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 eight 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.

**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 adds 24 isolated digital outputs to the LogBook, DaqBook, DaqBoard/2000 Series, and DaqScan.
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
Output Channel Ratings
- 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: 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.
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24-channel optically isolated digital-output module | DBK24

Accessories & Cables
- Rack mount kit | RackDBK2
- Molded T expansion cable; 2 in. | CA-255-2T
- Molded T expansion cable; 4 in. | CA-255-4T
- Ribbon cable, where x is the number of DBK devices attached | CA-37-x

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

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

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