

AC powered, Zero D, EFM

Model MUT2300-MC608

The MUT2300 with MC608 is a mains powered electromagnetic water meter for use in district metering areas (DMA), water abstraction, and custody transfer measurement of potable water (OIML R49), irrigation, and many other applications. Unlike other water meters, the MUT2300 is a maintenance-free meter, offering a much wider range of flow, in a compact or remote mounted version. Thanks to the optimized flow profile, the MUT2300 can be installed virtually anywhere without straight inlet or outlet runs, behind pipe bends, slide valves or a reduction in the pipe. Its measuring tube is in fact specifically designed to enable a stable measurement even at the lowest flow rates, maintaining a neglectable pressure loss in all its range. With optional pressure and temperature sensors, GSM/GPRS integrated modem and 12...24Vdc power source, the meter is the perfect solution for leak detection, and pressure management systems. The highly robust structure, allows burial installation or the use in flooded areas. A full on-site verification without process interruption can be carried out using the Field Vericator service tool.



Features & Benefits

- No moving parts
- Neglectable pressure drop
- Long lasting stability and precision
- Zero maintenance
- Extremely sturdy structure
- High chemical resilience
- Wider range of measurement

Typical Applications

- District metering of potable water
- Distribution, municipal water
- Industrial waste water
- Industrial process liquids, muds and concretes
- Leak detection and monitoring
- Fiscal measures, custody transfer
- Irrigation
- Booster pump stations
- Lift stations

High performances to a low cost of ownership:

Capability to read flow velocities of 0.015 m/s (MID-001 OIML R49 certified), within Class 1 accuracy

Multiple outputs:

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

U0-D0:

Zero upstream and downstream distances (MID-001 OIML R49 certified)

No data lost:

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

Information always available:

Add-on communication module GSM/GPRS automatically sends the information via SMS, e-mail or on a website portal www.euromagdata.com with personal ID and password. Accessible also from smart phones and tablets. Configurable FTP communication

Flow - pressure – temperature: all at the same time:

Add on modules of temperature and pressure readying make the MUT2300 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:

OIML R49 (on request) / EX - IEC IECEx (on request and only separate version) / NSF ANSI61 (On model MUT2200US)

Always verified:

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

Empty pipe detection:

Empty pipe electrode supplied as standard ($\geq$ DN65). Empty pipe detection on measuring electrodes standard for all sizes

Convertor 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
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

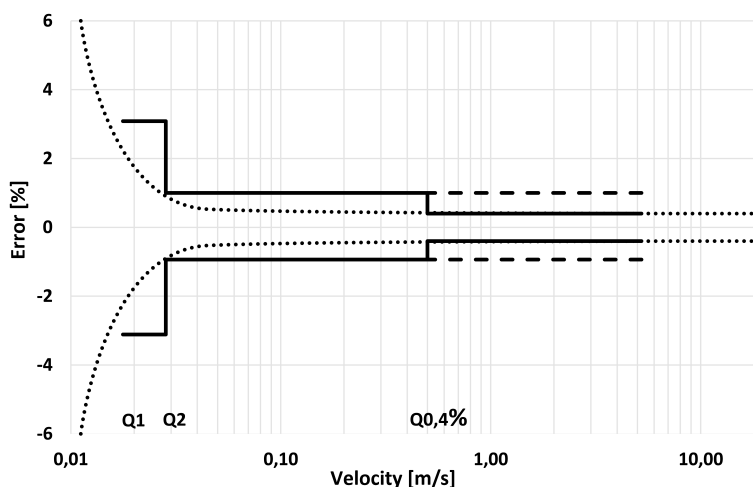
Available size inches/mm	1" - 12" Inch / DN25 - 300 mm
Flanges Connections Available	EN1092-1 PN 10/16, ANSI 150, AS 2129 (table D, E, F), AS 4087, KS10K, Others on request
Pressure	21 bar - 305 psi
Temperature	Operating: -104°F/+176°F (-40°C/+80°C) Storage: -22°F/+158°F (-30...+70°C)
Accuracy	0,2% +/- 2mm/s • 0,2% +/- 0.08inch/s
Linear Material	Hard rubber (Ebonite)
Electrodes Materials	AISI316L (standard), Hastelloy C, Hastelloy B, Titanium, Tantalum, Platinum
Protection Degree	IP68 (EN 60529) permanents submersion at 1,5m (4,92ft)
Pressure Drop Class	DN≤80 ΔP10 (<0,10 bar) • DN≥100 ΔP16 (<0,16 bar)
Digital filters	Damping - cutt-off (0,05 m/s default) - bypass - peak cut
Conformity	EMC: EN 61010 - LVD: EN 61326 ; EN/IEC 60529 IP68

The electromagnetic flowmeter designed for the toughest applications



Measuring Accuracy

Each flowmeter is standard wet calibrated under reference conditions by direct volume comparison. The performance of the flowmeter is defined and documented in an individual calibration certificate. Accuracy 0,2% +/- 2mm/s (0,2% +/- 1mm/s on request)

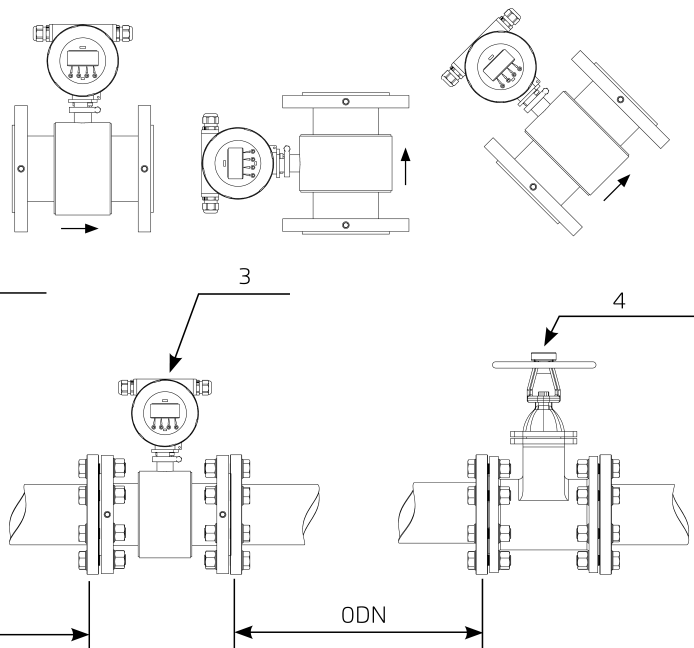


Flow Rate

Size Q @ (m³/h)	DN50 2"	DN65 2½"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"	DN250 10"	DN300 12"
Q1 Minimum Flow	0.125	0.2	0.315	0.5	0.8	1.25	3.15	5	8
Q2 Transitional Flow	0.2	0.32	0.5	0.8	1.28	2	5.04	8	12.5
Q3 Permanent Flow	25	40	63	100	160	250	630	1000	1000
Q4 Maximum Flow (Short Time)	31.25	50	78.75	125	200	312.5	787.5	1250	1250

Installation Recommendations

- The arrow on water meter body must be in the same direction with the flow.
- Prior to installation, flush the line to remove debris.
- The water meter must be filled with water to operate.



[1] Isolation Valve

[2] Air Valve

[ODN] Unrestricted pipe,
minimum 0XDN

[3] MUT2300

[4] Isolation Valve