



OMC-043-02 display



OMC-043 standard housing



OMC-043-01 with solar panel



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

Datasheet

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
- 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 mA 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)

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.



Welcome to the world of Observator

Solutions beyond expectations. That's what sets Observator apart. We believe in taking the extra step. Retaining our competitive edge, through innovation and uncompromised support, are key to success. As an ISO 9001:2015 certified company, we apply the highest quality standards to our products and systems.

Since 1924 Observator has evolved to be a trend-setting developer and supplier in a wide variety of industries. From instruments for meteorological and hydrological solutions, air and climate technology, to high precision mechanical production, window wipers and sunscreens for shipping and inland applications.

Solutions beyond expectations

Originating from the Netherlands, Observator has grown into an internationally oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

www.observator.com