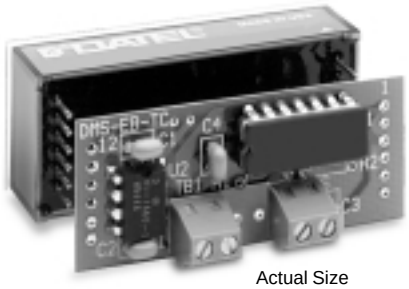
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INNOVATION and EXCELLENCE



Actual Size

DMS-EB-TCJ/TCK

Thermocouple Input Application Boards for DMS-30PC/LCD Meters

Features

- Displays –50 to +200°C range
- Interfaces with type J or K type thermocouples
- Typical accuracies as low as ±1.5°C
- Use with:
  DMS-30PC-1-RL
  DMS-30LCD-1-5

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.
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

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

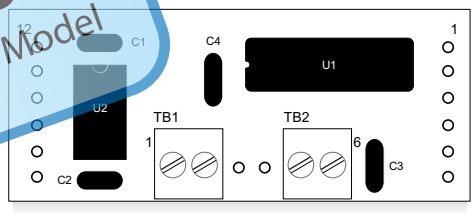
Technical Notes

Description: The DMS-EB-TCJ and DMS-EB-TCK Application Boards interface type J or K thermocouples to DATEL's low-power, ±2V 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°C range.

Installation: A screw-type terminal block (TB1) accepts direct thermocouple inputs and provides quick connection for the +5V 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°C. However, fairly high accuracy can be obtained with K thermocouples from 0 to +200°C. For high-accuracy temperature readings, see the DMS-EB-HTB.

OBSOLETE PRODUCT
Contact Factory for Replacement Model



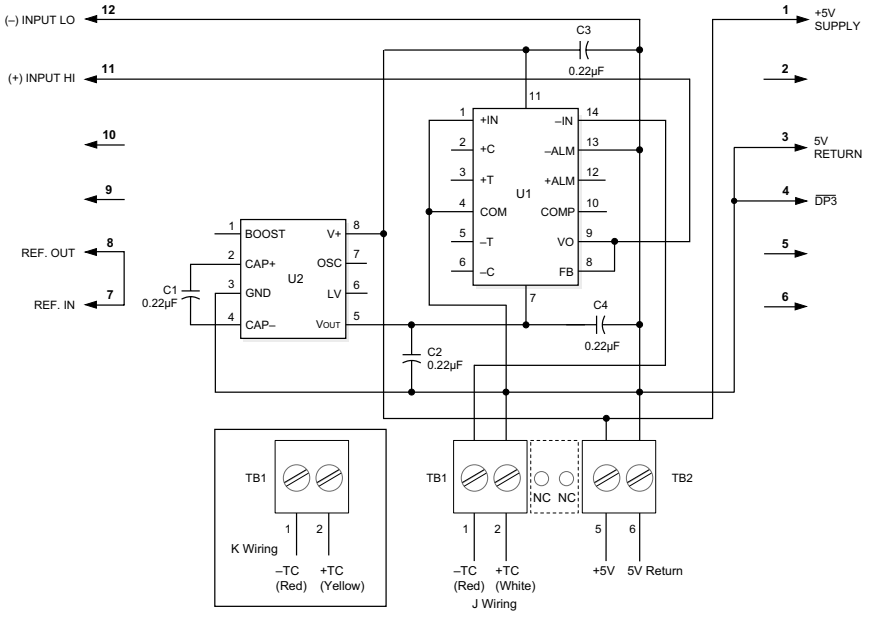


Figure 1. DMS-EB-TCJ/TCK Schematic Diagram

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