

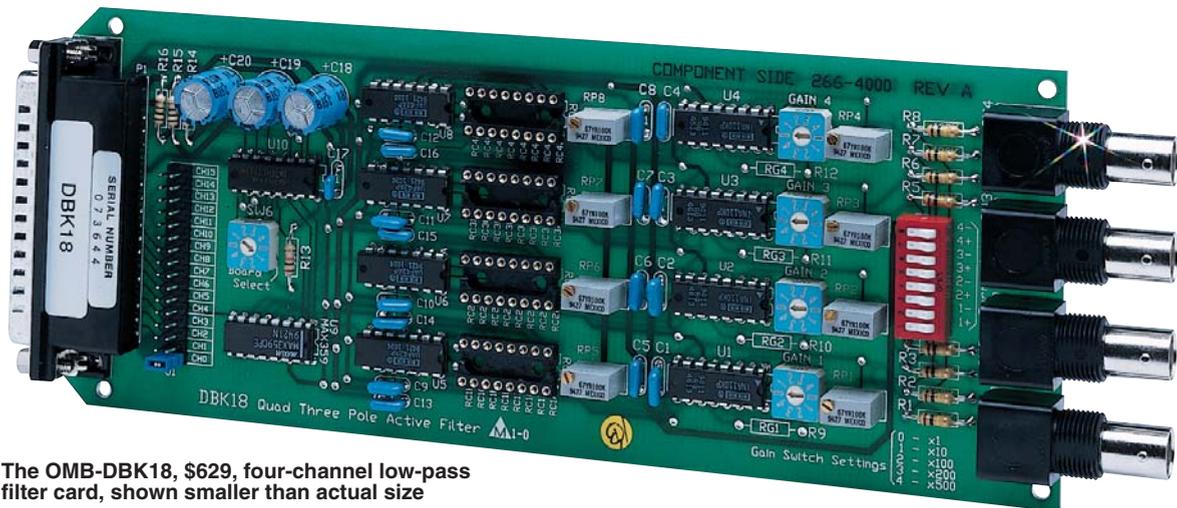
OMB-DBK18

4-Channel Low-Pass Filter Card

for Use with OMB-DAQBOARD-2000 Series and OMB-LOGBOOK Systems

Model OMB-DBK18

\$629



The OMB-DBK18, \$629, four-channel low-pass filter card, shown smaller than actual size

- ✓ Provides Four Independent Three-Pole Low-Pass Filter Channels
- ✓ Provides a Separate Instrumentation Amplifier Input Stage for Each Channel
- ✓ User-Configurable from DC to 50 kHz Cut-Off

The OMB-DBK18 low-pass filter card provides OMEGA's OMB-LOGBOOK and OMB-DAQBOARD-2000 Series data acquisition systems with four low-pass filters that can be individually configured for a cut-off frequency from DC to 50 kHz, and for Butterworth, Chebyshev or Bessel characteristics. Each OMB-DBK18 provides four channels of differential voltage input to an OMB-LOGBOOK and OMB-DAQBOARD-2000 Series. The systems' sixteen analog input channels can each accept four OMB-DBK18 cards, for a total of 256 analog input channels with low-pass filtering.

Each of the OMB-DBK18's four channels features an instrumentation amplifier with switch-selectable gains of x1, 10, 100, 200 and 500. Each channel is also equipped with a location for a user-selected gain resistor, allowing you to select a custom gain range of up to x500.

The OMB-DBK18's frequency-determined resistor and capacitor locations are on machined-pin IC sockets for maximum flexibility. The card is provided with blank plug-in headers for each channel, to which you can add passive components for particular frequencies.

The OMB-DBK18 is equipped with BNC input connectors. Its differential inputs are equipped with switchable 100 K bias resistors that are referenced to analog common.

Specifications

Connector: DB37 male, mates with P1 pinout on the OMB-LOGBOOK and OMB-DAQBOARD-2000 Series; signal inputs accepted via BNC connectors

Number of Channels: 4

Number of Cards Addressable: 64

Input Type: Differential
Voltage Input Ranges:

- 0 to ±5 Vdc
- 0 to ±500 mVdc
- 0 to ±50 mVdc
- 0 to ±25 mVdc
- 0 to ±10 mVdc

For Custom Gains:

$$R_{user} = \frac{40,000}{Gain-1} - 80 \text{ (Ohms)}$$

Input Amplifier Slew Rate: 12 V/μs min

Input Gains: x1, 10, 100, 200, 500 and user determined up to 500

Input Offset Voltage: [500 + 5000/G] μV max (nullable)

Input Offset Drift: [±5 + 100/G] μV/°C max

Input Impedance: 5 x 10¹² Ohms parallel with 6 pF

Gain Errors (max):

| | | | |
|------|-------|------|------|
| x1 | 0.04% | x200 | 0.4% |
| x10 | 0.1% | x500 | 1.0% |
| x100 | 0.2% | | |

Number of Poles/Filter: 3
Types of Filters: Bessel, Butterworth and Chebyshev

Frequency Range: 0.1 Hz to 50 kHz; the frequency is set by installation of 4 to 6 resistors and/or capacitors in the provided socket locations

Cables: Use OMB-CA-37-x with OMB-LOGBOOK and OMB-DAQBOARD-2000 Series

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

| Model Number | Price | Description |
|--------------|-------|--------------------------------|
| OMB-DBK18 | \$629 | 4-Channel Low-Pass Filter Card |

Ordering Example: OMB-DBK18 is a 4-channel low-pass filter card, \$629.

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