

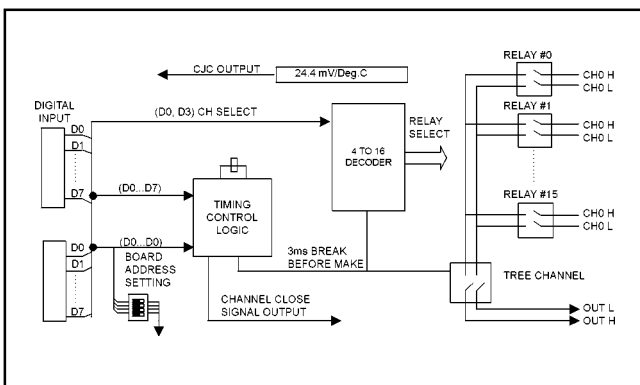
Features

- 16-to-1 channel expansion
- Differential and fully-isolated multiplexing
- Break-before-make relay control
- “Channel closed” signal for precise A/D triggering
- Up to 16 PCLD-788s can be cascaded for 256 channels
- Easy wiring for large channel count configuration
- On-board cold-junction circuitry for thermocouple measurement

Introduction

The PCLD-788 multiplexes 16 channels into a single I/O channel of an A/D converter, voltmeter or IEEE-488-based instrument. Up to 16 PCLD-788s can be cascaded for a total of 256 fully-isolated differential channels. The PCLD-788 can be controlled by any PC-LabCard via a 16-bit 20-pin digital output port, found on cards such as the PCL-711B, PCL-812PG or PCL-818 series.

Channel selection (0-15) and board selection (0-15) are done by programming the high-order four bits and low order four bits of a digital output byte from the main I/O card in use.



PCLD-788 block diagram

Applications

- Channel multiplexing for analog input channels of PCL-711B, PCL-812PG or PCL-818 series cards

Specifications

- **Input channels:** 16 isolated differential inputs
- **Programming:** D/O bit 0, 1, 2 and 3 for channel selection, D/O bit 4, 5, 6 and 7 for board selection. On-board DIP switches for board-address setting
- **Contact rating:** Break-before-make with 3 msec. minimum break time
- **Max. input voltage:** 100 V_{DC} or 100 V peak AC
- **Max. switching current:** 0.5 A
- **Max. switching power:** 10 W
- **Relay life expectancy:** 100 million cycles min. at 10 V_{DC} and 1 mA
- **Operating time:** 1 msec. max.
- **Release time:** 1 msec. max.
- **Contact resistance:** 200 m Ω max.
- **Channel closed signal:** TTL-level pulse
- **Cold-junction sensor output:** +24.4 mV/° C, 0 V at 0° C
- **Power consumption:** +5 V @ 380 mA max.
- **Connectors for digital ports:** Two 20-pin flat-cable connectors, second connector in parallel for daisy chaining
- **Dimensions:** 205 mm (L) x 114 mm (W) (8" x 4.5")

Ordering Information

- **PCLD-788:**
16-channel Relay Multiplexer Board, user's manual and two 1-meter 20-pin flat cables (P/N PCL-10120-1)