

TP04310A

Mobile Temperature System for testing components, hybrids, parts, modules, subassemblies and printed circuit boards at precise temperature

TEMPERATURE PERFORMANCE AND AIRFLOW CAPACITY

Temperature Range:^{1,3}

-80° to +225°C (60 Hz System)
-75° to +225°C (50 Hz System)

Typical Temperature Transition Rate (air)^{1,2}

-55° to +125°C: approximately 10 seconds or less²
+125° to -55°C: approximately 10 seconds or less²

System air flow output

Temperature accuracy 1.0°C (when calibrated against NIST transfer standard)

Temperature set, display and resolution $\pm 0.1^\circ\text{C}$

Temperature Control:

DUT Sensor Ports

Type T and Type K Thermocouple ports standard

DUT Control

Control to within $\pm 0.1^\circ\text{C}$; SELF-TUNING available in DUT Control

Remote interface ports

IEEE-488, RS232C Serial, and Start Test/End of Test/Stop on First Fail (ST/ET/SFF)

¹Note: Ultimate low temperature and system performance may vary under operating conditions less than or greater than nominal.

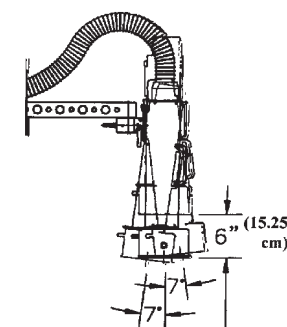
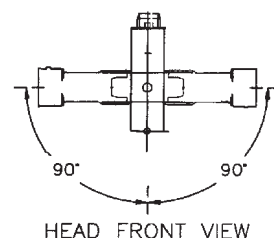
²Note: Transition performed under nominal operating conditions.

³Note: Low temperature extremes can be achieved at reduced airflow rates.



USER FEATURES

| | |
|--|---|
| Modes of Operation | Two: Manual and Program Modes |
| Test set-up configurations | 12 Manual Mode test programs and 12 Program Mode test programs may be created |
| Test set-up storage | 11 Manual Mode test programs, 11 Program Mode test programs and 11 affiliated "Define Parameters" test set-ups can be stored for later recall. |
| Ramp/soak/cycle configurations | In Program Mode, up to 12 sequences per test set-up; table is displayed on-screen |
| DUT temperature control | Patented ⁴ Dual Loop Temperature Control |
| Status indicators | Real-time status displayed on-screen and via remote interface |
| Purge flow tester interface protection | Dry air purge protects tester electronics from condensation |
| Purge flow capacity | 0.25 to 1.5 liters per second (0.5 to 3 scfm) airflow |
| Calibration | Automated, simplified and accurate for all airflows and DUT types |
| Thermal head raising and lowering | Pneumatic control on thermal head, operated manually or via remote interface |
| Head positioner movement | Manual locking (4 locks), 360° head rotation; head can be manually pivoted, turned, tilted and vertically swung for ease of interface at tester site. |
| Manipulator (arm) movement | Motorized raising and lowering of arm; 330° positioning range around the base unit |



TEMPTRONIC
an inTEST Company

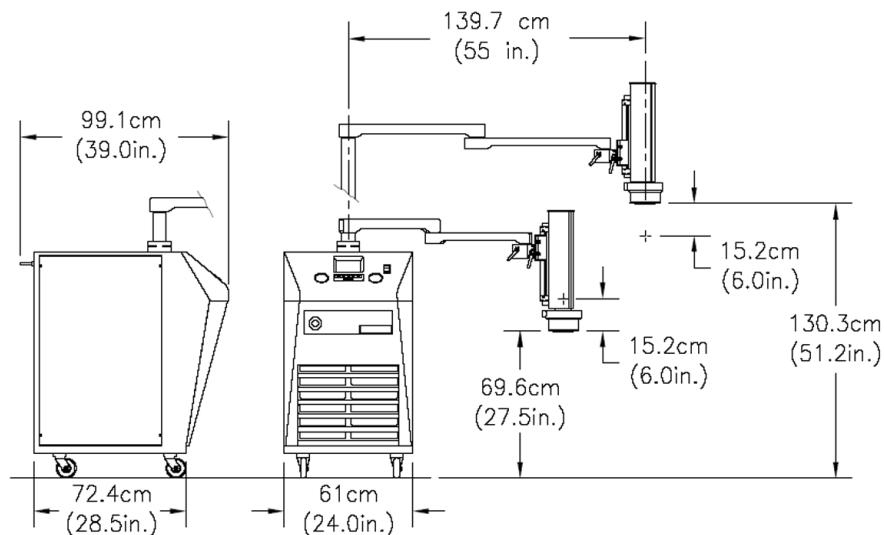
Part No. SL10290 R/C

⁴Note: US Patent no. 4,734,872



Model TP04310A ThermoStream[®] System Specifications

Model TP04310A
ThermoStream®
System
Specifications



ENVIRONMENTAL AND SAFETY FEATURES

| | |
|-----------------------------|--|
| Over-Temperature Protection | +235°C (factory-set) (Also uses user-settable high and low air temperature limit) |
| Mobility | 4 swivel caster wheels with locks (10.16 cm (4 inch) diameter, static dissipative); rear handle for ease of transport |
| Refrigerants | HCFC-free and CFC-free, non-toxic, non-flammable |
| Noise level | <65 dBA approximately |
| Serviceability | Field-replacement modules and printed circuit boards |
| Weights and Dimensions | Base: <u>Width:</u> 61.0 cm (24 in.) <u>Depth:</u> 71.1 cm (28 in.); <u>Height:</u> 108 cm (42.5 in.); <u>System weight:</u> 236 kg (520 lbs); <u>Packed:</u> 365 kg (805 lbs) |
| Maximum operating height | 130.3 cm (51.25 in.) approximately |
| Minimum operating height | 69.9 cm (27.5 in.) approximately |

(An additional 20.3 cm (8 in.) rear clearance is required for supply connections and cabinet ventilation.)

FACILITY REQUIREMENTS

| | |
|--|---|
| Power Requirements ⁵ | 200-250 VAC (230V nominal), 50 Hz, 30 amp, 1 phase 200-250 VAC (230V nominal), 60 Hz, 30 amp, 1 phase |
| Compressed Air Requirements | |
| Clean, Dry Air | Filtered to 5 micron particulate contamination Oil content: <0.01 ppm by weight filtered to .01 micron oil contaminant Dewpoint: <10°C @ 6.2 BAR (90PSI) |
| Supply Pressure | 6.2 to 7.6 BAR (90 to 110 PSIG) |
| Supply flow at minimum supply pressure | 7.2 l/s to 14.3 l/s (15 to 30 scfm) (Nominal 25 scfm) |
| Air supply temperature | +20° to +25°C (+22°C nominal) |
| Operating Temperature | +20° to +28°C (+23°C nominal) |
| Humidity | 0 to 60% (45% nominal) |

⁵Note: System is configured for operation within voltages listed above using an internal transformer. Please specify power configuration with order.

*Under operating conditions which are less or greater than nominal, performance may be less than specification provided.

ISO 9001-2000 Certified



TEMPTRONIC
an inTEST Company

4 Commercial Street
Sharon, MA 02067 USA
Tel: (781) 688-2300
Fax: (781) 688-2301
www.temptronic.com

Windows® is a registered trademark of Microsoft Corporation.

ThermoStream® and ThermoFixture® are registered trademarks of Temptronic Corporation.

Copyright 2000, 2002, 2005 Temptronic Corporation. These specifications are valid for the standard product and are subject to change without notice. Applications requiring modification of electrical, thermal or mechanical characteristics should be discussed with the factory for possible accommodation at an additional cost. Printed in USA.

Part No. SL10290 R/C 3/2005