

Analogue Output Current Sensors CS

Description

The CS series current sensors monitor the current flowing to electrical equipment or buildings. The magnitude of this current is then converted into a linear 4-20mA or 0 to 10 VDC output signal, which can be monitored by a Building Management System. The units have jumper selectable input ranges. These current sensors should be used in load trending (current monitoring) type applications and are fast acting, accurate, reliable, and extremely easy to install.

All of the current sensors come with a limited 5 year factory warranty.

Features

- Jumper selectable current ranges
- 0...10Vdc or 4...20mA outputs
- Version available for use with Variable Speed Drives



Technical Specification

Power Supply:	0...10Vdc output - self-powered 4...20mA output - nominal 24Vdc supply
Selectable Ranges:	Low Range - 0...10/20/50A High Range - 0...100/150/200A
Frequency:	40...100 Hz (VSD Version 10...400Hz)
Insulation Class:	600Vac RMS
Accuracy:	± 1%
Response Time:	0.5 S
Enclosure Size:	Solid core - 61 x 90 x 25 mm Split core - 63 x 100 x 32 mm
Enclosure Material:	UL 94V-0 flammability rated ABS
Conductor Hole Size:	Solid core - 19mm diameter Split core - 22.6 x 22.6 mm
Operating Temperature:	-30°C to + 70°C
Certification:	CE, UL and RoHS

Order Codes

CS-SD10L	0...10 Vdc Solid Core 0...10/20/50 A
CS-SD10	0...10 Vdc Solid Core 0...100/150/200 A
CS-SP10L	0...10 Vdc Split Core 0...10/20/50 A
CS-SP10	0...10 Vdc Split Core 0...100/150/200 A
CS-SD420L	4...20mA Solid Core 0...10/20/50 A
CS-SD420	4...20mA Solid Core 0...100/150/200 A
CS-SP420L	4...20mA Split Core 0...10/20/50 A
CS-SP420	4...20mA Split Core 0...100/150/200 A
CS-SD420LT	4...20mA Solid Core 0...10/20/50 A true RMS output for use with variable speed drives
CS-SD420T	4...20mA Solid Core 0...100/150/200 A true RMS output for use with variable speed drives

Operation

The 0-10Vdc sensors require no external power supply as all internal electronics are totally powered by induction from the AC line being monitored. The 4-20mA sensors are loop powered devices that require a nominal 24Vdc power supply. These sensors have a linear output over all selectable ranges.

To allow field calibration, all devices have a calibration pot. The devices may be calibrated to custom ranges to provide the highest accuracy and resolution.

Installation

Disconnect and lock-out all power sources during installation as severe injury or death can result from electrical shock due to contact with high voltage conductors. Ensure all installations are in compliance with applicable electrical codes and that the installation is completed by qualified installers familiar with the standards and proper safety procedures for high-voltage installation.

Insure the range selection jumper is installed in the correct position for the current being monitored. Excessive current can damage the sensor.

Install the Split-Core over the conductor to be monitored and close the sensor until it latches, ensuring that the two halves are properly aligned. Operation of the sensor will be impaired if any dirt particles prevents good contact between the core pieces when the device is closed, keep the sensor clean when it is opened.

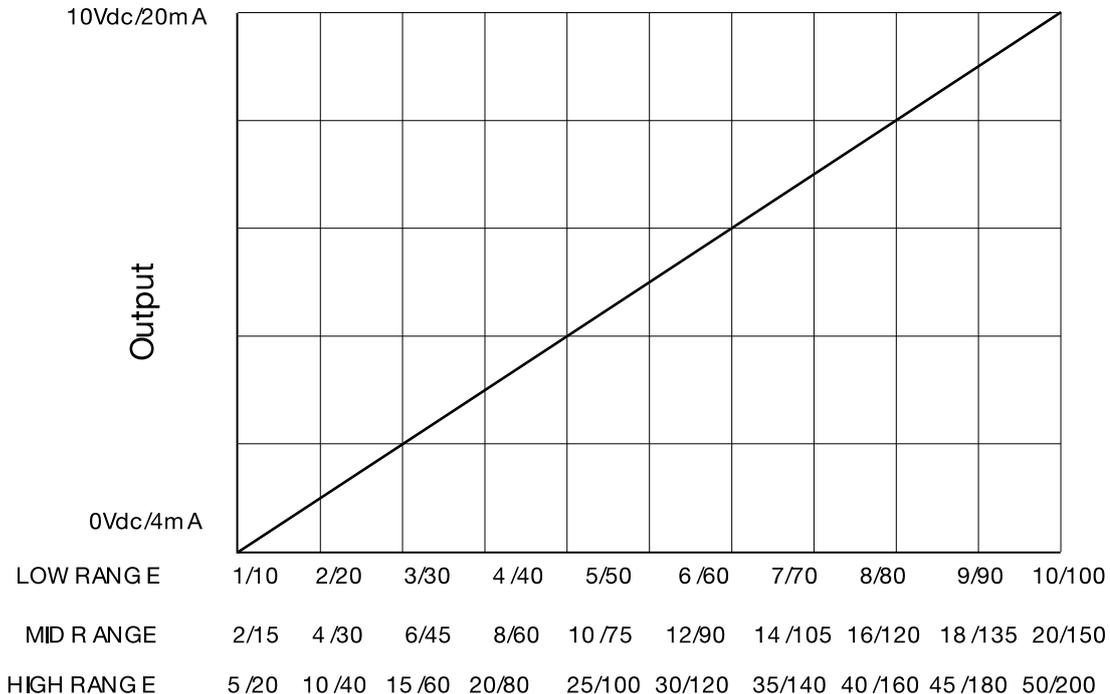
Mount the switch in a suitable location using the two mounting holes in the base of the unit.

The conductor may be looped more than once through the sensor to multiply the sensitivity but this also divides the maximum currents. For example, on the 0-200A scale, if the conductor is looped through twice, the maximum current will now be 100A.

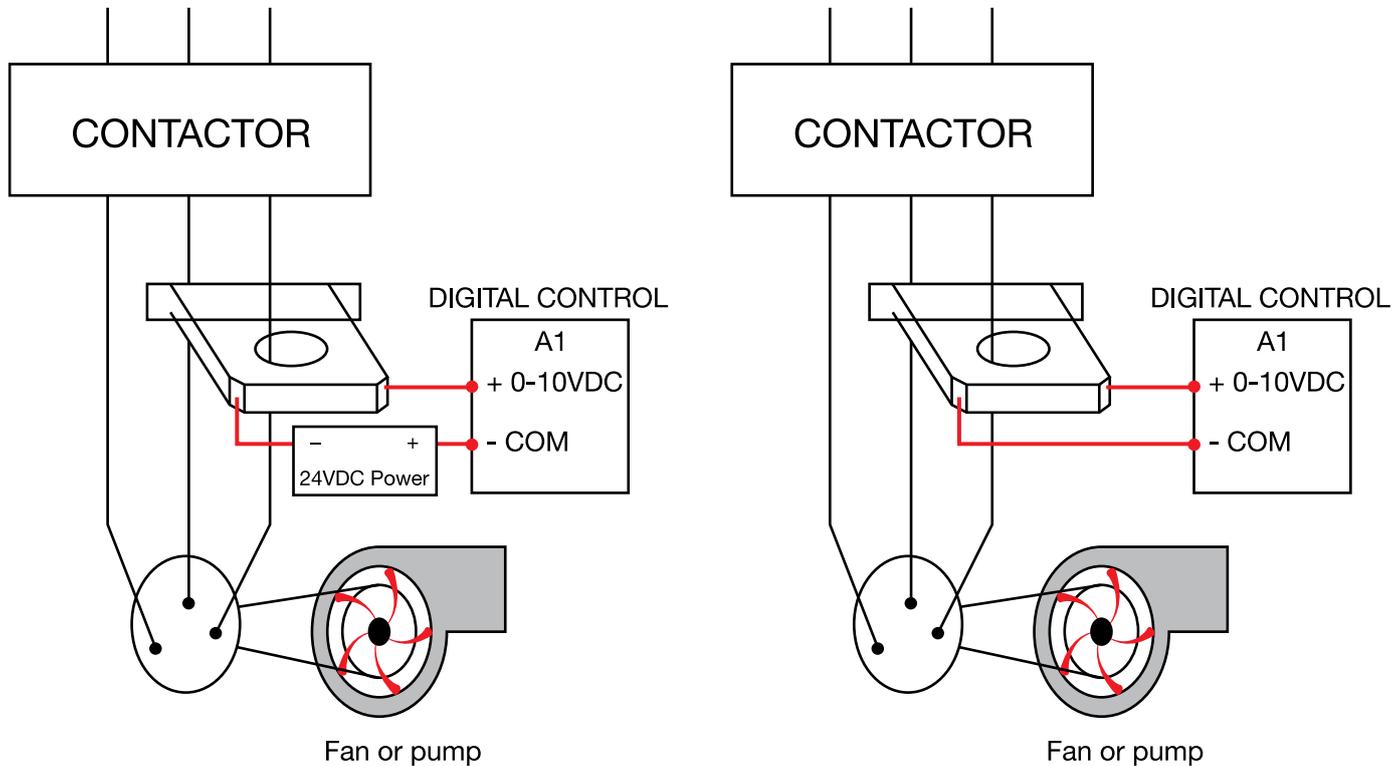
Connect the output circuit to the two screw terminals using ring or fork type terminals. Note polarity as indicated on the device label.

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Output Response

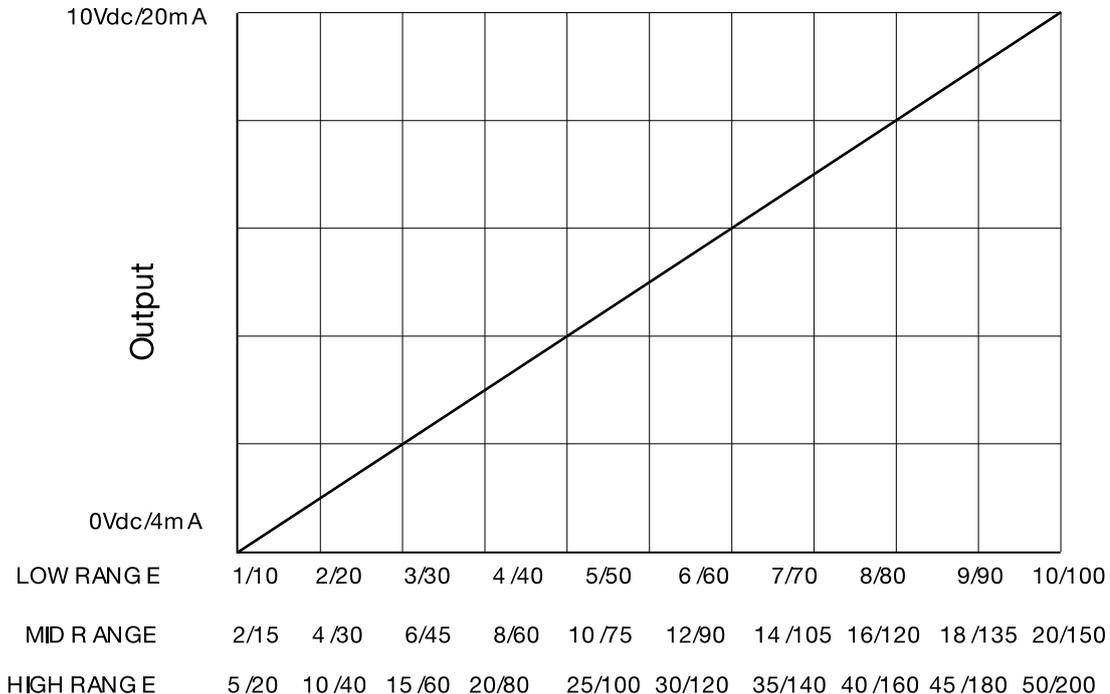


Typical Wiring Connections



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Output Response



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