

Call our friendly team on +44 (0)1243 558270

Tempcon Instrumentation Ford Lane Business Park Ford West Sussex BN18 OUZ, UK www.tempcon.co.uk



Tempcon Concrete Temperature Monitoring Kit

Product Images













Short Description

This concrete temperature sensors kit comprises a HOBO UX120-014M 4-Channel thermocouple data Logger, protective enclosure and 4 x Type K thermocouples (2 metres in length each). As such it is perfect for monitoring and logging the temperature of concrete at various depths and locations whilst it cures. The data logger contains onboard ambient temperature measurement in addition to the 4 thermocouple channels. The thermocouples are manufactured by Tempcon in-house and ensure a fast accurate response time.

Description

Using HOBOware, you can easily configure the logger alarm to trip for specific high or low concrete temperatures. Or, you can set up burst logging in which the logger records data at a different interval during certain conditions.

Key Features of the Concrete Temperature Monitoring Kit

- 4 thermocouple inputs for type J, K, T, E, R, S, B, or N thermocouple probes (we supply 4 x Type K Free of Charge!)
- Internal thermistor for ambient temperature & cold junction compensation
- 22 bit resolution
- Logger operating range: -20° to +70°C (the thermocouple probes' working range is dependent on the type and material used)
- Memory: 1.9 million measurements
- LCD refreshes every 15 seconds
- Visual high & low temperature alarm thresholds
- User upgradable firmware
- 4 X 2 metre Type K thermocouples
- Free software
- Free USB cable
- CASE-4X-2 (NEMA 4X designation, designed to offer a weather-resistant enclosure in a wet, dusty, or condensing environments for short deployments where additional protection is needed).

Additional Information

Specifications Thermocouple

Туре	e Range	Accuracy	Resolution
J	-210° to 760°C (-346° to 1,400°F)	± 0.6 °C (± 1.08 °F) \pm thermocouple probe accuracy	0.03°C (0.06°F)
K	-260° to 1,370°C (-436° to 2,498°F)	±0.7°C (±1.26°F) ± thermocouple probe accuracy	0.04°C (0.07°F)
Т	-260° to 400°C (-436° to 752°F)	± 0.6 °C (± 1.08 °F) \pm thermocouple probe accuracy	0.02°C (0.03°F)
Е	-260° to 950°C (-436° to 1,742°F)	$\pm 0.6^{\circ}\text{C}$ ($\pm 1.08^{\circ}\text{F}$) \pm thermocouple probe accuracy	0.03°C at (0.05°F)
R	-50° to 1,550°C (-58° to 2,822°F)	±2.2°C (±3.96°F) ± thermocouple probe accuracy	0.08°C (0.15°F)
S	-50° to 1,720°C (-58° to 3,128°F)	±2.2°C (±3.96°F) ± thermocouple probe accuracy	0.08°C (0.15°F)
В	550° to 1,820°C (1,022° to 3,308°F)	$\pm 2.5^{\circ}$ C ($\pm 4.5^{\circ}$ F) \pm thermocouple probe accuracy	0.1°C (0.18F)
Ν	-260° to 1,300°C (-436° to 2,372°F)	±1.0°C (±1.8°F) ± thermocouple probe accuracy	0.06°C (0.11°F)

Internal 10K Thermistor (Temperature):

Explanation

HOBO Product Series

Range: Logging: -20° to 70°C (-4° to 158°F)

Acuracy: ±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F), see Plot A

Resolution: 0.024°C at 25°C (0.04°F at 77°F); see Plot A

Drift: <0.1°C (0.18°F) per year

Logger

Logging rate: 1 second to 18 hours, 12 minutes, 15 seconds Logging modes: Normal, Burst or Statistics

Memory modes: Wrap when Full or Stop when Full Start modes: Homeone when Full or Stop when Full Start modes: Homeone when Full or Stop when Full Stop modes: When Memory Full, Push Button, or Date & Time Restart mode: Push Button

Time accuracy: ±1 minute per month at 25°C (77°F), see Plot B

Time accuracy: ±1 minute per month at 25°C (77°F), see Plot B

Battery life: 1 year, typical with logging rate of 1 minute and sampling interval of 15 seconds or greater

Battery type: Two AAA 1.5V alkaline batteries, user replaceable

Memory: 4 MB (1.6 million measurements, maximum)

Download type: USB 2.0 interface

Full memory download time: Approximately 1.5 minutes

LCD: LCD is visible from: 0° to 50°C (32° to 122°F); the LCD may react slowly or go blank in temperatures outside this range

Size: 10.8 x 5.41 x 2.54 cm (4.25 x 2.13 x 1 in.)

Weightin 07.5 g (3.79 oz)

Environmental rating: IP50

IN1210

UX120

Typical applications Cement Curing

Measurements Temperature

Product Options

4-Channel Thermocouple data logger



HOBO UX120-014M 4-Channel Thermocouple Data Logger

The HOBO 4-Channel Thermocouple data logger records temperature in indoor environments using up to four J, K, T, E, R, S, B, or N type thermocouple sensors fitted with mini plugs (sold separately).

Protective Enclosure



CASE-4X-2 Protective Enclosure

The CASE-4X-2 has a NEMA 4X designation and is designed to offer a weather-resistant enclosure for either the HOBO UX120-014M or UX100-014M when used in a wet, dusty, or condensing environments for short deployments where additional protection is needed.

USB Cable



USB Cable for Data Logger to PC Communications CABLE-USBMB

USB cable for connecting to HOBO U Series data loggers, among others.

Additional Options

Additional Thermocouple Temperature Probes	1.2 Metre Type K Exposed Junction
	2 Metre Type K Exposed Junction
	5 Metre Type K Exposed Junction
	6 Metre Type K Exposed Junction
	7 Metre Type K Exposed Junction
	10 Metre Type K Exposed Junction
Temperature Calibration Certificate	2 Point Temperature Calibration (0°C / 60°C)
	2 Point Temperature Calibration (please specify temperature points)
	1 Point Temperature Calibration (0°C)