Use Table 1 to select RAM expansion options for your controller.

Table 1: RAM Expansion Options

RAM Size	G4LC32		G4LC32SX		G4LC32ISA	G4LC32ISA-LT	M4RTU/M4IO/M4[3]	
	Original[2]	New[2]	Original[2]	New[2]	----------	----------	Original[3]	New[3]
256K	N/A	N/A	Base Configuration	Base Configuration	Base Configuration	Base Configuration	Base Configuration	N/A
512K	Base Configuration	Base Configuration	N/A	N/A	Buy 2 G4RAM1M	N/A	N/A	N/A
1M	G4LC32RAMEX5M	Buy 4 G4RAM1M	N/A	Buy 2 G4RAM4M	Buy 2 G4RAM4M	N/A	Buy 2 G4RAM4M	Base Configuration
2M	N/A	Buy 4 G4RAM4M	N/A	N/A	Buy 4 G4RAM4M	N/A	N/A	N/A
4M	G4LC32RAMEX4M	Buy 8 G4RAM4M	N/A	N/A	N/A	N/A	N/A	N/A

Use Table 2 to select EPROM expansion options for your controller.

Table 2: EPROM Expansion Options

Size	G4LC32		G4LC32SX		G4LC32ISA	G4LC32ISA-LT	M4RTU	M4IO	M4
	Original[2] (UV EPROM)	Current[2] (Flash)	Original[2] (UV EPROM)	Current[2] (Flash)	Flash	Flash	Flash	Flash	Flash
128K	Base Configuration	N/A	Base Configuration	N/A	N/A	N/A	N/A	N/A	N/A
256K	Buy 4 27C512-120[1]	N/A	N/A	Base Configuration	Base Configuration	Base Configuration	Base Configuration	Base Configuration	Base Configuration
512K	Buy 4 27C010-120[1]	Base Configuration	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1M	Buy 4 27C020-120[1]	G4LC32F1M	N/A	G4LC32SXF1M	G4LC32ISAF1M	N/A	M4RTUF1M	M4IOF1M	M4F1M

Notes:

[1] = Chips from Intel (N/A from Opto 22). Older chips had a 256K base configuration.

[2] = See attached to determine if you have a new style G4LC32/G4LC32SX or old style G4LC32/G4LC32SX.

[3] = New controllers are marked with a "1MB RAM installed" sticker.

G4LC32 Revised Features

G4LC32 controllers manufactured after January 1994 have been modified and are compatible with the original G4LC32 controllers. The following table describes the changes.

Important: *Connectors wired for the G4LC32SX controller are **not** compatible with the G4LC32 or other controllers. Use the connectors provided and refer to the configuration label for wiring information.*

Feature	New G4LC32	Original G4LC32
EPROMs	Flash EPROMs. Firmware update is downloaded to the EPROMs by using the FLASH utility	UV EPROMs. Firmware update requires physical removal and installation of UV EPROMs.
RAM Expansion	Requires additional RAM chips. See "RAM and Flash EPROM Installation, Flash EPROM Jumpers" for chip part numbers.	Requires expansion kits G4LC32RAMEX.5M G4LC32RAMEX2M G4LC32RAMEX4M
RS-232 Ports	Ports are green 7-pin mini-receptacles. Cables use green 7-pin mini-plug, Phoenix Contact P/N MCVR 1,5/7-ST-3,81	Use subminiature 9-pin D connectors.
	115.2 K maximum baud rate	38.4 K maximum baud rate
	+ 5 VDC available from Pin 1 on COM0 and COM1	+ 5 VDC source not available
RS-485 Ports	Ports are green 7-pin mini-receptacles. Cables use green 7-pin mini-plug, Phoenix Contact P/N MCVR 1,5/7-ST-3,81	Ports are green 7-pin receptacles. Cables use larger green 7-pin plugs, Phoenix Contact P/N MVSTBW 2,5/7-ST-5,08.
	Switches used to terminate and bias ports.	Jumpers used to terminate and bias ports.
ARCNET Ports	Straight connection to port.	Requires right angle elbow to port.
Power Connector	Straight connection; can be connected without opening controller s front panel door.	Connection is at a right angle; must open controller s front panel door to access.
Power Requirements	+ 5 VDC (± 0.1) @ 2 A	+ 5 VDC (± 0.1) @ 2.5 A - 5 VDC (± 0.25) @ 20 mA
Number of Circuit Boards	3	7
Weight	4.3 lbs	5.5 lbs

G4LC32SX Revised Features

G4LC32SX controllers manufactured after April 1994 have been modified and are compatible with the original G4LC32SX controllers. The following table describes the changes.

Important: *Connectors wired for other Opto 22 controllers are **not** compatible with the G4LC32SX. Use the connectors provided and refer to the configuration label for wiring information.*

Features	New G4LC32SX	Original G4LC32SX
EPROMs	-Uses Flash - Firmware update is downloaded to the EPROMs by using the FLASH200 utility -EPROM size is expandable from 256 KB to 1 MB	- Uses UV EPROMs - Firmware update requires physical removal and installation of UV - EPROM size is 128 KB
Jumpers	Jumper groups: AX: Address extender E/R: Run from Flash EPROM or RAM RJ0: EPROM type, size MJ0: RAM size X0, X2: Communication mode	Jumper groups: AX: Address extender E/R: Run from EPROM or RAM
RAM Expansion	256 KB, expandable to 1 MB	256 KB, nonexpandable

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