PC-B/PCI SERIES MODULES

The PC-B Series Modules plug into PC/AT/XT Compatible ISA Bus slots. The PCI Modules plug into PCI slots. Both are available as either Switch Modules or Driver Modules. The modules can be controlled either by direct hardware port access or by installable Device Drivers. PCI Modules come with Plug and Play device drivers. Software support is available for the most common program languages.

The modules also have a special Status feedback feature which enables the computer to confirm that the correct selections have been made by checking the relay drive. This can be used to self test the modules or as a diagnostic tool.

PC-B SERIES SWITCH MODULES

Each Module has 16 high reliability reed relays with operate times less than 2 msec and guaranteed for 100 million operations. Relay options offered are Standard Dry Reed, Mercury Reeds for high current and Low Offset Reeds for microvolt signal levels.

The Signal Input connector in each module is a 37 pin male D type connector and mates are available for Ribbon Cable wiring or for individual Crimp Pin wiring. External screw terminal blocks are optionally available.

All modules have Status feedback and LEDs associated with each relay for visual indication of the relays energized.

Power Requirement

PC-B/MUX 16 SWITCH MODULE

This module has 16 two pole relays as shown in Fig. 1 with selection of any one of 16 inputs to one output and Break before Make Switching. Only one relay may be selected at any time.

Bandpass -- With 50 ohm terminations, the bandpass is flat to within 1 dB from DC to 10 MHz and is within 3 dB up to 70 MHz.

Isolation between Inputs to Outputs across unused channels with 50 ohm terminations is as follows:

<table>
<thead>
<tr>
<th>Frequency (kHz)</th>
<th>Isolation (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>100</td>
<td>70</td>
</tr>
<tr>
<td>1</td>
<td>50</td>
</tr>
</tbody>
</table>

Relays can be supplied with Type S, Type M, Type MG, or Type LT contacts. Type M versions must be operated in a vertical position.

PC-B/K16 SWITCH MODULE

This module has 16 single pole discrete Form A relays as shown in Fig. 2. Any number of the relays may be latched simultaneously. Relays may be wired externally in any required configuration.

Bandpass -- With 50 terminations, the bandpass is from DC to 30 MHz.

Isolation -- With 50 terminations, the isolation between channels is as follows:

<table>
<thead>
<tr>
<th>Frequency (kHz)</th>
<th>Isolation (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>100</td>
<td>70</td>
</tr>
<tr>
<td>1</td>
<td>50</td>
</tr>
</tbody>
</table>

Relays can be supplied with Type S, Type M Relays or Type MG contacts. Type M versions must be operated in a vertical position.
**PC-B/2(8x1) SWITCH MODULE**

The PC-B/2 (8x1) Switch Module is a general purpose module which can be used in either Matrix or Multiplexer applications. It has 16 two pole relays configured as two separate 8x1 two wire Multiplexers as shown in Fig. 3 which can be jumpered as one 16x1 two wire Multiplexer.

**Bandpass**
With 50 ohm terminations, the bandpass is from DC to 30 MHz.

**Isolation**
With 50 ohm terminations, the isolation between channels is:
- 10 kHz - 90 dB
- 100 kHz - 70 dB
- 1 MHz - 50 dB

Relays can be supplied with Type S, Type M or Type LT contacts. Type M versions must be operated in a vertical position.

**RELAY SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Contact Rating</th>
<th>Switching Voltage</th>
<th>Switching Current</th>
<th>Carry Current</th>
<th>Operate Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type S &amp; LT</td>
<td>10 VA</td>
<td>200 V</td>
<td>0.5 A</td>
<td>1.0 A</td>
<td>&lt;1Ms</td>
</tr>
<tr>
<td>Type M</td>
<td>50 VA</td>
<td>500 V</td>
<td>1.0 A</td>
<td>2.0 A</td>
<td>&lt;2Ms</td>
</tr>
<tr>
<td>Type MG</td>
<td>30 VA</td>
<td>1000 V</td>
<td>0.75 A</td>
<td>2.0 A</td>
<td>&lt;2Ms</td>
</tr>
</tbody>
</table>

**PC-B DRIVE MODULES**

There are two basic types of Modules: the PC-B/24 Relay Driver Module, and the IF-PC TTL Compatible Input/Output Module. Both Modules are half slot size and have 37 pin female D type connectors. Mates are available for ribbon cable or crimp pin type wiring.

**PC-B/24 DRIVER MODULE**

This Module has 24 separate relay drivers which can be used to select and control CYTEC Switch Modules or any other types of relays. The 24 Relay drivers are in three groups of eight high voltage, high current Darlontons with open collector outputs and integral suppression diodes. Any number of these drivers can be selected at any time and the Status of the drivers selected can be verified by the computer.

Each driver can operate on different voltages up to a maximum of 50 volts and current up to 500 mas, with a maximum of 1500 mas within any group of 8 drivers.

**ENVIRONMENT**

Operating Temperature: 0° to 55° C.
Storage Temperature: -20° to 70° C.
Humidity: Less than 95% RH, no condensation to 30° C.

**FOR TECHNICAL ASSISTANCE,**
**CONTACT 1-800-346-3117 or WWW.CYTEC-ATE.COM**