

## Converter MC608

The MC608 converter has been designed with the purpose of meeting all the requirements of modern water management systems through a flexible and hybrid electronic, mains powered, battery powered, or both.



The Hybrid electronic converter for all applications











#### Available in:

MC608A: mains powered version 12/24 Vac/dc or 90/264 Vac – Aluminum case.

MC608B: battery powered with a useful life of 6 years (max DN600 with full bore units) - Aluminum case.

MC608R: rechargeable battery powered, with solar panel and 12/24 Vac/dc input (max DN600 with full bore units) – Aluminum case.

MC608P: mains powered version 12/24 Vac/dc or 90/264 Vac panel version – Polycarbonate case.

MC608I: mains powered version 12/24 Vac/dc or 90/264 with internal battery backup, or rechargeable battery with solar panel - Stainless Steel case.

## **Applications:**

- · Abstraction and distribution;
- District measurements;
- Revenue and bulk metering;
- Transport lines;
- Irrigation
- Waste water and treatment
- Leak detection systems
- Any remote application with no access to mains power.

#### Installation:

Compact (MC608A/B/R) Separate (Remote): up to 100 meters cable with mains powered units (MC608A/P/I), or up to 30 meters of cable supplied from factory with battery operated units (MC608B/R). MC608 is compatible with the complete line of sensors from Euromag.

#### **Enclosures:**

Reliable and robust IP68 aluminum case MC608A/B/R, Stainless steel IP54 with MC608I for remote installations, and IP67 polycarbonate sturdy case for panel installations MC608P.

## Data security:

Excellent data security given by the internal EEPROM memory. Enhanced data storage of 200.000 lines of data (more than 6 years of data under factory settings).

Cycle memory, old data will be over written by new ones when full capacity is reached. A software is supplied with the unit to allow users to communicate with the 608 via Ircom port or RS485 Modbus interface, to any pc, lap top or windows tablet.

Easy data download and management, easy programming. Advanced self-diagnostic performs a wide range of essential checks automatically. Multi-level password system to guarantee accessibility and confidentiality.

### Accuracy and certifications:

- 2014/35/EU EN 61010-1:2013 (LVD)
- 2014/30/EU EN 61326-1:2013 (EMC)
- OIML R49-1:2013 Class 2

## Remote data reading:

With advanced display information, on-site data collection and remote monitoring via GSM/GPRS network, the MC608 allows any customer to access all the information, easily and at no cost.

Add on communication module automatically sends the information via SMS, e-mail (with or without attachment) and to www.euroma-gdata.com, free access using any browser and with personal ID and password, also on smart phones and tablets. The MC608 extends the use of electromagnetic flowmeters to water distribution network, allowing a better control of flows in every point of installation.

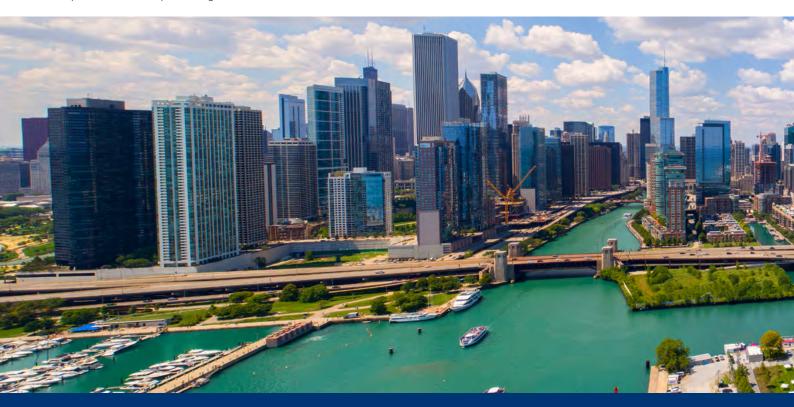
#### Add on modules:

Hart protocol option available on MC608A Pressure and temperature readying modules, make the MC608 one of the most complete electronic converter for electromagnetic flowmeters available, giving to the end user a full control over all the main parameters of its network, reducing cost of programming, installation and maintenance. 1 Unit supplying flow – pressure – temperature, all at the same time.

### Euromag Converter MC608



| Features                |  | MC608A            | MC608P         | MC608B            | MC608R            | MC608I       |
|-------------------------|--|-------------------|----------------|-------------------|-------------------|--------------|
| Case                    |  | Aluminium<br>IP68 | Polyc.<br>IP54 | Aluminium<br>IP68 | Aluminium<br>IP68 | SS<br>IP54   |
| Power supply            | 90264 Vac  | $\checkmark$      | $\checkmark$   |                   | $\checkmark$      | $\sqrt{}$    |
|                         | 12/24 Vac/dc   | $\checkmark$      | $\sqrt{}$      |                   | $\checkmark$      | $\sqrt{}$    |
|                         | Battery powered supply   |                   | $\checkmark$   | $\checkmark$      |                   | $\checkmark$ |
|                         | Rechargeable battery +<br>solar panel  |                   |                | $\checkmark$      | $\checkmark$      | $\checkmark$ |
| Installation            | Compact  | $\checkmark$      | $\checkmark$   | $\checkmark$      |                   |              |
|                         | Separate   | max 100m          | max 100m       | max 30m           | max 30m           | max 100m     |
| Signals I/O             | Analogue output 4-20mA   | $\checkmark$      | $\checkmark$   | √ loop pow.       | **                | $\sqrt{}$    |
|                         | Pulse output   | $\checkmark$      | $\checkmark$   | $\checkmark$      | $\checkmark$      | $\checkmark$ |
|                         | Hart protocol*   | $\checkmark$      | $\checkmark$   |                   |                   |              |
|                         | Programmable digital output  | $\checkmark$      | $\checkmark$   | **                | ***               | $\checkmark$ |
|                         | Active frequency digital output<br>0-10 kHz  | $\checkmark$      | $\checkmark$   | **                | ***               | $\checkmark$ |
| Serial<br>Communication | IrCOM interface  | $\checkmark$      | $\sqrt{}$      | $\sqrt{}$         | $\checkmark$      | $\checkmark$ |
|                         | RS 485 - MODBUS RTU  | $\checkmark$      | $\sqrt{}$      | **                | ***               | $\sqrt{}$    |
| Display                 | Graphic LCD display 128x64<br>pixels, 50x25mm visual area,<br>backlit white colour             | V                 | $\checkmark$   | V                 | $\checkmark$      | $\checkmark$ |
| Programming             | With push buttons on board of<br>converter, by Ir-COM interface or<br>via RS485 and MODBUS RTU | $\checkmark$      | $\checkmark$   | $\checkmark$      | $\checkmark$      | $\checkmark$ |
| Process Data<br>logger  | 4 MB flash memory, 200.000<br>lines of data  | $\checkmark$      | $\checkmark$   | $\checkmark$      | $\checkmark$      | $\checkmark$ |
| Standards               | Type approved OIML R49-1:<br>2013 - Class 2  | $\checkmark$      |                |                   |                   |              |



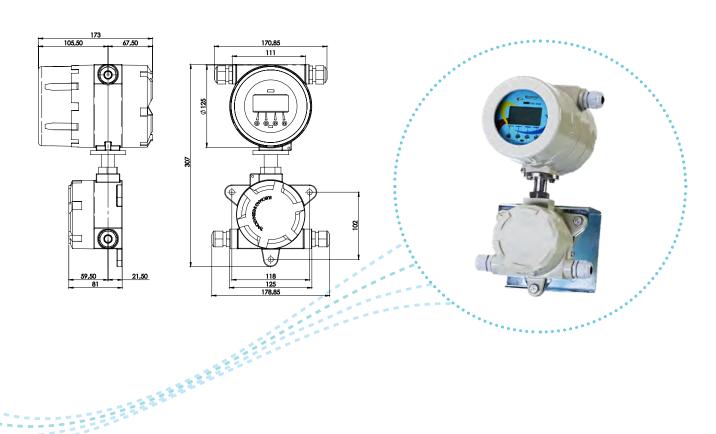
### Euromag Converter MC608

|  | MC608A   | MC608P | MC608B | MC608R | MC608I |  |  |  |
|--|--|--------|--------|--------|--------|--|--|--|
| Temperature                                | Ambient: -20 +60 C° (-4 +140 F)<br>Media -25 80 C° (-13 +176 F)<br>Storage -40 +70 C° (-22 +158 F)   |        |        |        |        |  |  |  |
| Flow units                                 | ml, cl, dl, l, dal, hl, m3 , in3, ft3, gal, USgal, bbl, oz<br>+ Custom value   |        |        |        |        |  |  |  |
| Add on modules                             | GSM/GPRS Euromag Module Pressure (1) and temperature (2)   |        |        |        |        |  |  |  |
| 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 • empty pipe on the 4th electrode • high temperature • pulse overlapped • measurement error   |        |        |        |        |  |  |  |
| External verification                      | Field verificator available for calibration verification and electronic status   |        |        |        |        |  |  |  |
| Software for communication and programming | Commissioning (equal settings of meters) - Data print for documentation -<br>Data export (CSV file) - Firmware update - Read instant flowrate -<br>Read and write all non-volatile parameters - Download internal datalogger -<br>View instrument event logger |        |        |        |        |  |  |  |

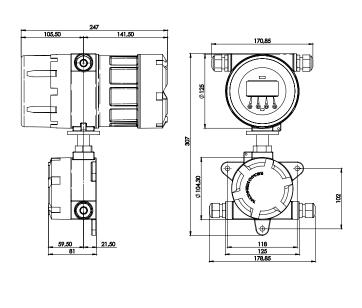




# MC608A

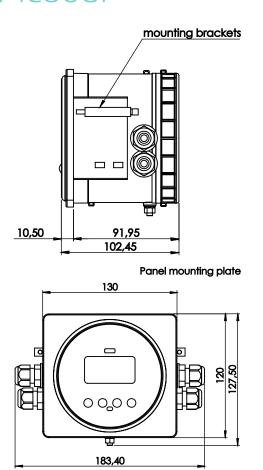


# MC608B/R



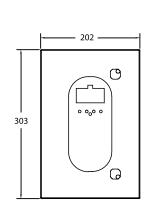


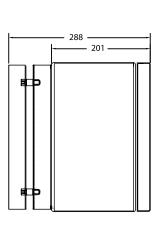
# MC608P





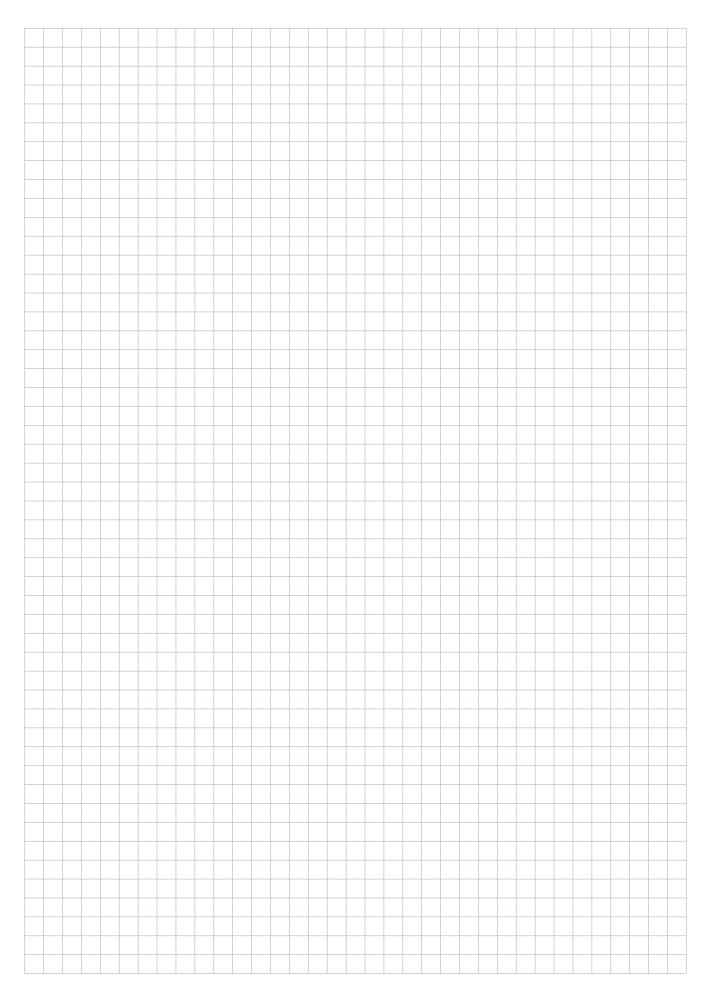
# MC6081

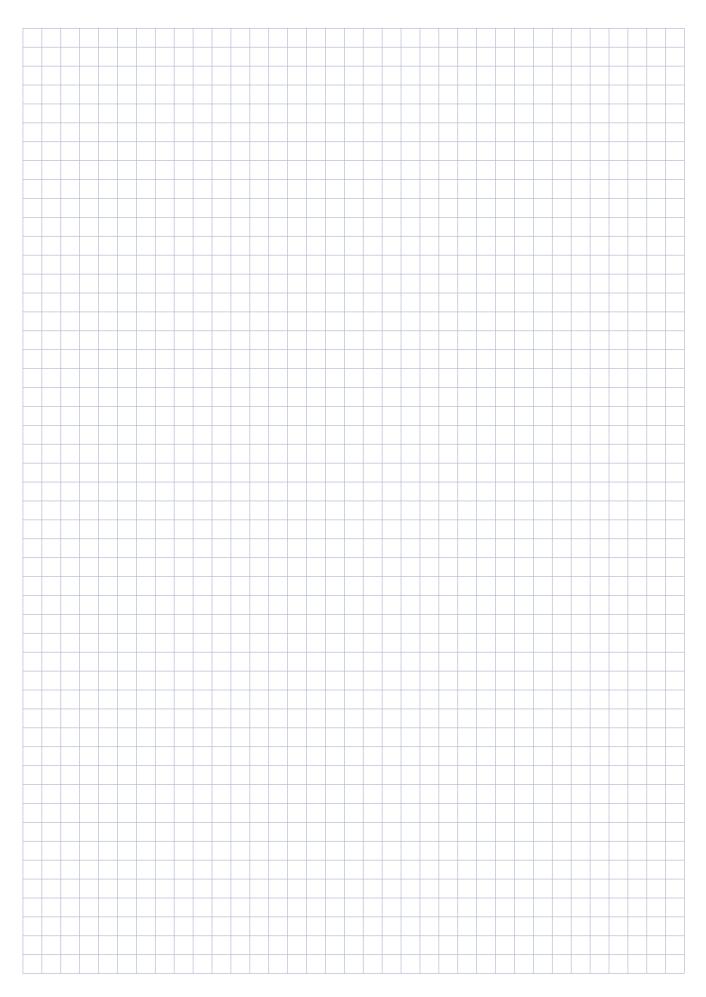












### **About BERMAD**

BERMAD is a leading, privately-owned global company that designs, develops and manufactures tailor-made water & flow management solutions that include state-of-the-art hydraulic control valves, air valves and advanced metering solutions.

Founded in 1965, we have spent over 50 years interacting with the world's major end users,

and accumulating knowledge and experience in multiple markets and industries. Today, we are recognized as a pioneer and established world-leading provider of water & flow management solutions that give our customers the unprecedented operational efficiency, and superior quality, durability and performance they need to meet the demanding challenges of the 21st century.





