

#### High-Accuracy Temperature Sensor Boards DMS-30PC/LCD-0 Meters

# Discontinued

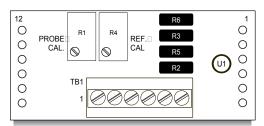


Description: The DMS-EB-HTB Application Boards accept inputs from user-supplied, AD590 solid-state temperature sensors. The boards can be used with any of Murata Power Solutions'  $\pm 200$ mV, 5V-powered DMS-30PC/LCD-0 Series, 3½ Digit, LED/LCD Display, Digital Panel Voltmeters — although better performance can be achieved with either LCD or low-power LED models. This meter/board combination provides extremely accurate ( $\pm 0.3^{\circ}$ C) temperature measurements over the range of -55 to  $+150^{\circ}$ C(with DMS-EB-HTBC) or -67 to  $+199.9^{\circ}$ 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.

#### **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



 $TA = 25^{\circ}C$ , VCC = +5V

#### **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:

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









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DMS-EB-HTBC-C DMS-EB-HTBF-C