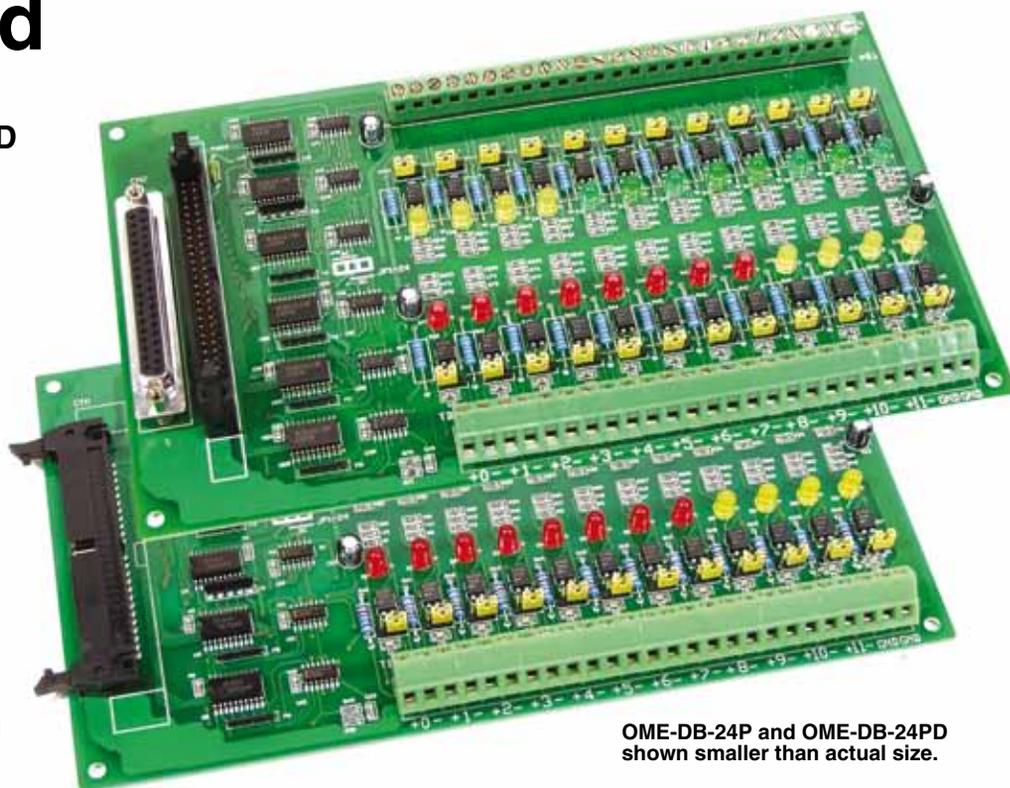


# 24-Channel OPTO-Isolated Input Board

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**



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

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

### 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')