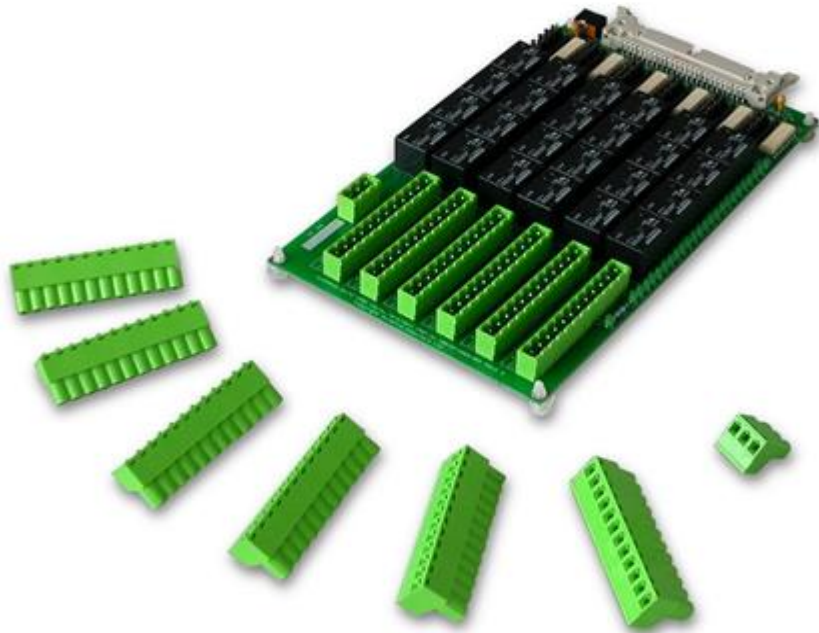


Product Datasheet 3

Features

- Requires 12V DC external power supply (via 2.5mm jack socket or screw term's), and 5V connected via 50 way header connector
- Relays are SPDT, Form C, changeover type, with N/O, COM and N/C contacts taken to two part screw terminal blocks allowing quick connect/ disconnect of card
- PCB Tracking will handle 6 amps (10 amp relay contacts)
- Channels can be configured as either inputs or outputs via user selectable links
- 12V Power consumption approx. 800mA Max (all channels active)
- Opto-isolated input drive voltage 0/5V
- 2K2 opto-isolator input resistor per channel.
- Input opto-isolation 2500V rms (minimum)
- Pin compatible with NIDAQ DIO24/6503 DIO card
- Supplied with nylon feet (will take self-tapping screws)
- Corner mounting holes allow cards to be stacked if required
- A protective Perspex cover & base is also available for all relay card types
- 5V max output voltage per channel
- 20mA (max) drive current per output (40mA max per 8 channels) when driven from 24 channel DIO card
- Directly compatible with our range of 24 channel serial output cards
- Supplied with a short interconnection ribbon cable when ordered with a 24 channel serial port DIO card



Description

These cards are general purpose 24 channel relay cards. All cards have a 50 way header connector (compatible with NIDAQ DIO24/6503 DIO card) which connects to opto-isolated input relay drive signals. All relay contacts are connected to two-part screw terminal blocks and power connections are also available via a 3 way terminal block.

Digital inputs can be connected via the N/O connection and on-board header links, directly to the 50 way header.

These cards are also compatible with our range of 24 channel serial port DIO cards which can be used to control up to 24 relays or to achieve a mixture of relay control and logic level digital input & output signals.

Specifications

Control Interface

50 way, (90°) male header connector, 0/5V -75V DC drive signal (2K2 input resistor/40mA max).

Power supply

5V DC/150mA (max, supplied from DIO24 card)) & 12V DC/800mA (max)

Operating temp range

0-70°C

Relays

See page 3 for technical details of the relays used

Output channels

5V (max) @ 20mA (max) per output or 40mA (max) for per group of 8 channels

Dimensions

Dimensions approx 230mm (D) 127mm (W) 23mm (H) (exc feet) Weight 450 g.

Order code

DIO24MxS2

24 channel relay card fitted with two part (right angle) screw terminal blocks for connection to all relay contacts.

DIO24MxS2V

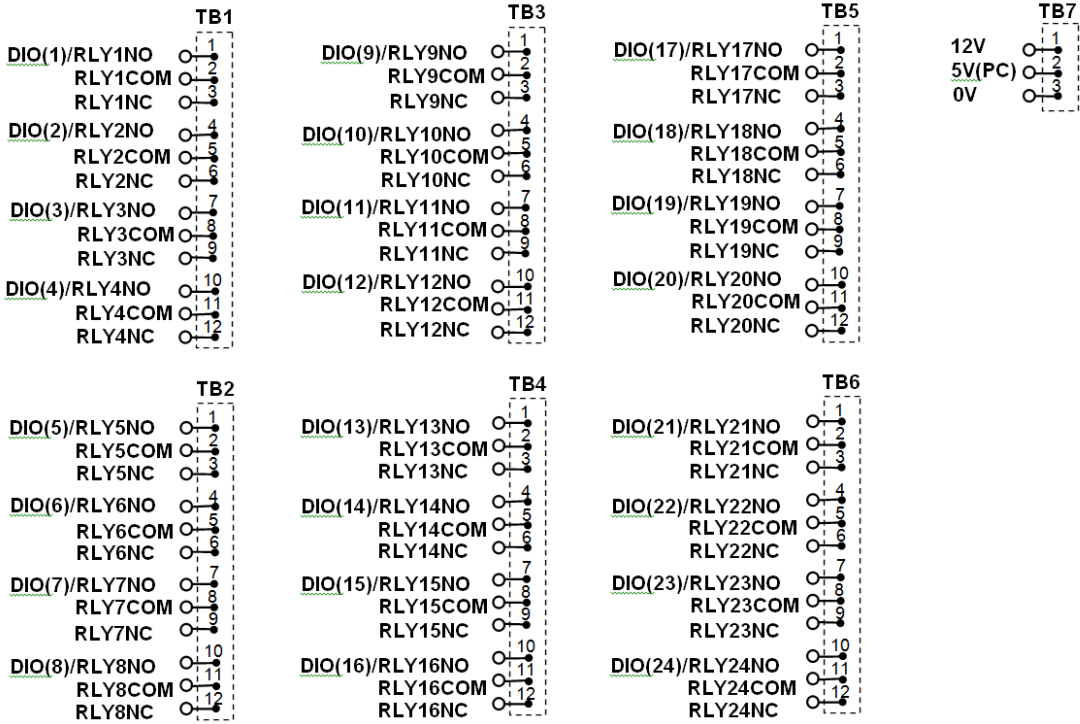
As above, but fitted with two part (vertical) screw terminal blocks.

Product Datasheet 3

Connection details

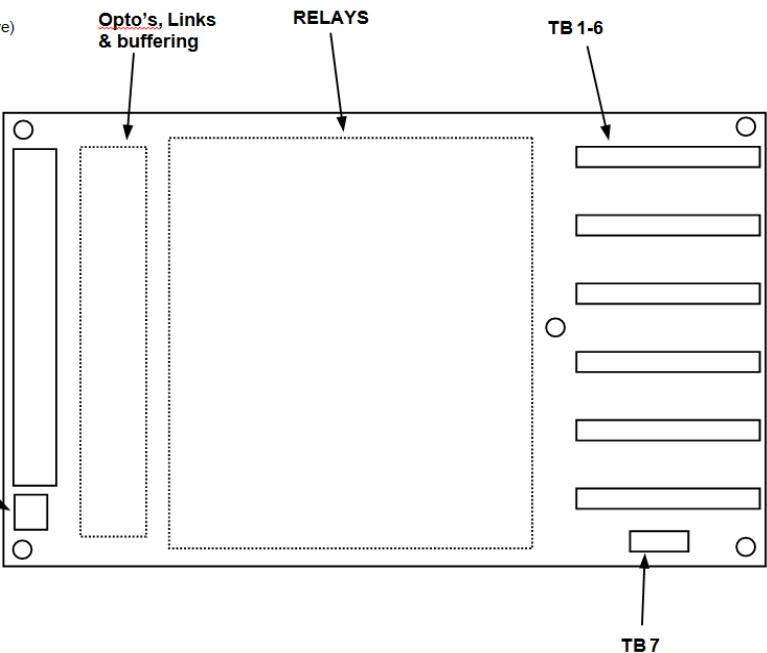
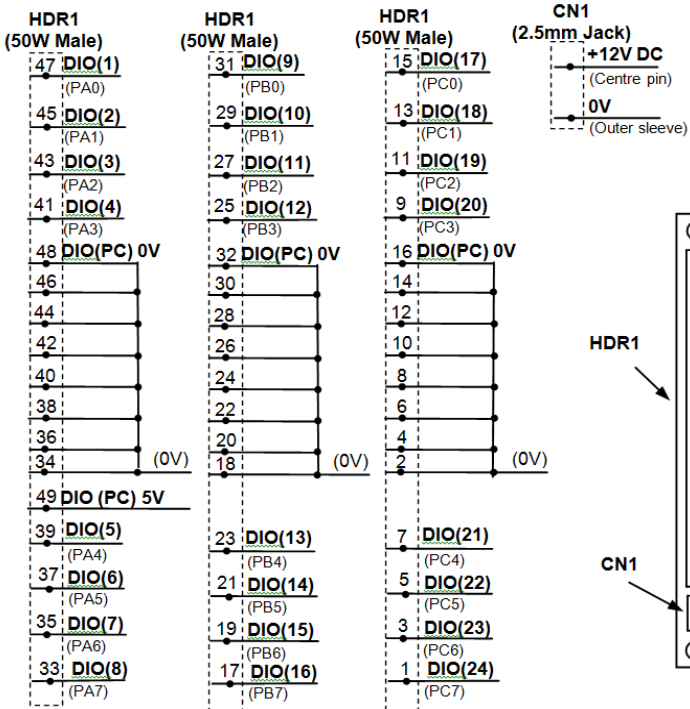
External connections to the cards are shown below:

Relay connections:



Drive and power connections:

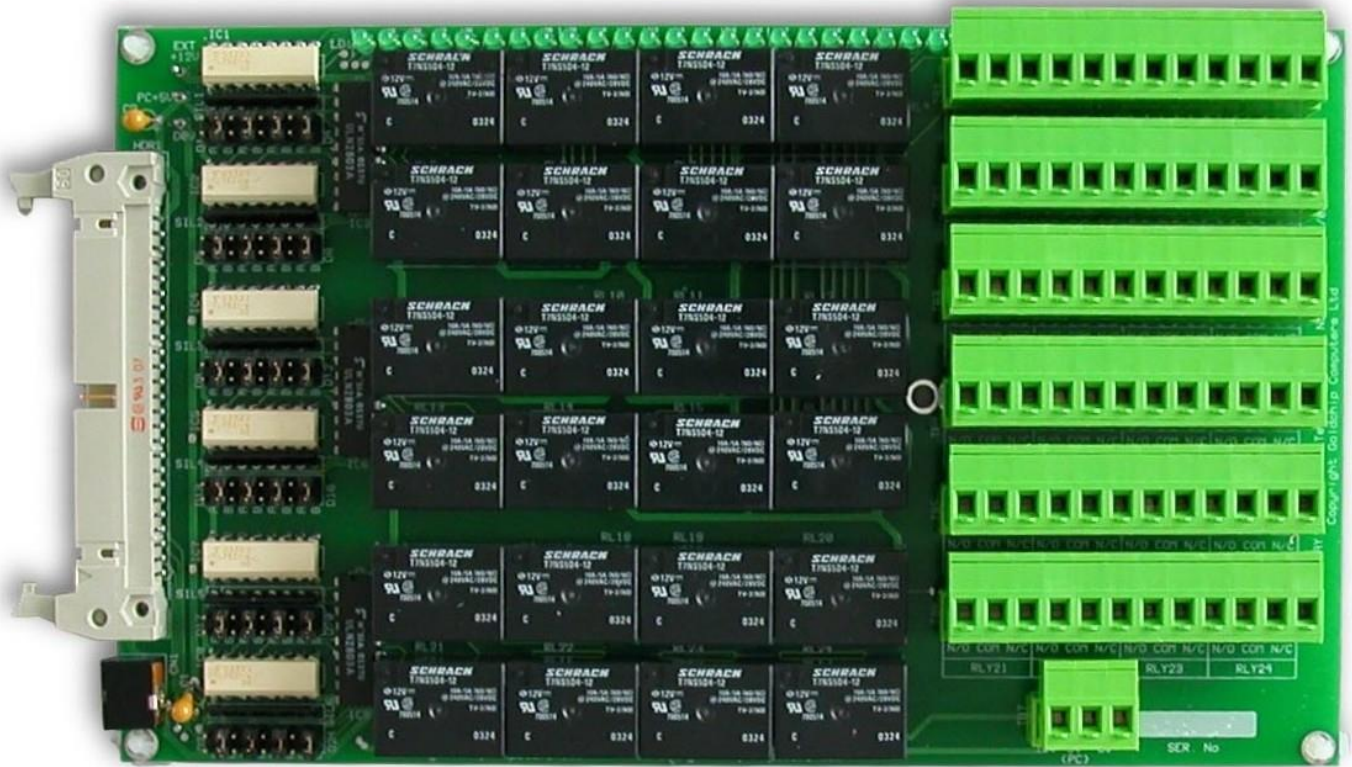
Card Layout:



Product Datasheet 3

Specifications: Relays

Parameter	Specification (Power relays)
Rated voltage/current	12VDC/3mA (400R)
Must operate/release voltage	75%/10% of rated voltage
Contact ratings	10A/240VAC/8A 28VDC
Operate/release time	10mS/5mS
Contact material	AgSnO ₂
Operational life (min)	Mechanical 10 ⁷ / Electrical 10 ⁵
Contact arrangement	SPDT, Form C



Document version
V2.0 Corrected relay information 20-06-18