The 40-184 supports 6 off high current SPST switches into two PXI slots or 3 off high current SPST switches into one PXI slot. Each SPST switch uses a fully isolated solid state relay which has been designed to offer fast operation under hot switching conditions and high inrush current with no operational life degradation.

Each SPST switch can support 25A of continuous current and switch up to 100V signals. The switch can sustain inrush currents of up to 90A. AC or DC signals can be switched since the switch is polarity insensitive.

The 40-184 is particularly well suited to automotive and aerospace applications where the switching of high capacity loads is required. The module is supplied with a comprehensive package of drivers, including support for selected RT operating systems.

**Relay Type**

The 40-184 is fitted with solid state MOSFET switches.
Switching Specification

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Solid State MOSFET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Relay State:</td>
<td>Open with or without power applied</td>
</tr>
<tr>
<td>Max Switch Voltage:</td>
<td>±100V (DC or AC peak)</td>
</tr>
<tr>
<td>Continuous Switch Current:</td>
<td>25A, all channels simultaneously</td>
</tr>
<tr>
<td>Peak Current:</td>
<td>90A for 200μs</td>
</tr>
<tr>
<td>Max Total Module Current:</td>
<td>6 channels each carrying 25A</td>
</tr>
<tr>
<td>Initial Path Resistance - On</td>
<td>&lt;40mΩ at 25°C typical</td>
</tr>
<tr>
<td>Leakage Current:</td>
<td>&lt;1μA at 25°C</td>
</tr>
<tr>
<td>Rise/Fall Time:</td>
<td>&lt;5μs typical</td>
</tr>
<tr>
<td>Operate Time:</td>
<td>20μs</td>
</tr>
<tr>
<td>Maximum Operating Speed:</td>
<td>1845 cycles / sec (100VDC, 1.3A)</td>
</tr>
<tr>
<td></td>
<td>1848 cycles / sec (25VDC, 25A)</td>
</tr>
<tr>
<td>Expected Life (operations):</td>
<td>Indefinite when used within ratings</td>
</tr>
</tbody>
</table>

Power Requirements

<table>
<thead>
<tr>
<th>Voltage</th>
<th>+3.3V</th>
<th>+5V</th>
<th>+12V</th>
<th>-12V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>300mA</td>
<td>550mA</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Mechanical Characteristics

40-184-001: Double slot 3U PXI (CompactPCI card).
40-184-002: Single slot 3U PXI (CompactPCI card).
3D models for all versions in a variety of popular file formats are available on request.

Connectors

PXI bus via 32-bit P1/J1 backplane connector.
40-184-001: Signals via 2 front panel mounted 8-way male power D-type connectors.
40-184-002: Signals via 1 front panel mounted 8-way male power D-type connector.

For pin outs please refer to the operating manual.

Product Order Codes

| 6-Channel 25A 100V Solid State SPST: | 40-184-001 |
| 3-Channel 25A 100V Solid State SPST: | 40-184-002 |

Mating Connectors & Cabling

For connection accessories for the 40-184 please refer to the 90-012D 8-way power D-type Connector Accessories data sheet where a complete list and documentation can be found for accessories, or refer to the Connections Solutions catalog.
Programming
Pickering provide kernel, IVI and VISA (NI and Agilent) drivers which are compatible with 32/64-bit versions of Windows including XP, Vista, 7 and 8 operating systems. The VISA driver is also compatible with Real-Time Operating Systems such as LabVIEW RT. For other RTOS support contact Pickering. These drivers may be used with a variety of programming environments and applications including:

- National Instruments products (LabVIEW, LabWindows/CVI, Switch Executive, MAX, TestStand, etc.)
- Microsoft Visual Studio products (Visual Basic, Visual C+)
- Agilent VEE
- Marcin ATE Easy
- Tecap Switching

Drivers for popular Linux distributions are available, other environments are also supported, please contact Pickering with specific enquiries.

Operating/Storage Conditions
Operating Conditions
- Operating Temperature: 0°C to +55°C
- Humidity: Up to 90% non-condensing
- Altitude: 5000m

Storage and Transport Conditions
- Storage Temperature: -20°C to +75°C
- Humidity: Up to 90% non-condensing
- Altitude: 15000m

Latest Details
Please refer to our Web Site for Latest Product Details.
www.pickeringtest.com

Ever wondered what PXI is all about? Pickering Interfaces’ “PXImate” explains the basics of PXI and provides useful data for engineers working on switch based test systems. The PXImate is available free on request from the Pickering website.

The “Cables & Connectors Map” - outlines the cable and connector options available for all PXI Modules.

The “PXI Module Map” - a simple fold-out selection guide to all Pickering’s 1000+ PXI Modules.

The “Big PXI Catalog” gives full details of Pickering’s entire range of PXI switch modules, instrument modules and support products. At over 500 pages, the Big PXI Catalog is available on request or can be downloaded from the Pickering website.

Please refer to the 200 page Pickering Interfaces “Connection Solutions” catalog for the full list of connector/cabling options, including drawings, photos and specifications. Available in either print or as a download. Alternatively our web site has dynamically linked connector/cabling options, including pricing, for all Pickering PXI modules.

PXI & CompactPCI Compliance
The module is compliant with the PXI Specification 2.2. Local Bus, Trigger Bus and Star Trigger are not implemented. Uses 33MHz 32-bit backplane interface.

Safety & CE Compliance

PXI & LXI Chassis Compatibility
Compatible with all chassis conforming to the 3U PXI and 3U cPCI specification. Compatible with Legacy and Hybrid peripheral slots in a 3U PXI Express chassis. Compatible with Pickering Interfaces LXI Modular Chassis. For information on driving your switching solution in an LXI environment refer to the LXI Product Catalog.