

The zLogg z1Mu is an extremely accurate and low cost multi-use data logger for temperature, with 5X LED — blue for low alarms, green for no alarm and red for high alarms, visual indication of the current status (recording, stopped, battery level). The battery (non-replaceable) has a shelf life of 1 to 2 years for regular usage. When not in use, the logger is automatically placed in sleep mode to save the battery.



Once plugged into the USB port, the logger works like a USB stick that holds the automatically generated ZLG, TXT, CSV and PDF files. No zLogg software needed.

Where other suppliers choose to accompany their loggers with a basic manufacturers certificate, mentioning specifications based on theoretical calculations and prefabrication tests, every zLogg z1 will be individually calibrated before it leaves our lab. Its unique, traceable calibration certificate can be found 'in the cloud' by clicking a link on the PDF generated by the logger.

## HIGHLIGHTS

- Extremely accurate over its whole measuring range
- Ultra-fine resolution of 0.01°C.
- On line calibration certificate direct from link in PDF
- Auto-generated PDF build in
- Customizable PDF reports
- Auto-generated CSV and TXT reports
- 5 x Leds for alarms, status and battery indication
- Large memory (>13.000 records)
- Mark Readings
- Multi configurable, visual alarms
- Supports Windows/MacOSX/Linux
- Upgrade firmware with USB connection
- Free zLoggManager Software



### CALIBRATION CERTIFICATE

Brand zLogg ([www.z-logg.com](http://www.z-logg.com))  
Model z1LLcMu  
Serial no. ZM660072  
Performed by zLogg LLC  
Date of calibration 22-12-2016  
Valid til 22-12-2017

	Before adjustment		
Offered T	-28.19	19.92	58.68
Reading T	-27.97	20.12	58.21
Deviation	-0.22	-0.20	-0.47

#### Declaration calibration procedure zLogg loggers for temperature and/or relative humidity

zLogg LLC calibrates zLogg loggers for temperature and/or relative humidity. After called the logger(s), according to the following procedure:

#### Humidity:

The technical calibration is performed in a room with a relative humidity level between 50% and 65%. In this room the loggers can stabilize for a period of at least four hours. After this period, the loggers are calibrated in a temperature and humidity controlled climate chamber (type: H100) for the required stabilization the humidity level is read with the aid of a Dostmann PHS5, with serial number 6550280119 and compared to all sensors. Then the loggers are adjusted to meet the maximum deviation according to the manufacturers specifications of the concerned logger. The adjustment of the reading humidity level of each logger is being calculated through a computer and software at three checkpoints and is re-uploaded to the logger. The first checkpoint is performed at 55% RH and the second at 50% RH and the third at 78% at 20°C, each with a stabilization period of at least 90 minutes. The readings of the humidity levels are checked and adjusted if needed.

#### Temperature:

Calibration of the temperature sensors is done at six temperature check points (e.g. at -38°C, 20°C, 0°C, 40°C and 60°C). The required temperature is reached in a Tenney Junior Environmental Test Chamber. The climate chamber is fitted with a Dostmann PHS5 Thermometer with serial number 6550280115 equipped with a PT100 temperature sensor. The uncertainty is 0.015°C. After a minimal stabilization period of 90 minutes the temperature is read where possible as an average of the loggers last 10 samples. The applicable RVA traceability certificates of the used reference equipment (according to the calibration date) can be downloaded [here](#). It is recommended to calibrate your multi trip recorders once a year.

zLogg LLC

  
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**SPECIFICATIONS**

Order code	z1Mu
Logger type	Multi-use Temperature Data Logger
Sensor	Thermistor (Internal)
Memory	>13,000 records
Operating temperature	-40 °C ~ +80 °C (-40°F ~ +176°F)
Temperature measuring range	-40 °C ~ +80 °C (-40°F ~ +176°F)
Temperature accuracy	±0.3°C over the complete measuring range
Temperature resolution	0.01°C
Time accuracy	±15 minutes / year
Buttons	2, Start & Stop
Start options	Manual start with or without delay Auto Start on date and time Auto Start on set temperature with or without delay
Stop options	Auto Stop after a set period Auto Stop on date and time Manual Stop
Marked readings	8x
Log interval	1 second to 24 Hours
Alarms	4, total and/or consecutive
Sensor response time	Better than 7 minutes (T90) in moving air.
Battery	Not replaceable
Battery life	1 to 2 years for a normal usage
Display	5 x LEDs blue, green, red
Connection/Interface	Direct to computer/USB Mass Storage Device
Auto generated files	ZLG, TXT, CSV, PDF (in all supported languages)
Export file types	ZLG, TXT, CSV, PDF
Software Support	zLoggManager
Compatibility	Windows, Mac OS X, Linux
Calibration	Individual calibration certificate per logger
Certificates	CE, RoHS
Dimensions	78 x 48 x 9mm
Weight	16g
Housing	ABS
Protection class	IP30
Security	Password protection
Warranty	1 year

**Start, Stop & LED:**

- **Ready:** Green led blink every 8sec.
- **Record:** led blink twice every 4sec.
- **Battery:** press and hold both buttons. Green= High  
Red = Medium  
Blue = Low
- **Start:** Press and hold green button.
- **Stop:** Press and hold red button.





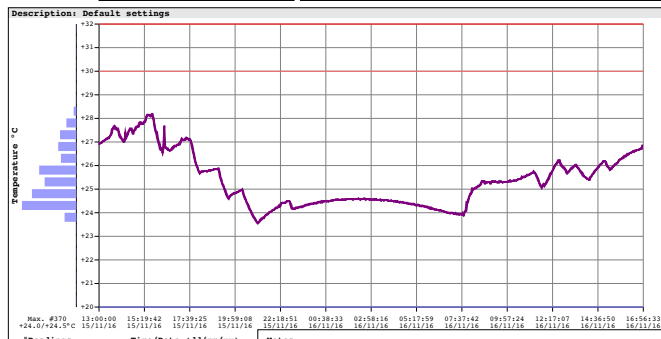
**z-Logg.com**

Specification & Configuration	Alarms (Time above / below Alarms)																				
<b>Device Name:</b> z1Mu008 <b>Device Type:</b> Multi-use Int. Temp. <b>Serial Number:</b> 1M640018 <b>Time Zone:</b> GMT+5 <b>Firmware Version:</b> 1.21D <b>Software Version:</b> 1.04.70 Admin <b>Trip Number:</b> 50 <b>Trip Description:</b> Multiple <b>Temp. Unit:</b> Celsius <b>Temp. Range:</b> -40 to +80°C <b>Accuracy:</b> ±0.05 - 0.08 <b>Total Records:</b> 3354 <b>Sampling Rate:</b> 0.01/1.00 <b>Start Delay:</b> 0 sec <b>Start Time:</b> 15/11/16 13:00 <b>Stop Time:</b> Parameters not set	<table border="1"> <thead> <tr> <th>Type</th> <th>Temp.</th> <th>Consecutive</th> <th>Total</th> <th>Out of Spec.</th> </tr> </thead> <tbody> <tr> <td>Hi</td> <td>+25.00°C</td> <td>00:00:00</td> <td>00:01:00</td> <td>00:00:00</td> </tr> <tr> <td>Lo</td> <td>+25.00°C</td> <td>00:00:00</td> <td>00:01:00</td> <td>00:00:00</td> </tr> <tr> <td>Hi</td> <td>+18.00°C</td> <td>00:00:00</td> <td>00:01:00</td> <td>00:00:00</td> </tr> </tbody> </table>	Type	Temp.	Consecutive	Total	Out of Spec.	Hi	+25.00°C	00:00:00	00:01:00	00:00:00	Lo	+25.00°C	00:00:00	00:01:00	00:00:00	Hi	+18.00°C	00:00:00	00:01:00	00:00:00
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Summary / Statistics	File Created at: 16/11/16 18:47:27
<b>Maximum Temperature:</b> +28.22°C <b>Minimum Temperature:</b> +23.56°C <b>Average Temperature:</b> +22.39°C <b>Mean Kinetic Temp:</b> +25.38°C <b>Sampling Rate:</b> 0 <b>Started by:</b> <b>Stopped by:</b>	<b>Start:</b> Recording <b>Trip Duration:</b> 0:18:35:00 <b>Time within Spec:</b> 0:18:35:00 <b>Started Time:</b> 15/11/16 13:00:00 <b>Stopped Time:</b> 16/11/16 12:56:33 <b>Memory Used:</b> 78.3354/45587 <b>File Created by:</b> zLogg Manager

**Description:** Default settings



**Readings**      **Time/Date (dd/mm/yy)**      **Notes:**

Max. #270	13:00:00	15:33:42	17:29:25	18:59:08	20:18:51	00:38:33	02:58:16	05:17:59	07:37:42	09:57:24	12:17:07	14:36:50	16:56:33
+24.50/+24.50°C	15/11/16	15/11/16	15/11/16	15/11/16	15/11/16	16/11/16	16/11/16	16/11/16	16/11/16	16/11/16	16/11/16	16/11/16	16/11/16

This Z1Mu008 with an accuracy of ±0.3°C from -40°C to +80°C (±0.5°F from -40°F to +176°F) and an resolution of 0.01°C (°F) has been calibrated in the calibration chamber of zLogg.  
The reference equipment used is traceable to National Institute of Standards and Technology. Devia-#18060033