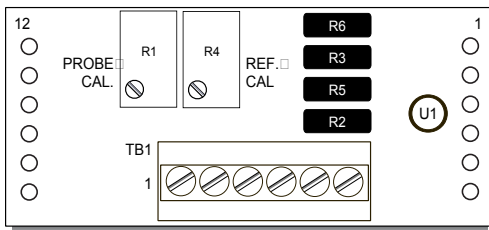


FEATURES

- 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

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	$\pm 0.3^{\circ}\text{C}$ (or °F)
Maximum	$\pm 1.0^{\circ}\text{C}$ (or °F)
Operating Voltage Range +5V ($\pm 10\%$)	
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



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

Murata Power Solutions, Inc.

11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A.

Tel: (508) 339-3000 (800) 233-2765 Fax: (508) 339-6356

www.murata-ps.com email: sales@murata-ps.com ISO 9001 and 14001 REGISTERED

08/17/09
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.
© 2009 Murata Power Solutions, Inc.

USA: Mansfield (MA), Tel: (508) 339-3000, email: sales@murata-ps.com
Canada: Toronto, Tel: (866) 740-1232, email: toronto@murata-ps.com
UK: Milton Keynes, Tel: +44 (0)1908 615232, email: mk@murata-ps.com
France: Montigny Le Bretonneux, Tel: +33 (0)1 34 60 01 01, email: france@murata-ps.com
Germany: München, Tel: +49 (0)89-544334-0, email: munich@murata-ps.com
Japan: Tokyo, Tel: 81-3-3779-1031, email: japan@murata-ps.com
Kyoto, Tel: 81-75-955-7269, email: japan@murata-ps.com
China: Shanghai, Tel: +86 215 027 3678, email: shanghai@murata-ps.com
Guangzhou, Tel: +86 208 221 8066, email: guangzhou@murata-ps.com
Singapore: Parkway Centre, Tel: +65 6348 9096, email: singapore@murata-ps.com