

2-WIRE LOOP POWERED, TRUE RMS

FEATURES

- Accurate measurement of the true RMS value of input signals
- UL94V-0 Polyamide DIN-mount case
- Split-core CT option for easy installation
- Base unit and current sensor are calibrated as a set to provide a 4-20mA analog output.
- Current measurement ranges up to 1000A
- Slim profile allows maximum use of available space.
- Recessed terminals provide increased safety.
- Designed to withstand motor start-up currents

APPLICATIONS

- Use direct-input models with any CT with 0.1A, 1A, 5A or 0.333V secondary.
- Ideal for non-sinusoidal applications, such as VFDs and SCR-controlled loads.
- Retro-fit of existing applications requiring installation with split-core sensors (order with suffix "S")

5 YEAR WARRANTY



DIN-rail lengths available - Consult Factory

MODEL SELECTION

INPUTS AC AMPS	STANDARD OUTPUT MODEL MCTR-	SENSOR SIZE
	4-20mA _{dc}	
*0 to 0.333V	0.333E2	(direct input)
0 to 0.1	0.100E2	(direct input)
0 to 1	001E2	(direct input)
0 to 5	005E2	(direct input)
0 to 5	005E2S	1
0 to 10	010E2S	1
0 to 15	015E2S	1
0 to 20	020E2S	1
0 to 25	025E2S	1
0 to 50	050E2S	1
0 to 100	101E2S	1
0 to 200	201E2S	2
0 to 300	301E2S	2
0 to 400	401E2S	2
0 to 500	501E2S	2
0 to 1000	102E2S	3

*Note: The 0.333V model requires isolation through a separately-supplied external CT.

ORDERING INFORMATION

Example: 0-50A Input, with an external, split-core sensor and 4-20mA loop-powered output.

MCTR-050E2S

SPECIFICATIONS

INPUT

Type See Table
 Over-range (without damage)
 Continuous 1.5 X F.S. Rating
 Transient 10s/hr 5 X F.S. Rating
 1s/hr 10 X F.S. Rating
 Frequency Range 50-60Hz
 Burden 0.1A & 1A models 0.05VA
 5A models 0.18VA
 0.333V models 0.004VA

OUTPUT

Scaling 0-F.S. Input = 4-20mA_{dc} Output
 Response (to 90%) 300ms
 Loading (@ 24V_{dc} loop-power) 0-500Ω
 Setpoint Adjustment ±5%, minimum

DIELECTRIC TEST

Input/Output 2200Vac
 *NOTE: 0.333V model requires isolation through external CT.

INSTRUMENT POWER

Loop-Powered..... Nominal 24V_{dc}
 Range 15-35V_{dc}

ACCURACY (Includes effects of linearity and setpoint)

Direct input models 10-100% F.S. ±0.25% F.S.
 "S" suffix (5-20A Input) 10-100% F.S. ±1.0% F.S.
 "S" suffix (25-1000A input) 10-100% F.S. ±0.5% F.S.
 Output Ripple <1.0% pk-pk

TEMPERATURE

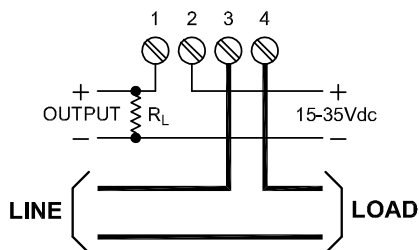
Operating Range -20°C to 60°C
 Effect ±1.0% F.S.

PHYSICAL (Base unit)

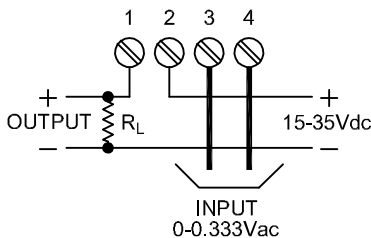
Net Weight 0.4 lb
 Unit can be mounted on RAIL EN50035 (DIN 1) or
 RAIL EN50022 (DIN 3)

CONNECTION DIAGRAMS

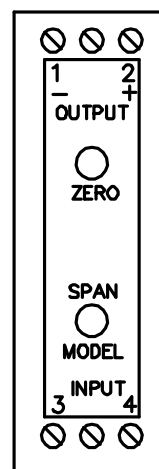
DIRECT CURRENT INPUT



VOLTAGE INPUT

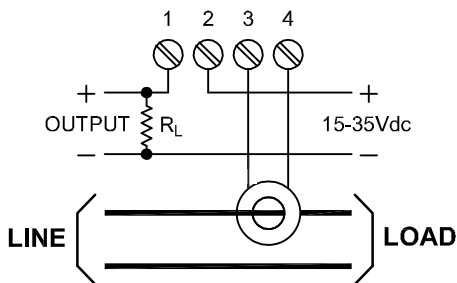


BASE UNIT (All Models)



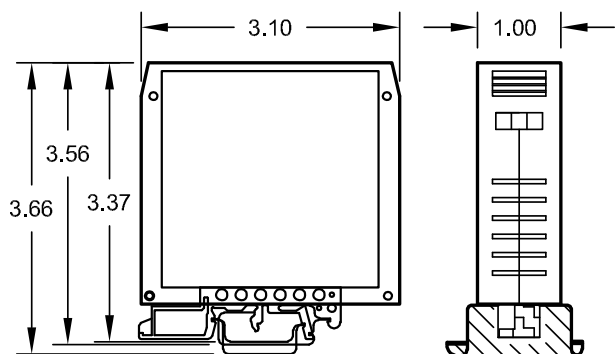
Dwg# 0902-00861-B Rev A (mod)

USING EXTERNAL CTs - "S" OPTION



DIMENSIONS

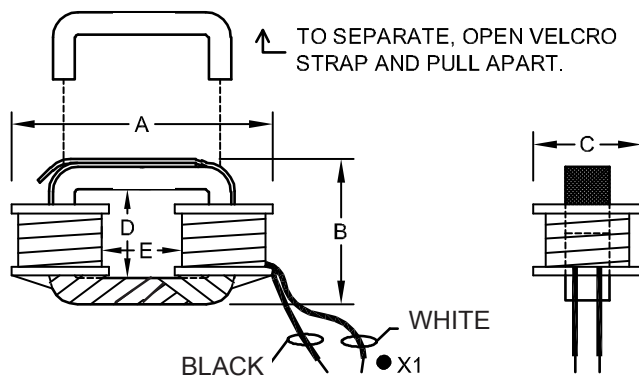
BASE UNIT (All Models)



All dimensions in inches. Tolerance: ± 0.015 in.

Dwg# 0902-00861-B Rev A

CURRENT SENSORS - "S" SUFFIX



Tolerance: ± 0.03 in.

Dwg# 0902-00878-B Rev -- (mod)

INPUT	SENSOR SIZE	DIMENSIONS (in inches,)					WT. LBS.
		A	B	C	D	E	
5 to 100A	1	2.80	2.00	1.12	1.09	1.09	0.4
200 to 500A	2	3.85	3.80	1.30	2.40	1.25	0.8
1000A	3	5.50	4.90	1.60	3.15	3.20	1.5

Lead Type72", 16AWG, White (X1) & Black