Innovative Wireless Sensing



Micro-T[™] Miniature RFID Data Logger System

→ *MICRO*-T[™] RFID DATA LOGGER FEATURES AND BENEFITS:

- Micro Miniature small size and low mass enables accurate readings with minimal thermal impact on sensed environment.
- Food Safe—enclosure is made with FDA approved plastic and is safe to use in food and chemical process monitoring.
- Wireless interface—enables the Micro-T to be sealed & submersible.
- Wide Temperature Range High Temp Version: 10°C to 140 °C. Standard Version: 10°C to +85°C.
- Accurate— standard version ±1.0°C; ±0.5°C also available.
- High Pressure Operation— in gas or liquid up 200 PSI (1200 PSI version available).
- Long Battery Life— ~64 one-hour runs with one second sample rate.
- User-configurable—sampling rates from 1 second to 48 hours.
- High Number of Records—stores 3,902 time stamped records.
- Real Time Clock— accurate time—temperature correlation.
- Simple Desktop Wireless "Reader" connects to PC with a USB cable.
- Software downloads data, stores in CSV or XML file, and graphs results.



Questions? Need a Custom Solution? 866-608-6168 Sales@PhaseIVengr.com





maintenance-free | miniature | mobile | rugged















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Micro-T[™] RFID Data Logger—Specifications

Part Numbers:	Standard Temp Range: 41-100332-01 High Temp Range: 41-100332-02
	High Pressure/High Temp Version: 41-100332-03
Material:	Ultem plastic enclosure FDA approved for contact with food. PEEK is available.
	Smooth exterior surfaces. Not for use with antifreezes or other chemicals incompatible with Ulter
Size:	17.0 mm (0.60")* diameter x 12.0 mm (0.47") long.
Weight and Density	Weight = 2.8 grams. Density = 1.3 g/cm ³ (Close to water).
Pressure Survival:	Can survive and operate in gas or liquid up to 200 PSI.
	1200 PSI version available upon special order. (Available in High Temperature version only).
Temperature	High Range Version: 10°C to 140°C (68°F to 284°F)
Measurement Range:	Standard Range Version: 10°C to 85°C (-4°F to 185°F)
Temperature Accuracy &	High Temp Version: ±1°C (±0.5°C*) from 90°C to 140°C. ±2°C from 10°C to 90°C.
Resolution	$(\pm 2^{\circ}F \text{ from } 194^{\circ}F \text{ to } 284^{\circ}F. \pm 4^{\circ}F \text{ from } 50^{\circ}F \text{ to } 194^{\circ}F.)$ Resolution: .08°C (.15°F)
	Standard Version: $\pm 1^{\circ}C (\pm 0.5^{\circ}C^*)$ from $10^{\circ}C$ to $50^{\circ}C$. $\pm 2^{\circ}C$ from $50^{\circ}C$ to $85^{\circ}C$.
* High Accuracy Version	$(\pm 2^{\circ}F \text{ from } 50^{\circ}F \text{ to } 122^{\circ}F. \pm 4^{\circ}F \text{ from } 122^{\circ}F \text{ to } 185^{\circ}F.)$ Resolution: .08°C (.15°F)
available.	
Temperature Calibration	Phase IV tests each data logger in accordance with our test procedures using calibrated and NIST traceable reference probe. A certificate of this test is made available for each device.
Temperature Response	10 to 90% time constant: Depends on media; approximately 1.5 minutes in water. Single temperature sensor near center of the unit to emulate the center temperature of a particle.
Time:	
Sampling Rate	Sampling rate is configurable from one second to 48 hours.
Number of Readings:	Number of time-stamped readings = 3,902.
	Each reading has a time stamp. Clock error is less than 2 seconds per day. Time is set by PC clock.
Communication &	USB Reader for wireless configuration, start/stop and data download to PC.
Data Download:	Data loggers have a unique serial number that is associated with the time & temperature data.
	Delay start: Set the amount of delay or set specific time and date. Resolution = 1 second.
Battery (Not replaceable)	At a one second sample rate the battery will last a minimum of 250,000 samples at 20°C.
	A low battery condition in the data logger will be checked when the data logger is started.
	Recover Mode enables data to be uploaded after the battery dies.
	Battery has a 1 year shelf life. (Battery life calculator available from Phase IV.)
Warranty	1 year warranty from date of purchase. Standard two week return to factory for repair.
	Next day replacement warranties are available.
Reader for Micro-T TM	Line powered wall transformer.
Data Logger :	Reader is connected by USB to the PC.
Part No: 41-100333-00	Includes a separate "desktop" pad antenna.
	Suitable for use in an office or lab environment.
Reader Antenna:	Reader is FCC certified. Reader complies with ISO 15693 RFID communication protocol.
Part No: 41-100334-00	
Software for Micro-T [™]	Facilitates starting, stopping, configuring and downloading the data to a Windows 7 PC.
Data Logger	Data stored to a CSV or XML file.
Part No 51-100167-00	Graphical User Interface: View time-stamped data in tabular or graphical form – with zoom-in and
	zoom-out functions.

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