



RFRTDTemp101A Precision Temperature Recorder & Wireless Transmitter

FEATURES

- ❖ Multiple transmitter configurations
- ❖ Memory wrap around
- ❖ Software configurable
- ❖ Real-time operation
- ❖ Programmable start time
- ❖ Miniature size
- ❖ User-friendly
- ❖ N.I.S.T. traceable

APPLICATIONS

- ❖ Calibration chamber monitoring
- ❖ Precision temperature recording
- ❖ Warehouse monitoring
- ❖ HVAC
- ❖ Medical/Pharmaceutical
- ❖ Museum monitoring
- ❖ Environmental studies
- ❖ Replace costly strip chart recorders

The RFRTDTEMP101A is a battery powered precision temperature recorder and wireless transmitter. This is an all-in-one compact, portable, easy to use device that will measure and record up to 5,461 measurements. The RFRTDTEMP101A combines the features from the standard product line and adds the convenience of a wireless transmitter. When enabled, the

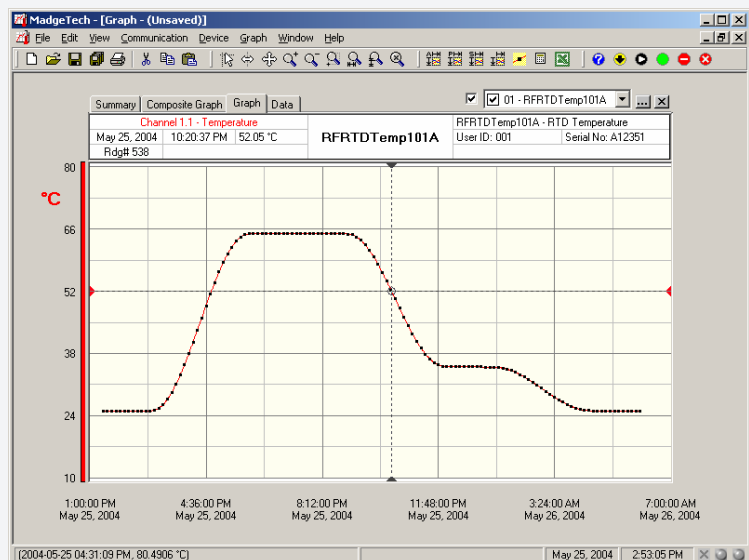
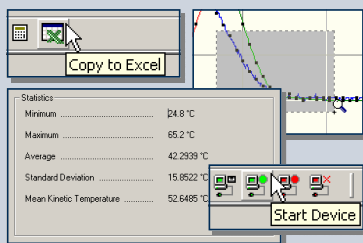


wireless transmitter will transmit readings back to the host computer where the data can be analyzed in real time. These readings are also logged to the device's memory for added data security. The convenient slide switch allows the transmitter to be turned on or off without affecting the operation of the device.

The device can be started, stopped and configured directly from your computer. Its small size allows it to fit almost anywhere. In addition to the wireless communications, the RFRTDTEMP101A makes data retrieval quick and easy. Simply plug the device into an empty com port and our user-friendly software will handle the rest.

SOFTWARE

PTC's Data Recorder Software is an easy to use Windows-based software package that allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.



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RFRTDTEMP101A SPECIFICATIONS

Temperature**

Measurement Range: -200 °C to +850 °C

Resolution: 0.01 °C

Calibrated Accuracy: ±0.05 °C

Specified Accuracy Range: -200 °C to +850 °C

Resistance

Nominal Range: 0 Ω to 5000 Ω

Resolution: 0.001 Ω

Calibrated Accuracy: ±0.015 Ω

Specified Accuracy Range: 0 Ω to 500 Ω @ 25 °C

Input Connection: Removable screw terminal; 2,3 or 4 wire interface

Temperature Effect on Span: < 25 ppm/°C; < 10 ppm/°C typical

Temperature Effect on Offset: < 10 ppm cumulative over -30 °C to +70 °C

Memory: 5,461 readings

Reading Interval: 1 reading every 30 seconds to 1 every 12 hours

Calibration: Digital calibration through software

Data Format: Date and time stamped °C, °F, °K, °R, Ω

Time Accuracy: ±1 minute/month (at 20 °C to 30 °C)

Computer Interface: PC serial or RS232C COM (Interface cable required); 57,600 baud

RF Baud Rate: 4,800 baud

RF Carrier Frequency: 418 MHz

Range: Line-of-sight: up to 120 ft

Approvals: US (FCC), CA (IC)

Power: 3.6V lithium battery included (LTC-7PN)

Battery Life: 1 year typical (1 min reading rate @ 25 °C)

Software: Windows 95/98/ME/NT/2000/XP based software

Operating Environment: -30 °C to +70 °C, 0 to 95 %RH non-condensing

Dimensions: 0.8" x 1.7" x 2.7" (20 mm x 42 mm x 68 mm)

Weight: 2 oz (60 g)

Enclosure: ABS plastic

**Temperature specifications based on ideal 100 Ω Pt RTD compliant with IEC 751 (1983) and ITS-90, 5000Ω

SOFTWARE FEATURES

Multiple Graphs: Simultaneously analyze data from several units or deployments; easily switch to a single data series

Real-Time Recording: Collect and display data in real-time while continuing to log

Graphical Cursor: One click displays readings by time, value, parameter or sample number

Data Table: Instantly access tabular view for detailed dates, times, values, and annotations

Scaling Options: Autoscale function fits data to the screen, or allows user to manually enter their own values

Formatting Options: Change colors, line styles, plotting options, show or hide channels in an instant

Statistics: Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button

Export Data: Export data in a variety of common formats, or switch to Excel with a single click

Calibration: Fully digital calibration function automatically stores parameters in device

Logger Configuration: Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID

Communications: Automatically sets up communications port, or lets user set configuration

Printing: Automatically print graphical or tabular data

ORDERING INFORMATION

Model	Description
RFRTDTEMP101A	Precision Temperature Recorder & Wireless Transmitter
RFC101A	Wireless Receiver
SP100	Software, manual and 9-pin computer interface cable
Contact PTC®	N.I.S.T. Calibration Certificate

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Voltage
Humidity	Current
Pressure	Submersible
pH	Intrinsically Safe
Level	RF Transmitters
Shock/Vibration	Multi-parameter
Pulse/Event	

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