



Mlog Z1 – Order-No.: 5415060  
II 2G Ex d [ib] IIB T4 Gb

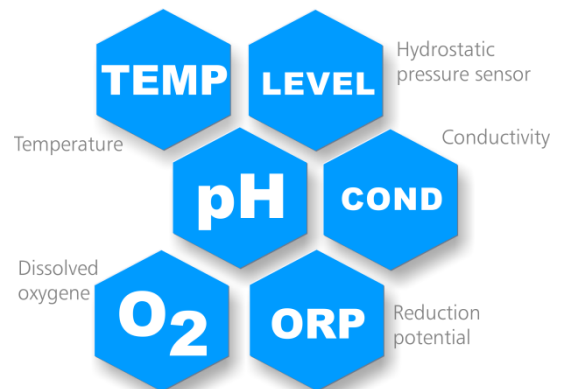
Mlog Z2 – Order-No.: 5415059  
II 3G Ex ec ic IIB T4 Gc

## Mlog Z2 – Multiparameter datalogger for long term application inside ATEX Zone 2

The Mlog is a mobile and economical multi-parameter measuring system in a robust design (IP67). All measured parameters can be logged at freely definable intervals and transmitted wirelessly on request. The Mlog is designed for long-term applications in Ex zone 1/2. The Mlog Z1 is self-sufficiently supplied for weeks by a NiMH battery, the Mlog Z2 by an approved primary lithium battery of type L1X2-7.2V for years. The sensors connected to the data logger can be placed in areas of Ex zone 0/1.

The Mlog Z2 is the ideal partner for a wide range of applications, from stand-alone long-term monitoring (e.g. indirect dischargers, storm water tank with overflow, ground water wells) to mobile field measurements. Ideal use for decentralized measuring points - even without an on-site power supply – can also be used as portable measurements in hazardous environments.

### DIGITAL sensor recognition 3 Parameter (+ secondary quantity)



### Powerful



- **Energy self-sufficient** for a long time (in conjunction with a digital sensor and with a daily data transmission via modem), regardless of location
- **Rugged, compact**, IP67 and **ATEX certified**
- **Integrated measurement and status OLED-Display**, for local control in mobile applications.
- **Easily adjustable** with enclosed Mlog Manager Software (wireless via Bluetooth during operation)
- **Digital sensor recognition**
- **Communicative**: expandable with optional GSM/GRPS modem



## Reliable Sensors used for Zone 1 (ISM in Zone 0)

Two digital sensors can be connected to the Mlog. In addition to the digital pressure / temperature sensors, the well proven Mettler-Toledo digital ISM® sensors can also be connected, they are simple, reliable and low-maintenance thanks to their intelligent state management.

**(pH, ORP, conductivity, O<sub>2</sub>, temperature.**

Using the integrated 4-20 mA input, the sensor system can be expanded by adding analogue measuring devices.

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

All sensors are exchangeable on site. Mlog significantly helps **reduce total operating costs.**

## Integrated GPS

Using the integrated GPS the exact local position can also be logged along with the sensor data.

The small built-in **OLED-display** can show all the important measurement data.

## Wireless Communication

The integrated Bluetooth interface enable all stored data and parameters to be downloaded to a PC.

The supplied Mlog Manager Software can also display the data as a graph and export it to a csv file.

The optional MgsM module facilitates global data retrieval using existing telecommunication networks via SMS / email / and Mcloud.

## Technical data: Mlog Z1 and Mlog Z2

ATEX	Mlog Z1 Mlog Z2	II 2G Ex d ib IIB T4 Gb II 3G Ex ec ic IIB T4 Gc
Enclosure Rating	Total	IP 67
Temperature	Operating temperature Storage (without battery)	-10 °C .. + 40 °C -20 °C .. + 40 °C
Dimension (ØXH);weightG	45 mm / 390 mm (1,8 in / 15,4 in, Mlog Z1 – 2,1 kg with battery pack and without sensors Mlog Z2 – 1,27 kg with battery pack and without sensors	
humidity	5 – 95 %	
Electrical data	<b>Mlog Z1 – battery pack</b> NiMh -Type L1X2-2.4V (2xSAFT cells 1.2V) – rechargeable 2.4 V DC – capacity: 13 Ah Battery cabinet <b>stainless steel</b>	
	<b>Mlog Z2 – Batterie Pack</b> LiSoCl <sub>2</sub> – Type L1X2-7.2V (2xSAFT cells 3.6 V) – primary cell 7.2 V DC – Capacity 13 Ah Battery cabinet <b>Al/Mg</b>	
	<b>Operation voltage:</b> – Output (U <sub>ism</sub> ) for ISM 5 V @ 10mA (ISM sensors) – Output U <sub>out</sub> modem 3.8 V @ 500 mA (Mgsm modem) – Output (4-20mA) >12 V @ 20mA; >15 V @ 0 mA Stand-by consumption with ISM sensors 140 µA @ 7.2 V DC (sleep load) 750µA @ 7.2 V DC (ISM)	
Wireless communication	Bluetooth Specification	2.0
	VF-Power Range	7 dBm (with internal antenna) 25 m (with a clear field of view)
Internal data memory	<b>GSM/GPRS</b> (optional with Mgsm modem from ORI)	
	8 MB	
Intrinsically Safe Sensor Connections [ib]	Digital ISM-1wire-Bus (max. Länge 10 m)	
	2 x ISM®	U <sub>o</sub> 6,6 V; I <sub>o</sub> 28 mA; Lo 100mH
	1 x 4-20 mA	U <sub>o</sub> 15,8 V; I <sub>o</sub> 48 mA; Lo 50 mH
	12bit AD Wandler, 3 Dezimalstelle.	
	1 x RS232	U <sub>i</sub> ±16 V; I <sub>i</sub> ±24 mA; L <sub>i</sub> 5 µH U <sub>o</sub> ±9,4 V; I <sub>o</sub> ±14 mA; L <sub>o</sub> 350 mH

