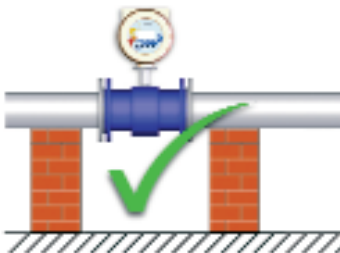
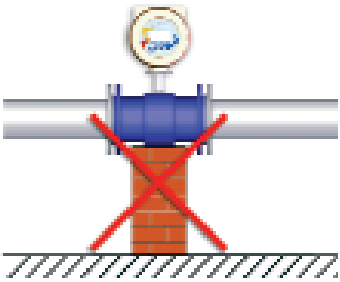
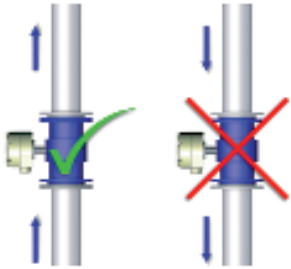


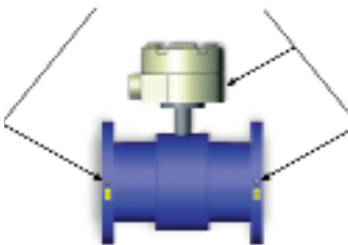
Electromagnetic Flow Meter

Quick Setup Guide

(For models EL2200, EL2400, EL500, EL 1222, EL4000)



Ground Sensor



Step 1: Sensor Mechanical Installation

- 1) The sensor should be installed at least 5 to 10 diameters away from any hydraulic disturbance upstream of the meter, such as pipe elbows, tees, pumps, valves, pressure regulators etc.
- 2) The sensor should be installed in a location that ensures the meter is always full of liquid, even when flow is stopped.
- 3) Ideally, the sensor should be installed in a vertical section of pipe, with the liquid flowing upwards, or as shown in the installation diagrams.
- 4) Check that the flow direction is consistent with the flow direction label on the sensor.

Step 2: Electrical Installation

- 1) Make sure that the sensor and transmitter are properly grounded to the pipeline and the grounding point on the sensor.

IMPORTANT: THE GROUNDING REQUIREMENTS ARE NECESSARY TO ENSURE CORRECT OPERATION OF THE UNIT

- 2) Connect power to the appropriate terminal block on the main PCB.
- 3) Connect the outputs to the device as shown in the diagrams on the next page.
- 4) **DO NOT** power up the sensor until you are certain the wiring is correct.

Step 3: Start-up

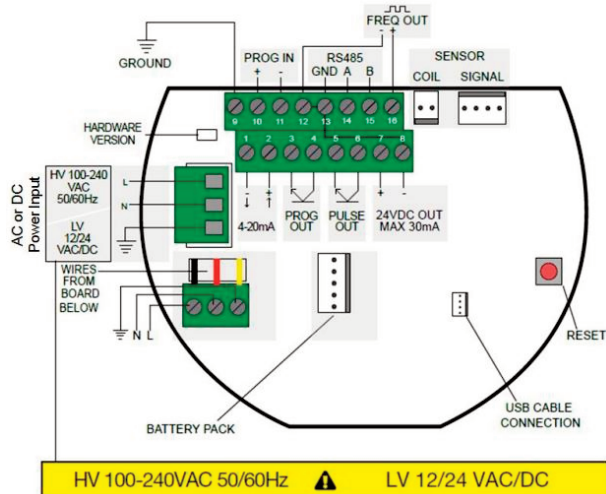
- 1) For best results, power up the device and leave for 10 to 15 minutes to warm up prior to zero calibration.
- 2) Verify that the pipeline is full of liquid and flow is blocked in order to proceed to automatic zero calibration.
- 3) Perform zero calibration (see manual).
- 4) Configure & scale the outputs.
- 5) For the MC608 transmitter, the unit can be configured using the PC based programming tool; see www.ftimeters.com/mc-608ab-magnetic-flow-transmitter



Step 4: Transmitter Wiring

MC 608 A/B Wiring

Low and high voltage (PCBA from version 6-4)



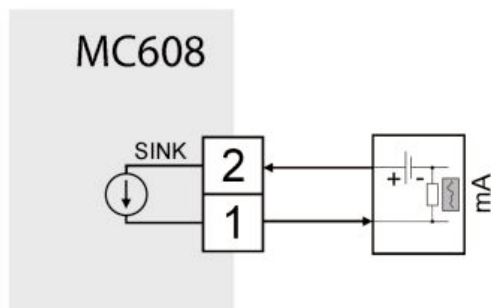
Line (L) and Neutral (N) terminals are not polarity sensitive when used with DC power.

****Be sure to ground both power and the MC 608 case.**

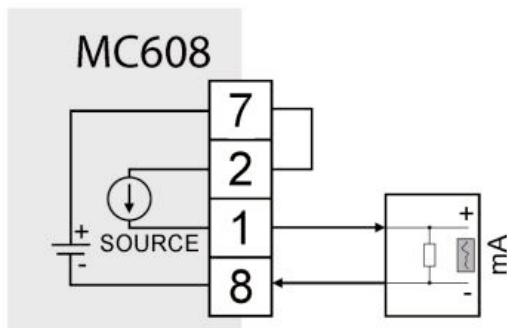
Note: If board revision level is different than version 6-4, consult factory or technical manual.

MC 608 Analog Output Wiring

Loop Powered (Passive)



Loop Powered (Active)



The connected 4-20mA receiver is a passive milliammeter; the internal MC608 VDC power supply must be connected as shown. (24VDC loop voltage of 24 VDC, maximum impedance of 800 ohm)

Please refer to the MC608 manual for complete wiring information.

Step 5: Transmitter Configuration

MC 608 Configuration

The configuration of the MC 608 can be performed in three different ways:

1. Through the 4 push buttons located on the front mask of the converter, accessed by unscrewing the front panel glass.
2. Via PC through RS 485 modbus output and using the configuration software supplied by FTI.
3. Via PC through the IrDA port located on the front of the converter on top of the display and the configuration software.

The converter has three different levels of password protection.

Level 1: 608111

Level 2: 709222

Level 3: 231042

The MC608 follows a very simple menu structure. The unit will be delivered with most of the parameters factory configured, the user typically only needs to configure the outputs.

For the EL1222, additional field settings are necessary for setup, see full technical manual.

Menu Structure Overview

OPTIONS

Technical units

- Flow rate units
- Flow rate time base
- Counters module
- Pulses unit
- Specific weight
- Temperature unit

Measurement frequency

- Measuring time

Display

- LCD backlight lev
- Backlight off
- LCD contrast

View options

- Last row

Full scale flow

Language

I/O

Pulses Out

- Pulses quantity
- Pulses time ON
- Reverse flow rate
- Pulses out enable

Frequency output

- Full scale freq.
- Frequency output enable

Program. Output

- Enabled/disabled
- Reverse Flow
- MAX flow th.
- MIN flow th.
- MAX/MIN flow th.
- Batching
- Excitation failure
- Empty Pipe

Program. Input

- Enabled/disabled
- Zeroing p+
- Zeroing p-
- Zeroing p+/p-

Batching

Progr. output logics

COUNTERS

T+

P+ (set zero)

T-

P- (set zero)

PARAMETERS

Ka setup

Diameter Setup

Filters Setup

Display

- Flow cut off
- Damping
- Bypass
- Peak cut
- Measure average

Line frequency

Zero calibration

Flow rate alarms

- MAX flow th.
- MIN flow th

Empty Pipe th

OTHERS

System info

Time/Date

Reserved

Graph

Simulation

Communications

- Baud rate RS485
- MODBUS address
- Data connections

MEMORY

Load user copy

Save user copy

Factory settings

Data logger

- Show last row
- Full erase
- LOG range

Password setup