



Data Logger Dwell Time (Time vs. Temperature)

A **Thermal Barrier** is used to protect the SCORPION® 2 Data Logger from extreme hot and cold conditions found in commercial ovens and freezers. By sliding the data logger inside the thermal barrier, thermal migration is delayed from damaging the sensitive electronic circuitry.



Several thermal barrier heights are available to cover a wide range of process temperatures and dwell times. The height is the thickness of the thermal barrier, which translates to the headroom required to pass the SCORPION® 2 through the process.

The Data Logger Dwell Time Graph is used to determine what size thermal barrier is required for safe operation. The thermal barrier performances for the 6 standard sizes are displayed.



THB40 THB50 THB60 THB80 THB100 THB125

Thermal Barriers:

THB40: H = 40.0mm (1.6") x W = 25.0cm (9.8") x L = 29.1cm (11.5")

THB50: H = 50.0mm (2.0") x W = 25.0cm (9.8") x L = 29.1cm (11.5")

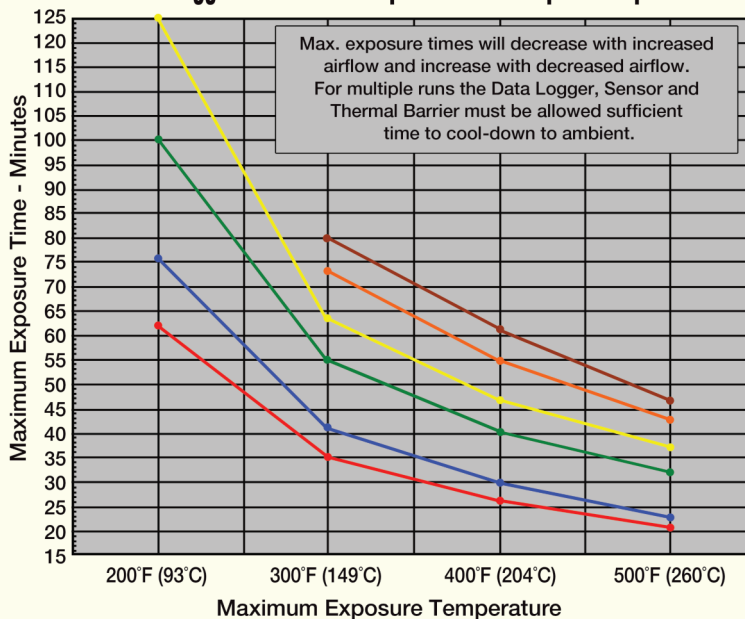
THB60: H = 60.0mm (2.4") x W = 26.0cm (10.2") x L = 29.1cm (11.5")

THB80: H = 80.0mm (3.2") x W = 28.0cm (11.0") x L = 32.1cm (12.6")

THB100: H = 100.0mm (3.9") x W = 32.5cm (12.8") x L = 39.1cm (15.4")

THB125: H = 125.0mm (4.9") x W = 32.5cm (12.8") x L = 39.1cm (15.4")

Data Logger Dwell Time Graph in Air at 500fpm/2.5mps



Max. exposure times will decrease with increased airflow and increase with decreased airflow. For multiple runs the Data Logger, Sensor and Thermal Barrier must be allowed sufficient time to cool-down to ambient.

Data Logger, Sensor & Thermal Barrier Starting temp = 75°F (24°C) Data Logger Ending temp = 158°F (70°C) Max internal temp

Thermal Barrier Height	Color	Height
40 mm	Red	1.6"
50 mm	Blue	2.0"
60 mm	Green	2.4"
80 mm	Yellow	3.2"
100 mm	Orange	3.9"
125 mm	Brown	4.9"



READING THERMAL