

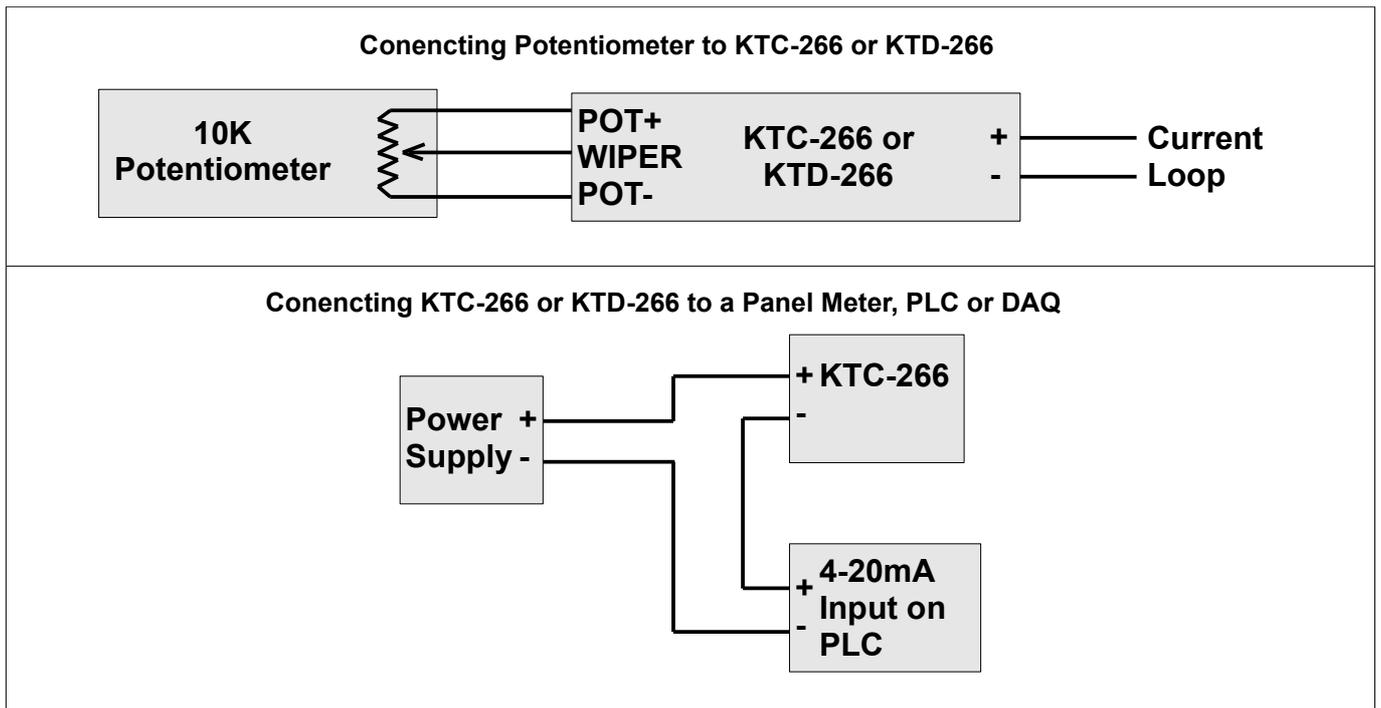


The KTC-266 is a 4-20mA loop powered current calibrator designed to make testing 4-20mA loops simple. With an external potentiometer the KTC-266 and KTD-266 can be used to inject from 4 mA to 20 mA into a current loop. The KTD-266 includes DIN Rail mounting clips.

**Connections:**

Terminal	Description
Loop +	More positive connection to the current loop
Loop -	More negative connection to the current loop
Pot +	Potentiometer end 1 connection
Wiper	Potentiometer wiper connection
Pot -	Potentiometer end 2 connection

In addition to the "Loop+" and "Loop-" the KTC-266 and KTD-266 require a potentiometer to be connected to the screw terminals labelled "POT+", "WIPER" and "POT-". Any potentiometer with value of 1K to 50K can be used, 10K is preferred. Both Single and Multiple Turn potentiometers are acceptable. Connect the two ends of the potentiometer to the "POT+" and "POT-" terminals, then connect the wiper to the "WIPER" terminal. If the current increases and decreases in the opposite manner to what you prefer when turning the potentiometer, swap the "POT+" and "POT-" connections.



**Power Supply Considerations:**

The minimum power supply voltage for the current loop depends on the burden voltage of each of the items in the loop.

The KTC-266 and KTD-266 each have a burden voltage of 8.5V on the current loop.

To determine the maximum load that the device can drive with the available power supply use the following formula.

$$\text{Max Load (ohm)} = \frac{V_{\text{powersupply}} - V_{\text{burden}}}{0.02}$$

To determine the minimum power supply voltage for a given load use the following formula.

$$V_{\text{powersupply}} = [\text{Load (ohm)} \times 0.02] + V_{\text{burden}}$$

**Current Injection Calibration:**

The 4mA and 20mA points can be calibrated using the two trimpots on the circuit board.

VR1 adjusts the 4mA point, this should be adjusted first.

VR2 adjusts the 20mA point and should be adjusted after the 4mA point is set.

The method for calibration is as follows.

1. Set the main potentiometer to the 4mA point
2. Adjust VR1 until 4mA passes through the loop
3. Set the main potentiometer to the 20mA point
4. Adjust VR2 until 20mA passes through the loop

**Ordering Information:**

# KTC-266

**A:** Current Loop Measurement and Injector with Enclosure and Display

**C:** Potentiometer to 4-20mA converter card

**D:** Potentiometer to 4-20mA converter card with DIN Rail mounting clips