

# MC 406

## *Electromagnetic Battery Powered Transmitter*

### **Description**

The MC 406 Transmitter is a high-efficiency, battery-powered electromagnetic flowmeter transmitter designed for reliable measurement in remote and demanding applications. Built for low power consumption and long-term field operation, the 406 delivers advanced measurement capability while helping reduce installation cost, wiring requirements, and ongoing maintenance.

When paired with compatible full-bore or insertion electromagnetic flow sensors, the 406 provides accurate flow measurement across a wide operating range, including very low flow velocities. Its flexible design makes it ideal for applications where power is unavailable or difficult to access.

The 406 Transmitter is especially suited for applications where dependable flow data is required, but power availability is limited. Its battery operation, internal logging, and communication options make it a strong solution for distributed measurement points, water networks, and unattended installations

### **Features**

- Battery-powered electronic transmitter for remote installations
- Optional 12/24 VDC power supply with 4–20 mA output
- Compact or remote mounting for flexible installation
- Remote version available with cable lengths up to 30 meters
- Compatible with full-bore sensors up to 24" and insertion meters
- Five independent internal totalizers
- Built-in datalogger with capacity for over 100,000 data lines
- Pressure and temperature reading modules available
- Suitable for custody transfer and certified water metering
- Combined with the EL2300 sensor series, the MC406 is capable of reading flow velocities down to 0.015m/s

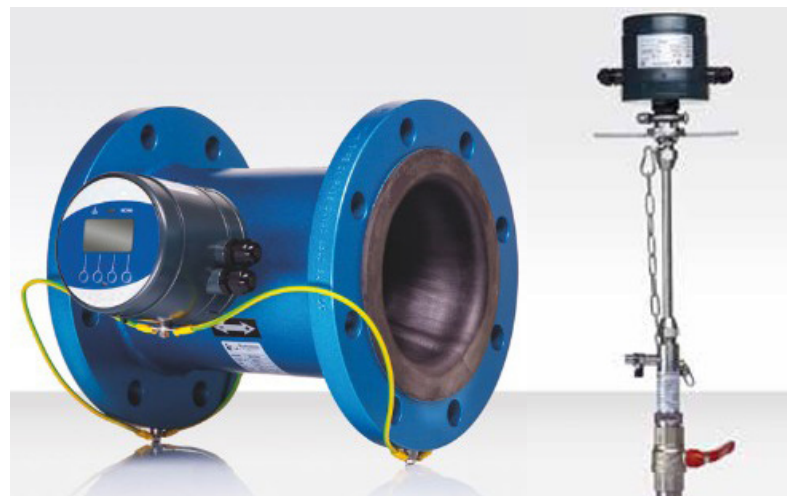


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### **Typical Applications**

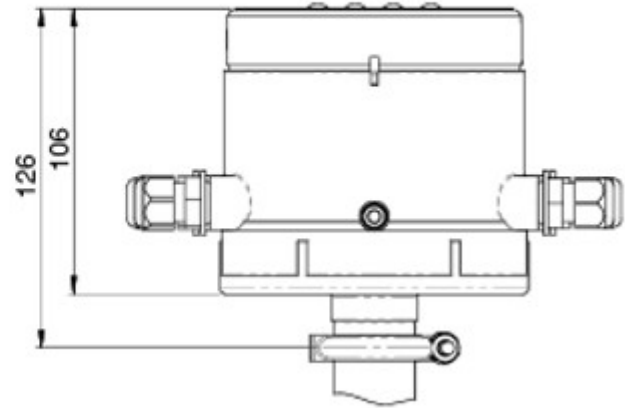
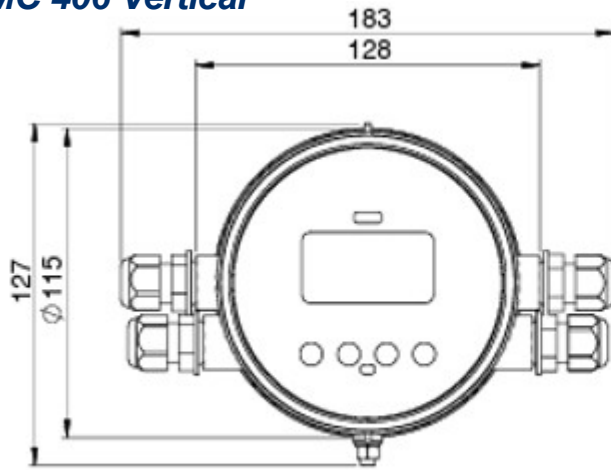
- Irrigation systems
- Water abstraction and distribution
- Revenue and bulk metering
- Wastewater and treatment systems
- Leak detection networks
- Remote flow measurement sites without power



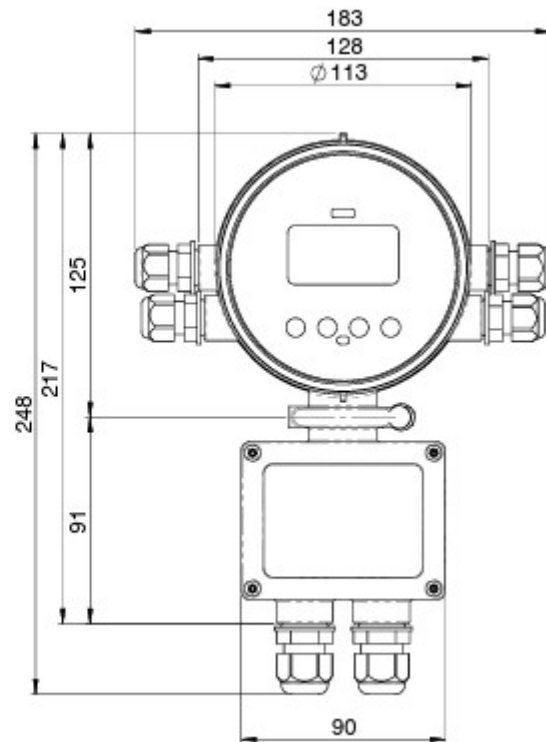
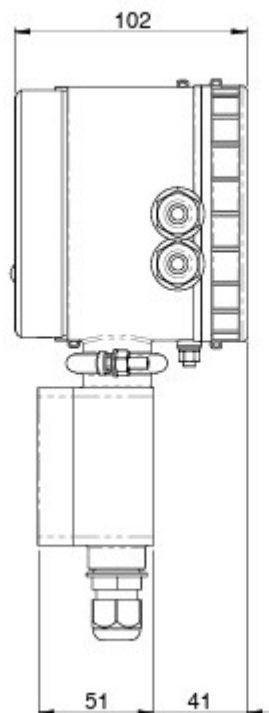
# MC 406 Electromagnetic Battery Powered Transmitter

## Dimensions (mm)

### MC 406 Vertical



### MC 406 Remote



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## Specification

| Parameter             | Specification                                                                                                                                                                                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transmitter type      | Battery powered - 2 x D Cell 3,6 V * - 12/24Vdc optional                                                                                                                                                                                                                                                        |
| Battery life          | Lithium battery pack 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)<br>Media: -25 ... 80 C° (-13 ... +176 F)<br>Storage: -40 ... +70 C° (-22 ... +158 F)                                                                                                                                                                                    |
| Enclosure             | Technopolymer case with aluminum bottom on compact vertical version. IP 68. Remote wall mount bracket in carbon steel zinc plated                                                                                                                                                                               |
| Cable entries         | 4X PG9 Glands I/O - 2X M20 x 1.5. Glands junction box in remote version                                                                                                                                                                                                                                         |
| Conformity            | EMC: EN 61010 - LVD: EN 61326 ; EN/IEC 60529 IP68                                                                                                                                                                                                                                                               |
| Sensor type           | Full bore up to 24" - 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 up to 30 m (98.4 ft)                                                                                                                                                                                                                             |
| Digital filters       | Damping - cut-off (0.05 m/s default) - bypass - peak cut                                                                                                                                                                                                                                                        |
| Displayed information | Live flow rate Total positive totalizer (T+)<br>Total negative totalizer (T-)<br>Partial positive totalizer (P+)<br>Partial negative totalizer (P-)<br>Net totalizer (NET)<br>Time & date Transmitter temperature<br>Process pressure and temperature (if available)<br>Parameters corresponding code and value |
| Flow units            | m, m3, l, ML, ft3, GAL                                                                                                                                                                                                                                                                                          |
| Outputs               | 2 pulse 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.                                                                                      |
| Communication         | Integrated IrComm interface.                                                                                                                                                                                                                                                                                    |
| Datalogging           | 100,000 lines of data with a frequency of log between 1 minute and 120 minutes (default 15 minutes)                                                                                                                                                                                                             |
| 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 diagnostics      | Alarms available: • excitation failure • empty pipe on the 4th electrode • empty pipe on the measuring electrodes • high temperature • high voltage supply • pulse overlapped • wet electronic board • low battery                                                                                              |

Model number – See respective flow sensor data bulletin for ordering information

*\*Lithium batteries are subject to special transportation regulations according to United Nations "Regulation of Dangerous Goods", 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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