DBK80

16-Channel Differential Voltage Input Card with Excitation

Features
- 16 differential input channels
- Unity gain combines with A/D gains to provide full-scale inputs from ±156 mV to ±10 V
- On-board precision +5 V/+10 V excitation source for measuring bridges, or other active transducers
- Convenient on-board screw-terminal signal connection
- Compact form factor mounts in any DBK-compatible enclosure

The DBK80 provides 16 channels of differential voltage input. The DBK80 has a single, unity-gain input stage on all channels. When coupled with the on-board x1 through x64 programmable input gains, the combination provides full-scale input ranges from ±10 V down to ±156 mV.

The DBK80's ultra-low noise, high-speed design allows users to expand their input channels up to 256 channels without sacrificing measurement integrity.

The DBK80 also has a +5 V or +10 V precision voltage source on-board (jumper-selectable). This can be used to bias strain gages, thermistors, or other transducers that require biasing.

Specifications
- Operating Temperature: -30 to +70 °C
- Connector: DBK37 male, mates with P1*; screw terminals for signal connection
- Gain Ranges: 1, x1
- Inputs: 16 differential voltage inputs
- Maximum Input Voltage Range: ±10 V
- Input Impedance: 20 M Ohm
- Temperature Coefficient: 10 ppm for every degree outside the range of 0 to 50 °C
- Noise: 60 µVrms (typ)
- Maximum Input Voltage (without damage): ±35 V
- 3 dB Bandwidth: 2.6 MHz
- CMRR: 80 dB typ
- Excitation Voltage: 1 channel, jumper-selectable to +5 V or +10 V
- Excitation Voltage Accuracy: ±0.5%
- Excitation Voltage Current Limit: 20 mA Source, 1 mA Sink
- Power: 25 mA max from ±15 V (with no load on excitation voltage)
- Power Consumption: 755 mW

Ordering Information

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<td>DBK80</td>
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See DBK85 for module version of this board

DBK80 Differential Voltage Input Card Block Diagram

Cables
- For use with DBK10, use CA-37-x ribbon cable, or contact factory of additional cabling options
- For use with DBK60 or LogBook/360, no cable is required (except from DBK60 or LogBook/360 to the A/D mainframe)
- For use with no enclosure, use CA-37-x where x is the number of DBK devices attached
- For use with DaqLab Series (internal slots), use CA-255-2T with one board, or CA-37-2 for use with two DBK cards (or contact factory for additional cabling options)

Product Compatibility
- LogBook
- DaqBook
- DaqLab
- DaqScan
- DaqBoard/2000 Series

* Attachment to the DaqBoard/2000 Series requires a DBK200, DBK202, DBK203A, DBK209, DBK213, or DBK214