



**EUROMAG**  
INTERNATIONAL

*Measure > Sense > Innovate*

# CONVERTER MC406

Electromagnetic flowmeter



 **Bluetooth™**



*The battery powered electronic converter*



DS400-6-ENG



# Converter MC406

The MC406 is the new high -efficiency, technologically advanced battery powered electronic converter from Euromag, combining high performances and dedicated applications solutions to a low cost of ownership.

10+ years of battery life (at default settings) allows maintenance free of operation. Battery pack is then easily replaceable, all data are automatically stored in the internal EEPROM memory and no data will be lost.

## Applications

- Abstraction and distribution
- Revenue and bulk metering
- Irrigation
- Waste water and treatment
- Leak detection systems
- Any remote application with no access to mains power

## Installation

Compact: horizontal or vertical (typically pit installations).

Separate (Remote): up to 30 meters of cable are supplied from factory.

## Case

Reliable and robust, Ixef® PARA (polyarylamide) reinforced with 50% glass fiber with 4 PG9 glands, bayonet closure IP68.

## Data security

Excellent data security given by the internal EEPROM memory. Enhanced security in data and parameter storage; built-in datalogger with over 100.000 data lines capacity (more than 3 years of data under factory settings). Cycle memory, old data will be overwritten by new ones when full capacity is reached. A software is supplied with the unit to allow users to communicate with the MC406 via Ircom port 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.

## Low flow detection

Combined to the Euromag MUT2300 sensor series, the MC406 is capable to read flow velocities of 0.015 m/s (MID-OIML R49 certified).

MC406 is compatible with the complete line of sensors from Euromag.

Full bore units up to DN1000, and with any insertion sensors.

## Remote data reading

With advanced display information, on-site data collection and remote monitoring via GSM/GPRS network, the MC406 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](http://www.euromagdata.com) free access using any browser and with personal ID and password, also on smartphones and tablets.

Add on modules of temperature and pressure reading, make the MC406 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.

One unit supplying flow - pressure - temperature, all at the same time.

## Always verified

On-site verification available with the Euromag FIELD VERIFICATOR.

# EASY AND INTUITIVE INTERFACE

Everything you need from your flowmeter with a blink of an APP.

In a fast developing and interconnected world, data must be available and exchanged quick and easy Mag-Net app is the Euromag solution.



## Reliable

Ultra low power bluetooth communication



## Contactless

A contactless interface allows users to interact with the transmitter up to a range of more than 10m. From the comfort of your car.



## Chart and retrieve data

The Mag-Net app allow users to view the log file on their smart phone/tablet and download it as CSV file.



## Infinite possibilities

Consult, analyse, monitor, the data directly with your touch through simple gestures.



## Easy and intuitive

The Mag-Net app is easy and intuitive to use, allowing users to deal with the instrumentation.



## Smart configuration

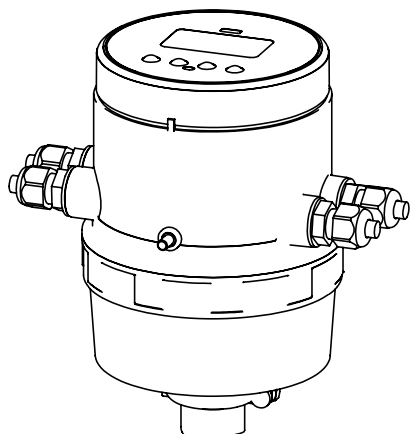
Users can easily configure or change settings of their flow meters using Mag-Net app.

# EASY AND INTUITIVE INTERFACE

The image displays four smartphone screens illustrating the user interface of a flowmeter. Each screen is annotated with a blue callout box explaining a key feature.

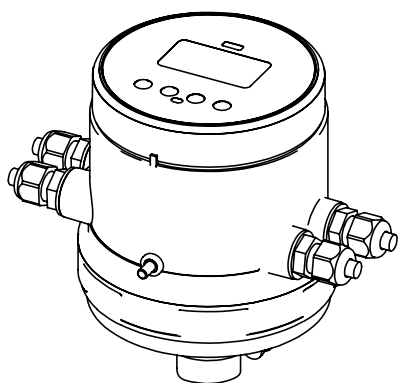
- Top Left Screen (Display):** Shows real-time flow data (0.644 m³, 0.000 m/h) and device information (MUT7000, serial number, diameter, date, time). Callouts highlight:
  - Easy display of instant flow and totalizer
  - Quick view of model and serial number
  - Easy display of all totalizers (Total positive, Total negative, Total NET, Partial positive, Partial negative)
  - Partial totalizers, quick reset
- Top Right Screen (Graph):** Shows a line graph of flow over time. Callouts highlight:
  - View the instantaneous flow in the intuitive graph
  - Immediate view of Max, Min flowrate of the system
- Bottom Left Screen (Data log):** Shows a list of recorded data samples with columns for flow rate, total positive, total negative, battery power, and errors. Callout:
  - Download the data log and display all the information
- Bottom Right Screen (Settings):** Shows configuration options for firmware, device, and measurement. Callouts highlight:
  - Keep your flowmeter updated easily
  - Modify or change settings with the intuitive menu

## MC406 GSM



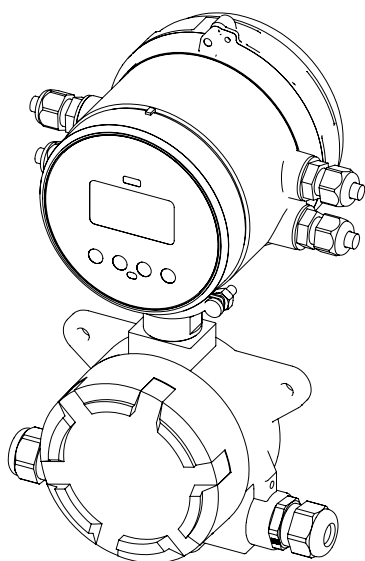
Weight 900 gr

## MC406 VERTICAL



Weight 480 gr

## MC406 SEPARATE



Weight 600 gr



MUT1222 - MC406



MC406

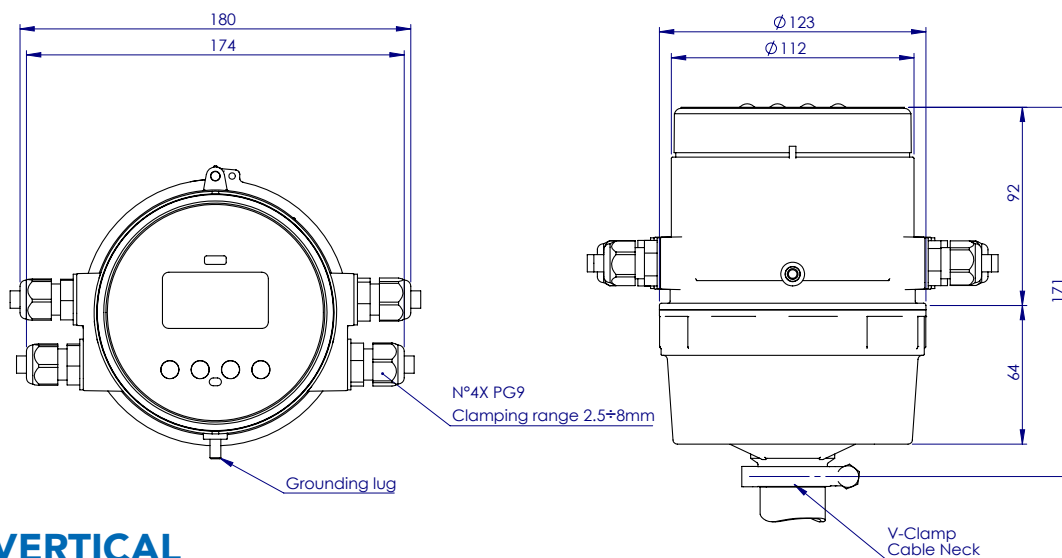


MUT2300 - MC406 VERTICAL

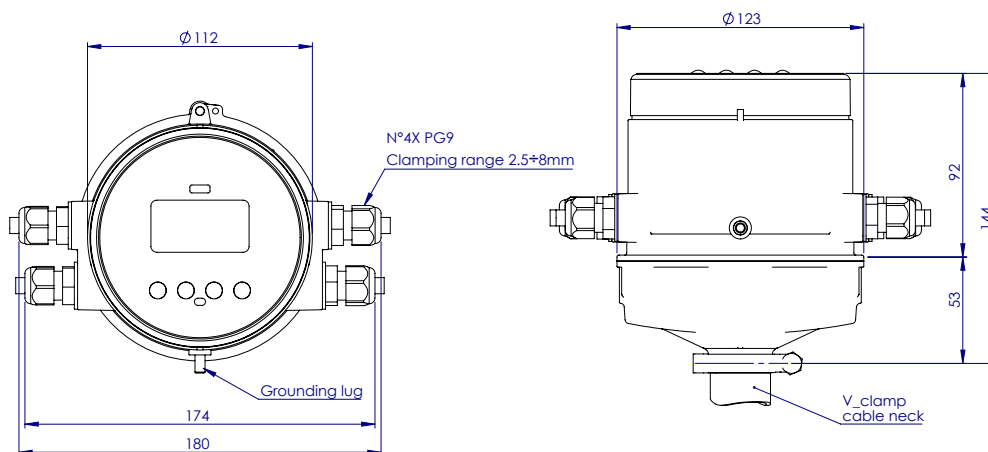


MC406

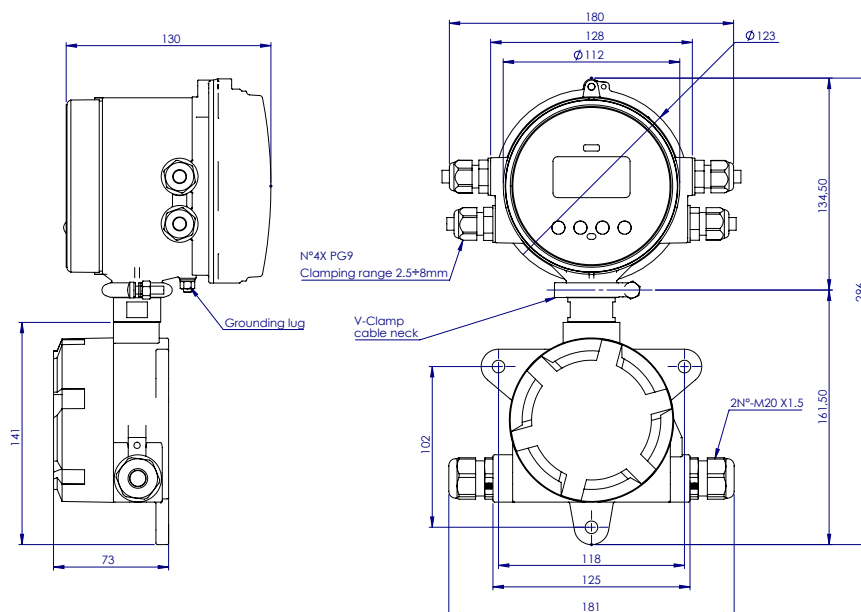
## MC406 GSM



## MC406 VERTICAL



## MC406 SEPARATE



<b>Transmitter type</b>	Battery powered - 2 x D Cell 3,6 V * - 12/24Vdc optional
<b>Battery life</b>	Lithium battery pack up to 10 years / GSM battery life up to 10 years
<b>Accuracy</b>	0,2 % +/- 2 mm/s - insertion sensors 2% of rate +/- 2mm/s
<b>Temperature</b>	Ambient: -20 ... +60 C° (-4 ... +140 F) Media -25 ... 80 C° (-13 ... +176 F) Storage -40 ... +70 C° (-22 ... +158 F)
<b>Enclosure</b>	Ixef® PARA (polyarylamide) reinforced with 50% glass fiber IP 68. Remote wall mount bracket in carbon steel zinc plated
<b>Cable entries</b>	4X PG9 Glands I/O - 2X M20 x 1.5. Glands junction box in remote version
<b>Custody transfer</b>	Type approved OIML R49-1 2013 / EN 14154 MID EN-ISO 4064 - Certificate n. T10713 - Class 2 and Class 1
<b>Conformity</b>	EMC: EN 61010 - LVD: EN 61326 ; EN/IEC 60529 IP68
<b>Sensor type</b>	Full bore up to DN 1000 - Insertion meters
<b>Flow velocity range</b>	0,015 m/s up to 10 m/s
<b>Sampling rate</b>	Standard mode 1 / 5 Hz up to 1 / 60 Hz (default 1 / 15 Hz) max 3,125 Hz
<b>Installation</b>	Integral (compact) or remote with factory mounted sensor cable in 5 m (16,4 ft) up to 30 m (98,4 ft)
<b>Digital filters</b>	Damping - cutt-off (0,05 m/s default) - bypass - peak cut
<b>Display and keys</b>	LCD display - Index, menu, and symbols icons for dedicated information 4 Push buttons to access all functions Totalizer informations can be displayed with 5 decimal digits
<b>Displayed informations</b>	Live flowrate Total positive totalizer (T+) Total negative totalizer (T-) Partial positive totalizer (P+) Partial negative totalizer (P-) Net totalizer (NET) Time & date Converter temperature Process pressure and temperature (if available) Parameters corresponding code and value
<b>Flow Units</b>	m, m <sup>3</sup> , l, ML, ft <sup>3</sup> , GAL
<b>Outputs</b>	2 pulses passive outputs (1 programmable as alarm), individual galvanically isolated - clean contact Maximum load +/- 35V DC, 100 mA short circuit protected. 4...20mA loop powered optional. RS485 Modbus output optional.
<b>Communication</b>	Integrated Euromag IrComm interface. Bluetooth module optional.
<b>Datalogging</b>	100,000 lines of data with a frequency of log between 1 minute and 120 minutes (default 15 minutes)
<b>Add on modules</b>	GSM/GPRS Euromag Module Pressure (1) and temperature (2) Energy metering ready
<b>Totalizers</b>	5 (2 positive, 2 negative and 1 net)
<b>Date and time</b>	Yes
<b>Data protection</b>	Password available, automatic firmware check and recover during the update
<b>Alarms and status</b>	Status icon displayed and alarm logged in the datalogger
<b>Self diagnostic</b>	Alarms available: <ul style="list-style-type: none"> <li>• excitation failure</li> <li>• empty pipe on the 4th electrode</li> <li>• empty pipe on the measuring electrodes</li> <li>• high temperature</li> <li>• high voltage supply</li> <li>• pulse overlapped</li> <li>• wet electronic board</li> <li>• low battery</li> </ul>
<b>External verification</b>	Field vericator available for calibration verification and electronic status
<b>Software for communication and programming</b>	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

\* Lithium batteries are subject to special transportation regulations according to United Nations "Regulation of Dangerous Good", UN 3090 and UN 3091. Special transport documentation is required to observe these regulations. This may influence both transport time and cost



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**EUROMAG INTERNATIONAL Srl**

Via della Tecnica, 20 - 35035 Mestrino (Padova) Italia  
Tel. +39 049.9005064 - Fax +39 049.9007764

[www.euromag.com](http://www.euromag.com) - [www.euromagdata.com](http://www.euromagdata.com)  
[euromag@euromag.com](mailto:euromag@euromag.com)