REL-16, -16/W



- 6 Form A (SPST-NO) relays
- 500mA current rating (REL-16)
- 1A current rating (REL-16/W)
- Rhodium plated contacts available (REL-16/W)
- 32-bit DriverLINX drivers plus a suite of bundled software including ExceLINX, VisualSCOPE, TestPoint, and LabVIEW drivers

Ordering Information

REL-16	16-Channel SPST Amalgam Relay Board
REL-16/W	16-Channel SPST Mercury Wetted Relay Board

APPLICATIONS

Control switching
Analog multiplexing
Lighting control
Alarm control

500mA/1A SPST Relay Output Board

Keithley's REL-16 is an inexpensive 16-channel SPST Form A relay board for use with ISA-bus compatible computers. It is often used to control switching and analog multiplexing. The REL-16 is easily installed in any I/O slot inside the computer, while I/O connections are made through a 37-pin D connector at the rear of the computer.

The 16 electromechanical relays are available in two types. The REL-16 includes dry contact relays which are rated to 0.5A (resistive). The REL-16/W contains mercury wetted relays with a lower contact resistance and up to a 1A rating (resistive). Note that the REL-16 relays are insensitive to position, and can be mounted in any orientation, while the mercury wetted relays in the REL-16/W require that the board be mounted within 30° of vertical.

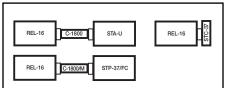
The REL-16 is configured as two independent 8-bit ports (A and B). Controlling the relays is as simple as writing an 8-bit word to either of the ports. A power-up reset has been implemented to insure that all relays stay in their power-off (open) state when power is first applied to the host computer. The relay output ports can be read back to determine the current state of the relays. This is a useful feature if you want to switch one relay without disturbing the others. +5V power is brought out from the computer and can be used to power external devices.

Connector Pin Assignments

All I/O connections to the REL-16 are made through a standard male 37-pin D connector. Connections to the board may be made through a mating D connector (part number SFC-37).

REL A0 19 37 REL A0 REL A1 18 37 REL A1 REL A1 17 35 REL A1 REL A3 16 34 REL A3 REL A4 15 34 REL A4 REL A5 14 32 REL A4 REL A6 13 31 REL A6 REL A7 12 31 REL A7 REL B1 10 29 REL B1 REL B2 9 27 REL B1 REL B3 8 26 REL B1 REL B4 7 25 REL B4 REL B5 6 24 REL B5 REL B7 4 22 REL B7 N/C 2 21 PWR COM N/C 2 21 PWR CM N/C 2 1 90		
	REL A1 18 37 REL A2 17 36 REL A3 16 35 REL A4 15 34 REL A5 14 32 REL A6 13 31 REL A7 12 31 REL B0 11 30 REL B1 10 28 REL B2 9 27 REL B3 8 27 REL B5 6 24 REL B5 6 24 REL B6 5 24 REL B7 4 22 N/C 3 21 N/C 2 21	REL A1 REL A2 REL A3 REL A4 REL A5 REL A6 REL B7 REL B1 REL B2 REL B3 REL B4 REL B5 REL B6 REL B7 PWR COM COMPUTER

Configuration Guide



ACCESSORIES AVAILABLE

C1800	REL-16 to STA-U Cable	
C1800/M	REL-16 to STP-37/FC Cable	
MS-REL-16	Upgrade to latest version of DriverLINX soft- ware and hardware manuals for REL-16	
SFC-37	Mating 37-Pin Connector	
STA-U	Universal Screw Terminal Accessory	
STC-37	Direct Screw Terminal Connector	
STP-37/FC	Screw Terminal Panel with female D37 connector	
TESTPOINT	TestPoint Software Package	

Specifications

RELAY OUTPUTS QUANTITY: 16 Form A (SPST-NO). OPERATION TIME: 2.0ms max. ISOLATION RESISTANCE: 10^oΩ @ 100VDC. VOLTAGE HOLDOFF COIL-CONTACT: 1500VDC, 25°C, 40% relative humidity.

CONTACT RATINGS REL-16/W

CONTACT TYPE: Mercury wetted (position sensitive, board must be mounted ±30 degrees of vertical).

- **CONTACT RATING:** 50W max. at 1A or 125Vrms (resistive). **CONTACT RESISTANCE:** 50mΩ max. initial.
- CONTACT LIFE: 107 operations at rated load.

CONTACT RATINGS REL-16

CONTACT TYPE: Dry. CONTACT RATING: 10W max. at 0.5A or 125V rms (resistive). CONTACT RESISTANCE: $100m\Omega$ max, initial. CONTACT LIFE: 10⁷ operations at rated load.

ENVIRONMENTAL

OPERATING TEMP.: 0° to 60°C.

STORAGE TEMP.: -40° to 100°C.

- HUMIDITY: 0 to 90%, non-condensing.
- MOUNTING: The REL-16/W must be mounted within 30° of vertical. The REL-16 can be mounted at any angle.
- EMC: Conforms to European Union Directive 89/336/EEC.
- **SAFETY:** IEC Installation Category I. (Voltage source must be isolated from the mains by a transformer.).

DIMENSIONS: 9.0in L × 4.25in × 0.85in D (22.9cm × 10.8cm × 2.2cm).

Inexpensive 16-channel SPST Form A relay board

•	Motor	starter	control	

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