

MC 608A/B

Electromagnetic Transmitter

Description

The MC 608A/B transmitter is our most versatile unit capable of displaying rate and total flows as well as providing multiple digital and analog outputs. The MC 608A/B converter has been designed with the purpose of meeting all the requirements of modern water management systems. It supports extended functions which make it perfectly suitable for measuring and billing in civil, industrial and agricultural sector and for flow measurement in residual water treatment. The battery powered version, MC608B, provides 3 to 6 years of operation. The 608 Transmitter is also ideally suited for use in Chemical, F&B, Mining, Agriculture and many more industries where flow needs to be accurately measured. 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 IrDA or MODBUS RTU on RS485. The new generation converter extends the use of electromagnetic flowmeters to water distribution networks, allowing a better control of flows at every point of installation. Installations in irrigation systems guarantee that each farmer pays for the water used, and allows optimization of water management.

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.
- IrDA interface for programming communication with laptop.
- 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.



MC 608A/B - Transmitter

Specifications

Converter Installation	Integral or remote versions <ul style="list-style-type: none">• MC608B up to 30 meters• MC608A up to 100 meters
Converter Case	Aluminum epoxy painted IP67, with toughened glass
Electrical Connections	Cable glands, plastic, M20X1.5.
Connection Cables	Dedicated supplied by FTI
Power Supply	MC608A: 90 to 264VAC, 12/24V DC MC608B: Battery powered or 12/24VDC. Expected life T= 0/50°C (32/122°F) internal battery pack 3-6 years. Internal & external battery pack 6 to 10 years.



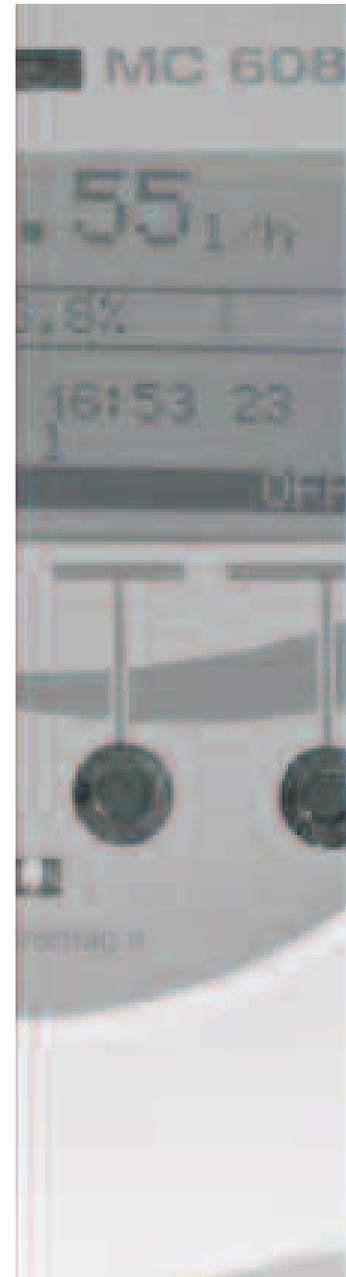
Specifications continued

Outputs (Optoisolated)	<ul style="list-style-type: none"> • Active analog output 4-20 mA* • Digital output in active frequency 0-10 kHz* • Digital pulse output maximum 1000 Hz dutycycle max 50%. <p>*requires external 24VDC power</p>
Serial Communication	<ul style="list-style-type: none"> • MODBUS RTU interface on RS 485. • IrDA interface for communicating with laptop or hand held communicator, and dedicated SW for programming, displaying and downloading data.
Temperature Range	<p>Process » -10°C to 70°C (14°F to 158°F) Ambient » -20°C to 60°C (-4°F to 140°F) Storage » -30°C to 70°C (-22°F to 158°F)</p>
Accuracy	<p>+/-0.2% of reading (over calibrated range)</p>
Repeatability	<p>+/-0.1% of reading</p>
Sampling Frequency	<p>Programmable 5,3,1,1/15,1/30, 1/60, 1/120, 1/240, 1/480 Hz</p>
Measurement Stabilization Time	<p>3 seconds</p>
Display	<p>Graphic LCD - 128x64 pixels, 50x25mm visual area Backlit white color, programmable back-lighting. Simultaneous display of a counter + instant variable + status flags. Counters with 8 mm high characters for reliable and easy reading. Programmable display content.</p>

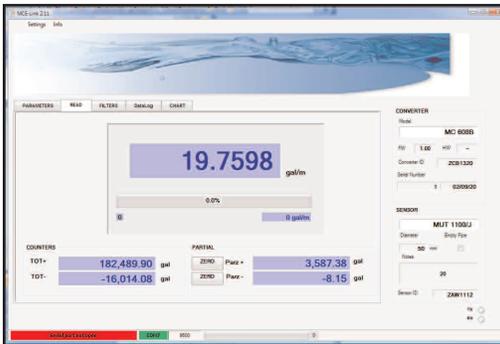


Specifications continued

Programming	With push buttons on board of converter By IrDA interface and laptop with dedicated software By RS485 and MODBUS RTU protocol
Units	Selectable volume units: in3, ft3, gal, USgal, bbl, oz, ml, cl, dl, l, dal, hl, m3 for counters, flow indication, pulse output
Reference Time	Selectable time units: s, m, h, days
Process Data Logger	4 MB flash memory, 200,000 lines of data (one line includes: instant flow, 2 counters, date, time, PCB temperature).
Diagnostic Data Logger	64 kB EEPROM, 2000 lines of data (one line includes: Date, time, PCB temperature, error codes, user actions with changes made). Tamper/reset Proof. Not programmable.
Electrical Conductivity	5 μ S/cm, 20 μ S/cm minimum for DI water
Velocity	-10 to 10 m/s
Approvals	<ul style="list-style-type: none"> • The MC 608-A/B converter meets all the requirements established by the EC directives. • Electromagnetic compatibility » Directive 2004/108/EC, EN 61326-1:2006 • Low voltage directive » Directive 2006/95/EC



608A/B Configuration Software



The screenshot shows the 'Data Logger' view, which contains a table of recorded data. The table has columns for 'Row', 'Date', 'Flow Rate', 'CST gal', 'COP gal', 'ABBY', 'C FIB', and 'Error'. The data rows show a series of measurements over time, with flow rates fluctuating around a mean value.

Row	Date	Flow Rate	CST gal	COP gal	ABBY	C FIB	Error
1	15:00:00	19.7598	0	0	0	0	0
2	15:00:05	19.7598	0	0	0	0	0
3	15:00:10	19.7598	0	0	0	0	0
4	15:00:15	19.7598	0	0	0	0	0
5	15:00:20	19.7598	0	0	0	0	0
6	15:00:25	19.7598	0	0	0	0	0
7	15:00:30	19.7598	0	0	0	0	0
8	15:00:35	19.7598	0	0	0	0	0
9	15:00:40	19.7598	0	0	0	0	0
10	15:00:45	19.7598	0	0	0	0	0
11	15:00:50	19.7598	0	0	0	0	0
12	15:00:55	19.7598	0	0	0	0	0
13	15:01:00	19.7598	0	0	0	0	0
14	15:01:05	19.7598	0	0	0	0	0
15	15:01:10	19.7598	0	0	0	0	0
16	15:01:15	19.7598	0	0	0	0	0
17	15:01:20	19.7598	0	0	0	0	0
18	15:01:25	19.7598	0	0	0	0	0



Configuration & Analysis Made Simple

Configuration

Configuration of the 608 can be achieved through the 4 push buttons located on the front of the converter, or through the use of the PC based programming tool. All user configurable parameters are presented to the user on two (Parameters & Filters) intuitive configuration screens.

Display

Real time information can be displayed on the PC including flow rate, totals (forward and reverse) and partial totals - Partial totals can be easily reset through the PC interface.

Data Logger

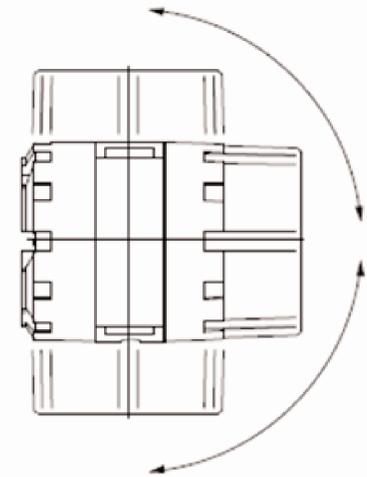
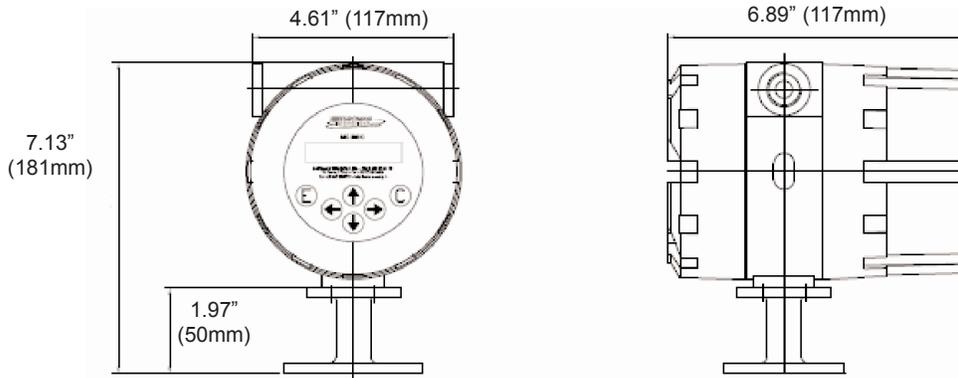
The data logger records date, time, counter, instantaneous flow rate, PCB temperature and battery condition (if applicable). The data can be extracted in CSV format for additional analysis.

Trending & Analysis

Flow rate data can be easily graphed within the configuration software, providing a quick and easy window into the process.

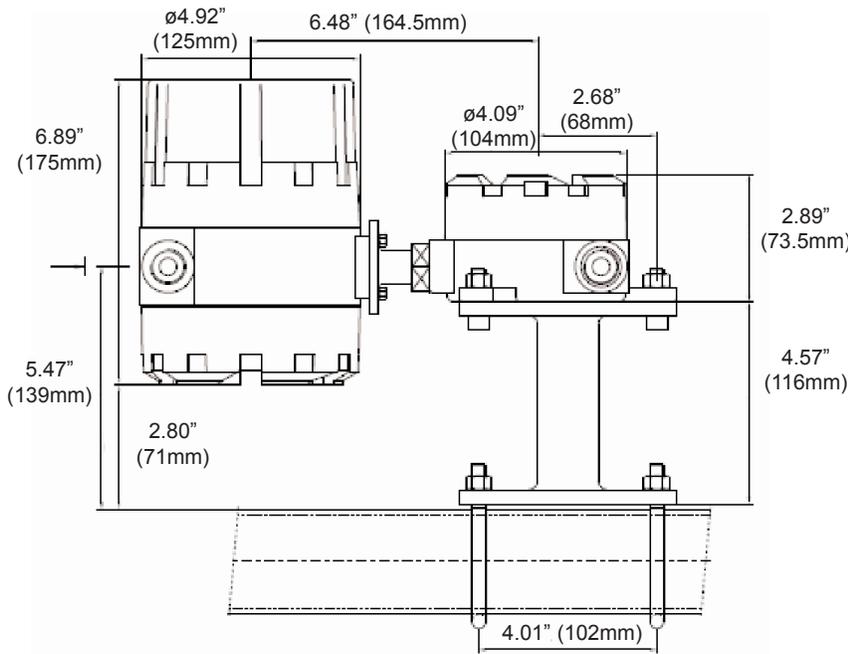
Dimensions

MC 608A mounted on flow meter

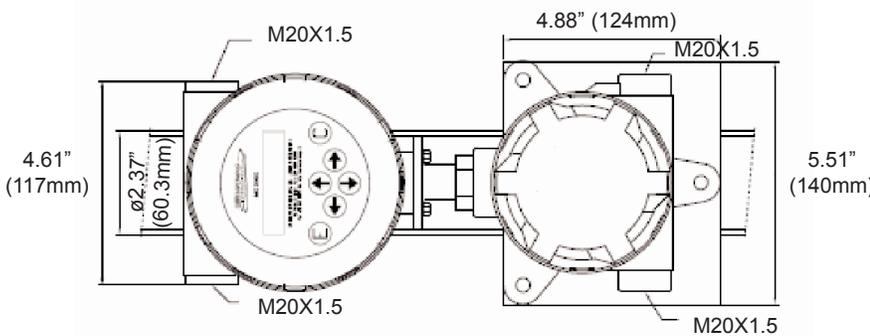
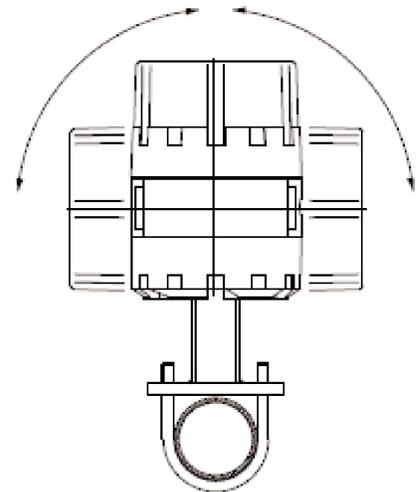


Possible Rotation Angle

MC 608A remote mounted



Possible Rotation Angle



Model Number

Please see respective flow sensor brochure for ordering information.



Trademarks are the property of their respective companies.

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 68407 Rev D © 2011 FTI Flow Technology, Inc. Printed in USA

