

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

Discontinued

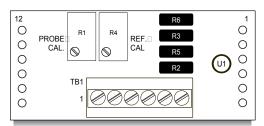


Description: The DMS-EB-HTB Application Boards accept inputs from user-supplied, AD590 solid-state temperature sensors. The boards can be used with any of Murata Power Solutions' ± 200 mV, 5V-powered DMS-30PC/LCD-0 Series, 3½ Digit, LED/LCD Display, Digital Panel Voltmeters — although better performance 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









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

Murata Power Solutions, Inc. 11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A. ISO 9001 and 14001 REGISTERED



This product is subject to the following operating requirements and the Life and Safety Critical Application Sales Policy:

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

Murata Power Solutions, Inc. makes no representation that the use of its products in the circuits described herein, or the use of other technical information contained herein, will not infringe upon existing or future patent rights. The descriptions contained herein do not imply the granting of licenses to make, use, or sell equipment constructed in accordance therewith. Specifications are subject to change without notice.

© 2015 Murata Power Solutions, Inc.