

# DRYWELL & SURFACE

Surface & Insertion Temperature Calibration



## Standard Features

- Portable & Rugged Industrial Design
- Surface Thermocouple Connection Outputs For Added Accuracy & Reliability
- Expanded Uncertainties Of  $\pm 1.0\text{ }^{\circ}\text{C}$  Achieved For Entire Operating Temperature Range
- Eurotherm Controller With ITools For Easy Automation
- 12-Month Warranty



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Surface & Insertion Temperature Calibrators

## STS-SC1, STS-SC2, PRI-1

EDL's Surface Transfer Standard and Practi-Cal calibrators are perfect for accurate surface and insertion calibrations of sensors. The STS-SC1, STS-SC2, and PRI-1 were designed for ease of use, portability, and rugged durability. All three devices use a Eurotherm Controller with ITools for easy automation of your temperature measurement process. Suitable for use in the laboratory and in-field, the Practi-Cal is used for surface and insertion calibrations, up to 650 °C, and is available with interchangeable wells that vary in depth and diameter.

Calibrations of surface sensors are easily and cost effectively performed in-house with the STS line. By eliminating the need to send sensors out to costly calibration labs, the STS will save you money by extending the lifespan of sensors and increasing the total accuracy of your measurements.

A novel method was used to link the STS to a traceable standard. Simply calibrating a single RTD or thermocouple prior to insertion into the plate is unacceptable, as the thermal characteristics of the sensing device will depend on the method of insertion and quality of the fit. A single sensor during calibration provides no measure of the heat flux within the block. Thermal interfaces and differences in thermal conductivity between the block and sensor also prevent traceable calibration. In the STS, a thermocouple is embedded in a precisely machined bore to establish a consistent and precise fit between the thermocouple and block. This allows an external pyrometer, or temperature measuring instrument, to be used during the calibration to verify the true temperature. Calibrating surface sensors in-house is simplified with this product line, requiring only that measurements are made of the reference thermocouple together with the sensor being tested.

Your Electronic Development Labs, Inc. distributor is:

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- Initial & Annual Re-Calibration Performed In Our Calibration Laboratory
- 12-Month Warranty



## Specifications

	SURFACE	SURFACE	SURFACE/INSERTION
Part #	STS-SC1	STS-SC2	PRI-1
Range	Ambient to 650 °C	Ambient to 315 °C	Ambient to 315 °C
Size	30.4 cm x 25.4 cm x 34.6 cm (12" x 10" x 14")		
Weight	11 kg (25 lbs)	9 kg (22 lbs)	11 kg (25 lbs)
Resolution	0.1 °C		
Accuracy	$\pm 2.0$ °C		
Stability	$\pm 0.2$ °C (over 30 minute period)	$\pm 0.1$ °C (over 30 minute period)	$\pm 0.2$ °C (over 30 minute period)
Uniformity	$\pm 0.7$ °C	$\pm 0.5$ °C	$\pm 0.5$ °C
Fast Cool	200 °C in ~30 minutes	200 °C in ~40 minutes	200 °C in ~40 minutes
Warm-up Time	100 °C in ~5 minutes 300 °C in ~15 minutes	100 °C in ~10 minutes 300 °C in ~20 minutes	100 °C in ~10 minutes 300 °C in ~20 minutes

Note: STS-SC1 & STS-SC2 > Surface Temperature Calibration Only.



The Temperature People® Since 1943

Electronic Development Labs, Inc.

244 Oakland Drive • Danville, VA 24540 • USA  
P: 434.799.0807 • F: 434.799.0847 • 1.800.342.5335  
www.edl-inc.com • email: sales@edl-inc.com