SSR-RACK48, SSR-RACK24 and SSR-RACK08

Interface Racks for Solid State Input/Output Modules
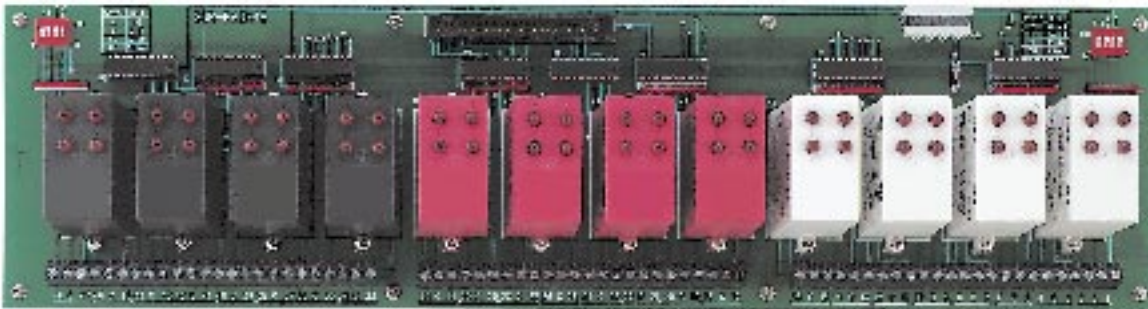
NEW ™

CE

3 YEAR WARRANTY

MADE IN USA

$**99** Basic Unit
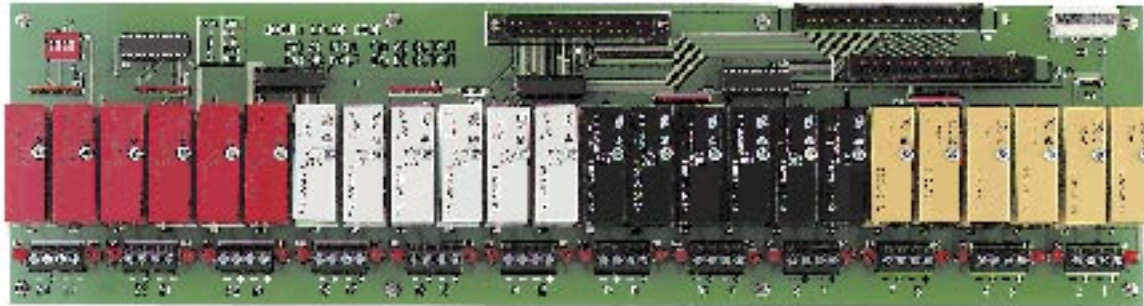
SSR-RACK24

SSR-RACK48

✔ **48, 24 and 8 Channel Models**
✔ **Direct Connection to the CIO Family of Digital I/O Plug-in Boards**
✔ **On-Board Buffers**
✔ **Powered by 5 Vdc**

Most digital I/O boards can not be directly interfaced to real world devices. Output voltages are usually limited to TTL levels (0/5 Vdc) with a few milliamps of drive current. Inputs are also typically limited to a maximum 5 volt level. When higher voltages or currents are needed, OMEGA's solid state I/O modules are the perfect solution. Models are available for input or output signals in AC and DC voltage versions.

The SSR-RACK series is a family of backplanes that accept the solid state I/O modules and provide a direct connection to OMEGA's CIO family of digital I/O PC plug-in boards. Three models are available; the SSR-RACK48, SSR-RACK24 and SSR-RACK08 which are 48, 24 and 8 channel models respectively.

SSR-RACK48

The SSR-RACK48 is a high density mounting and interface rack for the quad type solid state I/O modules (OMEGA's SSS-Q series). The rack can hold 12 quad modules for a total of 48 channels of I/O. The SSR-RACK48 provides screw terminals for field connections. The connection to the digital I/O board is made through a 50 pin connector. The SSR-RACK48 may be connected directly to the CIO-DIO192, CIO-DIO96 and CIO-DIO48 using a C50FF-2 cable.

SSR-RACK24

The SSR-RACK24 accepts 24 of OMEGA's single channel SSS series solid state I/O modules. Screw terminals for each module provide field connection. The SSR-RACK24 contains both a 37 pin and a 50 pin connector. The 37 pin connector is designed to interface to 24 channel I/O boards. The 50 pin connector is used to connect to I/O boards with 48 channels or greater. A second 50 pin connector is provided so additional SSR-RACK24s may be connected to the same digital I/O board.

The SSR-RACK24 may be connected directly to the CIO-DIO24, CIO-DIO24H and CIO-DIO24/CTR3 digital I/O boards using the C37FF-2 cable. The SSR-RACK24 may be directly connected to the CIO-DIO192, CIO-DIO96 and the CIO-DIO48 boards using the C50FF-2 cable.

SSR-RACK08

If your application needs only a limited number of solid I/O modules, you can save money and cabinet space with the SSR-RACK08. It holds 8 single function solid state relays and is cabled to Port C of the digital I/O board so that you can split the 8 relays between input and output. The SSR-RACK08 uses a 37 pin connector and can connect directly to a CIO-DIO24, CIO-DIO24H or CIO-DIO24/CTR3 with a C37FF-2 cable.

SSR-RACKs Have Buffers on Board

Most 8255 based digital I/O boards do not provide enough output current to directly turn on a solid state I/O module. The SSR-RACKs are designed with buffers on board. That means you can plug directly into the SSR-RACK from your CIO-DIO24, 48, 96 or 192 or any other 82C55 based digital I/O board.

SSR-RACK Inverting Logic

The SSR-RACK follows the industry standard convention of inverted logic used by virtually all manufacturers of solid state backplanes. When a high voltage is applied to an input module, the output of the SSR-RACK will go low (ground). When a low voltage is applied to an input module, the output of the SSR-RACK will be a high signal (5V). Output modules also use inverted logic. This means that a 0 output from the digital I/O board will cause an output
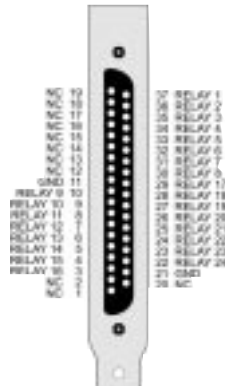
module to activate (complete the circuit) while a 1 (TTL high) will cause the relay to deactivate. The chips that invert the logic are socketed and may easily be substituted with chips that do not invert the logic.
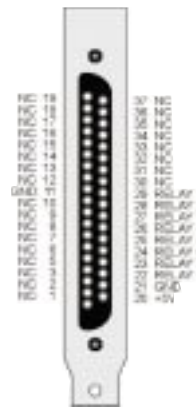
Dimensions:
SSR-RACK48 and **RACK24:**
17"L X 4.5"W X 1.5"H (with relays)
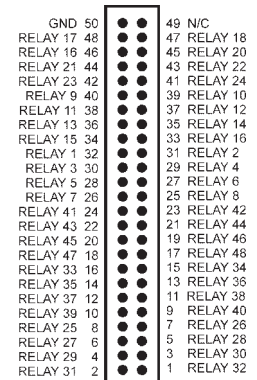**SSR-RACK08:**
9"L X 4"W X 1.5"H (with relays)
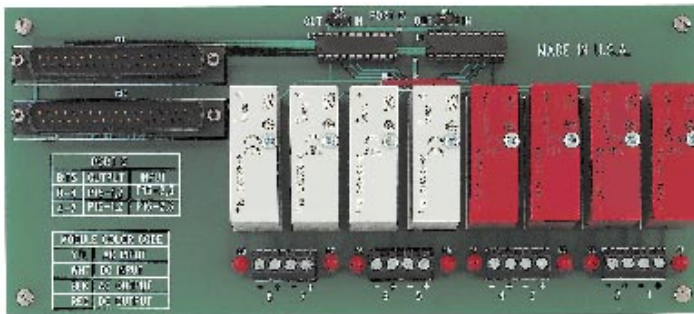**Power:** +5 Vdc externally supplied or from PC with CMOLEX-10 cable
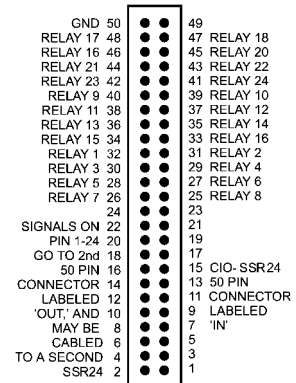
SSR-RACK24 37PIN

SSR-RACK08 37PIN

SSR-RACK48 50PIN

GND	50	49	N/C
RELAY 17	48	47	RELAY 18
RELAY 16	46	45	RELAY 20
RELAY 21	44	43	RELAY 22
RELAY 23	42	41	RELAY 24
RELAY 9	40	39	RELAY 10
RELAY 11	38	37	RELAY 12
RELAY 13	36	35	RELAY 14
RELAY 15	34	33	RELAY 16
RELAY 1	32	31	RELAY 2
RELAY 3	30	29	RELAY 4
RELAY 5	28	27	RELAY 6
RELAY 7	26	25	RELAY 8
RELAY 41	24	23	RELAY 42
RELAY 43	22	21	RELAY 44
RELAY 45	20	19	RELAY 46
RELAY 47	18	17	RELAY 48
RELAY 33	16	15	RELAY 34
RELAY 35	14	13	RELAY 36
RELAY 37	12	11	RELAY 38
RELAY 39	10	9	RELAY 40
RELAY 25	8	7	RELAY 26
RELAY 27	6	5	RELAY 28
RELAY 29	4	3	RELAY 30
RELAY 31	2	1	RELAY 32

SSR-RACK08 Rack Shown with Optional Solid State I/O Modules

GND	50	49	
RELAY 17	48	47	RELAY 18
RELAY 16	46	45	RELAY 20
RELAY 21	44	43	RELAY 22
RELAY 23	42	41	RELAY 24
RELAY 9	40	39	RELAY 10
RELAY 11	38	37	RELAY 12
RELAY 13	36	35	RELAY 14
RELAY 15	34	33	RELAY 16
RELAY 1	32	31	RELAY 2
RELAY 3	30	29	RELAY 4
RELAY 5	28	27	RELAY 6
RELAY 7	26	25	RELAY 8
	24	23	
SIGNALS ON	22	21	
PIN 1-24	20	19	
GO TO 2nd	18	17	
50 PIN	16	15	CIO-SSR24
CONNECTOR	14	13	50 PIN
LABELED	12	11	CONNECTOR
'OUT,' AND	10	9	LABELED
MAY BE	8	7	'IN'
CABLED	6	5	
TO A SECOND	4	3	
SSR24	2	1	

SSR-RACK24 50PIN

Digital I/O Board Compatibility Guide

Rack	Digital I/O Boards	Cable
SSR-RACK48	**CIO-DIO192, CIO-DIO96, CIO-DIO48**	**C50FF-2**
SSR-RACK24	**CIO-DIO192, CIO-DIO96, CIO-DIO48**	**C50FF-2**
SSR-RACK24	**CIO-DIO24, CIO-DIO24H, CIO-DIO24/CTR3**	**C37FF-2**
SSR-RACK08	**CIO-DIO24, CIO-DIO24H, CIO-DIO24/CTR3**	**C37FF-2**

To Order *(Specify Model Number)*

Model No.	Price	Description
SSR-RACK48	**$199**	48 channel solid state I/O module rack, accommodates 12 quad I/O modules
SSR-RACK24	**149**	24 channel solid state I/O module rack, accommodates 24 single channel I/O modules
SSR-RACK08	**99**	8 channel solid state I/O module rack, accommodates 8 single channel I/O modules

Note: *The SSR-RACK24 and SSR-RACK48 include a 10' power cable.*
Ordering Example: SSR-RACK48, *48 channel solid state I/O module rack, accommodates 12 quad I/O modules,* **$199**.

Accessories

Model No.	Price	Description
C37FF-2	**$25**	2 ft. 37 pin cable
C50FF-2	**25**	2 ft. 50 pin cable
BP-POWER	**25**	3 connectors on a ISA card with backplate
PCPOWER-10	**15**	10' power cable, required for the SSR-RACK08, included with the SSR-RACK24 and RACK48
Solid State I/O Modules		See I/O module data sheets for ordering information