# 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.

#### ORDERING INFORMATION

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

MCT5-005E

# **SPECIFICATIONS**

INPUT	
Current RangeSee Tab	le
Frequency Range 60Hz nominal 48-65H	łz
Burden 1-Amp models0.05\	/A
5-Amp models0.18\	
Current Overload	
Continuous	nq
10s/hr	
	J
DIELECTRIC TEST	
Input/Output/Instrument Power1500Va	ЭС
INSTRUMENT POWER	
"A" / "C" / "CX5" models Self-Powere	he
"E" models	
"E2" models 15-40Vdc Loop Powe	CI
PHYSICAL	
Connections screw terminals, use 1/8in. slotte	ed
screwdriver for access, wire size	
24 to 12AWG	

# OUTPUT

Response to 99%	. 400ms
Field-Adjustable Span	±5%
Loading	
"A" models 0-1mAdc	0-10ΚΩ
"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:

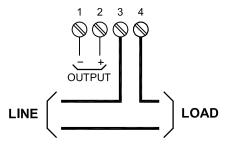
"A"/"C"/"CX5"20 to +65°C	±1.0% Rdg.
"E" models20 to +40°C±1.0%	Rdg., ±0.02mA
"E2" models20 to +65°C±1.0%	Rdg., ±0.02mA



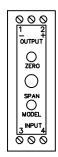
(Consult factory for availability of DIN-rail sections)

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

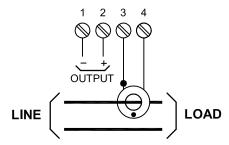
#### **DIRECT CONNECTION**



"A" MODELS (SELF-POWERED)

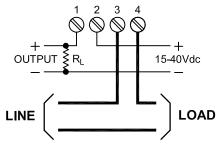


#### **EXTERNAL CURRENT TRANSFORMERS**



"A" MODELS (SELF-POWERED)

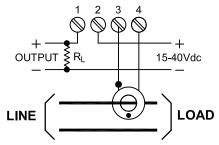
#### **DIRECT CONNECTION**



"E2" MODELS (LOOP-POWERED)

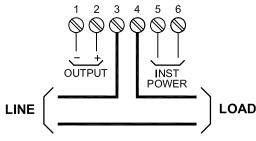
# SPAN OMODEL 3 INPUT 4

#### **EXTERNAL CURRENT TRANSFORMERS**



"E2" MODELS (LOOP-POWERED)

#### **DIRECT CONNECTION**

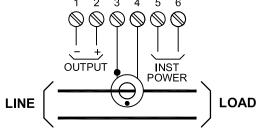


"E" MODELS (4-20mA OUTPUT)

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EXTERNAL CURRENT TRANSFORMERS

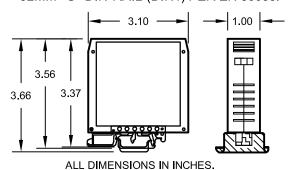
1 2 3 4 5 6



"E" MODELS (4-20mA OUTPUT)

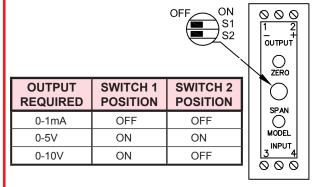
## CASE DIMENSIONS

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.



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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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