

OMB-DBK50 and OMB-DBK51

8-Channel Isolated Voltage-Input Modules for OMB-LOGBOOK and OMB-DAQBOARD-2000 Series



Model OMB-DBK50/51
\$2079

The OMB-DBK50, \$2079 and OMB-DBK51, \$2079, each offer eight channels of analog input via removable screw-terminal plugs

- ✔ Offers Bipolar Input Ranges: OMB-DBK50
- ✔ 10 V, 100 V, and 300 V Full Scale Input OMB-DBK51
- ✔ 100 mV, 1 V, and 10 V Full Scale Input

The OMB-DBK50 and the OMB-DBK51 are eight-channel, isolated voltage-input modules that allow OMEGA's OMB-DAQBOARD-2000 Series and OMB-LOGBOOK data acquisition systems to isolate up to eight channels of analog input. Both the OMB-DBK50 and OMB-DBK51 modules offer 750 V isolation from channel-to-channel and 1250 V isolation from channel-to-system. Up to 32 modules can be connected to one OMEGA's OMB-DAQBOARD-2000 Series or OMB-LOGBOOK data acquisition for up to 256 isolated input channels.

Isolated Signal Connections

Each channel features a disconnectable screw terminal block that provides access to the analog inputs.

Power

The OMB-DBK50 and OMB-DBK51 include built-in DC/DC converters, allowing them to be operated from a

variety of external power sources. The units can draw power from their included AC adaptors; the optional OMB-DBK30A rechargeable battery module; a car battery; or any +9 to +20 Vdc source.

Input Amplifier

The OMB-DBK50's input amplifiers provide input ranges for 10 V, 100 V, and 300 V bipolar signals. The OMB-DBK51's input amplifiers provide input ranges for 100 mV, 1 V, and 10 V bipolar signals. These ranges are software programmable, allowing you to change ranges without having to access internal range-set jumpers or switches. The input amplifiers also provide a zeroed input range, which allows you to incorporate auto-zero and temperature drift compensation in your data acquisition applications.

Bandwidth Filter

The OMB-DBK50 and OMB-DBK51 provide a selectable 3.5 Hz, low-pass filter on each channel. You can change the corner frequency by plugging in a different standard resistor network. In addition, you can bypass the low-pass filter entirely, for a bandwidth of 20 kHz.

Specifications

Connector: DB37 male, mates with P1 pinout on the OMB-LOGBOOK or with the OMB-DAQBOARD-2000 Series
Inputs: Removable screw terminal block

Channels: 8, individually isolated
Isolation:

Channel-to-Channel: 750 V
 Channel-to-System: 1250 V

Input Impedance:

OMB-DBK50: 1 M Ω
OMB-DBK51: >10 M Ω

Bipolar Input Ranges:

OMB-DBK50: ± 10 V, 100 V and 300 V
OMB-DBK51: ± 100 mV, 1 V and 10 V

Output Voltage Range:

± 5 Vdc
Accuracy: 1% of range (without offset correction)
 0.2% of range (with offset correction)

Offset:

± 50 mV Max

Noise:

<5 mV p-p (with filter)

Temp. Coefficient:

0.2 mV/ $^{\circ}$ C

Bandwidth:

20 kHz (LPF bypassed)

Low-Pass Filter:

Factory installed 3-pole, 3.5 Hz (by-passable or user set)

Operating Power Voltage Range:

9 to 20 Vdc

Module Power Requirements:

7.5 W

Included AC Adaptor:

15 Vdc @ 0.9 A

Dimensions:

221 x 285 x 36 mm

(8.5 x 11 x 1.375")

Weight:

1.7 kg (4 lb)

AVAILABLE FOR FAST DELIVERY!

| To Order (Specify Model Number) | | |
|---------------------------------|--------|--|
| Model Number | Price | Description |
| OMB-DBK50 | \$2079 | 8-Channel Isolated High Voltage-Input Module |
| OMB-DBK51 | 2099 | 8-Channel Isolated Low Voltage-Input Module |

Ordering Example: OMB-DBK51 8-channel isolated low voltage-input module, \$2099



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