

# OM-DCVT Installation Guide

## Description

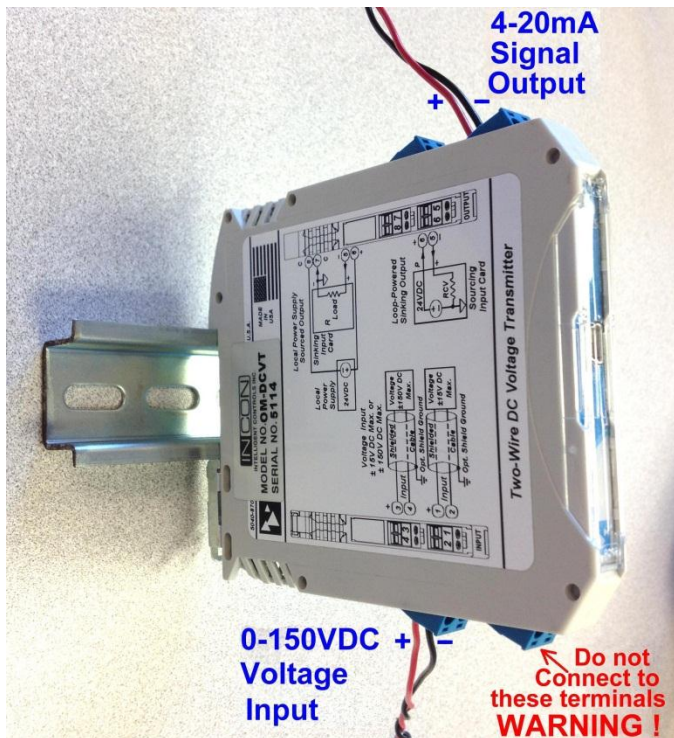
The OM-DCVT is a loop-powered, DC Voltage Transducer. It has an input voltage range of 0-150 VDC. This transducer accurately converts measured DC Voltage to 4-20 milliamp signal, which can be monitored by an intelligent electronic device (IED) such as the OPTimizer<sup>2</sup>. The milliamp signal power supply voltage must be 12 – 32 volts DC. The voltage measurement is accurate to within +/-0.1% of full scale (+/-0.15 volts).

## Tools Needed

Straight-Blade Screwdriver  
Wire Strippers

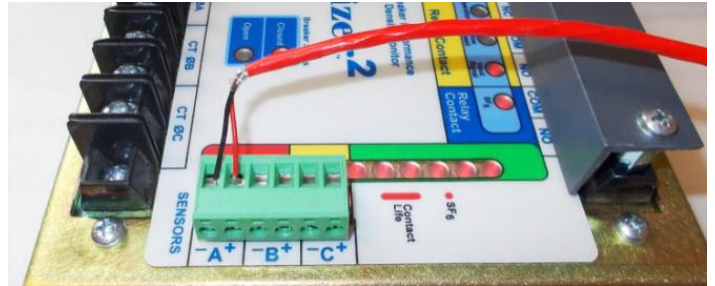
## Wiring

Cut twisted-pair signal cable to length and strip both ends. (Shielded twisted-pair cable can be used, but not required.) Connect the DC voltage to be measured to terminals number 3 (+) and 4 (-) on the transducer as shown. (Do not connect to the low-voltage input terminals number 1 and 2!)



Connect to the “Loop-Powered” output signal terminals number 5 (-) and 6 (+).

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 below:



## DIN Rail Mount

The OM-DCVT should be DIN rail mounted.

To release the OM-DCVT from the DIN rail, insert a small screwdriver as shown and pry to release the latch.



## OPTimizer<sup>2</sup> Programming

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

Contact Life Warning Limit	Off	0 .. 99 %
Trip Time Alarm Limit	Analog Compensated Pressure	0 .. 999 mS
Arc Time Alarm Limit	Analog Density	0 .. 165 mS
Clearing Time Alarm Limit	Digital Density	0 .. 999 mS
Travel Time Alarm Limit	Temperature	0 .. 999 mS
Operations Count Alarm Limit	Voltage	0 .. 999 mS
No Operations Alarm Limit	Current	0 .. 265 mS
Restrike Alarm	Heater Monitor UPSM-241	0 .. 9999
	LenSense 2TC/105	0 .. 999 days
	LenSense 2TC/106	
	LenSense 2TC/108	
	LenSense 2TC/115	
	LenSense 2TC/117	
	LenSense 2TC/118	
	LenSense 2TC/822	
Signal	Off	
Sensor A		
Signal	Off	
Sensor B		
Signal	Off	
Sensor C		
Signal	Off	

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Four new fields will appear:

Sensor A		
Signal	Voltage	
Signal Low	4.0	4.0 .. 19.0 mA
Signal Low Represents	0.0	0.0 .. 299.0 V
Signal High	14.0	Signal Low + 1.0 .. 20.0 mA
Signal High Represents	300.0	Signal Low Represents + 1.0 .. 300.0 V

- Program the Signal Low to “4.0”mA.
- Program the Signal Low Represents to “0.0” volts.
- Program the Signal High to “20.0”mA.
- Program the Signal High Represents to “150” volts.

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

Voltage Monitor		
Low Voltage Alarm Limit	121.0	0.0 .. 300.0 V
High Voltage Alarm Limit	136.0	0.0 .. 300.0 V

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:

Voltage Monitor	Channel A
Voltage	124.9
Alarm Status	
Low Voltage	Ok
High Voltage	Ok
Sensor Malfunction	Ok

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