

EL 500

Electromagnetic Flow Meter

Description

The EL 500 series of electromagnetic sensors represent the state of the art for the accurate measurement of low flow rates. This new generation sensor covers the temperature range -4 to 320°F and is available in connection sizes from 3/8" through 1".

An electromagnetic flow meter bases its operation on the Faraday Principal, by which a conductor crossing a magnetic field generates a potential. The resultant potential is directly proportional to the flow velocity. The EL 500 series flow meters utilize 316 stainless steel flow tube with AISI 316 UNI 338 male threaded, NPT, or triclamp / ISO 2852 fittings. Connections can be supplied in Hastelloy C and Titanium on request. Standard electrode material is 316L stainless steel, with Hastelloy C or Titanium options. The standard liner material is PTFE. The flow meter enclosure is stainless steel.

Electronics available for the EL 500 series consists of the versatile 608 transmitter that can either be AC, DC or battery powered. Electronics can be mounted directly on the flow meter or remotely mounted. Electronics can be mounted directly on the flow meter or remotely mounted. When the electronics are remotely mounted the entire flow meter meets IP 68 suitable for permanent immersion in water to a depth of 1.5 meters.

Features

- High accuracy
- No moving parts
- Compact design
- Sealed electrode and coil assembly provides immunity to humidity variation and IP68 protection
- Wide rangeability with a single unit
- No pressure drop
- Bidirectional capability
- High temperature standard
- -4 to 320°F



**Model EL 500
Electromagnetic Flow Meter**

Specifications

Accuracy	±0.2% of reading plus zero stability
Zero Stability	±0.1% of full scale
Repeatability	±0.1%
Max Fluid Velocity	10 m/s (to maximize performance, size meter to operate as high up in its flow range as possible)
Tube Material	316 stainless steel
Electrode Material	AISI 316L (standard) Hastelloy C22 Titanium
Liner Material	PTFE
O-Ring Seal Material	Viton and Buna N
Flow Range	0.202 to 47 gpm (size dependent)
Temperature Range	-4 to 320°F with remote electronics

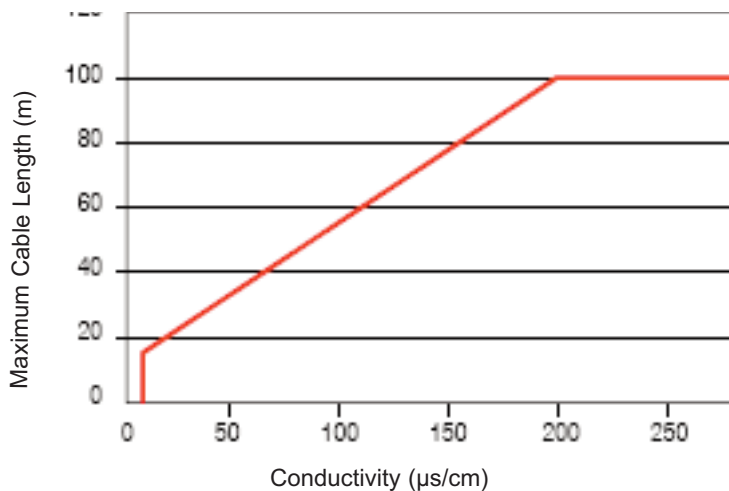
Note: Please contact factory if temperatures above 284°F (140°C) are required.

	-4 to 140°F with integral electronics
Max Pressure	16 bar (232psi)
Max Cable Length	100 meters
Min Conductivity	5 µS/cm, 20 µS/cm for DI water
Rating	IP 68 to a depth of 1.5 meters
CE Declaration	EN 61326:1997 to EN 61326/A3:2003
Straight Run	5D upstream and 3D downstream minimum
End connections	NPT, Triclamp, DIN 11851, and UNI 338

Specifications (cont)

EMC/CE approvals	EN 61326:1997 EN 61326/A3:2003 EN 55022/A2:2003 EN 61000-4
Compatible electronics	MC608 series
Weight (max)	~ 4.5 lb

Maximum Cable Length VS Conductivity



End Connections

Size	NPT	Tri-Clamp	DIN 11851
3/8"	3/8"	51mm	10mm
1/2"	1/2"	51mm	10mm
3/4"	3/4"	51mm	15mm
1"	1"	51mm	20mm

EL 500 Flow Range

Size	Minimum Flow*	Maximum Flow
3/8"	0.202 gpm	4.4 gpm
1/2"	0.560 gpm	12.4 gpm
3/4"	1.260 gpm	27.0 gpm
1"	2.241 gpm	47.0 gpm

* Minimum flow rate is defined as the flow rate at 0.45 m/s and maximum flow is defined at 10 m/s.

MC 608A/B Series

The MC 608A/B transmitter is our most versatile transmitter capable of displaying rate and total flows as well as providing multiple digital and analog outputs. The battery powered version, MC608B, provides 3 to 6 years of operation. The unit can be configured either directly using the 4 programming buttons on the front of the display, or using the Windows based programming software interfacing via MODBUS RTU on RS485. The new generation converter extends the use of electromagnetic flowmeters allowing better control of liquid flow at every point of installation.

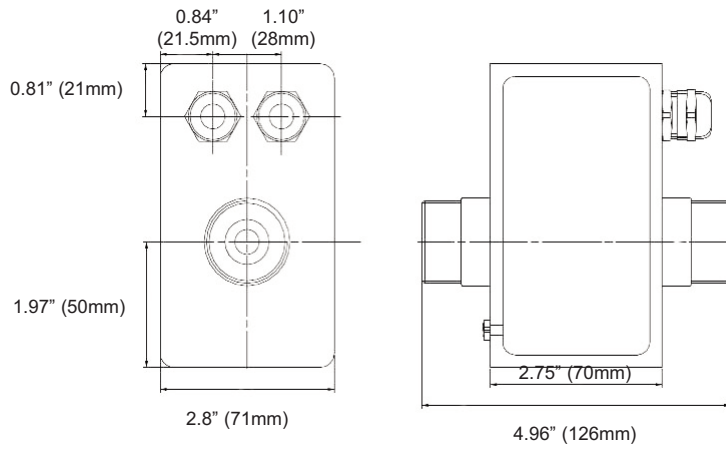


Features

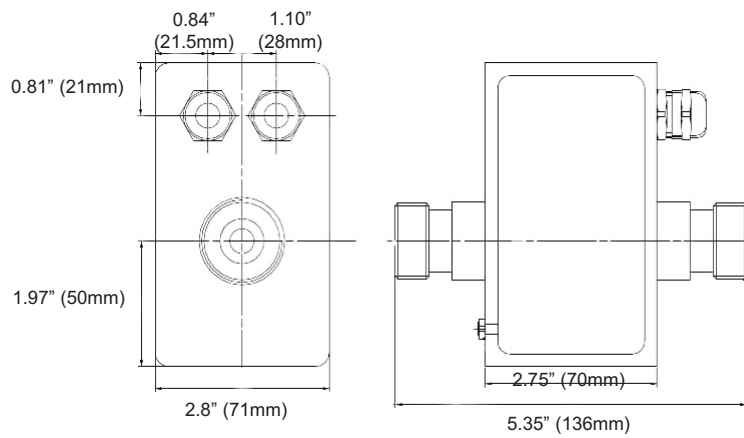
- Available in powered version 12/24 VAC/DC or 90-264 VAC (MC608A).
- Available in battery powered version with a useful life of 3 to 6 years (MC608B).
- Compatible with all standard FTI Electromagnetic standard sensors.
- Built-in data logger.
- Large graphics display with totalizer indications greater than 8mm.
- Total management of power consumption with automatic sleep function.
- Batteries can be replaced on site.
- MODBUS RTU interface for communication on RS 485.
- Submersible IP 68 case available.
- All configuration, totalizer and data logger values are stored even in case of power failure.
- Multi-level password system to guarantee accessibility and confidentiality.

Dimensions

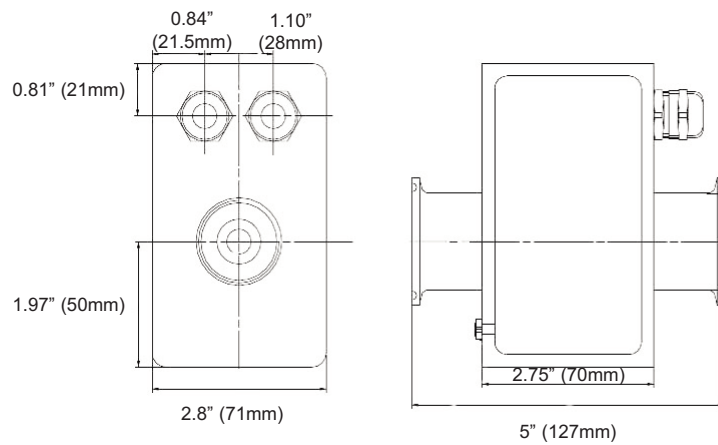
Threaded Joints NPT



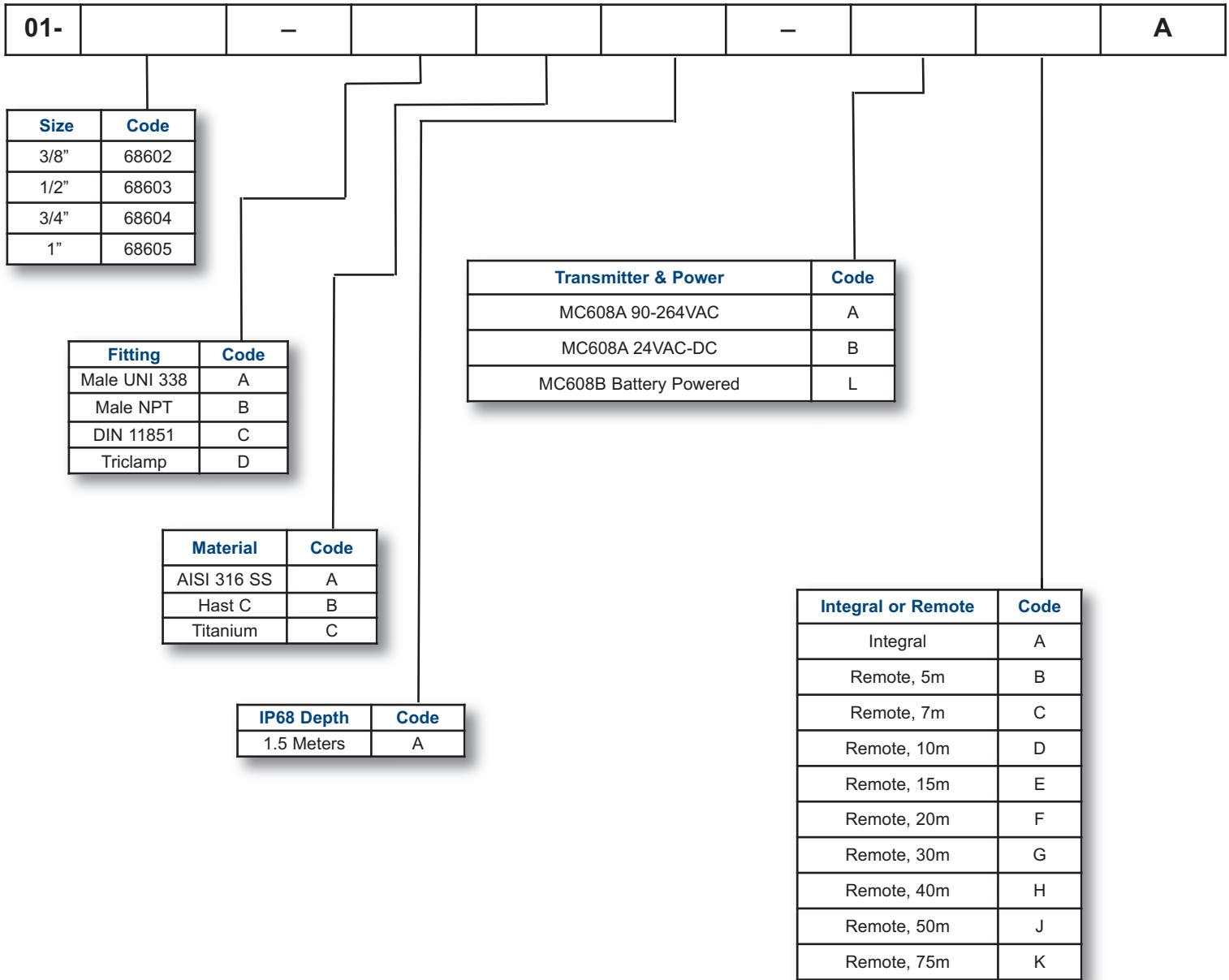
Threaded Joints DIN 11851



Triclamp / ISO 2852 Joints



EL500 System Model Number



8930 S. Beck Avenue, Suite 107, Tempe, Arizona 85284 USA

Tel: (480) 240-3400 • Fax: (480) 240-3401 • Toll Free: 1-800-528-4225

E-mail: ftimarket@ftimeters.com • Web: www.ftimeters.com

DB 68403 Rev H © 2019 FTI Flow Technology, Inc.

Trademarks are the property of their respective companies.

Specifications are for reference only and are subject to change without notice.

