

# X SERIES

## 4, 8, 12 and 16-Channel RTD Temperature Data Loggers



- $\pm 0.04$  °C Calibrated Accuracy
- Real time Operation
- Up to 4 Hz Reading Rate
- Pushbutton or Programmable Start Time
- Configurable Channel Names
- NIST Traceable Calibration Certificate Included
- External Power or User Replaceable Battery
- Accepts 2, 3 and 4-wire RTD's

The new OM-CP-RTDTempX Series consists of 4, 8, 12 and 16-channel RTD Temperature data logger 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.

To maximize memory capacity, users can enable or disable channels. For easy identification, each channel can be named with up to a ten digit title.

Using the OM-CP Data Logger Software, starting, stopping and downloading from the OM-CP-RTDTempX Series data loggers is simple and easy. Graphical, tabular and statistical data is provided for analysis and data can be viewed in multiple units, using the Engineering Units function. The data can also be automatically exported to Excel® for further calculations.



### Specifications

TEMPERATURE	
Temperature Range*	18.5 $\Omega$ to 390.5 $\Omega$ -200 °C to +850 °C (-328 °F to +1562 °F) (Probe Dependent)
Temperature Resolution	0.0001 $\Omega$ 0.001 °C (0.0018 °F) (Probe Dependent)
Calibrated Accuracy**	$\pm 0.015$ $\Omega$ @ 25 °C (77 °F) ambient $\pm 0.04$ °C ( $\pm 0.072$ °F) (Probe Dependent)
Specified Accuracy Range	18.5 $\Omega$ to 175.9 $\Omega$ -200 °C to +200 °C (-328 °F to 392 °F)
Input Connection	Removable screw terminal; 2, 3 or 4 wire interface
Temperature Coefficient	2 ppm/°C typical

\*Temperature specifications based on ideal 100  $\Omega$  Pt RTD compliant with IEC 751 (1983) and ITS-90, 5000  $\Omega$  FSR (accuracy based on 36 inch lead wire RTD with 4 wire configuration)

\*\*Calibrated accuracies based on standard Omega calibrations for 0  $\Omega$  to 200  $\Omega$  range.

Warning: Note the polarity instructions. Do not attach wires to the wrong terminals. 100  $\Omega$ , 2 or 4 wire RTD probes are recommended for the most accurate performance. Most 100  $\Omega$ , 3 wire RTD probes will work, but Omega cannot guarantee the accuracy. To determine whether or not the 3-wire RTD probe will work, the resistance between the two same colored wires should be less than 1  $\Omega$ . (Note: Please contact the manufacturer of the RTD probe for questions on the resistance.)

## Specifications

GENERAL	
Memory (All channels enabled)	<b>4-channel:</b> 698,709 readings per channel <b>8-channel:</b> 349,354 readings per channel <b>12-channel:</b> 232,903 readings per channel <b>16-channel:</b> 174,677 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
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; Ω
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 4.2.19.0 or later Secure Software version 4.2.18.0 or later
Operating Environment	-20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing
Dimensions	<b>4-channel:</b> 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) <b>8-channel:</b> 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) <b>12-channel:</b> 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) <b>16-channel:</b> 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)
Weight	<b>4-channel:</b> 13 oz (368 g) <b>8-channel:</b> 13 oz (368 g) <b>12-channel:</b> 20 oz (580 g) <b>16-channel:</b> 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-QUADRTDTEMP-A2	4-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-OCTRTDTEMP-A2	8-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-X12RTDTEMP-A2	12-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-X16RTDTEMP-A2	16-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
OM-CP-BAT103	Replacement 9V lithium battery