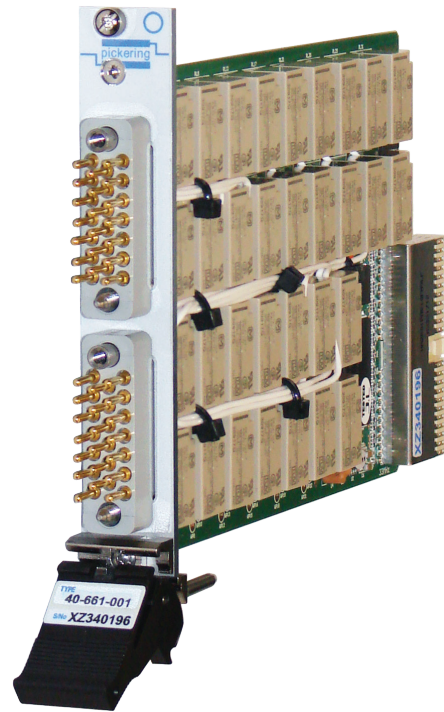


## 40-661

### High Density 10A Power Multiplexer

- High Density, High Current Switching
- 1-Pole Power Multiplexer Available as 8-Bank 4-Channel, 5-Bank 6-Channel, 4-Bank 8-Channel, 2-Bank 16-Channel or 1-Bank 32-Channel
- 3 Half Density Options
- 10A Current Rating With 300W/2500VA Maximum Power
- Hot Switch to 125VDC/250VAC, Cold Switch to 400VDC/250VAC
- High Quality Electro-mechanical Relays
- VISA, IVI & Kernel Drivers Supplied for Windows XP/Vista/7/8
- Supported by PXI or LXI Chassis
- 3 Year Warranty



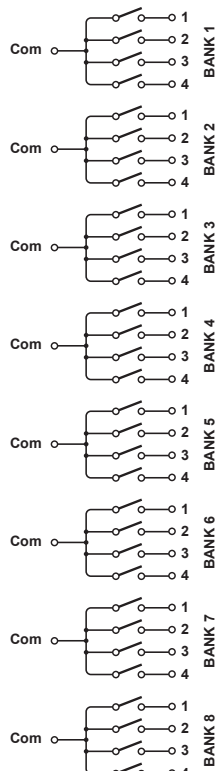
The 40-661 is a single pole power multiplexer module, suitable for switching inductive/capacitive loads up to 10A with 125VDC/250VAC hot switching and 400VDC/250VAC cold switching. The multiplexer is available in 8-bank 4-channel, 5-bank 6-channel, 4-bank 8-channel, 2-bank 16-channel and 1-bank 32-channel formats. Also, 4-bank 4-channel, 2-bank 8-channel and 1-bank 16-channel half density configurations are available.

Signal connections are made via front panel mounted 20-way GMCT plugs.

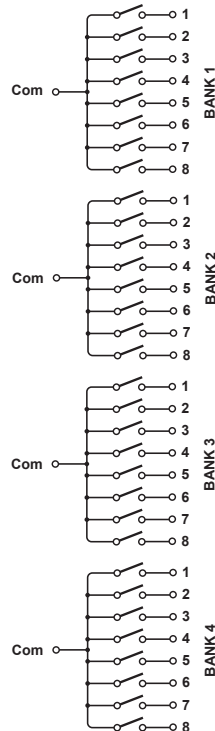
Power multiplexer modules are intended for switching heavy AC or DC loads or for slaving large external relays, contactors and solenoids. The module is suitable for applications requiring switching of either mains voltage or direct current.

#### Power Relay Type

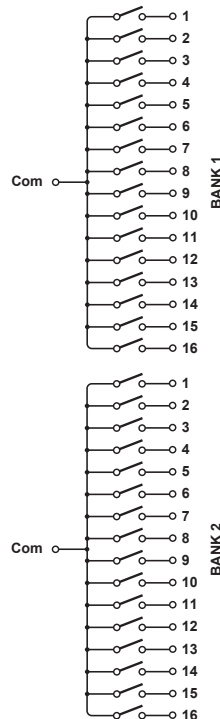
The 40-661 is fitted with high quality electro-mechanical power relays, gold-flash over silver alloy.



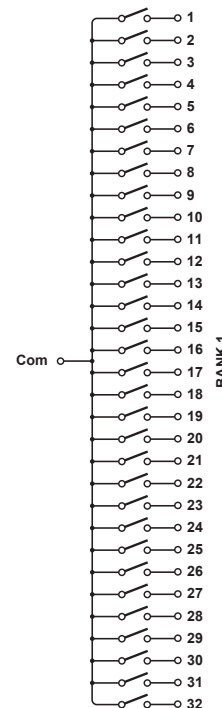
**40-661-001**  
8-Bank 4-Channel,  
1-Pole MUX



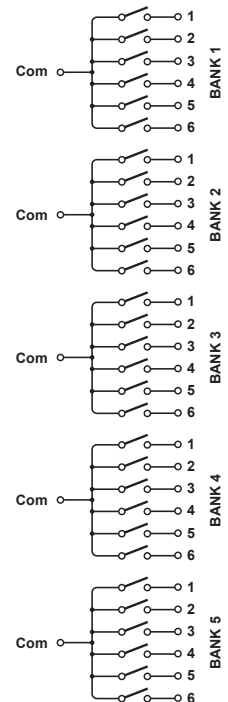
**40-661-002**  
4-Bank 8-Channel,  
1-Pole MUX



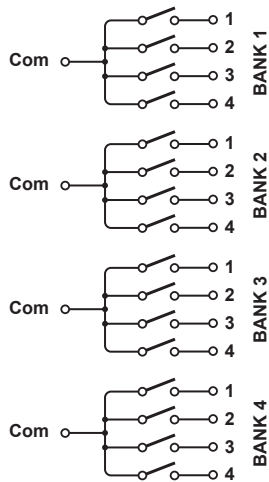
**40-661-003**  
2-Bank 16-Channel,  
1-Pole MUX



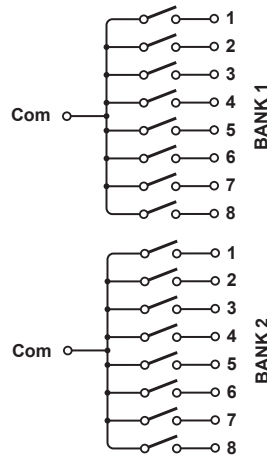
**40-661-004**  
1-Bank 32-Channel,  
1-Pole MUX



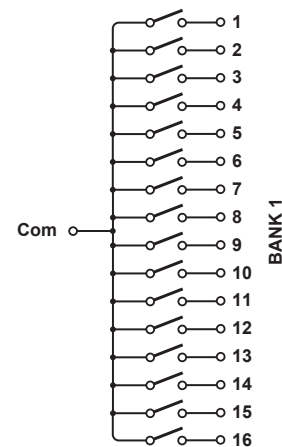
**40-661-005**  
5-Bank 6-Channel,  
1-Pole MUX



**40-661-101 Half Density  
4-Bank 4-Channel, 1-Pole MUX**



**40-661-102 Half Density  
2-Bank 8-Channel, 1-Pole MUX**



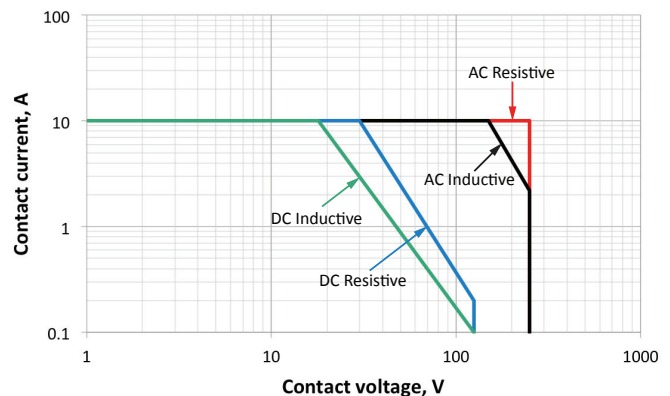
**40-661-103 Half Density  
1-Bank 16-Channel, 1-Pole MUX**

### Switching Specification

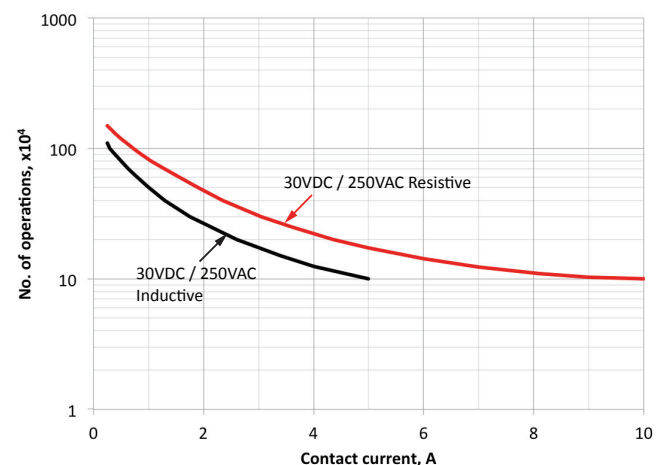
Contact Type:	Gold flash over silver alloy
Cold Switching Capacity	
Maximum Current:	10A
Maximum Voltage:	400VDC/250VAC
Hot Switching Capacity	
Maximum Current:	10A
Maximum Voltage:	125VDC/250VAC
Maximum Power:*	300W/2500VA
Min. Switching Capacity:	10mA, 5VDC
Typical Pulse Capability:	Cold Switch 20A for 100ms under low duty cycle conditions (please contact sales office for further advice)
Max Continuous Total Switch Path Loading:	All multiplexer banks capable of carrying 10A at the same time.
Initial Path Resistance, On:	<50mΩ at 10A
Path Resistance, Off:	>10 <sup>9</sup> Ω
Bandwidth:	10MHz
Operate Time:	10ms typical
Expected Life (operations)	
- resistive load †	
Mechanical Life:	>5x10 <sup>7</sup>
At Max. Switch Capacity:	>1x10 <sup>5</sup>

\* For variation of maximum hot switching capacity of voltage with current refer to plot.

† Note: As switch life deteriorates rapidly when hot switching signals above 30VDC, it is advisable to only cold switch above this level.



**40-661 Maximum Hot Switch Voltage Versus Current**



**40-661 Current/Operating Life Curve  
Under Hot Switch Conditions**

## Power Requirements

+3.3V	+5V	+12V	-12V
0.17A	0	0.15A	0

## Mechanical Characteristics

Single slot 3U PXI (CompactPCI card).

3D models in a variety of popular file formats are available on request.

## Connectors

PXI bus: 32-bit P1/J1 backplane connector.

Signal connections: Two (standard configurations) or one (half density configurations) 20-way male GMCT connectors.

## Mating Connectors & Cabling

For connection accessories for the 40-661 module please refer to the [90-014D](#) 20-way GMCT Connector Accessories data sheet where a complete list and documentation can be found for accessories, or refer to the Connections Solutions catalog.

## Product Order Codes - Standard Configurations

10A Power MUX, 8-Bank, 4-Channel, 1-Pole	<b>40-661-001</b>
10A Power MUX, 4-Bank, 8-Channel, 1-Pole	<b>40-661-002</b>
10A Power MUX, 2-Bank, 16-Channel, 1-Pole	<b>40-661-003</b>
10A Power MUX, 1-Bank, 32-Channel, 1-Pole	<b>40-661-004</b>
10A Power MUX, 5-Bank, 6-Channel, 1-Pole	<b>40-661-005</b>

## Product Order Codes - Half Density Configurations

10A Power MUX, 4-Bank, 4-Channel, 1-Pole	<b>40-661-101</b>
10A Power MUX, 2-Bank, 8-Channel, 1-Pole	<b>40-661-102</b>
10A Power MUX, 1-Bank, 16-Channel, 1-Pole	<b>40-661-103</b>

## Support Products

### Spare Relay Kits

Kits of replacement relays are available for the majority of Pickering's PXI switching modules, simplifying servicing and reducing down-time.

The relay kit for the 40-661 range is as follows:

**Kit 71** (part no. 91-100-071) for 40-661-001/002/003/004 and 40-661-101/102/103

For further assistance, please contact your local Pickering sales office.



**20 Way GMCT  
Power Connector, type  
40-960-020**

## 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**
- **Mathworks Matlab**
- **Geotest ATE Easy**
- **MTQ Testsolutions Tecap**

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

## 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

All modules are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2001, EMC Immunity EN61000-6-1:2001, Emissions EN55011:1998.

## 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.



## Latest Details

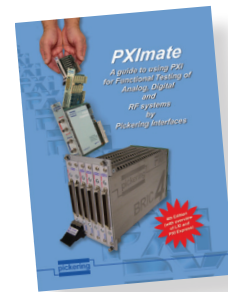
Please refer to our Web Site for Latest Product Details.  
[www.pickeringtest.com](http://www.pickeringtest.com)



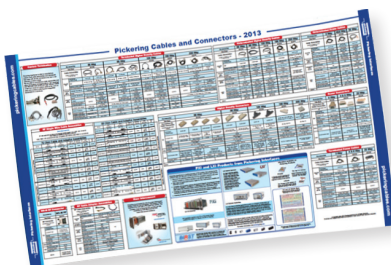
Please refer to the 200 page Pickering Interfaces **"Connection Solutions"** catalog for the full list of connector/cabling options, including drawings, photos and specifications. Available in either print or as a download. Alternatively our web site has dynamically linked connector/cabling options,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



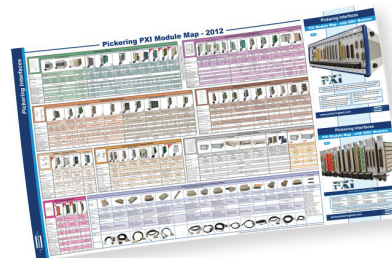
**"The Big PXI Catalog"** gives full details of Pickering's entire range of PXI switch modules, instrument modules and support products. At over 500 pages, the Big PXI Catalog is available on request or can be downloaded from the Pickering website.



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 600+ PXI Modules.