THERMOVAULT140
Thermal Barrier System

Features

- 300 Series Stainless Steel Enclosure
- Small 2.5" Diameter
- Submersible
- Withstands temperatures up to 350°C for 140 minutes continuously

Applications

- Extreme Temperature Monitoring
- Depyrogenation
- Food Processing
- Oven Monitoring
  - Curing Ovens
  - Baking Ovens
  - Batch Ovens
  - Conveyor or Continuous Oven
  - Walk-in / Truck-in Ovens
- Dry Heat Sterilization
- Autoclave Validation
- Furnace / Kiln Profiling
- Geothermal down-hole temperature recording

The ThermoVault140 is an extreme, high temperature thermal barrier designed for use with the Hitemp140-5.25-TD and HiTemp140-PT-1 data loggers. The thermal barrier is made from a stainless steel enclosure containing a Dewar flask and PTFE insulation. This durable system can withstand temperatures up to 250°C when completely submerged and 350°C in dry heat applications (O-Ring removed). The ThermoVault140 is built for use in harsh applications that require extreme temperature monitoring, such as with furnace profiling, geothermal down-hole recording, and oven data logging.

Using the MadgeTech software, the data logger is fast and easy to set up. Simply open the enclosure and insert the data logger into the IFC400 docking station (sold separately). Using the software, an immediate or delay start can be chosen, as well as the reading rate. Select Start to program the settings and start the data logger. Place the cap back onto the enclosure and screw it back together. The device is ready to be deployed.

The ThermoVault140 includes the thermal barrier only. The ThermoVault140-5.25-TD includes the thermal barrier as well as a HiTemp140-5.25-TD data logger. The ThermoVault140-PT-1 includes the thermal barrier as well as a HiTemp140-PT-1 data logger. The 5.25" probe is ideal for ambient temperature monitoring, while the 24" flexible probe can be easily adjusted to measure hard-to-reach locations, or even the internal temperature of a product.

THERMOVAULT140 SPECIFICATIONS*

Operating Environment	Refer to the Time vs. Temperature Chart
IP Rating	IP50 (no O-Ring), IP68 (O-Ring installed)
Probe Junction/Type	0.130" Thru-Hole, Compression Fitting (3/16" PTFE Sealing Ferrule)
Enclosure Materials	**Enclosure:** 300 Series Stainless Steel **Seals:** PTFE & Silicone Rubber **Insulation:** Dewar Flask & PTFE
Dimensions	2.50" OD x 6.5" L (63.5mm OD x 165mm L)
Minimum Recommended Probe Length	5.25"L
Weight	2.5lbs (1135g)
Max Sustainable Pressure	30 PSIA
Max Sustainable Depth (in H2O)	70 feet (21 meters)
Approval	CE

Time vs. Temperature Chart

Ambient Temperature	Maximum Exposure Time (air)	Maximum Exposure Time (liquid)
150°C	525 minutes	285 minutes
175°C	360 minutes	165 minutes
200°C	285 minutes	120 minutes
225°C	240 minutes	95 minutes
250°C	205 minutes	80 minutes
275°C	180 minutes	n/a
300°C	165 minutes	n/a
325°C	150 minutes	n/a
350°C	140 minutes	n/a

*SEE THE HITEMP140 SPECIFICATION SHEET FOR MORE INFORMATION

ORDERING INFORMATION

For pricing or any further information, please contact Omni Instruments Ltd.

MODEL	DESCRIPTION
THERMOVAULT140	Thermal Barrier for the HiTemp140 Series
THERMOVAULT140-5.25-TD	Thermal Barrier System & HiTemp140-5.25-TD
THERMOVAULT140-PT-1	Thermal Barrier System & HiTemp140-PT-1

Measurement and data acquisition solutions

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