

# CONVERTER MC406

Technical Guide W8.7



09.24 | W8.7 CONVERTER MC406

## Application

Abstraction and distribution

Revenue and bulk metering

Irrigation

Wastewater and treatment

Leak detection systems

Any remote application with no access to mains power

## Approvals/Standards

MID Approval

OIML Approved

GSM Ready

*We are the supply partner of choice for New Zealand's civil construction industry, specialising in water and infrastructure based solutions.*



# CONVERTER MC406

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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.

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

## Applications

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

## Installation

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Compact: horizontal or vertical (typically pit installations).

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

## Case

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Reliable and robust, Techno polymer case with 4 PG9 glands and aluminum bottom on compact vertical configuration.

## Data security

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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. Software is supplied with the unit to allow users to communicate with the 406 via Ircom port to any pc, laptop or windows tablet. Easy data download and management, easy programming.

Advanced self-diagnostic performs a wide range of essential checks automatically.

## Low flow detection

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

MC406 is compatible with the complete line of sensors from Euromag. Full bore units up to DN 600, and with any insertion sensors.

## Remote data reading

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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.

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 smart phones and tablets.

Add on modules of temperature and pressure reading, make the MC406 one of the most complete electronic converters 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

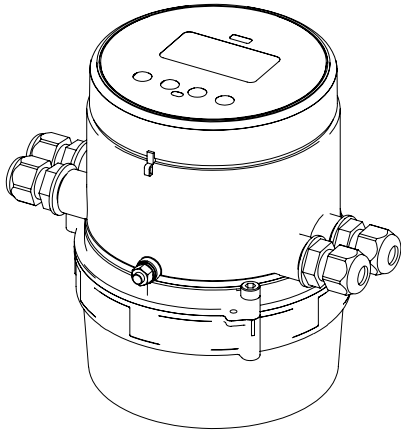
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On-site verification available with the Euromag FIELD VERIFICATOR.

Please contact Hynds Smarterwater for service.

### MC406 GSM

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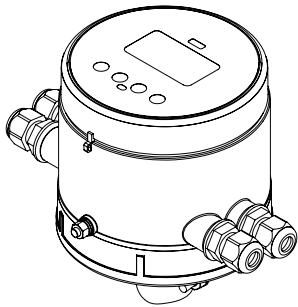
Weight 900 gr



MUT1222 - MC406

### MC406 VERTICAL

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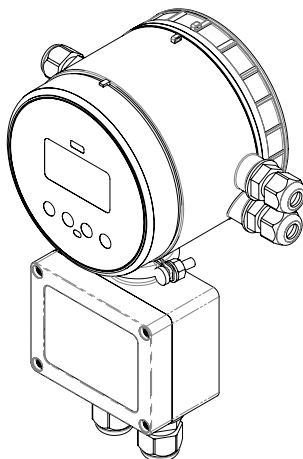
Weight 480 gr



MC406

### MC406 SEPARATE

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Weight 600 gr

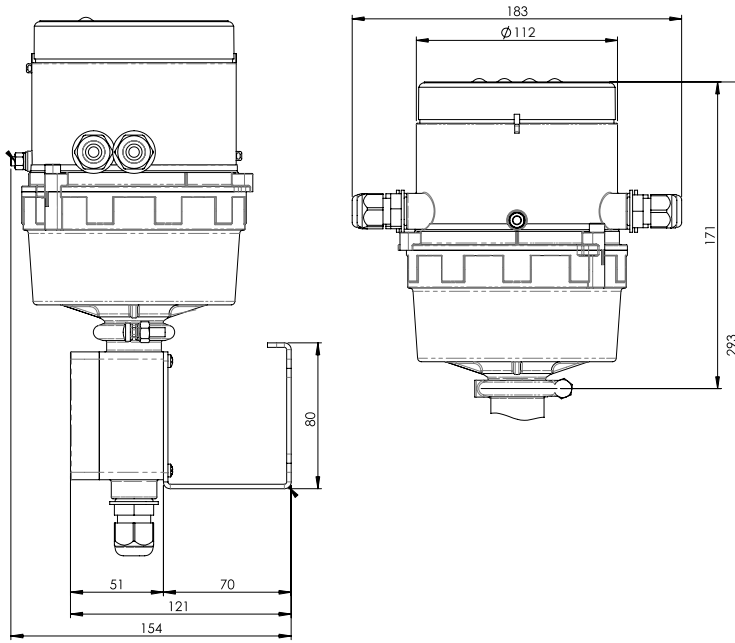


MUT2300 - MC406 VERTICAL

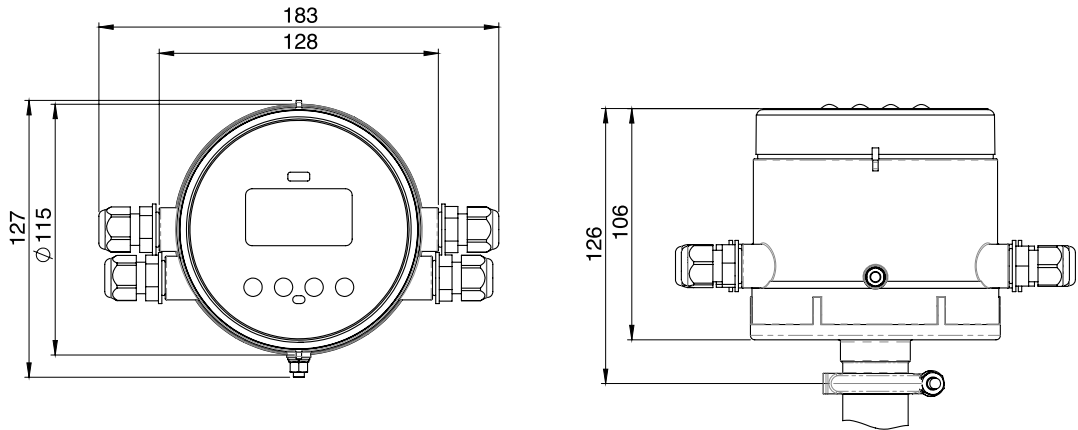


MC406

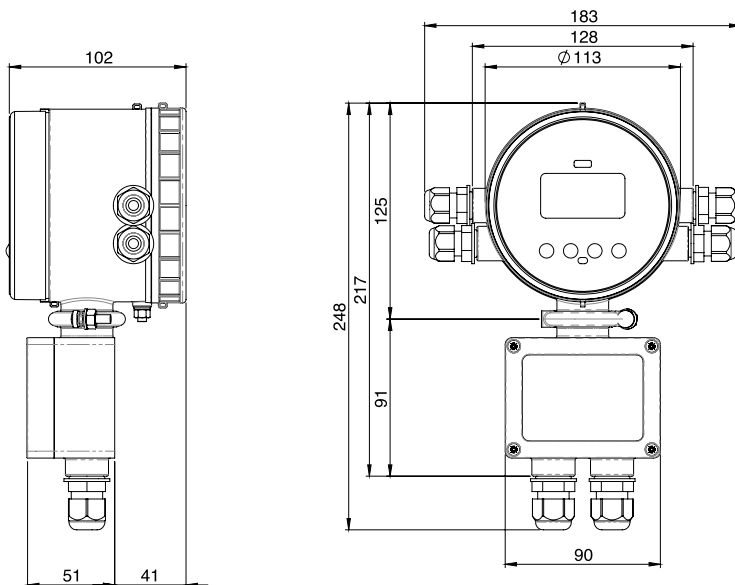
### C406 GSM



### 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>	Technopolymer case with aluminum bottom on compact vertical version. 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 600 - 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, m3, l, ML, ft3, 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 verifier 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 nonvolatile 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

## Notes

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**Branches Nationwide** *Support Office & Technical Services 0800 93 7473*

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