HCAL2 Multi-Function Temperature Calibrator / Data Logger

The HCAL2 Multi-Function Temperature Calibrator is a high-precision, hand-held calibrator for the calibration and troubleshooting of process control instrumentation. It simultaneously measures and sources ten types of thermocouples and seven resistance temperature detectors (RTD), whilst automatically capturing the calibration results. It measures milliamps whilst sourcing or simulating millivolts, thermocouples, RTDs or ohms to calibrate transmitters.

The logging facility stores data on the 2GB SD card supplied, which is easily downloaded to a PC via the onboard USB port and usable in most of the common spreadsheet formats. The trend feature is ideal for graphing temperature profiles and PID controller optimisation with a programmable timebase. In addition, the unit has the functionality necessary to install and maintain all powered and non-powered transducers using the built-in 24V loop power supply.

Its user friendly, compact size and high precision make the HCAL2 an ideal choice for industrial field or workshop calibration. Supplied with carry case, protective rubber boot, battery, charger, test leads, CJ compensation box and 2GB SD card.

Features

- Measure, source or simulate 0 to 24 mA
- Measure and source -10 to 100 mV
- Measure and source 0 to 400.00 Ω and 0 to 2200.0 Ω
- Measure and source types K, J, T, N, E, R, S, B, U and L thermocouples with configurable internal, external or manual cold-junction compensation in either °C, °F, Kelvin or Rankine
- Measure and source Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100 and Ni120 type RTD sensors
- Continuity test function
- Increment, step, ramp or valve stroking with built-in 24V power supply for mA loops
- Datalogging facility via SD card which is downloadable using the USB port
- Trend logging feature with programmable timebase of all measured values
- Carry case, protective rubber boot, Li-ion battery, charger, test leads, CJ Compensation box and 2GB SD card supplied as standard
- 1 year manufacturer's guarantee against faulty material/workmanship (batteries excluded)
- Supplied with manufacturer's test certificate (calibration certificates can also be supplied)

Included Accessories

- Red/black safety test leads
- Li-ion battery pack, mains charger
- CJ compensation box, 2GB SD card
- Protective rubber boot
- Plastic storage case with foam compartments

	Analogue Input Ranges	Impedance	Accuracy	Resolution
Measuring	0 to 24mA	Input impedance ± 17Ω	0.02%FS	1µA
	-10 to 100mV	Input impedance > 1MΩ	0.01%FS	1µV
	Thermocouple Types: K, J, T, N, E, U, L	Input impedance > 1MΩ	0.1%FS *	0.1°C
	Thermocouple Types: R, S, B		1%FS	0.1°C
	0 to 400.00 Ω		0.05%FS	0.01Ω
	0 to 2200.0 Ω		0.05%FS	0.1Ω
	RTD Types: Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120		0.1%FS	0.01°C
	Measurement of Ohms and RTD in 2, 3 or 4-wire configuration			
	Continuity with a 100Ω trigger. Visual and audible confirmation			

	Analogue Output Ranges	Max Load	Accuracy	Resolution
Sourcing	0 to 24mA	Output load max 500Ω	0.02%FS	1µA
	-10 to 100mV	Min. load 100Ω	0.01%FS	1µV
	Thermocouple Types: K, J, T, N, E, U, L		0.1%FS *	0.1°C
	Thermocouple Types: R, S, B		1%FS	0.1°C
	1 to 400.00 Ω	10 - 400Ω	0.05%FS	0.01Ω
	1 to 2200.0 Ω	10 - 2k2Ω	0.05%FS	0.1Ω
	RTD Types: Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120		0.1%FS	0.01°C

Isolation	The mV/Thermocouple/Ohms/RTD output from the HCAL2 is isolated to a maximum rating of 100VDC from mA measure/source

* Using Thermocouple Extender and CJ Temp set to External

order code	HCAL2

HCAL1 Multi-Function mA Loop Calibrator / Data Logger

The HCAL1 mA Loop Calibrator is a high-precision, multi-function, hand-held calibrator designed for the process control industry.

- Measure, source or simulate 0 to 24 mA
- Measure 0 to 32 Vdc
- Continuity test function
- Increment, step, auto step or ramp with built-in 24V power supply for mA loops
- Displays values in mA and % or % and mA