

# OSI SINGLE-PHASE AC VOLTAGE TRANSDUCER MODEL AVT-

## DESCRIPTION

The AVT model transducers are designed for applications where UL, CUL, or CE listing is required. The AVT 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 AVT takes one voltage input and provides one isolated output.



Measuring  
Equipment  
7N93

**5 YEAR  
WARRANTY**



## MODEL SELECTION

INPUT AC VOLTS	STANDARD OUTPUTS MODEL AVT-				
	UL, CUL & CE				UL & CUL
	0-1mAdc*	4-20mAdc**	0-10Vdc*	0-5Vdc*	4-20mAdc
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".

400Hz models are available - consult factory for VT series,  
which is not UL-, CUL- or CE-approved.

### ORDERING INFORMATION

Example: 120Vac Input,  
single-phase with 4-20mA Output  
**AVT-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 .... (0-1mAdc output) ..... 0-10kΩ  
"E" models .... (4-20mA output) ..... 0-1kΩ  
"E2" models ... (4-20mA output @ 24Vdc) ... 0-600Ω  
"C" & "CX5" models (5V & 10V output) ..... ≥10MΩ  
Field Adjustable Cal. .... ±5%

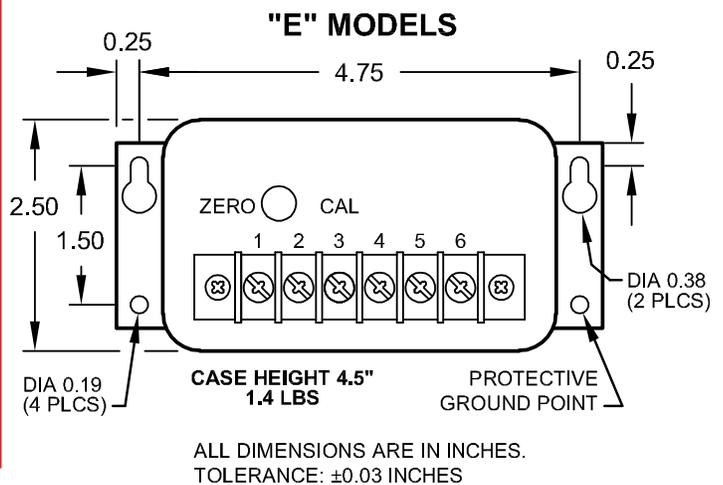
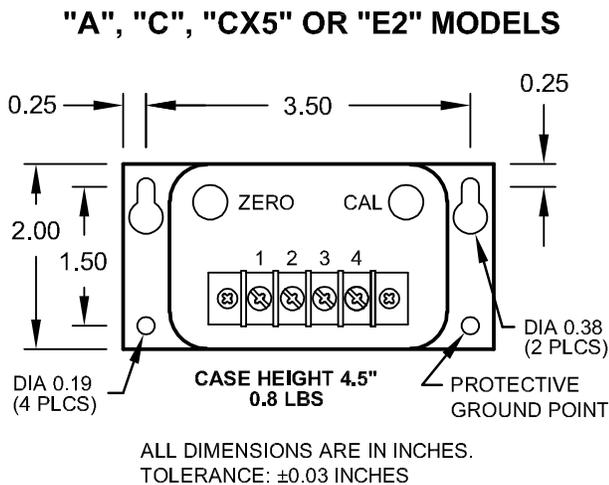
**ACCURACY** ..... ±0.25% F.S. @ 60Hz  
Includes effects of linearity (10-100%) and setpoint.  
Output Ripple ..... Less than 1.0% F.S.

### TEMPERATURE

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

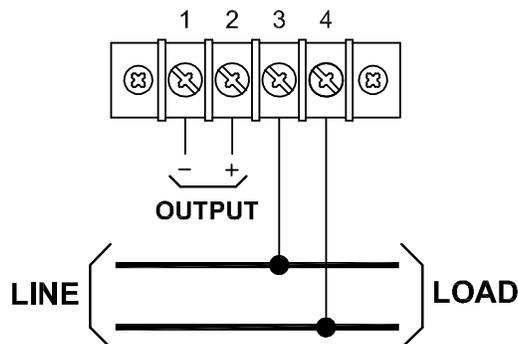
**OHIO SEMITRONICS, INC.** 4242 REYNOLDS DRIVE \* HILLIARD, OHIO \* 43026-1264  
PHONE: (614) 777-1005 \* FAX: (614) 777-4511  
WWW.OHIOSEMITRONICS.COM \* 1-800-537-6732

**CASE DIMENSIONS**

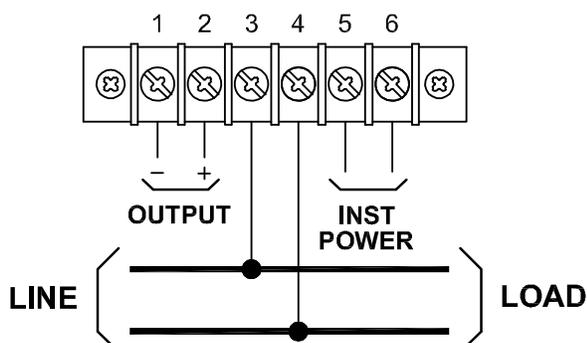


**CONNECTION DIAGRAMS**

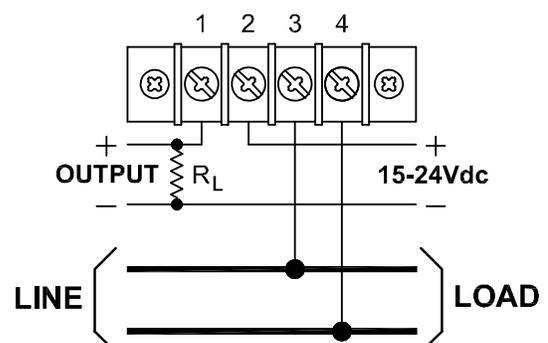
**"A", "C" & "CX5" MODELS**



**"E" MODELS**



**"E2" MODELS**



Dwg# 0902-00858-B Rev A

## 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 II (overvoltage category), 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.