



**Phoenix<sup>TM</sup>**   
Phoenix Temperature Measurement

# FIS04 ATEX System

Intrinsically Safe Temperature Monitoring System



*..where experience and safety counts !*

# FIS04 ATEX System Intrinsically Safe Temperature Monitoring System

## Data logger

The robust ten channel data logger has been designed specifically to temperature profile the paint processes in full detail to allow paint cure QA, identify oven faults and allow process improvements. Cold junction compensation with feed back error detection and noise reduction ensures accurate and reliable data. The data logger is supplied with a factory calibration certificate traceable to national standard and ATEX cat 3 Conformity Certificate. Optional certification to UKAS(UK) or DKD(Germany) can be supplied if required.

Type	PTM1-410 Epsilon-x
No. of channels	10
Thermocouple type	K
Measurement range	Type K: 0°C - +500°C
Accuracy	+/- 0.3°C
Resolution	0.1°C
Max operating temperature	80°C
Battery type	2 x Tadiran SL560 (AA User Replaceable)
Sampling rate	Adjustable from 0.2 second to 1 hour
Memory	Up to 3.8M data points, non-volatile memory
Start trigger	Time, temperature, start button or software
Dimensions	20 x 52.5 x 271mm (h x w x l)



Bluetooth PC connection



ATEX Classification

Group II (Surface) System Category 3  
Gas ATEX Zone 2  
CE Ex II 3G Ex ic IIC Gc Tamb 0 to 80 °C  
ExVeritas 19 ATEX 0472 X

ATEX Certificate No

Robust housing for reliable use in hostile environments



User replaceable batteries  
Up to 1000 hours measurement time



### ATEX (ATmosphere EXplosive)

To perform a temperature profile on a solvent or water-based coating line requires that the profiling system be passed through zones / areas that are classified as potentially hazardous. These areas may include the paint booth, flash off zone and even the paint curing oven itself. In such areas potentially explosive gases / volatile organic compounds (VOC) may be present from solvents such as Acetone, Toluene and Xylene, used in and released from the coatings or as cleaning agents. As defined by ATEX99/92/EC equipment used in such areas should meet specific ATEX requirements.

### PhoenixTM can provide a solution:

The logger is certified as Group II Category 3G for intrinsically safe operation in gaseous environments defined as Zone 2 in ATEX 99/92/EC.

Classification of equipment use in hazardous zones and identification of Zone classification (at varying solvent concentrations) in the paint application complies with European standards;

- EN 16985:2018 "Spray Booths for organic coating material – Safety requirements"
- EN 1539:2015 "Dryers and ovens in which flammable substances are released – Safety requirements"





## TS04 Thermal Barrier

The TS04-105-1 barrier designed specifically for use with the PTM1410 provides over 3.5 hours protection at 200 °C. Such protection provides safe operation through multiple sequential cure processes on the paint line (Ecoat, Primer, Top Coat) and keeps the data logger at a safe operating temperature to comply with intrinsic safety requirements. Ideal for use in the automotive industry these thermal barriers feature robust stainless steel case, dual handles, microporous insulation, phase change heat sink and 100% silicone free construction.



Standard TS04-105 performance:

Type	TS04-105
100°C	10.1 h
150°C	5.4 h
200°C	3.7 h
250°C	3.0 h
Height	105 mm
Width	188 mm
Length	441 mm
Weight	8.5 kg

Magnetic plate for thermocouple storage and efficient transfer to the product.



U shaped heat sink with very high thermal capacity and gas tight seals.



Need a thermal barrier to suit your application? Tell us your requirements and if it's possible we'll design and manufacture it for you! We are constantly developing and looking forward to any new challenge.

Dual thermocouple exits for 10ch data logger support and silicone free construction.



## Thermocouples

All Phoenix TM finishing thermocouples are manufactured using the highest quality materials and conform to ANSI 96.1 special limits specification. The thermocouples are designed to withstand rough handling and uniquely include user replaceable sensors to minimise long term running costs.

Available as magnetic, clamp or exposed junction, the thermocouples are PTFE insulated, triple wrapped with stainless steel braid, and have a final overall PTFE insulation.

Magnetic surface and air thermocouples.



Clamp surface and air thermocouples.

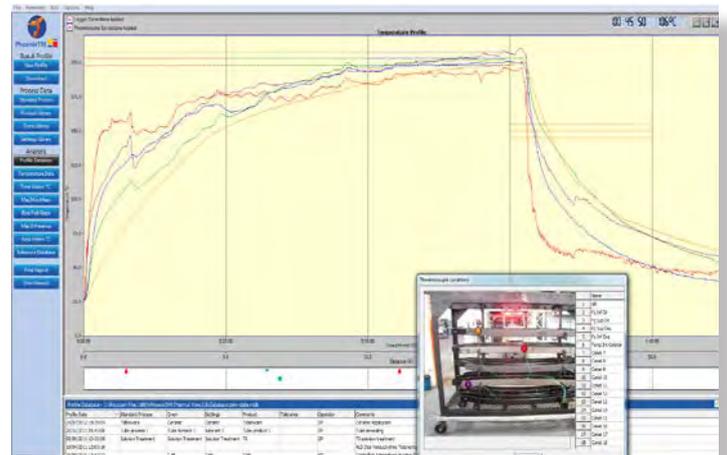
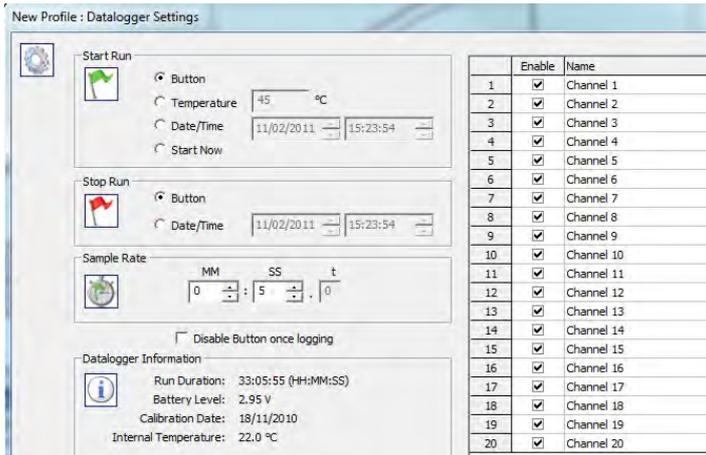


# Thermal View Finishing

The easy way to get a perfect result!



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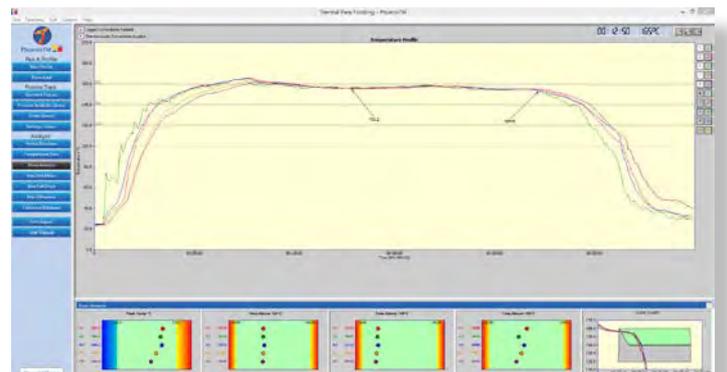
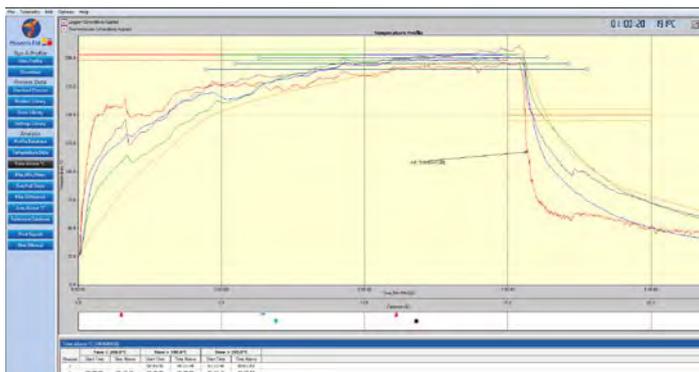


Simply enter:

- How to start the data logger
- The rate at which data is to be collected
- The number of thermocouples to be used.

For regular measurements these can be set with one mouse click or pressing the data logger start button.

The temperature profile is displayed in the graphics window of the Thermal View software. Thermocouple profiles can be switched on or off individually and you can zoom in for more detailed analysis.



Comprehensive analysis tools are located on the left side of the screen for single click analysis and report generation. Data import and export in both .csv and PhoenixTM formats are available allowing electronic transfer of process data.

Instant visual confirmation of compliance to curing specification. Includes one page report summary for easy archiving and process traceability



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