

X SERIES

4, 8, 12 and 16-Channel Thermocouple Data Logger



- Up to 4 Hz Reading Rate
- Open Channel Detection
- Configurable Channel Names
- Accepts Thermocouple Types J, K, T, E, R, S, B, N
- External Power or User Replaceable Battery
- Pushbutton or Programmable Start
- NIST Traceable Calibration Certificate Included
- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

The new OM-CP-TCTempX Series consists of 4, 8, 12 and 16-channel thermocouple data loggers with a reading rate of up to 4 Hz. X-Series devices ship with a standard USB-A to Micro USB cable for use with free OM-CP PC based software. The X-series has a high memory capacity and increased download speed compared to previous generations of product.

In addition, the OM-CP-TCTempX Series features individual cold junction compensation for each channel providing increased accuracy and response time, and if a probe is removed or severed during logging, the software automatically annotates the data. For easy identification, each channel can be named with up to a ten digit title. To maximize memory capacity, users can enable or disable channels.

The OM-CP-TCTempX Series are ideal for a variety of applications, whether it is remote temperature monitoring, or multiple points in a central location. Data from all channels is simultaneously logged. After the monitoring cycle is complete, data can be downloaded for analysis.



Specifications

INTERNAL CHANNELS	
Temperature Range	-20 °C to +60 °C (-4 °F to +140 °F)
Temperature Resolution	0.01 °C (0.018 °F)
Calibrated Accuracy	±0.5 °C (0 °C to 50 °C)
REMOTE CHANNELS	
Remote Channel Thermocouple Types	J, K, T, E, R, S, B, N
Thermocouple Connection	Female subminiature (SMP)
Cold Junction Compensation	Automatic, based on internal channel
Maximum Thermocouple Resistance	1000 Ω, <100 Ω recommended

Specifications

REMOTE CHANNELS			
Thermocouple	Range (°C)	Resolution	Accuracy*
J	-210 to +760	0.1 °C	±0.5 °C
K	-270 to +1370	0.1 °C	±0.5 °C
T	-270 to +400	0.1 °C	±0.5 °C
E	-270 to +980	0.1 °C	±0.5 °C
R	-50 to +1760	0.5 °C	±2.0 °C
S	-50 to +1760	0.5 °C	±2.0 °C
B	+50 to +1820	0.5 °C	±2.0 °C
N	-270 to +1300	0.1 °C	±0.5 °C

GENERAL	
Memory (All channels enabled)	4-channel: 524,032 readings per channel 8-channel: 262,016 readings per channel 12-channel: 174,677 readings per channel 16-channel: 131,008 readings per channel
Start Modes	Software programmable immediate start or delay start, up to 6 months in advance
Real Time Recording	May be used with PC to monitor and record data in real time
LEDs	1 per channel and 2 status LEDs
Reading Rate	4 Hz up to 1 reading every 24 hours
Calibration	Digital calibration through software

*Thermocouple accuracy is specified with a 24 AWG.

Calibration Date	Automatically recorded within device
Battery Type	9 V lithium included, user replaceable
Battery Life	18 months typical
Data Format	Date and time stamped °C, °F, K, °R, mV, V
Time Accuracy	±1 minute/month
Computer Interface	USB-A to micro USB cable (included); 460,800 baud
Operating System Compatibility	Windows XP SP3/7/8/10
Software Compatibility	Standard Software version 4.2.17.0 or later Secure Software version 4.2.16.0 or later
Operating Environment	-20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing
Dimensions	4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)
Weight	4-channel: 13 oz (368 g) 8-channel: 13 oz (368 g) 12-channel: 20 oz (580 g) 16-channel: 28 oz (800 g)
Enclosure	Black anodized aluminum
Approvals	CE, ROHS

BATTERY WARNING: BATTERY MAY LEAK, FLAME OR EXPLODE IF DISASSEMBLED, SHORTED, CHARGED, CONNECTED TOGETHER, MIXED WITH USED OR OTHER BATTERIES, EXPOSED TO FIRE OR HIGH TEMPERATURE. DISCARD USED BATTERY PROMPTLY. KEEP OUT OF REACH OF CHILDREN.

To Order	
P/N	Description
OM-CP-QUADTCTEMP-A2	4-Channel Thermocouple Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-OCTTCTEMP-A2	8-Channel Thermocouple Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-X12TCTEMP-A2	12-Channel Thermocouple Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-X16TCTEMP-A2	16-Channel Thermocouple Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-BAT103	Replacement 9V lithium battery