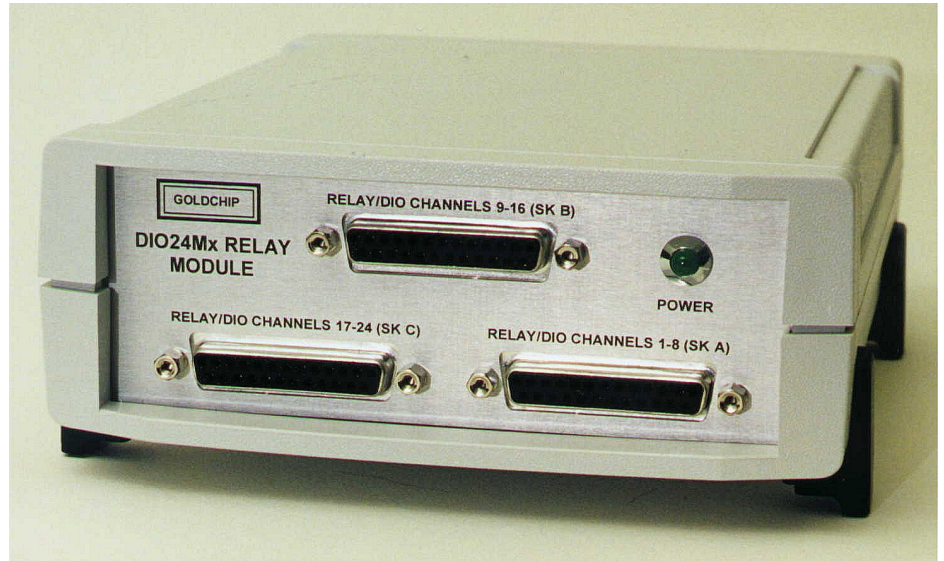


**Product Datasheet 6**

**Features**

- Requires 12V DC external power supply (via 2.5mm jack socket or screw term's), and 5V connected via 50 way header connector
- PCB Tracking will handle 2.5 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 to 75V DC
- 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 three 26 way header connectors.

Digital inputs can be connected via the N/O

connection and onboard 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 upto 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

**Output channels**

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

**Dimensions**

Dimensions approx 186mm (D) 150mm (W) 58mm (H) (exc feet)

**Order code**

**DIO24MxUnit**

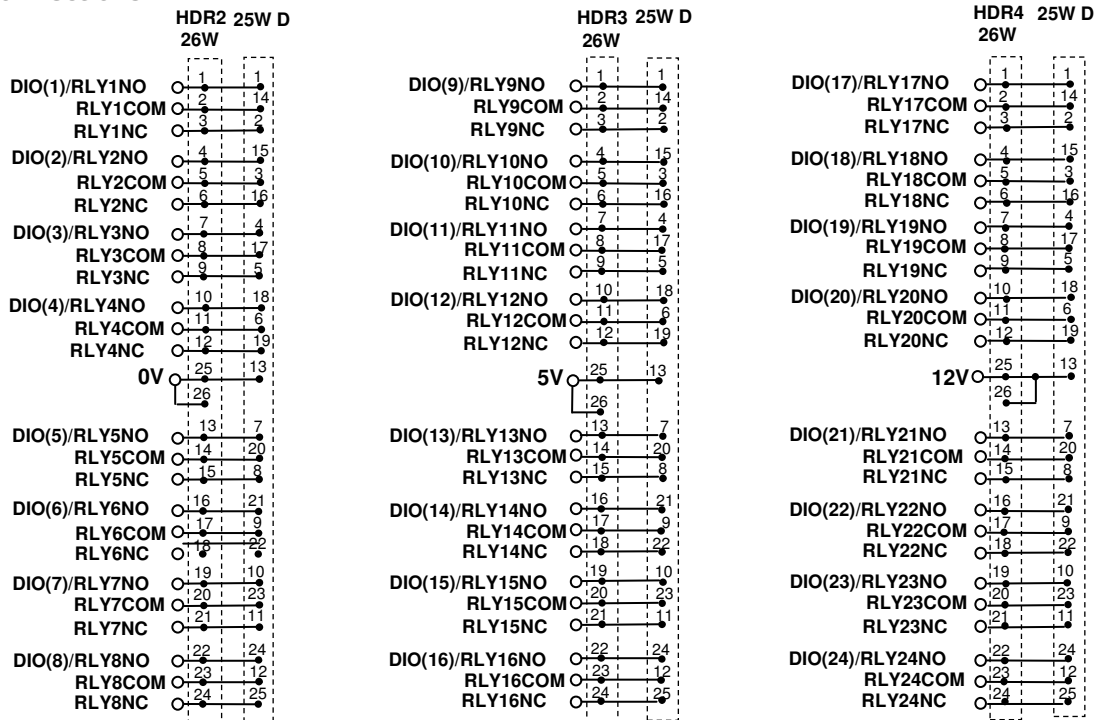
24 chan relay card, with three, front panel mounted, 25 way D Type connectors for connection to all relay contacts.

### Product Datasheet 6

#### Connection details

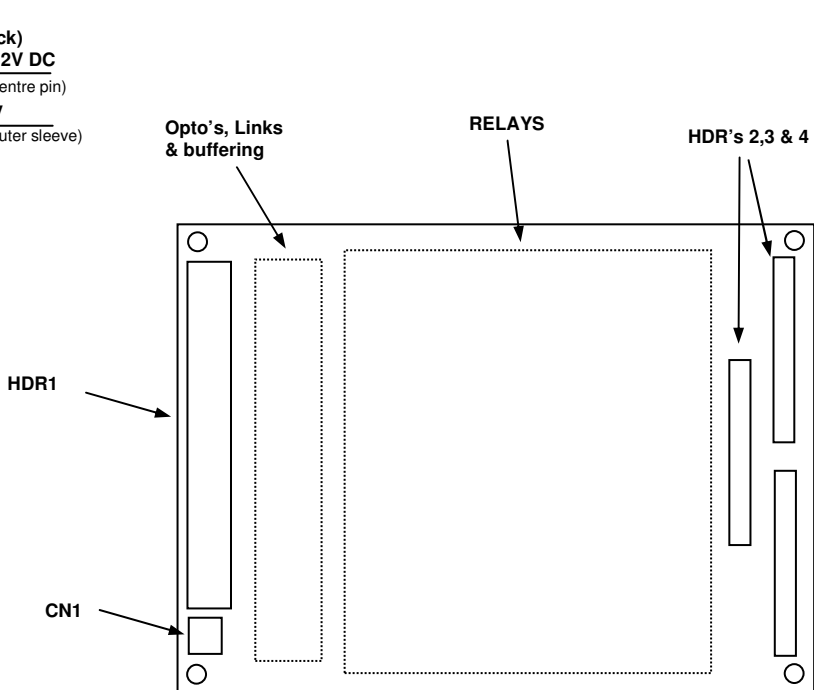
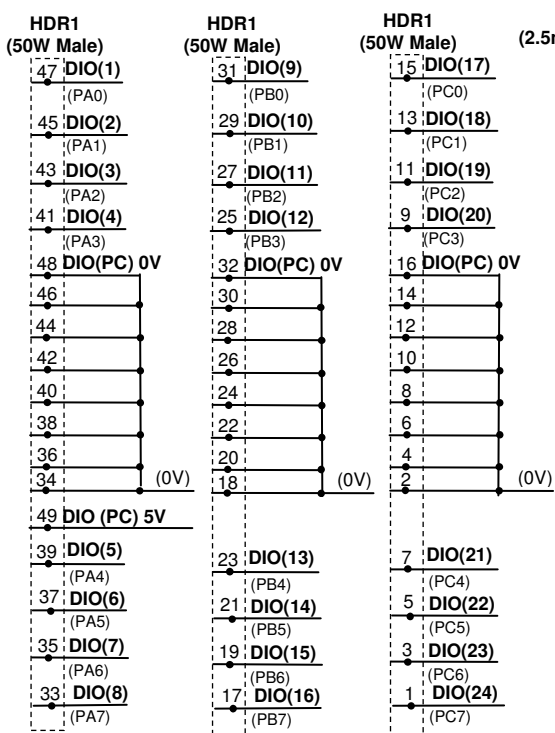
External connections to the cards are shown below:

Relay connections:



#### Drive & power connections:

#### Card layout:



**Product Datasheet 6**

<i>Specifications: Relays</i>		
<b>Parameter</b>	<b>Specification (Power relays)</b>	<b>Specification (Signal relays)</b>
Rated voltage/current	5VDC/80mA	5VDC/42mA
Must operate/release voltage	75%/10% of rated voltage	75%/10% of rated voltage
Contact ratings	10A/240VAC/8A 30VDC	1A/120VAC/1A 30VDC
Contact resistance	100mΩ max	100mΩ max
Operate/release time	10mS/5mS	5mS/5mS
Contact bounce period	0.6mS operate/ 7.2mS release	0.6mS operate/ 7.2mS release
Contact material	AgSnO <sub>2</sub>	AgAu
Operational life (min)	Mechanical 10 <sup>7</sup> / Electrical 10 <sup>5</sup>	Mechanical 10 <sup>7</sup> / Electrical 10 <sup>5</sup>
Contact arrangement	SPDT, Form C	SPDT, Form C