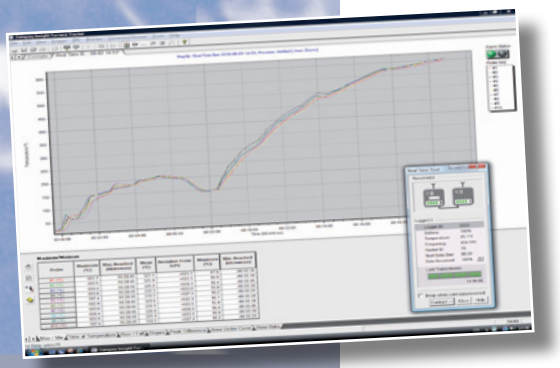
DATAPAQ®
A Fluke Company

Q18
Radio Telemetry System

Live real-time temperature data direct from your thermal process

The Datapaq® Q18 radio telemetry system utilizes the latest radio-frequency technology to allow data transmission from the data logger in real time. As the Datapaq system travels through the process, product and process temperature data can be viewed, analyzed and reported instantaneously. This technology can be applied to monitoring key thermal processes in most industrial heating applications.



SYSTEM FEATURES

- System can be tailored to meet your specific process requirements
  Batch Process(es) – Simple primary receiver kit
  Demanding Conveyorized Processes – Primary receiver complemented with add-on modular secondary receivers
- Automatic frequency selection from software, minimizing interference and maximizing signal quality
- Intelligent listen-before-transmit feature enables the system to operate with multiple loggers on the same transmitting frequency and data collection with one installation of Datapaq Insight™ software
- Receivers connected in series with low-loss RS485 communications bus, maximizing data reception
- Comprehensive on screen real time system diagnostics reporting signal status for each transmitting logger and receiver
- Transmission performance optimized for high-temperature operation with internal self-calibration routines
- The radio system has full approval to European and FCC regulations.
- Ultra low power consumption extends battery life and operating life
- In-logger data storage backs up transmitted data ensuring integrity of data

FEATURES AND BENEFITS

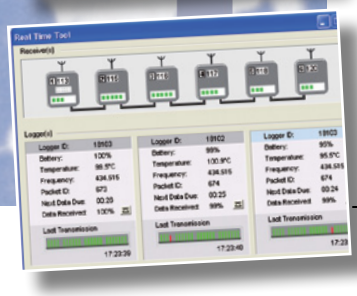
Rapid QA – Know that your product has been thermally processed to specification before the Datapaq system has even exited the process.

Improve the productivity of any batch process – Know when critical product temperature has been achieved and allow the process to be completed or moved on to the next phase. Optimize cycle times with confidence.

Rapid fault-finding – See immediately when process problems are being experienced without having to wait until the completion of the process. Allow corrective action earlier, saving time and reducing possible scrap.

Improve efficiency of process optimization – Use live data to view the effect of any process-parameter changes on the temperature profile instantly.

TECHNICAL SPECIFICATIONS



TM21 Transmitter (TX1401)

Transmitter fitted inside data logger

Q18 logger range	6,10 and 12 Channel, Type K, 85°C Operation	
Frequency ranges*	Euro	434.065-434.740 MHz
	USA	463.525-463.975 MHz

** Contact Datapaq for frequency ranges for other approved countries*

Operating Temperature Range	0°C to 85°C
Transmission Range	200 m (656 ft) "in open field conditions"
Max Number of Transmitters per System	6
Sampling Interval Range	1 sec to 10 min
Interleaving Limits	10
Approvals*	EU-CEPT/ERC/70-03E USA-FCC CFR 47 Part 90

** Contact Datapaq for frequency ranges for other approved countries*

TM21 Primary Receiver (Euro RX4200, USA RX4100)

Primary Receiver with integral USB comms to PC. Powered by CH0070. Equipped with Type N RF connector.

Dimensions (H x W x L)	44 x 139 x 98 mm
Frequency	To match transmitter
Antenna	Desk Top 15 cm
Operating Temperature	0°C to 50°C
Status display	2 line 16 character backlit LCD

TM21 Secondary Receiver (Euro RX4201, USA RX4101)

Secondary receiver connected in series to the TM21 primary receiver with RS485 communication cable (10 to 100 m / 32 to 328 ft).

Dimensions (H x W x L)	44 x 139 x 98 mm
Frequency	To match transmitter
Antenna	Unity gain end feed with type N connector
Operating Temperature	0°C to 50°C
Status display	single power and status LED
Maximum quantity	Max 6 secondary connected to 1 primary receiver

Insight Software

- Automatic intelligent frequency selection and set-up
- Real time tool detailing quality of data transmission for each logger / receiver and system status information
- Live real-time analysis of process data and review against process set-up (zones, temperature set-points, overlays)
- Event markers log events at the precise point they happen on the profile
- Automatic data-saving to PC during run to guarantee data protection

The Worldwide Leader in Temperature Profiling

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