HCS Current Switch

Split/Solid Core, Adjustable

The HCS series current switches are the ideal choice for monitoring operational status via AC current sensing. Safe and reliable, with solid-core or split-core options for new or retrofit installation. The solid-core model can accept AC current from operational min. to 200A, and the split-core model can accept AC current form 1.5 to 200A. Both models output a switch signal with the state of normally open (N/O) or normally closed (N/C) for load monitoring, control or alarm. Adjustable setpoint, and LED indication to show power status and switch output activation. The rated load of the output is 0.3A @135Vac/dc.

The operation is based on electromagnet induction. Induced current will be produced when the AC current in the circuit increases. The state of the output changes when the monitored primary circuit current exceeds the pre-set level. The red LED will indicate that this threshold has been met.

Key Features

- Self-powered, reducing installation and operating cost
- Safe & reliable
- Easy installation
- Solid-state output, 0.3A @135 Vac/dc
- Conforms to UL, CSA, Rohs and CE requirements
- ABS housing (UL 94V-0)
- Adjustable setpoint from 1/1.5 to 200A (model dependant)
- Three jumper-selector jumper ranges (Low [null], Mid, High)
- LED Indicators for quick visual status indication
- Response time <200ms.
- Solid-core or split-core design options
- Isolation voltage 2kVac

Applications

- Monitoring AC load status
- Overload protection
- Fan proving

Model Selection

- HCSDO-1003AGR Solid-core, adj. 1… 200A, N/O, dry contact 0.3A @ 135Vac/dc
- HCSPO-1503AGR Split-core, adj. 1.5… 200A, N/O, dry contact 0.3A @ 135Vac/dc
- HCSDC-1003AGR Solid-core, adj. 1… 200A, N/C, dry contact 0.3A @ 135Vac/dc
- HCSPC-1503AGR Split-core, adj. 1.5… 200A, N/C, dry contact 0.3A @ 135Vac/dc

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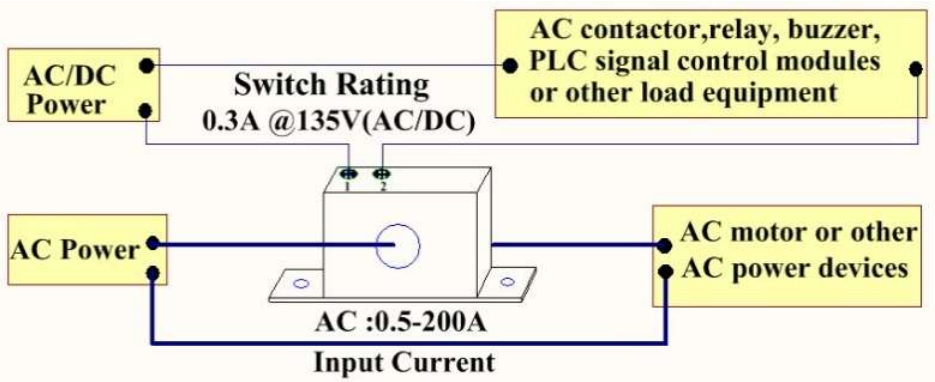
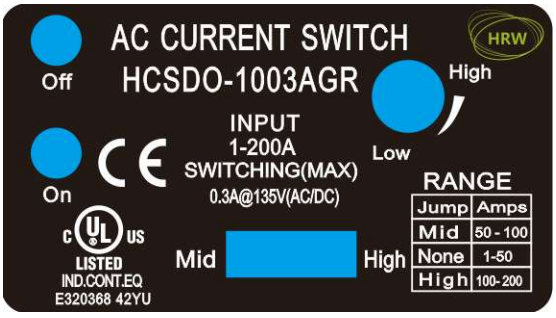
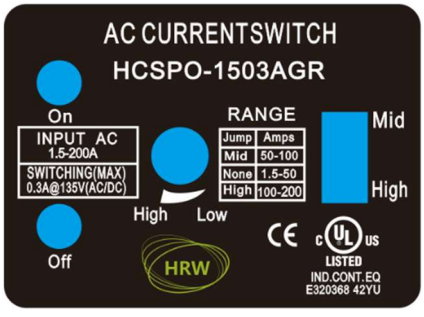
Installation & Operation

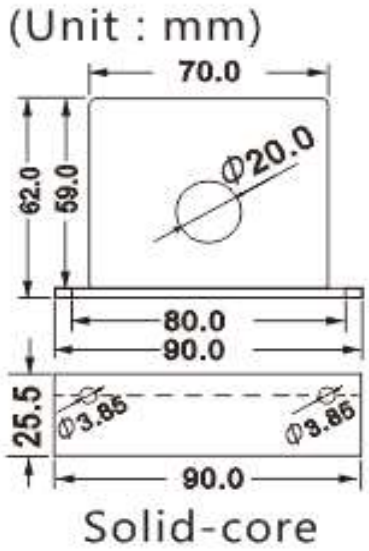
1. Using screws, mount the switch in a suitable location using the two mounting holes in the base of the unit
2. Ensure that the power supply to the circuit is off
3. For solid-core model, disconnect the circuit line, slide the power conductor cable through the sensing hole of the current switch, and reconnect the circuit line. For split-core model, press the tab with your finger to open the switch. After placing the wire in the opening, press the hinged portion firmly downward until a definite click is heard and the tab pops out fully
4. Connect the switch circuit to the terminal block for the load
5. Set the range jumper to suit the target sensing range
6. Turn the load on
7. If the green LED is on and the red LED is off, you should adjust the potentiometer to the low direction until the red LED is lit. If the red LED is on and the green is off, you should adjust the potentiometer to the high direction until the green LED is on, and then adjust the potentiometer to the low direction until the red LED is just on.
8. The current switch is now in operation giving the required output when the load is at the required status

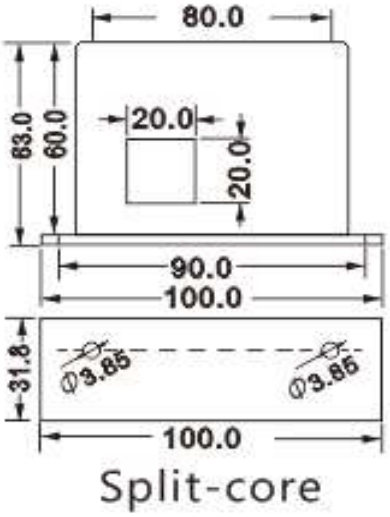






Dimensions





Specifications

Power-supply	None, self-powered.
Amperage Range	0.5 to 200A continuous (solid-core model) 1.5 to 200A continuous (split-core model)
Set Point	1 to 200A continuous (solid-core adjustable model) 1.5 to 200A continuous (split-core adjustable model)
Conduct current	0.5±0.2A (solid-core adjustable model) 1.5±0.2A (split-core adjustable model)
Dimensions	Solid-core 62×90×25.5mm Split-core 63×100×31.8mm
Switch state:	Normal open or normal closed
Output Rating	0.3A @ 135VDC/AC
AC load frequency	10-200Hz
Hysteresis	≤ 1%
Accuracy	10%
Repeatability	100%
Power consumption	≤ 1W
Response time:	<200ms
Leakage current	≤ 1mA
Temperature limit	0 to 50℃ (32 to 122℉)
Humidity limits	10 to 95% rH (non-condensing).
Enclosure Rating	UL 94V-0 flammability rated ABS, insulation class 600V
Maximum overload	200% (< 200% of the rated feedthrough current).