OSI | SINGLE-PHASE AC CURRENT TRANSDUCER   *MODEL* MCT5-

DIN-RAIL-MOUNTED AC CURRENT TRANSDUCER
0.25% ACCURACY

FEATURES
• Ruggedized Polyamide DIN-mount case.
• Slim profile allows maximum use of available space.
• Field-selectable analog outputs.
• Recessed terminals provide increased safety.

APPLICATIONS
• Ideal for use in enclosures with dimensional constraints.
• Designed for industrial environments.
• OEM measurement systems.
• Designed for use with **OSI** current transformers.
• Easily integrated into control systems.

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

INPUT AC AMPS	STANDARD OUTPUTS MODEL MCT5-		
	0-1mAdc*	4-20mAdc	4-20mAdc**
0 to 1.0	001A	001E	001E2
0 to 5.0	005A	005E	005E2

*   Models are self-powered from measured AC input line with **DIP-switch-selectable 0-1mA, 0-5Vdc, or 0-10Vdc output.**
** Denotes 4-20mA loop-powered unit, requires 15-40Vdc instrument power.
    Standard 4-20mA models require 85-135 Vac instrument power.

5 YEAR WARRANTY

c(UL)us LISTED

Measuring Equipment 7N93

ORDERING INFORMATION
Example: 0-5A Input with 4-20mA Output.
MCT5-005E

SPECIFICATIONS

INPUT
Current ....See Table
Frequency Range.................. 48 to 65Hz; 60Hz Nom.
Burden...................... 1-Amp models...............0.05VA
                            5-Amp models.............0.175VA
Current Overload
   Continuous.................................... 2 X F.S. rating
   10s/hr .... 10 X F.S. rating

DIELECTRIC TEST
Input/Output 1500Vac

OUTPUT
Response ....(to 99%)................................ 400ms
Field-Adjustable Span ....±5%
Loading
   "A" models set for 0-1mA output 0-10KΩ
   "A" models set for 0-5Vdc output ....>5MΩ
   "A" models set for 0-10Vdc output ....>10MΩ
   "E" models.....(4-20mA) 0-500Ω
   "E2" models...(Loop Powered 4-20mA) 0-600Ω

INSTRUMENT POWER
"E" models **....** (4-20mA)......85-135Vac, 50-60Hz, 3VA
"E2" models .. (Loop-Powered 4-20mA) 15-40Vdc
"A" models .... Self-Powered

ACCURACY
Accuracy ....±0.25% F.S.@ 60Hz
                    Includes effects of linearity and setpoint.
Output Ripple ....<1.0% F.S.

TEMPERATURE
Effect
   "A" & "E2" models ..(-20ºC to +65ºC)..............±1.0%
   "E" models............. (-20ºC to +40ºC) ....±1.0%

PHYSICAL
Termination..................... wire size 22AWG to 12AWG
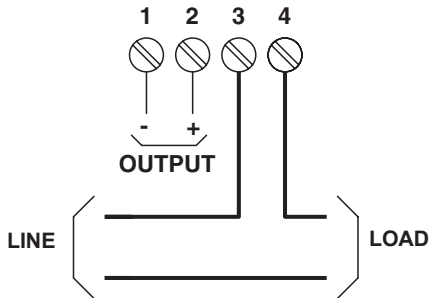Net Weight..0.4 lb

CONNECTION DIAGRAMS AND DIMENSIONS SHOWN ON NEXT PAGE

(Consult factory for availability of DIN-rail)
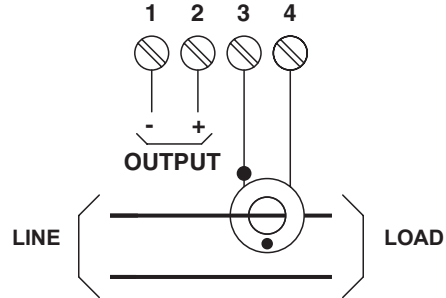
OHIO SEMITRONICS, INC.
4242 REYNOLDS DRIVE * HILLIARD, OHIO * 43026-1264
PHONE: (614) 777-1005 * FAX: (614) 777-4511
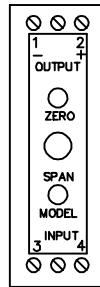**WWW.OHIOSEMITRONICS.COM** * **1-800-537-6732**

Direct Connection

1 2 3 4
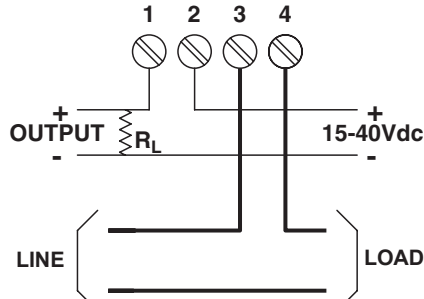
OUTPUT
- +

LINE **LOAD**

"A" Models (Self-Powered)

External Current Transformers

1 2 3 4

OUTPUT
- +

LINE **LOAD**

"A" Models (Self-Powered)

Direct Connection

1 2 3 4

+
OUTPUT R_L **15-40Vdc**
-
- -

LINE **LOAD**

"E2" Models (Loop-Powered)

External Current Transformers

1 2 3 4

+
OUTPUT R_L **15-40Vdc**
-
- -

LINE **LOAD**
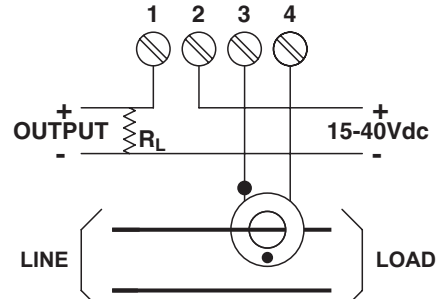
"E2" Models (Loop-Powered)

Direct Connection

1 2 3 4 5 6

OUTPUT
- +

INST POWER

LINE **LOAD**
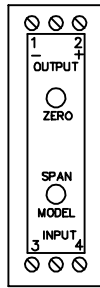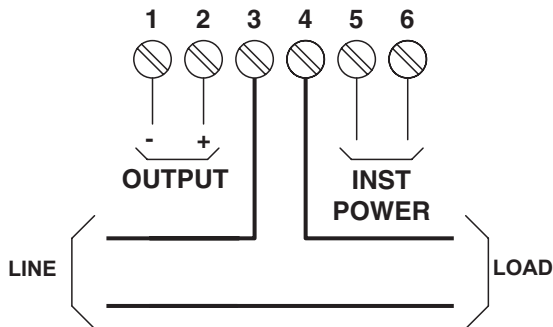
"E" Models (4-20mA Output)

External Current Transformers

1 2 3 4 5 6

OUTPUT
- +

INST POWER

LINE **LOAD**
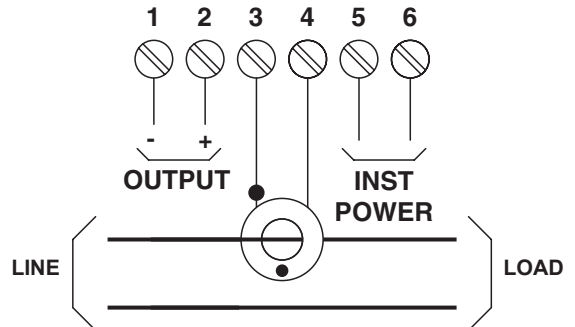
"E" Models (4-20mA Output)
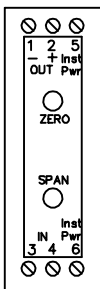
CASE DIMENSIONS

UNIT CAN BE MOUNTED ON:
RAIL EN50035 (DIN 1)
RAIL EN50022 (DIN 2)

3.10   **1.00**

3.66
3.56
3.37
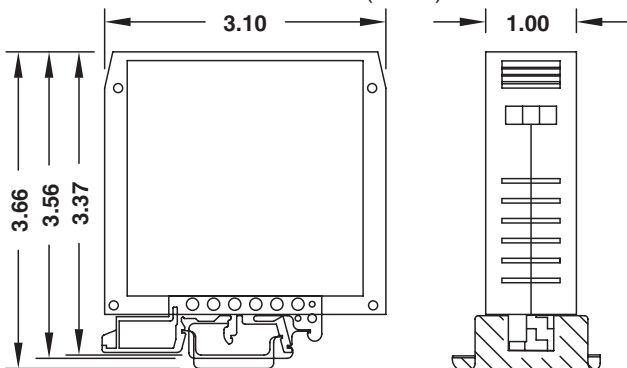
All dimensions in inches

"A" MODEL OUTPUT SELECTION

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

OFF **ON**
S1
S2

Output Required	Switch Pos. 1	Switch Pos. 2
0-1mA	OFF	OFF
0-5V	ON	ON
0-10V	ON	OFF

OHIO SEMITRONICS, INC.

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.

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 31ºC decreasing linearly to 50 percent relative humidity at 40ºC.

6. Maximum operating temperature range is -20ºC to 65ºC (-20ºC to 40ºC 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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