



MCS-CT500

Description & Specifications



File No: E169780

Part # **MCS-CT500**

Specifications

Dimensions:

Height 4.21"
Width 4.09"
Depth 2.07"
Wire Hole 2.05"

MCS-CT500

Amperage Rating 40-500A
Accuracy ± 5.0 amps
Sensor Output Voltage 0.18 to 4.52vdc
Supply Voltage Induced

Operating Temperature -40°F to +176°F (-40°C to +80°C)
Storage Temperature -49°F to +194°F (-45°C to +90°C)

Packaging

Ship Weight 1.32 lb (approx)
Box Dimensions 6" x 5" x 2.75" (approx)

Description

MCS-CT500 current sensors monitor current flowing to electrical equipment. The magnitude of the current is converted to a linear output voltage between 0.18 to 4.52vdc which can be read as a standard analog input signal. The signal is used by MCS micro controllers for the following:

1. For slide valve control on screw machines
2. For high amp motor overload protection
3. For verification of device on / off

The MCS-CT series are the solid-core version, where the conductor runs through the sensor. No cutting, taping or rerouting is required. The current sensors are accurate, reliable, easy to install and require no service.

The MCS-CT500 has an accuracy of ± 5.0 amps in the frequency range from 50-60Hz. The sensors output voltage is in the range of 0-5vdc signal. The MCS-CT power is induced from the current being monitored.

On the printed circuit board a resistor is mounted across the CT terminals which eliminates danger from induced current. A three-position soldered terminal block is provided for easy wiring. Installers will find this to be more secure in the field since all wires will be tightly secured to the soldered block by two screws (Ground & Shield plus Signal wire).

Two-conductor shielded cable must be used. The shield must be cut at the amp sensor end and the shield must be tied to ground at the MCS micro controller terminal block.

Amps	Volts
40	0.18
45	0.22
50	0.26
60	0.35
70	0.44
80	0.54
100	0.73
110	0.82
120	0.91
130	1.01
150	1.20
160	1.29
170	1.39
180	1.48
190	1.58
200	1.67
220	1.86
230	1.96
250	2.15
270	2.34
280	2.43
290	2.53

Amps	Volts
300	2.62
310	2.72
320	2.81
330	2.91
340	3.00
350	3.10
360	3.19
370	3.29
380	3.38
390	3.47
400	3.57
410	3.66
420	3.76
430	3.85
440	3.95
450	4.04
460	4.14
470	4.23
480	4.33
490	4.42
500	4.52

Revision 2024-04-03