

# OSI THREE-PHASE AC VOLTAGE TRANSDUCER MODEL 3AVT-

## DESCRIPTION

The 3AVT model transducers are designed for applications where UL, CUL, or CE listing is required. The 3AVT provides isolated outputs which are proportional to the applied voltage. Transducer output is derived from the average absolute value of the input and calibrated as the RMS value of a sine wave input. The 3AVT takes three voltage inputs and provides three separate isolated outputs.



## MODEL SELECTION

INPUT AC VOLTS	STANDARD OUTPUTS MODEL 3AVT-				
	UL, CUL & CE				UL & CUL
	0-1mA <sub>d</sub> c*	4-20mA <sub>d</sub> c**	0-10V <sub>d</sub> c*	0-5V <sub>d</sub> c*	4-20mA <sub>d</sub> c
0 - 90	090A	090E2	090C	090CX5	090E
0 - 150	150A	150E2	150C	150CX5	150E
0 - 300	300A	300E2	300C	300CX5	300E
0 - 600	600A	600E2	600C	600CX5	600E

\* "A", "C", and "CX5" models are self-powered from measured line.

\*\* "E2" models are 4-20mA loop-powered, and require 15-24Vdc instrument power.

Standard "E" models require 115Vac instrument power.

For optional 230Vac instrument power - add suffix "- 22".

For an output that represents an average of the three inputs add suffix "Y05"

400Hz models are available - consult factory (not UL, CUL listed)



## ORDERING INFORMATION

Example: Three 120Vac Inputs, with three 4-20mA Outputs  
**3AVT-150E**



## SPECIFICATIONS

### INPUT

Frequency Range	50/60Hz
Burden	90V & 150V models ..... 1VA
	300V models ..... 2VA
	600V models ..... 3VA
Overload	90V, 150V & 300V models ..... F.S. rating
	600V models ..... 575V

### DIELECTRIC TEST

Input/Output/Case	2200Vac
-------------------	---------

### INSTRUMENT POWER

"A", "C" and "CX5" models	Self-powered
"E2" models	15-24Vdc
"E" models	115Vac, 50/60Hz, ±15%, 10VA
"-22" Option	230Vac, 50/60Hz, ±15%, 10VA

### OUTPUT

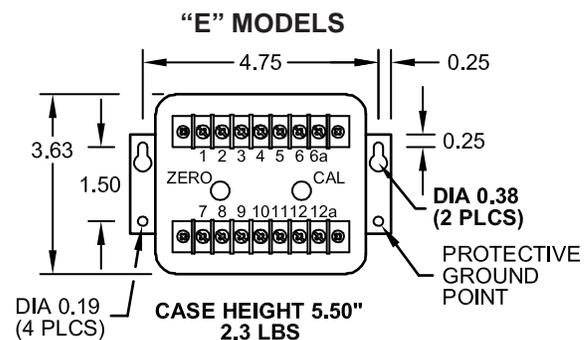
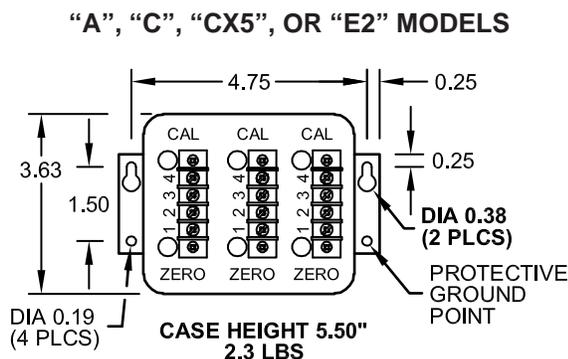
Response	400ms
Loading	"A" models ..... (0-1mA <sub>d</sub> c) ..... 0-10kΩ
	"E" models ..... (4-20mA <sub>d</sub> c) ..... 0-1kΩ
	"E2" models ..... (4-20mA <sub>d</sub> c @ 24Vdc) ..... 0-600Ω
	"C", "CX5" models ..... (0-5, 0-10V <sub>d</sub> c) ..... ≥10MΩ
Field Adjustable Cal.	±5%

ACCURACY	±0.25% F.S. @60Hz
	Includes effects of linearity (10-100%) and setpoint.
Output Ripple	Less than 1.0% F.S.

### TEMPERATURE

Temperature Range	-20°C to 60°C
Temperature Effect	±1.0% Rdg.

## CASE DIMENSIONS



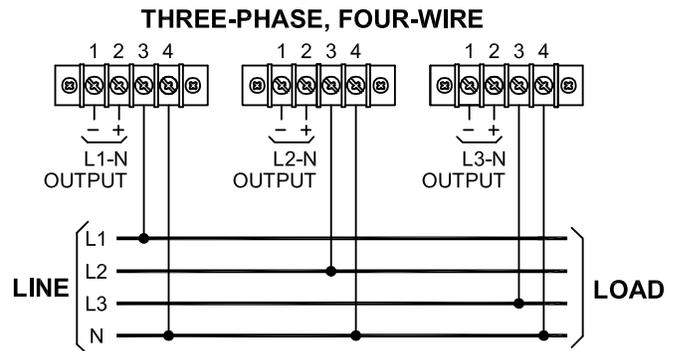
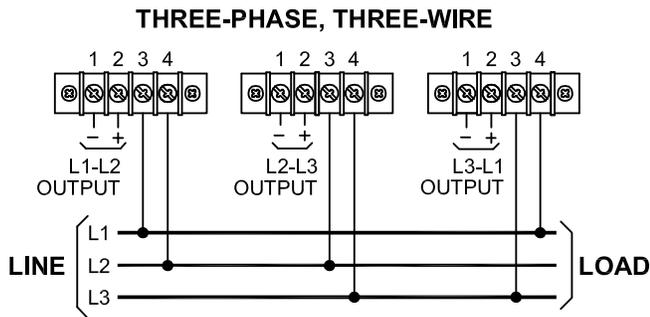
All dimensions in inches

Dwg# 0902-00880-B Rev --

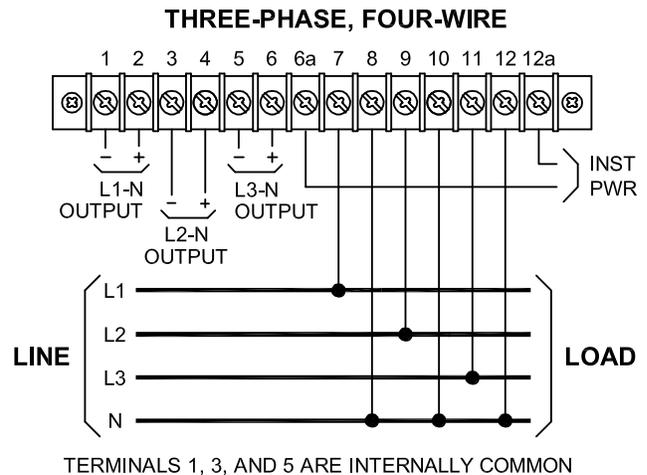
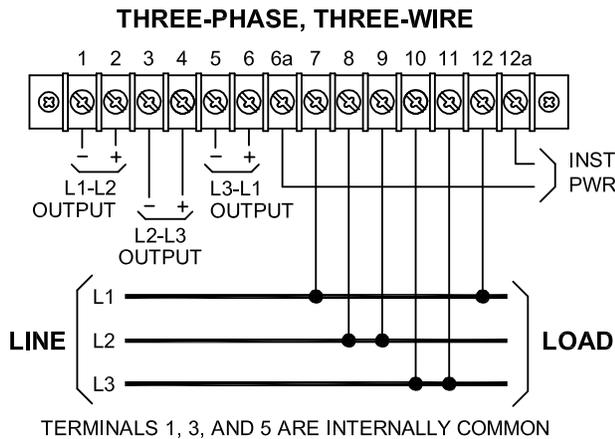
# OHIO SEMITRONICS, INC.

4242 REYNOLDS DRIVE \* HILLIARD, OHIO \* 43026-1264  
PHONE: (614) 777-1005 \* FAX: (614) 777-4511  
WWW.OHIOSEMITRONICS.COM \* 1-800-537-6732

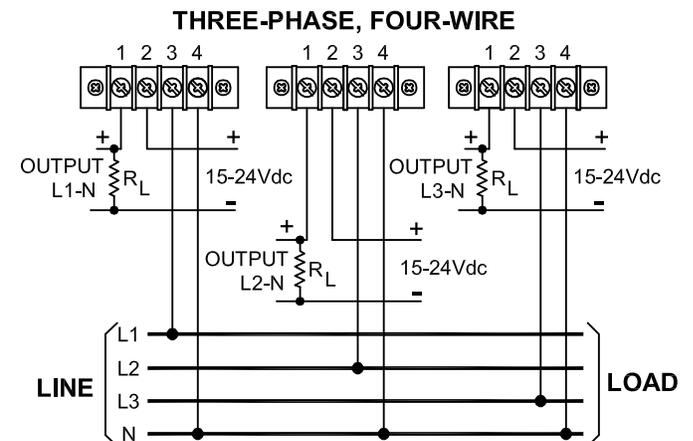
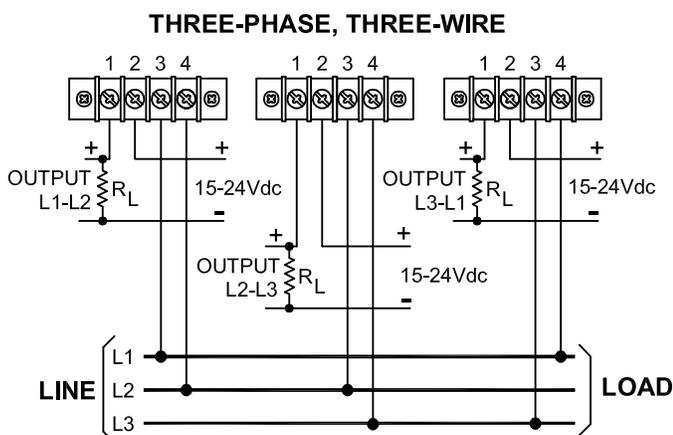
**"A", "C" & "CX5" MODELS**



**"E" MODELS**



**"E2" MODELS**



Dwg# 0902-00880-B Rev --

## INSTALLATION INSTRUCTIONS

1. Installation should be performed by qualified electricians only!
2. Make sure electrical service is disconnected before making any electrical connections.
3. Branch circuit protection is required to be provided in accordance with the National and Local codes of the inspection authority.
4. Route wires as required and secure to terminals per connection diagram on this sheet and on the unit.
5. Attach the Protective Ground Point (  ) to earth ground by mounting to a grounded enclosure or by attaching a ground wire. Paint barrier on can must be broken by using an internal-tooth lock-washer or similar device.

## OPERATING INSTRUCTIONS

1. This unit is intended for indoor use at altitudes up to 2000 meters.
2. Transient overvoltages according to Installation Category (overvoltage category) II, pollution Degree 2.
3. The output signal is intended to be "Not accessible to the user." To prevent contact with live circuits, the transducer is required to be mounted in an enclosure that requires the use of a tool for access.
4. If cleaning of the exterior surface is necessary, de-energize all services of supply (both measuring and instrument power circuits) and brush with a soft brush or blow off with low-pressure air. Use appropriate eye protection. Not suitable for hose-down cleaning.
5. Maximum relative humidity 80 percent for temperatures up to 31°C decreasing linearly to 50 percent relative humidity at 40°C.
6. Maximum operating temperature range is -20°C to 60°C.

## WARRANTY STATEMENT

Ohio Semitronics Inc. warrants this unit to be free of defects in material and workmanship for a period of five years from date of shipment. This unit must not be used in any manner other than as specified in this document.