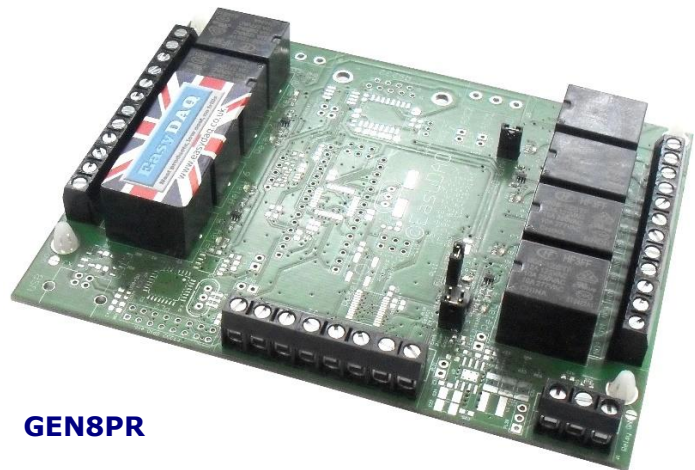


**Product Datasheet 30**

**Features**

- 8 channel, general purpose, opto isolated power relay card
- PCB tracking (& power relays) are designed to handle 10 amps @ 240V AC, or 8A @ 30V DC (switched or continuous). Detailed relay spec – see page 2
- Screw terminal blocks allow connection to all relay contacts, the digital control signals & PSU input connections
- Two types of screw terminal connector available: Fixed screw terminal blocks or two part (male/ female), quick disconnect type connectors
- Relays are SPDT, Form C, changeover type, with N/O, COM and N/C contacts. Edge mounted screw terminal block access to N/O COM & N/C relay contacts (8 onboard relays) via edge mounted screw terminal blocks
- Opto-isolation between control signal inputs & the eight onboard relays = 2500V (AC Vrms min). Opto-isolated inputs allow complete electrical isolation.
- Opto-isolated DC control signal input voltage range (Logic High): 4V to 75V (max, current must be limited to 10mA max), Logic Low 0V to 1.5V. Suitable for driving from a low current signal source such as an 8255 programmable DIO type device
- LED status indicators for power and relay activation status
- Supplied with nylon feet. Clear Perspex cover & base option available. DIN rail base clip (with Perspex cover) mount option also available
- CE & RoHS compliant



**GEN8PR**

**Description**

Low cost, general purpose, 8 channel, opto-isolated relay card with the option of fixed screw terminal blocks or 2 part (male/female) allowing rapid connect/disconnect.

Relays are single pole changeover type, capable of switching 240VAC @ 10Amps. PCB tracking is designed to handle 10 Amps. Fitted with PSU & relay LED status indicators.

The screw terminal blocks give access to N/O, COM & N/C relay contacts, the channel input control signals and the 0V/5V DC supply terminals.

The card requires an external DC supply (if relays are 6V operating then 350mA max, assuming all relays activated). Relays can be activated via any DC signal voltage input up to 75VDC (max). Control signal inputs are opto-isolated (2K2 input resistor). Current per input channel is approx. 2.5mA @ 5VDC. Control input current must be limited to 10mA max per channel.

**Specifications**

**Digital control signals**

Input Low, 0V to 1.5VDC (Typ.).

Input High, 4V to 75V DC (Max) per channel.

Inputs sink 2.5mA @5V.

Limit to 10mA max per channel.

**Operating temp range**

-20 to +80°C

**Power**

400mA @ 5V DC for

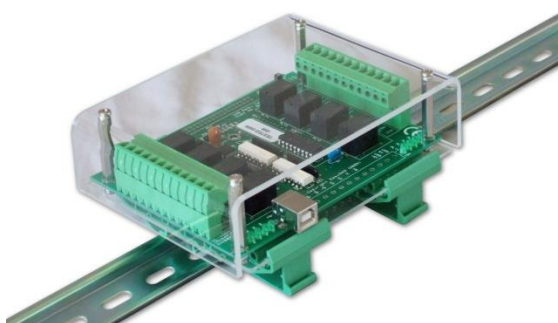
**Relays**

See page 2

**Dimensions**

100mm x 130mm x 30mm (inc. feet & 2 part connectors)

**Weight** 120g.



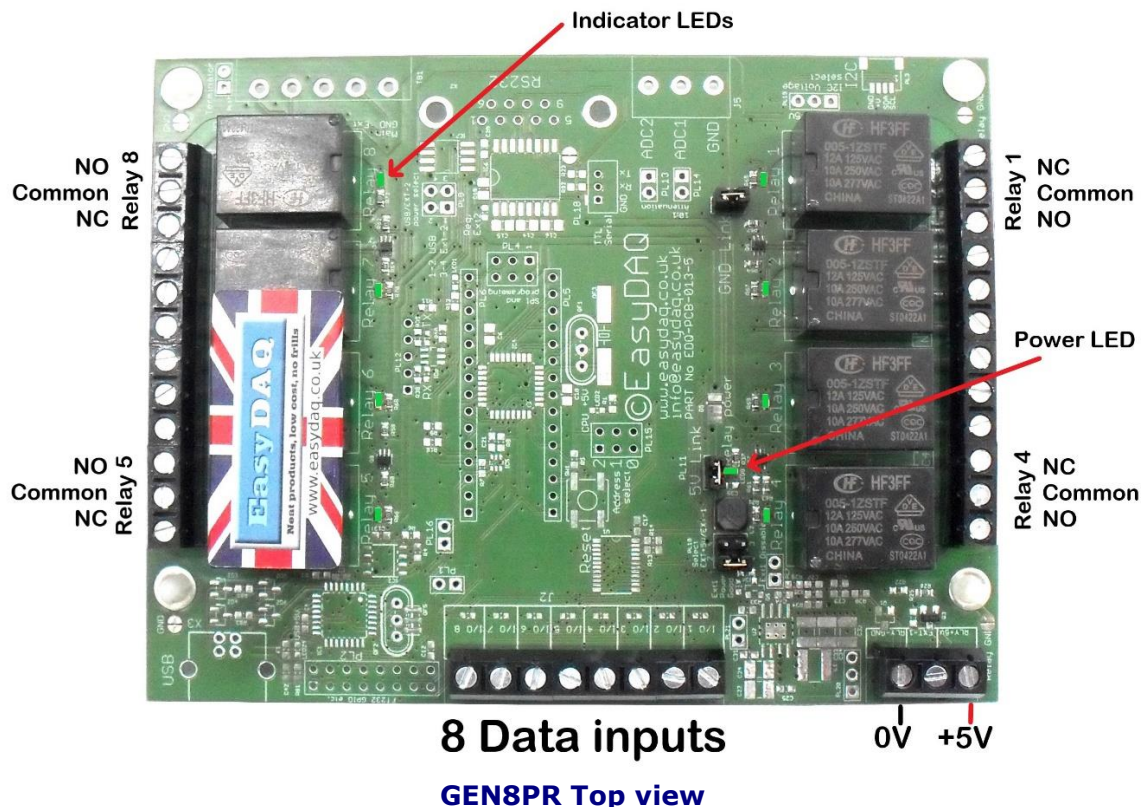
**COVERDIN8 (Acrylic cover and DIN rail mount base plate – fitted to a USB8PR2 relay card)**

**Product Datasheet 30**

<i>Specifications: Relays</i>			
Parameter	5V Power relays	6V Power relays	12V Power relays
Rated voltage/current	5VDC/71mA each	6VDC/60mA each (50mA at 5V)	12VDC/30mA each
Must operate/release voltage	75%/10% of rated voltage		
Contact ratings	10A/240VAC or 8A 30VDC		
Contact resistance	100mΩ max		
Operate/release time	10mS/5mS		
Contact bounce period	0.6mS operate/ 7.2mS release		
Contact material	AgSnO <sub>2</sub>		
Operational life (min)	Mechanical 10 <sup>7</sup> / Electrical 10 <sup>5</sup>		
Contact arrangement	SPDT, Form C		

**Order codes**

<b>GEN8PR</b>	8 sequentially operated power relays (10A), Single part connectors. 6V relays as standard. Operates well at 5V DC and reduced current over 5V relays version.	
<b>GEN8PR-5V</b>	As above except using 5V relays. Use this version with a 5V supply in environments requiring reliable operation in mechanically noisy situations	
<b>GEN8PR-12V</b>	As above except using 12V relays.	
<b>GEN8PR2</b>	6V relays and 2 part vertical connectors	
<b>GEN8PR2-5V</b>	As above except using 5V relays. Use this version with a 5V supply in environments requiring reliable operation in mechanically noisy situations.	
<b>GEN8PR2-12V</b>	As above except using 12V relays.	
<b>Optional accessories</b>	<b>COVER8PR</b>	Clear Acrylic protective cover. <b>NOTE. Cover is not currently available for GEN8PR2</b>
	<b>COVER8PRDIN</b>	Clear Acrylic protective cover and DIN rail adaptors. <b>NOTE. Cover is Not currently available for GEN8PR2</b>





**Product Datasheet 30**

***Operation***

This board requires a 5 to 6V supply on J1 to operate and 5V logic level inputs to the optocouplers that drive the relays.

***V2 board changes***

Full relay drive and signal isolation can be achieved by using a second 5V supply for the signal side via TB1 and disconnecting the 0V and 5V link. A small amount of additional circuitry will also be required for this option so if full isolation is required then please contact us for the special modification.

**NOTE.**

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***Document versions***

Version number	Date	Notes
V1.x	Various	
V2.0	21 <sup>st</sup> May 2022	Modifications for V2.0 boards.