



Adjustable Setpoint Current Switch CS-A

Description

The CS-A series current switches are available in a solid-core or split-core with Normally-Open (N/O) output configurations. All of these sensors will have a solid-state output with an adjustable trip point (setpoint). These current switches are ideal for providing status information on any type of AC current using equipment. The solid-core units are an excellent choice for new installations while the split-core versions are more suited to retrofit or existing installations. The CS-A current switches are accurate, reliable, easy to install, and require less servicing than differential pressure switches, flow switches, and paddle wheels.

These current switches should be used in applications in which a "Go/No Go" current switch is required. A current switch can be used to monitor fan and pump status, motors, compressors, and any other electrical equipment for proper operation. A change in the operating current may indicate motor failure, belt loss/slippage or mechanical failure.

These current switches can be used to monitor devices with a maximum continuous operating current of up to 250 Amps and

will not need to be externally powered, since the power for the switch is induced from the conductor being monitored. Another great feature of these current switches is that they include a Red and Green "Status" LEDs that will indicate whether the current is above or below the fixed trip point. All of these units come with a unique 35mm Din Rail mounting flange and an unconditional 5 year limited warranty.

Features

- LED Status Indication
- Integral Din Rail Mounting Flange
- Easy Installation, Non-Polarity Sensitive
- Accepts up to a 350 MCM Cable
- Operates up to 250 continuous Amps
- Limited 5 Year Warranty
- RoHS and WEEE Compliant



Technical Specification

Power Supply:	None - self-powered	
Setpoint:	CS-A - 1...250A	CS-AL - 0.5...250A
	CS-AS - 3...200A	CS-ASL - 2...200A
Output Switch:	0.3A @ 200V ac/dc	
Current Range:	0...250A	
Frequency:	40...1kHz	
Isolation Voltage:	1270Vac	
Enclosure Size:	Solid core - 58 x 86 x 25 mm Split core - 68 x 86 x 28 mm	
Enclosure Material:	UL 94V-0 flammability rated ABS	
Conductor Hole Size:	19.8mm diameter	
Operating Temperature:	-15°C to + 40°C	
Certification:	CE, UL and RoHS	

Order Codes

CS-A	Solid core current switch, NO, 1A to 250A trip point, 0...250A
CS-AL	Solid core current switch, NO, 0.5A to 250A trip point, 0...250A
CS-AS	Split core current switch, NO, 3A to 200A trip point, 0...250A
CS-ASL	Split core current switch, NO, 2A to 200A trip point, 0...250A

Installation

Make sure that all installations are in compliance with all national and local electrical codes. Only qualified individuals that are familiar with codes, standards, and proper safety procedures for high-voltage installations should attempt installation. The current switches will not require external power, since the power for the current switch is induced from the conductor being monitored.

Warning: Never rely on the LEDs to determine whether power is

present at the current switch. The Red LED will indicate whether the current is above the adjustable trip point. The Green LED will indicate whether the current is below the adjustable trip point.

The current switch may be mounted in any position using the mounting holes in the base or snapped directly on to the 35mm DIN rail. Leave a minimum distance of 1" (3 cm) between the current switch and any other magnetic devices such as contactors and transformers.

For applications in which the normal operating current is below the 0.5A trip point, the conductor being monitored may be looped through the sensor 4 times giving you a total operating current of 4X the original current. Example: A small fan operating at 0.2A should be wrapped through the sensor 7 times to give you a total operating current of 1.4Amps flowing through the CS-A or another option is to use the CS-AL. For applications in which the normal operating current is greater than 250 Amps or for conductor diameters larger than 19.8mm, an external 5 Amp Current Transformer must be used. A maximum wire length of less than 30 meters should be used between the CS-A Series current switches and the Building Management System or controller. Note: When using a shielded cable, be sure to connect only (1) end of the shield to ground at the controller. Connecting both ends of the shield to ground may cause a ground loop. The current switch output terminals represent a solid-state switch for controlling both AC and DC loads and is not polarity sensitive. The recommended torque to be used on the terminal block connections is 0.67Nm.

The adjustable current switch has an operating range of 0-250 Amps. Do not exceed! The adjustable current switch comes with its fifteen-turn adjustment potentiometer set counter clockwise to the maximum (250A) trip point position. With power on, and the adjustable current switch on the proper range, turn the 15-turn adjustment potentiometer clockwise until the Red LED turns on and stop immediately. The adjustable current switch is now tripped. The adjustable current switch Hysteresis (Dead Band) is 10% of the trip point typically.

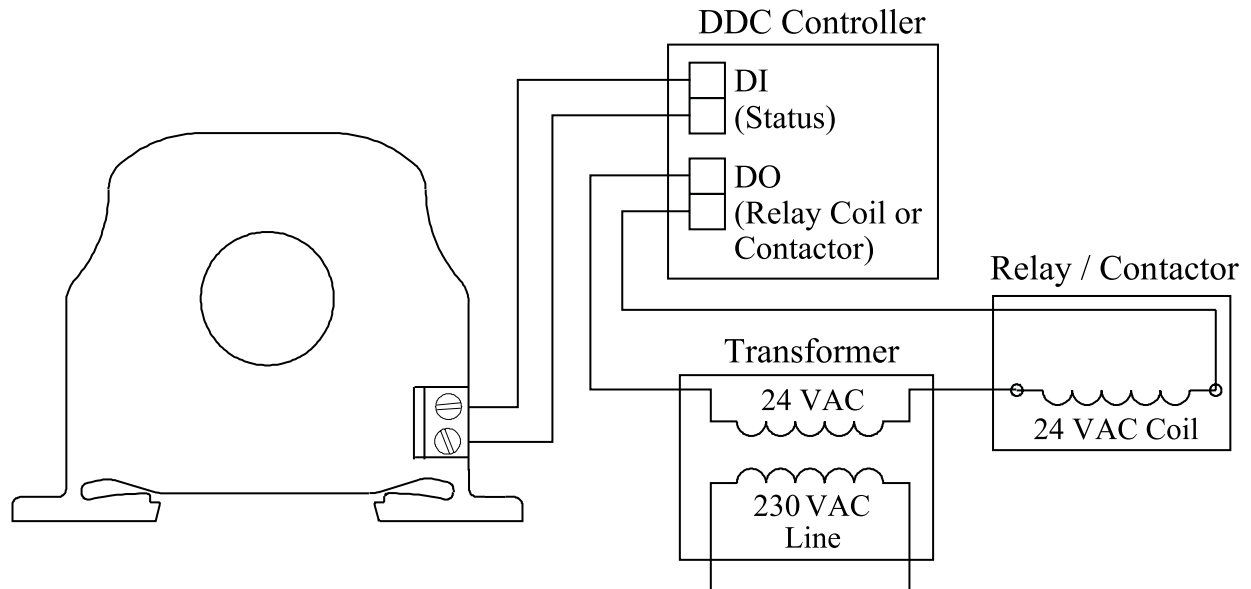
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Typical Wiring Example



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