Communication Modules

ControlNet Network

The ControlNet network is an open, control network for real-time, high-throughput applications. The ControlNet network uses the Common Industrial Protocol (CIP) to combine the functionality of an I/O network and a peer-to-peer network providing high-speed performance for both functions. The ControlNet network gives you deterministic, repeatable transfers of all mission-critical control data in addition to supporting transfers of non-time-critical data. I/O updates and controller-to-controller interlocking always take precedence over program uploads and downloads and messaging.

ControlNet Interface Specifications

Specifications [PDF]

Cat. No.	Description	Logix Connections	Number of Nodes	Communication Rate
1768-CNB	1768 CompactLogix ControlNet communication bridge module, single media	48	99	5 Mbps
1768-CNBR	1768 CompactLogix ControlNet communication bridge module, redundant media			
1769-L32C	1769 modular CompactLogix controller with integrated ControlNet port, single media	32		
1769-L35CR	1769 modular CompactLogix controller with integrated ControlNet port, redundant media			

Certifications: c-UL-us (Class I, Division 2, Group A, B, C, D), CE, C-Tick
See the Product Certifications link at http://ab.com for Declarations of Conformity, Certifications, and other certifications details.

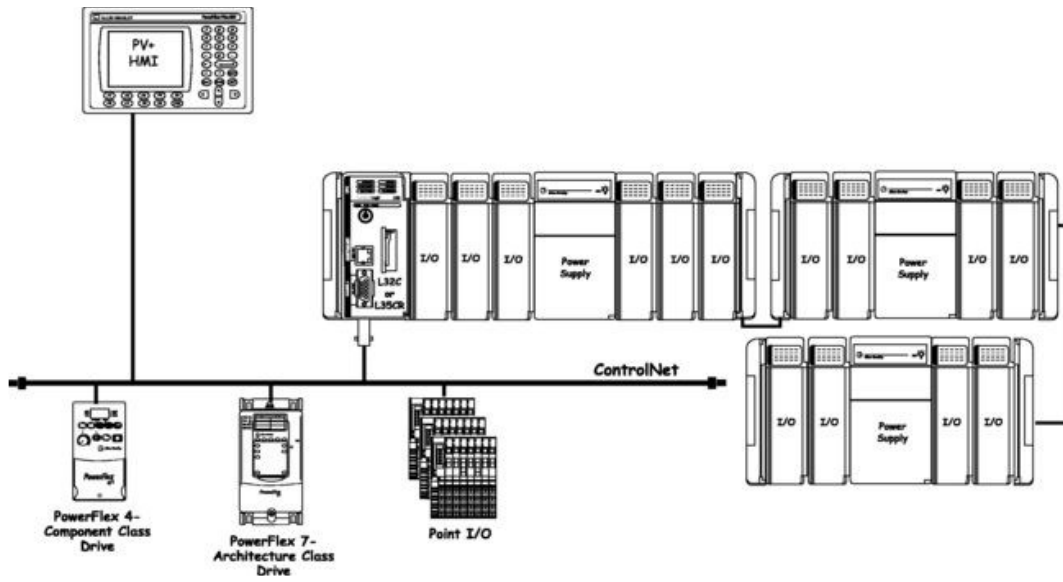### Select a ControlNet Interface

Select the appropriate controller and ControlNet interface depending on the application and how the controller interacts with the devices.

If your application uses	Select for a 1769-L3x controller	Select for a 1768-L4x or -L4xS controller
Single media	1769-L32C controller with integrated ControlNet port	1768-CNB scanner module
Redundant media	1769-L35CR controller with integrated ControlNet port	1768-CNBR scanner module

Accessories—ControlNet Network

Cat. No.	Description
Taps	
1786-TPR	T-tap right angle
1786-TPS	T-tap straight
1786-TPYR	Y-tap right angle
1786-TPYS	Y-tap straight
Cables	
1786-CP	Programming cable to ControlNet RJ45 port
1786-RG6	ControlNet network, shield high flex cable
1756-RG6F	ControlNet network, quad shield high flex coax cable
Other	
1786-XT	ControlNet termination resistor
Repeaters	
1786-RPA	ControlNet modular repeater adapter
1786-RPCD	ControlNet coaxial hub repeater
1786-RPFRL	ControlNet fiber ring repeater, long
1786-RPFRXL	ControlNet fiber ring repeater, extra long
1786-RPFS	ControlNet fiber ring repeater, short
1786-RPFM	ControlNet fiber ring repeater, medium

Example 1769-L32C, 1769-L35CR ControlNet Configuration

Example 1768-L4x, 1768-L4xS ControlNet Configuration