OSI SINGLE-PHASE AC CURRENT TRANSDUCER *MODEL* ACT-

DESCRIPTION

The model ACT is a UL and CUL approved ac current transducer which provides an isolated dc output directly proportional to the input current. The output is derived from the average absolute value of the input and is calibrated as the RMS value of an input sine wave. With the exception of models which provide 4-20mA output, models are self-powered from the measured line.

c UL us LISTED
Measuring Equipment 7N93

FEATURES

- Accurate, reliable current measurement
- Withstands motor start-up transients
- Rugged metal construction
- Low Cost
- UL and CUL listed

APPLICATIONS

- Inexpensive current measurement.
- Industrial environments
- OEM measurement systems
- Energy management and control

5 YEAR WARRANTY

RoHS compliant

ORDERING INFORMATION

Example: 0-200A Input, 4-20mA Output, 230Vac Instrument Power
ACT-200E-22

400Hz models are available - consult factory

MODEL SELECTION

INPUT AC AMPS	SENSOR SIZE	STANDARD OUTPUTS MODEL ACT-				
		0-1mAdc	4-20mAdc	0-10Vdc	0-5Vdc	4-20mAdc
0 - 1	INT	001A	001E2	001C	001CX5	001E
0 - 5	INT	005A	005E2	005C	005CX5	005E
0 - 10	INT	010A	010E2	010C	010CX5	010E
0 - 20	INT	020A	020E2	020C	020CX5	020E
0 - 25 †	W	025A	025E2	025C	025CX5	025E
0 - 50	W	050A	050E2	050C	050CX5	050E
0 - 75	W	075A	075E2	075C	075CX5	075E
0 - 100	W	100A	100E2	100C	100CX5	100E
0 - 150	W	150A	150E2	150C	150CX5	150E
0 - 200	W	200A	200E2	200C	200CX5	200E
0 - 250	W	250A	250E2	250C	250CX5	250E
0 - 300	W	300A	300E2	300C	300CX5	300E
0 - 400	X	400A	400E2	400C	400CX5	400E
0 - 500	X	500A	500E2	500C	500CX5	500E
0 - 600	X	600A	600E2	600C	600CX5	600E
0 - 750	X	750A	750E2	750C	750CX5	750E
0 - 800	X	800A	800E2	800C	800CX5	800E
0 - 1000	Y	1000A	1000E2	1000C	1000CX5	1000E
0 - 1200	Y	1200A	1200E2	1200C	1200CX5	1200E
0 - 1500	Y	1500A	1500E2	1500C	1500CX5	1500E
0 - 2000	Y	2000A	2000E2	2000C	2000CX5	2000E

† Requires 2 turns through current transformer window.
"**A**", "**C**", and "**CX5**" models are self-powered
"**E**" models require 115Vac instrument power or add "**-22**" suffix for 230Vac
"**E2**" models require 15-40Vdc loop power

SPECIFICATIONS

INPUT

Current Range ..... See Table
Frequency Range 50/60Hz
Burden ..... 1.0VA Max. at F.S.
Current Overload (continuous)
20A models ..... 1.25 X F.S. rating
All other models ..... 2 X F.S. rating

DIELECTRIC TEST

Input/Output/Inst. Pwr./Case 2200Vac

INSTRUMENT POWER

"**A**" / "**C**" / "**CX5**" models ..... Self-powered
"**E2**" models ..... 15-40Vdc Loop Power
"**E**" models ..... 115V ±15%, 50/60Hz, 10VA
"**-22**" option ..... 230V ±15%, 50/60Hz, 10VA

OUTPUT

Response 400ms
Loading
"**A**" models ..... 0-1mAdc 0-10kΩ
"**C**" / "**CX5**" models... 10Vdc / 5Vdc ..... ≥10MΩ
"**E**" models ..... 4-20mAdc 0-1kΩ
"**E2**" models..... 4-20mAdc @ 24Vdc 0-600Ω
Field Adjustable Span. ..... ±5%

ACCURACY (setpoint, linearity, repeatability)

Internal sensor models ..... ±0.25% F.S. @ 60Hz
External sensor models ..... ±0.50% F.S. @ 60Hz
Output Ripple ..... ≤1.0% F.S.

TEMPERATURE (operating range and effect)

"**A**"/"**C**"/"**CX5**" .....-20 to +60ºC..... ±1.0% Rdg.
"**E**" / "**E2**" .....-20 to +60ºC.... ±1.0% Rdg., ±0.02mA

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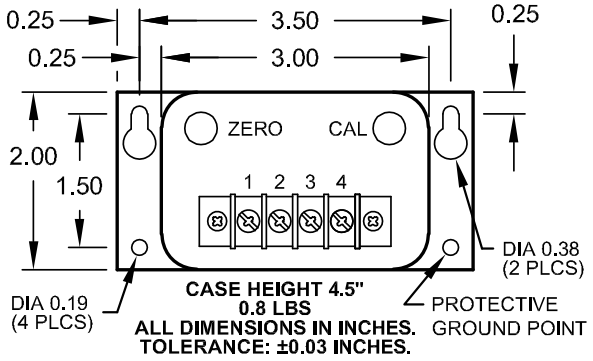
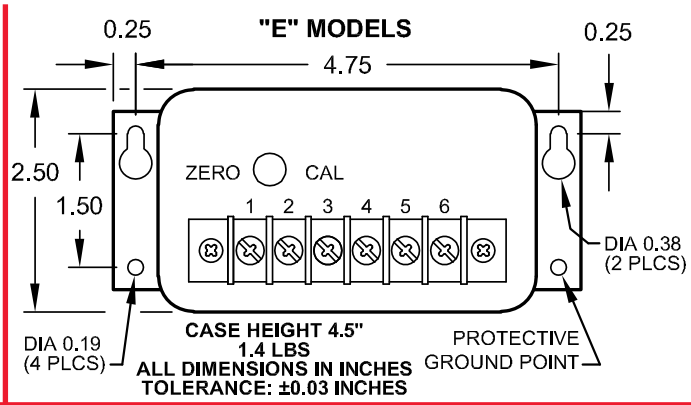
DIMENSIONS and CONNECTIONS — MODEL ACT-

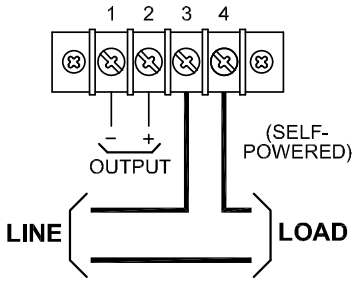
"A", "C", "CX5" OR "E2" MODELS



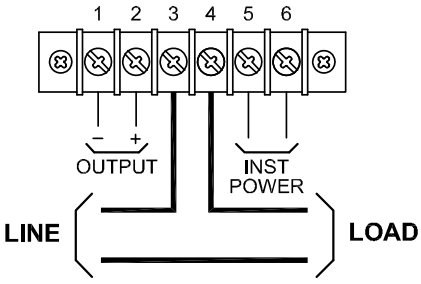
"E" MODELS



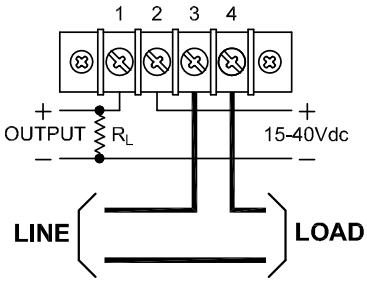
"A", "C" & "CX5" MODELS
INTERNAL SENSOR



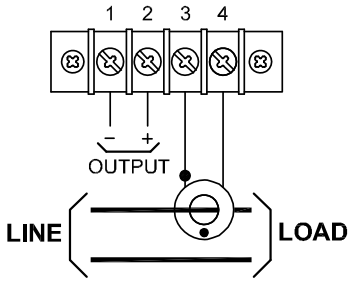
"E" MODELS
INTERNAL SENSOR



"E2" MODELS
INTERNAL SENSOR

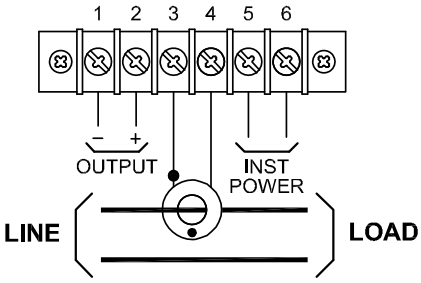


"A", "C" & "CX5" MODELS
EXTERNAL SENSOR



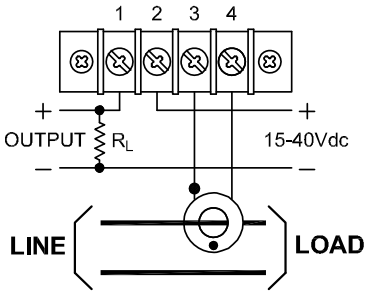
SELF-POWERED
25A MODELS REQUIRE 2 TURNS

"E" MODELS
EXTERNAL SENSOR



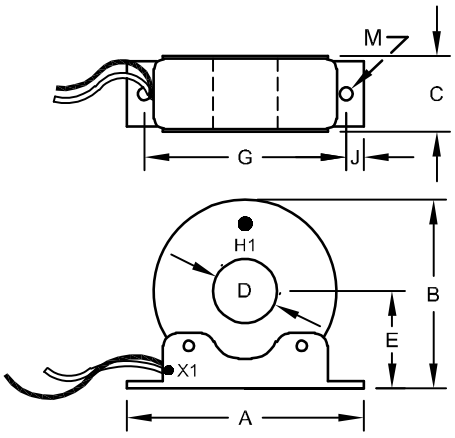
25A MODELS REQUIRE 2 TURNS

"E2" MODELS
EXTERNAL SENSOR



LOOP-POWERED
25A MODELS REQUIRE 2 TURNS

SENSOR DIMENSIONS



SENSOR SIZE	SENSOR DIMENSIONS (INCHES)								WT. LBS.
	A	B	C	D	E	G	J	M	
W	4.50	3.7	1.25	1.25	1.94	3.88	0.34	0.27 x 0.44	1.43
X	6.50	4.7	1.25	2.50	2.46	5.75	0.39	0.28	1.61
Y	6.50	4.7	1.25	3.00	2.46	5.75	0.39	0.28	1.10

Lead Length.....24 Inches

Dwg# 0902-00857-B Rev-B

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INSTALLATION INSTRUCTIONS

1. Installation should be performed by qualified electricians only!

2. Electrical service must be 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) 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 must 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 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.