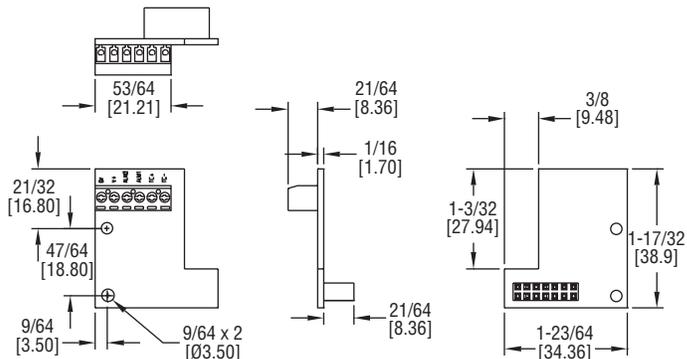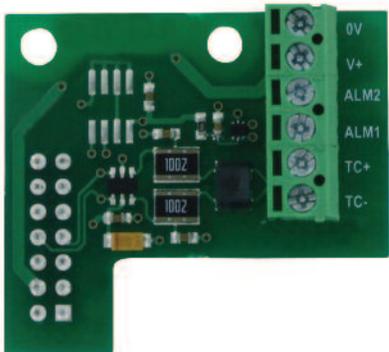# Model A-SPPM-TC Thermocouple Input Board for the SPPM

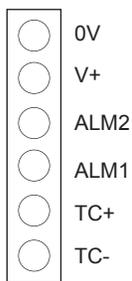## Installation and Operating Instructions

The Model A-SPPM-TC Thermocouple Input Board is an add-on module that allows users to connect J, K, or T thermocouples directly to any of the Series SPPM panel meters. A standard K-type thermocouple comes supplied with the unit. Power is provided via USB to the panel meter or through the terminal blocks on the board. The built-in cold-junction compensation removes the effect of voltages on the system, therefore giving a more accurate temperature measurement. Standard features allow for the user to set high and low alarms, as well as change the temperature unit output using Panel Pilot software.

INSTALLATION

The A-SPPM-TC shares the power with the SPPM it's attached to. It can be powered either using the terminal block on the board or via the USB when connected to a PC. Connect the 14-way connector IDC socket of the board to the SPPM. The thermocouple is wired to the TC+ (green) and TC- (white) via the screw terminal block. The power source would be wired to 0V and V+. Alarm outputs will be connected between ALM1 or ALM2 and the 0V terminal. For information on downloading the customization software, refer to the SPPM instruction manual.

WIRING

Model A-SPPM-TC features six screw terminal connections.

0V	Ground connection for the SPPM and TC board.
V+	Alternative power supply input for the SPPM.
ALM1/ALM2	Open-collector outputs of the SPPM. See bulletin PC-SPPM for details.
TC+	Positive connection for the thermocouple.
TC-	Negative connection for the thermocouple.

SPECIFICATIONS

Probe Measurement Range:
   K-type: -328 to 2462°F (-200 to 1350°C);
   J-type: -328 to 2174°F (-200 to 1190°C);
   T-type: -328 to 734°F (-200 to 390°C).
Temperature Limits: 14 to 104°F (-10 to 40°C).
Resolution: 1.0°F (0.5°C).
Power Requirements: Powered by USB port through SPPM panel meter.
Accuracy: ±2.0°F (±1.0°C).
Weight: 0.9 oz (25.5 g).
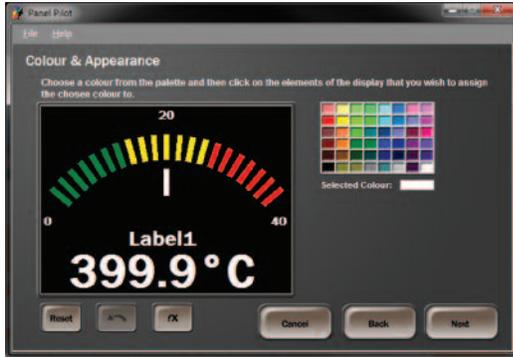**Agency Approvals:** RoHS.

SET UP MENUS

When setting up new configurations, select a meter style that denotes Thermocouple input.
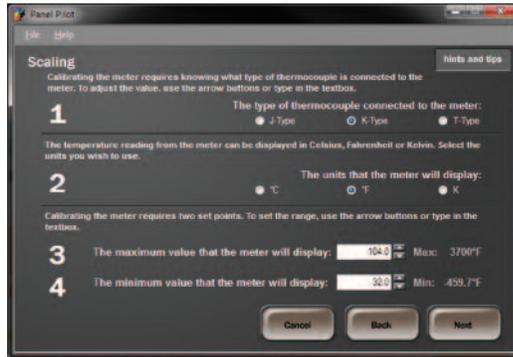

Meter Style

The color scheme can be customized for the background, numbers, and display objects.
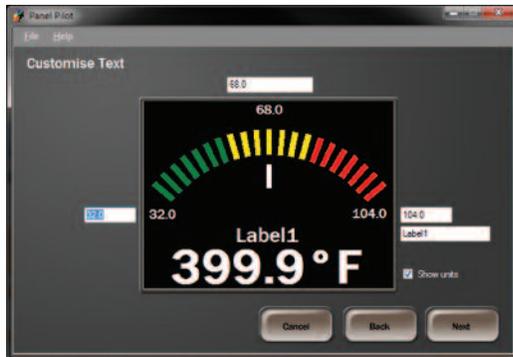

Color and Appearance

The type of thermocouple, engineering units and the scale range can be programmed on the next screen.

Scaling

The labels and meter graphics can be selected in the next section.

Text Displayed

Next, the alarm set points, color of the visual alarms, and whether the alarm is a high or low alarm can be set.

High and Low Alarms

A custom splash screen can be selected to display upon power up.

Splash Screen

A configuration can be saved or immediately uploaded to a smart panel meter.

Configuration Summary

MAINTENANCE/REPAIR
Upon final installation of the Series A-SPPM-TC, no routine maintenance is required. The Series A-SPPM-TC is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.

WARRANTY/RETURN
Refer to "Terms and Conditions of Sale" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.