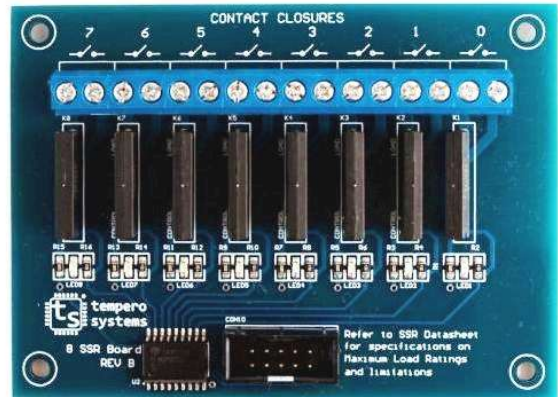


CLARE SSR RELAY BOARD FEATURES

- 8 X CPC Range
- 1 x ULN2803 Relay Driver
- Screw Terminal Connections
- Easy connection to the I/O port via a 10-way box header that suits a standard IDC connector.



GENERAL DESCRIPTION

Photo For Reference only as this is preloaded SSR Board

The Solid State Relay Board - Unpopulated SSR Board is an accessory board that allows the implementation of much higher voltages and currents to be controlled from a single port on the existing I/O 24 Range.

The board consists of eight solid-state relays with SPST action. The relay coils are powered from the 5V Rail supplied via the I/O24 Module and are controlled using the ULN2803 via the I/O port of the module.

Each of the relay channels has a Blue LED to indicate whether the relay is in an active state.

The connections for each of the relay output channels are a single normally open type contact, and when activated, the contact will close. These connections are made by a Screw terminal connector that will accept cables from 0.5mm-2mm in diameter.

The connection between the I/O 24 module and the I/O24 Relay board is via a 30 cm IDC connection cable. This cable is provided with the board.

LAYOUT AND MECHANICALS

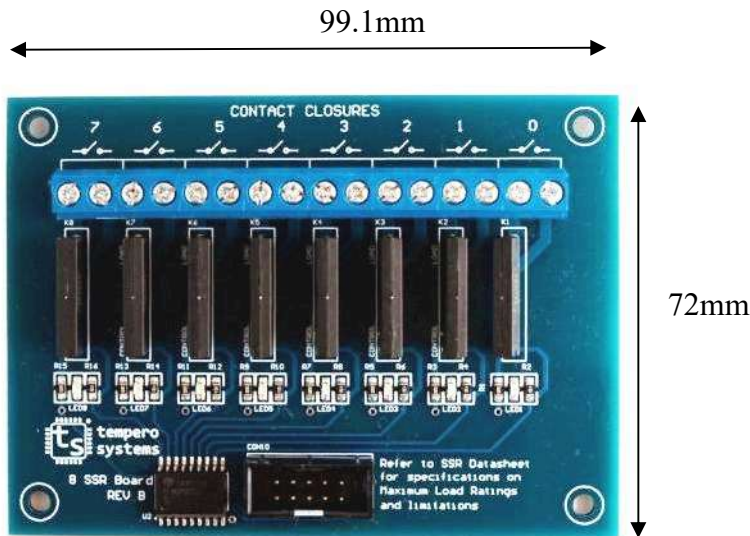


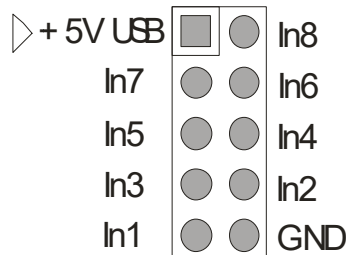
Photo For Reference only as this is preloaded SSR Board

Dimensions: 3.9 X 2.8 X 1 inches (99.1 X 72 X 25.4mm)

PINOUTS AND BOARD CONNECTIONS

10 PIN BOX HEADER

Shown in the diagram below is the I/O port Connector for the interface to the Relay module.

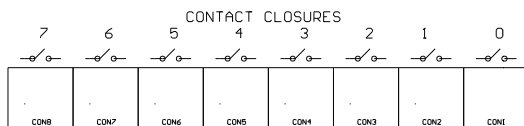


Note: Pin1 Marked on I/O Accessory with ▷

I/O 24 BOX HEADER CONNECTIONS

PIN #	SIGNAL	TYPE	DESCRIPTION
1	+5V	PWR	+3.3V to +5V drawn from I/O module powers (Supplies power to the connected I/O Board)
2	I/O 7	I	Input pin to control Relay 8
3	I/O 6	I	Input pin to control Relay 7
4	I/O 5	I	Input pin to control Relay 6
5	I/O 4	I	Input pin to control Relay 5
6	I/O 3	I	Input pin to control Relay 4
7	I/O 2	I	Input pin to control Relay 3
8	I/O 1	I	Input pin to control Relay 2
9	I/O 0	I	Input pin to control Relay 1
10	GND	PWR	Ground signal from I/O module

RELAY OUTPUT TERMINALS



Each of the Screw terminal connections are too each of the relays.

OPERATIONS

SETTING UP THE PORT ON THE I/O 24 FOR CONNECTION TO RELAY BOARD

To operate the SSR Board, connect the 10 Pin IDC cable to the I/O24 header. Once this is connected it is only a matter of applying voltage to the input of the 10 pin box header to activate the Solid State Relay. This can be done by configuring the I/O24 port direction to all output and switching the output pins to high.

I/O 24 COMMAND	DESCRIPTION
!A 0x00	Initialise PORT Direction on I/O 24
A 0xFF	Activate all relays
A 0x00	De activate all relays

The minimum voltage required on the input pin to activate the relay is 1.6V DC. Most applications will have a TTL logic signal on the input pin to activate the relay.

SPECIFICATIONS

Power Input Requirements to SSR Board

5VDC on the PWR pin on the 10 Pin Box header

Relays

Number of Channels up to 8

Contact Maximum *Depends On Relay you Load*

Max. Allowable Voltage *Depends On Relay you Load*

Max. Carrying Current *Depends On Relay you Load*

Relay Form - Form A, Single-Pole Single-Throw (SPST)

Output Terminals Normally Open (NO), Closed when activated

Environment

Operating temperature -40° to 85° C

Storage Temperature -40° to 125° C

For more information on the specifications of the SSR used please refer to the manufacturer's datasheet of the device.

DISCLAIMER

This document provides information on our product and all efforts are made to ensure the accuracy of the information contained within. The specifications of the product are subject to change and continual improvement without notification.

DOCUMENT REVISION HISTORY

- SSR Board Datasheet Revision 1 – Initial document created