





# CONVERTER MC406 Electromagnetic flowmeter

Technical Guide SE2.2



# **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

## **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.

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**

- Abstraction and distribution
- Revenue and bulk metering
- Irrigation
- Wastewater 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, Techno polymer case with 4 PG9 glands and aluminum bottom on compact vertical configuration.

# **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. 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

Combined to the Euromag MUT2300 sensor series, the MC406 is capable of reading 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 DN 600, 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.

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.

Add on modules of temperature and pressure readying, 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.

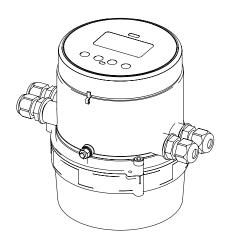
One unit supplying flow - pressure - temperature, all at the same time.

### **Always verified**

On-site verification available with the Euromag FIELD VERIFICATOR.

Please contact Hynds Smarterwater for service.

# **MC406 GSM**



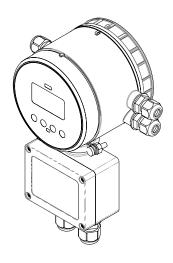
Weight 900 gr

# MC406 VERTICAL



Weight 480 gr

# **MC406 SEPARATE**



Weight 600 gr



MUT1222 - MC406



MC406

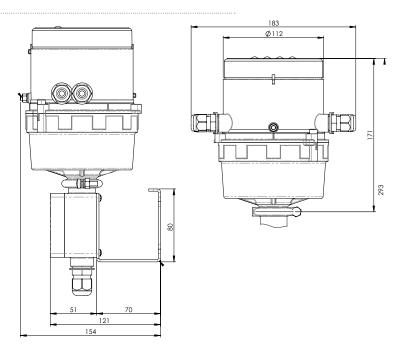


MUT2300 - MC406 VERTICAL

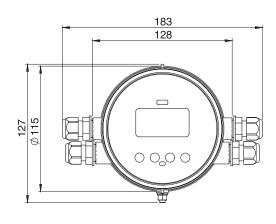


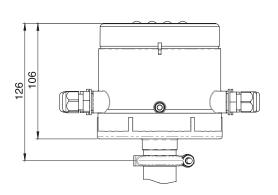
MC406

# **C406 GSM**

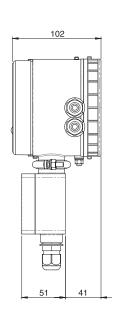


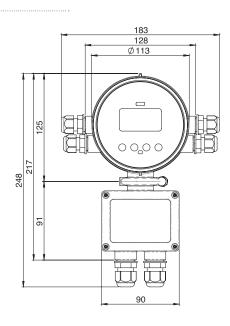
# **MC406 VERTICAL**





# MC406 SEPARATE





Transmitter type	Battery powered - 2 x D Cell 3,6 V * - 12/24Vdc optional	
Battery life	Lithium battery pack up to 10 years / GSM battery life up to 10 years	
Accuracy	0,2 % +/- 2 mm/s - insertion sensors 2% of rate +/- 2mm/s	
Temperature	Ambient: -20 +60 C° (-4 +140 F) Media -25 80 C° (-13 +176 F) Storage -40 +70 C° (-22 +158 F)	
Enclosure	Technopolymer case with aluminum bottom on compact vertical version.  IP 68. Remote wall mount braket in carbon steel zinch plated	
Cable entries	4X PG9 Glands I/O - 2X M20 x 1.5. Glands junction box in remote version	
Custody transfer	Type approved OIML R49-1 2013 / EN 14154 MID EN-ISO 4064 - Certificate n. T10713 - Class 2 and Class 1	
Conformity	EMC: EN 61010 - LVD: EN 61326; EN/IEC 60529 IP68	
Sensor type	Full bore up to DN 600 - Insertion meters	
Flow velocity range	0,015 m/s up to 10 m/s	
Sampling rate	Standard mode 1 / 5 Hz up to 1 / 60 Hz (default 1 / 15 Hz) max 3,125 Hz	
Installation	Integral (compact) or remote with factory mounted sensor cable in 5 m (16,4 ft) up to 30 m (98,4 ft)	
Digital filters	Damping - cutt-off (0,05 m/s default) - bypass - peak cut	
Display and keys	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	
Displayed informations	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	
Flow Units	m, m3, l, ML, ft3, GAL	
Outputs	2 pulses passive outputs (1 programmable as alarm), individual galvanically isolated - clean contact Maximum load +/- 35V DC, 100 mA short circuit protected. 420mA loop powered optional. RS485 Modbus output optional.	
Communication	Integrated Euromag IrComm interface. Bluetooth module optional.	
Datalogging	100,000 lines of data with a frequency of log between 1 minute and 120 minutes (default 15 minutes)	
Add on modules	GSM/GPRS Euromag Module Pressure (1) and temperature (2) Energy metering ready	
Totalizers	5 (2 positive, 2 negative and 1 net)	
Date and time	Yes	
Data protection	Password available, automatic firmware check and recover during the update	
Alarms and status	Status icon displayed and alarm logged in the datalogger	
Self-diagnostic	<ul><li>empty pipe on the 4th electrode</li><li>empty pipe on the measuring electrodes</li></ul>	<ul> <li>high voltage supply</li> <li>pulse overlapped</li> <li>wet electronic board</li> <li>low battery</li> </ul>
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 - Data export (CSV file) - Firmware update - Read instant flowrate - Read and write all nonvolatile parameters - Download internal datalogger - View instrument event logger	

<sup>\*</sup> 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

