

- Single Pole Power Matrix
   Available in a Variety of Configurations
- 10A Current Rating WIth 300W/2500VA Maximum Power
- Hot Switch to 125VDC/250VAC, Cold Switch to 400VDC/250VAC
- Uses Electro-Mechanical Power Relays
- 1U Rack Mountable Enclosure
- LXI Standard 1.4 Compliant
- IVI & Direct I/O Drivers
- 3 Year Warranty

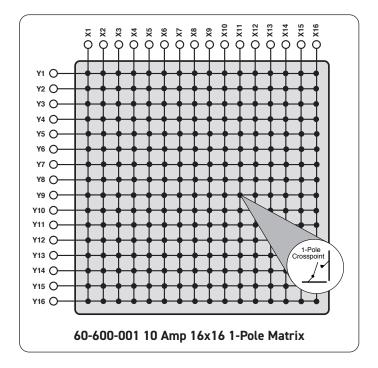
The 60-600 is a high power single pole matrix suitable for power signal routing in large ATE systems. It is available with a selection of X and Y sizes as well as partially populated configurations. Connections to the X and Y buses are via 8-pin power D-type connectors.

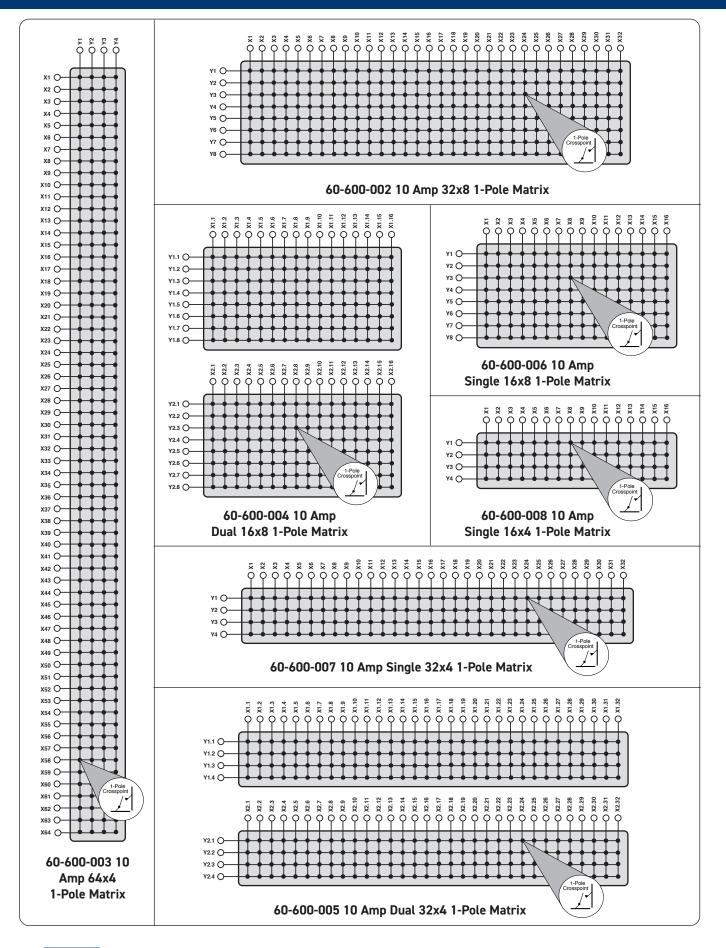
The matrix configurations are as follows:

- 60-600-001 Single 16x16 1-Pole Matrix
- 60-600-002 Single 32x8 1-Pole Matrix
- 60-600-003 Single 64x4 1-Pole Matrix
- 60-600-004 Dual 16x8 1-Pole Matrix
- 60-600-005 Dual 32x4 1-Pole Matrix
- 60-600-006 Single 16x8 1-Pole Matrix
- 60-600-007 Single 32x4 1-Pole Matrix
- 60-600-008 Single 16x4 1-Pole Matrix

It is designed in accordance with the LXI Standard 1.4 and is supplied in a 1U high, full rack width case with 500mm depth. It is programmable via the LAN interface using Pickering Interfaces generic switch driver. Standard (W3C) web browsers can be used to access and change configuration information and provide access to the soft front panels.

The 60-600 is ideal for applications where a simple start-up process is required and for applications requiring control over large distances.





#### Power Relay Type

The 60-600 is constructed with high quality electro-mechanical power relays. 4 spare relays are included inside the unit to allow easy maintenance with minimum downtime.

## **Switching Specification**

Switch Type	Electro-mechanical	
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	
Minimum Switching Capacity:	10mA, 5VDC	
Initial On Path Resistance:	<100mΩ (50mΩ typical)	
Off Path Resistance:	>10°Ω	
Operate Time:	10ms typical	
Expected Life (operations) ‡		
Mechanical Life:	>5x10 <sup>7</sup>	
At Max Hot Switch Capacity:	>1x10 <sup>5</sup>	

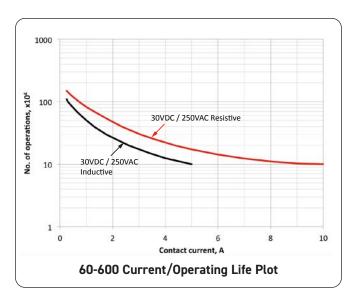
<sup>\*</sup> For full voltage rating, signal sources to be switched must be fully isolated from mains supply and safety earth.

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

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

#### **Power Source**

Universal AC mains supply, 90-120/200-240V 50-60Hz		
Power Inlet:	Male IEC connector	
Power Rating:	100VA maximum	
Fuse Rating:	2.5A, 250V	



#### LAN Interface

Compliant to LXI Standard 1.4, the 60-600 has a 1000Base-T Ethernet Interface via a standard RJ-45 connector mounted on the rear panel with an LCD display showing the unit's IP address.\*

\*Note: Legacy units may not have 1000Base-T support or be fitted with an LCD display.

#### **Mechanical Characteristics**

Supplied with front panel ears to enable rack mounting on a shelf or other rear support mechanism.

Dimensions: 1U high, full rack width, 500mm depth

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

#### Connectors

- X connections via 8-pin male power D-types.
- · Y connections via 8-pin male power D-types.

(The number of connectors depends upon the total X and Y sizes of the matrix).

For pin outs please refer to the operating manual.

## Operating/Storage Conditions

#### **Operating Conditions**

Operating Temperature: 0°C to +55°C

Humidity: Up to 90% non-condensing

Altitude: 5000m

Storage and Transport Conditions

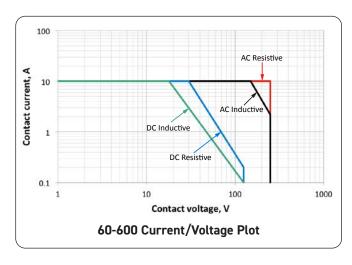
Storage Temperature: -20°C to +75°C

Humidity: Up to 90% non-condensing

Altitude: 15000m

#### Safety & CE Compliance

All products are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2010, EMC Immunity EN61326-1:2013, Emissions EN55011:2009+A1:2010.



#### **Product Order Codes**

LXI 10A 1-Pole Matrix, Single 16x16	60-600-001
LXI 10A 1-Pole Matrix, Single 32x8	60-600-002
LXI 10A 1-Pole Matrix, Single 64x4	60-600-003
LXI 10A 1-Pole Matrix, Dual 16x8	60-600-004
LXI 10A 1-Pole Matrix, Dual 32x4	60-600-005
LXI 10A 1-Pole Matrix, Single 16x8	60-600-006
LXI 10A 1-Pole Matrix, Single 32x4	60-600-007
LXI 10A 1-Pole Matrix, Single 16x4	60-600-008

#### **Product Customization**

Pickering LXI units are designed and manufactured on our own flexible manufacturing lines, giving complete product control and enabling simple customization to meet very specific requirements.

Customization can include:

- · Alternative relay types
- · Mixture of relay types
- · Alternative number of relays
- · Different performance specifications

All customized products are given a unique part number, fully documented and may be ordered at any time in the future. Please contact your local sales office to discuss.

### **Support Products**

#### Spare Relay Kits

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

Product Relay Kit 60-600 - All Versions 91-100-085

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

### Mating Connectors & Cabling

For connection accessories for the 60-600 please refer to the 90-012D 8-pin Power D-type Connector Accessories data sheet where a complete list and documentation can be found for accessories, or refer to the Connection Solutions catalog.

### **Connectivity Solutions**

We provide a full range of supporting cable and connector solutions for all our switching products—20 connector families with 1200+ products. We offer everything from simple mating connectors to complex cables assemblies and terminal blocks. All assemblies are manufactured by Pickering and are guaranteed to mechanically and electrically mate to our modules.









Connectors & Backshells

Multiway Cable Assemblies

RF Cable Assemblies

Connector Blocks

We also offer customized cabling and have a free online **Cable Design Tool** that can be used to create custom cable solutions for many applications.

Visit: pickeringtest.com/cdt to start your design.

#### Mass Interconnect

We recommend the use of a mass interconnect solution when an Interchangeable Test Adapter (ITA) is required for a PXI or LXI based test system. Our modules are fully supported by both Virginia Panel and MacPanel.

## Pickering Reed Relays

We are the only switch provider with in-house reed relay manufacturing capability via our Relay Division. These instrument grade reed relays feature **SoftCenter**<sup>TM</sup> technology, ensuring long service life and repeatable contact performance.

To learn more, please go to: pickeringrelay.com





# **Programming**

All LXI devices are supplied with built-in software drivers, web pages for configuration and soft front panels as required by the LXI specification. A variety of drivers are provided (C, .NET, IVI, SOAP) which are compatible with all Microsoft supported versions of Windows and popular older versions. For a list of all supporting operating systems, please see: pickeringtest.com/os

The drivers may be used in many commonly used programming environments and applications including:

- Pickering Interfaces Switch Path Manager
- National Instruments products (LabVIEW, LabWindows/CVI, Switch Executive, MAX, TestStand, VeriStand, etc.)
- Microsoft Visual Studio products (Visual Basic, Visual C++, Visual C#)
- Keysight VEE and OpenTAP
- Mathworks Matlab
- Marvin ATEasy
- MTQ Testsolutions Tecap Test & Measurement Suite

As well as various open source environments such as:

- · Sharp Develop
- Dev-C++

To learn more about software drivers and development environments, please go to: pickeringtest.com/software

### Signal Routing Software

Our signal routing software, Switch Path Manager, automatically selects and energizes switch paths through Pickering switching systems. Signal routing is performed by simply defining test system endpoints to be connected together, greatly accelerating Test System software development.

To learn more, please go to: pickeringtest.com/spm

# Diagnostic Relay Test Tools

*eBIRST* Switching System Test Tools are designed specifically for our PXI, PCI or LXI products, these tools simplify switching system fault-finding by quickly testing the system and graphically identifying the faulty relay.

To learn more, please go to: pickeringtest.com/ebirst

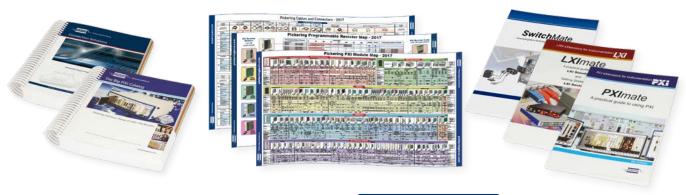
# Three Year Warranty

All standard products manufactured by Pickering Interfaces are warranted against

defective materials and workmanship for a period of three years from the date of delivery to the original purchaser. Extended warranty and service agreements are available for all our modules and systems with various levels to suit your requirements. Although we offer a 3-year warranty as standard, we also include guaranteed long-term support—with a history of supporting our products for typically 15-20 years. To learn more, please go to: pickeringtest.com/support

### **Available Product Resources**

We have a large library of product resources including success stories, product and support videos, articles, as well as complete product catalogs and product reference maps to assist when looking for the switching, simulation and cable and connector solutions you need. We have also published handy reference books on Switching Technology and for the PXI and LXI standards.



To view, download or request any of our product resources, please visit: pickeringtest.com/resources



