TCSA SERIES

Current Transducers

Description

The TCSA Series is a loop-powered, linear output current transducer that provides an output that is directly proportional to the RMS AC current passing through the onboard toroid. The TCSA provides a 4 - 20mA output over a power supply range of 10 - 30VDC. Each unit is factory calibrated for monitoring in one of four ranges; 0-5, 0-10, 0-20, or 0-50A. The 0 - 5A range allows the use of external current transformers so loads up to 1200AC amps can be monitored.

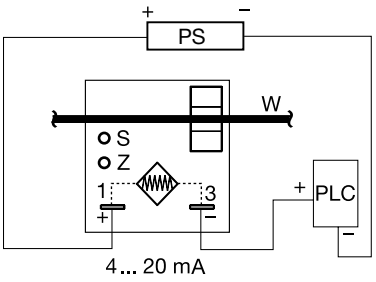
Operation

The TCSA varies the effective resistance of its output in direct proportion to the current flowing in the monitored conductor. The unit is factory calibrated so that 0 amps provides a 4mA output and full span provides a 20mA output. Zero and span adjustments are provided for minor calibration adjustments in the field (if required).

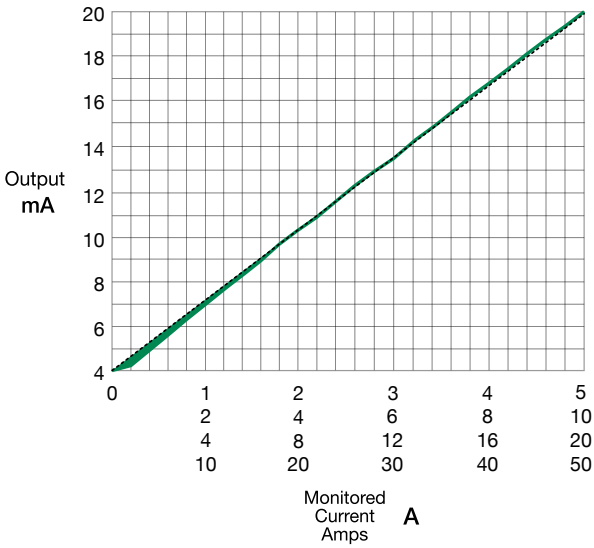
Using an External Current Transformer (CT)

Select a 2VA, 0 to 5A output CT, rated for the current to be monitored. Select TCSA5. Pass one of the CT's secondary wire leads through the TCSA's toroid. Connect the CT's secondary leads together.

Wiring Diagram



PS = Power Supply
Z = Zero Adjust
S = Span Adjust
W = Insulated Wire Carrying Monitored Current
PLC = PLC Analog Input or Meter Input



Ordering Information

MODEL	CURRENT RANGE
TCSA5	0-5A
TCSA10	0-10A
TCSA20	0-20A
TCSA50	0-50A

If you don't find the part you need, call us for a custom product 800-843-8848

Features

- Monitors 0 - 50A in 4 ranges
- Loop powered from 10 to 30VDC
- Linear output from 4 - 20mA
- Zero & span adjustments
- Complete isolation between sensed current & control circuit

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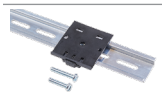
Accessories

P1023-6 Mounting bracket
The 90° orientation of mounting slots makes installation/removal of modules quick and easy.

P1015-64 (AWG 14/16)
Female Quick Connect
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.

P1015-18 Quick Connect to Screw Adapter
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

C103PM (AL) DIN Rail
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



P1023-20 DIN Rail Adapter
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

Specifications

Sensor

Type	Toroid, through hole wiring, alternating current, monitored conductor must be properly insulated
Monitored AC Current Ranges	0 - 50A
4 Factory Calibrated Ranges	0 - 5A, 0 - 10A, 0 - 20A, or 0 - 50A
Factory Calibration	≤±2% of full scale
Maximum Allowable Current	Steady – 50A turns; Inrush – 300A turns for 10s
Repeat Accuracy	≤±0.25% of full scale under fixed conditions
Response Time	≅ 300ms
Burden	≤ 0.5VA
AC Line Frequency	
0 - 20A / 21 - 50A	20 - 100Hz / 30 - 100Hz
Temperature Coefficient	±0.05%/°C

Output

Type: Series Connection	Current directly proportional to monitored current
Range	4 - 20mA
Sensor Supply Voltage*	10 to 30VDC
Momentary Voltage	40VDC for 1m
Zero Adjust	≅ 3.75 - 4.25mA
Span Adjust	18mA - 22mA
Adjustment	Mini-screw, 25-turn potentiometer

Protection

Dielectric Breakdown	≥ 2000V RMS terminals to mounting surface
Insulation Resistance	≥ 100 MΩ
Polarity	Units are reverse polarity protected

Mechanical

Mounting	Surface mount with one #10 (M5 x 0.8) screw
Dimensions	**H** 50.8 mm (2.0"); **W** 50.8 mm (2.0"); **D** 44.5 mm (1.75")
Termination	0.25 in. (6.35 mm) male quick connect terminals
Sensor Hole	0.36 in. (9.14 mm) for up to #4 AWG (21.1 mm^2) THHN wire

Environmental

Operating/Storage Temperature	-30° to 60°C/-40° to 85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.4 oz (68 g)

*Minimum loop-power supply voltage equals the minimum sensor voltage 10VDC plus the voltage drop developed across all the other loop devices at 20mA.

单击下面可查看定价，库存，交付和生命周期等信息

>>Littelfuse(美国力特)