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INTERNATIONAL

Measure > Sense > Innovate

CONVERTER **MC608**

A/B/R/P/I



The Hybrid electronic converter for all applications



HART
COMMUNICATION PROTOCOL



DS300-2-ENG



CONVERTER MC608

Electromagnetic
flowmeter

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.

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 and 12/24 Vac-dc input – 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.euromagdata.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

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network, allowing a better control of flows in every point of installation.

Add on modules:

Hart protocol option available on MC608A
Pressure and temperature reading 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.

Always verified:

On-site verification available with the Euro-mag Field vericator.

Dedicated version:

Special version MC608LB in combination with MUT4000, with Lemo connectors for automotive applications.



MC608I



MC608LB

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Features		MC608A	MC608P	MC608B	MC608R	MC608I
Case		Alumi- nium IP68	Polyc. IP54	Alumi- nium IP68	Alumi- nium IP68	SS IP54
Power supply	90...264 Vac	√	√			√
	12/24 Vac/dc	√	√			√
	Battery powered supply or 12/24Vac/dc			√		√
	Rechargeable battery + solar panel				√	√
Installation	Compact	√		√	√	
	Separate	max 100m	max 100m	max 30m	max 30m	max 100m
Signals I/O	Analogue output 4-20mA	√	√	√	***	√
	Pulse output	√	√	√	√	√
	Hart protocol*	√	√			
	Programmable digital output	√	√	**	***	√
	Active frequency digital output 0-10 kHz	√	√	**	***	√
Serial Communication	IrCOM interface	√	√	√	√	√
	RS 485 - MODBUS RTU	√	√	**	***	√
Display	Graphic LCD display 128x64 pixels, 50x25mm visual area, backlit white colour	√	√	√	√	√
Program- ming	With push buttons on board of converter, by Ir- COM interface or via RS485 and MODBUS RTU	√	√	√	√	√
Process Data logger	4 MB flash memory, 200,000 lines of data	√	√	√	√	√
Standards	Type approved OIML R49-1: 2013 - Class 2	√				

	MC608A	MC608P	MC608B	MC608R	MC608I
Temperature	Ambient: -20 ... +60 C° (-4 ... +140 F) Media 0 ... 70 C° (32 ... +158 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				
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: <ul style="list-style-type: none"> • excitation failure • empty pipe on the 4th electrode • high temperature • pulse overlapped 				
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				
Diagnostic Data logger	64 kB EEPROM, 2000 lines of data. Not programmable and tamper/ reset proof				

* Optional

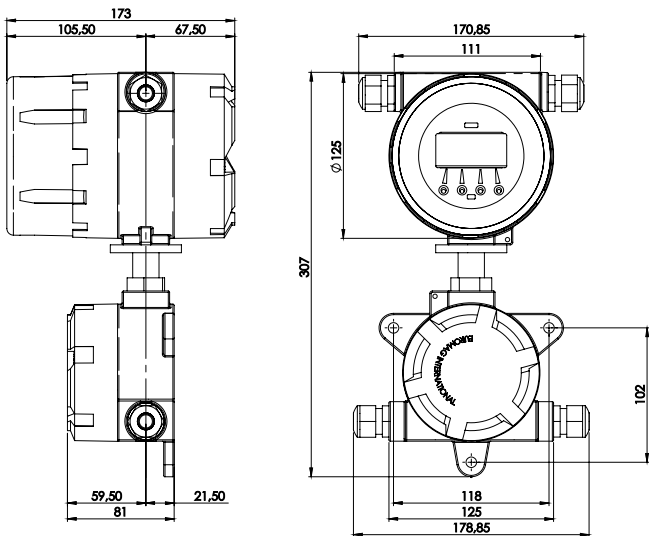
** with 24 Vdc power supply

*** Only in recharge mode

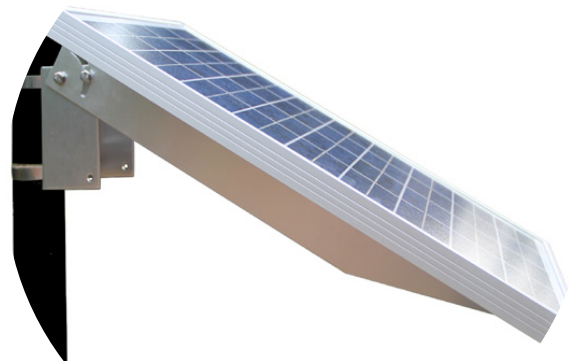
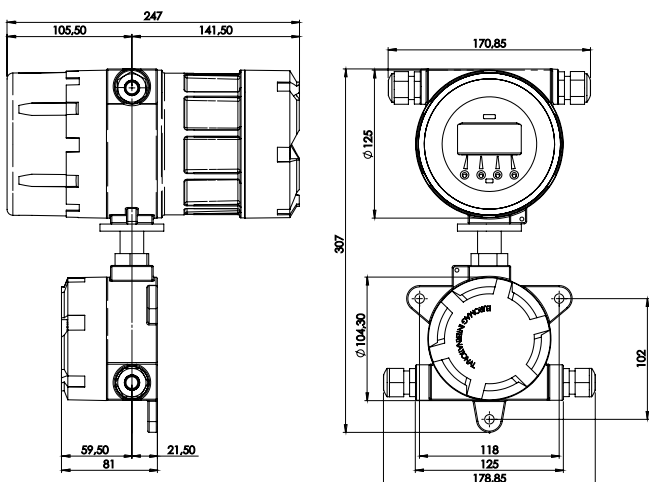
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MC608A



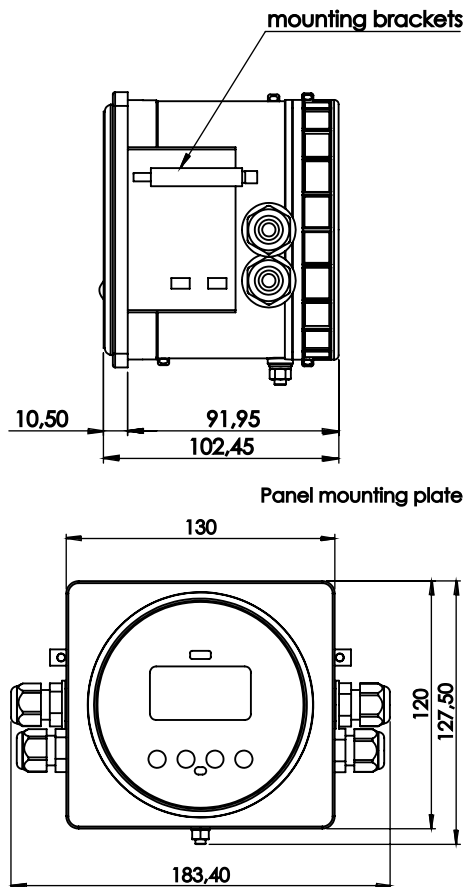
MC608B/R



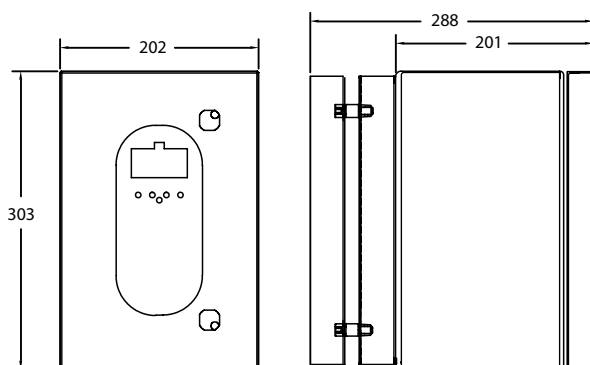
CONVERTER MC608

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MC608P



MC608I



Flowrate Table (Blue values are preferable)

DN	VELOCITY [m/s]			
	0.05 (default min.)	0.5	5	10 (max.)
25	88.36 l/h	883.57 l/h	8,835.73 l/h	17,671.46 l/h
32	0.14 m ³ /h	1.45 m ³ /h	14.48 m ³ /h	28.95 m ³ /h
40	0.23 m ³ /h	2.26 m ³ /h	22.62 m ³ /h	45.24 m ³ /h
50	0.35 m ³ /h	3.53 m ³ /h	35.34 m ³ /h	70.69 m ³ /h
65	0.60 m ³ /h	5.97 m ³ /h	59.73 m ³ /h	119.46 m ³ /h
80	0.90 m ³ /h	9.05 m ³ /h	90.48 m ³ /h	180.96 m ³ /h
100	1.41 m ³ /h	14.14 m ³ /h	141.37 m ³ /h	282.74 m ³ /h
125	2.21 m ³ /h	22.09 m ³ /h	220.89 m ³ /h	441.79 m ³ /h
150	3.18 m ³ /h	31.81 m ³ /h	318.09 m ³ /h	636.17 m ³ /h
200	5.65 m ³ /h	56.55 m ³ /h	565.49 m ³ /h	1,130.97 m ³ /h
250	8.84 m ³ /h	88.36 m ³ /h	883.57 m ³ /h	1,767.15 m ³ /h
300	12.72 m ³ /h	127.23 m ³ /h	1,272.35 m ³ /h	2,544.69 m ³ /h
350	17.32 m ³ /h	173.18 m ³ /h	1,731.80 m ³ /h	3,463.61 m ³ /h
400	22.62 m ³ /h	226.19 m ³ /h	2,261.95 m ³ /h	4,523.89 m ³ /h
450	28.63 m ³ /h	286.28 m ³ /h	2,862.78 m ³ /h	5,725.55 m ³ /h
500	35.34 m ³ /h	353.43 m ³ /h	3,534.29 m ³ /h	7,068.58 m ³ /h
550	42.76 m ³ /h	427.65 m ³ /h	4,276.49 m ³ /h	8,552.99 m ³ /h
600	50.89 m ³ /h	508.94 m ³ /h	5,089.38 m ³ /h	10,178.76 m ³ /h
650	59.73 m ³ /h	597.30 m ³ /h	5,972.95 m ³ /h	11,945.91 m ³ /h
700	69.27 m ³ /h	692.72 m ³ /h	6,927.21 m ³ /h	13,854.42 m ³ /h
750	79.52 m ³ /h	795.22 m ³ /h	7,952.16 m ³ /h	15,904.31 m ³ /h
800	90.48 m ³ /h	904.78 m ³ /h	9,047.79 m ³ /h	18,095.57 m ³ /h
900	114.51 m ³ /h	1,145.11 m ³ /h	11,451.11 m ³ /h	22,902.21 m ³ /h
1000	141.37 m ³ /h	1,413.72 m ³ /h	14,137.17 m ³ /h	28,274.33 m ³ /h
1200	203.58 m ³ /h	2,035.75 m ³ /h	20,357.52 m ³ /h	40,715.04 m ³ /h
1300	238.92 m ³ /h	2,389.18 m ³ /h	23,891.81 m ³ /h	47,783.62 m ³ /h
1400	277.09 m ³ /h	2,770.88 m ³ /h	27,708.85 m ³ /h	55,417.69 m ³ /h
1500	318.09 m ³ /h	3,180.86 m ³ /h	31,808.63 m ³ /h	63,617.25 m ³ /h
1600	361.91 m ³ /h	3,619.11 m ³ /h	36,191.15 m ³ /h	72,382.29 m ³ /h
1700	408.56 m ³ /h	4,085.64 m ³ /h	40,856.41 m ³ /h	81,712.82 m ³ /h
1800	458.04 m ³ /h	4,580.44 m ³ /h	45,804.42 m ³ /h	91,608.84 m ³ /h
2000	565.49 m ³ /h	5,654.87 m ³ /h	56,548.67 m ³ /h	113,097.34 m ³ /h

MUT 2200 EL



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