

OM-ACVT Installation Guide

Description

The OM-ACVT is a loop-powered Voltage Transducer for measuring alternating current. It has an input voltage range of 0-480 VAC. This transducer accurately converts measured AC voltage to 4-20 milliamp signal, which can be monitored by an intelligent electronic device (IED) such as the OPTImizer². The milliamp signal power supply voltage must be 18 – 24 volts DC. The voltage measurement is accurate to within +/-1.0% of full scale. The isolation is 2500 volts.

Tools Needed

Straight-Blade Screwdriver
Wire Strippers

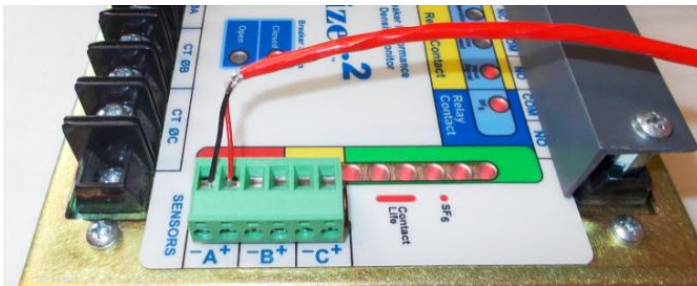
Wiring

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

Connect the transducer’s L1 & L2 inputs to the AC voltage source to be measured. (There is no polarity on these inputs.)

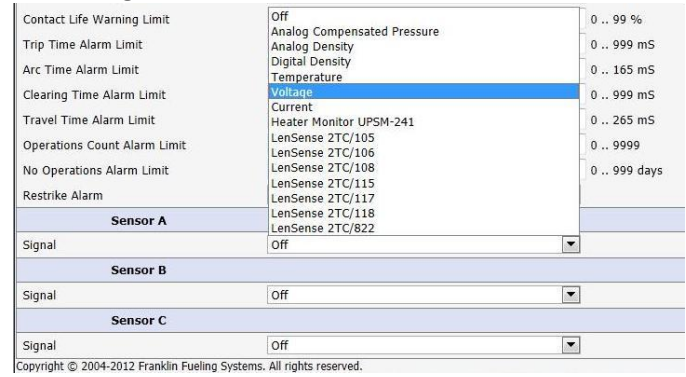


At the OPTImizer² end of the signal cable, connect the positive wire to the “+” sensor input connection and the negative wire to the “-” connection, as shown below:



OPTImizer² Programming

On the OPTImizer² Configuration Page, click “Edit” in the upper right corner. Select “Voltage” from the Sensor Signal menu:



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 “14.0”mA.
Program the Signal High Represents to “300” volts.

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

Voltage Monitor		
Low Voltage Alarm Limit	235.0	0.0 .. 300.0 V
High Voltage Alarm Limit	245.0	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.



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When the OPTImizer² is set and running, the measured voltage and alarm status will be shown on the Status Page in the Voltage Monitor section:

Voltage Monitor	Channel A
Voltage	242.9
Alarm Status	
Low Voltage	Ok
High Voltage	Ok
Sensor Malfunction	Ok

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