

# hot point® Dry Block Probe Calibrators

CL900/950 Series



Optional

**PATENTED**

*Covered by U.S. and International patents and pending applications.*



CL950 hot point® dry block calibrator, shown smaller than actual size with MDSS41-TC benchtop thermometer (see [newportUS.com](http://newportUS.com)) calibrating multiple thermocouple probes (see [newportUS.com](http://newportUS.com)).

- ✓ Calibrates Thermocouples and RTD's in Seconds
- ✓ Highly Accurate 0.9°C (1.5°F) and Exceptional Stability (0.3°F) for Precision Calibrations
- ✓ Completely Portable for Factory, Laboratory and Instrument Shops
- ✓ Interchangeable Test Wells and CL950 Built-In 5 Port Well Design Provides Customer Flexibility
- ✓ Wide Temperature Range 40°F Above Ambient to 900°F (482°C) Covers Most Industrial Applications
- ✓ NIST Calibration Available

NEWPORT's hot point® calibrators allow calibration of thermocouple and RTD probes quickly and easily with accuracy to 0.9°C (1.5°F). An integral RTD sensor assures high measurement accuracy and repeatability. A built-in microprocessor-based PID digital controller assures exceptional stability. Setpoint and actual temperature are displayed simultaneously. Temperature can be set in one-degree increments from 22°C (40°F) above ambient to 482°C (900°F).

The CL900 calibrator accepts a variety of standard and metric optional inserts which are available in 4 and 6" depths and for probe diameters from 1/8" to 3/8". An undrilled insert is also available. The CL900 comes complete with a 1/4" diameter, 6" deep insert well and insert block tongs. Additional inserts can be

ordered separately as required for other diameter probes. 6" depth inserts are used for probes 7" and longer; 4" depth inserts are used for probes 5" and longer.

The CL950 calibrator features a built-in well with 5 ports sized to accommodate a 1/6", 1/8", 3/16", and two 1/4" diameter probes. The multi-port design allows for the use of a calibrated or NIST-traceable probe and meter to be used as a standard while calibrating other probes. The 5 port design also allows for calibration of more than 1 probe at a time, and eliminates the need for separate insert wells.

**Caution:** To avoid fire hazard or damage to your calibrator, always allow your calibrator to cool down to ambient temperature before returning to storage.



CL950 multi-well accepts up to 5 probes at one time and comes standard with 1/16, 1/8, 3/16 and two 1/4" diameter holes.



CL900 accepts any insert listed in the table at right.

## Specifications

(All specifications are based on the test probes being in contact with the bottom of the test well)

**Temperature Range:** Ambient 22 to 482°C (40 to 900°F)

**Operating Ambient Temperature Range:** 5°C to 38°C (40°F to 100°F)

**Accuracy:** (1°F resolution)

**CL900 with 6" Test Well Inserts:**

±1.5°F ±1 LSD

**CL900 with 4" Test Well Inserts:**

±3°F ±1 LSD

**CL950:** ±1.5°F, ±1 LSD

**Control Stability:** ±0.3°F or better

**Temperature Uniformity (Within the Bottom 1" of the Test Well):**

**CL900 with 6" Test Well**

**Inserts:** 0.3%

**CL900 with 4" Test Well**

**Inserts:** ±0.4%

**CL950:** ± 0.3%

**Max Probe Immersion:**

**CL900 with 6" Test Well Inserts:** 150 mm (6")

**CL900 with 4" Test Well Inserts:** 100 mm (4")

**CL950:** 150 mm (6")

**Control:** Microprocessor-based PID digital controller with data retention

**Power:** 110 to 125 Vac, 50/60 Hz, 1050 W; 220 Vac, 50/60 Hz, 1050 W

**Dimensions:**

300 H x 216 W x 311 mm D (11.75 x 8.5 x 12.25")

**Weight:** 10.1 kg (22.3 lb)



CL900-110 hot point® dry block calibrator with DSS-460-K benchtop thermometer (see newportUS.com), calibrating a single thermocouple probe, shown smaller than actual size.



To Order Visit [newportUS.com/cl900\\_950](http://newportUS.com/cl900_950) for Pricing and Details

| Model No. | Description                   |
|-----------|-------------------------------|
| CL900-110 | hot point calibrator, 110 Vac |
| CL900-220 | hot point calibrator, 220 Vac |
| CL950-110 | Multi-well hot point 110V     |
| CL950-220 | Multi-well hot point 220V     |

Comes complete with operator's manual. Inserts are for CL900 and CL900A hot point calibrators only.

To order NIST Calibration points add suffix "-NIST" to model number for an additional cost.

**Ordering Examples:** CL900-110, hot point calibrator, 110 Vac, and CL905, 10 cm (4") test well insert for 6.3 cm (1/4") probes.

OCW-3, OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 4 years.

## Inserts for CL900 Series

| Model No. | Description   |
|-----------|---|
| CL901     | Insert, 1/8 diameter x 4" deep test well              |
| CL901-M   | Metric insert, 2 diameter x 101.6 mm deep test well   |
| CL902     | Insert, 1/8 diameter x 6" deep test well              |
| CL902-M   | Metric insert, 2 diameter x 152.4 mm deep test well   |
| CL903     | Insert, 3/16 diameter x 4" deep test well             |
| CL903-M   | Metric insert, 3 diameter x 101.6 mm deep test well   |
| CL904     | Insert, 3/16 diameter x 6" deep test well             |
| CL904-M   | Metric insert, 3 diameter x 152.4 mm deep test well   |
| CL905     | Insert, 1/4 diameter x 4" deep test well              |
| CL905-M   | Metric insert, 4.5 diameter x 101.6 mm deep test well |
| CL906     | Insert, 1/4 diameter x 6" deep test well              |
| CL906-M   | Metric insert, 4.5 diameter x 152.4 mm deep test well |
| CL907     | Insert, 5/16 diameter x 4" deep test well             |
| CL907-M   | Metric insert, 6 diameter x 101.6 mm deep test well   |
| CL908     | Insert, 5/16 diameter x 6" deep test well             |
| CL908-M   | Metric insert, 6 diameter x 152.4 mm deep test well   |
| CL909     | Insert, 3/8 diameter x 4" deep test well              |
| CL910     | Insert, 3/8 diameter x 6" deep test well              |
| CL911     | Insert, undrilled                                     |