

# Current Switch CSW

## Description

The CSW series of AC current switches activate a normally open (NO) contact closure via a solid-state switch whenever the monitored primary circuit current exceeds a pre-set level. Models are available to switch various load types, feature integral LEDs to indicate device power and also the switch status and can be provided in solid or split core configuration. The CSW-Axx models include a multi-turn adjustment to set the trip threshold to the desired value and the CSW-Fxx models operate as a go/no-go status indicators with a factory set minimum threshold value. The switches can monitor up to 200 Amps continuous and feature an auto-range circuit to eliminate manual jumpers. All models are UL, CE and RoHS compliant. The CSW series current switches are accurate, reliable, easy to install and require less servicing than differential pressure switches, or flow switches.

The CSW series current switches can be used to monitor devices with a maximum continuous operating current of up to 200 Amps and the power supply is induced from the conductor being monitored. All of these units come with an unconditional 5 year limited warranty.

## Features

- Auto-ranging up to 200A
- Power induced from monitored conductor
- True digital switching and very low leakage
- Small compact size
- Easy field adjustment with status LED's
- Choice of output rating
- Fixed or adjustable setpoint



## Technical Specification

Power Supply:	None — self-powered
Setpoint:	Solid core - 1A...200A Split core - 1.5A...200A (CSW-F fixed at 0.5A)
Output Switch:	Solid state 0.3A @ 135V ac/dc ASx2 1A @ 250Vac
Hysteresis:	< 2% FS max.
Response Time:	< 200 mS
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:	-25°C to + 70°C
Certification:	CE, UL and RoHS

## Order Codes

CSW-NO-FSD	Solid Core Fixed Setpoint Current Switch
CSW-NO-FSP	Split Core Fixed Setpoint Current Switch
CSW-NO-ASD	Solid Core Adjustable Setpoint Current Switch 0.3A @ 135Vac/dc
CSW-NO-ASP	Split Core Adjustable Setpoint Current Switch 0.3A @ 135Vac/dc
CSW-NO-ASD2	Solid Core Adjustable Setpoint Current Switch 1A @ 250Vac
CSW-NO-ASP2	Split Core Adjustable Setpoint Current Switch 1A @ 250Vac

## Operation

The output switch of all devices is normally open, when the monitored current exceeds the trip value as set by the multi-turn adjustment the switch will close. The status LED will light to indicate a closed switch. The power LED will indicate circuit power whenever there is sufficient current flowing in the conductor to operate the device circuitry, typically 1 Amp minimum for solid-core units and 1.5 Amp minimum for split-core devices.

All devices are factory set at the minimum switch point. To increase the setpoint, while the monitored load is on, turn the adjustment until the output turns off as indicated by the status LED. Then turn the adjustment back until the LED comes back on to indicate a closed switch. The adjustment should be turned slightly back past this point to ensure normal line current variations do not cause false conditions.

## Installation

Ensure that the output circuit to be switched is within the device switch ratings, less than Switch V Max and less than range I Max.

Solid-Core devices require that the line to be monitored be disconnected and routed through the centre of the device while Split-Core units can be easily installed over existing wires without the need to disconnect the circuit.

To open Split-Core devices, push the latch. 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 max. currents.

Connect the switch circuit to the two screw terminals. The switches are not polarity sensitive and operate as a "dry contact".

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## Typical Wiring Example

