



Opto-Isolated Digital Inputs and Relays on an EPIC-Footprint Card

EPC182



Features

- ✓ 64 inputs with 4kVrms isolation
- ✓ 3VDC to 50VDC input range
- ✓ 16 Form-C latching relays with 1.5kVAC isolation
- ✓ Relay switching capacity 2A max at 30V
- ✓ Relays retain existing state when power is removed or applied

The EPC182 provides 64 lines of isolated inputs capable of handling a voltage range of 3VDC to 50VDC and provides 4kVrms isolation between the input and the digital system. There is no high-voltage inter-channel isolation between inputs. Each input can be individually pulled high or pulled low to insure a known logic level on power up.

The 16 Form-C relays provide a switching capacity of 2 Amps at 30 Volts. The current states of the relays are readable and the relays will retain their states during power down or power up of the EPC182. The relays provide 1.5kVAC isolation between the high-voltage signal and the digital system as well as 250VDC isolation between relays.

Software Support

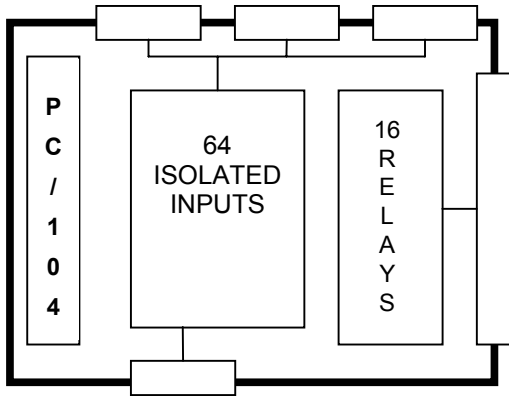
Example software included for DOS, Linux

Compatible Hardware

Any Micro/sys CPU with PC/104 expansion connector

Mounting/Packaging

Enclosure, ENC104-4 Standoffs, STDOFF104



- ❑ User-selectable pull-up/pull-down resistor on each input
- ❑ No high-voltage inter-channel isolation on inputs

Relays:

- ❑ 16 Form-C latching relays
- ❑ Maximum switching capacity 2A at 30V
- ❑ Able to read current state of the relay
- ❑ Relays retain their state when power is removed or applied
- ❑ 1.5kVAC isolation from logic levels to high-voltage signal
- ❑ 250V high-voltage inter-channel isolation

External Connections:

- ❑ Four 34-pin headers for isolated inputs
- ❑ One 50-pin header for relays

Specifications:

Mechanical:

- ❑ EPIC-footprint board size and corner mounting holes
- ❑ 4.53" x 6.50" x.6"

Power Requirements:

- ❑ +5v ±5% at 1.5Amps Max (330mA typical, no relays energized)

Environmental:

- ❑ -40 - +85°C operating
- ❑ -40 - +85°C storage
- ❑ 5%-95% relative humidity, non-condensing

PC/104 Interface:

- ❑ 8-bit PC/104 transfers with 16-bit pass-through connector
- ❑ Jumper selectable base address range from 000h to 3F0h
- ❑ Occupies 16 byte-wide I/O addresses

Isolated Digital Inputs:

- ❑ 64 isolated inputs
- ❑ 3VDC to 50VDC input range
- ❑ Input impedance ≥ 10kohms
- ❑ 4kVrms isolation from logic levels to high-voltage signals

Ordering Information:

EPC182	64 isolated inputs and 16 relays
EPC180	64 isolated inputs and 16 relays – alternative grounding available

Related Products:

CA5050	34-pin to 34-pin ribbon cable
CA5049	50-pin to 50-pin ribbon cable
TB50334	Breakout board with 34-position terminal strip
TB50350	Breakout board with 50- position terminal strip
BA0034	Breakout assembly for 34-pin header to 34-position terminal strip
BA0050	Breakout assembly for 50-pin header to 50-position terminal strip
STDOFF104	Two .6" nylon standoffs, machine screws, and nuts for mounting