inches	Min	Max	Min	Max
15	15	1/2"	0.4	4.0	1.8	17.6
20	20	3/4"	0.8	8.0	3.5	35.2
25	25	1"	1.2	12.0	5.3	52.8
32	32	1.25"	2.0	20.0	8.8	88.0
40	40	1.5"	3.0	30.0	13.2	132
50	50	2"	5.0	50.0	22	220
65	65	2.5"	8.0	80.0	35.2	352
80	80	3"	12.0	120.0	52.8	528
100	100	4"	20.0	200.0	88.0	880
150	150	6"	32.0	320.0	140.8	1408

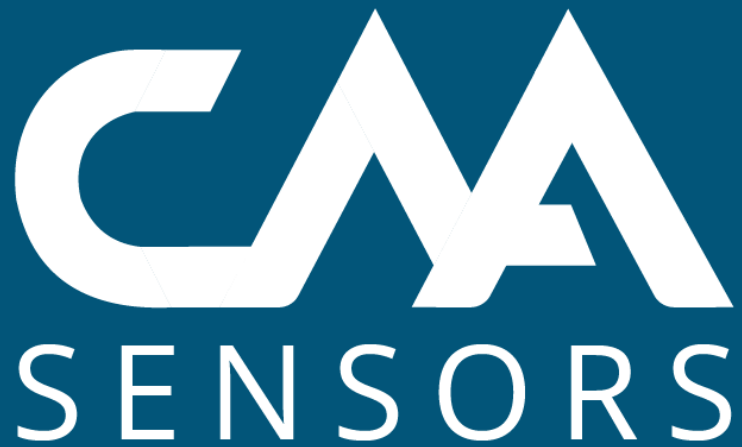
# How to Order

Find a Distributor: [www.caasensors.com/distributors](http://www.caasensors.com/distributors)

**Pipe Size (DN)**

01 – DN15  
02 – DN20  
03 – DN25  
04 – DN32  
05 – DN40  
06 – DN50  
07 – DN65  
08 – DN80  
09 – DN100  
10 – DN150  
Contact us for other sizes





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