



KTA-266

- 4-20mA Injector
- Loop Powered
- Banana Socket Binding Post Connections
- 40V Maximum Loop Voltage
- Sturdy Enclosure
- Backlit Display (KTA-266)
- Standard Display Option (KTB-266)
- Display Scalable to Engineering Units

The KTA-266 is a 4-20mA loop powered current calibrator designed to make testing and measuring 4-20mA loops simple.

The KTA-266 consists of a circuit board (KTC-266) mounted in an enclosure with a selector switch, potentiometer and display mounted in the enclosure lid.

The selector switch selects between the operating modes:

1. 4 mA – used to inject 4 mA into the loop.
2. 4-20mA – used in conjunction with the potentiometer to inject between 4 mA and 20 mA into the loop.
3. 20 mA – used to inject 20mA into the loop.

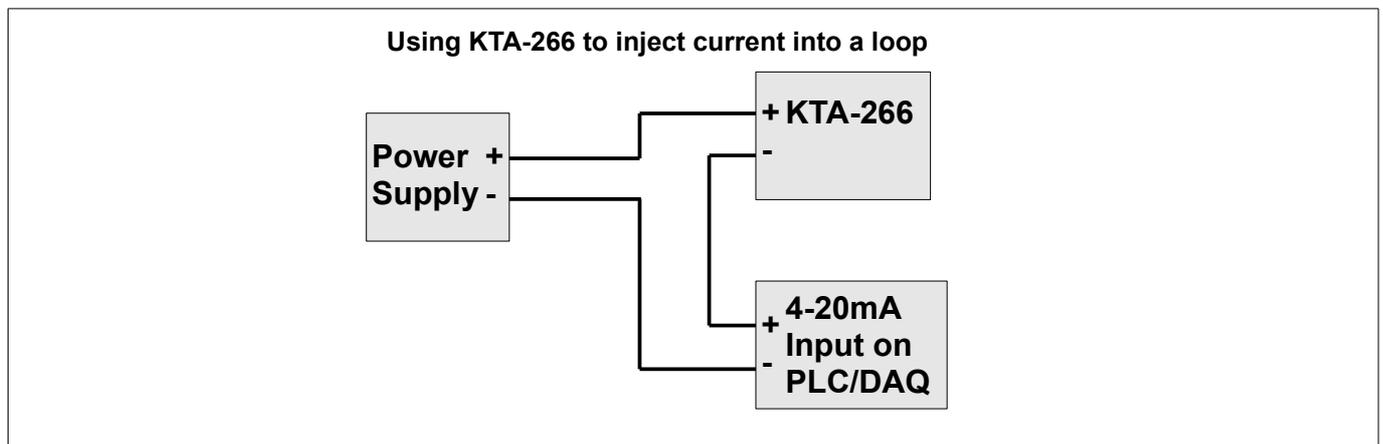
Connections KTA-266:

The KTA-266 has only 2 external connections.

“Loop+” is Red Banana socket and the more positive connection to the current loop.

“Loop-” is Black Banana socket and the more negative connection to the current loop.

Use the following diagrams to aid in connecting when measuring or injecting current into a loop.



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 KTA-266 has a burden voltage of 13.5V on the current loop. The KTB-266 is supplied with a battery powered LCD Panel meter (AXI-005) which gives the advantage of reducing the burden voltage to 10.5V.

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

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

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

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

Display Calibration:

The display on the KTA-266 can be calibrated to show different calibrated values, for instance if it was desired to show 0-100 instead of 4-20 then this could be done. To modify the display parameters see the manual for the display which can be downloaded here:

http://www.oceancontrols.com.au/datasheet/axe/axi-001_MA24-LL_manual.pdf

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:

KTA-266

- A: Current Loop Measurement and Injector with Enclosure and Backlit Display
- B: Current Loop Measurement and Injector with Enclosure and Standard Display
- C: Potentiometer to 4-20mA converter card
- D: Potentiometer to 4-20mA converter card with DIN Rail mounting clips

KTA-266 Internal Wiring Diagram

