

DaqBoard/2000™ Series & DaqScan/2000™ Series Signal Conditioning & Expansion Options

DBK200™ Analog I/O Only Adapter Board

Suitable exclusively for analog signal expansion, the DBK200 adapter board contains one 100-pin connector which connects appropriate [DaqBoard/2000 series board](#) via the CA-195 cable, and one female DB37 connector that mates directly with the P1 port of any of the DBK analog signal conditioning and expansion options. This is the most convenient way to add analog expansion options if access to the DaqBoard/2000 series boards digital I/O or frequency I/O signals is not required. Access to P1 analog signals is also possible via included female-mating solder-lug connectors or optional CA-37-x* or CA-37-xT* expansion cables.



DBK209™ Adapter Board

For both analog and digital expansion, the DBK209 adapter board mates with the [DaqBoard/2000 series](#) via a 3-ft. CA-195 cable. The DBK209 provides three male DB37 connectors, divided into P1 analog input, P2 digital I/O, and P3 analog output and counter/timer I/O. Each port on the DBK209 connects to DBK expansion options via an optional CA-37-x* or CA-37-xT* expansion cable. Alternatively, users can custom make their own cables that are terminated with a female DB37. An optional 6 ft. cable is available that contains a mating female DB37 connector at one end, and is unterminated at the other end (CA-113). The standard DBK209 can be panel mounted, but it also is DIN-rail mountable with option DIN2 and is rack-mountable with option Rack3.



DBK202™ & DBK203A™ Screw-Terminal Adapter Boards

The DBK202 screw-terminal board provides convenient screw-terminal access to all signals from the [DaqBoard/2000 series boards](#). Divided into three ports (P1, P2, and P3), the DBK202 also provides another way to access signals. There are male DB37 connectors on P1 and P2 which can be used to connect to DBK signal conditioning and expansion options. Mounting holes in the DBK202 permit it to be easily screw-mounted into a user-provided enclosure.

The DBK203A is identical to the DBK202, except that it is housed in a shielded metal enclosure, which easily mounts to other DBK signal conditioning and expansion modules. Fastener panels are included for attaching other DBK modules.



DBK206™ Screw-Terminal & Expansion Board

Similar in function to the DBK202, but designed for mounting in 19-inch enclosures, the DBK206 features three vertically mounted straight male DB37 connectors for analog and digital channel expansion (P1 analog I/O, P2 digital I/O, and P3 digital and counter-timer I/O). Two rows of removable screw terminals provide convenient access to all



[DaqBoard/2000 series boards](#) I/O signals (10-22 AWG wire). It mates with the DaqBoard/2000 series boards via a 3 ft. CA-195 cable, and each port (P1, P2, and P3) connects to DBK signal conditioning and expansion options via optional CA-37-x cable(s). The standard DBK206 can be panel mounted, but it also is DIN-rail mountable with option DIN1 and is rack-mountable with option Rack3.

DBK207™ & DBK207/CJC™ Multiplexing Isolated Analog Signal Conditioning Input Boards

Signal Conditioning Input Boards

The [DBK207](#) provides sockets for 16 channels of isolated analog input when populated with industry standard [5B-style or compatible signal conditioning modules](#) (sold separately). Each channel features screw-terminals and sockets for current conversion resistors (supplied with 5B current input modules). The [DBK207/CJC](#) features added cold-junction compensation per channel for thermocouple-based measurements.



Multiplexing is built-in allowing up to 16 [DBK207](#) boards to be directly connected to one [DaqBoard/2000 series](#) board for a total signal capacity of 256 isolated analog inputs. The 100-pin P4 connector on the DBK207 attaches directly to the DaqBoard (via CA-195 cable). Two DB37 connectors permit daisy chaining to other DBK207 boards, and to any of the other DBK analog signal conditioning boards and modules. The DBK207/CJC and the DBK207 can be rack or snap-track mounted with optional mounting kits (see below).

DBK208™ Multiplexing Isolated Digital Signal Conditioning I/O Board

The [DBK208](#) provides sockets for 16 channels of isolated digital I/O when populated with industry standard [Opto-22®-style or compatible solid-state-relay modules](#) (sold separately). Each socket also features screw-terminals and an LED to indicate logic status. The 16 digital I/O can be jumper configured as either inputs or outputs in 8-channel groups.

Multiplexing is built-in allowing up to 16 DBK208 boards to be connected to one [DaqBoard/2000 series board](#), for a total signal capacity of 256 isolated digital I/O channels. On-board logic insures that outputs are disabled during power-up and by a computer (CPU) reset. Also included is the ability to choose whether outputs are “off”, or in the “last known state” when loss of external power occurs.



The 100-pin P4 connector on the DBK208 attaches directly to a [DaqBoard/2000 series board](#) (via CA-195 cable) while two DB37 connectors permit daisy chaining to other DBK208 boards, and to any of the other DBK digital boards and modules.

DBK210™ 32-Channel Isolated High-Density Digital I/O Board

The [DBK210](#) signal conditioning and expansion board can be configured with up to 32 isolated Grayhill 70M series-compatible solid-state digital I/O modules. Four 8-channel banks can be switch-selected as either inputs or outputs. The [DBK210](#) features removable screw terminals for convenient connection of field signals. Also, each module location features an LED to indicate channel status.

User-configurable signal conditioning modules feature 250V isolation from the system ([DaqBoard](#) or [DaqBook](#)) and from other channels. A wide variety of solid-state modules are available to sense AC and DC signals and to switch AC and DC loads. An on-board switch setting allows users to determine the status of the digital outputs in the event of the loss/recovery of external power. When enabled, the loss of external power disables module outputs until the application program writes new values to the data bus. When disabled, the loss of power has no effect on the state of the outputs. Additionally, on-board logic disables module outputs upon detection of a CPU reset.

Up to 8 [DBK210](#) boards can be daisy chained (via multiple CA-37-x cables) providing expansion up to 256 digital I/O channels. Because of the [DBK210](#)'s on-board daisy-chain capability, only a single cable is necessary from the host ([DaqBoard](#) or [DaqBook](#)) to one of the [DBK210](#)s. For applications with both analog and digital I/O channel expansion requirements, the [DBK210](#) also has a P1 connector for attaching analog signals or expanding with analog [DBK](#) options (such as the [DBK207](#)).



Rack3™ Rack-Mount Kit

Rack-mount kit for the [DBK206](#), [DBK207](#), [DBK207/CJC](#), [DBK208](#), and [DBK209](#) signal termination and expansion boards.



DIN1™ & DIN2™ DIN-Rail Kit

Snap-track (DIN-rail) mounting kit for the [DBK206](#), [DBK207](#), [DBK207/CJC](#), and [DBK208](#) signal termination and expansion boards. Specify DIN2 for [DBK209](#) only.

