

# Surface calibrator



- Calibrates surface sensors up to 400 °C
- Uses Hart 2200 Controller for excellent accuracy and stability
- NIST-traceable calibration included

Surface probes are difficult to calibrate because it's hard to find a flat, heated surface that's stable and uniform. Hart's new Model 3125 Surface Dry-Well takes advantage of our proprietary Model 2200 Temperature Controller (page 133) and gives you the best possible conditions for calibrating surface sensors.

Why buy a non-temperature calibration device designed for test tube sterilization or PC board repair when you can have a true calibration instrument? The 3125 has a uniform surface temperature and reaches temperatures as high as 400 °C.

The test surface is milled aluminum for an absolutely smooth and true calibration work area with maximum thermal conductivity. The 12.25-square-inch test surface is large enough to calibrate more than one sensor at a time. The 3125 can be used with a reference surface sensor or PRT.

PRTs (3/16" diameter, such as the 5612 on page 70) may be inserted through a drilled hole into the center of the block for use as reference thermometers or for easy recalibration of the unit's display.

With an accuracy of  $\pm 0.5$  °C to 200 °C and  $\pm 1$  °C to 400 °C, you can calibrate almost any surface probe, thermistor, thin film sensor, RTD, thermocouple, ribbon sensor, or surface mount cutouts, fuses, and switches. Stability is within  $\pm 0.3$  °C at 400 °C and uniformity within the center three inches of the surface is  $\pm 0.6$  °C at 200 °C. Don't buy "make-do" hot plates when you can have a legitimate calibration tool.

## Specifications

<b>Temperature Range</b>	35 °C to 400 °C (95 °F to 752 °F)
<b>Display Accuracy</b>	$\pm 0.5$ °C to 200 °C $\pm 1.0$ °C to 400 °C
<b>Stability</b>	$\pm 0.2$ °C to 300 °C $\pm 0.3$ °C to 400 °C
<b>Resolution</b>	0.01 °
<b>Uniformity</b>	$\pm 0.3$ °C at 100 °C $\pm 0.6$ °C at 200 °C $\pm 0.9$ °C at 300 °C $\pm 1.4$ °C at 400 °C
<b>Heating Time</b>	25 °C to 400 °C: 22 minutes
<b>Cooling Time</b>	400 °C to 100 °C: 65 minutes
<b>Stabilization Time</b>	8 minutes
<b>Controller</b>	Hart Model 2200, microprocessor based, with RS-232 (see page 133)
<b>Readout</b>	°C or °F, switchable
<b>Sensor</b>	RTD, 100 $\Omega$
<b>Heater</b>	325-watt, solid-state controlled
<b>Surface Plate</b>	6061 aluminum; top surface machine finished to 0.0008 mm (0.000032 in), 96 mm (3.8 in) diameter accessible
<b>Power</b>	115 V ac ( $\pm 10$ %), 2.8 A or 230 V ac ( $\pm 10$ %), 1.4 A, specify, 50/60 Hz, 325 W
<b>Weight</b>	3.2 kg (7 lb) with 2200 Controller
<b>NIST-Traceable Calibration</b>	Data at 50 °C, 120 °C, 190 °C, 260 °C, 330 °C, and 400 °C

## Ordering Information

<b>3125</b>	Surface Calibrator, (includes detachable Hart Model 2200 Controller)
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