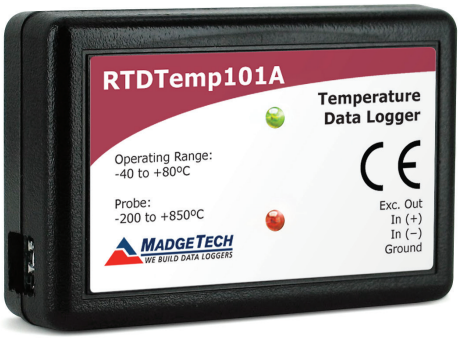
RTDTEMP101A
RTD BASED TEMPERATURE DATA LOGGER

MADGETECH
WE BUILD DATA LOGGERS

Features
- 10 Year Battery Life
- ±0.05 °C (±0.09 °F) Accuracy
- Multiple Start/Stop Function
- Ultra High Speed Download
- 1,340,000 Reading Storage Capacity
- Memory Wrap
- Precision RTD Sensing Element
- Battery Life Indicator
- Optional Password Protection
- Programmable High and Low Alarms
- Field Upgradeable

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

Applications
- Calibration Chamber Monitoring
- HVAC
- Medical/Pharmaceutical
- Environmental Studies
- Precision Temperature Recording



Don't be fooled by the small size, the RTDTemp101A temperature data logger offers a wealth of features with a compact form factor about the size of a matchbox. When used with an external RTD probe, this data logger measures temperatures from -200 °C to 850 °C.

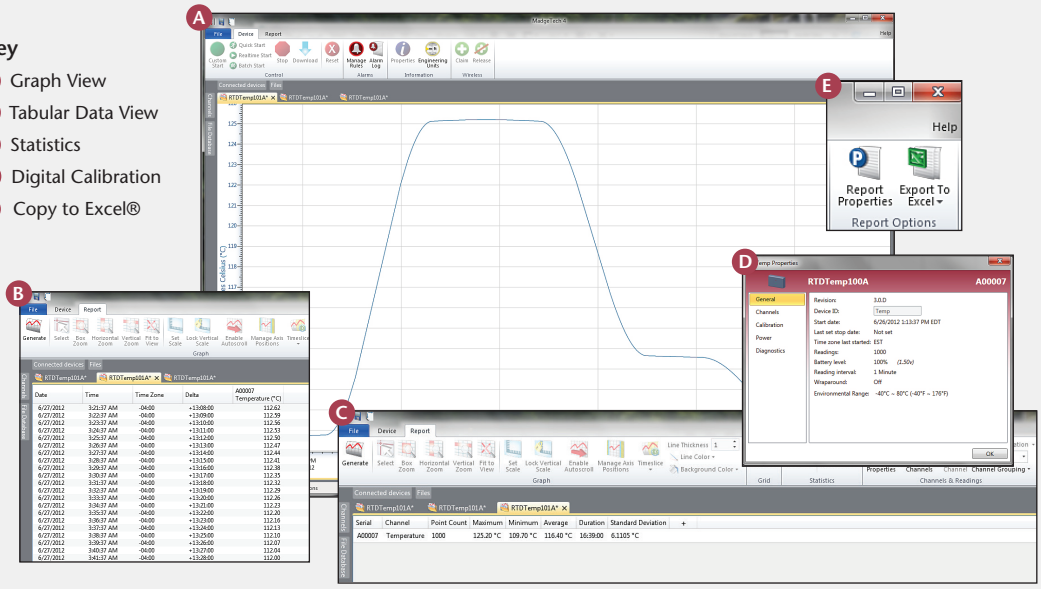
The low power design of this data logger provides a battery life of up to 10 years but still delivers ultra-fast download speeds. The RTDTemp101A can store over a million readings and offers a software configurable memory wrap option. In addition to having a pushbutton start stop, the device also can be programmed to a delay start up to 18 months in advance.

Using the MadgeTech Data Logger Software, data from the RTDTemp101A is easily downloaded, displayed and formatted for reports or the data can be exported to Excel for further presentation customization.

This versatile device can be used for a wide variety of applications such as calibration chamber monitoring, HVAC applications, environmental studies or precision temperature recording for medical and pharmaceutical applications.

MADGETECH DATA LOGGER SOFTWARE

Key
- A Graph View
- B Tabular Data View
- C Statistics
- D Digital Calibration
- E Copy to Excel®



Software Features:
- 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
- Data table view
- Automatic report generation
- Summary view
- Multilingual

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Phone: (603) 456-2011 · Fax: (603) 456-2012

RTDTEMP101A SPECIFICATIONS*

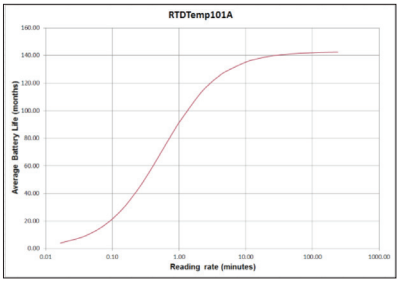
Temperature Sensor:**	External 100 Ω RTD *(Sold Separately)*
Measurement Temperature Range:	18 Ω to 400 Ω -200 °C to +850 °C (-328 °F to +1562 °F) *(Probe Dependent)*
Temperature Resolution:	0.0001 Ω 0.01 °C (0.018 °F) *(Probe Dependent)*
Calibrated Accuracy:	±0.015 Ω ±0.05 °C (±0.09 °F) *(Probe Dependent)*
Calibrated Accuracy Range*:**	18 Ω to 200 Ω -200 °C to +265 °C (-328 °F to +509 °F)
Input Connection**:**	Removable screw terminal; 2, 3 or 4 wire interface
Temperature Effect on Span:	< 2 ppm/°C
Temperature Effect on Offset:	< 10 ppm cumulative over entire range
Reading Rate:	1 reading every second up to 1 reading every 24 hours
Memory:	• 1,340,000 readings; software configurable memory wrap • 666,000 readings in multiple start/stop mode
Wrap Around:	Yes
Start Modes:	• Immediate start • Delay start up to 18 months • Multiple pushbutton start/stop
Stop Modes:	• Manual through software • Timed *(specific date and time)*
Multiple Start/Stop Mode:	Start and stop the device multiple times without having to download data or communicate with a PC
Multiple Start/Stop Mode Activation:	To start the device: *Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.* To stop the device: *Press and hold the pushbutton for 5 seconds, the red LED will flash for three seconds and then the green LED will flash for two seconds. The device has stopped logging.*

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

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

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

****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)

Real Time Recording:	The device may be used with PC to monitor and record data in real time
Alarm:	Programmable high and low limits; alarm is activated when temperature reaches or exceeds set limits
LED Functionality:	Green LED blinks: • 10 second rate to indicate logging • 15 second rate to indicate delay start mode Red LED blinks: • 10 second rate to indicate low battery and/or full memory • 1 second rate to indicate an alarm condition
Password Protection:	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Battery Type:	3.6V lithium battery included; **user replaceable**
Battery Life:	10 years typical at a 15 minute reading rate  Graph display of the device recording in a 25 °C environment.
Data Format:	Date and time stamped °C, °F, K, °R
Time Accuracy:	±1 minute/month (at 20 °C/68 °F, stand alone data logging)
Computer Interface:	USB (interface cable required); 115,200 baud
Software:	XP SP3/Vista/Windows 7/Windows 8
Operating Environment:	-40 °C to +80 °C (-40 °F to +176 °F), 0 %RH to 95 %RH non-condensing
Dimensions:	1.4 in x 2.2 in x 0.6 in (36 mm x 56 mm x 16 mm)
Weight:	0.8 oz (24 g)
Materials:	ABS Plastic
Approvals:	CE

BATTERY WARNING: FIRE, EXPLOSION AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 100 °C (212 °F), INCINERATE, CRUSH, OR EXPOSE CONTENTS TO WATER.

ORDERING INFORMATION

MODEL	DESCRIPTION
RTDTEMP101A	RTD Temperature Data Logger
IFC200	Software, manual and USB interface cable
Calibration Certificate	Calibration Certificate available for data logger
LTC-7PN	Replacement battery for RTDTemp101A

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

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