GEN8PRMx/2-LJ

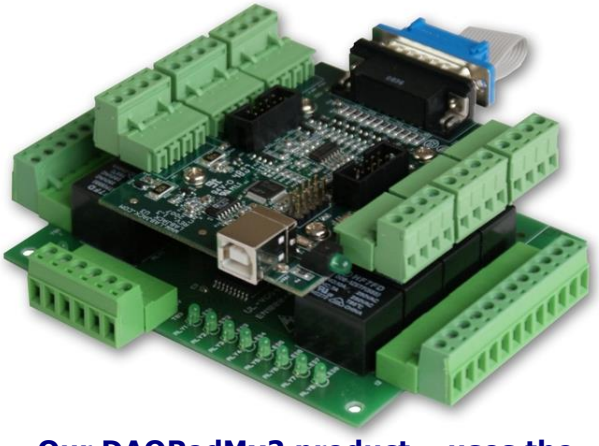
Low cost Data Acquisition & Control products

8 channel, general purpose relay card – opto isolated (LabJack U3, U6 & U9 compatible)

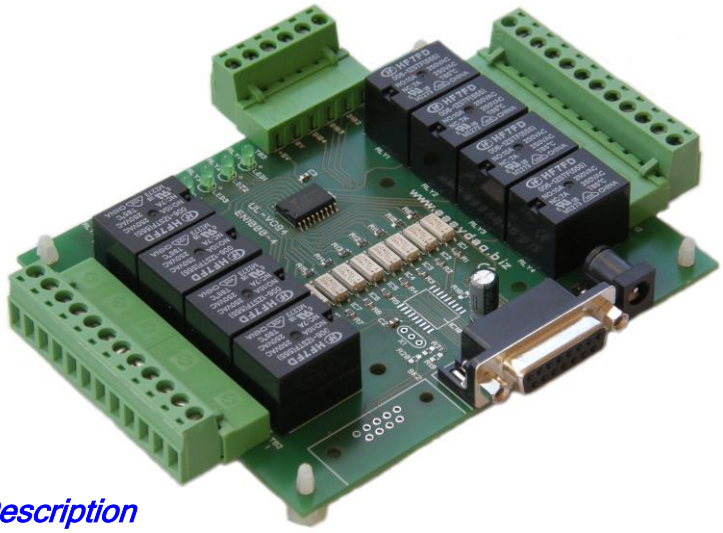
Product Datasheet 38

Features

- 8 channel, general purpose, opto isolated power relay card
- Can be used standalone (connected to your own digital control hardware) or used in conjunction with the LabJack U3, U6 or U9 DAQ modules
- Pin compatible with (& powered from) the LabJack U3/6/9 USB DAQ modules via optional ribbon cable
- LabJack U3 OEM DAQ module (see our DAQPodMx product) can be mounted above the relay card using hex pillars
- LabJack U3/6/9 4 x general purpose DIO signals and USB 0/+5V also available via 3rd screw terminal block
- PCB tracking (& relays) are designed to handle 10 amps @ 240V AC, or 8A @ 30V DC (switched or continuous). Detailed relay spec – see page 2
- Choice of either fixed or 2 part (male/female) screw terminal blocks allowing rapid connect/dis-connect in a maintenance or swap over situation connection
- Relays are SPDT, Form C, changeover type, with N/O, COM and N/C contacts. Screw terminal blocks connect directly to the N/O COM & N/C relay contacts. All relay contacts uncommitted.
- Opto-isolation between control signal inputs & the eight onboard relays = 5000V (AC Vrms min).
- LED status indicators for power and relay activation status
- Compatible ribbon cable option available (terminated with 15W D-Type connectors both ends)
- Supplied with nylon feet. Clear Perspex cover/base & DIN rail base mount option also available
- CE, RoHS & BS9001:2000 compliant



Our DAQPodMx2 product – uses the GEN8PRMx2-LJ relay card



Description

Low cost, general purpose, 8 channel, opto-isolated relay card. Compatible with, & powered from, the LabJack U3, U6 or U9 USB DAQ modules. Fitted with a choice of fixed or 2 part (male/female) screw terminal blocks allowing rapid connect/disconnect.

Relays are single pole changeover type, capable of switching 240VAC @ 10Amps. PCB tracking is designed to handle 10 Amps. The screw terminal blocks give access to N/O, COM & N/C relay contacts, four general purpose LJ-U3/9 DIO signals and the 0V/5V DC supply terminals.

If used standalone, the card requires an external 5V DC supply (350mA max, assuming all relays activated). If connected to LJ-U36/9, power is fed via ribbon cable. 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.

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)
Operating temp range
-20 to +80^{0}C
Power
5V DC @ 350mA (max – all relays active)
Relays
See page 2
Dimensions
Dimensions 125mm (D) 145mm (W) 20mm (H) (inc feet & 2 part conns), Weight 200g.

Order codes

GEN8PRMx-LJ or GEN8PRMx2-LJ
General purpose, 8 channel, opto-isolated relay card, fitted with fixed (Mx) or 2 part (Mx2) screw terminal connectors. Compatible with (& powered from) the LabJack U3/6/9 USB DAQ modules

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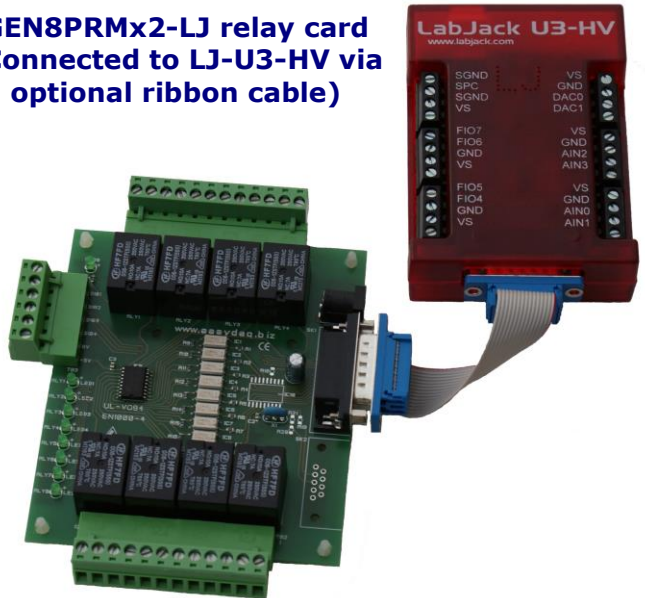
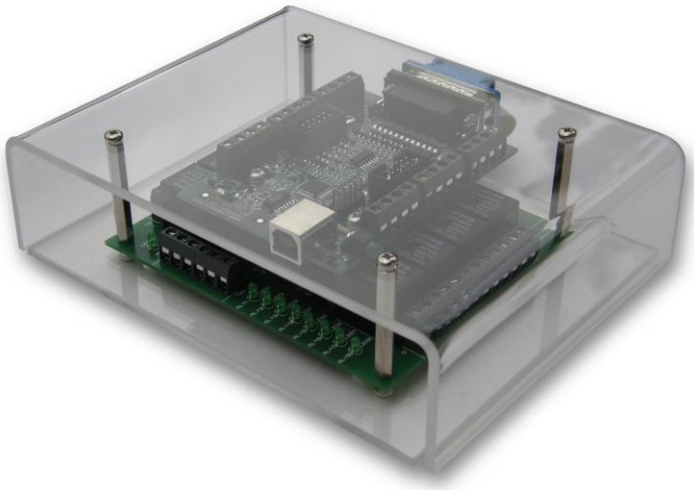
Specifications: Relays

Parameter	Specification (Power relays)
Rated voltage/current	5VDC/80mA
Contact ratings	10A/240VAC/8A 30VDC
Contact resistance	100mΩ max
Operate/release time	10mS/5mS
Contact bounce period	0.6mS operate/ 7.2mS release
Contact material	$AgSnO_2$
Operational life (min)	Mechanical 10^7 / Electrical 10^5
Contact arrangement	SPDT, Form C

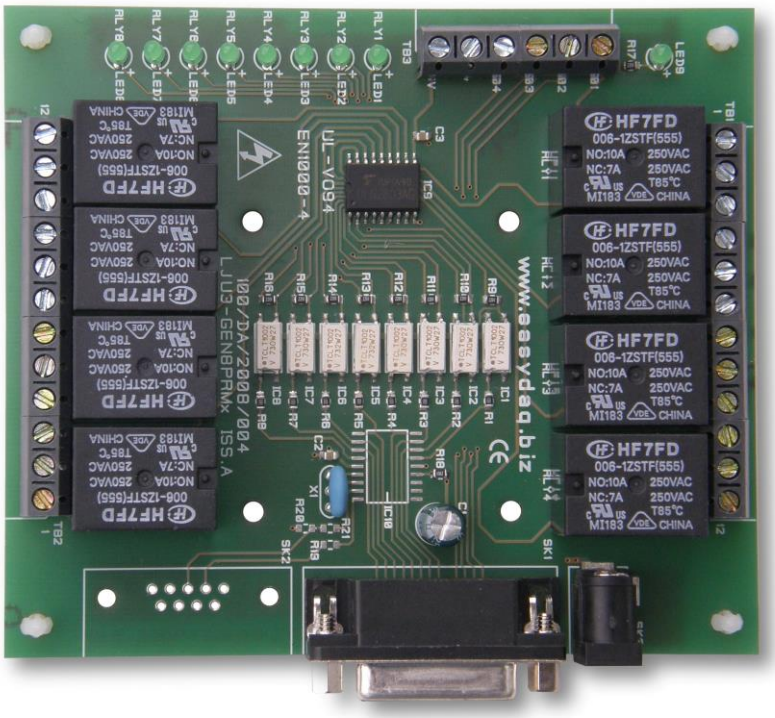
GEN8PRMx2-LJ relay card (Connected to LJ-U3-HV via optional ribbon cable)



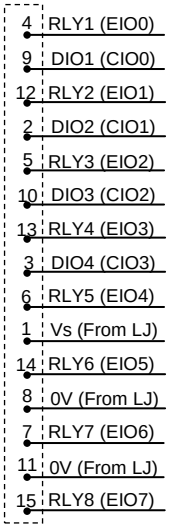
Ribbon15WDM-10cm or 50cm



DAQPodMx/GEN8PRMx-LJ relay card fitted with optional Perspex cover



GEN8PRMx-LJ relay card (Face view)



SK1 - 15 way D connector signal names