



TSR System



Wireless Temperature Monitoring System

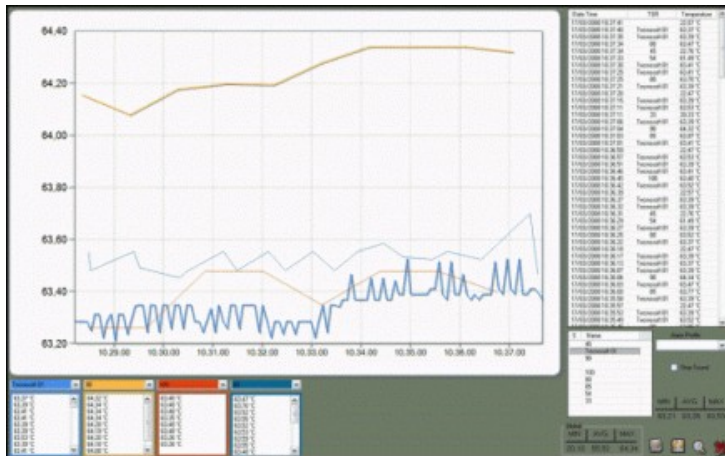
The **TSR System** is the simplest solution for your applications that need a real time monitoring. No special skill required, no complicated configuration to deal with: just set the transmission rate on your **TempStick Radio** units, place them in the desired spot, plug the **USB Radio Receiver** to your PC and start the **TSR** software. You'll immediately see data coming through and you can view up to 4 graphs on screen and receive alarms from all the sensors transmitting.

Pro:

- radio transmission, no more cables and real time control of the data;
- quick and easy installation;
- alarm setting for each sensor;
- different kind of cables and probes available.

Applications:

- stock houses and warehouses;
- laboratories;
- fridges/freezers;
- pharmacies;
- other temperature sensitive environments compliant with ISO 9001 standards.



Sensors are waterproof, as the cables. All units can be calibrated and delivered with their calibration certificate, necessary for ISO 9001 compliance. Standard calibration validity is of one year.



Transmission:

- reliable, with data control;
- no possibility of wrong data;
- range up to 250 meters in open space, 80 meters in closed environment (transmission range depends also on walls and material of the walls themselves. Iron and steel obstacles might reduce the transmission range).

Sensors and transmitter:

- each transmitter has its unique identification number, as the radio;
- sensors are easy to install and place where you need to control temperature;
- software can manage unlimited sensors and transmitters;
- no USB drive installation for the **USB Radio Receiver**;
- configuration interface (to set rate of transmission) available.

Technical Features



TempStick® Radio	
Size	6,5 X 5 X 4,5 cm
Electronics Temperature Range	-20 °C ÷ +60 °C
Sensor Temperature Range	-40 °C ÷ +90 °C *
Resolution	0,03 °C
Accuracy	±0,25 °C with calibration certificate Standard calibration certificate: -10°C, 0°C, 10°C, 25°C, 50°C (other temperatures available on demand) ±1 °C without calibration certificate **
N° acquisitions	Acquisitions storage on PC Hard Drive
Acquisition interval	From 1 reading every 3 seconds to 1 reading every 255 minutes
Battery	Factory replaceable
Autonomy	More than 500.000 acquisitions/transmissions - more than 10 years with standard use (24 acquisitions per day)
Mission length	Depending on the Hard Drive free memory
Protection degree	IP68 probe; IP67 case; IP40 connectors

* Depends on cable and sensor. Effective range is within calibration points interval and is 100°C for maximum resolution

** post production data without calibration



TSR	
Operating systems	Windows 2000, XP, Vista
Data management	Database organized on sensor's serial number and start date of the mission
Data display	Graph and table (exportable in Excel) and data printing in reports
Multi-graph	Up to 4 graph can be displayed simultaneously
Alarms	Visual and sound alarms on set thresholds (different for each sensor)
Communication	USB for the USB Radio Receiver and for TempStick Radio Interface (for unit configuration and programming); Radio 433 MHz
Languages	English, Italian



USB Radio Receiver	
Software	TSR
Size	6,5 X 5 X 4,5 cm
Antenna	External (provided with the USB Radio Receiver)
Communication	USB (no driver installation required), cable provided
Transmission Range	250 mt open space, 80 mt closed environment (transmission range may be affected by obstacles of different nature)



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UNI EN ISO 9001:2000 certified for Firmware and Software development