

24-Line Optically Isolated Digital-Output Module

for OMB-LOGBOOK and OMB-DAQBOARD-2000 Series



OMB-DBK24, front view, shown smaller than actual size

OMB-DBK24



- ✓ Optically Isolated Outputs up to 60 Vdc
- ✓ 500V Channel-to-Channel Isolation
- ✓ Expandable to 192 Digital Lines

The OMB-DBK24 is a 24-line digital-output module that provides isolated digital outputs for OMEGA's OMB-LOGBOOK and OMB-DAQBOARD-2000 Series data acquisition systems. The OMB-DBK24 provides 500V of channel-to-channel and 500V of channel-to-system optical isolation for complete system protection. This isolation protects the data acquisition system from damage caused by accidental contact with high external voltages and eliminates troublesome ground loops. Up to eight OMB-DBK24 modules can be connected to one system, for a total of 192 digital outputs.

Connections

The OMB-DBK24 connects to a system's P2 digital I/O connectors and uses the existing 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-DBK24 is in use. The OMB-DBK24 can be daisy-chained with other OMB-DBK digital I/O cards or modules via optional expansion cables. Signal connections to the OMB-DBK24 are made via screw terminals, which are conveniently located on its slide-out PC board.



OMB-DBK24, rear view.

Power-On-Reset

The module features a power-on-reset function, allowing users to set the outputs to either "on" or "off" prior to start-up. Each power up output state is determined by dip-switch settings prior to the first write command to the module.

Power

The OMB-DBK24 is equipped with an internal power supply and external AC adaptor. It can also be powered from an OMB-DBK30A battery module, a 12 V car battery, or from any 9 to 24 Vdc source.

Specifications

24 optically isolated digital-output channels programmable 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 an optional OMB-CA-60 cable)

Output Channel Ratings:

- Maximum Current/Channel: 1 A
- Voltage Drop @ 1 A and 25°C: 1V
- Maximum Open Circuit Voltage: 60 Vdc
- Off-State Leakage: 10 µA

Module Power Requirements:

- 1.5 W; AC adaptor included
- Indicators:** Local power & system power LED
- Controls:** Power on/off
- Power-On-Reset State:** Following power-up, the state of each output is determined by dip-switch settings prior to first write command to the module
- Isolation Voltage:** 500V
- Maximum Module Power Dissipation:** 12 W @ 25°C, 6 W @ 50°C
- Dimensions:** 221 x 285 x 35 mm (8.5 x 11 x 1.375")
- Weight:** 1.3 kg empty (3 lb)



OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

To Order

Model No.	Description
OMB-DBK24	24-line optically isolated digital-output module

Ordering Example: OMB-DBK24 is a 24-line optically isolated digital-output module.