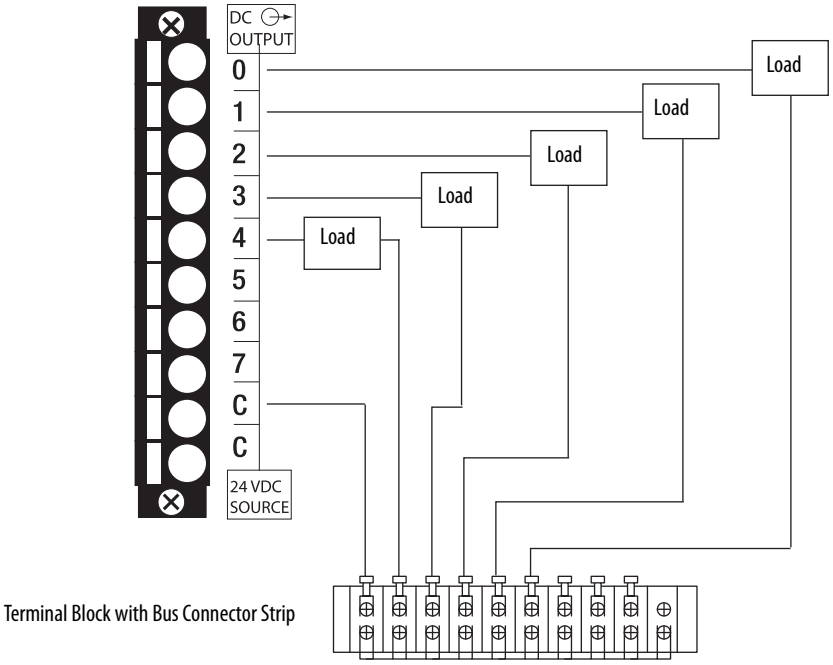
Figure 24 - CompactLogix 5370 L1 Controllers Embedded Digital Output Point Wiring Diagram



Local Expansion Modules

CompactLogix 5370 L1 controllers support the use of 1734 POINT I/O™ modules as local expansion modules along the POINTBus backplane.

IMPORTANT For a full description of how to use 1734 POINT I/O modules, see the POINT I/O Digital and Analog Modules and POINTBlock I/O Modules, publication 1734-UM001.

Consider the following when using local expansion modules:

- The controllers support this many local expansion modules.

Table 8 - Maximum 1734 POINT I/O Modules Available as Local Expansion Modules

Cat. No.	Local 1734 POINT I/O Modules Supported, max
1769-L16ER-BB1B	6
1769-L18ER-BB1B	8
1769-L18ERM-BB1B	
1769-L19ER-BB1B	

- You can use up to the maximum number of 1734 POINT I/O modules with the CompactLogix 5370 L1 controllers that are listed in Table 8. This condition applies only as long as the total current drawn by the embedded I/O and local expansion modules does not exceed the available POINTBus backplane current of 1 A and field power current of 3 A.

IMPORTANT	Do not put more than three of the 1734-IT2I or 1734-IR2 modules on the POINT I/O bus that draws power from the same power source. This restriction includes power sources such as from communication adapters or the 1734-EPAC or 1734-EP24DC expansion power supply modules. The inrush current exceeds the current limit of the DC to DC converter in the power source.

Based on the configuration of your application, you can use one of the following devices to make more POINTBus backplane current or field power current available:

– **1734-EP24DC POINT I/O Expansion Power Supply** - An expansion power supply is installed between embedded I/O modules and local expansion modules or between local expansion modules.

The expansion power supply breaks the available POINTBus backplane current between the modules to its left and right. With the expansion power supply installed, the modules to its left can draw up to 1 A of POINTBus backplane current. The modules to the right of the expansion power supply can draw as much current as is provided by the expansion power supply.

Additionally, the expansion power supply breaks the available field power current between the modules to its left and right. With the expansion power supply installed, the modules to its left can draw up to 3 A of field power current. The modules to the right of the expansion power supply can draw as much field power current as allowed by the expansion power supply.

For example, if you need six 1734-IR2 modules as local expansion modules for a 1769-L18ER-BB1B controller application, you must include the 1734-EP24DC expansion power supply in the local expansion-module installation.

For more information on the 1734-EP24DC expansion power supply, see the POINT I/O 24V DC Expansion Power Supply Installation Instructions, publication 1734-IN058.