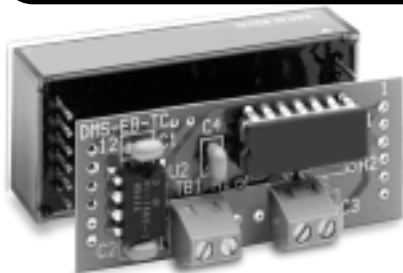


Discontinued



FEATURES

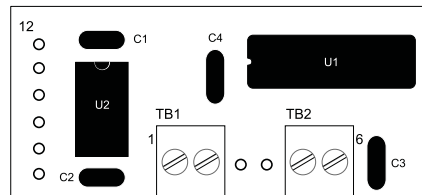
- LDisplays -50 to $+200^{\circ}\text{C}$ range
- Interfaces with type J or K type thermocouples
- Typical accuracies as low as $\pm 1.5^{\circ}\text{C}$
- Use with:
DMS-30PC-1-RL
DMS-30LCD-1-5

PRODUCT OVERVIEW

Description: The DMS-EB-TCJ and DMS-EB-TCK Application Boards interface type J or K thermocouples to Murata Power Solutions' low-power, $\pm 2\text{V}$ input, DMS-30PC-1-RL or DMS-30LCD-1-5 digital voltmeters. These low-cost add-on boards provide a quick easy method of displaying temperature (in degrees Celsius only) within a -50 to $+200^{\circ}\text{C}$ range.

Installation: A screw-type terminal block (TB1) accepts direct thermocouple inputs and provides quick connection for the $+5\text{V}$ power supply. All necessary I/O connections for the meter — including activation of the correct decimal point — are built-in. Simply solder the board to the meter, connect the appropriate thermocouple, and the installation is complete. Using low-power meters, with either LCD or LED displays, will maintain uniform temperatures across the board and keep temperature-gradient induced errors to a minimum.

Accuracy: As the accuracy specifications indicate, the DMS-EB-TCJ and TCK boards are for general-purpose temperature monitoring over the range of -50 to $+200^{\circ}\text{C}$. However, fairly high accuracy can be obtained with K thermocouples from 0 to $+200^{\circ}\text{C}$. For higher accuracy temperature readings, see the DMS-EB-HTB.



SIMPLIFIED SCHEMATIC

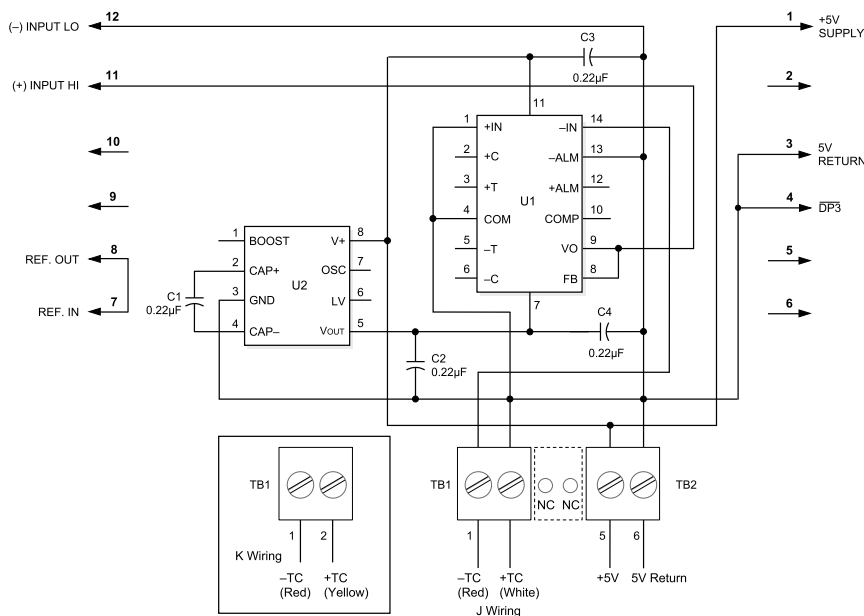


Figure 1. DMS-EB-TCJ/TCK Schematic Diagram



Performance/Functional Specifications

(TA = +25°C, VCC = +5V)

Sensors	Type J and K thermocouples
Temperature Measurement Range	–50 to +200°C
Accuracy: DMS-EB-TCJ	
–50 to 0°C	±6°C typ., ±10°C max.
0 to +200°C	±4°C typ., ±8°C max.
Accuracy: DMS-EB-TCK	
–50 to 0°C	±6°C typ., ±10°C max.
0 to +200°C	±1.5°C typ., ±3°C max.
Primary Operating Power	+5V (±5%)
Input Current (Board only)	+0.6mA typ., +1mA max.
Operating Temperature Range	0 to +60°C
Storage Temperature Range	–20 to +75°C
Humidity	0 to 95%, non-condensing
Dimensions	2.02" (51.31mm)L x 0.83" (21.08mm)W

Ordering Information

Model

DMS-EB-TCJ	Type J thermocouple input board
DMS-EB-TCK	Type K thermocouple input board
DMS-BZL1	Bezel assembly
DMS-BZL2	Bezel assembly with sealing gasket

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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/>

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