



OMC-043 GPRS/3G Data Logger

The OMC-043 data logger is a small, rugged, ultra low power device. It is specifically designed for remote areas without mains power.

Internals

- Data logger with embedded GPRS/3G modem.
- Processor temperature sensor and power monitor.
- 4 GB micro SD card and a SIM card slot.
- 3.6 Volt Lithium battery or 8..30 Vdc external power, or 3xAA NiMH for integrated solar panel., depending on the model

Sensors inputs

- Seamless interface to all meteorological and hydrological sensors from Observator Instruments and many more.
- Supports all major standard interfaces and protocols like RS232, ModBus, SDI-12, NMEA and so on.
- Drivers are available for a large range of sensors. Other drivers will be created on request.

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. During an alarm condition, the logger can switch to a higher sample & transmit rate.

Internal calculations

Input signals can be converted to engineering units by a simple gain & offset correction. For example, 4-20 mA can be translated into 7 to 10 meters water level. Parameters can be averaged over a certain period or number of samples. Complex calculations involving multiple parameters and non-linear math formulae can also be performed.

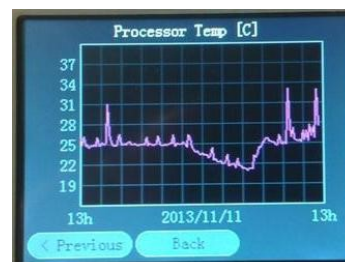
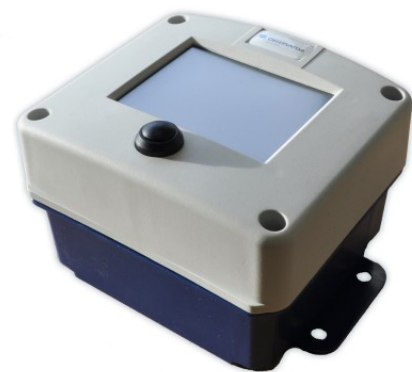
Data transfer & remote configuration

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

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



OMC-043-01 with integrated solar panel



OMC-043-02 with touch screen display

OMC-043

GPRS/3G Data Logger

- Remote configuration (TCP or dial-in).
- Support for satellite and radio modems.
- Several 'open' ASCII file formats.

Housing

The OMC-043 is available in three different housings. Each housing includes the logger, a battery holder, a GPRS/3G modem and an antenna. So only the sensors are external and everything else is inside. Optionally, an external antenna and an external power source can be used.

Features

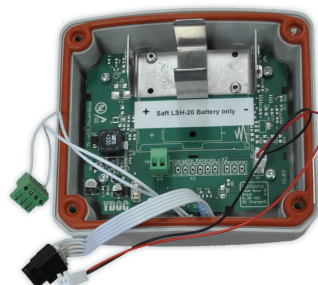
- Analog in: 2x 4..20mA, 2x 0-10V, 1 x potmeter ^{*1)}
 - Digital in: 3x switch or pulse counter inputs.
 - Serial: 1x RS-232 or RS-485/Modbus or SDI-12. ^{*1)}
 - Serial: 1x RS-232 accessory ^{*1)}
 - Current consumption at 3.6V: 65 mA active, 220 mA transmitting, <100 μ A sleeping.
 - 1x 12V@200mA switchable sensor power out.
 - Remote configuration possible using TCP or dial-in.
 - Integrated antenna. External antenna optional.
- ^{*1)} depending on the input configuration.

Environment

Temperature range (operating) : -30 to +70 °C
Temperature range (storage) : -40 to +85 °C

Dimensions

OMC-043 standard : 130 x 120 x 75 mm (l x w x h)
OMC-043-01 solar panel : 130 x 120 x 125 mm (l x w x h)
OMC-043-02 display : 130 x 120 x 90 mm (l x w x h)



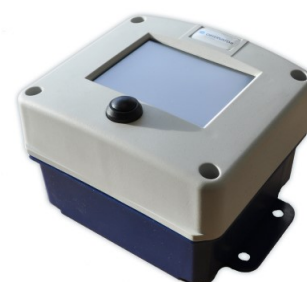
OMC-043
standard housing



OMC-043-01
Power board (below
solar panel)



OMC-043-01 solar



OMC-043-02 display

The logger is available with 3 different input configurations:

- Analog & digital inputs, no serial ports.
- Digital & one serial (RS232/485/SDI-12) inputs, no analog inputs.
- Analog, digital and two serial inputs. Required for the -02 (display) version.