DBK24™

24-Channel Optically Isolated Digital-Output Module

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

Features

- **Provides 24 isolated digital outputs**
- **Optically isolated outputs up to 60 VDC**
- **500V channel-to-channel isolation**
- **500V channel-to-system isolation**
- **Expandable to 192 digital lines**

The DBK24™ is a 24-line digital-output module that provides isolated digital outputs for IOtech's data acquisition systems. The DBK24 provides 500V of channel-to-channel and 500V of channel-to-system optical isolation for complete system protection. This isolation protects the data acquisition system from damage caused by accidental contact with high external voltages and eliminates troublesome ground loops. Up to 8 DBK24 modules can be connected to one system for a total of 192 digital outputs.

Applications. The DBK24 is ideal for use in control applications. The unit can switch up to 60 VDC and is capable of operating devices such as solenoids, lamps, heaters, and motor controls.

Connections. The DBK24 connects to a system's P2 digital I/O connectors and uses the existing 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 DBK24 is in use. The DBK24 can be daisy-chained with other DBK digital I/O cards or modules via optional expansion cables. Signal connections to the DBK24 are made via screw terminals, which are conveniently located on its slide-out PC board.
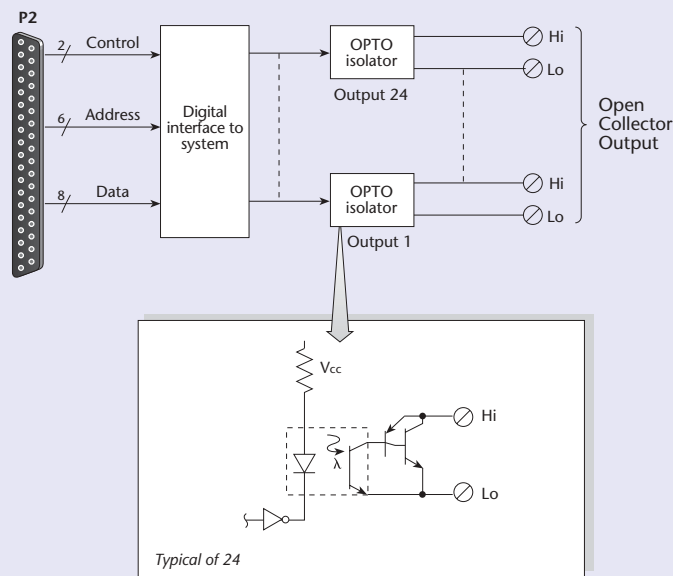
Power-On-Reset. The module features a power-on-reset function, allowing users to set the outputs to either on or off prior to start-up. Each power-up output state is determined by dip-switch settings prior to the first write command to the module.

Power. The DBK24 is equipped with an internal power supply and external AC adapter. It can also be powered from a DBK30A battery module, a 12V car battery, or from any 9 to 24 VDC source.

The DBK24 adds 24 isolated digital outputs to the LogBook, DaqBook, DaqBoard/2000 series, and DaqScan

DBK24 Optically Isolated Digital-Output Module Block Diagram

DBK24™
Specifications & Ordering Information

Specifications

24 optically isolated digital-output channels programmable in 8-bit groups

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

Output Channel Ratings
  Maximum Current/Channel: 1A
  Voltage Drop @ 1A and 25˚C: 1V
  Maximum Open Circuit Voltage: 60 VDC
  Off-State Leakage: 10 µA

Module Power Requirements: 1.5W; AC adapter included

120 VAC Adapter Supplied: 15 VDC @ 0.9A

Indicators: Local power and system power LED

Controls: Power on/off

Power-On-Reset State: Following power-up, the state of each output is determined by dip-switch settings prior to first write command to the module

Isolation Voltage
  Channel-to-Channel: 500V
  Channel-to-System: 500V
  Channel Address: Set by dip-switch

Maximum Module Power Dissipation:
  @ 25˚C   12W
  @ 50˚C   6W

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

Weight: 1.3 kg empty (3 lbs)

Power Consumption: 10 mW

Ordering Information

Description	Part No.
24-channel optically isolated digital-output module	DBK24

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

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

PC Data Acquisition Hardware