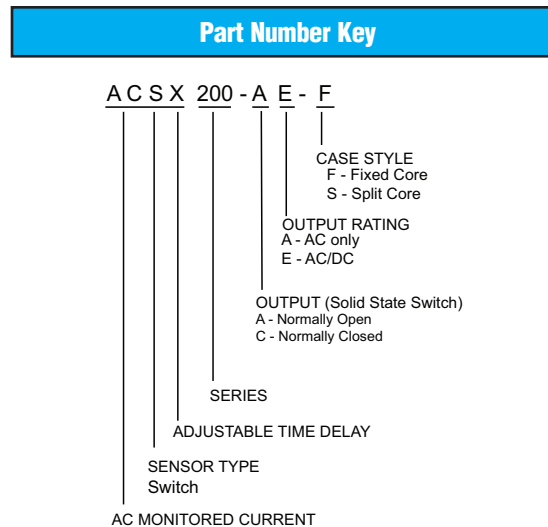


Specifications	
Power Supply	None - self powered
Output	Isolated solid-state switch
Switch Rating	N.O. or N.C. AC only: 1.0A @ 240VAC N.O. AC/DC: 0.15A @ 240 VAC/VDC N.C. AC/DC: 0.20A @ 135 VAC/VDC
Off State Leakage	<10µA, 2.5mA, N.C. AC only output
Response Time	0.12 to 15 seconds, adjustable
Hysteresis	5% of setpoint, constant
Input Ranges	Fixed core: 1.5-12, 12-55 and 50-175 A Split core: 2-12, 12-55 and 50-200 A
Setpoint Adjust	Fixed core: 15-Turn potentiometer Split core: 4-Turn potentiometer
Isolation Voltage	UL tested to 1480VAC
Frequency Range	50 to 100 Hz
Sensing Aperture	Fixed core: 0.75 in (19mm) dia. Split core: 0.85 in (21.7 mm) sq.
Case	UL 94V-0 Flammability rated thermoplastic
Environmental	-Temp -4 to 122°F (-20 to 50°C) -Humidity 0-95% RH, Non-condensing -Pollution degree 2 -Altitude 2000 meters
Certifications	cULus listed E222847 CE

Sensed Current Limit				
Type	Range	Continuous	6 Seconds	1 Second
Fixed Core	1.5 - 175 A	200A	400A	1000A
Split Core	2 - 200A			

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

The ACSX 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.



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.

AUTOMATIONDIRECT.com

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Phone: (800) 633-0405 or (770) 889-2858



ACSX SERIES INSTALLATION INSTRUCTIONS



Quick Start Guide

1. Run the wire to be monitored through the aperture.
2. Mount the sensor or suspend on conductor.
3. Connect output wiring.
 - a. 22-14 AWG copper wires rated 75°C min and tighten terminals to 9 inch-pounds torque.
 - b. Ensure load matches the output shown on the sensor label.
4. Adjust setpoint.
 - a. Position range jumper across appropriate pins (med/high) or remove for low.
 - b. With load operating (preferred), adjust setpoint using the potentiometer.
5. Adjust time delay.
Turn pot CW to add time for output to change after current rise.

Description

ACSX Series are self-powered, solid-state current-operated switches which trigger when sensed current levels exceed the adjusted setpoint. Normally Open and Normally Closed solid-state outputs are available rated to switch either AC only or AC/DC output circuits. Switch action can be delayed for up to 15 seconds by using the Time Delay Adjust potentiometer.

Installation

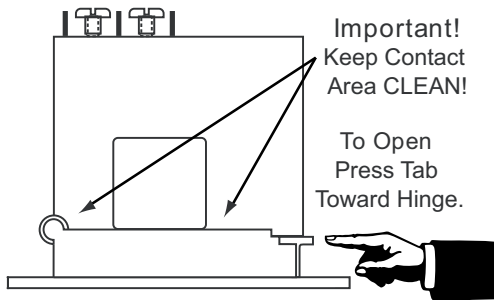
For All Versions

Run wire to be monitored through the opening in the sensor. ACSX switches work in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures.

ACSX switches can be located in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. Mounting can be done in any position or hung directly on wires with a wire tie. Allow at least one inch clearance between sensor and other magnetic devices.

Split-Core Versions (-S Suffix)

Press the tab in the direction as shown to open the sensor. After placing wire in aperture, press the hinged portion firmly downward until a click is heard and the tab pops out fully.



KEEP SPLIT-CORE SENSORS CLEAN

Silicone grease is factory applied on the mating surfaces to prevent rust and improve performance. Be careful not to allow grit or dirt onto the grease in the contact area. Operation can be impaired if the mating surfaces do not have good contact. Check visually before closing.

Output Wiring

Connect control or monitoring wires to the sensor. Use 22-14AWG copper wire and tighten terminal to 9 in-lbs torque. 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.

Setpoint Adjustment

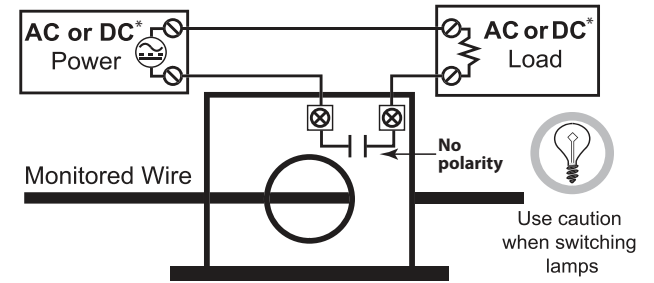
ACSX Series setpoint and time delay are adjusted through two 4-turn pots (-S models) or 15-turn pots (-F models). The unit comes from the factory with setpoint and time delay set to the lowest level (fully counter-clockwise, CCW). Turning the pots clockwise (CW) will increase their value. All pots have a slipclutch to prevent damage at either end of their rotation. To determine where the adjustment is, turn the pot CCW for multiple turns. This will return it to the minimum setpoint.

Adjustment Notes

- Output is solid-state. Check output status by applying voltage to the output and reading the voltage drop across the output. An ohmmeter set on "Continuity" will give misleading results.
- It is recommended the setpoint be adjusted to allow for usual utility company voltage variations of 10-15%.

Typical Adjustment

- Identify expected Input Range and position jumper accordingly. For LOW range, remove jumper entirely. For MID or HIGH range, place jumper over proper two pins.
- Turn the potentiometer to minimum setpoint (4 or 15 turns CCW).
- Have normal operating current running through sensor. The output should be tripped since the pot is at its minimum setpoint. LED should be flashing fast (2 to 3 times per second).
- Turn the pot CW until the unit output un-trips. This is indicated by the slow flashing of the LED (once every 2 to 3 seconds), or by the changing of the output switch status.
- Now turn the potentiometer CCW slowly until the unit trips again. It is now set at the current level being monitored.
 - To Set UNDERLOAD - Turn the potentiometer about 1/8 turn further CCW.
 - To Set OVERLOAD - Turn the potentiometer about 1/8 turn further CW.
- Adjust the Time Delay of the contact action in the same fashion. Increase time delay by turning pot CW. For split core models, each quarter-turn corresponds roughly to one sec. delay. For solid-core versions, one full turn of the potentiometer corresponds roughly to one second. Expect 10 turns to delay 15 seconds.



* AC or DC depending on ACSX output rating

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.
 - Split Core models: The core contact area may be dirty.
Open the sensor and clean the contact area.
 - Monitored current is below minimum required..
Loop the monitored wire several times through the aperture until the "sensed" current rises above minimum.
Sensed Amps = (Actual Amps) x (Number of Loops).
Count loops on the inside of the aperture.
 - Switch has overloaded and output is burned out.
Check the output load, remembering to include inrush on inductive loads (coils, motors, ballasts).

Monitored Amps	Output		LED
	N.O.	N.C.	
None or less than minimum	Open	Closed	Off
Below trip level	Open	Closed	Slow (2 sec.)
Above trip level	Closed	Open	Fast (0.5 sec.)