OSI SINGLE-PHASE AC CURRENT TRANSDUCER MODEL MCT5-

DIN-RAIL MOUNTED 0.25% ACCURACY

FEATURES

- Ruggedized, Polyamide, DIN-Rail mountable
- · Slim profile provides maximum utilization of space
- Field-selectable outputs ("A" models)
- · UL and CUL listed



APPLICATIONS

- · Ideal for use in areas with dimensional constraints
- · Installations in industrial environments
- Energy management and control systems
- Use with **OSI** current transformers (CTs)



Transducer output is derived from the average absolute value of the input and is calibrated as the RMS value of a sine wave input.

INPUT	STANDARD OUTPUTS MODEL MCT5-					
AC AMPS	0-1mAdc*	0-5Vdc*	0-10Vdc*	4-20mAdc	4-20mAdc	
0 - 1	001A	001CX5	001C	† 001E	001E2	
0 - 5	005A	005CX5	005C	† 005E	005E2	



Measuring Equipment 7N93

- * Models are self-powered from measured AC input line.
- "A" DIP-switch-selectable 0-1mAdc, 0-5Vdc, or 0-10Vdc output.
- "E" 4-20mAdc models require 85-135Vac instrument power.
- "E2" 4-20mAdc loop-powered models require 15-40Vdc loop power.
- † MCT5-001E and MCT5-005E models are not available as UL Listed.

ORDERING INFORMATION

Example: 0-5A Input, 4-20mA Output, 115Vac Instrument Power

MCT5-005E

SPECIFICATIONS

INPUT
Current RangeSee Table
Frequency Range 60Hz nominal 48-65Hz
Burden
5-Amp models0.18VA
Current Overload
Continuous
10s/hr
DIELECTRIC TEST
Input/Output/Instrument Power1500Vac
INSTRUMENT POWER
"A" / "C" / "CX5" models Self-Powered
"E" models
"E2" models 15-40Vdc Loop Power
PHYSICAL
Connections screw terminals, use 1/8in. slotted
screwdriver for access, wire size
24 to 1200000, with 5120

OUTPUT

Response	to 99%	400ms
Field-Adjustable Span	1	±5%
Loading		
"A" models	0-1mAdc	0-10KΩ
"A" / "CX5" models.	0-5Vdc	>5MΩ
"A" / "C" models	0-10Vdc	>10MΩ
"E" models	4-20mAdc	0-500Ω
"E2" models	4-20mAdc @ 24Vdc	0-600Ω

ACCURACY

Linearity/Setpoint/Repeatability±0.25% I	F.S.@ 60Hz
Output Ripple	.≤1.0% F.S.

TEMPERATURE

Operating Range and Effect:

"A"/"C"/"CX5"20 to +65°C	±1.0% Rdg.
"E" models20 to +40°C±1.0%	Rdg., ±0.02mA
"E2" models20 to +65°C±1.0%	Rdg., ±0.02mA

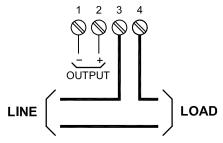


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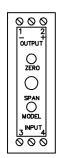
(Consult factory for availability of DIN-rail sections)

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

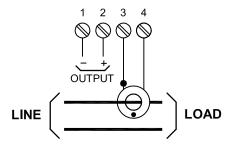
DIRECT CONNECTION



"A" MODELS (SELF-POWERED)

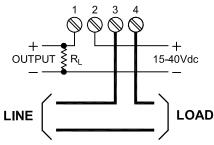


EXTERNAL CURRENT TRANSFORMERS

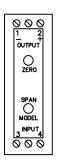


"A" MODELS (SELF-POWERED)

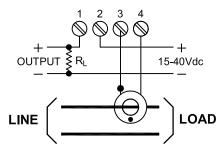
DIRECT CONNECTION



"E2" MODELS (LOOP-POWERED)

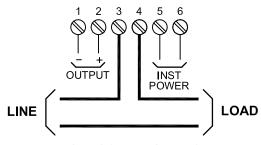


EXTERNAL CURRENT TRANSFORMERS



"E2" MODELS (LOOP-POWERED)

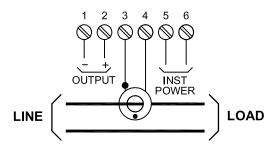
DIRECT CONNECTION



"E" MODELS (4-20mA OUTPUT)

| ○ ○ ○ | 1 2 5| - + | NST | OUT PWR | | OUT PWR | | OUT PWR | OU

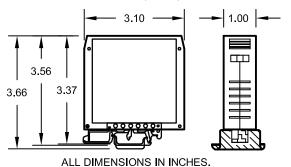
EXTERNAL CURRENT TRANSFORMERS



"E" MODELS (4-20mA OUTPUT)

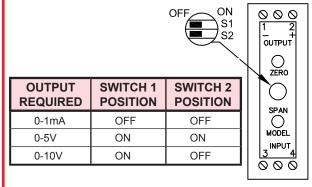
CASE DIMENSIONS

UNIT CAN BE MOUNTED ON: STANDARD 35MM TOP-HAT DIN-RAIL (DIN3) PER EN 50022 OR STANDARD 32MM "G" DIN-RAIL (DIN1) PER EN 50035.



"A" MODEL OUTPUT SELECTION

UNITS ARE SHIPPED WITH 0-1mA SETTING. REMOVE SNAP BUTTON FOR ACCESS TO DIP SWITCHES.



Dwg# 0902-00572-B Rev B

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INSTALLATION INSTRUCTIONS

- 1. Installation should be performed by qualified electricians only!
- 2. Electrical service <u>must be disconnected</u> 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.

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 +65°C (-20 to +40°C for "E" suffix models).

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.

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