

Tech Notes

Title: Using thermocouple coefficients with the Fluke 1529

Created: 2/2/2016

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Applies To: 1529, 5650 & 5649

Problem Description: How to use a noble metal Thermocouple with the 1529

Resolution/Work Around:

1. Select the correct thermocouple type that you are using
2. Calculate offsets (preferably three) in "deg. C" in the temperature range of customer application (i.e., 500, 750 and 1000 deg. C)
 - a. Specifically these are the deviations in the 5650 calibration characterization table (table of EMF values per "deg. C") from what an analogous reference table for that letter type (in this case, Type S) produces.
 - b. be sure your offsets are converted from EMF deviations to deviations in "deg. C".you will likely need the Seebeck (mV/C) factor to convert between the EMF and a corresponding "deg. C deviation" at the temperature of interest.
 - c. Input the offsets (offset 1, offset 2, and offset 3) now in "deg. C" into the setup menus of the 1529.
 - d. Be sure to use 1529 internal reference junction set "0 deg. C".
3. 2) connect the calibrated TC to the 1529 and go!

Other Information: