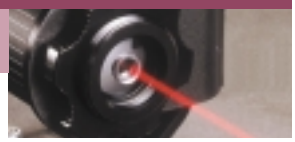
THERMALERT™ SERIES



TX / SX

Noncontact Temperature Sensors with Remote Addressability

The Thermalert TX/SX series combines innovative digital technology with a standard two-wire installation.

Raytek®

Innovative digital communications. Simple, two-wire installation. Now, that's smart.

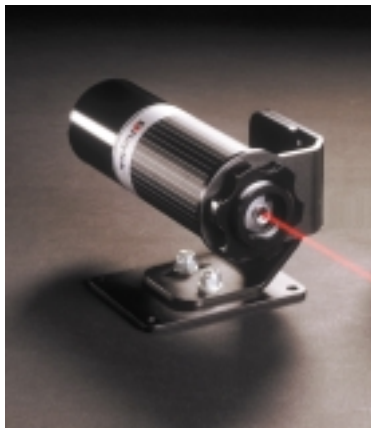
Highlights

- Simple, two-wire installation
- Compact, rugged sensor with IP 65 rating
- Wide temperature range from -18 to 2000°C
- TX with intrinsic safety optionally (ATEX)
- Install up to 15 sensors on a single multidrop network
- Windows® software for remote sensor configuration and monitoring
- Through-the-lens or laser aiming
- Simultaneous 4-20 mA and digital output
- Advanced signal processing
- Wide choice of focus distances
- Special models for glass and plastics applications

The Thermalert™ TX/SX series of integrated sensors provide accurate temperature measurement for a wide variety of process control applications. With two-way digital communications, the Thermalert TX sensor - or the Thermalert SX with through-the-lens or laser aiming - provides the features you need to control your process in a compact, integrated package that is easy to install and operate. Now, that's one smart sensor.

Smart Sensor, Smart Decision

Smart Thermalert TX sensors provide two-way digital communications between the sensor on the process line and a personal computer in the control room. With the Thermalert TX, you'll never need to walk out on a catwalk with a screwdriver to adjust the sensor. Smart TX sensors feature remotely adjustable temperature and output subranges, signal processing, emissivity, ambient temperature check, and more - including all standard system loop maintenance and network functions.



Thermalert SX models provide through-the-lens or laser aiming.

Through-the-lens sighting on the smart Thermalert SX sensor ensures accurate measurement of target areas as small as 2 mm. And the laser aiming option allows you to pinpoint small targets in dark or hard-to-reach locations.

Point-to-Point or Multidrop Installations

All TX models use an industry-standard two-wire connection which is easily integrated into a closed loop control system. You can configure individual sensors to your system point-to-point, or multidrop up to 15 smart sensors on a single loop, using your existing plant wiring. With a point-to-point system, your analog recorders, meters, and other devices all remain online, without interference from the digital signal. Configuration of smart TX/SX sensors requires a Remote Communications Kit that includes our DataTemp™ Multidrop software and an RS-232 adapter. The adapter allows your local control system simultaneous access to the 4-20 mA signal and the digital signal. It can be connected anywhere in the current loop, including remote locations up to 3.000 m away.

TX/SX Series Applications

LT (Low Temp)	8-14 Microns	Printing, coating, laminating, drying/curing, paper, food, textiles, carpet, sheet plastics, asphalt, pharmaceuticals
MT (Medium Temp)	3.9 Microns	Metals processing, furnaces, kilns, refractories, furnaces, reformer tubes, subsurface glass
HT (High Temp)	2.2 Microns	Ferrous and nonferrous metals, induction heating, furnaces, laboratory research
G5 (Glass)	5.0 Microns	Glass surface measurement for tempering, annealing, forming, sealing, laminating, bending
P7 (Plastics)	7.9 Microns	Production and converting of films of polyester (PET), fluoroplastic, Teflon®, acrylic, nylon (polyamide), polyurethane, PVC

Easy Configuration and Monitoring

DataTemp Multidrop software provides you with the tools you need to configure up to 15 sensors - then monitor temperatures on a real-time graphical display. The bar graph feature shows temperature profiles across a web or at various spots along a process. Use the program to record and archive temperature data or format data for import into popular spreadsheet or database programs.

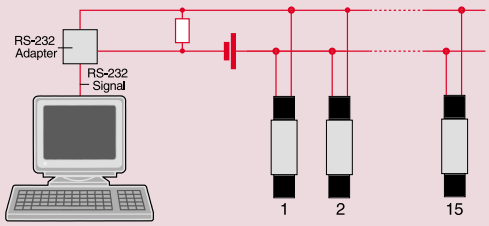
Sophisticated Signal Processing

Discrete manufacturing processes where the distance and/or time between objects is irregular pose special problems for noncontact temperature measurement. The smart TX/SX sensor provides a solution. Advanced Peak/Valley Hold algorithms have been incorporated to support changing process variables. You can adjust hold times, trigger thresholds, hysteresis settings, fail-safe, and out-of-range output signals remotely during initial setup - or fine-tune variables during daily operations.

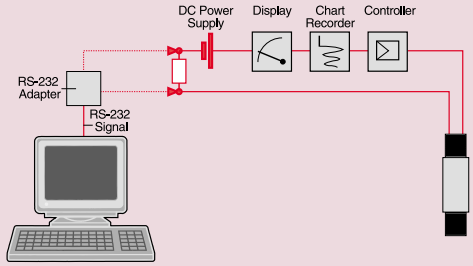
Basic Models, Great Value

Basic Thermalert TX sensors provide the same accuracy, repeatability, and response time as the smart TX models, without the communications. Emissivity on these models is switched manually at the sensor and temperature and output ranges are fixed.

Multidrop Network Installation

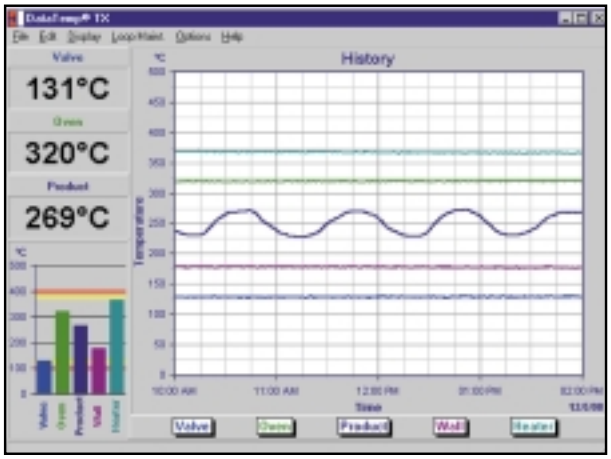


Point-to-Point Installation

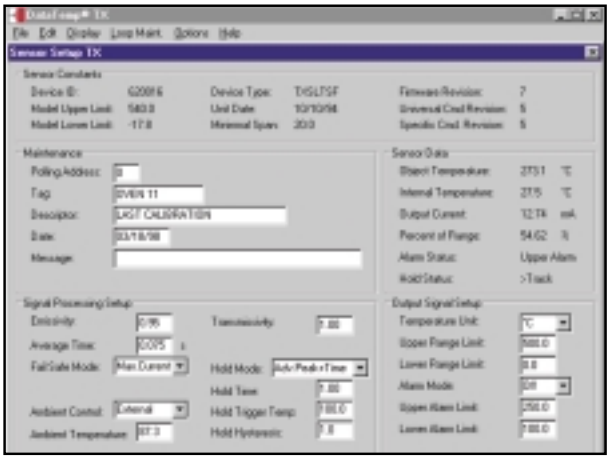


Smart TX sensors can be configured in a multidrop network or point-to-point installation. In multidrop networks, a dedicated PC with DataTemp Multidrop software supports online system monitoring and configuration. In point-to-point installations, DataTemp Multidrop simplifies system set-up.

DataTemp™ Multidrop—Windows Software for Remote Sensor Configuration and Process Monitoring



Plot temperature values of multiple TX sensors simultaneously. High and low alarms are shown, making it easy to identify an out-of-range condition.



DataTemp Multidrop makes it easy to remotely configure smart TX series sensors from the safety of the control room.

Rugged Accessories

A wide variety of options and accessories are available to customize the installation of your Thermalert TX/SX sensors. Lens protectors and air purge collars offer protection in harsh environments. And factory-installed, water-/air-cooled housings can be specified for operation in ambient temperatures to 175°C.

For extremely harsh environments, a Raytek ThermoJacket™ (shown here) is recommended. This rugged cast aluminum housing protects the TX/SX sensing head in ambient temperatures to 315°C. It completely encloses the sensor, combining thermal and mechanical protection with air purging of the lens. The TX/SX sensor can be installed or removed while the ThermoJacket is in its mounted position.

Raytek Service Ensures Long Use

With over forty-years experience, Raytek knows infrared temperature measurement. Our applications specialists are located around the world to help answer your technical questions. Each TX/SX series sensor includes a two year warranty. In addition, maintenance, training, calibration, and other customized services are available to ensure that you receive the maximum benefits from your Raytek infrared thermometer.

For more information on the Thermalert TX/SX series or other Raytek infrared temperature measurement solutions, contact your Raytek applications specialist today.

Ongoing temperature measurement of plastics applications such as blown film ensure product quality and productivity. Special models for measuring plastic are available.

The advanced signal processing capabilities of TX smart sensors ensure accurate temperature measurement for glass bottles and other discrete processes.

From paint curing to thermoforming, TX/SX series thermometers optimize process control in the automobile industry.

Raytek Automation Products: Noncontact Temperature Measurement for Industrial Applications

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