

# 24-Line Optically Isolated Digital-Input Module for OMB-LOGBOOK, and OMB-DAQBOARD-2000 Series

OMB-DBK23



OMB-DBK23 front view, shown smaller than actual size



OMB-DBK23 rear view, shown smaller than actual size

- ✓ **Optically Isolated Inputs Accept up to 30 Vdc**
- ✓ **500 V Channel-to-Channel Isolation**
- ✓ **500 V Channel-to-System Isolation**
- ✓ **Expandable to 192 Digital Lines**

The OMB-DBK23 is a 24-line digital-input module that provides isolated digital inputs for OMEGA's OMB-LOGBOOK and OMB-DAQBOARD-2000 Series data acquisition systems. The unit provides 500 V of channel-to-channel and 500 V of channel-to-system optical isolation, eliminating troublesome ground loops and protecting the data acquisition system from damage caused by accidental contact with high external voltages. Up to eight OMB-DBK23 modules can be connected to one system, for a total of 192 digital inputs.

## Applications

The OMB-DBK23 can monitor a range of 3 to 30 Vdc inputs, making it especially suitable for applications such as process control or laboratory automation.

The unit is capable of monitoring electrical devices such as proximity switches, thermostats and limit switches.

## Connections

The OMB-DBK23 connects to a system's digital I/O connectors and uses the digital I/O lines as a communications bus. Thus, the lines on a system's digital I/O connectors are not user accessible when an OMB-DBK23 is in use.

The OMB-DBK23 can be daisy-chained with other OMB-DBK digital I/O cards or modules via optional expansion cables. Signal connections to the OMB-DBK23 are made via screw terminals, which are conveniently located on its slide-out PC board.

## Power

The OMB-DBK23 is equipped with an internal power supply and external AC adaptor. It can also be powered from an OMB-DBK30A battery/excitation module, a 12 Vdc car battery, or from any 9 to 24 Vdc source.

## Specifications

24 optically isolated digital-input channels readable in 8-bit groups

**Connector:** DB37 male, mates with P2 pinout on an OMB-LOGBOOK or OMB-DAQBOARD-2000 Series (attachment to the DAQBOARD's P2 further requires the use of an optional OMB-CA-60 cable)

### Input Channel Ratings:

**Range:** 3 to 30 Vdc

**Input Current:** 1.5 to 15 mA

**Operating Voltage Range:** 9 to 24 Vdc

**Module Power Requirements:** 0.25 W; AC adaptor included

### 120 Vac Adaptor Supplied:

15 Vdc @ 0.9 A

**Indicators:** Local power & system power LED

**Controls:** Power on/off

### Isolation Voltage:

**Channel-to-Channel:** 500 V

**Channel-to-System:** 500 V

**Channel Address:** Set by dip-switch

**Dimensions:** 221 x 285 x 35 mm (8.5 x 11 x 1.375")

**Weight:** 1.2 kg empty (3 lb)

**AVAILABLE FOR FAST DELIVERY!**

To Order	
Model Number	Description
OMB-DBK23	24-Line Optically Isolated Digital-Input Module

**Ordering Example:** OMB-DBK23 is a 24-line optically isolated digital-input module..