

# 4-axis Mach2/3 Encoder Interface

## Purpose:

To interface a second PCI parallel port card from a PC running Mach software with up to 4 individual encoder/Gecko drive inputs. Which will display the data in a “DRO” on a Mach screen. Giving the user, real time data count feedback from each encoder thereby displaying the actual position of each axis. And used with provided Macropump for this particular purpose, alerts the user with an LED next to the offending axis and prompts a sonalert device if used in the event of a step/count discrepancy. The machine will be halted in “feedhold” status. A screen.set is also supplied that is designed for this purpose as well and both are sent via Email with purchase.

May also be used as a stand-alone device to accept encoder data and relay it to PC for use solely as DRO for all types of encoder data input with Mach software.

Which would require, only one PCI parallel port card, Namely, Port1. Or simply used as 8 general use inputs instead of encoder inputs. Inputs such as MPG's, Probes, OEM triggers etc. Plus 4 software controlled onboard relays rated 125 VAC and 15 amps. Designed to be used in conjunction with Sound Logic PC-2-route breakout board.

Operates on 115/220 volts at 60 Hz. Note: 115 volts- JP1 and JP2 are installed. 220 volts must have a jumper installed between JP1-1 to JP2-2. And existing jumpers must be removed.

## Features:

- **PCB**
  - Fr4 Material
  - Solder mask on both sides
  - Silkscreen legend on topside
  - Plated through holes
  - Isolated 5 volts and grounds for the encoder interface parallel port IO
  - All outputs are buffered
  - Operational when Mach is in “reset” to provide the user encoder DRO position for manual machining operations.
  - 4 onboard relays rated 125 volts AC at 15 amps
- to control spindle, coolant, vacuum pump etc. via M-codes in Mach software. Coupled with Sound Logic PC to route Breakout board relay control jumpers will equal 8 controllable outputs in total.