

# 4001 SCR

## DIN-Rail Mount, Single Phase Power Controller

- Single Phase Loads up to 80 Amps, 575 Vac
- 4-35 Vdc, 100-240Vac, 24Vac, or 4-20 mA Input Signals
- Easy DIN-Rail or Sub-Panel Installation
- Size Compatible for Easy Replacement of Mercury Displacement Relays
- Zero-Crossover Switching to Minimize RFI and EMI
- Optional Integral Heatsink Thermostat
- LED Indication of SSR ON
- DV/DT Protection



### Description

The 4001 solid state power controllers combine Chromalox's years of SCR technology experience with new packaging techniques to deliver reliable and easy to install components. The 4001 series solid state power controllers switch up to 80 Amps single phase to 600Vac. The Vac input unit can easily replace any mercury or magnetic contactors to upgrade an existing system. The Vdc input and 4-20ma input units are compatible with existing SCRs and will work with a variety of process controllers.

### Quick, Easy Installation

The 4001 series power controllers are compactly packaged to allow for fast and easy DIN-rail or sub-panel mounting, with wiring terminals easily accessible from the front.

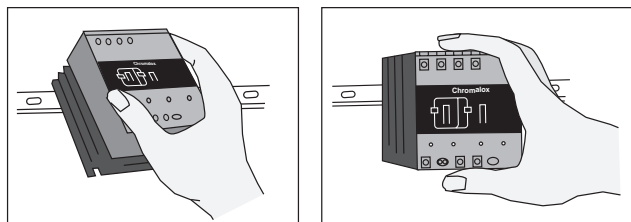
### Electrical and Safety Features

- Ground Potential Heatsink
- SCR to Heatsink Isolation
- SCR resistant to Electrical Spikes, PIV up to 1600V

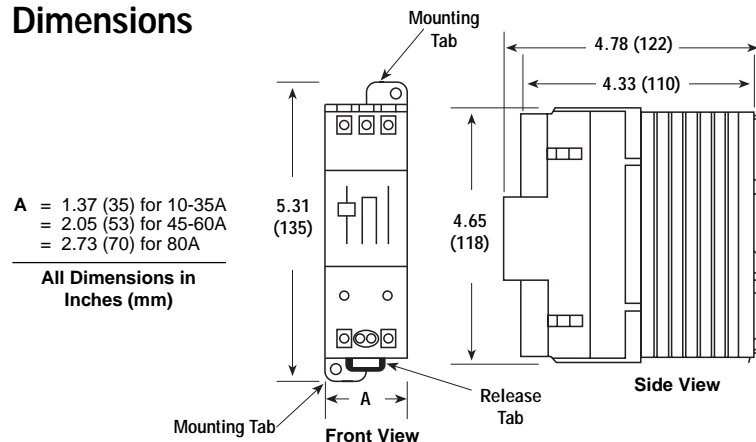
### Minimal Electrical Noise

The dependable back to back SCRs fire at the zero-crossover (zero voltage) point in the sine wave. This minimizes both RFI and EMI that can create havoc for other electronic equipment in a plant.

### Installation



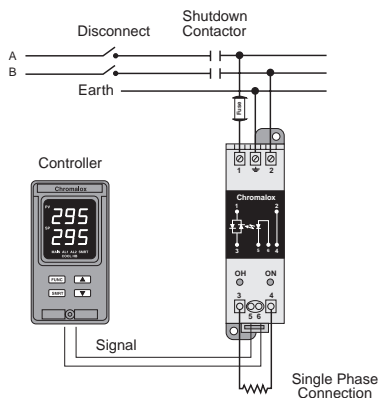
### Dimensions



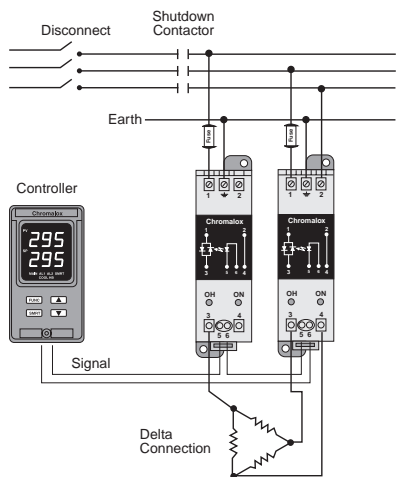
**Chromalox**<sup>®</sup>  
 PRECISION HEAT AND CONTROL

# 4001 SCR DIN-Rail Mount

## Single Phase Wiring



## Three Phase, 2-Leg Wiring



## Specifications

Mounting .....	Wall or DIN Rail
Terminals .....	Screw terminals with front access
Load Type .....	Resistive
Inputs	
Voltage dc	
Off State .....	0-2Vdc
On State .....	4.5 to 35Vdc (15ma continuous)
4-20ma .....	300Ω max.
Switching (field selectable) .....	Single Cycle 2 sec. Cycle Time
Voltage ac	
100-240Vac models	
Off State .....	0 to 10Vac
On State .....	100 to 240Vac (±10%)
24Vac models	
Off State .....	0 to 4Vac
On State .....	24Vac (±15%)
Min. Holding Current .....	50mA RMS
Voltage Drop on Power Semiconductor .....	1.2Vdc
Isolation	
Between Power Circuit and Earth .....	3000V rms
Between Electronics and Power Circuits .....	7500V pk
Operating Temperature .....	32 to 122 F (0-50C)
Humidity .....	20 to 85% RH Non-Condensing
Storage Temperature .....	-20 to 70 C

## Ordering Information

### Model Solid State Power Controller

**4001 SCR** Single Phase, Zero-Crossover Fired Solid State Relay, DIN-Rail or Sub-Panel Mount

#### Code Max. Rated Current @ 50°C (Amps)

<b>35</b>	35 Amps
<b>45</b>	45 Amps
<b>60</b>	60 Amps
<b>80</b>	80 Amps

#### Code Voltage PIV (Peak Inverse Voltage)

<b>3</b>	Up to 400 Vac	1200
<b>6</b>	Up to 600 Vac	1600

#### Code Input

<b>1</b>	100 to 240Vac*
<b>2</b>	24Vac*
<b>4</b>	4-20 mA (300Ω Input Impedance)
<b>7</b>	4.5 - 35 Vdc (15 mA Continuous)

#### Code Heatsink Thermostat

<b>0</b>	None
<b>1</b>	Heatsink Thermostat for Thermal Protection**

**4001 - 35 3 4 1** Typical Model Number

\*UL Pending on Vac Input Units \*\*Heatsink Thermostat not available on Vac Input Codes 1 and 2