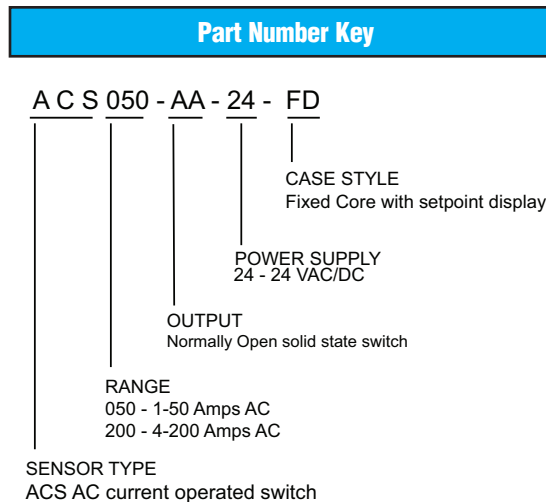


Specifications	
Power Supply	24VAC/DC (+/- 10%)
Power Consumption	< 2VA
Output	Solid-state switch, normally open
Switch Rating	1A @ 240VAC maximum
Response Time	0.50 sec. 5% over set point 0.20 sec. 50% over set point 0.15 sec. 100% over set point
Offstate leakage	<10µA
Hysteresis	5% of setpoint
Setpoint Ranges	1-50 Amps (ACS050) 4-200 Amps (ACS200)
Setpoint Adjust	Single-turn potentiometer Setpoint displayed on sensor
Sensed Current Limit	1.1x range continuous 3x range for 6 seconds 5x range for 1 second
Accuracy	+/-1%
Isolation Voltage	UL508, UL tested to 1480VAC
Frequency Range	40 to 100 Hz
Sensing Aperture	0.75 in (19mm) dia.
Environmental	-Temp -4 to 122°F (-20 to 50°C) -Humidity 0-95% RH, Non-condensing -Pollution degree 2 -Altitude 2000 meters
Case	UL 94V-0 Flammability rated thermoplastic
Certifications	cULus listed E222847 CE

For products intended for the EU market, the following is applicable to the CE compliance of the product:

The ACS050/ACS200 Series may comply with EN 61010-1 CAT III 300V max line-to-neutral measurement category. If insulated cable is used for the primary circuit, the voltage rating of the measurement category can be improved according to the characteristics given by the cable manufacturer.

Use 24V input power and fuse at 5 amps. Power source overvoltage category I as defined per EN 61010-1.



Warning! Risk of hazardous voltage

When operating the device, certain parts may carry hazardous live voltage (e.g., primary conductor, secondary terminals). The device should not be put into service if the installation is not complete.



Warning! Risk of electric shock or personal injury

Safe operation can only be guaranteed if the device is used for the purpose for which it was designed and within the limits of the technical specifications. When this symbol is used, it means you should consult all documentation to understand the nature of potential hazards and the action required to avoid them.



ACS050/ACS200 SERIES INSTALLATION INSTRUCTIONS



Part No. ACS050-AA-24-FD

Quick Start Guide

1. Mount the sensor to a suitable surface, if required.
2. Run the wire to be monitored through the aperture.
3. Connect output wiring.
 - a. Use 30-12AWG copper wires rated 75°C min only and tighten terminals to 7 in-lbs.
 - b. Ensure power supply voltage matches the model you are installing.
 - c. Energize the power to the sensor.
4. Adjust setpoint.
 - a. LED will display the value of AC current, which will cause the output to change state.
 - b. Turn the potentiometer until your target current value is displayed.



AutomationDirect.com (ADC)
3505 Hutchinson Road, Cumming, GA 30040
Phone: (800) 633-0405 or (770) 889-2858

Description

The ACS050 and ACS200 are externally powered, current-operated switches. The output trips when sensed current level exceeds the adjusted setpoint. The normally open output closes on current rise. The output resets when current falls 5% below the set point. An LED display on the top of the sensor shows the value in amps where the switch will change.

Installation

The ACS050 and ACS200 can be located in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. The sensor can be installed in any position using the screw holes in the mounting tabs, or hung directly on wires using a wire tie. Ensure at least one inch clearance exists between sensor and other magnetic devices.

Run wire to be monitored through the aperture (opening) in the sensor. The direction that the wire passes through the opening is not important.

Connect the output to the load to be switched, being sure that the load does not exceed the capacity of the output. The output is solid state, and will be able to control any AC circuit from 2 to 240 VAC, and up to one amp.

Connect the power supply voltage to the appropriate terminals, being sure that the supplied power matches the sensor designed voltage. Energize the sensor power supply. Initially, the LED display will show the range maximum.

Set the desired setpoint by turning the potentiometer counterclockwise. The display will show the amount of AC current needed to trip the output.

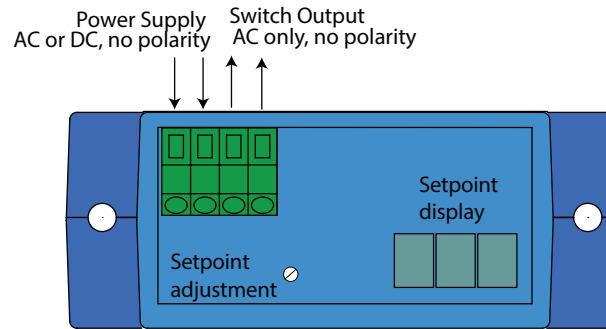
The normally open contact will close at this setpoint.

Output Wiring

Connect control or monitoring wires to the sensor. Use 30-12 AWG copper wire and tighten terminals to 7 in-lbs. Be sure the output load does not exceed the switch rating.



CAUTION: Incandescent lamps can have "Cold Filament Inrush" current of up to 10 times their rated amperage. Use caution when switching lamps on and off.



Power and Output terminals are polarity insensitive.

Setpoint Adjustment

The setpoint is adjusted using a single turn potentiometer. The LED three-digit display will show the amount of current needed to cause the output to change state. The setpoint adjustment can be done before the monitored load is energized, improving the safety of the installation. The sensor must be powered to operate the display.

The adjustment is made by turning the screw clockwise to raise the setpoint counterclockwise to decrease the setpoint. The ACS050 can be set to trip at any current level from 1 to 50 amps. The ACS200 can be set to trip between 4 and 200 amps.

Troubleshooting

- Sensor is always tripped.
 - The setpoint may be too low.
Turn pot CW to increase setpoint.
 - Switch has been overloaded and output is burned out.
Check the output load, remembering to include inrush on inductive loads (coils, motors, ballasts).
- Sensor will not trip.
 - The setpoint may be too high.
Turn pot CCW to decrease setpoint.
 - Monitored current is below minimum required.
This sensor can be set to trip at a minimum of 1 amp ACS050 or 4 amps ACS200. Loop the conductor through the sensing window twice to reduce the trip point to 0.5 (or 2) amps.
 - Switch has been overloaded and output is burned out.
Check the output load, remembering to include inrush on inductive loads (coils, motors, ballasts).
 - Current is DC or of a lower frequency than 40 hertz.
This sensor can be used to monitor 40-100 hertz AC current only.
 - There is more than one phase through the aperture.
Run only one current carrying conductor through the aperture or multiple conductors connected to the same phase. Do not pass the grounding wire through the sensor. The neutral can be monitored if the load is single phase, but do not install both hot and neutral.