

Furnace Tracker[®]

TB4900 and TB4000 Thermal Barrier Series

TB4900 SERIES

The DATAPAQ[®] 4900 thermal barrier series combines experience with advanced design technology to give maximum protection to the data logger as the system passes through the furnace. Using a balanced combination of micro-porous insulation and phase-change heat sink, the data logger is kept at a maximum temperature of 70°C (158°F) throughout the process, even though the external temperature may exceed 1000°C (1832°F).

The TB4900 series is ideal for use in heat treatment, aluminum, steel and uniformity survey applications.



TB4900 series



TB4915 thermal barrier

FEATURES AND BENEFITS

- Operating temperatures up to 1000°C (1832°F)
- Exterior and handles (including fasteners), made from 310 stainless steel, provide the best resistance to oxidation at extreme temperatures
- DATAPAQ Floating Plate[®] design technology minimizes distortion and prolongs life
- Health and safety preferred mullite textile barrier lining eliminates the need for ceramic fiber
- User-replaceable mullite textile wear strips to protect the thermocouple exits and minimize maintenance costs
- Rounded edges on barrier lid and base to alleviate the effects of thermal stress
- Dual exit versions available for 20+ channel operation

TECHNICAL SPECIFICATIONS

Thermal barrier	TB4915	TB4938	TB4933
Height	104 mm / 4.1 in	217 mm / 8.5 in	304 mm / 12 in
Width	247 mm / 9.7 in	291 mm / 11.4 in	406 mm / 16 in
Length (including handles)	529 mm / 20.8 in	522 mm / 20.5 in	613 mm / 24.1 in
Weight (including heat sink)	9.5 kg / 21 lb	26 kg / 57.3 lb	44 kg / 97 lb

All barriers are available in dual exit versions for 20 channel support.
Contact DATAPAQ for a full range of thermal barriers and specifications.

Thermal performance	TB4915	TB4938	TB4933
400°C / 792°F	1hr 50 min	9 hrs	18 hrs
600°C / 1112°F	1hr 10 min	5hrs 30 min	10hrs 30 min
800°C / 1472°F	50 min	3hrs 45 min	8hrs 30 min
1000°C / 1832°F	40 min	2hrs 30 min	7hrs 30 min

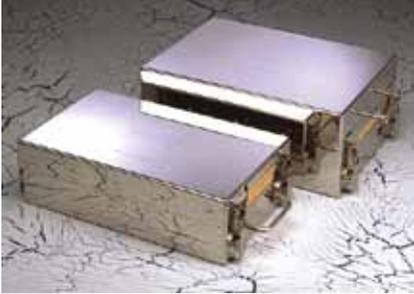
All figures are for average and not maximum temperature in still air atmosphere.
For mixed atmospheres durations contact DATAPAQ.

Compatible data loggers: TP3, DQ1860, Tpaq21
Thermocouples: 1,6 and 2 mm / 0.5 and 0.7 in mineral insulated

TB4000 SERIES

The TB4000 thermal barrier series work in two stages to keep the logger at a safe operating temperature as it travels through the furnace at temperatures up to 800°C (1472°F).

Micro-porous insulation slows down the passage of heat. The second layer of insulation features a unique heat sink with phase-change material that maintains an internal temperature of 70°C (158°F).



TB4000 series



TB4000 thermal barrier

FEATURES AND BENEFITS

- Operating temperatures up to 800°C (1472°F)
- Rugged 304 stainless steel construction
- Micro-porous insulation provides the best thermal protection of any known material
- Various heights available to meet limited clearances
- Wear strips minimize maintenance costs
- Environmentally preferred mullite textile barrier lining
- Optional stand to avoid distortion, i.e. due to differential thermal contraction if a hot barrier is placed on a cold floor
- Compatible loggers: TP3 and DQ1860
- TM21 telemetry compatible
- Option of low height barriers where furnace height clearance is limited

TECHNICAL SPECIFICATIONS

Thermal barrier	TB4005	TB4012	TB4033
Height	125 mm / 4.9 in	170 mm / 6.7 in	300 mm / 11.8 in
Width	247 mm / 9.7 in	296 mm / 11.6 in	406 mm / 16 in
Length (including handles)	504 mm / 19.8 in	511 mm / 20.1 in	593 mm / 23.4 in
Weight (including heat sink)	11.95 kg / 26 lb	20 kg / 44 lb	43 kg / 95 lb

All barriers are available in dual exit versions for 20 channel support.
Contact DATAPAQ for a full range of thermal barriers and specifications.

Thermal performance	TB4005	TB4012	TB4033
400°C / 792°F	2 hrs	6 hrs 30min	18 hrs
500°C / 932°F	1 hr 30min	5 hrs	14 hrs
600°C / 1112°F	1 hr 15min	4 hrs	10 hrs 30 min
800°C / 1472°F	1 hr	2 hrs	8 hrs 30 min

All figures are for average and not maximum temperature in still air atmosphere.
For mixed atmospheres durations contact DATAPAQ.

Compatible data loggers: TP3, DQ1860, Tpaq21
Thermocouples: 1.6 and 2 mm / 0.5 and 0.7 in mineral insulated

CUSTOMIZED THERMAL BARRIERS

DATAPAQ designs and manufactures customized thermal barriers to fit special applications. A dedicated mechanical design team, test facilities and on-site commissioning are available.

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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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