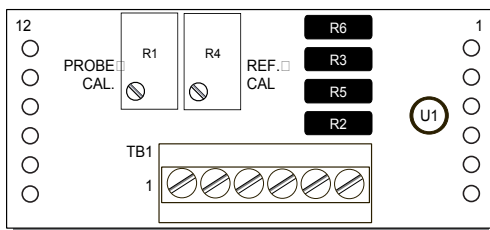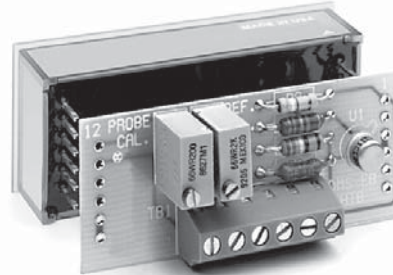**Murata Power Solutions**

Discontinued

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

TA = 25°C, VCC = +5V

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 Murata Power Solutions' ±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 (±0.3°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

Measurement Range:

DMS-EB-HTBC	−55 to +150°C
DMS-EB-HTBF	−67 to +199.9°F

Sensor Type — AD590 active linear device

Accuracy:

Typical	±0.3°C (or °F)
Maximum	±1.0°C (or °F)

Operating Voltage Range — +5V (±10%)

Input Current (Board only):

Typical	+0.8mA
Maximum	+1.0mA

Sensor Lead Length — 3 feet, maximum

Operating Temperature Range — 0 to +60°C

Storage Temperature Range — −20 to +75°C

Humidity (non-condensing) — 0 to 95%,

Dimensions — 2.02" (51.31mm)L
0.83"(21.08mm)W

Ordering Information

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

Ordering Information

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

RoHS COMPLIANT

25

For full details go to
www.murata-ps.com/rohs

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ISO 9001 and 14001 REGISTERED

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Refer to: http://www.murata-ps.com/requirements/

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