

«M log Multitool Logger with GPS



II 2 G Ex d ib IIB T4 Gb

order-no.: 5415060

Multi-Parameter Measuring System – even for hazardous areas zone 1+2 (ATEX)

The Mlog is an economic multi-parameter measuring system, with a compact, lightweight yet rugged design (IP67) plus an integrated power supply (battery powered or fixed power supply). All measured parameters are logged at programmable intervals, stored for weeks and the data transmitted wirelessly on request.

The Mlog is the ideal partner for a wide range of applications, from stand-alone long-term monitoring (e.g. indirect dischargers) to mobile field measurements (e.g. water). Use for decentralized measuring points - even without an on-site power supply - portable measurements or in hazardous environments.



Multitool

- **Multifunctional** - designed for use in hazardous environments (ATEX zone 1 and 2)
e.g. sewage drains
- **Multi-parameter measuring system** with 2 x digital sensors and / or 1x 4-20 mA sensor, combined
- **Multi-tool logger with GPS**, mobile and decentralized - measure and record over weeks (130.000 data sets)
- **Multi-communications** with RS232, Bluetooth and GSM/GPRS (optional)

Powerful

- **Autonomous long-term in-situ monitoring** with battery power, independent of location
- **Rugged, compact, IP67 and ATEX certified**
- **Integrated measurement and status OLED-Display**, for local control in stationary or mobile applications.
- **Easily adjustable** with enclosed Mlog Manager Software (wireless via Bluetooth during operation)
- **Field-replaceable sensors** (also in zone 1+2 (ATEX))

Reliable Sensors

The well used and proven digital Mlog ISM[®] sensors from Mettler-Toledo are easy to handle, reliable and low maintenance, thanks to the intelligent state indicator.

(pH, ORP, conductivity, O₂, temperature)

You can connect an analog measuring instrument via the 4-20 mA input.

(Radar, ultrasonic, capacitive, pressure (level), flow rate)

The Mlog helps you to a **significant reduction in total operating costs.**

Integrated GPS

By means of the integrated GPS, it is possible to log your current position at the beginning of a measurement campaign. In-situ, a **small OLED-display** gives data on all important measurements.

Wireless Communication

The use of an integrated Bluetooth interface permits downloading of all data sets from the Mlog unit to a PC and the parameters of the Mlog. Additionally it is possible to represent any values graphically or to export them into a csv-file.. Everything you need is the enclosed Mlog Manager Software.

The optional M-GSM module realizes global data retrieval through existing telecommunications networks.

Moreover, through the wireless Bluetooth data transfer, the measurements can be entered into the ORIwell ground-water database.

Technical Data: Mlog

ATEX	Mlog	II 2G Ex d ib IIB T4 Gb
Enclosure Rating	Total	IP 67
Temperature	Battery Operation	-10 °C .. + 40 °C
	Storage (without battery)	-20 °C .. + 60 °C
Dimension (ØXH);weight	45 mm / 390 mm (1,8 in / 15,4 in); 2,1 kg (<i>without sensors</i>)	
humidity	5 – 95 %	
Electrical data	Battery pack	nominal voltage 2,4 V DC capacity 9 Ah
	Operating voltage	2,3 V DC – 2,8 V DC
	Stand-by consumption	250 µA @ 2,4 V DC
Wireless communication	Bluetooth	
	Specification	2.0
	VF-Power	7 dBm (<i>with internal antenna</i>)
	Range	25 m (<i>with a clear field of view</i>)
	GSM/GPRS (optional with M-GSM)	
Internal data memory	8 MB	
Intrinsically Safe Sensor Connections	Digital ISM-1wire-Bus (<i>max. length 10 m</i>)	
	2 x ISM [®]	U _o 6,6 V; I _o 28 mA; L _o 100mH
	1 x 4-20 mA	U _o 15,8 V; I _o 48 mA; L _o 50 mH
	12bit AD converter, 3 decimal places	
	1 x RS232	U _i ±16 V; C _i ±24 mA; L _i 5 µH U _o ±9,4 V; I _o ±14 mA; L _o 350 mH
ISM [®] Sensor-measurement range	Measuring ranges depend on the selected ISM [®] Sensor	
	pH	0-14 pH; 0-16 bar at 25°C; -5°C...+130°C;
	ORP	-1500 +1500 mV; 0-16 bar at 25°C; -5°C...+130°C
	Lf	0,02-500 mS/cm; 0-20 bar at 135°C; -10°C...+150°C
	O ₂	0,03 Vol % - % O ₂ (300ppm Gas); 0,2-9 bar; 0..80°C
Physical interface	1 x 7-pin. socket (<i>ISM / analog / RS232</i>)	Intrinsically Safe
	1 x RS232	Intrinsically Safe

