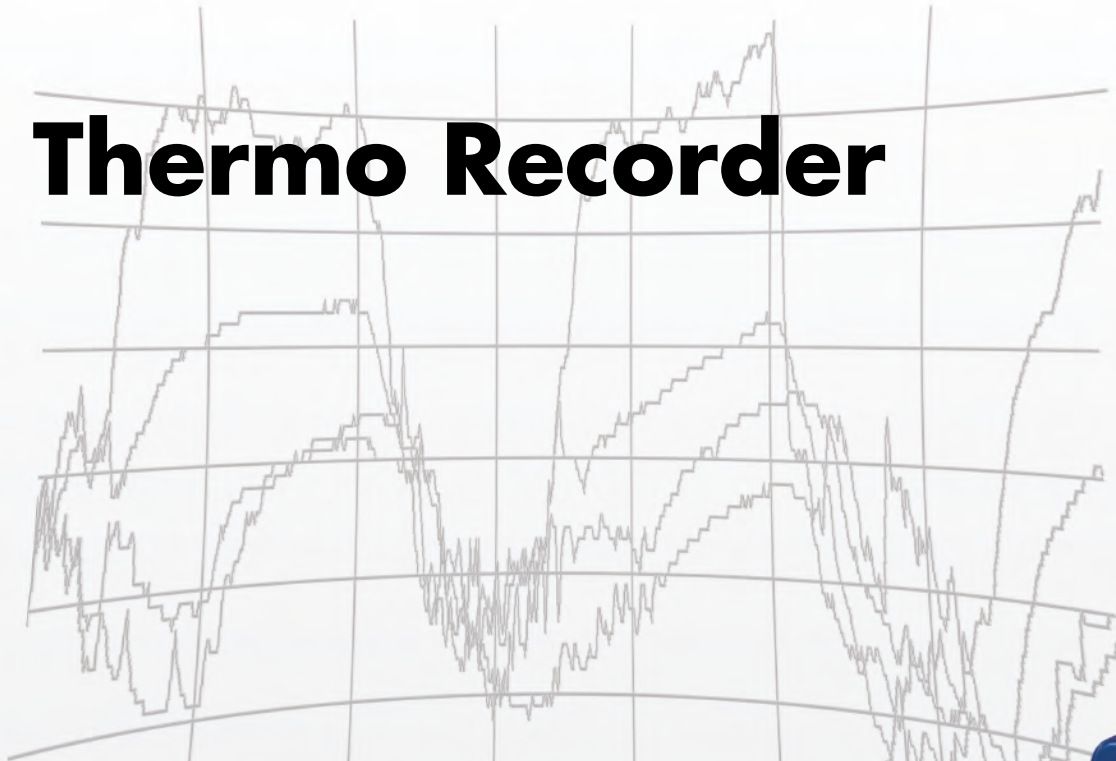


Thermo Recorder



- + Temperature + Humidity + Pressure + Voltage
- + Pulse + Event + Moisture



Wireless

> RTR-5 Series

Data Loggers

RTR-51/51A



RTR-52/52A



RTR-52Pt



RTR-53/53A



RVR-52A



The RTR-5 Series features loggers with ruggedized designs for use in wet or condensing environments, use in the field, or wherever physical device retrieval is costly, inconvenient or impractical. These devices are ideal for data recording during transportation, storage and all stages of processing, cooling and freezing of foods and pharmaceuticals. Retrieve data in the field from this series with the compact hand held Data Collector, or in the lab, plant or factory with the USB connected Base Station that allows for rapid, wireless data retrieval. Use the LAN connected Data Collector to make data available over the internet. Systems can be configured to almost any physical requirement with the wireless Repeater. These self-contained, battery operated wireless devices can offer the only practical way to collect data from locations that are in motion or are physically inaccessible

RTR-5 Series Wireless Data Loggers

Wireless | Battery Operated | Water Resistant | Temperatures from -200 to +600°C

The RTR-51/51A, with internal sensor, can measure and record ambient temperatures from -40 to +80°C and the RTR-52/52A, with an external sensor, is able to measure and record in a range of -60 to +155°C. The RTR-52Pt is compatible with industry standard 3-wire Pt100 sensors, and can measure and record temperatures from -200 to +600°C.

The RTR-53/53A with its standard temperature/humidity sensor is able to simultaneously measure and record temperature within a range of 0 to 55°C and humidity within a range of 10 to 95% RH. The RVR-52A can measure and record voltages from 0 to 6.5V, 4-20 ma currents, count pulses up to 30 Hz, time stamp events and even measure soil moisture. The integrated pre-heat function provides sensor excitation voltage or can be used to synchronize an external sensor power source.

RTR-5 Communication & Collection

TandD's RTR-5 Series includes three uniquely featured wireless Data Collectors and one daisy-chainable Repeater that can be used to configure a system to almost any requirement. Each Data Collector can establish recording parameters, monitor current values and download data from any of the family's loggers. The daisy-chainable repeater allows systems to be configured for almost any physical situation.

Wireless Base Station and Repeater RTR-50

The RTR-50 wireless base station connects to a PC through a standard USB port and can communicate with up to 250 groups of 250 loggers each. Advanced features for this unit include auto-downloading, real-time monitoring and origination of warning e-mails and text messages to cell phones. Unprecedented for a unit of this size and cost, the RTR-50 also includes a software selectable repeater mode. As a battery powered repeater, the RTR-50 can be daisy chained and placed almost anywhere. Each repeater can extend the communication range to loggers by up to 100 meters.

Communication & Collection

RTR-50



RTR-57U



RTR-5W



Handheld RTR-57U

The RTR-57U is a battery operated, portable unit that can be used to retrieve data from RTR-5x series data loggers, in the field, or anywhere that portability or difficulty of access is a factor. The RTR-57U can store up to 256,000 data values before uploading to a PC via a USB connection. The integrated LCD allows for instant graphical display of downloaded data.

Network Connected RTR-5W

The RTR-5W is a LAN connected base station that can be used for accessing RTR-5x series data loggers in a lab, factory or other fixed area environments. This device comes equipped with a 10 base-T Ethernet interface, but can also connect to a 802.11b wireless LAN with the use of an optional CF adapter card. It incorporates a HTTP server and can be accessed through a standard web browser by any PC on the network or over the internet. The RTR-5W can also be set to automatically originate e-mails if pre-programmed limits are exceeded.

> RTR-6 Series

Core Temperature Loggers

RTR-61



RTR-61 Series Wireless Core Temperature Loggers

Time | Date | Temperature | Operator ID | Item ID

The RTR-61 is a handheld thermometer and temperature recorder that is designed to measure the internal temperature of food items and liquids using a penetration type probe. A single press of the REC button allows the user to record not only the temperature, but also the time, date, operator & item ID's and a pre-programmed measurement judgment. The RTR-61 has a measurement range of -25 to +235°C and is suitable for both hot and cold readings. Current readings, judgment results and even operator instructions sent from the supervisor are displayed on an easy to read, backlit LCD Display. The RTR-61 can store up to 1,800 data readings before downloading to a PC. The penetration probes are available in two different lengths and can be attached either directly to the unit or to a handle with a 3 foot cord.

Wireless Monitoring & Download | Remote Management

Readings stored in the RTR-61 are downloaded via wireless communication to a PC or over a LAN. The RTR-61SK is based on TandD's RTR-50 Data Collector and connects directly to a PC through a standard USB port. The RTR-61SKW is based on the RTR-5W Data Collector and has all of that unit's network connectivity and Wi-Fi options. Both data collectors allow the use of RTR-50's as daisy-chainable repeaters for extended range performance. When configured with an external IP address, the RTR-61SK even allows for remote management and downloading by a QC manager over the Internet.

Automatic Temperature Stabilization Function

The RTR-61 incorporates a temperature stabilization algorithm that will not allow recording until the probe tip temperature has reached a final, steady state value. This prevents operator caused misreading resulting from hurried recording.

Waterproof

TR-5S Series

Data Loggers

TR-51S



TR-52S



TR-57U

Graphical Data Shuttle



TR-50U

USB Cradle



TR-5S Series Data Loggers

Portable | Water Resistant | Visible Alarm

The TR-5S Series of data loggers offers an outstanding combination of features and functionality for low cost temperature data loggers. These compact, ultra-reliable units incorporate large easy to read LCD displays, a highly visible LED alarm, 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-5S series is the ideal choice for use in the food, transportation, storage and environmental quality monitoring industries. The user replaceable battery lasts up to four years.

Equipped with an internal temperature sensor, and employing photo-optical communications for data downloading, the TR-51S achieves an IEC water resistance rating of IP-67 and can be fully immersed. This is TandD's lowest cost temperature logger, yet it still incorporates a large, easy to read LCD that shows current readings as well as important device operating parameters. A bright LED shows instantly if pre-programmed temperature limits have been exceeded. The internal sensor is accurate to +/- 0.5°C over a temperature range of -40°C to +80°C.

The TR-52S utilizes an external temperature sensor that allows for a measurement range of -60°C to +155°C. Optional sensors are available in various lengths and that offer stainless steel protection sleeves. With an IEC rating of IP-64, the TR-52 is still highly water resistant. Operation of over 4 years on a single lithium battery can be achieved with these devices. Both TR-5S models incorporate a 1 or 2 point adjustment function for correcting readings during calibration.

TR-57U Graphical Data Shuttle

Collect the Data - Not the Logger

The TR-57U is a hand held data collector with a back-lit, easy to read graphical LCD display. Data is downloaded from TR-5xS loggers and displayed instantly in graphical format, allowing for on the spot judgement of readings without the need to transport the logger back to a PC. Downloading is quickly and conveniently accomplished via optical communication, eliminating the need for troublesome cables and connectors. With the TR-57U, loggers can also be configured and restarted in place, saving time and increasing productivity. The device can store up to 256k readings before uploading to a PC via a standard, high speed USB port.

TR-50U USB Cradle

High Speed Data Downloading

The TR-50U Communications Cradle provides an easy, reliable and convenient method for interfacing the TR-5S data loggers to a PC. Connected to the PC via a standard USB port and cable, the TR-50U 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.

Web Enabled

TR-7W Series

Network Connected

TR-71W



TR-72W



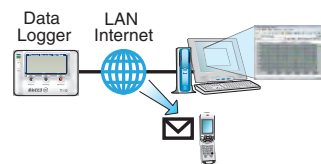
WDR-3

Data Recording



LAN Interface | Internet Ready | Wireless Option

TandD's line of web enabled TR-7xW data loggers provides outstanding functionality in a compact and cost effective package. Based on the time tested TR-7U designs, these models each incorporate TandD's proprietary micro web server chipset. Totally unique in today's marketplace, these ultra-reliable loggers interface directly to a local area network, through either a standard 10/100 Base-T Ethernet or through an 802.11b wireless LAN connection. This capability allows for direct viewing or downloading of data from anywhere on the network, or via the internet, using a standard web browser. The TR-7W can even send warnings directly to 5 E-mail addresses, including cell phones, whenever programmed limits are exceeded.



TR-7W Network Connected Data Loggers

The TR-71W is a two-channel temperature data logger capable of storing 8,000 readings for each channel. The sampling rate can be set to any of 15 intervals, from once per second to once per hour, in either of two recording modes. This unit ships with external sensors that can record temperatures from -40 °C to 110 °C, however optional sensors are available that extend the measurement range to -60 °C to 155 °C. The TR-72W is a two-channel combination temperature and humidity data logger. Offering the same capacities and settings as the TR-71W, and in addition to measuring temperature from 0 °C to 50 °C, this model will also measure and record relative humidity from 10% to 95%.

WDR-3

Web Data Recording

The WDR-3 provides a quick and simple solution for general purpose, network based data monitoring, recording and acquisition. Connection to a LAN can be through the integrated 10/100 base-T Ethernet interface, or to a Wi-Fi network with an optional 802.11b wireless adapter card. With two A/D inputs, two digital inputs and a built-in HTTP server, the WDR-3 allows users to access data and manage logging functions through a standard web browser from virtually anywhere. Analog voltages can be monitored and recorded as either average or instantaneous values. Digital signals can be logged as either pulse counts per interval or time stamped transitions. Limits can be set for individual inputs and when exceeded the WDR-3 will automatically generate and send warning e-mails to up to 5 different addresses or text messages to cell phones.

- Monitor and Record Analog Voltages and Digital Signals
- View and Download over a LAN or the Internet
- Wireless 802.11b Wi-Fi Connection Option
- E-mail Warnings when Limits are Exceeded

Easy USB connection

TR-7U series

Multi-Sensor Support

TR-71U/72U/73U



TR-7U USB Loggers-Temperature, Humidity and Barometric Pressure

Offering a lower cost option for applications that do not require network connectivity, the battery operated TR-7U family of multi-channel data loggers offers outstanding functionality and value in portable data logging of temperature, humidity and ambient pressure. These models incorporate the same large, easy to read LCD display and control buttons that allow the user to start / stop recording and set the recording interval without the need to connect to a PC. The display can be set for real-time monitoring to show one measurement channel continuously or all channels on an alternating basis. It also displays important information about device status, operating mode and battery condition. For other functions, connection to a PC is accomplished through a quick and convenient, high speed USB interface. The ultra-simple USB connectivity provides for lightning fast downloading. It takes only about 8 seconds to transfer the entire contents of a full memory! Completely unique, TandD's TR-7xU products are the only data loggers on the market today that allow for on-site data retrieval with a handheld Data Collector.

Multi-Sensor Support

VR-71

Multi-Sensor Support



VR-71

2 Channel Voltage | Programmable Units | Adjustment Function

TandD's two-channel voltage logger is a remarkably versatile recording device, offering capabilities not found in other products on the market today. This unit is compact, battery operated, highly portable, yet incorporates a large multi-functional LCD display that shows not only current readings for both channels, but also provides device status information. The VR-71 includes front panel buttons that allow for push-to-start / stop operation, as well as configuration of recording and display parameters. Shipping complete with software, batteries and cables, the VR-71 comes ready to log true readings from an unprecedented variety of sensors.

Logging partial pressure of gas in Parts-Per-Million? Barometric pressure in Pascals? Fluid flow in Liters-Per-Second? No problem for the VR-71. Unprecedented in today's market, the VR-71's LCD includes a 3 character dot matrix units display area that is completely customizable. This device comes with a preset selection to choose from, however with individually settable pixels, this logger can be programmed to display practically any units of measure

Example of Created Dot Matrix Pattern



Example of Created Unit Display



VLD for Windows

VLD-5/5W

Software



VLD-5/5W

Secure Software for the RTR-5x Series

Create and Retain Validated Data Records for 21 CFR Part 11 Compliant Reporting Systems

VLD for Windows is a software solution for companies that need to meet the FDA's 21 CFR Part 11 requirements for tamper proof electronic record keeping. VLD for Windows facilitates the creation of validated data files from downloads that have been gathered from RTR-5x series wireless data loggers using either the RTR-57U or RTR-5W Data Collectors. Logging sessions are downloaded to a PC's hard drive as secure, encrypted files with electronic signature access control. VLD for Windows also maintains a complete record of data base access for audit trail tracking and reporting. The software contains a Secure Administrator Mode that provides for configurable user permissions and an Archive Viewer that shows transaction histories. All data files are tamper proof and will be locked if unauthorized access is attempted. Data logger registration and configurations are permitted only from within the secure software environment. This software is provided in two versions: T&D Recorder VLD for Windows, for use with the RTR-57U, and RTR-5W VLD for Windows, for use with the RTR-5W.

WEB SITE T&D ONLINE

<http://www.tandd.com>

Product information, FAQ and software update downloads.

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