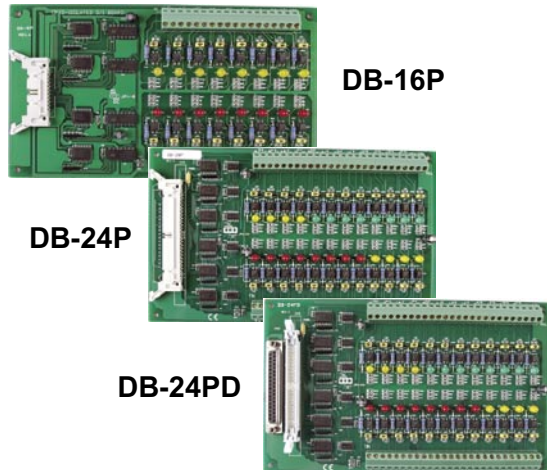


DB-16P/24P/24PD

16/24-channel OPTO-isolated digital input board



Features

- 16 optically isolated input channels (DB-16P)
- 24 optically isolated input channels (DB-24P, DB-24PD)
- AC/DC signal input
- AC signal input with filter
- Input buffer with voltage comparators
- 3000V isolation voltage
- LEDs indicate input status

Functional Description

The DB-16P is a 16-channel isolated digital input daughter board for A-82X DAS board or any 812PG, 711 series DAS Boards. The optically isolated input of the DB-16P consists of a bidirectional OPTO-coupler with a resistor for current sensing. You can use the DB-16P to sense DC signal from TTL levels up to 24V. You can also use DB-16P to sense a wide range of AC signals. The DB-16P registers a constant logic high if the frequency of the input AC signal is greater or equal to 1KHz, and the voltage of the AC signal is at least 4Vrms. If you are using AC input signal, you should short the AC filter Jumper. You can use the board to isolated the computer from large common-mode voltages, ground loops and voltage spikes that often occur in industrial environments.

The general specification of DB-24P/PD is the same as DB-16P. But DB-24P/24PD can be connected to any OPTO-22 compatible DI/O Board and can be used for 24-channel photo-isolated digital input.

Specifications

I/O connector Electrical Specifications

- Configuration: optically isolated digital input
- Compatibility: TTL compatible

Digital Input

- Each channel with it's own ground reference isolated from other channels
- Maximum input voltage: 24VDC or 24VAC

Level	Minimum	Maximum
Input Low voltage (DC or peak AC)	0	± 1
Input High voltage DC 1 KHz AC	$\pm 2.8\text{VDC}$ 4Vrms	$\pm 24\text{VDC}$ 24VAC

- Input impedance: $1.2\text{K}\Omega/1\text{W}$ (default)

- Minimum input current: 5V inputs: 4 mA/channel
24V inputs: 20 mA/channel
- Response Time: $20\mu\text{s}$ without filter; 2.2ms with filter

General Specifications

- Power requirements:
 - +5V @ 224 mA max (DB-16P)
 - +5V @ 336 mA max (DB-24P, DB-24PD)
- Operating temperature: $0 \sim 60^\circ\text{C}$
- Operating humidity: $0 \sim 90\%$ non-condensing
- Storage temperature: $-20 \sim 80^\circ\text{C}$
- Dimensions: 205 mm x 114 mm (DB-16P)
205 mm x 114 mm (DB-24P, DB-24PD)

Ordering Information

Standard

- DB-16P:** 16-channel isolated digital input board with CA-2010 cable
- DB-24P:** 24-channel OPTO-22 isolated input board with CA-5015 cable
- DB-24P/DIN:** DB-24P with DIN-rail mounting kit
- DB-24PD:** 24-channel OPTO-22 isolated input board with CA-3710 cable
- DB-24PD/DIN:** DB-24PD with DIN-rail mounting kit

Optional

- CA-3720:** 37-pin D-sub cable, 2m