

This product is obsolete.

OPTO 22

DATA SHEET

Form 663-230124

INTERFACES CLASSIC CONTROLLER

page 1/4

Part Number	Description
G4LC32SER	Classic Serial Adapter for G4LC32SX

*** This product is OBSOLETE and no longer available.

Unpacking

The packing box for the G4LC32SER contains:

- G4LC32SER daughter card
- Four RS-485/RS-232 7-position plugs
- Connector key

Diagram

The G4LC32SER daughter card provides the controller's COM0 and COM1, RS-232 or RS-422/485 serial ports. An additional G4LC32SER card in the controller expands its port connections with COM2 and COM3. When referring to the following diagram, remember one port can be either COM0 or COM2 and the other COM1 or COM3.

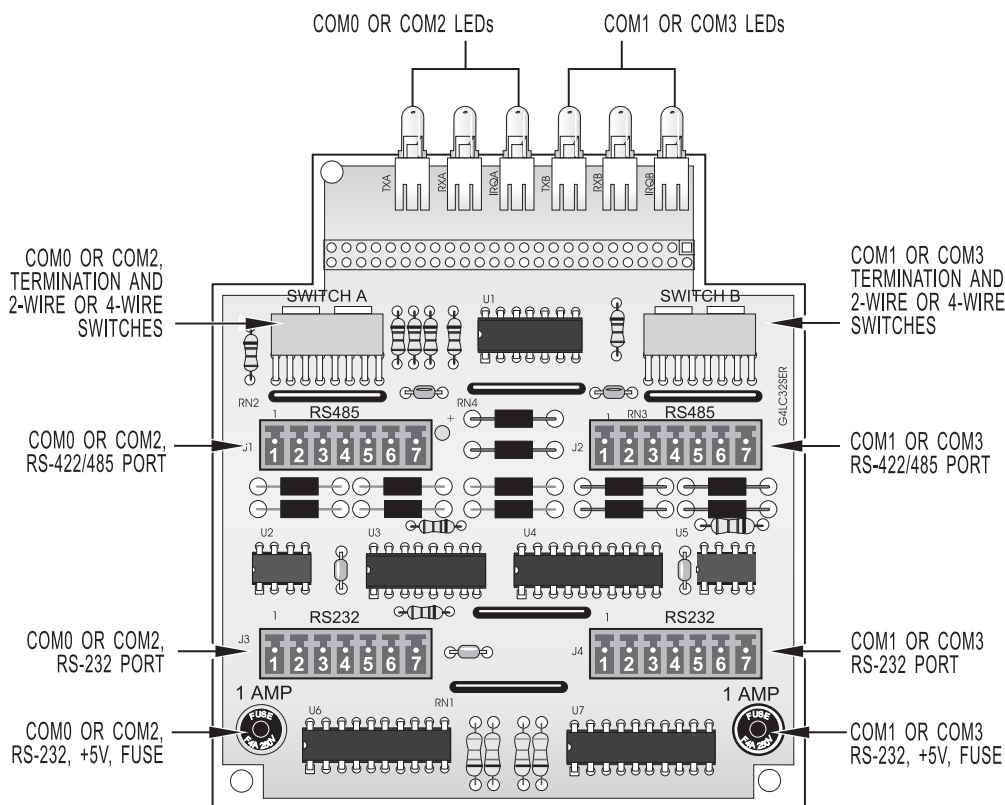


Figure 1: G4LC32SER Physical Layout

OPTO 22

DATA SHEET

Form 663-230124

INTERFACES CLASSIC CONTROLLER

page 2/4

Switches

TERM YES — TERM NO This switch selects termination for the RS-422/485 port. In the YES position, the RS-422/485 lines are terminated. Terminate the port when it is physically the first or last unit in a serial network. Ports using RS-232 (G4LC32SER) communication should have TERM YES selected to ensure a known voltage level on the RS-422/485 inputs. This is necessary due to the OR'ing of the RS-232 and RS-422/485 signals.

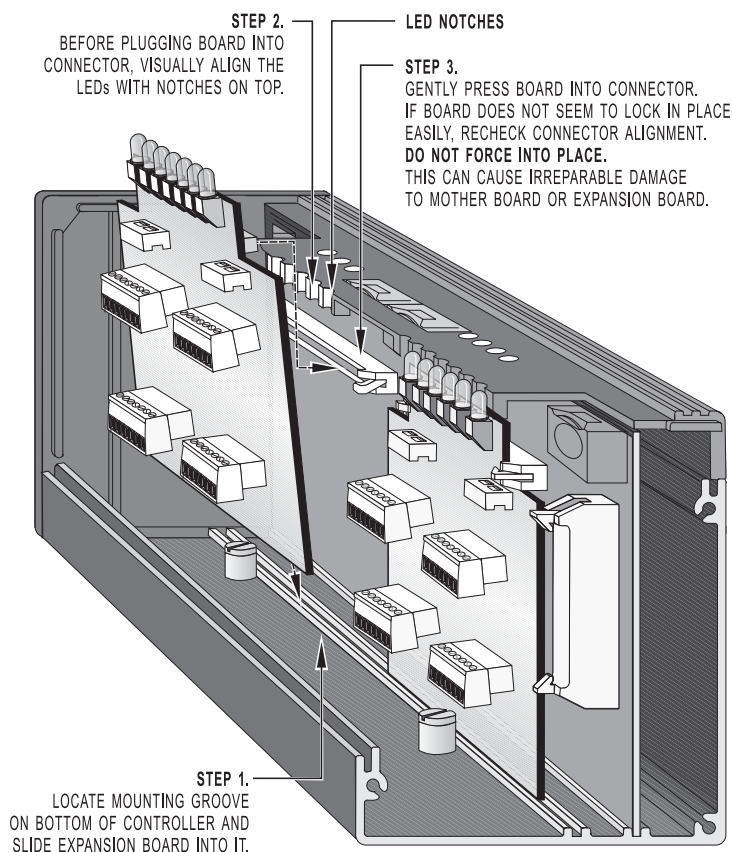
In the NO position, the RS-422/485 lines will be floating. This setting should be used when the port is part of a multidrop application and is not physically the first or last unit in the network.

The factory default is TERM YES.

2-Wire - 4-Wire This switch selects the wiring method used to connect to the RS-422/485 serial port. The choices are 2-wire or 4-wire. The factory default is 4-wire.

If you are using the RS-232 serial port (G4LC32SER), set this switch to 4-wire and make sure the TERM YES switch is also set.

Installation



This product is obsolete.

OPTO 22

DATA SHEET

Form 663-230124

INTERFACES CLASSIC CONTROLLER

page 3/4

Wiring

Important: Connectors wired for other Mistic 200 controllers may not be compatible with the G4LC32SX. Use the connectors provided and refer to the configuration label for wiring information.

The following sections describe wiring for the serial ports found on the G4LC32SER and G4LC32ARC daughter cards. Use the tables to wire the pluggable 7-terminal block serial ports.

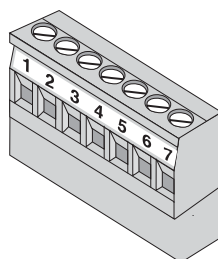


Figure 3: Terminal Block

RS-232 Pin Connections

Two RS-232 serial ports are found on the G4LC32SER daughter card.

Note: When using a RS-232 serial port, do not use the corresponding RS-422/485 COM port. The ports can only be used in one communication mode at a time.

Table 1: RS-422/485 Pin Connections

Pin	Description
1	Fused + 5V (1A)
2	Transmit (TX)
3	Receive (RX)
4	Request-to-Send (RTS)
5	Clear-to-Send (CTS)
6	DTR (Pull up to + 9 V)
7	Ground (GND)

RS-422/485 Pin Connections

Two RS-422/485 serial ports are found on each G4LC32SER and G4LC32ARC daughter card.

Note: On a G4LC32SER card, do not use the corresponding RS-232 COM port. The ports can only be used in one communication mode at a time.

Table 2: RS-422/485 Pin Connections

Pin	2-wire Mode	4-wire Mode
1	Transmit/Receive Plus (TX/RX +)	Transmit Plus (TX +)
2	Transmit/Receive Minus (TX/RX -)	Transmit Minus (TX -)
3	Common Ground (GND)	Common Ground (GND)
4	No Connection (NC)	Receive Plus (RX +)
5	No Connection (NC)	Receive Minus (RX -)
6	Interrupt Plus (IRQ +)	Interrupt Plus (IRQ +)
7	Interrupt Minus (IRQ -)	Interrupt Minus (IRQ -)

This product is obsolete.

OPTO 22

DATA SHEET

Form 663-230124

INTERFACES CLASSIC CONTROLLER

page 4/4

Fusing for RS-232 +5V

A + 5 VDC fused source is available on the G4LC32SER daughter card from the RS-232 ports' pin 1. A maximum 0.5 A load can be drawn through the 1 A rated fuse. The replacement part number for this fuse is Opto 22 P/N FUSE01G4 (Wickmann P/N 19373A).

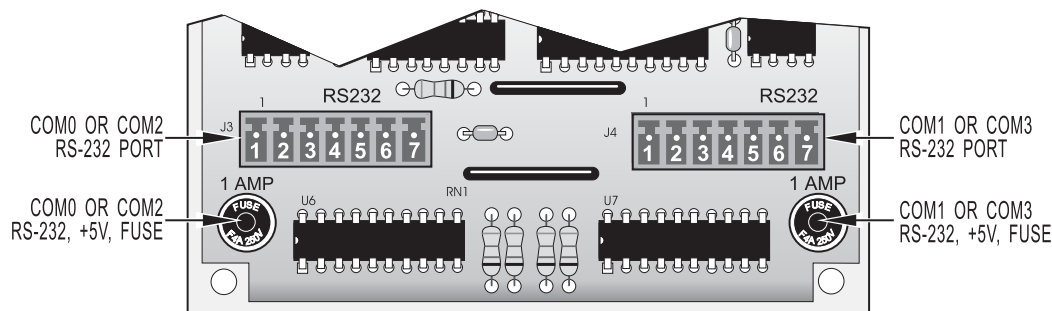


Figure 4: G4LC32SX RS-232 Fuses

LEDs

There are three diagnostic LEDs for each communication port. When referring to the following table, remember one port can be either COM0 or COM2 and the other port COM1 or COM3.

Table 3: LED Descriptions

LED	Description
TX0	Transmit LED for COM0 or COM2
RX0	Receive LED for COM0 or COM2
IRQ0	Interrupt (IRQ) LED for COM or COM2
TX1	Transmit LED for COM1 or COM3
RX1	Receive LED for COM1 or COM3
IRQ1	Interrupt (IRQ) LED for COM1 or COM3

Hardware Specifications **[OBSOLETE]**

Power requirements: 5 VDC \pm 0.25 V @ 0.5 A

Operating temperature: 0°C to 70°C

Storage temperature: -25°C to 85°C

Humidity: 5% to 95% Relative Humidity

Baud rate: 300 – 115.2 Kbd (All ports)

RS-485: 2-wire or 4-wire

RS-232: TX, RX, Gnd, RTS, CTS

Weight: 0.1 kg

More about Opto 22

OPTO 22

PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products. Industrial automation, process control, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov RIO®

[groov RIO edge I/O](#) offers a single, compact, PoE-powered industrial package with web-based configuration and IIoT software built in, support for multiple OT and IT protocols, and security features like a device firewall, data encryption, and user account control.

Standing alone, *groov* RIO connects to sensors, equipment, and legacy systems, collecting and securely publishing data from field to cloud. Choose a universal I/O model with thousands of possible field I/O configurations, with or without Ignition from Inductive Automation®, or a [RIO EMU energy monitoring unit](#) that reports 64 energy data values from 3-phase loads up to 600 VAC, Delta or Wye.

You can also use *groov* RIO with a Modbus/TCP master or as remote I/O for a *groov* EPIC system.

groov EPIC® System

Opto 22's [groov Edge Programmable Industrial Controller \(EPIC\)](#) system gives you industrially hardened control with a flexible Linux®-based processor with gateway functions, guaranteed-for-life I/O, and software for your automation and IIoT applications.

groov EPIC Processor

The heart of the system is the *groov* EPIC processor. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, and online services, both on premises and in the cloud. No industrial PC needed.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution color touchscreen. Authorized users can manage the system locally on the touchscreen, on a monitor connected via the HDMI or USB ports, or on a PC or mobile device with a web browser.

groov EPIC I/O

groov I/O connects locally to sensors and equipment. Modules have a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and discrete channel status. *groov* I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

groov EPIC Software

The *groov* EPIC processor comes ready to run the software you need:

- Programming: Choose flowchart-based PAC Control, CODESYS Development System for IEC61131-3 compliant programs, or secure shell access (SSH) to the Linux OS for custom applications
- Node-RED for creating simple IIoT logic flows from pre-built nodes
- Efficient MQTT data communications with string or Sparkplug data formats
- Multiple OPC UA server options
- HMI: *groov* View to build your own HMI viewable on touchscreen, PCs, and mobile devices; PAC Display for a

Windows HMI; Node-RED dashboard UI

- Ignition or Ignition Edge® from Inductive Automation (requires license purchase) with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT communications

Older products

From solid state relays, to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and working hard at thousands of installations worldwide. You can count on us for the reliability and service you expect, now and in the future.

QUALITY

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can afford to guarantee most solid-state relays and optically isolated I/O modules for life.

FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including [free online training](#) at OptoU, how-to [videos](#), [user's guides](#), the Opto 22 KnowledgeBase, and [OptoForums](#).

PURCHASING OPTO 22 PRODUCTS

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.

