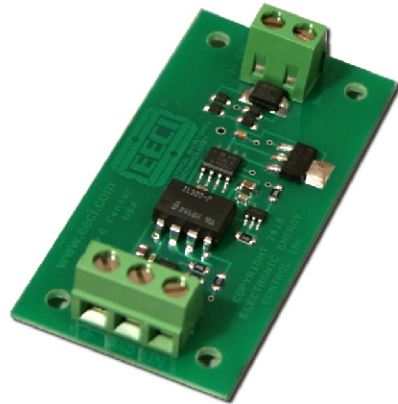


CO-420TI CONVERTER

Opto Isolated 4-20mA Transmitter

Converts 0 to 5 volts to 4 to 20 ma



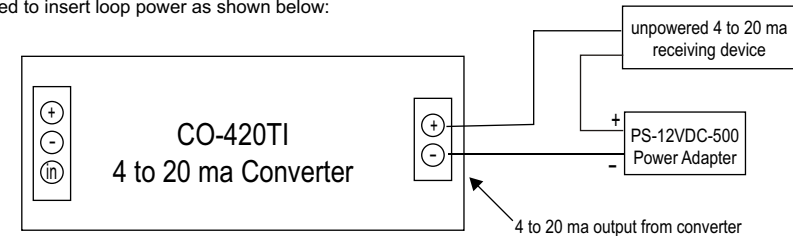
TECHNICAL REFERENCE

Click for more info: www.eeci.com/co-420p.htm



CO-420TI Opto Isolated 4 to 20 ma Converter

The CO-420TI provides electrical isolation and may be used with both powered or unpowered loops. When the CO-420TI is used in an application where the receiving device does not provide the loop power, the PS-12VDC-500 may be used to insert loop power as shown below:



SETTING THE LOOP CURRENT

Use the following values to set your Digital to Analog converter to the corresponding loop current:

10 BIT (5V reference): 160 = 4ma 860 = 20ma (44 increments per ma) 512 = 12ma

12 BIT (5V reference): 800 = 4ma 3800 = 20ma (188 increments per ma) 2300 = 12ma

16 BIT (4.096V reference): 8200 = 4ma 40800 = 20ma (2040 increments per ma) 24520 = 12ma

NOTE: *The 4-20ma output on the CO-420TI has a polarity correction feature that will allow the polarity on the terminal block to be reversed. To avoid confusion, it is best to connect the polarity to the terminal block as labeled.

IMPORTANT: You must add a loop resistor if your loop resistance is less than 250 ohms (at 12 volts) to prevent over heating of the loop current control transistor or the converter could be damaged. You will need to increase the loop resistance for higher voltages. Be sure to size the resistor wattage for the voltage.

It is better to use a lower voltage to power the loop unless you have high loop resistance caused by long runs. Most USB Digital to Analog Converters will connect the DAC ground to the USB ground (and an earth ground via the 120vac power cord) which will require you to use an isolated power source for your 4-20ma loop power.

