DBK207™ & DBK207/CJC™

16-Channel Isolated Analog Signal Conditioning

Compatibility: ✔ LogBook   ✔ DaqBook   ✔ DaqLab   ✔ DaqScan   ✔ DaqBoard/2000 Series

Features

- Accepts up to 16 5B-compatible isolated analog input modules*
- 500 VDC channel-to-channel and channel-to-system isolation
- Modules can be mixed in any combination to measure temperature, strain, volts, current, and frequency
- Per-channel screw terminals (14-22 AWG) for easy signal connection, cold-junction sensors for thermocouple applications (DBK207/CJC™), and socket for current resistors
- Up to 16 DBK207™ and/or DBK207/CJC boards can be daisy-chained supporting expansion to 256 isolated analog inputs
- Easily configured, without programming, with DaqView software
- Optionally rack and DIN-rail mountable
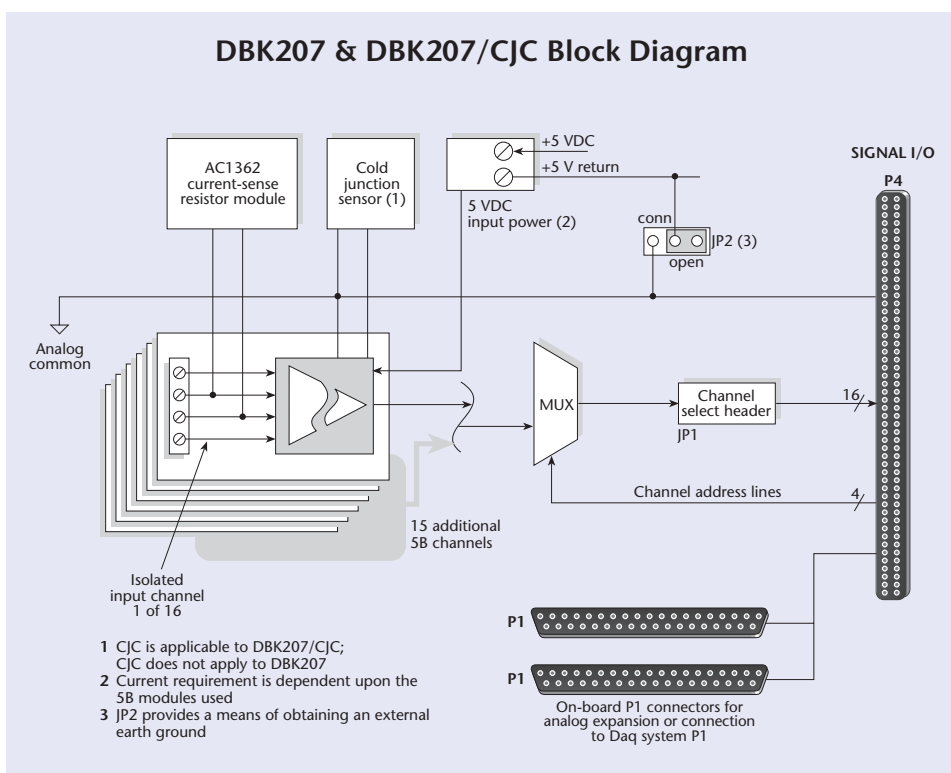- Requires +5 VDC power supply

The DBK207™ and DBK207/CJC™ signal conditioning and expansion boards can be configured, on a per channel basis, with up to 16 isolated 5B analog input modules. Both boards feature screw terminals per channel for the convenient connection of field signals as well as sockets for current conversion resistors*. The DBK207/CJC also includes per channel cold-junction compensation. This allows 5B thermocouple modules to output linearized and compensated values eliminating the need for any components apart from a user-supplied thermocouple.

Each user-configurable 5B signal conditioning module offers 500V isolation from the system and from other channels. A wide variety of analog input modules are available for measuring temperature (thermocouple and RTD), strain, volts, current, and frequency.

Up to 16 DBK207 and/or DBK207/CJC boards can be daisy chained (via multiple CA-37-x cables) providing expansion up to 256 analog input channels. For applications with both analog and digital I/O channel expansion requirements, the

The DBK207 and DBK207/CJC accept up to 16 isolated analog input modules of any type

DBK207 & DBK207/CJC Block Diagram

1 CJC is applicable to DBK207/CJC; CJC does not apply to DBK207
2 Current requirement is dependent upon the 5B modules used
3 JP2 provides a means of obtaining an external earth ground

DBK208, and DBK210 expansion boards are available. All DBK signal conditioning and expansion boards are scanned at 5 μs/channel.

The DBK207 and DBK207/CJC ship with panel-mount hardware but they can also be either DIN-rail or rack-mounted with optional mounting kits.

The DBK209 and DBK206 adapter boards are used to convert the 100-pin (P4) connector from the DaqBoard/2000 series boards to three expansion ports (P1, P2, and P3).
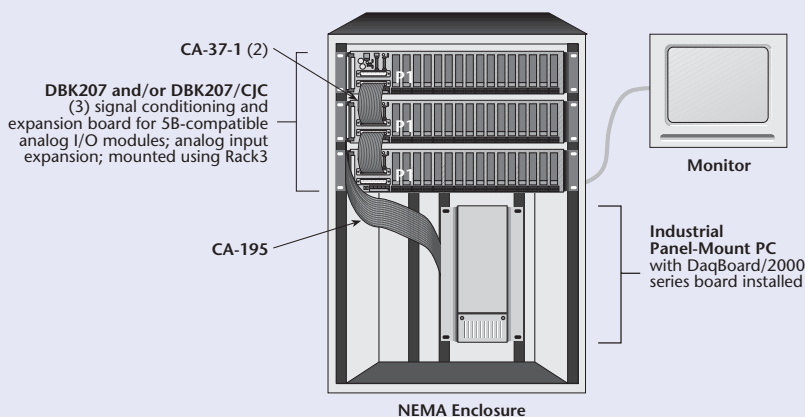

Rack3 rack-mount kit for the DBK207 and DBK207/CJC

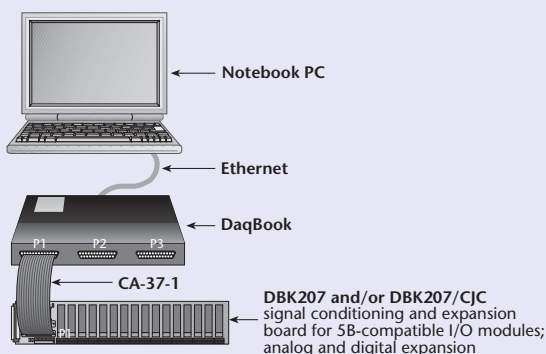* 5B modules must be purchased separately. All sales are final with no right of return.

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DBK207™ & DBK207/CJC™
Specifications & Ordering Information

DBK207 & DBK207/CJC Expansion Examples

CA-37-1 (2)

DBK207 and/or DBK207/CJC (3) signal conditioning and expansion board for 5B-compatible analog I/O modules; analog input expansion; mounted using Rack3

CA-195

Monitor

Industrial Panel-Mount PC with DaqBoard/2000 series board installed

NEMA Enclosure

Three DBK207 isolated analog signal conditioning and expansion boards (16 max) using Rack3 mounting option

Notebook PC

Ethernet

DaqBook

P1   P2   P3

CA-37-1

P1

DBK207 and/or DBK207/CJC signal conditioning and expansion board for 5B-compatible I/O modules; analog and digital expansion

The DaqBook/2000 with one DBK207 and/or DBK207/CJC isolated analog signal conditioning and expansion board (16 max)

Accessories

Description	Part No.
Rack-mount kit for DBK206, DBK207, DBK207/CJC, DBK208, DBK209, and DBK210 signal termination and expansion boards	Rack3
DIN-rail adapter kit for DBK206, DBK207, DBK207/CJC, DBK208, and DBK210 signal termination and expansion boards	DIN1
DIN-rail adapter kit for DBK209 signal termination and expansion board	DIN2
Optional hardcopy manual set (3); includes programmer's manual, DaqBoard/2000 & DaqBoard/2000c series user's manual, and DBK option cards & modules user's manual	1033-0900

Cables

Expansion-card cable for connecting DBK series expansion options; specify number of option cards (x) to be connected	CA-37-x
100-conductor expansion cable, mates with the DaqBoard/2000 series boards and the DBK200, DBK201, DBK202, DBK203, DBK206, DBK207, DBK207/CJC, DBK208, DBK209, and DBK210;	
3 ft expansion cable	CA-195
6 ft expansion cable	CA-195-6
Same as CA-195 with CE compliance; 3 ft.	CA-209

For complete information on accessories and cables, visit **www.iotech.com/acc**

Related Products

LogBook
DaqBook
DaqLab
DaqScan
DBK206
DBK209
5B Modules
DaqBoard/2000 Series

Specifications

Module Capacity: 16, input only, 5B modules
Cable (optional): CA-37-x and CA-195
DC Input Fuse: 3A, reset type
Power Requirement: 5 VDC, regulated
Operating Environment
  Temperature: 0˚C to 70˚C
  Relative Humidity: 95% RH, non-condensing
Connectors
  P4: 100-pin connector provides for connection to DaqBoard/2000 series P4 connector via a CA-195 cable
  P1: Two P1 (DB37) connectors provide connection to Daq system P1, and analog expansion via single CA-37-x cable or multiple CA-37-1 cables
  Screw Terminals: 16 sets of 4-connector blocks
Isolation (DC or AC Peak)
  Signal Inputs to Daq Device: 500V
  Input Channel-to-Channel: 500V
CJC: Cold-junction compensation, applicable to DBK207/CJC board only

Ordering Information

Description	Part No.
Termination and (parallel P1) expansion board with fixed screw terminals and sockets for up to 16 multiplexed 5B-compatible isolated analog input modules; provides direct connection for analog DBK signal conditioning and expansion options	DBK207
Same as DBK207 but with on-board, cold-junction compensation for thermocouple based measurements	DBK207/CJC
Termination and expansion board with removable screw terminals for access to all DaqBoard/2000 series I/O with direct connection for DBK signal conditioning and expansion options	DBK206
Expansion board for direct connection to DBK signal conditioning and expansion options	DBK209