AC Current Sensor, PLC Interface Module TCS Series Current Sensor



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FCS02B01

Technical Data

Sensor Type	Toroid, through hole wiring, alternating current, monitored wire must be properly insulated
Current to Actuate	Adjustable Units 2 20 A, Guaranteed Range
Reset Current	Fixed Units 2 45 A, +0/-20% \cong 95% of the actuate current
Maximum Allowable Current	Steady 50 A-turns Inrush 300 A-turns for 10 s
Actuate Current vs. Temperature & Voltage	≤ +/-5%
Response Times	Overcurrent ≤ 200 ms Undercurrent ≤ 1 s
Burden	< 0.5 VA
Output	
Туре	Solid State
Form	Normally Open or Normally Closed
Kaling	AC = 24 = 240 V AC + 10/(20%)
Voltage	DC = 3 = 50 V DC
Voltage Drop	AC N.O. & N.C. $- \approx 2.5 \text{ V}$
	DC N.O. & N.C ≅ 1.2 V
Protection	
Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface
Insulation Resistance	\geq 100 MΩ
Mounting	Surface mount with one #10 (ME v 0.8) screw
Package	$2 \times 2 \times 1.75$ in (50.8 x 50.8 x 44.5 mm)
Termination	0.25 in. (6.35 mm) male quick connect terminals (2)
Sensor Hole	0.36 in. (9.14 mm) for up to #4 AWG (21.1 mm ²) THHN wire
Environmental	
Operating/Storage Temperature	-20°C +60°C / -40°C +85°C
Humidity	95% relative, non-condensing
weight	≅ 2.6 OZ (/4 g)



Multiple Turns To Increase Sensitivity

To increase sensitivity, multiple turns may be made through the TCS's toroidal sensor. The trip point range is divided by the number of turns through the toroidal sensor to create a new range. **Using an External Current Transformer (CT)** Select a 2 VA, 0 to 20 A output CT, rated for the current to be monitored. Pass one of the CT's secondary wire leads through the TCS's toroid. Connect the CT's secondary leads together.

Mechanical View



Inches (Millimeters)

Low Voltage Products & Systems

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