Laser Diode Technologies

Thermal Management Accessories

Our thermo-electric coolers are an ideal solution for medium to large heat pumping applications. Use with our line of TED Series TEC controllers. (See page 385)

<table>
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<th>ITEM #</th>
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<th>€</th>
<th>¥</th>
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TEC3-6

Resistive Heaters

Thorlabs offers two new additions to our line of thermal management accessories. The HT10K is a resistive foil heater with pressure sensitive adhesive backing. A 10kΩ NTC thermistor is integrated directly onto the heater.

The HT15W is a 15W miniature cartridge heater which can be used for many applications requiring small areas to be heated. Both heaters are compatible with our TC200 Temperature Controller. (See page 559)

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HT10K Specifications
- Heater Resistance: 19.7 Ω
- Sensor Type: NTC10K Thermistor
- Size: 1" x 3"
- Heating Capacity: 10W/in² @ 70°C
- Effective Heating Area: 2.23 in²

HT10W Specifications
- Heater Resistance: 35 Ω (typ.)
- Size: Ø1/8" x 1/2" long
- Heating Capacity: 15W @ 24V

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Thermistors & Temperature Transducers

The TH10K is a 10kΩ thermistor with 1°C accuracy for use in common TEC applications.

The AD590 is an IC temperature transducer which produces an output current proportional to absolute temperature.

The TH100PT is a 100Ω RTD with a positive linear temperature response, platinum thermistor.

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AD590 Specifications
- Linear Current Output: 1mA/K
- Operating Range: -55°C to + 150°C
- Power Supply Range: +4V to +30V

TH100PT Specifications
- Rating: 100Ω @ 0°C
- Temperature Coefficient: 3.85 x 10⁻³/K
- Accuracy: Class B Tolerance (± 0.3°C @ 100 Ω)
- Operating Range: -200 to 850°C

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TH10K Specifications
- Temperature Accuracy: ±1°C @ 25°C
- Dissipation Constant: 1.4mW/°C
- Time Constant: 15 sec.
- Operating Range: -50°C to + 150°C
- Temperature Coefficient: -4.40%/°C @ 25°C

TH100PT Specifications
- Rating: 100Ω @ 0°C
- Temperature Coefficient: 3.85 x 10⁻³/K
- Accuracy: Class B Tolerance (± 0.3°C @ 100 Ω)
- Operating Range: -200 to 850°C