

24-Channel OPTO-Isolated Input Board

OME-DB-24P/OME-DB-24PD



- ✓ Optically Isolated Digital Input Channels
- ✓ Connects Directly to OME-PIO-D144
- ✓ AC/DC Signal Input
- ✓ AC Signal Input with Filter
- ✓ Input Buffer with Voltage Comparators
- ✓ Isolated Digital Input Sensing

The OME-DB-24P is a 24 channel isolated digital input daughter board for OME-PIO-D144 digital input board. The optically isolated inputs of the OME-DB-24P consist of a bi-directional opto-couplers with a resistor for current sensing. You can use the OME-DB-24P to sense DC signals from TTL levels up to 24V. You can also use OME-DB-24P to sense a wide range of AC signals. The OME-DB-24P registers a constant logic high if the frequency of the input AC signal is greater or equal to 1 kHz, and if the voltage of the AC signal is at least 4 Vrms. If you are using an AC input signal, you must short the AC filter jumper. You can use the board to isolate the computer from large common-mode voltages, ground loops and voltage spikes that often occur in industrial environments.

Specifications

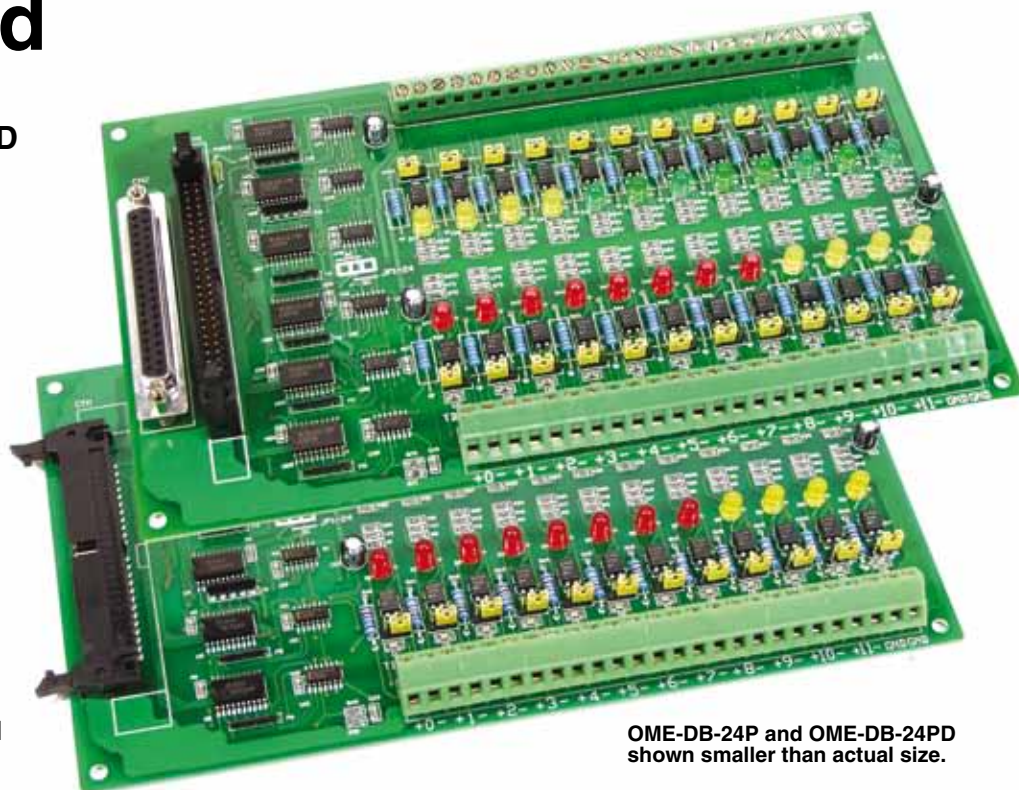
I/O CONNECTOR ELECTRICAL SPECIFICATIONS

Configuration: 24 optically isolated digital input channels

Compatibility: TTL compatible
Connector: OME-DB-24P, one 50-pin header; OME-DB-24PD, one 50-pin header and one 37-pin D-sub connector

DIGITAL INPUT

Number of channels: 24, each with its own ground reference isolated from other channels



OME-DB-24P and OME-DB-24PD shown smaller than actual size.

Digital Logic Level

| Level | Minimum | Maximum |
|-----------------------------------|--------------------|-------------------|
| Input low voltage (DC or peak AC) | 0 | ±1V |
| Input high voltage DC/KHz AC | ±2.8 Vdc 4 Vrms | ±24 Vdc 24 Vac |

Maximum Input Voltage:

24 Vdc or 24 Vac

Input Impedance: 1.2 K

SOURCE CURRENT

5V inputs: 4 mA per channel (min)

24V inputs: 20 mA per channel (min)

Response Time: 20 µs without filter/2.2 ms with filter

Power Supplies: +5V @ 336 mA max

Dimensions: 132 H x 220 mm W
(5.2 x 8.7")

Operating Temperature: 0 to 60°C
(32 to 140°F)

Storage Temperature: -20 to 70°C
(-4 to 175°F)

Humidity: 5 to 90% RH non-condensing

To Order

| Model No. | Description |
|-----------------|---|
| OME-DB-24P | 24-channel OPTO-22 compatible opto-isolated input board, includes 1.5 m (5') 50-pin flat cable |
| OME-DB-24P/DIN | OME-DB-24P with DIN-Rail mounting kit |
| OME-DB-24PD | 24-channel OPTO-22 compatible opto-isolated input board with D-Sub 37 connector, includes 1 m (3') 37-pin D-sub connector cable |
| OME-DB-24PD/DIN | OME-DB-24PD with DIN-Rail mounting kit |
| OME-CA-5015 | 50-pin flat cable, 1.5 m (5') |
| OME-CA-3720 | 37-pin male-male D-sub connector cable 2 m (7') |
| OME-CA-3710 | 37-pin male-male D-sub connector cable 1 m (3') |