

Descriptions

The CS Current Sensor is a solid state transducer for measuring the current in fans, pumps and other HVAC equipment. Select one of three ranges by moving a jumper on the device to operate over 10A, 20A and 50A. This sensor outputs 0-5V directly and requires no power supply.

Clamping / Split Core Current Transformer is designed to provide a low cost method to monitoring electrical current. A unique hinge and locking snap allows attachment without interrupting the current-carrying wire. High secondary turn will develop signals up to 10Vac across a burden resistor.

Features

1. Self powered, no external power supply required
2. 1-5VDC output, connects directly to automation systems
3. One sensor for three ranges, jumper selected
4. Low cost, replaces digital status relays
5. Panel mounting

Specifications

Power Supply: Not required
Operating Temperature: -20 ~ 60 OC
Operating Humidity: 0 ~ 95% RH
CT Material: ABS (UL94)
CT Ranges: 10, 20, 50Amp, jumper selected
Output Signal: 1~5VDC; proportional to average current
Accuracy: 2%
Plastic housing: Flammability rating UL94HB

Key Specifications

Window Size	0.4" (10 mm)
Current Range*	0.25 - 40A AC
Output	300 mV @ 20A AC
Ratio Error**	<0.5% from 0.25 to 40A AC (typical)
Phase Error**	<1.5° from 1 to 40A C <2° from 0.25 to 1A AC

Clamping Style



5V DC output

Raw 16.67mA AC
current transformer
output



Non Clamping Style

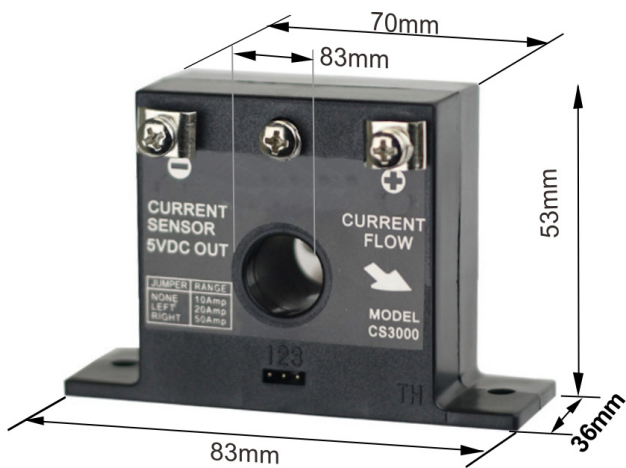
DC output



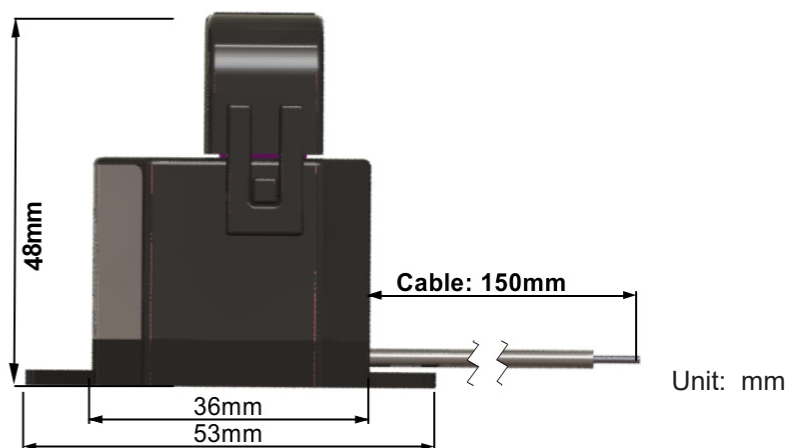
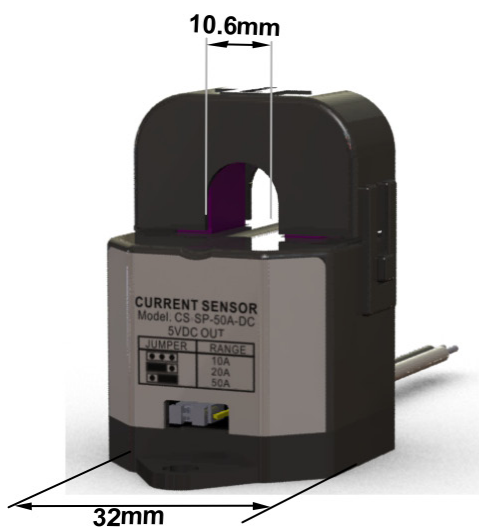
Electrical

Output	300 mV @ 20 A
Wire Polarity	Red = Hi, positive(+) Black= Low, negative(-)
Phasing Orientation	Arrow On Case Points Toward Load
Frequency Range	50 to 400 Hz

Mechanical



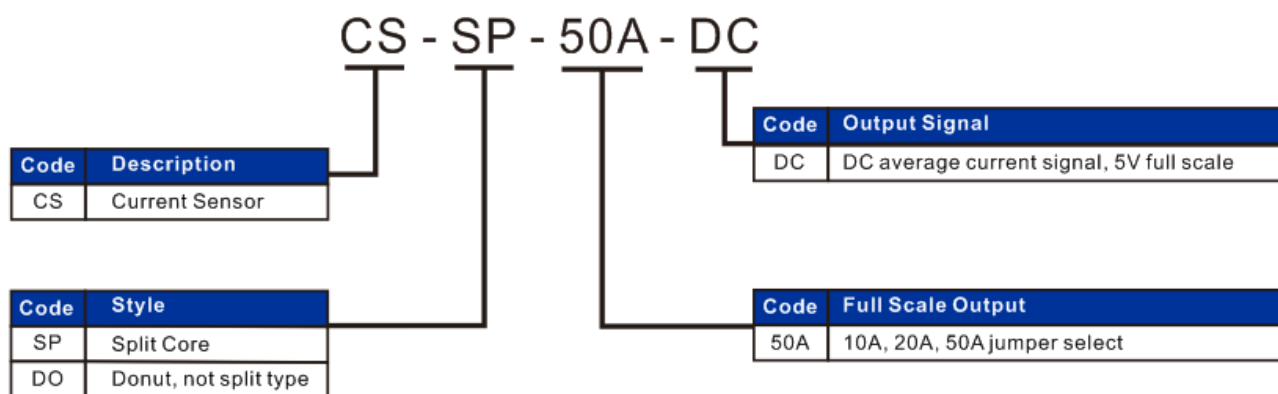
Case Material	Back Nylon
Leads 2.4 M (8').	600 V. 20 gage
Working Temperature	15 to 60 °C (59 to 140 °F)



Specifications

JUMPER	RANGE
1 2 3 	10A
	20A
	50A

Part Number Scheme



Ordering information

Part Number	Description
CS-DO-50A-DC	Non clamping current sensor, AC input, range 10A, 20A, 50A jumper select, 0-5VDC out.
CS-SP-50A-DC	Clamping current sensor, AC input, range 10A, 20A, 50A jumper select, 0-5VDC out.

Typical Performance Curves

Current (A)	CT1_Output	CT2_Output
5	0.46	0.46
15	1.48	1.47
25	2.49	2.5
35	3.54	3.55
45	4.59	4.62

