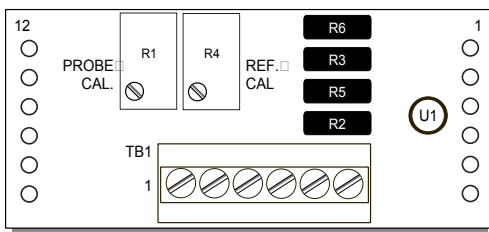


### FEATURES

- Accepts inputs from user-supplied solid-state temperature sensors
- Available in °C or °F output readings
- 6-wire screw-type terminal block
- Measures temperatures from -55 to +150°C (-67 to +199.9°F)
- Use with DMS-30PC/LCD-0 meters



**Description:** The DMS-EB-HTB Application Boards accept inputs from user-supplied, AD590 solid-state temperature sensors. The boards can be used with any of DATEL's ±200mV, 5V-powered DMS-30PC/LCD-0 Series, 3½ Digit, LED/LCD Display, Digital Panel Voltmeters — although better performance can be achieved with either LCD or low-power LED models. This meter/board combination provides extremely accurate ( $\pm 0.3^{\circ}\text{C}$ ) temperature measurements over the range of -55 to +150°C (with DMS-EB-HTBC) or -67 to +199.9°F (DMS-EB-HTBF). Individual reference-adjust and probe-adjust potentiometers allow for "fine tuning" the AD590 output to precisely match the selected meter. A 6-wire, screw-type terminal block provides for quick, reliable, signal and power connections.

**Calibration:** R4 (Reference Adjust) is factory-calibrated to +459.8mV for °F and +273.2mV for °C (do not readjust). This measurement is taken between TB1 (pin 6) and pin 12 of the DMS-30PC/LCD-0. R1 (Probe Adjust) requires customer adjustment since every sensor has a slightly different zero offset. Calibration is simple: connect the sensor leads to TB1 and adjust R1 until the DMS-30's display matches a selected reference temperature indicator.

### Functional Specifications

<b>Measurement Range:</b>	
DMS-EB-HTBC	-55 to +150°C
DMS-EB-HTBF	-67 to +199.9°F
<b>Sensor Type</b> AD590 active linear device	
<b>Accuracy:</b>	
Typical	$\pm 0.3^{\circ}\text{C}$ (or °F)
Maximum	$\pm 1.0^{\circ}\text{C}$ (or °F)
<b>Operating Voltage Range</b> +5V ( $\pm 10\%$ )	
<b>Input Current (Board only):</b>	
Typical	+0.8mA
Maximum	+1.0mA
<b>Sensor Lead Length</b> 3 feet, maximum	
<b>Operating Temperature Range</b> 0 to +60°C	
<b>Storage Temperature Range</b> -20 to +75°C	
<b>Humidity</b> (non-condensing) 0 to 95%,	
<b>Dimensions</b> 2.02" (51.31mm)L 0.83" (21.08mm)W	

### Ordering Information

<b>DMS-EB-DC/DC</b>	DC/DC converter board (with mating connector)
<b>DMS-BZL1</b>	Bezel assembly
<b>DMS-BZL2</b>	Bezel assembly with sealing gasket
<b>RN-DMS</b>	Resistor accessory kit

### Ordering Information

<b>DMS-EB-HTBC</b>	High-accuracy temperature probe board, Celsius
<b>DMS-EB-HTBF</b>	High-accuracy temperature probe board, Fahrenheit
<b>DMS-BZL1</b>	Bezel assembly
<b>DMS-BZL2</b>	Bezel assembly with sealing gasket



For full details go to  
[www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

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