

Operating Instructions

TCCB Thermocouple to RTD Simulator

I. Introduction

The TCCB Thermocouple to RTD Simulator allows the use of a standard type of thermocouple (J, K, T), depending on configuration in place of a Pt100 RTD for external temperature control on your circulator. This unique device transforms the millivolt output of the thermocouple to an ohms output, which simulates a standard Pt100 (Alpha 385) curve.

II. Getting Started

The TCCB is fully assembled and factory calibrated when shipped. Once the unit is unpackaged, check for obvious signs of damage that may have been caused during shipping. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

III. Operation

1. Connect the TCCB to your Circulator via the output cable on the TCCB. Refer to the owner's manual on the Circulator you're using to locate the external Pt100 input connector.
2. With a thermocouple installed and the TCCB output cable connected to your circulator, plug in the AC adapter for the TCCB and switch on the TCCB. The green LED will illuminate, indicating proper operation.
3. Follow the instructions in the manual for your Circulator to set the Circulator to read temperature via the external RTD input (i.e. External Pt100).
4. With both the TCCB and Circulator turned on and the Circulator set up to read temperature in the external mode, the Circulator will now display the temperature of the thermocouple probe.
5. The TCCB is factory calibrated. However, to optimize the accuracy of the entire system (Probe, TCCB, and Circulator) a system ATC calibration should be performed. Refer to your Circulator Owner's Manual for instructions on calibrating the external RTD input.

NOTE: Thermocouples must be electrically isolated from grounded metal or the TCCB will not provide a reading on the circulator display. This can be accomplished by using Kapton tape.

Any questions, please contact Julabo US Customer Service:

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