



Introduction

The instrument calibration is based on a series of steps. Each step performs the calibration of a particular input or output. It must be done only when strictly necessary and using reference instruments with a high accuracy. Then the instrument must remain switched on at current environmental conditions for at least one hour.

Calibration Procedure

Starting from operation mode, press and hold both the “↵” (enter) and “☰” (menu access) keys. “C.PaS” will appear. Enter the Configuration Password (default: 33).

NOTE: See the X5 Controller product manual section “4.6 PARAMETERIZATION - ACCESS MENU - PASSWORD - CALIBRATION” for more details on the Configuration Password.

“C.tc” (T/C calibration) will appear on the lower display while a value will appear on the upper display.

Generate a signal using the below table; **use copper wire to source the signal**. Press the “▼” or “▲” keys to adjust the value to be as close to zero as possible: 0 ± 2 .

Step	Function	Action
C.tc.	TC calibration	Apply 50.000mV to the input – set with ▼ or ▲ keys
C.Pt.	RTD calibration	Apply 313.594 Ω to the input – set with ▼ or ▲ keys
C.mV.	mV calibration	Apply 300 mV to the input – set with ▼ or ▲ keys
C.Vol	Volts Calibration	Apply 10 V to the input – set with ▼ or ▲ keys
C.Ma	mA calibration	Apply 20mA to the input – set with ▼ or ▲ keys
C.S. V	Remote Setpoint Volts calibration	Apply 10 V to the input – set with ▼ or ▲ keys
C.S. mA	Remote Setpoint mA calibration	Apply 20mA to the input – set with ▼ or ▲ keys

Table 1 - Calibration types and actions

Wait until the displayed value remains stable: $0 \pm (2 \text{ to } 5)$.

IMPORTANT: Press the “↵” key to bypass a calibration step. DO NOT press the “▼” or “▲” keys unless you want to Calibrate that specific step.

When the calibration is correct, press the “↵” key to go to the next step. It is possible to not modify the calibration. When the step has been displayed on screen DO NOT press the “▼” or “▲” keys; only press the “↵” key until out of calibration mode.

–OR–

After “C.tc.”, press the “↵” key to re-enter normal operation.