

108 Series Model B1 and B3 SCR Power Controller System

Remote Input Board

The 108 Series SCR Power Controller System is a zero cross fired proportional control system designed to control resistive heating loads. The SCR Power Controller System consists of an Input Board controlling one or more SCR Power Controller Assemblies. Each component is mounted separately and wired together in the field.

The Input Board (Part Number 1024793) is powered from a 24VAC power source and is used to convert a field provided 0-10VDC or 4-20mA input control signal to a pulsed 24VDC output signal on a 1 second time base to fire up to four SCR Power Controller Assemblies. A single 0-10VDC signal can be provided to multiple Remote Input Boards if more than four SCR Power Controller Assemblies are needed (contact factory for application requirements). As a typical example, if an input control signal of 5VDC is provided, the Input Board will output 24VDC at 0.5 seconds ON and 0.5 seconds OFF to control the associated SCR Power Control Assemblies. Refer to "Typical Wiring" included in this document for connection details.

Approvals:



SCR Power Controller Assembly

File E52105 Guide XAPX2/8, Investigated to UL 60730-1/CSA E60730-1

Approved as Operational Control for Indoor Equipment
Type 1 Action, Incorporated Control, Electronically Operated,
Software Class A, for use in grounded equipment.
Overvoltage Category III, Pollution Degree 3
SCCR ratings available up to 100kA (see pg. 3)

Specifications:

Storage Temp: -40°F to 168°F

Operating Temp: **CASE 1**

-40°F to 168°F; input board and area surrounding SSR

-40°F to 80°F; area surrounding heat sink fins

CASE 2

-40°F to 104°F; area surrounding relay, input board,
and heat sink fins

Input Board Power: 24VAC, 2.4VA

Input Board Signals: 0-10VDC, 20KΩ impedance

4-20mA, 500Ω impedance

Test Mode: Cycles at 50% output

Terminal connection(s) on input board are 0.250"x0.32" male quick disconnects

Input board mounting to sub-panel is accomplished with standoff or spacers (not provided)

Controller Input Terminal: 6-32 (Standard Relay) or M3 (600V SCCR Relay)

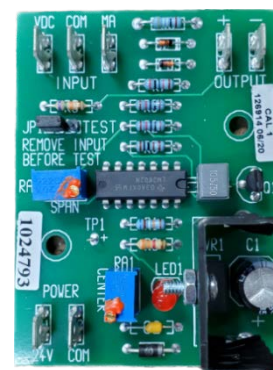
Controller Input Voltage: 4-32VDC = On, from Input board

Controller Line Terminal: 8-32 (Standard Relay) or M5 (600V SCCR Relay)

Controller Line Voltage: 48-600VAC, 47 to 65 Hertz

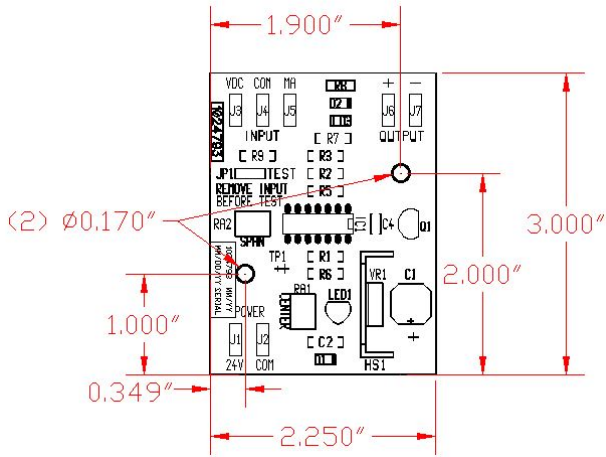
Terminal connection(s) made at relay with ring or fork terminal

Input Board (mounted in panel)
Part Number 1024793



Drives up to 4 controllers per Input
Board with Pulsed 24VDC, 1 Second
time base

Input Board Dimensions:
(Overall Height = 1.5")



SCR Power Controller Assembly
(mounted through panel wall, 3 Phase version shown)

Dimensional Information
(SCR Power Controller Assembly)

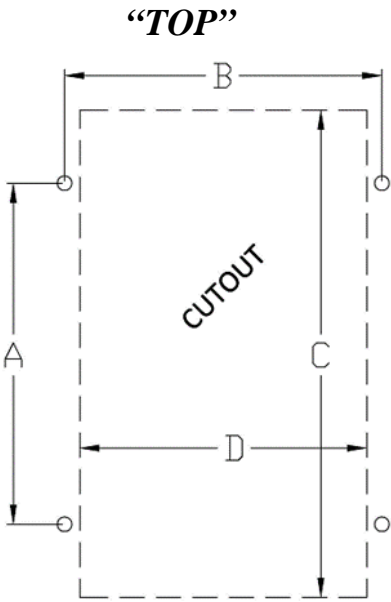
Phase	Amps	Length (in.)	Width (in.)	Height (in.)
1	40	6	3.45	2.5
1	50			
3	30	9		
3	40			
3	50	12		



Mounting and Panel Wall Cut Information

Phase	Amps	A (in.)	B (in.)	C (in.)	D (in.)
1	40	5.5	3.0	3.0	2.38
1	50				
3	30	8.5	3.0	6.5	2.38
3	40				
3	50	8.5	3.0	6.5	2.38

- Each assembly is pre-tapped for 8-32 machine screws.
- Installation requires (4) 0.25" diameter clearance holes and a rectangular cutout as described in the mounting and panel cut table.
- Assembly must be oriented with "TOP" as shown.



Mounting Dimensions

Specification of Part Number for SCR Power Controller Assembly

108-B _____ - _____ - _____ (Does *not* include input board)

Phase Max VAC Max Amps *SCCR kA
(1 or 3) (480 or 600) (30, 40 or 50) (See Correlation Table: blank, -100KA or -065KA)

Example: 108-B3-480-50-100KA

(*) SCCR Correlation Table for Part Numbering

*SCCR kA	Relay Type	Max VAC Line Volts	Max Amps	SCCR Rating	SCCR Maximum Fuse Amp Rating and Type
Not Specified	Standard	600	30,40,50	5kA @ 600V (default)	Not Specified (un-marked)
-100KA	Standard	480	30,40,50	100kA @ 480V	100A, Class J
-065KA	600V SCCR	600	50 **	65kA @ 600V	80A J 600V or 60A (HSJ 60)

** Not available for max amps 30 or 40.

Typical Ordering Information

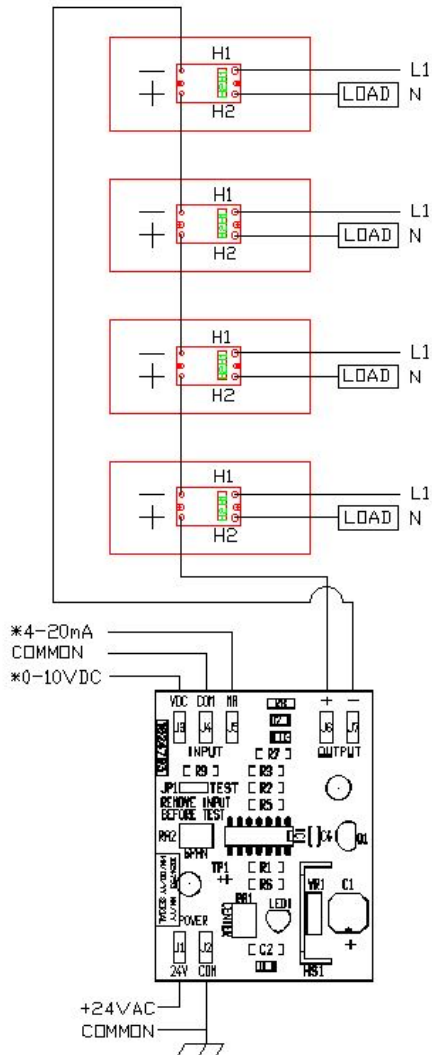
Each order should include at least one input board and up to four SCR Power Controller Assemblies per input board.

QTY 1	Input Board	Item 1024793
QTY 4	SCR Power Controller Assembly	Item 108-B3-480-50-100KA

Typical Wiring: 1 Phase & 3 Phase Power Controllers with Input Board

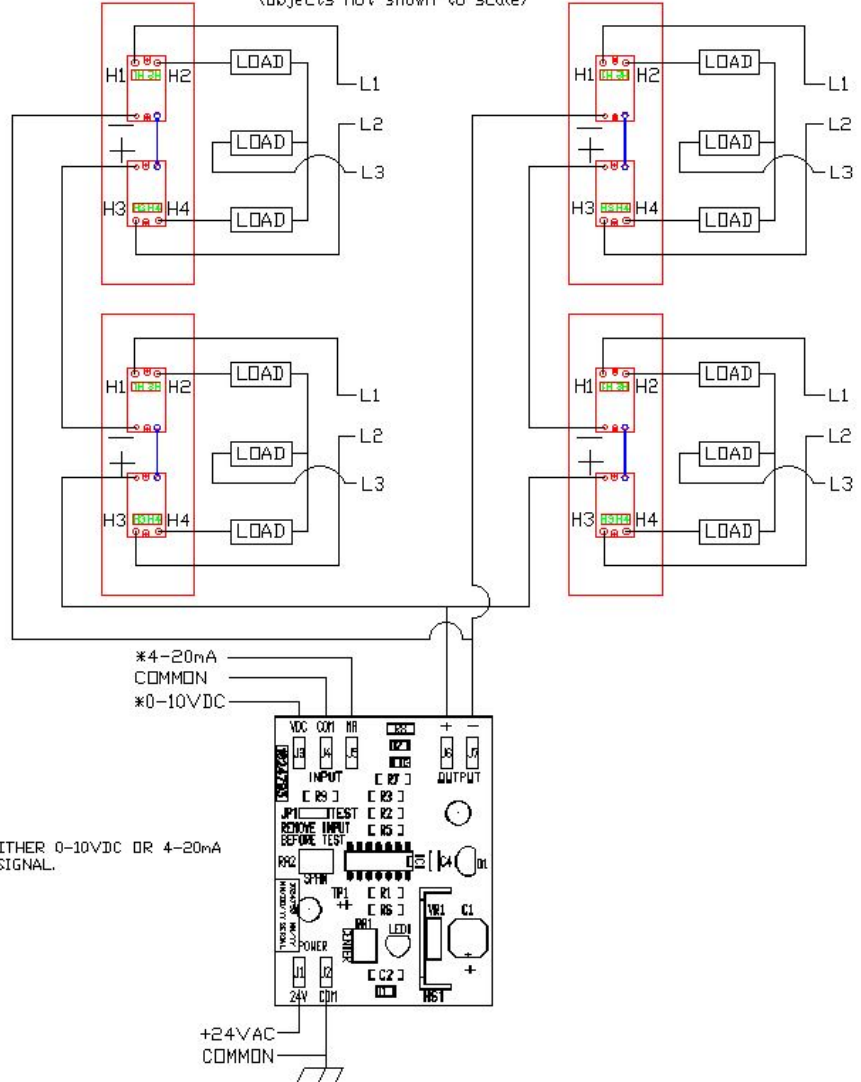
SINGLE PHASE EXAMPLE

(Objects not shown to scale)



THREE PHASE EXAMPLE

(Objects not shown to scale)



*USE EITHER 0-10VDC OR 4-20mA
INPUT SIGNAL.

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