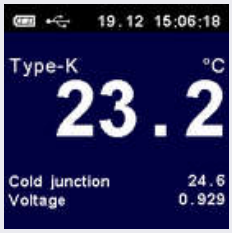
Excelog One

Thermocouple Data Logger and Simulator

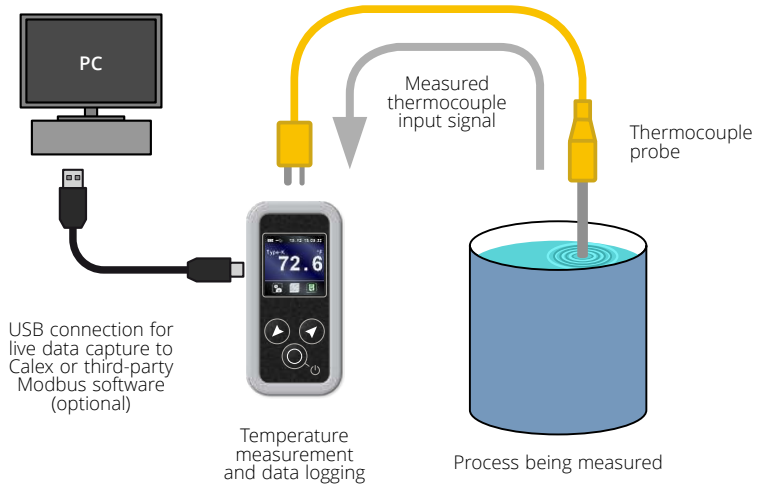


- Dual-function thermocouple data logger and thermocouple voltage output simulator
- Log data to built-in memory
- Simulate a thermocouple voltage for a chosen temperature
- Single channel, configurable for measurement input or thermocouple voltage output
- Free software for configuration and data acquisition
- Built-in USB-rechargeable battery
- Backlit colour display
- Select °C or °F
- Modbus interface for integration into third-party software
- CE Marked and RoHS 2 Compliant

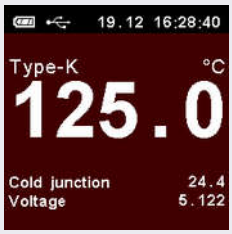
MEASURE MODE



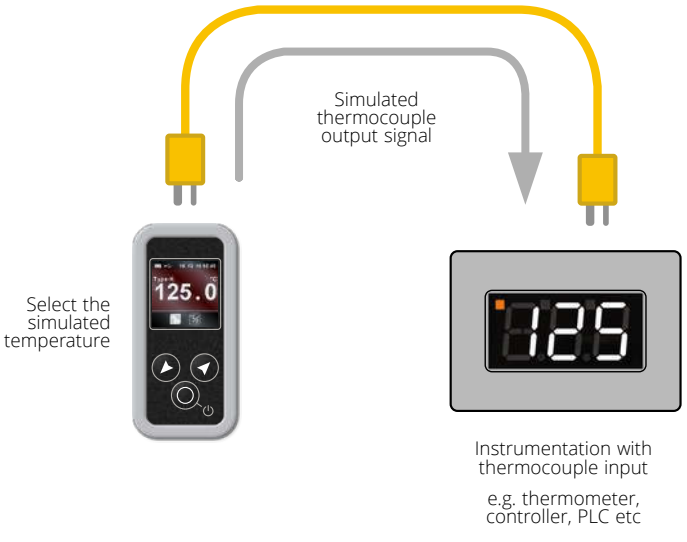
- Connect a thermocouple probe to the Excelog One
- Select the thermocouple type in the menu (Type J, K, T, R, S, N, E)
- Log data to internal memory
- Connect via USB to log data live to a PC
- Transfer data from the Excelog to the PC via the USB connection and software



SIMULATE MODE



- Simulate the output of a thermocouple. Use this to check the functionality and calibration of your instrumentation
- Select the thermocouple type in the menu (Type J, K, T, R, S, N, E)
- Connect the Excelog to your instrumentation via a cable and connectors of the matching thermocouple type
- Set the output temperature via the up & down keys



INTUITIVE INTERFACE

Actual size





Push buttons:

Change output temperature (in Simulate mode)

Change menu items

Settings

Start / stop logging

Display the menu

Long press: Power off

GENERAL SPECIFICATIONS

Input	1 x thermocouple input (any of the below types), for use with miniature thermocouple connectors
Output	1 x simulated thermocouple voltage output (any of the below types)
Temperature Range	Depending on mode and thermocouple type:

Thermocouple Type	**Temperature Range**	
	Input (Measured)	**Output (Simulated)**
Type J	-200°C to 1200°C	-50°C to 1200°C
Type K	-200°C to 1372°C	-50°C to 1372°C
Type T	-200°C to 400°C	-50°C to 400°C
Type R	0°C to 1768°C	300°C to 1768°C
Type S	0°C to 1768°C	300°C to 1768°C
Type N	0°C to 1300°C	200°C to 1300°C
Type E	-200°C to 1000°C	-50°C to 1000°C

Input Accuracy (Measured)	± 0.1% or 0.8°C, whichever is greater	
Output Accuracy (Simulated)	At 23°C ± 5°C: At 0°C to 50°C:	± 0.1% or 0.8°C, whichever is greater ± 0.25% or 0.8°C, whichever is greater
Temperature Resolution	0.1° for temperatures below 1000° (C or F) 1° for temperatures above 1000° (C or F)	
Display	27 x 27 mm colour LCD, backlit	
Configurable Parameters	Temperature units, mode (measure/simulate), thermocouple type, cold junction settings, signal processing, date and time, data logging, power options, languages	
Display Language	English, Spanish, French, German, Italian, Chinese (simplified), Japanese	
Temperature Units	°F or °C	
Display response time	Temperatures update every 1 s	
Operating Temperature	0 to 50°C	
Power Supply	Built-in rechargeable Li-ion battery, or USB (cable included)	
Battery Life	Logging mode: Simulation mode:	35 hours (power save enabled) 10 hours with full brightness (typical) 32 hours (power save enabled)
Charge Time	3.5 hours	
Weight	60 g	
Dimensions	78(h) x 38(w) x 15(d) mm	

SETTINGS AND FEATURES

- Easy configuration via intuitive menu
- English, Spanish, French, German, Italian, Chinese and Japanese languages
- Measure / simulate mode
- Thermocouple type
- Internal/external cold junction
- Data logging interval, number of samples to log, schedule
- Screen saver timeout
- Firmware updates via USB
- Fully configurable via built-in controls; no additional hardware required





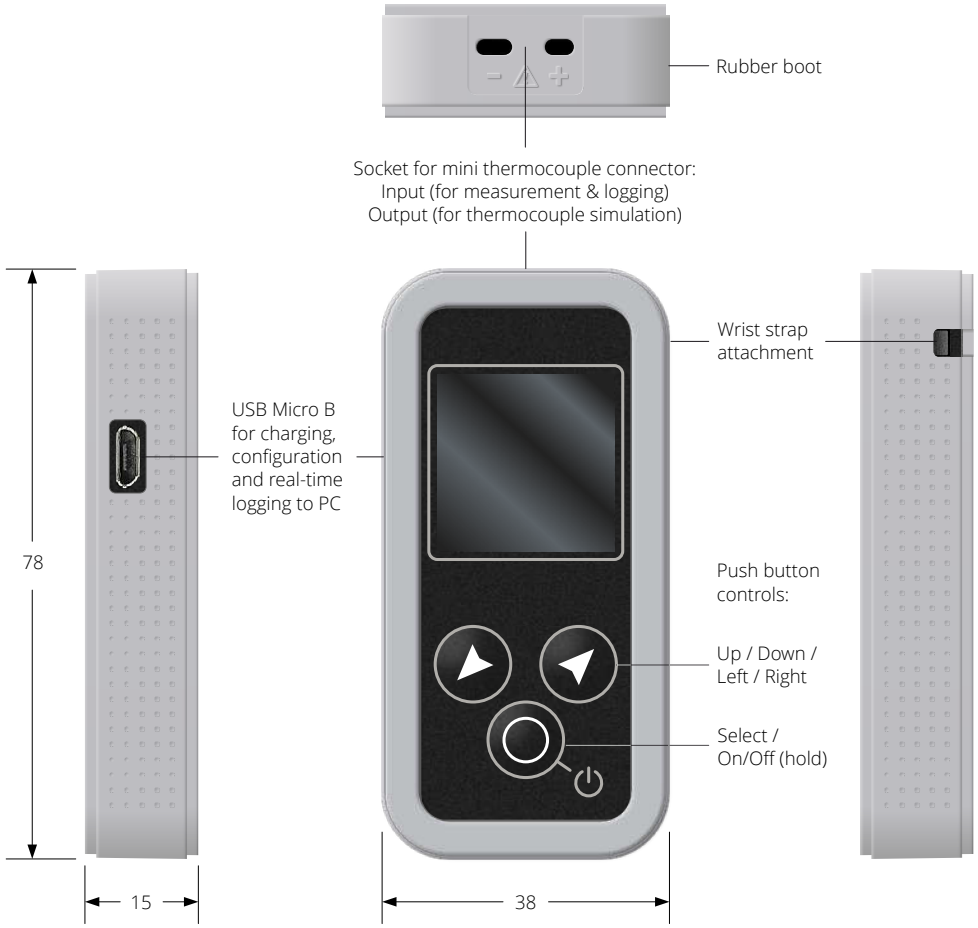


DATA LOGGING SPECIFICATIONS

Logging Interval	1 to 86,400 seconds (1 day)
Data Capacity	1.5 MB (2 days, logging every second)
Variables Logged	Measured temperature, cold junction temperature, voltage
File Format	.csv (can be imported to Excel)
Configurable Parameters	Sample period, number of samples, scheduled start date/time (or manual start/stop)

DIMENSIONS & CONNECTIONS

Actual size



MODEL NUMBERS

EXCELOG-ONE	Data logger and thermocouple simulator with USB cable

ACCESSORIES

EL1-MAU	Spare international mains adapter
EL1-CALCERTA	Calibration certificate, UKAS traceable

SOFTWARE

EXCELOG

- Temperature display
- Logging of live temperature data direct to PC
- File format: Comma-separated text file (compatible with Excel)
- Scrolling temperature chart
- Configuration of Excelog One settings
- Free download at www.calex.co.uk/software

OTHER Also compatible with third-party Modbus software

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Issue A - Jan 2025
Specifications subject to change without notice