



OMC-040 GPRS Data Logger

The OMC-040 GPRS data logger is a small, ultra low power logger with build-in GPRS modem and internal battery. It is very suitable for water level and water quality monitoring.

Internals

- Quad band GPRS modem.
- Temperature sensor.
- Power monitor.
- 2 GB micro SD card and a SIM card slot.
- 3.6 Volt Lithium battery that will last for years in most applications.

Sensors

- Seamless interface to all meteorological and hydrological sensor from Observator Instruments and many more.
- Supports all major standard interfaces and protocols like RS232, ModBus, NMEA and so on.
- Drivers are available for a large range of sensors.
- Other drivers will be created on request.
- Data from the sensors are stored on a micro SD card, before transmission.

Parameters & thresholds

Thresholds can be defined on all parameters. Whenever a parameter exceeds a threshold, an alarm is generated. This alarm can be send as a text message (SMS) to a mobile phone. The 'remaining battery capacity' is also measured as a parameter.

Data transfer

The measurement data stored on the SD card can be transmitted periodically by GPRS. The logger supports:

- FTP and TCP/IP.
- Email and text messages (SMS).
- USB to a PC.

Data transfer is done in a simple ASCII file format. The file format is open.

Housing

The unit is available in several housings and as 'board only'. The tube housing is perfectly suited for groundwater monitoring purposes. Because of its small size (40 mm diameter) the logger fits inside most wells. The aluminum housing with three cable glands allows for easy connection to multiple sensors.



The OMC-040 tube housing with a small GPRS antenna



The OMC-040 aluminum housing with three cable glands



OMC-040 main board (above) and connection board with bottom part (left)

OMC-040

GPRS Data Logger

Features

- Two RS-232 input ports
- One RS-485 Modbus port (shared with one RS232 port)
- One SDI-12 port (shared with one RS232 port)
- Two analog 4-20 mA and two analog 0-3.3 V inputs
- One digital input, can be used for pulse counting
- One switchable power output (12 Vdc) to power sensors
- Internal temperature sensor
- Internal quad-band GPRS/GSM modem
- Supports FTP, TCP/IP, email, SMS and USB
- Internal monitoring of the remaining battery capacity
- Programmable thresholds (low, low-low, high and high-high) on all parameters, including battery capacity
- Programmable input and output drivers
- Tube housing fits in a 2 inch well
- Internal battery

Options

Tube housing with internal battery:

- OMC-040 Cable gland (IP68)
- OMC-040-I INW connector (IP67)
- OMC-040-Y YSI MS-8 connector (IP67)
- OMC-040-H Hirschmann connector (IP67)

Aluminum housing

- OMC-040-ALU With three cable glands

PCB only:

- OMC-040-010 Main board and connection PCB

Environment

Temperature range (operating) : -30 to +70 °C

Temperature range (storage) : -40 to +85 °C

Dimensions

Main board : 190 x 27 mm

Connection PCB : 35 x 25 mm

Tube housing : Ø40 x 395 mm (plastic)

Aluminum housing : 220 x 120 x 90 mm (l x w x h)



SIM card installed on PCB, 2 GB Micro SD memory card is positioned under SIM card holder.



INW connector (IP67) installed on tube housing.



Standard cable gland (IP68) or Hirschmann (IP67) connector installed on tube housing.



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- OMC-042 GPRS logger with solar panel or display.
- OMC-045-III High performance GPRS data logger.
- OMC-DOL Software for data collection and processing.
- INW sensors For measuring pressure, temperature, conductivity and pH.
- NEP sensors For measuring turbidity.