



PhoenixTM
Phoenix Temperature Measurement

Where experience counts!!

Wireless Transmission for Data Loggers



PhoenixTM Profiling and Surveying systems are designed to record the temperature of the product or process without the need for cumbersome trailing thermocouples. The system operates from within the process where the data logger, protected by a thermal barrier, is able to record temperatures from up to 20 thermocouples with a single logger (60 maximum - 3 loggers together).

For some processes it is desirable, or even necessary, to be able to see and evaluate the temperature data in real time. This can be achieved by radio frequency transmission from the data logger (inside the furnace), to a receiver (outside the furnace).

The PhoenixTM data logger can be equipped with a transmitter and high temperature antenna that allows it to collect temperature data from the process and store it within the data logger's memory, while simultaneously transmitting it to a coordinator outside the furnace.

The PhoenixTM telemetry system uses 'LwMesh' networking Protocol with channel settings that do not overlap with other wireless communications. Outside the furnace, wireless mesh networks allow receipt and re-transmission of data through a variety of router configurations which find the strongest path and allow self healing of the radio network if part of the system is removed. It is robust, reliable, self-configuring, and provides a simple, cost-effective and battery-efficient system. It is also a true wireless system needing no cable between the coordinator and routers.

In practice (in a heat treatment plant for example), a series of routers can pick up and re-broadcast data being transmitted from within a furnace, to a remote office where the operator can monitor the survey or process.

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PHOENIXTM WIRELESS TRANSMISSION

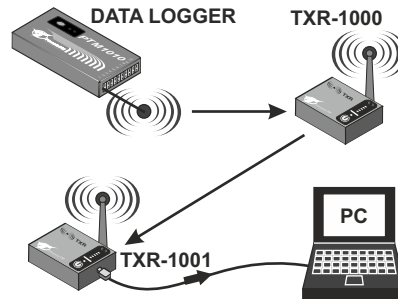


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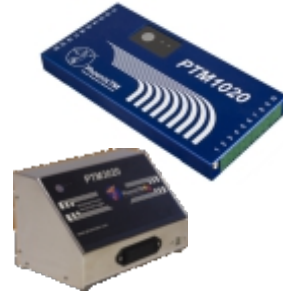
Specifications

General Description:

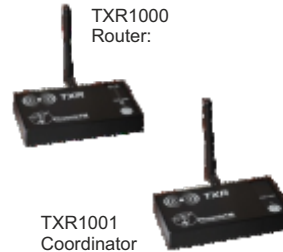
- Uses 'LwMesh' networking protocol, routers can be added/removed with no additional system configuration
- True wireless system, no interconnecting wires between routers
- Tough machined aluminium case for router and coordinators
- Uses standard batteries or standard mains adaptors
- All standard USB connections



Data Logger Transmitter:		
Logger Model Number:	PTM1-006TX, PTM1-010TX, PTM1-020TX, PTM3-020TX	
Region:	Europe:	Universal:
Frequency:	868 MHz	2.4 Ghz
Power Output:	Up to 5 dBm	Up to 3 dBm
Transmission Speed:	40 Kbits/sec.	250 Kbits/sec.
Transmission Range:	300m + in free space	150m + in free space
Power Source:	Batteries (see data logger specification sheet)	



Router and Coordinator:		
Region:	Europe:	Universal:
Model Number - Router:	TXR1000-TE	TXR1000-TX
Model Number - Coordinator	TXR1001-TE	TXR1001-TX
Frequency:	868 MHz	2.4 Ghz
Power Output:	Up to 5 dBm	Up to 3 dBm
Transmission Speed:	40 Kbits/sec.	250 Kbits/sec.
Transmission Range:	300m + in free space	150m + in free space
Dimensions:	70 H x 122 W x 20 Deep	
Power Source (TXR1001):	USB (From PC)	
Power Source (TXR1000):	2 x 'AA' Alkaline replaceable batteries or USB mains power adaptor.	
Software required:	SW15, SW25, SW35, SW45, (but not available for SW05)	
Operating temperature range:	-40°C to +85°C	
Wall Bracket for TXR1000:	AC40-008	



High Temperature Antenna	AC30-001	
Finishing / Food Antenna	AC30-007 (2.4 GHz)	
	AC30-007 (868 MHz)	

Note: As products are continually improved, specifications may be changed without prior notice.

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RF Telemetry July 2015 UK

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