



DBK23™

24-Channel Optically Isolated Digital-Input Module



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

Features

- Provides 24 isolated digital inputs
- Optically isolated inputs accept up to 30 VDC
- 500V channel-to-channel isolation
- 500V channel-to-system isolation
- Expandable to 192 digital lines

The DBK23™ is a 24-line digital-input module that provides isolated digital inputs for IOtech's data acquisition systems. The unit provides 500V of channel-to-channel and 500V of channel-to-system optical isolation, eliminating troublesome ground loops and protecting the data acquisition system from damage caused by accidental contact with high external voltages. Up to eight DBK23 modules can be connected to one system for a total of 192 digital inputs.

Applications. The DBK23 can monitor a range of 3 to 30 VDC inputs, making it especially suitable for applications such as process control or laboratory automation. The unit is capable of monitoring electrical devices such as proximity switches, thermostats, and limit switches. When used in conjunction with the DBK24™ isolated digital-output module, the DBK23 can monitor one segment of a process and the DBK24 can control another.

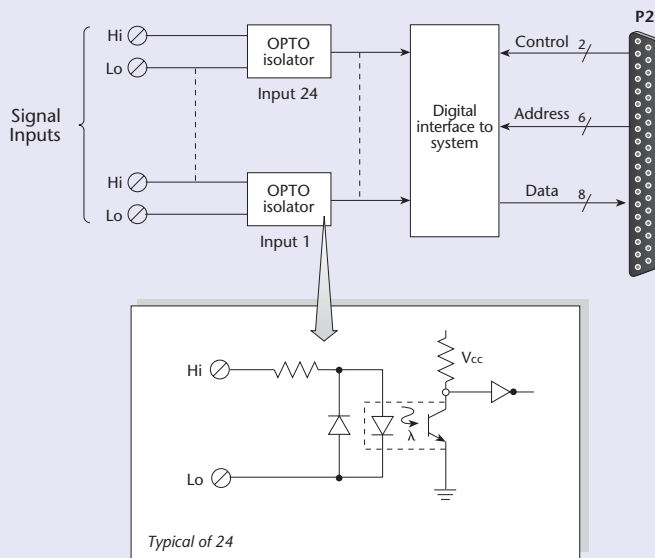
Connections. The DBK23 connects to a system's digital I/O connectors and uses the digital I/O lines as a communications bus. Thus, the lines on a system's digital I/O connectors are not user accessible when a DBK23 is in use. The DBK23 can be daisy-chained with other DBK digital I/O cards or modules via optional expansion cables. Signal connections to the DBK23 are made via screw terminals, which are conveniently located on its slide-out PC board.

Power. The DBK23 is equipped with an internal power supply and external AC adapter. It can also be powered from a DBK30A battery/excitation module, a 12 VDC car battery, or from any 9 to 24 VDC source.



The DBK23 adds 24 isolated digital inputs to the LogBook, DaqBook, DaqBoard/2000 series, and DaqScan

DBK23 Optically Isolated Digital-Input Module Block Diagram





DBK23™

Specifications & Ordering Information

Specifications

24 optically isolated digital-input channels readable in 8-bit groups

Connector: DB37 male, mates with P2*; screw terminals for signal outputs

Input Channel Ratings

Range: 3 to 30 VDC

Input Current: 1.5 to 15 mA

Operating Voltage Range: 9 to 24 VDC

Module Power Requirements: 0.25W; AC adapter included

120 VAC Adapter Supplied: 15 VDC @ 0.9A

Indicators: Local power and system power LED

Controls: Power on/off

Isolation Voltage

Channel-to-Channel: 500V

Channel-to-System: 500V

Channel Address: Set by dip-switch

Dimensions: 285 mm W x 221 mm D x 35 mm H (11" x 8.5" x 1.375")

Weight: 1.2 kg empty (3 lbs)

Power Consumption: 10 mW

Ordering Information

Description	Part No.
24-channel optically isolated digital-input module	DBK23

Accessories & Cables

Rack mount kit	RackDBK2
Shielded P2 T cable for use with DaqBook/2020, LogBook/360, and WBK40/41	CA-255-4T
Shielded P2 T cable for use with DaqBook/2001, DaqBook/2005, LogBook/300, DaqLab/2001, and DaqLab/2005	CA-255-2T
Ribbon cable for use with DaqScan	CA-37-x

Note: The CA-37-x ribbon cable can also be used in lieu of the CA-255-x molded T cables.

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

Related Products

LogBook	p. 75
DaqBook	p. 89
DaqLab	p. 103
DaqScan	p. 108
DBK20	p. 136
DBK21	p. 136
DBK24	p. 139
DaqBoard/2000 Series	p. 192

* Attachment to the DaqBoard/2000 series requires a DBK200, DBK201, DBK202, DBK203, DBK205, or DBK209 adapter