DATASHEET

RTDTempX16

MadgeTech

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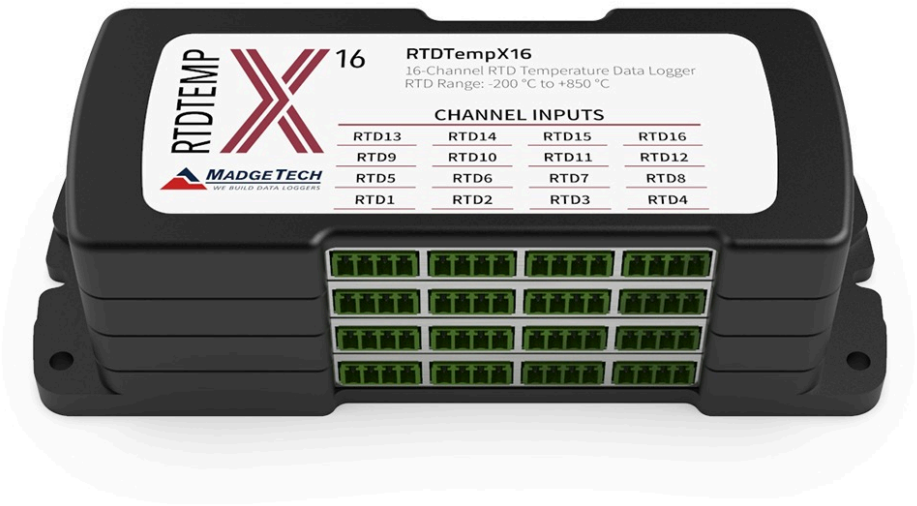
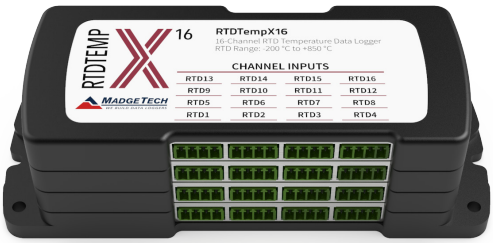


MADGETECH
WE BUILD DATA LOGGERS

RTDTempX Series

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



The new RTDTempX Series consists of 4, 8, 12 and 16-channel RTD based temperature data logger with a reading rate of up to 4 Hz. Improvements include the elimination of an interface cable (uses standard USB-A to Micro USB), increased memory for more readings and increased download speed.

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 MadgeTech Software, starting, stopping and downloading from the 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.

Features

- ±0.04 °C Calibrated Accuracy
- Real time Operation
- Up to 4 Hz Reading Rate
- Pushbutton or Programmable Start Time
- Title Channels
- Calibration Certificate included
- External Power or User Replaceable Battery
- Accepts 2, 3 and 4-wire RTD's

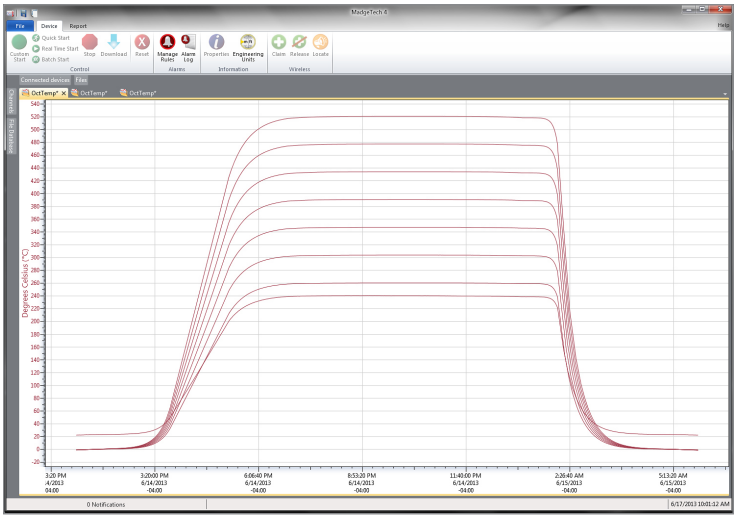
Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

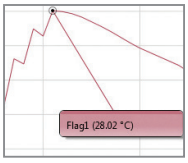
Applications

- Calibration Chamber Monitoring
- Process Verification/Validation
- Warehouse Monitoring
- Precision Temperature Monitoring
- HVAC
- Clean Rooms
- Medical/Pharmaceutical
- Museum Monitoring
- Environmental Studies
- Replace Costly Strip Chart Recorders

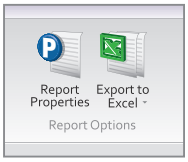
MadgeTech 4 Software Features



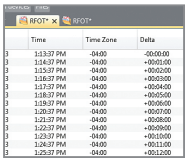
Graph View



Cooling Flags

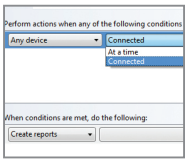


Export to Excel



Tabular Data View

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view



Automation

SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply.Call (603) 456-2011 or go to **madgetech.com** for details.

TEMPERATURE	
Temperature Range*	18.5 Ω to 390.5 Ω -200 °C to +850 °C (-328 °F to +1562 °F) (Probe Dependent)
Temperature Resolution	0.0001 Ω 0.001 °C (0.0018 °F) (Probe Dependent)
Calibrated Accuracy**	±0.015 Ω @ 25 °C (77 °F) ambient ±0.04 °C (±0.072 °F) (Probe Dependent)
Specified Accuracy Range	18.5 Ω to 175.9 Ω -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

GENERAL	
Start Modes	Software programmable immediate start or delay start up to six months in advance, programmable in software
Real Time Recording	May be used with PC to monitor and record data in real time
Memory	**4-channel:** 698,709 readings **8-channel:** 349,354 readings **12-channel:** 232,903 readings **16-channel:** 174,677 readings

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

**Calibrated accuracies based on standard MadgeTech calibrations for 0 Ω to 200 Ω range.

Warning: Note the polarity instructions. Do not attach wires to the wrong terminals. 100 Ω, 2 or 4 wire RTD probes are recommended for the most accurate performance. Most 100 Ω, 3 wire RTD probes will work, but MadgeTech 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 Ω. (Note: Please contact the manufacturer of the RTD probe for questions on the resistance.)

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 battery 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 or later
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	**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)
Material	Black anodized aluminum
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)
Approvals	CE

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.

Ordering Information

RTDTempX4	PN 902175-00	4-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
RTDTempX8	PN 902176-00	8-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
RTDTempX12	PN 902173-00	12-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
RTDTempX16	PN 902174-00	16-Channel RTD Data Logger, USB-A to micro USB cable, universal power adapter
U9VL-J	PN 901804-00	Replacement battery for RTDTempX Series

For Quantity Discounts call (603) 456-2011 or email **sales@madgetech.com**

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