

# OM-DCCT Installation Guide

## Description

The OM-DCCT is a loop-powered Current Transducer for measuring direct current. It has a selectable input current range of 0-5, 0-10, 0-20 and 0-40 amps. This transducer accurately converts measured direct current to a 4-20 milliamp signal, which can be monitored by an intelligent electronic device (IED) such as the OPTImizer<sup>2</sup>. The milliamp signal power supply voltage must be 8 – 28 volts DC. The current measurement is accurate to within +/-0.5% of full scale. The output circuit isolation is 1000 volts DC, minimum.

## Tools Needed

Straight-Blade Screwdriver  
Wire Strippers

## Wiring

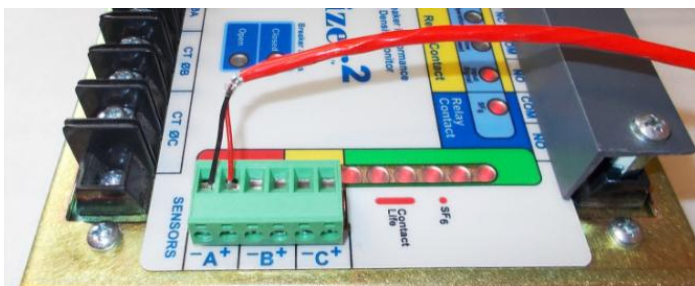
Cut twisted-pair signal cable to length and strip both ends. (Shielded twisted-pair cable can be used, but not required.) Connect the positive wire to the “+” connection and the negative wire to the “-” connection on the transducer, as shown:

Feed the current-carrying wire through the aperture in the transducer.

The polarity of this wire is important. It must be installed with the positive side facing the printing, as shown:

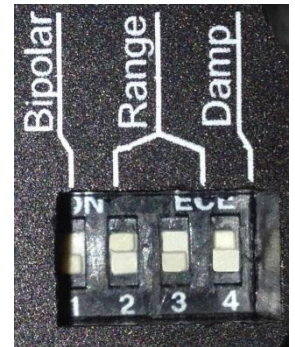


At the OPTImizer<sup>2</sup> end of the signal cable, connect the positive wire to the “+” sensor input connection and the negative wire to the “-” connection, as shown:



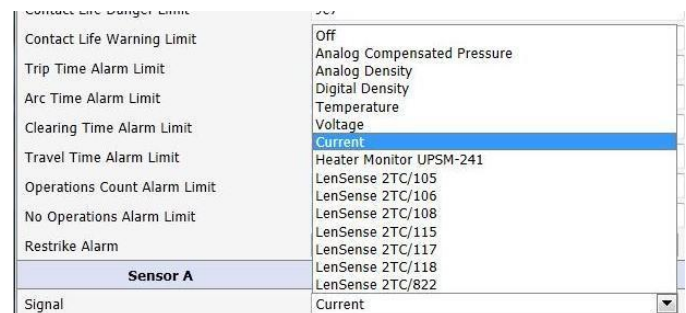
## Range Selection

Select the full scale range of the transducer by setting the DIP switches.



Range:	Switch #1	Switch #2	Switch #3	Switch #4
0-5 Amps	↓	↓	↓	↑
0-10 Amps	↓	↓	↑	↑
0-20 Amps	↓	↑	↓	↑
0-40 Amps	↓	↑	↑	↑

## OPTImizer<sup>2</sup> Programming



On the OPTImizer<sup>2</sup> Configuration Page, click “Edit” in the upper right corner. Select “Current” from the Sensor Signal menu:

Four new fields will appear:

Sensor A		
Signal	Current	
Signal Low	4.0	4.0 .. 19.0 mA
Signal Low Represents	0	0.0 .. 299.0 A
Signal High	20.0	Signal Low + 1.0 .. 20.0 mA
Signal High Represents	40.0	Signal Low Represents + 1.0 .. 300.0 A

Program the Signal Low to “4.0”mA.  
Program the Signal Low Represents to “0.0” amps.  
Program the Signal High to “20.0”mA.  
Program the Signal High Represents to the current range selected above (“5”, “10”, “20” or “40” amps).

The Low Current and High Current Alarm Limits can be set as desired:

Current Monitor		
Low Current Alarm Limit	<input type="text" value="0.0"/>	0.0 .. 300.0 A
High Current Alarm Limit	<input type="text" value="30.0"/>	0.0 .. 300.0 A

When the limit is set to "0.0", the alarm is disabled.

When programming is complete, click the "Yes" button in the upper right corner to confirm the configuration changes. The password will need to be given, if not already entered. Click "Yes" again to confirm the changes.



When the OPTImizer<sup>2</sup> is set and running, the measured current and alarm status will be shown on the Status Page in the Current Monitor section:

Current Monitor	Channel A
Current	17.2
Alarm Status	
Low Current	Ok
High Current	Ok
Sensor Malfunction	Ok

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