Form 663-010129

Part Number	Description
G4LC32SER	Classic Serial Adapter for G4LC32SX

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.

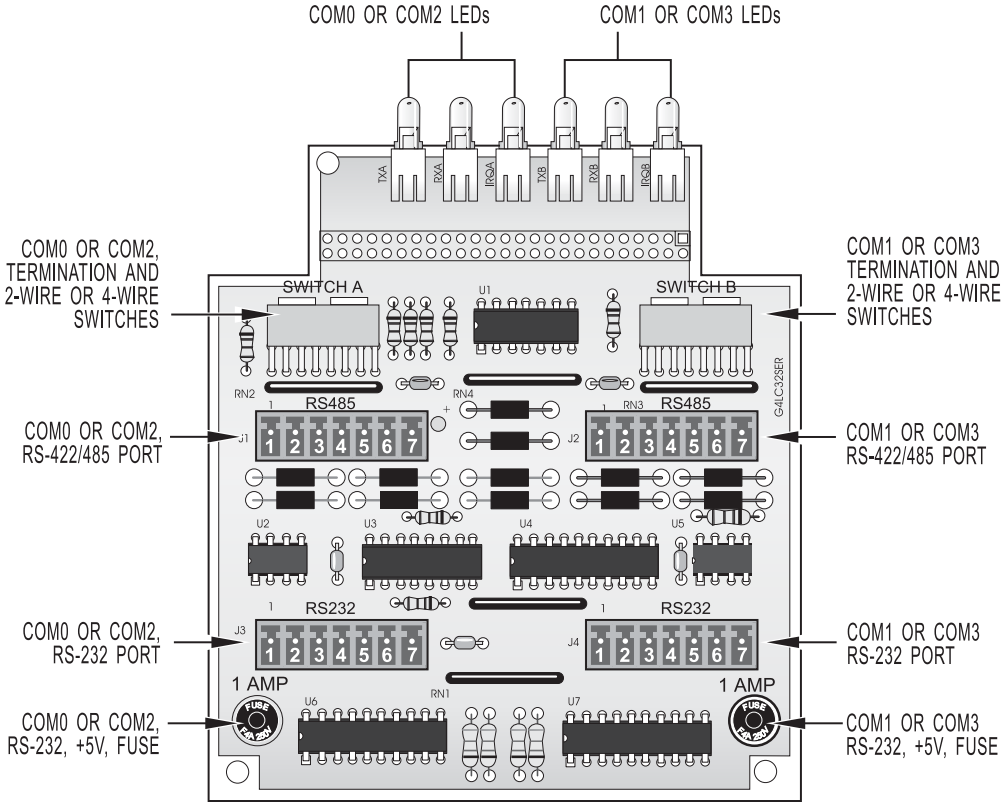


Figure 1: G4LC32SER Physical Layout

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.

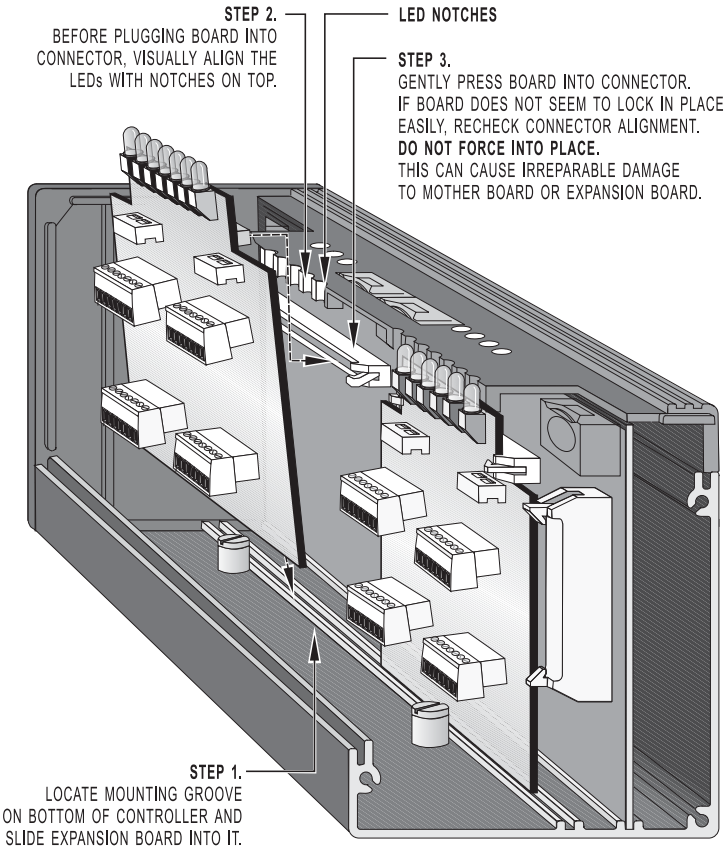
In the NO position, the RS-422/485 lines will be floating. This setting should be used when the port is part of a multidrop application and is not physically the first or last unit in the network.

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



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.

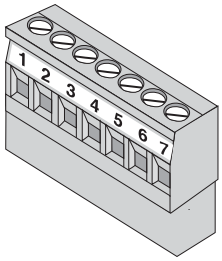


Figure 3: Terminal Block

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 -)

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).

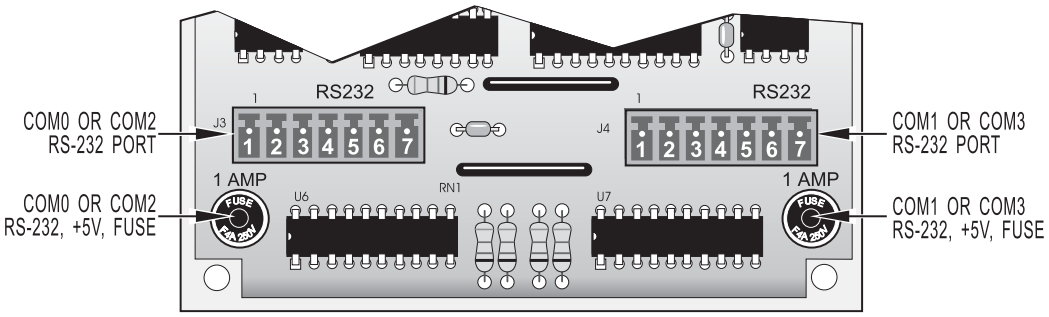


Figure 4: G4LC32SX RS-232 Fuses

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

Power requirements: 5 VDC ± 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

Products

Opto 22 produces a broad array of reliable, flexible hardware and software products for industrial automation, remote monitoring, enterprise data acquisition, and machine-to-machine (M2M) applications.

SNAP Ethernet Systems

Based on the Internet Protocol (IP), SNAP Ethernet systems offer flexibility in their network connectivity and in the software applications they work with. The physical network may be a wired Ethernet network, a cellular wireless network, or a modem. A wide variety of software applications can exchange data with SNAP Ethernet systems, including:

- Opto 22's own ioProject™ suite of control and HMI software
- Manufacturing resource planning (MRP), enterprise management, and other enterprise systems
- Human-machine interfaces (HMIs)
- Databases
- Email systems
- OPC client software
- Custom applications
- Modbus/TCP software and hardware.

SNAP Ethernet system hardware consists of controllers and I/O units. Controllers provide central control and data distribution. I/O units provide local connection to sensors and equipment.

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- OptoInfo CDs
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About Opto 22

Opto 22 manufactures and develops hardware and software products for industrial automation, remote monitoring, enterprise data acquisition, and machine-to-machine (M2M) applications. Using standard, commercially available Internet, networking, and computer technologies, Opto 22's input/output and control systems allow customers to monitor, control, and acquire data from all of the mechanical, electrical, and electronic assets that are key to their business operations. Opto 22's products and services support automation end users, OEMs, and information technology and operations personnel.

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