

OMB-DBK16

2-Channel Strain-Gage Expansion Card

for use with OMB-DAQBOARD-2000 Series
or OMB-LOGBOOK

Model OMB-DBK16

\$649



The OMB-DBK16, \$649, strain-gage expansion card, shown smaller than actual size

- Provides 2 Channels of Strain-Gage Inputs
- Accommodates Most Bridge Type Sensors, Including 4-Element Full Bridges

A two-channel strain-gage expansion card for OMEGA's OMB-LOGBOOK and OMB-DAQBOARD-2000 Series data acquisition systems. The OMB-DBK16 is a general-purpose card that accommodates the connection of most strain-gage types, from single-element quarter-bridges to 4-element full bridges. The OMB-DBK16 also includes provisions for bridge completion resistors and provides four adjustments on each of its two channels. You can adjust excitation voltage, input gain, offset nulling and output scaling. Up to 128 OMB-DBK16 boards can be connected to one OMB-LOGBOOK or OMB-DAQBOARD-2000 Series. For applications of 5 or more channels, use the 8-channel OMB-DBK43A strain-gage module.

Excitation Regulator

The OMB-DBK16 accepts user-supplied excitation input voltage from 12 to 16 V on each channel. Its on-board excitation regulator can be adjusted from 1.5 to 10.5 Vdc.

Excitation Sources

The 12 to 16 Vdc external excitation source required by the OMB-DBK16 can be supplied by the OMB-DBK30A rechargeable battery/excitation module or by a user-supplied source.

Coupling & Filtering

Each channel of the OMB-DBK16 offers switch-selectable AC or DC coupling between the input amplifier circuits and the filter stages. A selectable three-pole low-pass filter with a customizable cutoff frequency is also provided.

Specifications

Connector: DB37 male, mates with P1 pinout on the OMB-LOGBOOK and OMB-DAQBOARD-2000 Series; screw-terminals provided for strain-gage and external excitation connections

Number of Channels: 2

Excitation Voltage Adjustment

Range: 1.50 to 10.50 Vdc @ 50 mA

Gain Range: x100 to x1250

Accommodated Bridge Types:

- Full Bridge, Kelvin Excitation (6-wire)
- Full Bridge (4-wire)
- Half Bridge (3-wire)
- Quarter Bridge (2-wire)

Bridge Resistors: On-board locations are provided for four bridge-completion resistors per channel

Input Type: Differential

Input Impedance: 100 M Ω parallel with 100 pF

CMRR: 115 dB (DC to 60 Hz)

Excitation Voltage Source:

User-supplied 13 to 16 Vdc @ 50 mA/channel

Excitation Current Output: 50 mA max

Excitation Sensing: Local or remote

Reference Voltages: 2.5 Vdc

Gain Accuracy: 0.5%

Gain Drift: 50 ppm/ $^{\circ}$ C

Input Offset: 100 μ V max

Offset Adjustment: 0 to 100% of range, 0 to 5.00 Vdc (15-turn trimpot)

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)		
Model Number	Price	Description
OMB-DBK16	\$649	2-Channel Strain-Gage Expansion Card

Ordering Example: OMB-DBK16 2-channel strain-gage expansion card, \$649.



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