



# Converter

# MC 608A/B/R

DS300-0-ENG



**EUROMAG**  
INTERNATIONAL

# Converter MC 608 A/B/R

The first product of the **new family of high performance converters.**

- Available in powered version 12/24 Vac-dc or 90-264 Vac (MC608A).
- Available in battery powered version with a useful life of 6 years (\*) (MC608B).
- Available in battery mode with solar panel (MC608R)
- Compatible with all Euromag sensors with diameters up to DN 600, including those installed after 2004.
- Accuracy according to Class 1&2 of OIML R49.
- Built-in data logger with optional input for pressure measurement.
- Dedicated data logger for extended diagnostics.
- GSM/GPRS connectivity in combination with DATAFLOW TX.
- Large graphics display with totaliser indications greater than 8mm.
- Total management of electricity consumption with automatic sleep function and waking up with magnetic command.
- **Batteries can be replaced on site.**
- IrCOM interface for programming communication with laptop.
- MODBUS RTU interface for communication on RS 485.



- Special version with submersible IP 68 case.
- Firmware upgrades possible over time to maintain the investment value.
- All configuration, totaliser and data logger values are stored even in case of power failure.
- Multi-level password system to guarantee accessibility and confidentiality.

(\*) At factory conditions.

(\*\*) Pending





## TYPICAL APPLICATIONS

- Billing consumption
- District measurements
- Transport lines
- Residual water treatment systems
- Irrigation

The MC 608 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.

On board batteries in 608-B version guarantee at least 6 years operation under the reference conditions of use, and will maintain a useful life of 10 years from shipment.

Connectivity is ensured by serial interfaces, both IrCOM and MODBUS RTU on RS 485.

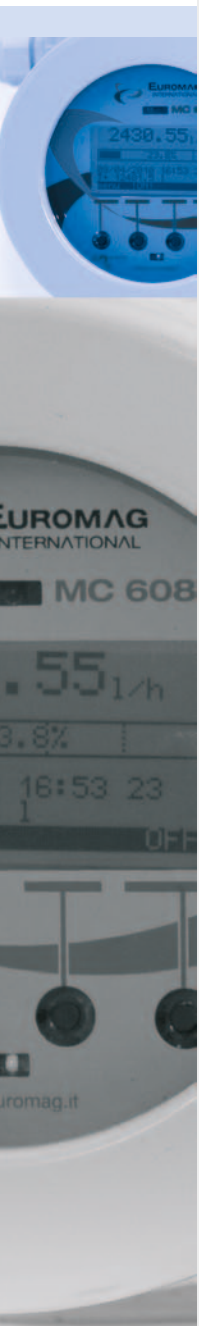
Communications may be implemented by using the **DATAFLOW TX** module via GSM and GPRS, bringing measurement and required data to the operator desk without the need for any remote action.

Converter performance has been developed to meet the need to measure even small flow rates with maximum accuracy. It is therefore ideal for use in leak detection campaigns due to battery power and ease of communication through **DATAFLOW TX**.

The new generation converter extends the use of electromagnetic flowmeters to water distribution network, allowing a better control of flows in every point of installation. Even small flow rates can be monitored and consequently the status of leaks in the distribution network. For billing applications, it is an economical solution in terms of capital expenditure and operating cost. Installations in irrigation systems guarantee that each farmer pays for the water used, and allow optimization of water management.

This converter is ideal for installation in remote areas, thanks to battery powering and sturdy and strong structure.





CONVERTER INSTALLATION	Compact on the sensor or remote version. <ul style="list-style-type: none"> <li>MC608B/R up to 30 meters far from the sensor.</li> <li>MC608A up to 100 meters far from the sensor.</li> </ul>
CONVERTER CASE	Aluminium epoxy painted IP 67/68, with front window in toughened glass.
ELECTRICAL CONNECTIONS	Cable glands 20x1.5 in plastic or metal. It can also take 1/2" NPT cable glands.
CONNECTION CABLES	Dedicated cables supplied by EUROMAG INTERNATIONAL
POWER SUPPLY	<b>MC608A</b> 90...264 Vac 12/24 Vac/dc
	<b>MC608B</b> Battery powered supply or 12/24 Vac/dc Expected life T=0/50°C (32/122°F) Internal battery pack pack 6-10 years
	<b>MC608R</b> Rechargeable battery + solar panel
SIGNALS IN OUTPUT	<ul style="list-style-type: none"> <li>Active analogue output 4-20 mA;</li> <li>Digital output for pulses maximum 1000 Hz duty cycle max 50% for instant load, positive only, positive and negative;</li> <li>Programmable digital output for: <ul style="list-style-type: none"> <li>Maximum pulses 1000 Hz duty cycle max 50% for negative load;</li> <li>Negative load indication;</li> <li>Cumulative alarm</li> </ul> </li> <li>Digital output in active frequency 0-10 kHz;</li> </ul> <p>All outputs are optoisolated. Pulse outputs with a maximum capacity of ±35VDC 50 mA.</p>
SERIAL COMMUNICATION	<ul style="list-style-type: none"> <li>IrCOM interface for communicating with laptop or hand held communicator, and dedicated SW for programming, displaying and downloading data.</li> <li>MODBUS RTU interface on RS 485.</li> </ul>
TEMPERATURE RANGE	Process » -10°C to 70°C Ambient » -20°C to 60°C Storage » -30°C to 70°C
ACCURACY	<ul style="list-style-type: none"> <li>MC608A: 0.2% of the read value (minimum 2.0 mm/s)</li> <li>MC608B/R : 0.4% of the read value (minimum 2.0 mm/s)</li> </ul>
REPEATABILITY	0.1% of the read value (minimum 2.0 mm/s)
CALIBRATION	Standard Generic use in water » 0.4 % Extended High performance applications » 0.2%
SAMPLING FREQUENCY	Programmable 5, 3, 1, 1/15, 1/30, 1/60, 1/120, 1/240, 1/480 Hz.
DISPLAY	Graphic LCD - 128x64 pixels, 50x25mm visual area Backlit white colour, programmable backlighting. Simultaneous display of a counter + instant variable + status flags. Counters with 8 mm high characters for reliable and easy reading. Programmable display content.



PROGRAMMING	With push buttons on board of converter for non-billing applications. By IrCOM interface and laptop with dedicated software or via RS485 and MODBUS RTU protocol; available for all applications including billing and custody transfer.
MEASUREMENT UNITS	Settable individually for counters, flow indication, pulse emission. <ul style="list-style-type: none"> <li>Selectable volume units: ml, cl, dl, l, dal, hl, m3 , in3, ft3, gal, USgal, bbl, oz.</li> </ul>
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, temperature). Completely programmable both in terms of content and acquisition times.
DIAGNOSTICS DATA LOGGER	64 kB EEPROM, 2000 lines of data (one line includes: Date, time, temperature, error codes, user actions with changes made). Not programmable and tamper/reset proof.
ELECTRICAL CONDUCTIVITY	<ul style="list-style-type: none"> <li>MC608A: 5 <math>\mu</math>S/cm minimum</li> <li>MC608B/R: 20 <math>\mu</math>S/cm minimum</li> </ul>
RECOMMENDED VELOCITY	-10 to 10 m/s
PROCESS FLUID	<ul style="list-style-type: none"> <li>Surface or ground water</li> <li>Drinking water</li> <li>Water for irrigation</li> </ul>
APPROVALS AND CERTIFICATIONS	<ul style="list-style-type: none"> <li>The MC 608 converter meets all the requirements established by the EC directives. The manufacturer certifies the success of the qualification tests by applying the CE mark.</li> <li>Electromagnetic compatibility » Directive 89/336/EEC, EN 61326-1:2006</li> <li>Low voltage directive » Directive 2006/95/EC</li> <li>Custody Transfer » MI-001 and OIML R-49 (certification pending)</li> </ul>





EUROMAG INTERNATIONAL srl

35035 Mestrino (Padova) – Via Torino, 3 – Italy  
Tel. +39 049 9005064 – Fax +39 049 9007764  
[www.euromag.com](http://www.euromag.com) – [euromag@euromag.com](mailto:euromag@euromag.com)

