

# OSI SINGLE-PHASE AC RMS CURRENT TRANSDUCER MODEL ACTR-

ACCURATE TO 0.25% FULL-SCALE

## FEATURES

- Accurate measurement of the **true RMS** value of input signals over a wide frequency range.
- Input/output isolation.

## APPLICATIONS

- For use in applications where measurement of non-sinusoidal waveforms is required.
- Designed to withstand motor start-up transients.



INPUT	STANDARD OUTPUTS MODEL ACTR-			
AC AMPS	0-1mAdc	4-20mA	0-10Vdc	0-5Vdc
0 - 1	001B	001E	001D	001X5
0 - 5	005B	005E	005D	005X5
0 - 10	010B	010E	010D	010X5
0 - 15	015B	015E	015D	015X5
0 - 20	020B	020E	020D	020X5



All standard units require 115Vac instrument power.  
Optional 230Vac instrument power - Add suffix "-22".

**5 YEAR WARRANTY**

## ORDERING INFORMATION

Example: 15Aac Input with  
0-10Vdc Output.  
**ACTR-015D**

## SPECIFICATIONS

### INPUT

Current.....See Table  
Frequency Range ..... 48-420Hz  
Burden ..... 0.28VA F.S.  
Current Overload (w/o damage)  
1-10A range..... 2 X rating (continuous)  
15-20A range..... 25A maximum (continuous)  
10 X rating for one-second transient ..... 10s/hr

### DIELECTRIC TEST

Input/Output/Case.....2200Vac

### INSTRUMENT POWER

Standard ..... 115V, ±15%, 50/60Hz, 3.5VA  
"-22" Option.....230V, ±15%, 50/60Hz, 3.5VA

### OUTPUT

Response Time (to 90%) ..... 100ms  
Loading  
"B" models ..... (0-1mAdc output) ..... 0-10kΩ  
"D", "X5" models ..... (0-10, 0-5Vdc output) ..... 2kΩ min.  
"E" models ..... (4-20mAdc output) ..... 0-500Ω  
Field Adjustable Cal. .... ±10%

**ACCURACY** ..... ±0.25% F.S. @ 60Hz  
Includes effects of linearity and setpoint.

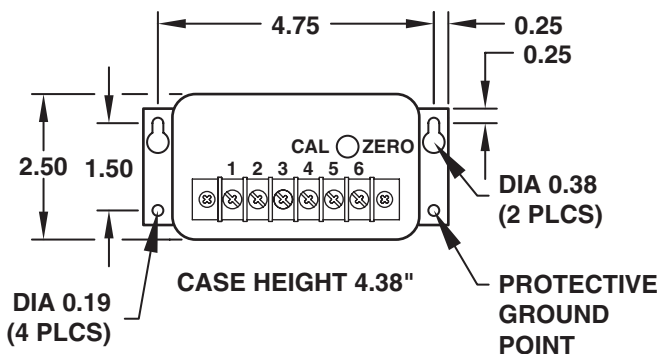
Typical ±0.5% over frequency range

Output Ripple ..... <1.0% F.S.

### TEMPERATURE & PHYSICAL

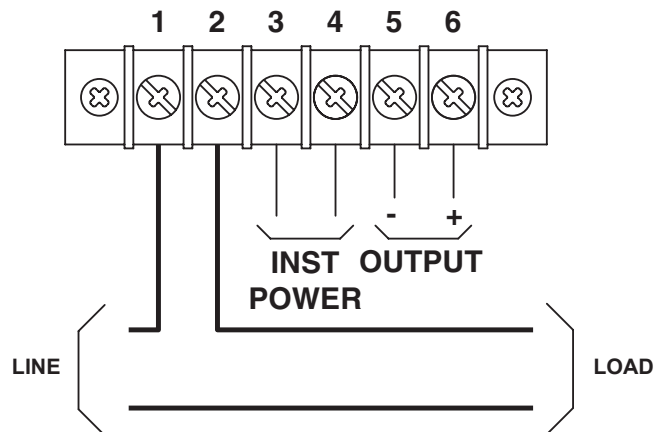
Temperature Effect...(-20°C to 60°C) ..... ±1.0% Rdg.  
Net Weight ..... 1.5 Lbs.

## CASE DIMENSIONS



All dimensions in inches

## CONNECTION DIAGRAM



## INSTALLATION INSTRUCTIONS

1. Installation should be performed by qualified electricians only!
2. Verify that 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.