

# Model 3830

## Multiplexer



### FEATURES

- ◆ Six BNC connectors for inputs and/or outputs
- ◆ Reed-relay DPST switching
- ◆ LED indicators show relays that are energized
- ◆ Complete with software for control from Win98/2000/XP
- ◆ USB interface for power and control
- ◆ ActiveX control for use with LabVIEW, C++, Visual Basic and VBA

### APPLICATIONS

- ◆ Input and output signal multiplexing
- ◆ Computerized test systems

### DESCRIPTION

The Model 3830 Multiplexer (mux) makes it easy to implement computer-selected interconnections between different instruments. Six floating BNC connectors can be used as either inputs or outputs and are coupled to one of two common buses via DPST reed-relay switches. This ensures that both inner and outer parts of the connector are isolated when the relevant relay is not energized. The two buses can also be connected together via a seventh "bridge" reed relay, allowing operation either as two, two-input, one-output muxes or as a five-input, one-output mux.

The module is powered and controlled directly from the PC's USB port. The supplied software, suitable for the majority of users offers a convenient panel that allows switching patterns to be set up graphically, as well as being saved to and recalled from disk. An ActiveX control is also provided, offering an easy way to operate the model 3830 from LabVIEW, Visual Basic, Visual C++, Excel or other ActiveX-enabled languages.

### Specifications

#### General

Six way input/output multiplexer offering isolated switching via reed relays. Power and control via USB and supplied software. ActiveX control included.

#### Inputs/Outputs

Connectors	BNC, no internal load
Switches	Reed relay, DPST
Max Voltage	50 V between BNC inners and outers and from BNC to ground

Max Current	200 mA
Contact Resistance	< 0.15 $\Omega$

#### Switching

Six DPST relays connect A, B, C to bus 1 and D, E, F to bus 2. Seventh "bridge" relay connects bus 1 to bus 2

#### Indicators

LED indicates when corresponding relay is energized

#### USB Connector

Rear-panel, female USB connector for connection to the PC or a USB hub.

#### General

##### Power Requirements

Voltage	<500 mA @ +5 V DC, supplied via USB
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##### Dimensions

Width	5½" (134 mm)
Depth	4½" (114 mm)
Height	1¼" (32 mm)

Weight	9.9 oz (280 g)
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#### Software

A full applications package for Windows 98/2000/XP allowing any switching combination to be set up graphically is provided. Patterns can be saved and recalled from disk. ActiveX control also included for use with compatible programming languages.