

FLUKE®

**Process
Instruments**

Kiln Tracker®

The Industry's Most Durable Profiling Equipment



Datapaq® Kiln Tracker System



Kiln Tracker system with TM21 radio telemetry system

Trusted market leader for over 30 years

The Datapaq Kiln Tracker continues to set the industry standard for ease-of-use, reliability and ruggedness. Over the last 30 years these systems have been used in the ceramics industry to identify kiln issues, optimize processes and set up new operations. Combine a Datapaq logger with one of our rugged, stainless steel, phased-evaporative thermal barriers, dedicated software packages and thermocouple variants, and you have a complete system that will withstand the harshest environments.

The smarter, stronger solution ... saving you time and money



10 and 20 channel case style options to suit barrier design

Data Logger Datapaq TP6

Made from a single piece of machined stainless steel with Bluetooth® communication options and multiple thermocouple types over 10 or 20 channels makes the Datapaq TP6 the toughest and smartest data logger available.

- Ten or twenty thermocouple channels for maximum data collection on each run
- Multiple thermocouple types for maximum flexibility in ceramics firing
- Reset/download and check thermocouple connections via Bluetooth using the Datapaq Insight Mobile App.
- Unique 20 channel logger design for ease-of-use and time saving setup
- High accuracy: $\pm 0.3^{\circ}\text{C}$ ($\pm 0.5^{\circ}\text{F}$) for compliance to tight specifications
- On-board memory service log for remote diagnostic and rapid on-site service
- Radio frequency (RF) telemetry for data acquisition in real time
- 4 million data points memory and enhanced battery life for more data collection even in the longest process

Radio telemetry TM21

Immediate Feedback for Setup and Problem Solving

Real time monitoring affords instant information for vital problem-solving and lets you assess the effects of changing kiln settings, as the process progresses.

- Make changes in real time to avoid issues in the following cars
- Low frequency/high power transmitting signals receive maximum data even through the thickest kiln walls
- Plug and play setup, extendable receivers and cabling for long kilns of 150 meters/493 feet or more
- All data feeds back to control room or pc room



TM21 Radio telemetry system

Thermal Barriers

Datapaq offers the widest range of thermal barriers for a variety of kilns and applications. Specifically engineered barriers are available for floor, roof, and wall tiles, heavy clay, sanitary ware and tableware. Barriers are small enough to fit beneath the kiln car, and have sufficient thermal capacity to withstand high heat for the duration of the process.



Thermal barriers

Tunnel Kiln Solution

Designed to fit under kiln cars, the TB6000 series is the ultimate choice for tunnel kilns up to 1600°C (2912°F).

- Innovative design for ease of use and rapid setup to reduce setup/removal times
- 10 or 20 measurement channels for maximum data and clearer process mapping
- Radio telemetry as optional for real time monitoring allows flexibility to adjust kiln settings in real time
- Compact design to fit under kiln car available in various capacities to suit short or longer duration processes

Roller Hearth Kiln Solutions

Proven technology uses a uniquely designed water tank surrounded by a blanket of ceramic fiber insulation. Many different solutions are available as standard and made-to-order systems can be supplied.

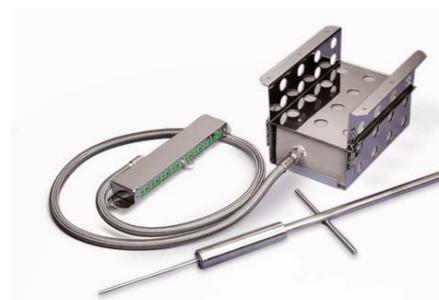
- 10 or 20 measurement channels for monitoring ambient and ware body, detects temperature variations across the kiln
- Low height design to fit all roller hearth kilns for minimal disturbance during the process
- Easy setup and removal – reduce setup time and manpower
- Real time radio telemetry as optional – make changes in real time during production



Kiln Tracker system in roller hearth sanitaryware kiln

Hydro Kiln Solutions

- Designed for tunnel hydro kilns – fully water tight
- Real time radio telemetry as optional allows changes on the fly
- Robust 310 stainless steel resists corrosion and provides long service life



Thermal barrier with 'in kiln' antenna

Technical Specifications

Data Loggers

Model number	TP6126	TP6326
Temperature range	-100 °C to 1370 °C (-148 °F to 2498 °F)	
Connectivity	USB or Bluetooth®	
Max. operating temperature	110 °C (230 °F)	
Memory capacity	4 million data points	
Number of channels	10	20
Sampling interval	0.1 s – 50 min no telemetry 2 s – 50 min RF telemetry	
Logger accuracy	±0.3 °C (±0.5 °F)	
Battery	Lithium AA replaceable	
Battery life	1 min sample interval 100 °C (212 °F) = 500 hours	1 min sample interval 100 °C (212 °F) = 450 hours
Thermocouple type	K (other types available)	

Thermal Barriers for Tunnel Kilns

Part number	Height	Width	Length	Time at Temperature		
				@ 150 °C (300 °F)	@ 200 °C (400 °F)	@ 400 °C (750 °F)
TB6100	180 mm (7.1 in)	350 mm (13.8 in)	480 mm (18.9 in)	250 h	115 h	35 h
TB6200	154 mm (6.1 in)	279 mm (11 in)	429 mm (16.9 in)	150 h	78 h	25 h
TB6400	120 mm (4.7 in)	200 mm (7.9 in)	370 mm (14.6 in)	98 h	48 h	12 h

Thermal Barriers for Roller Hearth Kilns

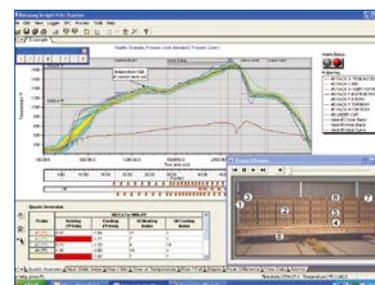
Part number	Height	Width	Length	Thermal duration [hours] @ average 700 °C (1290 °F)	Maximum operating temp.	Industry
TB3031	150 mm (5.9 in)	382 mm (15 in)	610 mm (24 in)	5 h	1200 °C (2192 °F)	Roof tiles
TB3036	200 mm (7.8 in)	432 mm (17 in)	660 mm (25.9 in)	7 h	1200 °C (2192 °F)	Tableware
TB3038	300 mm (11.8 in)	512 mm (20.1 in)	735 mm (28.9 in)	16 h	1200 °C (2192 °F)	Sanitaryware

Fluke Process Instruments makes over 100 thermal barriers. Contact us with your process details to select the barrier specific to your application.

Insight™ software for Kiln Tracker

Designed for all user levels, the software starts in wizard mode and guides the user through the basic setup of a kiln profile. Alarms automatically alert the user when a process comes too close to acceptable tolerances. Advanced analysis for product development and fault finding.

- Quartz inversion index – measure the “noisiness” of a profile in the QI zones; determination whether heating/cooling rates or transient rate changes are most affecting product quality
- Tolerance/reference curve overlay, advanced data export/import, enhanced process files, advanced thermograph view and customized reporting
- Calibration reminder to let you know when your logger is due for calibration, for ISO9000 traceability
- Set up your own “alarm” system to alert you when a process is out of specification



Kiln Tracker analysis software

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Worldwide Service

Fluke Process Instruments offers services including repair and calibration. For more information, contact your local office.

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