

AC Powered Insertion EFM

Model MUT1222-MC608

A COST EFFECTIVE ALTERNATIVE TO FULL-BORE METERS presents the MUT1222 electromagnetic insertion flowmeter in three different sizes (small, medium and large) suitable to use in pipe size from DN50 to DN2600 (2"-102" respectfully). Delivering highly accurate bi-directional measurement for water distribution and raw water pipelines, it is robust and it has no moving parts, this allows to be reliable and suitable to measure a wide range of flows. The MUT1222 can be used as a portable or a dedicated / permanent instrument; with its "hot tapping" application it is very easy and quick to install with no need to stop the flow under full working pressure conditions. It is an alternative solution to full bore metering and with its compact size allows installation on small pipes, providing water monitoring in applications considered impossible.



Features & Benefits

- No moving parts
- Neglectable pressure drop
- Long lasting stability and precision
- Zero maintenance
- Extremely sturdy structure
- Bi-directional measure

Typical Applications

- Water network management
- Leakage control
- District metering
- Flow surveys
- Flow profiling
- Checking on-site flowmeters
- Data capture reporting and analysis

Multiple outputs:

pulse, analog 4-20mA, Modbus, frequency, Hart protocol and programmable output

No data lost:

Data automatically stored in the internal EEPROM memory. Up to 100.000 lines of active datalogging

Flow - pressure – temperature:

all at the same time: Add on modules of temperature and pressure readying make the MUT1222 with MC608 one of the most complete electromagnetic flowmeter available in the market

Easy management, easy programming:

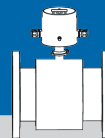
A software is supplied with the unit to allow users to communicate with the MC608 via IRCOM port to any pc, lap top or windows tablet.

Certifications and compliance:

- 2014/35/EU - EN 61010-1:2013 (LVD)
- 2014/30/EU - EN 61326-1:2013 (EMC)
- 2014/34/UE - IEC 60079 - 0, IEC 60079 - 18 (ATEX - IECEx) Separate version

Always verified:

The FIELD VERIFICATOR is available for full on-site verification, without interruption of the process

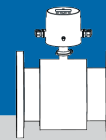


Converter Specifications

Temperature	Ambient: -20 ... +60 °C (-4 ... +140 °F) Media -25 ... 80 °C (-13 ... +176 °F) Storage -40 ... +70 °C (-22 ... +158 °F)
Flow Units	ml, cl, dl, l, dal, hl, m3, in3, ft3, gal, USgal, bbl, oz + Custom value
Totalizers	5 (2 positive, 2 negative, 1 NET)
Alarms and status	Status icon displayed and alarm logged in the datalogger
Self diagnostic	Alarms available: excitation failure pulse overlapped empty pipe on the 4th electrode measurement error high temperature
External verification	Field vericator available for calibration verification and electronic status
Protection Degree	IP68 1.5 m continuous immersion (EN 60529)
Software for communication and programming	Commissioning (equal settings of meters) - Data print for documentation - Data export (CSV file) - Firmware update - Read instant flowrate - Read and write all non-volatile parameters - Download internal datalogger - View instrument event logger

Sensor Specifications

Pipe sizes inches/mm	Size Small (S)	Size Medium (M)	Size Large (L)
	2" - 24" Inch / DN50 - 600mm,	8" - 60" Inch / DN200 - 1500mm,	18" - 104" Inch / DN450 - 2600mm
Electrodes material	AISI 316L		
Body material	AISI 304 Stainless Steel		
Standard operating pressure	20 bar (300 psi)		
liquid Temperature	-40 °C , +80 °C		
Protection Degree	IP68 for immersion at 1,5m (IEC 529)		
Parts in contact with liquid	Head of sensor Electrodes Pipe end POM AISI 316L AISI 304		
Electrical connections	Cableglands M20 x 1.5 + terminal box + sealing resin		

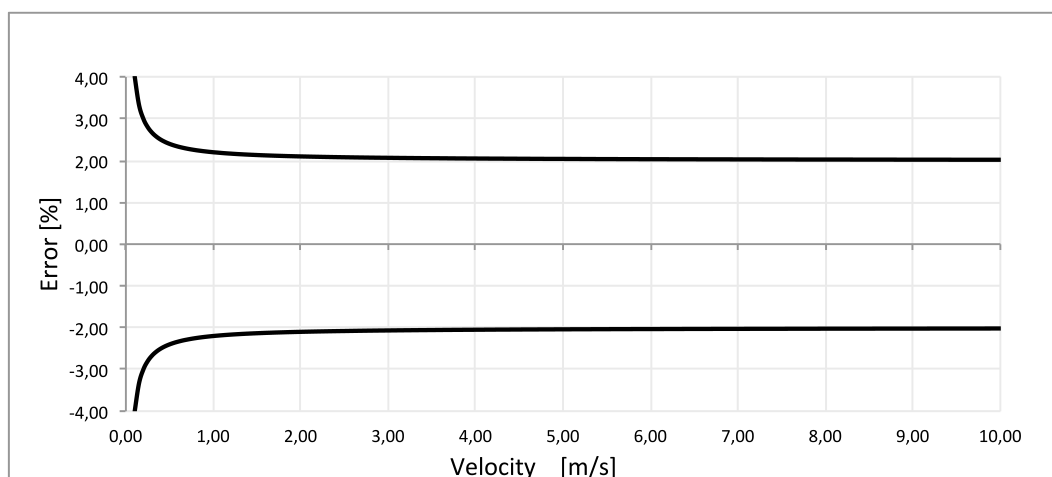


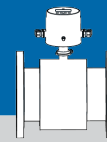
Equipment

1" ball valve zinc plated brass	Input connection for pressure gauge
"Hot tap" installation	Handle grips with flow directions
Head of the unit in POM 22mm (0.86 Inch)	Body in AISI304
Valve connection (female-female)	2 Electrodes in AISI316L
Probe 12mm (0.5 Inch)	ATEX on request (only separate version)
Pressure up to 20 bar	
	
	

Measuring Accuracy

Each sensor is calibrated on an hydraulic test rig equipped with a ISO17025 traceable weighing system. The accuracy is equal to 2% +/- 2 mm/s. Bi-directional measure.





Installation Recommendations

- The probe must be installed at the point of average axial speed, which is located at 1/8 of the internal diameter of the pipe (Fig. 58)
- The meter axis must intercept the pipe axis (Fig. 59)
- The pipe must always be full of liquid

