



## TR-5 Series Product Summary

The TR-5 series offers a combination of features and functionality that is unique in today's marketplace for low cost temperature data loggers. These compact, ultra-reliable units are the only models on the market that offer LCD displays and still provide a high degree of water immunity. Designed to be deployed out of doors, or into wet, condensing or freezing environments, the TR-5 series is the ideal choice for use in the food, transportation, storage and environmental quality monitoring industries. Of course TandD's Thermo Recorder for Windows software is included absolutely free with every system. This powerful tool allows for simultaneous viewing of up to 8 channels, archiving of recorded data, printing and exporting of data files to other applications.



### TR-51A



Equipped with an internal temperature sensor, and employing photo-optical communications for data downloading, the TR-51A achieves TandD's highest degree of water resistance. In fact, it is IEC rated IP-67, which means that it is rated for full immersion. Ever wonder if your data logger was working? No problem with TandD's TR-5 series. One glance at the large, easy to read LCD, and you instantly know that it is on and recording. This is TandD's lowest cost temperature logger and is ideal for use in shipping, storage, out doors, or in practically any environment where water is a factor. Of course, with its

compact size, up to two years life on a single lithium battery, and low cost, it is perfectly suitable for dry applications as well. The internal sensor is accurate to +/- 0.5°C over a temperature range of -40°C to +80°C. Of course, using the software provided the user can select whether measurements and display are in either degrees Fahrenheit or Celsius.

## TR-52

The TR-52 utilizes an external temperature sensor for increased flexibility. This allows for a greater range of measurement with the standard sensor of -60°C to +155°C. Optional sensors are available in various lengths and that offer stainless steel protection sleeves. The external sensor also allows for more localized, or “spot” measurement, and for measurements in areas that exceed the temperature or emersion ratings of the unit’s electronics. With an IEC rating of IP-65, the TR-52 is still highly water resistant and still quite suitable for most wet, condensing or freezing environments. These units can be set to record as frequently as once per second, or as seldom as once per hour and can store a total of 16,000 samples between downloading. The recording mode can also be selected to either record once, and then stop when the memory is full, or set for continuous recording, where the oldest data is overwritten once the memory has filled. You never need to worry about remaining battery life with the TR-5 series. The large LCD has a battery low indicator that will tell you at a glance when the battery needs replacing.



## TR-50C Communications Cradle



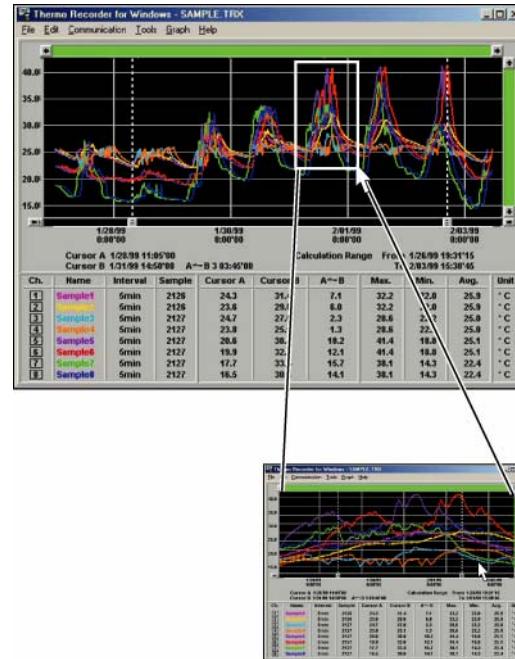
The TR-50C Communications Cradle provides an easy, reliable and convenient method for interfacing the TR-5x data loggers to a PC. Connected to the PC via a standard RS-232 serial port and cable, the TR-50C acts as a docking station into which the data loggers easily “self locate” as they are placed into the well defined recess on its surface. This insures proper alignment for the photo-electronic communication elements that are utilized by the loggers. Once emplaced on the cradle, recorded data can then be downloaded from the loggers to the PC. The TR-50C is also used during system setup when the data loggers are configured for

recording parameters, such as record start, sample interval, data storage method, or units of measurement, such as degrees Centigrade or degrees Fahrenheit.



## Thermo Recorder for Windows

TandD's Thermo Recorder for Windows Software ships free with every TR-50C Communications Cradle. This powerful, yet simple to use tool allows for quick set up, downloading, display, archiving and exporting of data. With the data logger placed in the TR-50C cradle, each unit can be set for start date and time, sample interval, recording mode (one time or endless) and units of measurement ( $^{\circ}\text{C}$  or  $^{\circ}\text{F}$ ). Logged data can be downloaded, archived and viewed in either tabular or graphical format. The powerful graphical software permits viewing of up to eight color-coded channels at one time, and allows for extremely flexible zoom control. Move the cursor over the specific date and time to view the recorded temperature. Set A and B points for difference calculation. Use the mouse to drag and draw a box around the area of interest and it will automatically be expanded to full screen. Store the data or print it out in full color graphical hard copy, or in a tabular format that shows high, low and average temperatures. ASCII Data files can be created and stored in CSV format for exporting to Excel, LabView or other custom applications. All the control and flexibility one could want; included at no extra cost!



## Quick Specs

Data Capacity of Loggers:	16,000 Samples
Sampling Rate:	1 per second (max) to 1 per hour (min)
Recording Method:	One time or Endless Loop
Size:	Approx. H 2 1/2 in. x W 1 7/8 in. x D 5/8 in.
Communication Method:	RS-232 Serial
Temperature Measurement Range:	-40°C to +80°C (TR-51A) -60°C to +155 °C (TR-52)
Temperature Operating Range:	-10°C to +40°C
Water Resistance:	IEC rated IP67 (TR-51A), IP64 (TR-52)
Battery Life:	Up to two years

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