

# GX6315 SERIES



## HIGH CURRENT 45 RELAY PXI CARD

- 45 individual high current single pole double throw (SPDT) Form C relays
- 7 A contact rating per channel
- 9 additional relay drivers for external relays or other devices
- 6U PXI Instrument



## DESCRIPTION

The GX6315 is a 45 channel, high current relay board that plugs directly into any 6U PXI slot. The GX6315 also provides nine transistor-driven channels for external relays. These outputs may be used to drive external loads, such as heavy duty relays, lamps or other devices.

## FEATURES

The GX6315 consists of three groups: A, B, and C. Each group has 15 high current relays, three open collector relay drivers, and a 50-pin D type connector. The three open collector drivers in each group are connected via diodes to the same fly-back signal. The fly-back signal can be connected to the external relay supply to provide suppression for voltage spikes generated by the relays' coils.

## PROGRAMMING AND SOFTWARE

The board is supplied with the GXSW library, a software package that includes a virtual instrument panel, and a Windows 32/64-bit DLL driver library and documentation. The virtual panel can be used to interactively program and control the instrument from a window that displays the instrument's current settings and status. In addition, interface files are provided to support access to programming tools and languages such as ATEasy, LabView, LabView/Real-Time, C/C++, Microsoft Visual Basic®, Delphi, and Pascal. An On-Line help file and PDF User's Guide provides documentation that includes instructions for installing, using and programming the board.

A separate software package - [GtLinux](#) - provides support for Linux 32/64 operating systems.

## APPLICATIONS

- Automatic Test Equipment (ATE)
- Power switching
- Alarm Outputs
- Data Acquisition Systems
- Process Control Systems



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## SPECIFICATIONS

CONTACT SPECIFICATIONS	
Relay Format	45 SPDT Form C
Relay Contact Resistance	0.1 ohm Initial
Contact Life Rating at Low Level	10 x 10 <sup>6</sup> (typ)
At 28 VDC @ 0.5 A	5 x 10 <sup>5</sup> (typ)
Switchable Voltage, Maximum	30 VDC / 300 VAC
Switchable Current	7 ADC / 7.5 AAC
Contact Carry Current	7 A
Operate Time	10 ms (max)
Release Time	10 ms (max)
DRIVER OUTPUTS	
Driver Channels	9 Open Collector outputs
Current	500 mA sink per drive
POWER REQUIREMENTS	
Operating Voltage	+5 VDC
Power Consumption	
+3.3 V	100 mA
+5 V	70 mA per channel (typ); 3 A (max)
ENVIRONMENTAL	
Operating Temperature	GX6315: 0°C to +55°C GX6315-M: 0°C to +85°C
Storage Temperature	GX6315: -20 °C to 85 °C GX6315-M: -51 °C to +85 °C
Relative Humidity (operating)	GX6315: 5% to 85%, temperature range 0°C to 60°C GX6315-M: 5% to 95%, temperature range 0°C to 60°C GX6315, GX6315-M: 5% to 60% for operating temperatures above 60°C
Altitude (operating)	4600 meters (max)
Vibration	9 g at 10 - 55 Hz
Shock ½ Sine	100 G for 6 mS

PHYSICAL	
Size	6U PXI
Weight	16 oz
Connections	50-pin D Sub-type connectors. Includes three mating connectors.

Note: Specifications are subject to change without notice

## ORDERING INFORMATION

<b>GX6315</b>	45 Channel High-Current Relay Card with 9 Additional Relay Drivers
<b>GX6315-M</b>	45 Channel High-Current Relay Card (Ruggedized and Conformally Coated)
ACCESSORY	
<b>GX96301</b>	Replacement Relay for GX6315
<b>GT96108</b>	Connector, D-Type 50-Pin Male with Crimp Pins
<b>GT97106</b>	1' Harness, 50-Pin Male Connector on One End, Loose Wired (Numbered) Other End
<b>GT97107</b>	3' Harness, 50-Pin Male Connector on One End, Loose Wired (Numbered) Other End
<b>GT97108</b>	1' Harness, 50-Pin Male Connector on Both Ends
<b>GT97109</b>	3 Feet Harness, 50-Pin Male Connector on Both Ends
<b>GX98602</b>	6U "Wireless" Scout Adapter for GX6315/GX6325/GX6338 (2 x 96-Pin, 10A Scout Connectors)