EL 2400

Sanitary Electromagnetic Flow Meter

Description

The EL 2400 series of electromagnetic sensors represent the state of the art for accurate sanitary flow measurement. This new generation of sensors covers the temperature range -40 to 266°F and is available in line-sizes from 1” through 4”.

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 2400 series flow meters are manufactured from 304 stainless and are internally lined with PTFE. The meter can be supplied with either Tri-Clamp or DIN 11851 end connections. The electrodes in the standard unit are Hastelloy C22.

Electronics available for the EL 2400 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.

Model EL 2400
Electromagnetic Flow Meter

Features

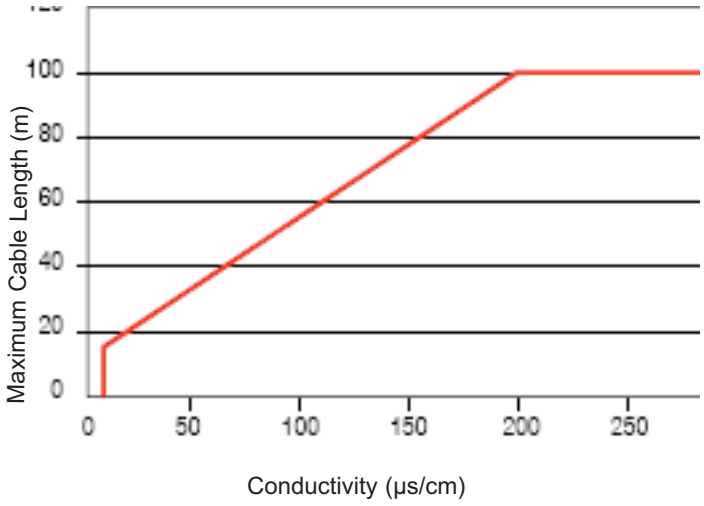
- High accuracy
- No moving parts
- Compact design
- Sealed electrode and coil assembly provides immunity to humidity variation and IP68 protection
- Wide rangeability with a single unit
- No pressure drop
- Bidirectional capability

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 has high up in its flow range as possible)
Nominal Line Sizes	1”,1 1/2”, 2”, 2 1/2”, 3”, 4”
Tube & Fitting Material	304 stainless steel
Electrode Material	Hastelloy C22 (standard)
Liner Material	PTFE
Temperature Range	-40 to 266°F (remote electronics) -13 to 176°F (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
Straight Run	5D upstream and 3D downstream minimum
End connections	Triclamp & DIN 11851
EMC/CE approvals	EN 61326:1997 to EN 61326/A3:2003

FTI FLOW TECHNOLOGY™

Maximum Cable Length VS Conductivity



EL 2400 Flow Range

Nominal Diameter	Minimum Flow*	Maximum Flow
1”	1.60gpm	80gpm
1 1/2”	4.00gpm	200gpm
2”	6.60gpm	330gpm
2 1/2”	10.56gpm	528gpm
3”	16.00gpm	800gpm
4”	26.40gpm	1320gpm

* Minimum flow rate is defined as the flow rate at 0.2 m/s and maximum flow is defined at 10 m/s.

MC 608 Electronics

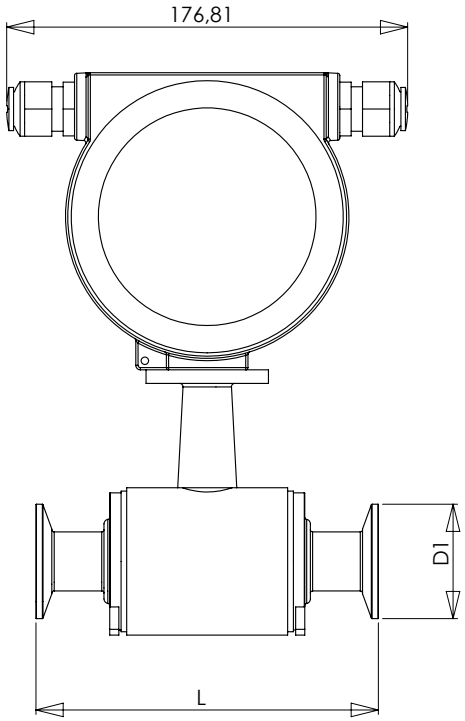
The MC 608A/B transmitter is our most versatile transmitter capable of displaying rate and total flows as well as providing multiple digital and analog outputs. The battery powered version, MC608B, provides 3 to 6 years of operation. The unit can be configured either directly using the 4 programming 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.

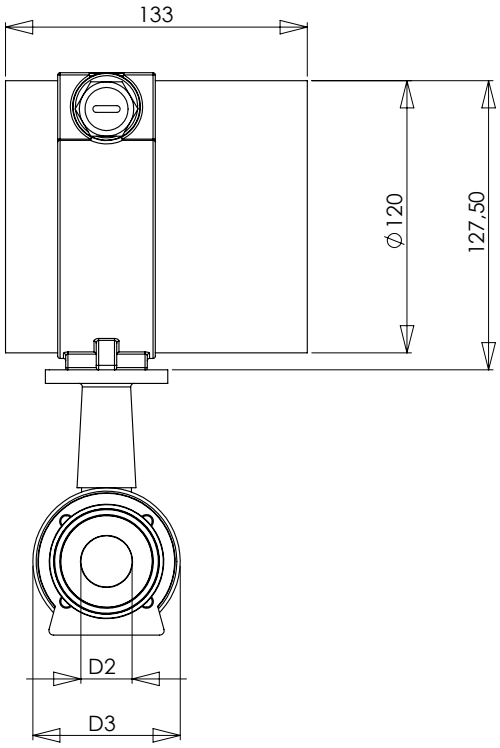
Features

- 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

Overall Dimensions Triclamp Fittings

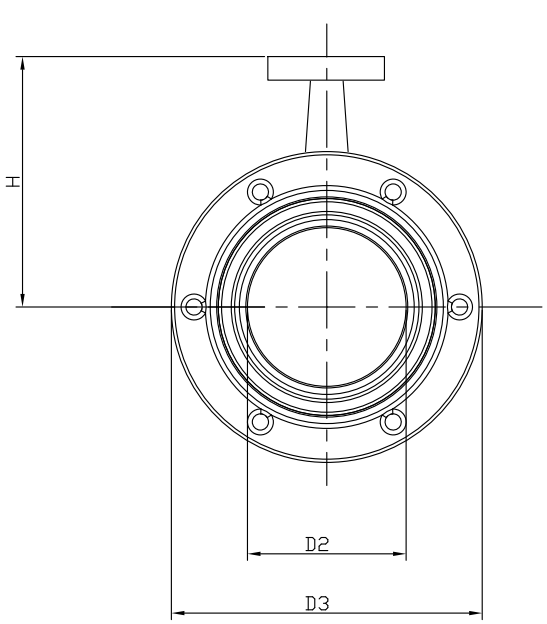


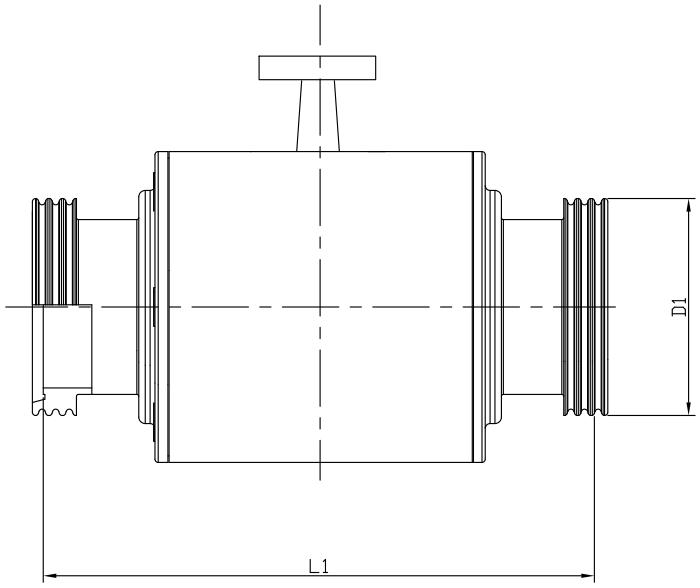


Nominal Diameter	DN	D1	D2	D3	L
1”	25	1.99” 50.5mm	0.87” 22.6mm	2.95” 75mm	5.91” +.04/-.12 150mm +1/-3
1 1/2”	40	1.99” 50.5mm	1.48” 37.6mm	2.95” 75mm	6.18” +.04/-.12 157mm +1/-3
2”	50	2.52” 64mm	1.91” 48.6mm	3.62” 92mm	6.85” +.04/-.12 174mm +1/-3
2 1/2”	65	3.05” 77.5mm	2.37” 60.3mm	4.21” 107mm	7.64” +.04/-.12 194mm +1/-3
3”	80	3.58” 91mm	2.87” 73mm	5.12” 130mm	7.87” +.04/-.12 200mm +1/-3
4”	100	4.69” 119mm	3.84” 97.6mm	5.91” 150mm	8.51” +.04/-.12 216mm +1/-3

Dimensions

Overall Dimensions DIN 11851 Fittings





Nominal Diameter	DN	D1	D2	D3	H	L
1”	25	2.05” 52mm	0.87” 22mm	2.63” 67mm	4.65” 118mm	6.77” 172mm
1 1/2”	40	2.56” 65mm	1.30” 33mm	3.39” 86mm	5.04” 128mm	6.77” 172mm
2”	50	3.07” 78mm	1.89” 48mm	3.78” 96mm	5.28” 134mm	6.77” 172mm
2 1/2”	65	3.74” 95mm	2.40” 61mm	4.72” 120mm	5.75” 146mm	7.56” 192mm
3”	80	4.33” 110mm	2.95” 75mm	5.12” 130mm	5.91” 150mm	7.56” 192mm
4”	100	5.12” 130mm	3.62” 92mm	6.14” 156mm	6.46” 164mm	7.56” 192mm

EL2400 System Model Number

01-		–				–			A

Size	Code
1”	68801
1.5”	68803
2”	68804
2.5”	68805
3”	68806
4”	68807

Fitting	Code
DIN 11851	A
Triclamp	B

Material	Code
PTFE / 2 Hast C	B

IP68 Depth	Code
1.5 Meters	A
10 Meters	B

Transmitter & Power	Code
MC608A 90-264VAC	A
MC608A 24VAC-DC	B
MC608B Battery Powered	L

Integral or Remote	Code
Integral	A
Remote, 5m	B
Remote, 7m	C
Remote, 10m	D
Remote, 15m	E
Remote, 20m	F
Remote, 30m	G
Remote, 40m	H
Remote, 50m	J
Remote, 75m	K

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