

CompactLogix Selection Guide



[1769 Compact I/O Modules](#)

[1768 CompactLogix Integrated Motion](#)

[1769 CompactLogix Communication Modules](#)

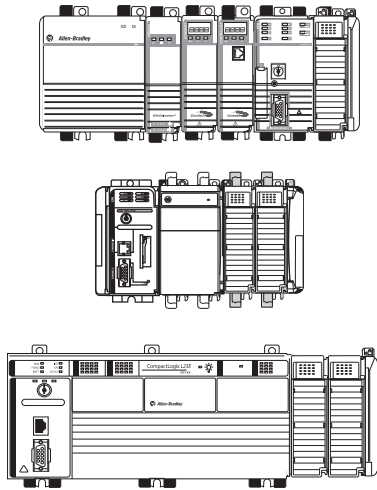
[1768 and 1769 CompactLogix Controllers](#)

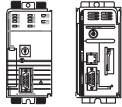
[1768 and 1769 CompactLogix Power Supplies](#)

Logix Controllers Comparison

Characteristic	1756 ControlLogix	1756 GuardLogix	1768 CompactLogix	1769-L3x CompactLogix	1769-L23x CompactLogix	1789 SoftLogix5800	PowerFlex 700S Phase 2 with DriveLogix
Controller tasks:	<ul style="list-style-type: none"> • 32 tasks • 100 programs/task • Event tasks: all event triggers 	<ul style="list-style-type: none"> • 32 tasks • 100 programs/task • Event tasks: all event triggers 	<ul style="list-style-type: none"> • 16 tasks • Event tasks: consumed tag, EVENT instruction, axis, and motion event triggers 	<ul style="list-style-type: none"> • 1769-L35x: 8 tasks • 1769-L32x: 6 tasks • 1769-L31: 4 tasks • Event tasks: consumed tag and EVENT instruction triggers 	<ul style="list-style-type: none"> • 3 tasks • 16 programs/task • Event tasks: consumed tag and EVENT instruction triggers 	<ul style="list-style-type: none"> • 32 tasks • 100 programs/task • Event tasks: all event triggers, plus outbound and Windows events 	<ul style="list-style-type: none"> • 8 tasks • Event tasks: axis and motion event triggers
User memory	1756-L61: 2 MB 1756-L62: 4 MB 1756-L63: 8 MB 1756-L64: 16 MB 1756-L65: 32 MB	1756-L61S: 2 MB Standard 1 MB Safety 1756-L62S: 4 MB Standard 1 MB Safety 1756-L63S: 8 MB Standard 1 MB Safety	1768-L43: 2 MB 1768-L45: 3 MB	1769-L31: 512 KB 1769-L32x: 750 KB 1769-L35x: 1.5 MB	512 KB	1789-L10: 2 MB; 1 controller; no motion 1789-L30: 64 MB; 3 controllers 1789-L60: 64 MB; 6 controllers	1.5 MB
Nonvolatile user memory	CompactFlash	CompactFlash	CompactFlash	CompactFlash	None	None	CompactFlash
Built-in communication ports	1 port RS-232 serial	1 port RS-232 serial	1 port RS-232 serial	<ul style="list-style-type: none"> • 1769-L31: 2 RS-232 ports • 1769-L32C, 1769-L35CR: 1 ControlNet port and 1 RS-232 serial port • 1769-L32E, 1769-L35E: 1 EtherNet/IP port and 1 RS-232 serial port 	<ul style="list-style-type: none"> • 1769-L23E-QB1B: 1 EtherNet/IP port and 1 RS-232 serial port • 1769-L23E-QBFC1B: 1 EtherNet/IP port and 1 RS-232 serial port • 1769-L23-QBFC1B: 2 RS-232 serial ports 	Depends on personal computer	<ul style="list-style-type: none"> • 1 port RS-232 serial
Communication options	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet • Data Highway Plus • Remote I/O • SynchLink 	<ul style="list-style-type: none"> • EtherNet/IP (standard and safety) • ControlNet (standard and safety) • DeviceNet (standard and safety) • Data Highway Plus • Remote I/O • SynchLink 	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet 	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet 	<ul style="list-style-type: none"> • EtherNet/IP • DeviceNet 	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet 	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet
Serial port communication	<ul style="list-style-type: none"> • ASCII • DF1 full/half-duplex • DF1 radio modem • DH-485 • Modbus via logic 	<ul style="list-style-type: none"> • ASCII • DF1 full/half-duplex • DF1 radio modem • DH-485 • Modbus via logic 	<ul style="list-style-type: none"> • ASCII • DF1 full/half-duplex • DF1 radio modem • DH-485 • Modbus via logic 	<ul style="list-style-type: none"> • ASCII • DF1 full/half-duplex • DF1 radio modem • DH-485 • Modbus via logic 	<ul style="list-style-type: none"> • ASCII • DF1 full/half-duplex • DF1 radio modem • DH-485 • Modbus via logic 	<ul style="list-style-type: none"> • ASCII • DF1 full/half-duplex • DF1 radio modem • DH-485 • Modbus via logic 	<ul style="list-style-type: none"> • ASCII • DF1 full/half-duplex • DF1 radio modem • DH-485 • Modbus via logic
Controller connections	250	250	250	100	100	250	100
Network connections	Per network module: <ul style="list-style-type: none"> • 100 ControlNet (CN2/A) • 40 ControlNet (CNB) • 256 EtherNet/IP; 128 TCP (EN2x) • 128 EtherNet/IP; 64 TCP (ENBT) 	Per network module: <ul style="list-style-type: none"> • 100 ControlNet (CN2/A) • 40 ControlNet (CNB) • 256 EtherNet/IP; 128 TCP (EN2x) • 128 EtherNet/IP; 64 TCP (ENBT) 	Per network module: <ul style="list-style-type: none"> • 48 ControlNet • 64 EtherNet/IP; 32 TCP 	Per controller: <ul style="list-style-type: none"> • 32 ControlNet • 32 EtherNet/IP; 32 TCP 	Per controller: <ul style="list-style-type: none"> • 32 EtherNet/IP; 8 TCP 	Per network module: <ul style="list-style-type: none"> • 48 ControlNet • 128 EtherNet/IP; 64 TCP 	Per network module: <ul style="list-style-type: none"> • 32 ControlNet • 32 EtherNet/IP; 32 TCP
Controller redundancy	Full support	None	Backup via DeviceNet	Backup via DeviceNet	Backup via DeviceNet	N/A	N/A
Simple motion	<ul style="list-style-type: none"> • Stepper • Servo via DeviceNet • Analog or networked AC drive 	<ul style="list-style-type: none"> • Stepper • Servo via DeviceNet • Analog or networked AC drive 	<ul style="list-style-type: none"> • Stepper • Servo via DeviceNet • Analog or networked AC drive 	<ul style="list-style-type: none"> • Stepper • Servo via DeviceNet • Analog or networked AC drive 	<ul style="list-style-type: none"> • Stepper • Servo via DeviceNet • Analog or networked AC drive 	<ul style="list-style-type: none"> • Stepper • Servo via DeviceNet • Analog or networked AC drive 	<ul style="list-style-type: none"> • Stepper • Servo via DeviceNet • Analog or networked AC drive
Integrated motion	SERCOS interface Analog options: <ul style="list-style-type: none"> • Encoder input • LDT input • SSI input 	SERCOS interface Analog options: <ul style="list-style-type: none"> • Encoder input • LDT input • SSI input 	SERCOS interface	N/A	N/A	SERCOS interface Analog encoder input	<ul style="list-style-type: none"> • 1 full servo • 1 feedback axis
Programming languages	<ul style="list-style-type: none"> • Relay ladder • Structured text • Function block • Sequential function chart 	<ul style="list-style-type: none"> • Relay ladder • Structured text • Function block • Sequential function chart 	<ul style="list-style-type: none"> • Relay ladder • Structured text • Function block • Sequential function chart 	<ul style="list-style-type: none"> • Relay ladder • Structured text • Function block • Sequential function chart 	<ul style="list-style-type: none"> • Relay ladder • Structured text • Function block • Sequential function chart 	<ul style="list-style-type: none"> • Relay ladder • Structured text • Function block • Sequential function chart • External routines (developed in C/C++) 	<ul style="list-style-type: none"> • Relay ladder • Structured text • Function block • Sequential function chart


CompactLogix System



Step 1
[CompactLogix Controllers](#)

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Select:

- A controller with sufficient memory
- A CompactFlash card for 1769-L3x and 1768-L4x controllers
- Replacement batteries for 1769-L23x and 1769-L3x controllers (no battery needed for 1768-L4x controllers)

Step 2
[CompactLogix Communication Modules](#)

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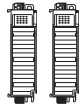
Select:

- Networks
- Communication interfaces
- Associated cables and network equipment

Step 3
[CompactLogix Integrated Motion](#)

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Select:

- A 1768-L4x controller for integrated motion
- A SERCOS interface module
- Associated cables
- Drives, motors, and accessories (use the Motion Analyzer tool)

Step 4
[Compact I/O Modules](#)

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Select:


- I/O modules
- A remote terminal block (RTB) or wiring system for each I/O module
- Expansion cables for multiple banks of I/O modules

Step 6
[CompactLogix Power Supplies](#)

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Select:

- One 1768 power supply for each 1768-L4x controller
- One 1769 power supply for each 1769-L3x controller
- Additional 1769 power supplies as needed

Optional Step
[Visualization Products](#)

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Optional Step
[Programming Software](#)

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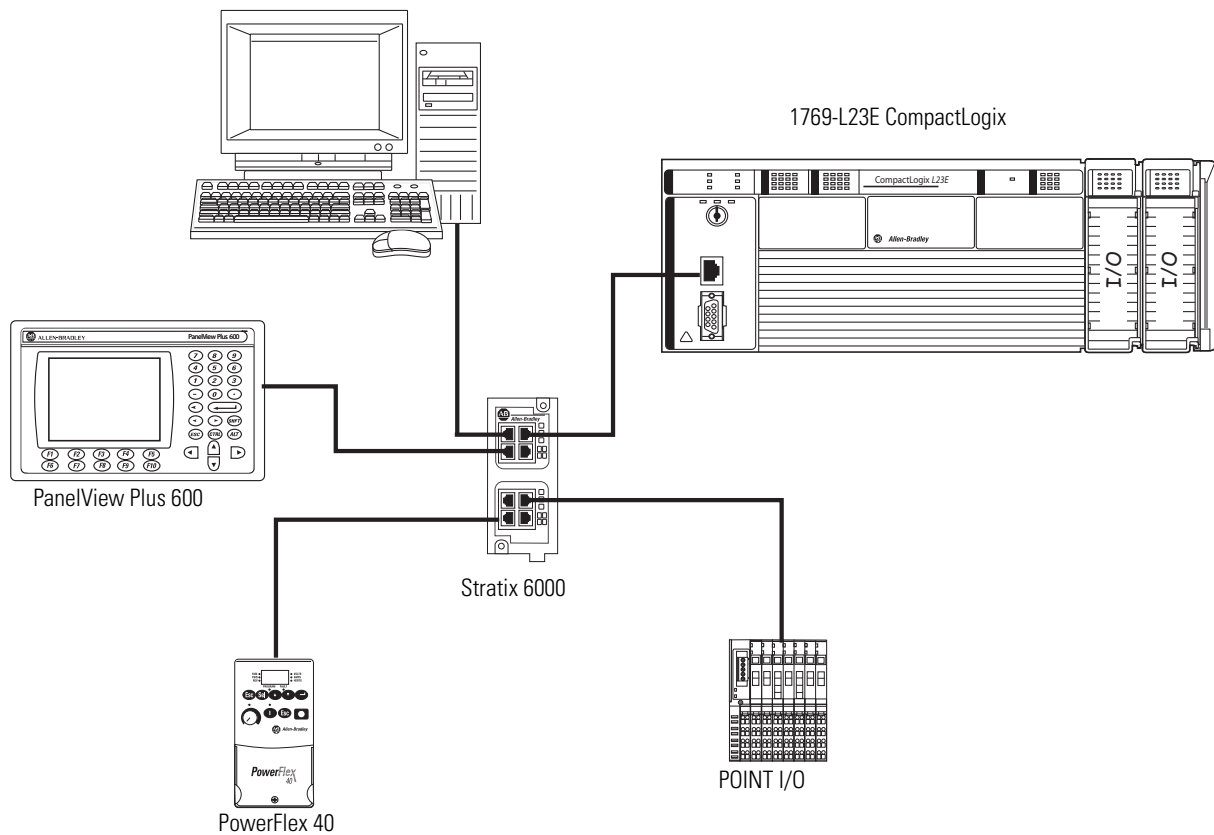
CompactLogix System Overview

The CompactLogix system is designed to provide a Logix solution for small and mid-size applications. Typically, these applications are machine-level control applications with I/O requirements, network connectivity, and motion control requirements. A simple system can consist of a standalone controller with a single bank of I/O modules and DeviceNet communication. In a more complex system, add other networks and motion control. Multiple controllers can communicate across networks and share data.

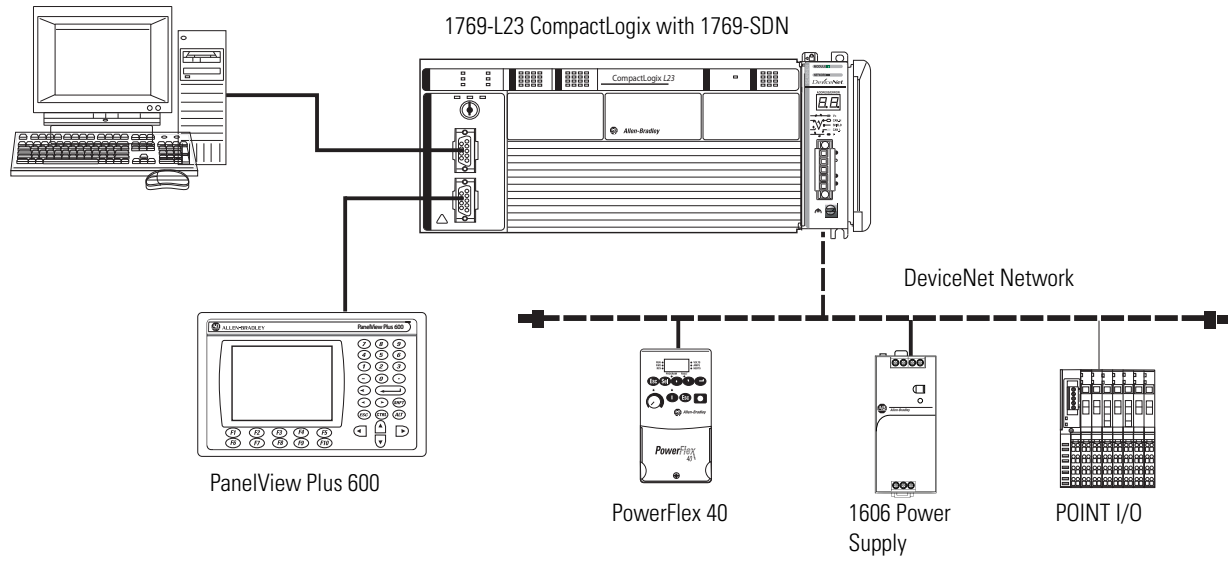
Example Configuration - 1769-L23x CompactLogix System

The 1769-L23x CompactLogix system is a packaged controller for smaller, machine-level control applications. The controller comes preconfigured with combinations for embedded digital, analog, and high-speed counter I/O.

1769-L23E Packaged Controller with an EtherNet/IP Network



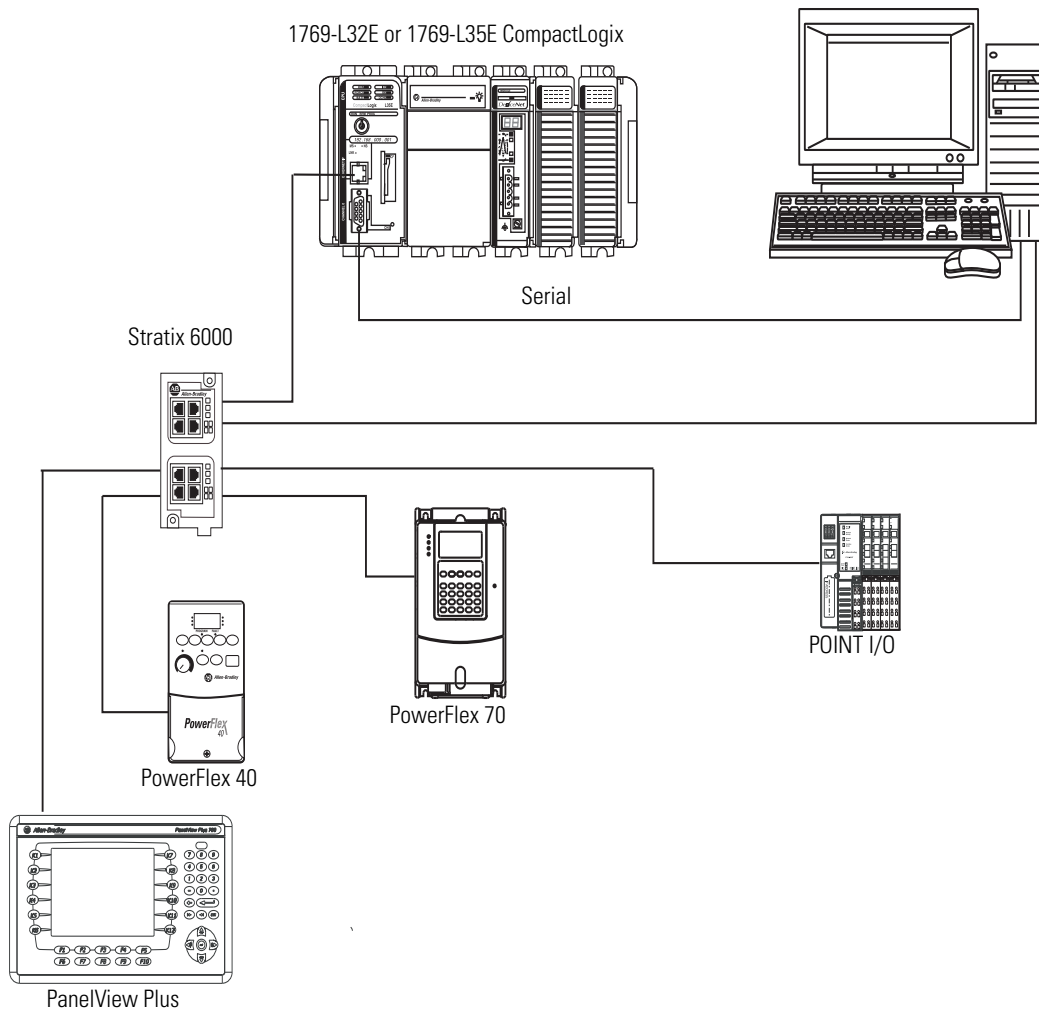
1769-L23-QBFC1B Packaged Controller with a Serial Network



Example Configuration - 1769-L3x CompactLogix System

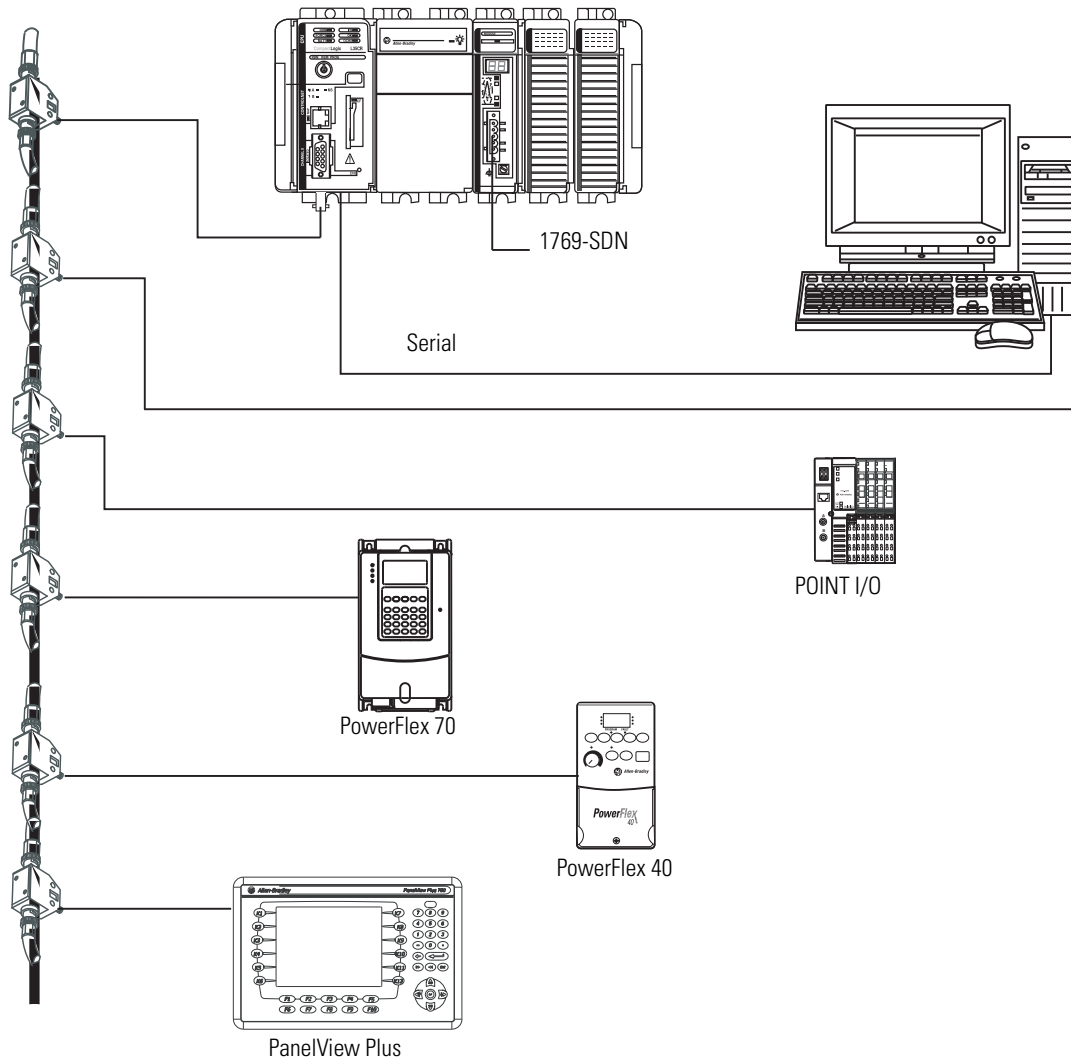
The 1769-L3x CompactLogix system provides a Logix solution for low-end to medium applications. Typically, these applications are machine-level control applications that require limited I/O quantities and limited communication capabilities. The 1769-L31 controller offers two serial ports. The 1769-L32C and 1769-L35CR controllers offer an integrated ControlNet port. The 1769-L32E and 1769-L35E controllers offer an integrated EtherNet/IP port.

1769-L32E, 1769-L35E Controller with an EtherNet/IP Network

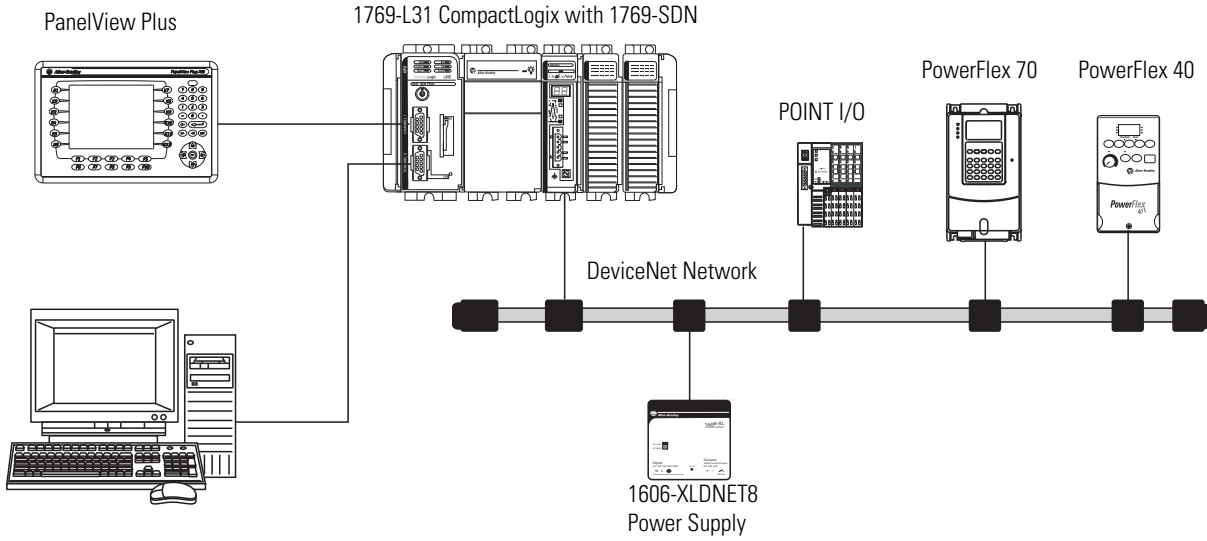


1769-L32C, 1769-L35CR CompactLogix Controller with a ControlNet Network

1769-L32C or 1769-L35CR CompactLogix



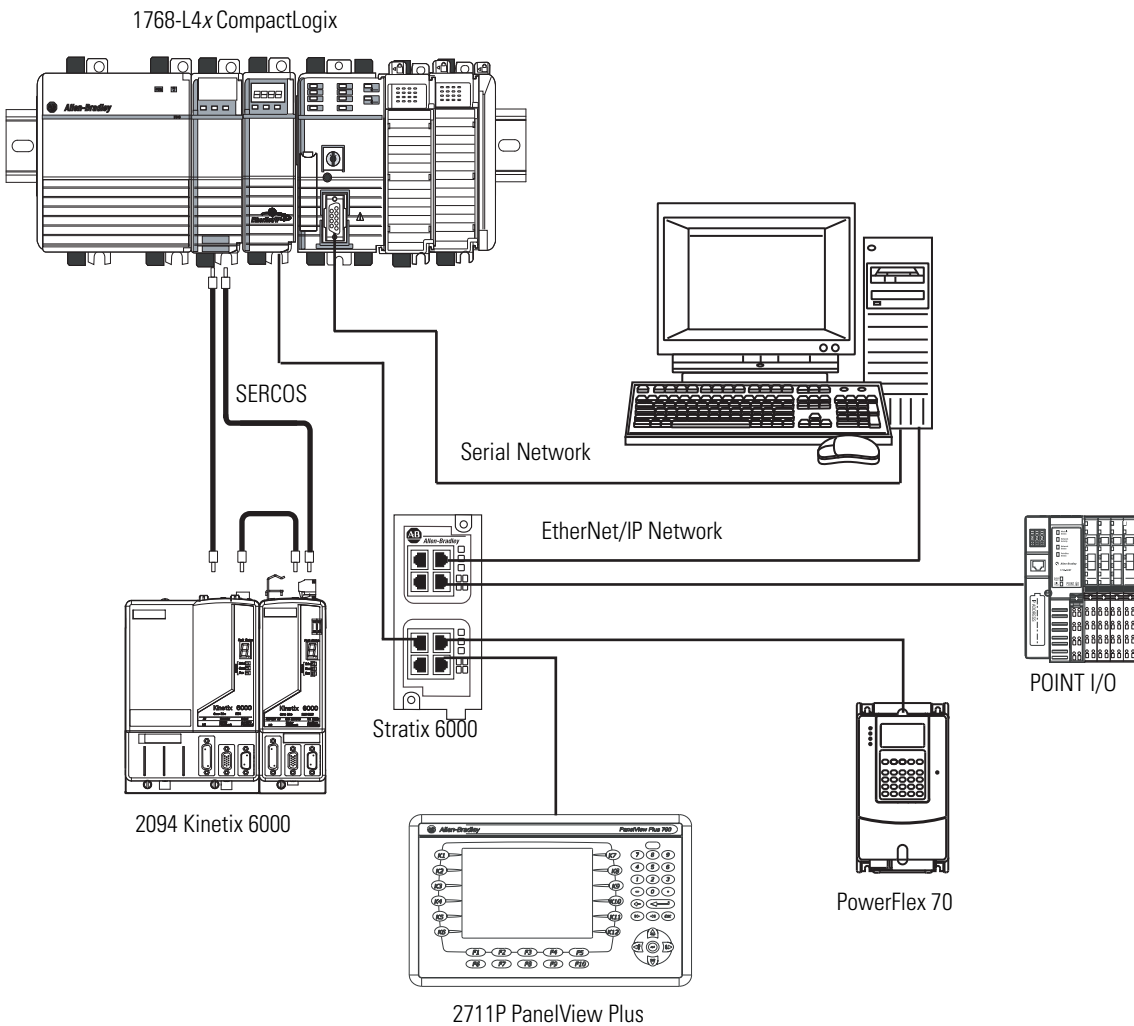
1769-L31 CompactLogix Controller with a Serial Network



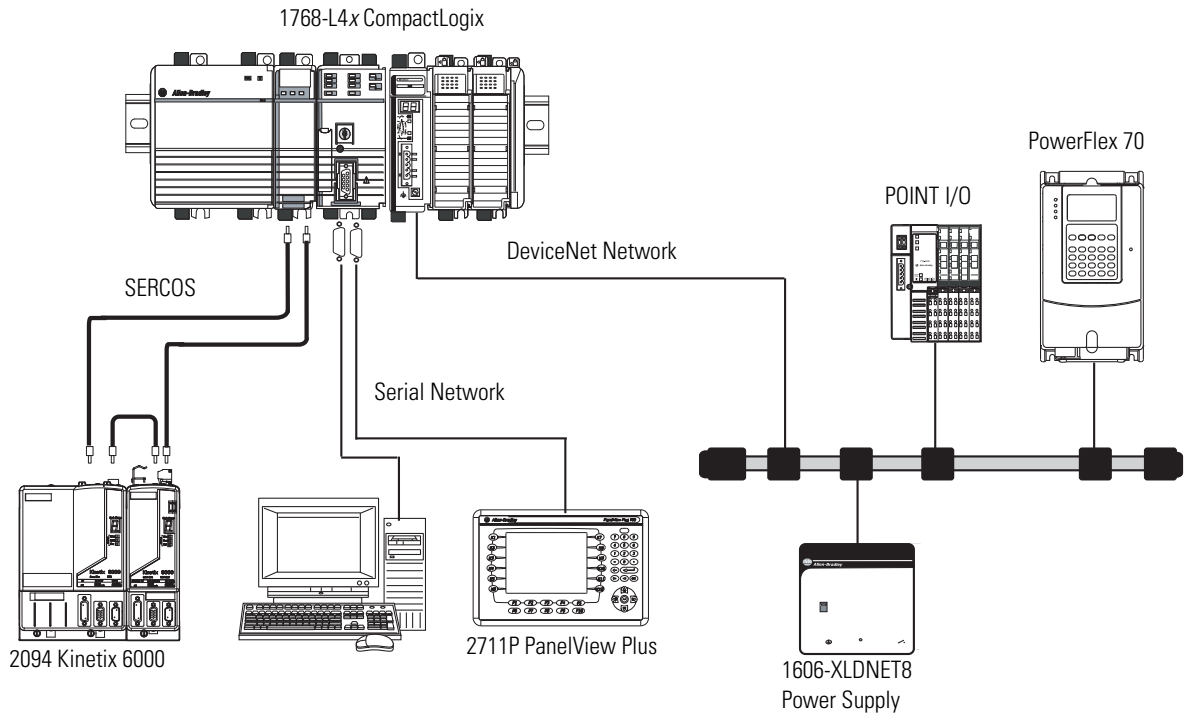
Example Configuration - 1768-L4x CompactLogix System

The 1768 CompactLogix system combines a 1768 backplane for communication and motion support and a 1769 backplane for I/O support. The 1768 controller is designed for integrated motion applications and more complex communication requirements than the other CompactLogix controllers. The 1768 controller has one serial port. Add 1768 modules for motion control, EtherNet/IP communication, and ControlNet communication.

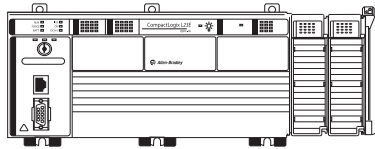
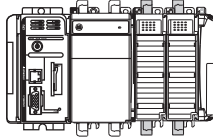
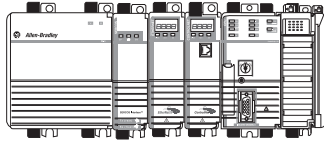
1768-L4x CompactLogix Controller with an EtherNet/IP Network



1768-L4x CompactLogix Controller with a Serial Network



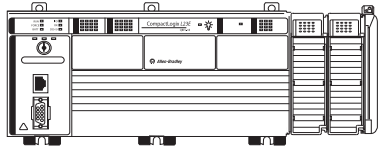
CompactLogix Controllers



The CompactLogix platform brings together the benefits of the Logix platform—common programming environment, common networks, common control engine—in a small footprint with high performance. Combined with Compact I/O modules, the CompactLogix platform is perfect for tackling smaller, machine-level control applications, with or without simple motion, with unprecedented power and scalability. A CompactLogix platform is ideal for systems that require standalone and system-connected control over EtherNet/IP, ControlNet, or DeviceNet networks.

For detailed specifications, see CompactLogix Controllers Specifications, publication [1769-TD005](#).

	1769-L23x Controllers	1769-L3x Controllers	1768-L4x Controllers
Controller application	Small applications Embedded I/O modules	General purpose	Integrated motion
Controller tasks	<ul style="list-style-type: none"> • 3 tasks • 16 programs/task • Only 1 continuous • Event tasks: consumed tag and EVENT instruction triggers 	<ul style="list-style-type: none"> • 1769-L35x: 8 tasks • 1769-L32x: 6 tasks • 1769-L31: 4 tasks • Only 1 continuous • Event tasks: consumed tag and EVENT instruction triggers 	<ul style="list-style-type: none"> • 16 tasks (only 1 continuous) • Event tasks: consumed tag, EVENT instruction, axis, and motion event triggers
User memory	512 KB	1769-L31: 512 KB 1769-L32x: 750 KB 1769-L35x: 1.5 MB	1768-L43: 2 MB 1768-L45: 3 MB
Built-in communication ports	<ul style="list-style-type: none"> • 1769-L23E-QB1B: 1 EtherNet/IP port and 1 RS-232 serial port • 1769-L23E-QBFC1B: 1 EtherNet/IP port and 1 RS-232 serial port • 1769-L23-QBFC1B: 2 RS-232 serial ports 	<ul style="list-style-type: none"> • 1769-L31: 2 RS-232 ports (one DF1 only, other DF1 or ASCII) • 1769-L32C, 1769-L35CR: 1 ControlNet port and 1 RS-232 serial port (DF1 or ASCII) • 1769-L32E, 1769-L35E: 1 EtherNet/IP port and 1 RS-232 serial port (DF1 or ASCII) 	<ul style="list-style-type: none"> • 1 port RS-232 serial (DF1 or ASCII)
Communication options	<ul style="list-style-type: none"> • EtherNet/IP • DeviceNet 	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet 	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet

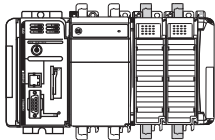


1769 Packaged CompactLogix Controllers with Embedded I/O

The 1769-L23x controller comes with:

- built-in power supply.
- either two serial ports or one serial and one EtherNet/IP port.
- combination of embedded digital, analog, and high-speed counter I/O.
- 1769-ECR right-end cap.

Characteristic	1769-L23-QBFC1B	1769-L23E-QB1B	1769-L23E-QBFC1B
Available user memory	512 KB	512 KB	512 KB
CompactFlash card	None	None	None
Communication ports	2 RS-232 ports (isolated DF1 or ASCII; nonisolated DF1 only)	1 EtherNet/IP port 1 RS-232 serial port (DF1 or ASCII)	1 EtherNet/IP port 1 RS-232 serial port (DF1 or ASCII)
Embedded I/O	<ul style="list-style-type: none"> • 16 DC inputs • 16 DC outputs • 4 analog inputs • 2 analog outputs • 4 high-speed counters 	<ul style="list-style-type: none"> • 16 DC inputs • 16 DC outputs 	<ul style="list-style-type: none"> • 16 DC inputs • 16 DC outputs • 4 analog inputs • 2 analog outputs • 4 high-speed counters
Module expansion capacity	Up to two additional 1769 modules	Up to three additional 1769 modules	Up to two additional 1769 modules
Embedded power supply	24V DC	24V DC	24V DC

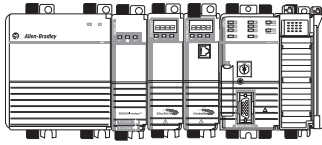


1769 Standard CompactLogix Controllers

The 1769-L3x controller must be the leftmost module in the first bank of the system. The 1769 I/O modules can be placed to the left and the right of the power supply. As many as eight modules can be placed on each side of the power supply.

Characteristic	1769-L31	1769-L32C	1769-L32E	1769-L35CR	1769-L35E
Available user memory	512 KB	750 KB	750 KB	1.5 MB	1.5 MB
CompactFlash card	<ul style="list-style-type: none"> • 1784-CF64 • 1784-CF128 	<ul style="list-style-type: none"> • 1784-CF64 • 1784-CF128 	<ul style="list-style-type: none"> • 1784-CF64 • 1784-CF128 	<ul style="list-style-type: none"> • 1784-CF64 • 1784-CF128 	<ul style="list-style-type: none"> • 1784-CF64 • 1784-CF128
Communication ports	2 RS-232 ports (isolated DF1 or ASCII; non-isolated DF1 only)	1 ControlNet port 1 RS-232 port (DF1 or ASCII)	1 EtherNet/IP port 1 RS-232 port (DF1 or ASCII)	1 ControlNet port 1 RS-232 port (DF1 or ASCII)	1 EtherNet/IP port 1 RS-232 port (DF1 or ASCII)
Module expansion capacity	16 1769 modules	16 1769 modules	16 1769 modules	30 1769 modules	30 1769 modules
Power supply distance rating	4 modules	4 modules	4 modules	4 modules	4 modules

1768 Standard CompactLogix Controllers



The 1769-L4x controller must be the rightmost module in the 1768 backplane. As many as eight 1769 modules can be attached to the right of the 1768 backplane.

Characteristic	1768-L43	1768-L45
Available user memory	2 MB	3 MB
CompactFlash card	<ul style="list-style-type: none"> • 1784-CF64 • 1784-CF128 	<ul style="list-style-type: none"> • 1784-CF64 • 1784-CF128
Communication ports	1 RS-232 port	1 RS-232 port
Module expansion capacity	<ul style="list-style-type: none"> • 2 1768 modules • 16 1769 modules 	<ul style="list-style-type: none"> • 4 1768 modules • 30 1769 modules
Power supply distance rating	—	—

1784 Industrial CompactFlash Cards

CompactFlash cards offer nonvolatile memory (flash) to permanently store a user program and tag data. You install the 1784 CompactFlash card in a socket on the controller. You can manually trigger the controller to save to or load from nonvolatile memory or configure the controller to load from nonvolatile memory on powerup.

The CompactFlash card offers nonvolatile memory (flash) to permanently store a user program and tag data on a controller. The 1769-L3x and 1768-L4x controllers support a CompactFlash card.

Attribute	1784-CF64	1784-CF128
Memory	64 MB	128 MB
Weight, approx.	14.2 g (0.5 oz)	

1769 CompactLogix Batteries

The 1769-L23x and 1769-L3x controllers come with one 1769-BA lithium battery. The 1768 controller **does not** require a battery. The controller uses internal flash memory to store its program during shutdown. Energy stored in the 1768 power supply maintains controller power long enough to store the program to internal flash memory (not the external CompactFlash card).

Attribute	1769-BA
Description	Lithium battery (0.59 g)
CompactLogix controllers	1769-L23-QBFC1B, 1769-L23E-QB1B, 1769-L23E-QBFC1B 1769-L31 1769-L32C, 1769-L35CR 1769-L32E, 1769-L35E

CompactLogix Communication Modules

You can configure your system for information exchange between a range of devices and computing platforms and operating systems. Select a CompactLogix controller with integrated communication or the appropriate communication device for the networks that meet your needs.

Networks

Application	Network	1769-L23x Controller	1769-L3x Controller	1768-L4x Controller
<ul style="list-style-type: none"> Plant management (material handling) Configuration, data collection, and control on a single, high-speed network Time-critical applications with no established schedule Inclusion of commercial technologies (such as video over IP) Internet/Intranet connection 	EtherNet/IP network	<ul style="list-style-type: none"> 1769-L23E-QB1B controller 1769-L23E-QBFC1B controller 	<ul style="list-style-type: none"> 1769-L32E controller 1769-L35E controller 	<ul style="list-style-type: none"> 1768-ENBT scanner 1768-EWEB interface
<ul style="list-style-type: none"> High-speed transfer of time-critical data between controllers and I/O devices Deterministic and repeatable data delivery Media redundancy Intrinsic safety Redundant controller systems 	ControlNet network	Not available	<ul style="list-style-type: none"> 1769-L32C controller (nonredundant media) 1769-L35CR controller (redundant media) 	<ul style="list-style-type: none"> 1768-CNB scanner (nonredundant media) 1768-CNBR scanner (redundant media)
<ul style="list-style-type: none"> Connections of low-level devices directly to plant floor controllers, without interfacing them through I/O modules Data sent as needed More diagnostics for improved data collection and fault detection Less wiring and reduced start-up time than a traditional, hard-wired system 	DeviceNet network	<ul style="list-style-type: none"> 1769-SDN scanner 1769-ADN adapter 		
<ul style="list-style-type: none"> Modems Supervisory control and data acquisition (SCADA) 	Serial network	<ul style="list-style-type: none"> Built-in serial port on the controller 1769-ASCII module 		
Connections to existing DH-485 networks	DH-485 network	Built-in serial port with a 1761-NET-AIC linking device		

For detailed specifications, see:

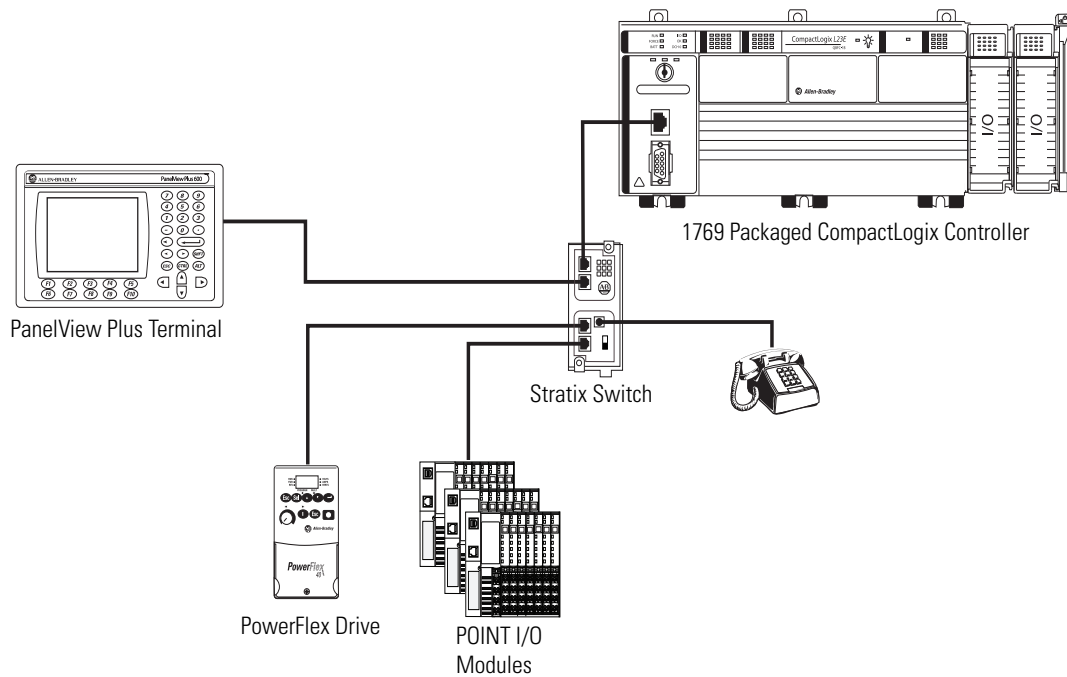
- CompactLogix Controllers Specifications, publication [1769-TD005](#).
- CompactLogix Communication Modules Specifications, publication [1769-TD007](#).

EtherNet/IP Communication Modules

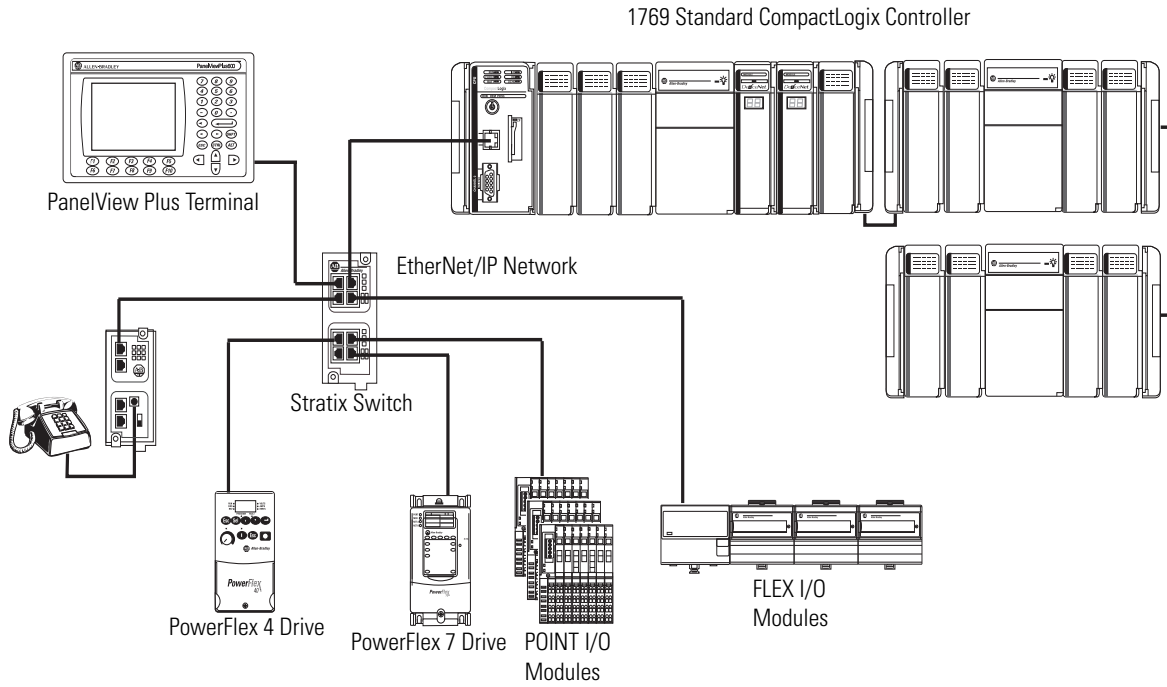
The Ethernet Industrial (EtherNet/IP) network protocol is an open industrial-networking standard that supports both real-time I/O messaging and message exchange. The EtherNet/IP network uses off-the-shelf Ethernet communication chips and physical media.

Cat. No.	Description	Communication Rate	TCP/IP Connections	Logix Connections
1769-L23E-QB1B 1769-L23E-QBFC1B	1769 packaged CompactLogix controller with integrated EtherNet/IP port	10/100 Mbps	8	32
1769-L32E 1769-L35E	1769 standard CompactLogix controller with integrated EtherNet/IP port	10/100 Mbps	32	32
1768-ENBT	1768 CompactLogix controller, EtherNet/IP communication bridge module	10/100 Mbps	32	64
1768-EWEB	1768 CompactLogix controller, Ethernet web server module	10/100 Mbps	32	64

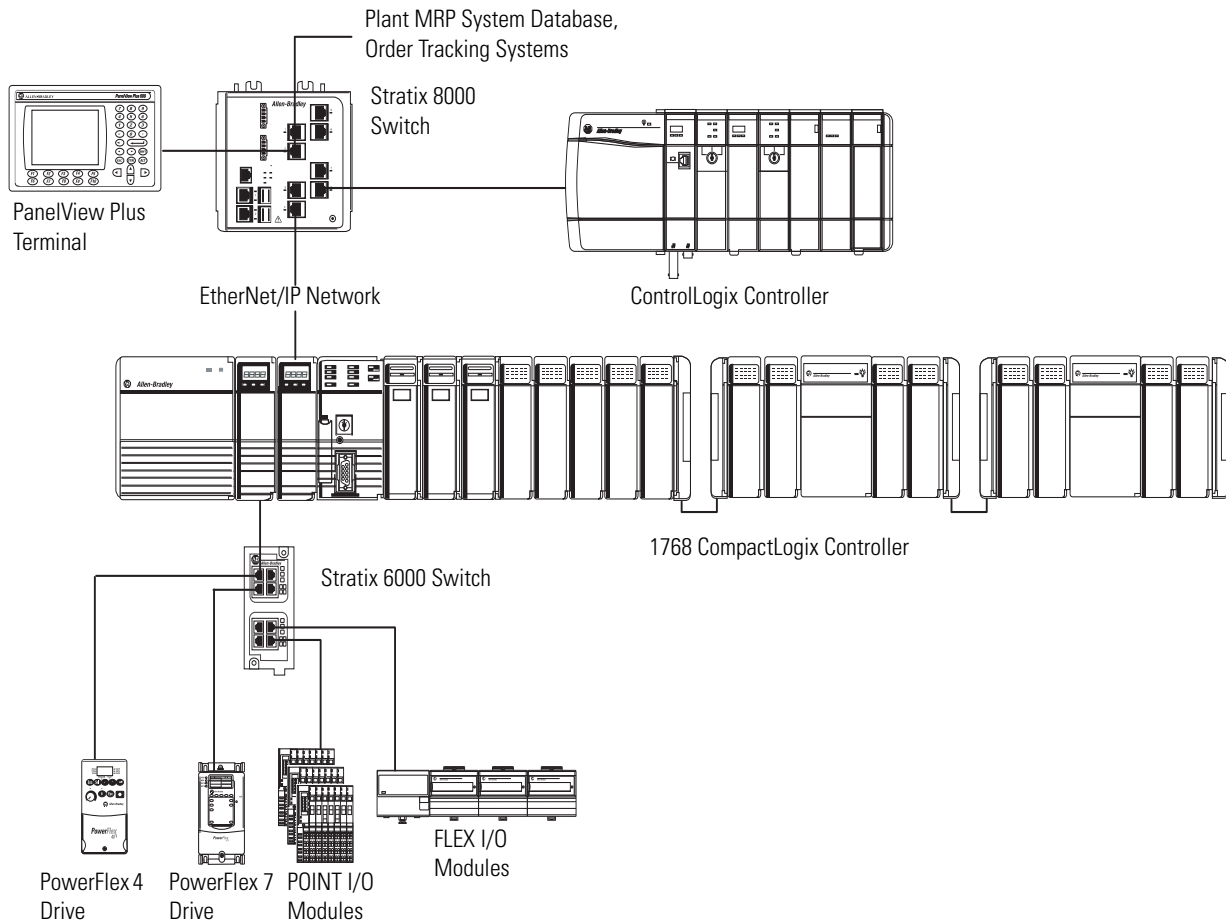
Example Configuration - 1769-L23E-QB1B, 1769-L23E-QBFC1B EtherNet/IP Configuration



Example Configuration - 1769-L32E, 1769-L35E EtherNet/IP Configuration



Example Configuration - 1768-L43, 1768-L45 EtherNet/IP Configuration



Accessories - EtherNet/IP Network

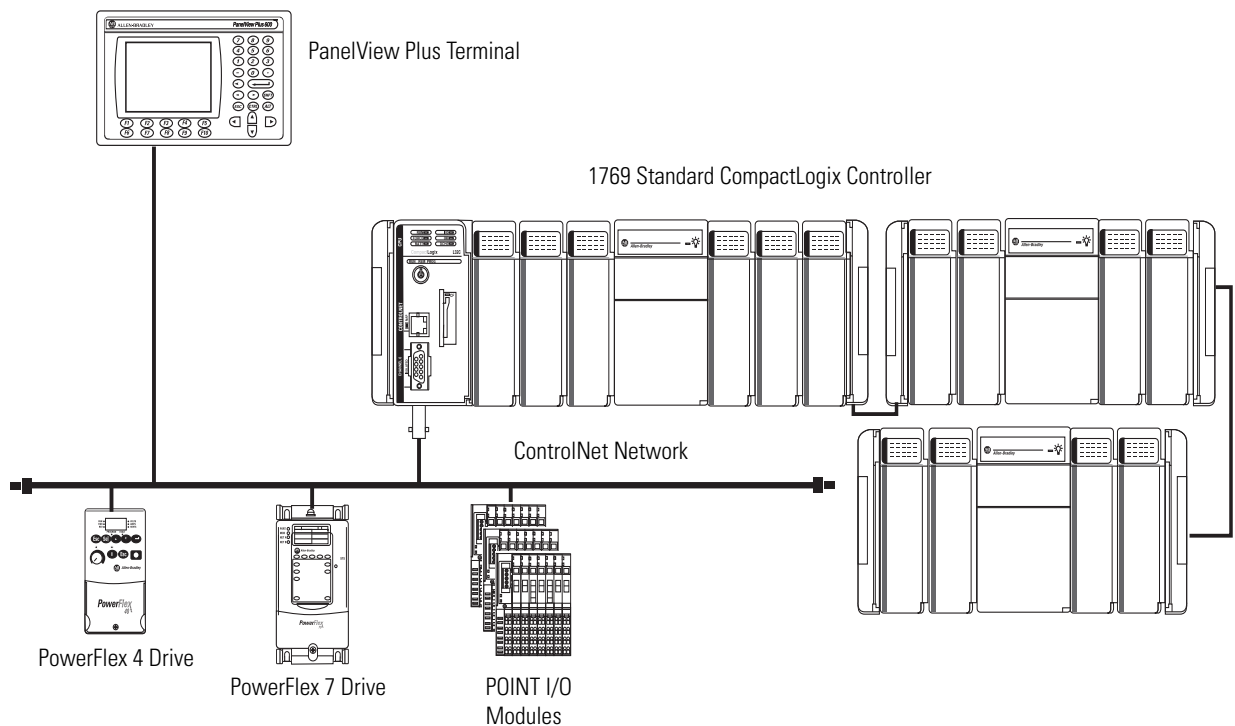
Cat. No.	Description	Specifications
1585J-M8PBJM-x	Ethernet RJ45 patchcord x = 2 (2 m), 5 (5 m), or 10 (10 m)	8-conductor, teal riser PVC cable (flex rated cable also available)
1585J-M8CC-H	RJ45 insulation displacement connector (IDC)	0.128...0.325 mm ² (26...22 AWG), Cat. 6, IDC, no tool required
1585J-M8CC-C	RJ45 crimp connector with boot, qty = 50 pieces	0.128...0.205 mm ² (26...24 AWG, Cat. 5e, requires crimp tool for assembly)
1585A-Jcrimp	Crimp tool	—
9300-RADES	Remote access dial-in kit	56 Kbps modem connection to devices on an Ethernet network, includes: <ul style="list-style-type: none"> • Pre-configured modem • Communication module • DIN rail mounting hardware • Associated cables

ControlNet Communication Modules

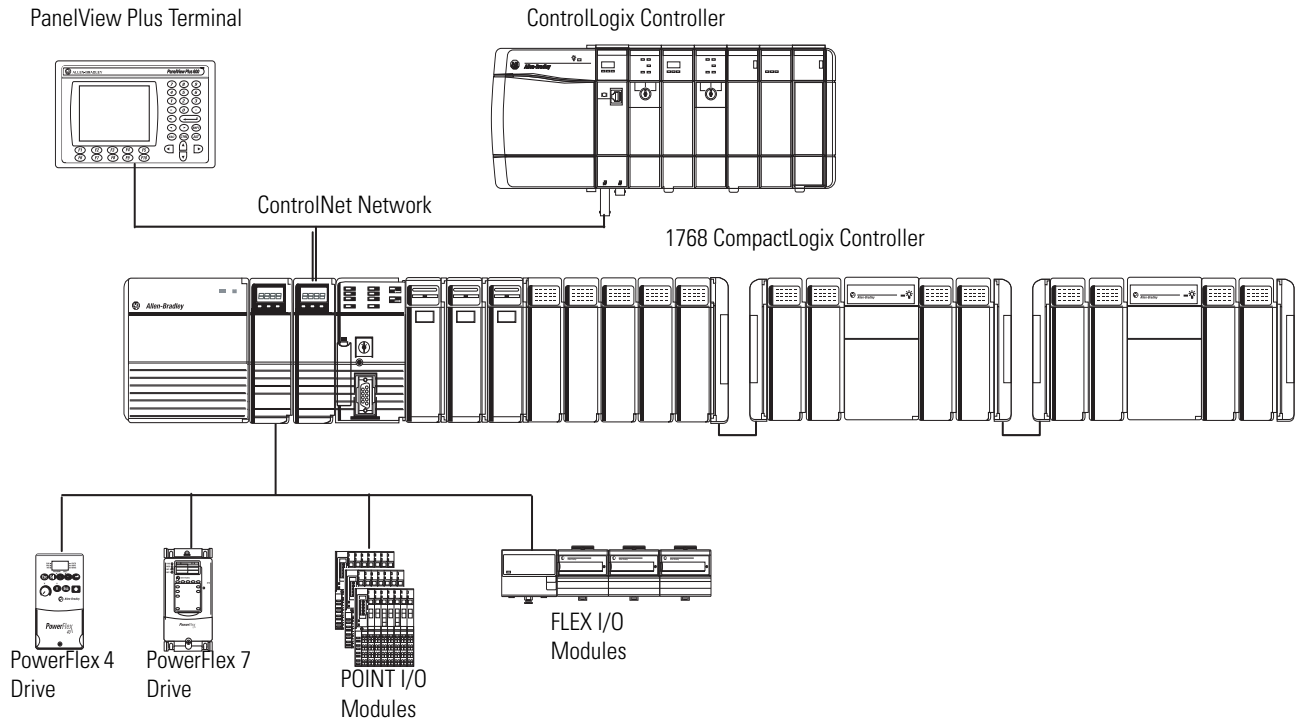
The ControlNet network is an open, control network for real-time, high-throughput applications. The ControlNet network uses the Common Industrial Protocol (CIP) to combine the functionality of an I/O network and a peer-to-peer network providing high-speed performance for both functions. The ControlNet 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.

Cat. No.	Description	Communication Rate	Logix Connections
1769-L32C	1769 standard CompactLogix controller with integrated ControlNet port, single media	5 Mbps	32
1769-L35CR	1769 standard CompactLogix controller with integrated ControlNet port, redundant media	5 Mbps	32
1768-CNBR	1768 CompactLogix controller, ControlNet communication bridge module, single media	5 Mbps	48
1768-CNBR	1768 CompactLogix controller, ControlNet communication bridge module, redundant media	10/100 Mbps	48

Example Configuration - 1769-L32C, 1769-L35CR ControlNet Configuration



Example Configuration - 1768-L43, 1768-L45 ControlNet Configuration



Accessories - ControlNet Network

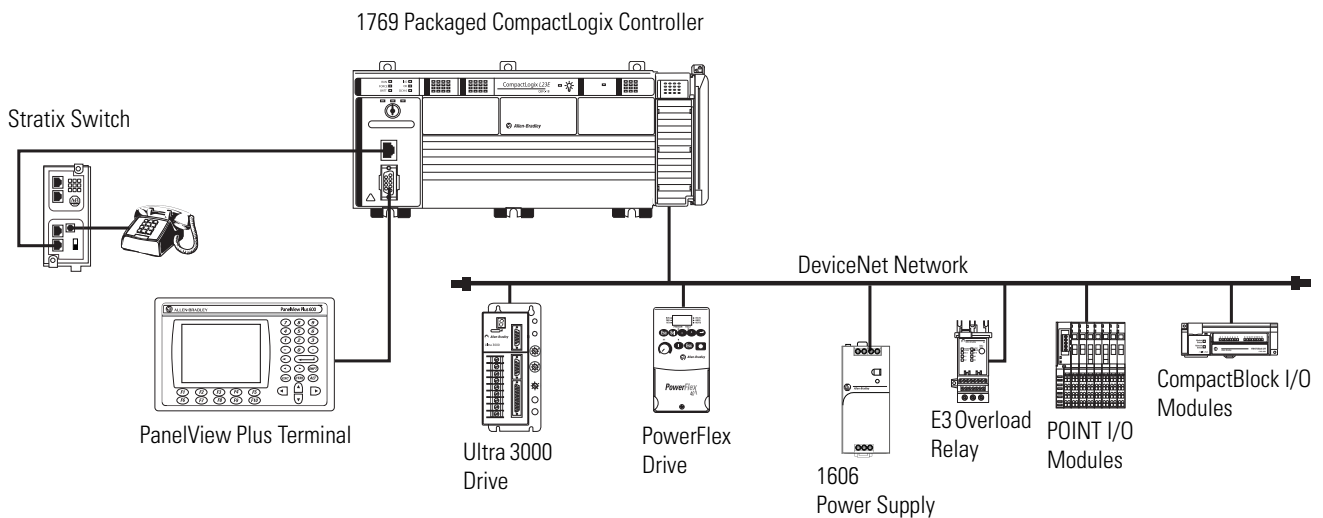
Category	Cat. No.	Description
Taps	1786-TPR	T-tap right angle
	1786-TPS	T-tap straight
	1786-TPYR	Y-tap right angle
	1786-TPYS	Y-tap straight
Cables	1786-CP	Programming cable to ControlNet RJ45 port
	1786-RG6	ControlNet network, shield high-flex cable
	1756-RG6F	ControlNet network, quad-shield high-flex 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

DeviceNet Communication Module

The DeviceNet network is an open, low-level network that provides connections between simple industrial devices (such as sensors and actuators) and higher-level devices (such as controllers and computers). The DeviceNet network uses the proven Common Industrial Protocol (CIP) to provide the control, configure, and data collection capabilities for industrial devices.

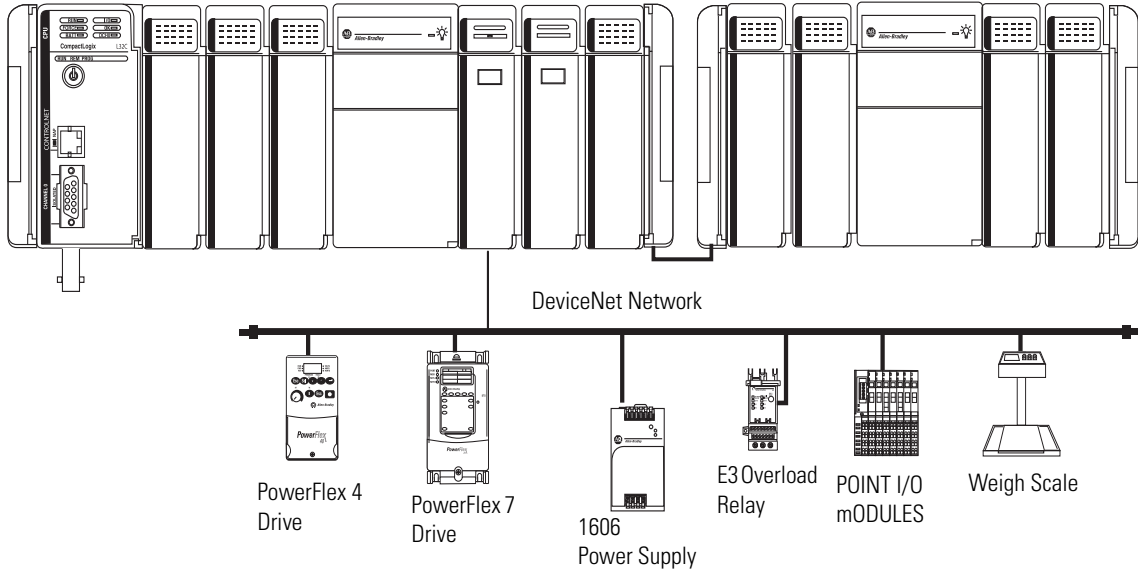
Cat. No.	Description	Communication Rate	Number of Nodes
1769-SDN	Compact I/O DeviceNet scanner module	125 Kbps (500 m max) 250 Kbps (250 m max) 500 Kbps (100 m max)	64
1769-ADN	Compact I/O DeviceNet adapter module	125 Kbps (500 m max) 250 Kbps (250 m max) 500 Kbps (100 m max)	64

Example Configuration - 1769-L23x DeviceNet Configuration



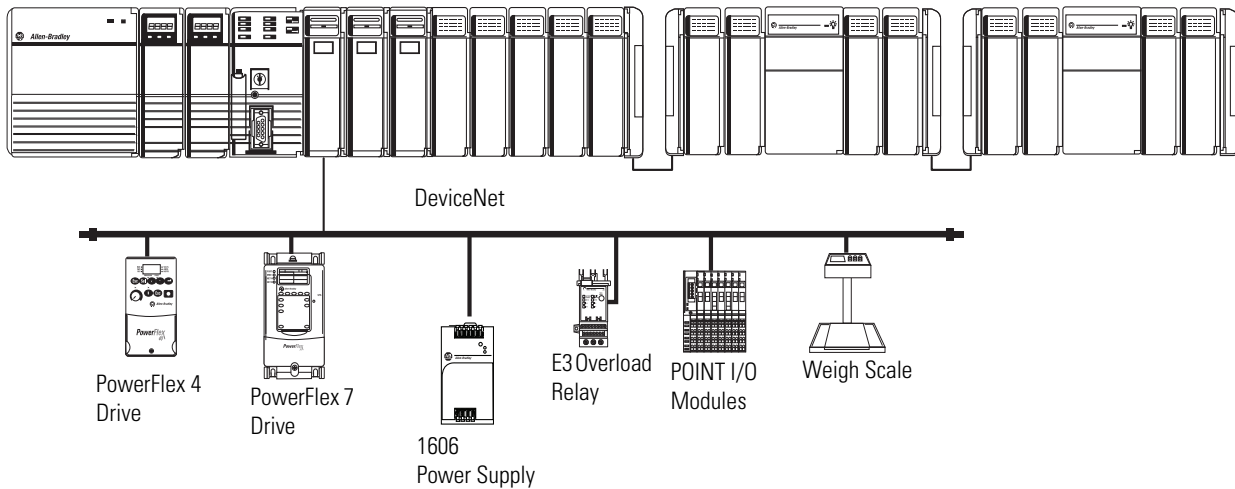
Example Configuration - 1769-L3x DeviceNet Configuration

1769 Standard CompactLogix Controller



Example Configuration - 1768-L4x DeviceNet Configuration

1768 CompactLogix Controller



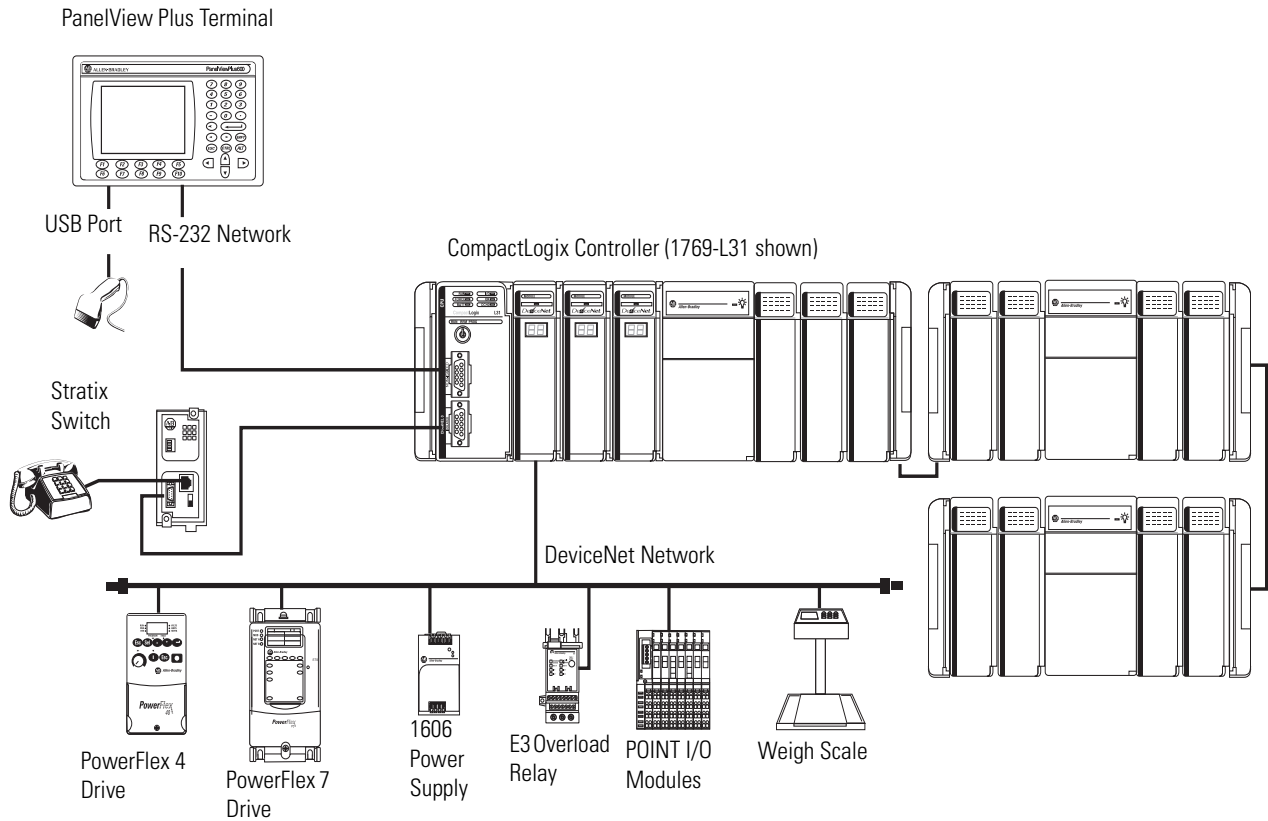
Accessories - DeviceNet Network

Cat. No.	Description
KwikLink Lite flat media	KwikLink Lite flat media is a newer, ODVA-approved solution for wiring DeviceNet networks. Drop-lines for connecting nodes are added by using the KwikLink Lite two-piece connectors. This cable system supports the intermixing of DeviceNet cable types (thin-round with flat). All of the KwikLink Lite connectors provide insulation displacement technology with reduced assembly time.
KwikLink flat media	The KwikLink flat media system provides a modular cabling method with its flat four-wire cable and insulation displacement connectors (IDCs). The KwikLink system allows nodes to be added to the network without severing the trunkline. Cutting or stripping of the trunkline is eliminated, as is the need for predetermined cable lengths.
Round media	<p>Round trunk cable is available in bulk spools or as pre-molded cordsets or patchcords in varying lengths. A wide variety of rugged, durable DeviceNet components is available for use in round trunk systems. Stainless steel versions of round cable system components are also available.</p> <ul style="list-style-type: none"> • Thick-trunk round media systems use thick cable for maximum DeviceNet trunk line length. • Round media thin-trunk systems use thin cable to reduce maximum trunk line distances with a more compact and cost-effective installation for some applications. Thin-cable outer jacket material has thermoplastic elastomers (TPE) for additional chemical resistance.

Serial Communication

The controller serial port is compatible with RS-232 serial communication. The serial port supports the DF1 protocol to communicate with other devices on the serial link.

Example Configuration - Serial Communication



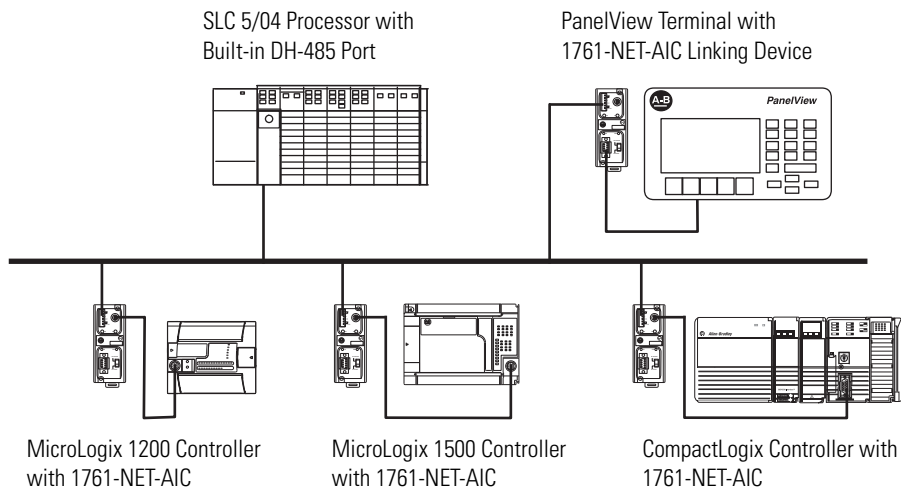
Modbus Support

To use Logix5000 controllers on a Modbus network, you connect through the serial port and execute a specific ladder logic routine. The controller project is available with RSLogix 5000 Enterprise programming software. For more information, see Using Logix5000 Controllers as Masters or Slaves on Modbus Application Solution, publication [CIG-AP129](#).

DH-485 Communication Module

The controller serial port is compatible with DH-485 communication. The DH-485 connection does support remote programming and monitoring via RSLogix 5000 software.

Example Configuration - DH-485 Network



Accessories - DH-485 Network

Cat. No.	Description	Specifications
1747-CP3	9-pin D-shell, straight; 9-pin D-shell, right angle	3 m (9.8 ft)
1761-CBL-AC00	9-pin D-shell, right angle; 9-pin D-shell, right angle	45 cm (17.7 in.)
1761-CBL-AP00	9-pin D-shell, right angle; 8-pin mini-DIN	45 cm (17.7 in.)
1761-CBL-PM02	9-pin D-shell, straight; 8-pin mini-DIN	2 m (6.5 ft)
1761-NET-AIC	Advanced Interface Converter (AIC+) connects each channel on the 1756-DH485 module to the DH-485 network	<ul style="list-style-type: none"> • 20.4...28.8V DC power source required • Typical 120 mA 24V DC current draw
9300-RADKIT	Remote access dial-in kit	56 Kbps modem connection to devices on a DH+ network, includes: <ul style="list-style-type: none"> • Pre-configured modem • Communication module • DIN rail mounting hardware • Associated cables

CompactLogix Integrated Motion

The Logix architecture supports motion control components that work in a wide variety of machine architectures.

- The Kinetix integrated-motion solution uses a SERCOS interface module to perform complex, multi-axis, synchronized motion. With a Kinetix system, you reap the full benefit of the Integrated Architecture platform because the integration does not stop at the controller. This system integrates the drive, the motor, and even the actuator at a lower cost per axis of motion. Use the same RSLogix 5000 programming software to configure, program, and commission your application.
- Logix integrated motion supports the analog family of servo modules for controlling drives/actuators. This solution is separate from the SERCOS interface. The analog family of servo modules provide a ± 10 voltage analog output and can interface with a variety of feedback device types including rotary/linear absolute and incremental.
- Networked motion provides the ability to connect via the DeviceNet network to a single axis drive to perform simple, point-to-point indexing. You need Ultraware software for drive and indexing configuration.

For detailed specifications, see CompactLogix Integrated Motion Specifications, publication [1768-TD001](#).

For more information, see the:

- Motion Analyzer CD to size your motion application and to make final component selection. Download the software from <http://www.ab.com/motion/software/analyzer.html>.
- Kinetix Motion Control Selection Guide, publication [GMC-SG001](#), to verify drive, motor, and accessory specifications.

SERCOS Interface Modules

The 1768-L4x controller supports integrated motion. You can communicate directly to a servo drive by using a motion interface or over a network.

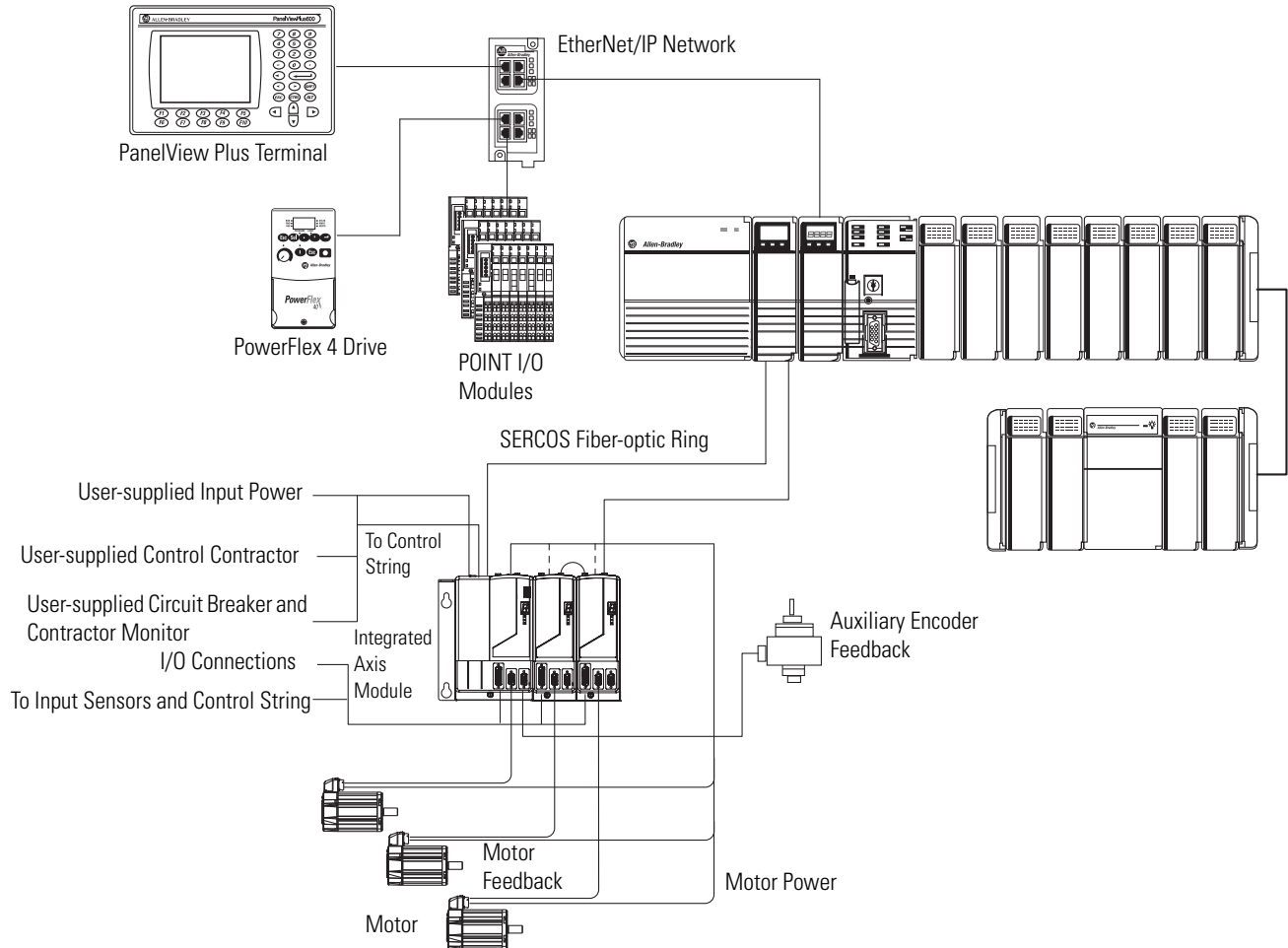
With this controller	You can have
1768-L43	<ul style="list-style-type: none"> • Four axis • Two feedback axis • Six virtual axis
1768-L45	<ul style="list-style-type: none"> • Eight axis • Four feedback axis • Six virtual axis

The SERCOS interface module can connect to these servo drives.

- 2093 Kinetix 2000 servo drive
- 2094 Kinetix 6000 servo drive
- 2099 Kinetix 7000 high-power servo drive
- 2098 Ultra3000 SERCOS servo drive
- 1394C SERCOS drive
- 8720MC spindle

Cat. No.	Description	Number of Axis
1768-M04SE	1768 CompactLogix SERCOS interface modules	4

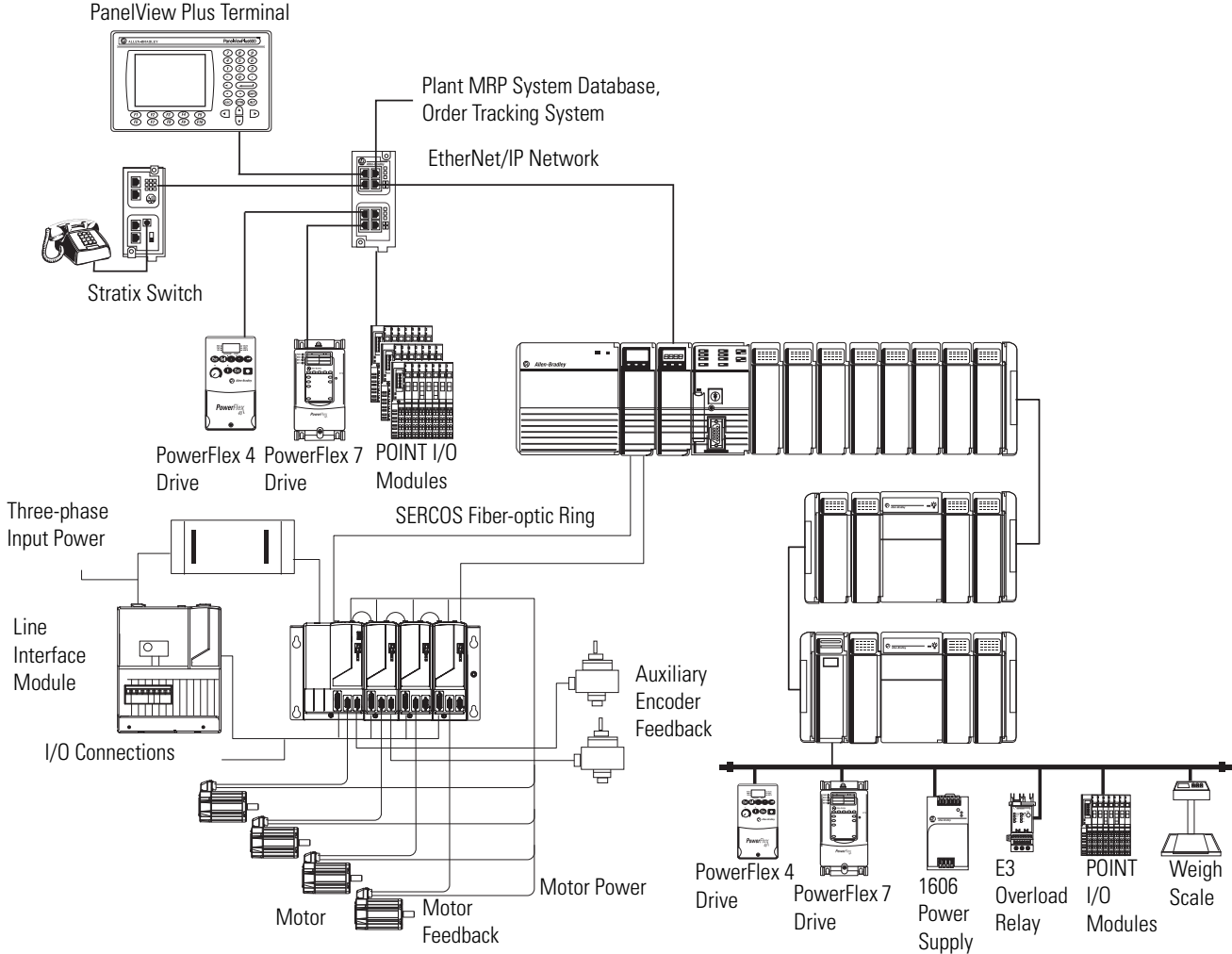
Example Configuration - Three-axis Integrated Motion with Kinetix Servo Drives



A three-axis system with Kinetix drives supports:

- execution of 4 axes per 1 ms.
- velocity bandwidth > 400 Hz and current loop bandwidth > 1000 Hz.
- high resolution, unlimited travel, and absolute feedback features.
- two feedback ports per Kinetix drive.

Example Configuration - Four-axis Integrated Motion with Kinetix Drives and LIM Interface



A four-axis system with Kinetix drives supports:

- execution of 4 axes per 1 ms.
- velocity bandwidth > 400 Hz and current loop bandwidth > 1000 Hz.
- high resolution, unlimited travel, and absolute feedback features.
- two feedback ports per Kinetix drive.
- optional 2094 Line Interface Module (LIM) as the incoming power source for an entire control panel.

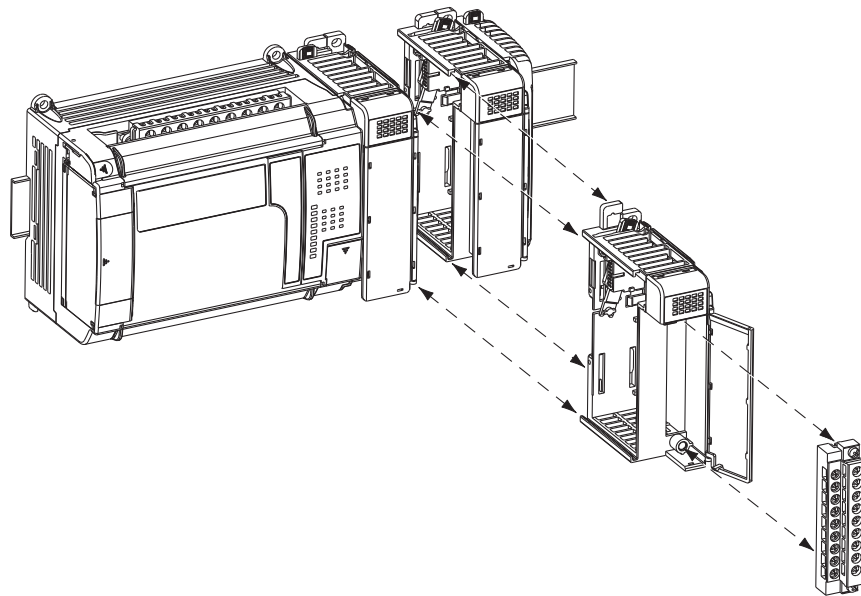
Compact I/O Modules



The 1769 Compact I/O modules can be used with a CompactLogix controller, as well as for expansion I/O in a MicroLogix 1500 controller assembly or in an assembly with a 1769-ADN DeviceNet adapter module. Unless connected to a MicroLogix 1500 base, each bank of I/O modules must include its own power supply.

Install the I/O modules on a panel with two mounting screws or on a DIN rail. The modules mechanically lock together by means of a tongue-and-groove design and have an integrated communication bus that is connected from module to module by a moveable bus connector.

Each I/O module includes a built-in removable terminal block with finger-safe cover for connections to I/O sensors and actuators. The terminal block is behind a door at the front of the module. I/O wiring can be routed from beneath the module to the I/O terminals.



- Once the modules are locked together, the system becomes a rugged assembly.
- Upper and lower tongue-and-groove slots guide the module during installation and secure the module within the system.
- Removable terminal blocks help ease the wiring task.
- Self-lifting, field-wire pressure plates cut installation time.
- The patented bus connector with locking function enables reliable module and system communication.
- A color bar is provided on the front of the module.
- Digital and field circuits are optically isolated.

For detailed specifications, see 1769 Compact I/O Modules Specifications, publication [1769-TD006](#).

About Power Supply Distance Ratings

Check each module's specification table for the power supply distance rating. This indicates how many slot positions the module can be from the power supply.

AC Digital Input Modules

Cat. No.	Inputs/Outputs	Voltage Category	Operating Voltage Range	Power Supply Distance Rating
1769-IA8I	8 inputs, individually isolated	100/120V AC	79...132V AC, 47...63 Hz	8
1769-IA16	16 inputs	100/120V AC	79...132V AC, 47...63 Hz	8
1769-IM12	12 inputs	200/240V AC	159...265V AC, 47...63 Hz	8

AC Digital Output Modules

Cat. No.	Inputs/Outputs	Voltage Category	Operating Voltage Range	Power Supply Distance Rating
1769-OA8	8 outputs	100/240V AC	85...265V AC 47...63 Hz	8
1769-OA16	16 outputs	100/240V AC	85...265V AC 47...63 Hz	8

DC Digital Input Modules

Cat. No.	Inputs/Outputs	Voltage Category	Operating Voltage Range	Power Supply Distance Rating
1769-IG16	16 inputs	5V DC TTL	4.5...5.5V DC 50 mV peak-to-peak ripple max	8
1769-IQ16	16 inputs	24V DC sink/source	10...30V DC @ 30 °C (86 °F) 10...26.4V DC @ 60 °C (140 °F)	8
1769-IQ16F	16 inputs, high-speed	24V DC sink/source	10...30V DC @ 30 °C (86 °F) 10...26.4V DC @ 60 °C (140 °F)	8
1769-IQ32	32 inputs	24V DC sink/source	10...30V DC @ 30 °C (86 °F) 10...26.4V DC @ 60 °C (140 °F)	8
1769-IQ32T	32 inputs	24V DC sink/source	20.4...26.4V DC @ 60 °C (140 °F)	8

DC Digital Output Modules

Cat. No.	Inputs/Outputs	Voltage Category	Operating Voltage Range	Power Supply Distance Rating
1769-OB8	8 outputs	24V DC source	20.4...26.4V DC	8
1769-OB16	16 outputs	24V DC source	20.4...26.4V DC	8
1769-OB16P	16 outputs, protected	24V DC source	20.4...26.4V DC	8
1769-OB32	32 outputs	24V DC source	20.4...26.4V DC	6
1769-OB32T	32 outputs	24V DC source	10.2...26.4V DC	8
1769-OG16	16 outputs	5V DC TTL	4.5...5.5V DC 50 mV peak-to-peak ripple max	8
1769-OV16	16 outputs	24V DC sink	20.4...26.4V DC	8
1769-OV32T	32 outputs	24V DC sink	10.2...26.4V DC	8

DC Digital Combination Input and Output Module

Cat. No.	Inputs/Outputs	Voltage Category	Operating Voltage Range	Power Supply Distance Rating
1769-IQ6XOW4	6 inputs 4 outputs	24V DC sinking/sourcing input AC/DC normally open relay contact outputs	10...30V DC @ 30 °C (86 °F) 10...26.4V DC @ 60 °C (140 °F)	8

Contact Output Modules

Cat. No.	Inputs/Outputs	Operating Voltage Range	Power Supply Distance Rating
1769-OW8	8 outputs	5...265V AC 5...125V DC	8
1769-OW8I	8 outputs, individually isolated	5...265V AC 5...125V DC	8
1769-OW16	16 outputs	5...265V AC 5...125V DC	8

Analog Input Modules

Cat. No.	Inputs/Outputs	Range	Resolution	Power Supply Distance Rating
1769-IF4	4 inputs, differential or single-ended	±10V 0...10V 0...5V 1...5V 0...20 mA 4...20 mA	14 bits (unipolar) 14 bits plus sign (bipolar)	8
1769-IF4I	4 inputs, differential or single-ended, individually isolated	±10V 0...10V 0...5V 1...5V 0...20 mA 4...20 mA	16 bits (unipolar) 15 bits plus sign (bipolar)	8
1769-IF8	8 inputs, differential or single-ended	±10V 0...10V 0...5V 1...5V 0...20 mA 4...20 mA	16 bits (unipolar) 15 bits plus sign (bipolar)	8
1769-IF16C	16 inputs, single-ended	0...20 mA 4...20 mA	16 bits (unipolar) 15 bits plus sign (bipolar)	8
1769-IF16V	16 inputs, differential	±10V 0...10V 0...5V 1...5V	16 bits (unipolar) 15 bits plus sign (bipolar)	8

Analog RTD and Thermocouple Modules

Cat. No.	Inputs/Outputs	Range	Resolution	Power Supply Distance Rating
1769-IR6	6 RTD inputs	0...150 Ω 0...500 Ω 0...1000 Ω 0...3000 Ω	Input filter and configuration dependent	8
1769-IT6	6 thermocouple inputs	0...150 Ω 0...500 Ω 0...1000 Ω 0...3000 Ω	Input filter and configuration dependent	8 ⁽¹⁾

⁽¹⁾ To reduce the effects of electrical noise, install the 1769-IT6 module at least two slots away from the AC power supplies.

Analog Output Modules

Cat. No.	Inputs/Outputs	Range	Resolution	Power Supply Distance Rating
1769-OF2	2 outputs, single-ended	±10V 0...10V 0...5V 1...5V 0...20 mA 4...20 mA	14 bits (unipolar) 14 bits plus sign (bipolar) ±10V DC: sign + 14 bits, 0.64 mV 0...10V DC: sign + 13 bits, 0.64 mV 0...5V DC: sign + 14 bits, 0.64 mV 1...5V DC: sign + 14 bits, 1.28 µA 0...20 mA: sign + 13 bits, 0.64 mV 4...20 mA: sign + 14 bits, 1.28 µA	8
1769-OF4	4 outputs, single-ended	±10V 0...10V 0...5V 1...5V 0...20 mA 4...20 mA	15 bits plus sign unipolar and bipolar	8
1769-OF4CI	4 outputs, differential, individually isolated	0...20 mA 4...20 mA	16 bits (unipolar) 0...20 mA: 15.91 bits, 0.323 µA/bit 4...20 mA: 15.59 bits, 0.323 µA/bit	8
1769-OF4VI	4 outputs, differential, individually isolated	±10V 0...10V 0...5V 1...5V	15 bits plus sign (bipolar) ±10V DC: 15.89 bits, 330 µV/bit 0...10V DC: 14.89 bits, 330 µV/bit 0...5V DC: 13.89 bits, 330 µV/bit 1...5V DC: 13.57 bits, 330 µV/bit	8
1769-OF8C	8 outputs, single-ended	0...20 mA 4...20 mA	16 bits (unipolar) 0...20 mA: 15.91 bits, 0.323 µA/bit 4...20 mA: 15.59 bits, 0.323 µA/bit	8
1769-OF8V	8 outputs, single-ended	±10V 0...10V 0...5V 1...5V	16 bits plus sign (bipolar) ±10V DC: 15.89 bits, 330 µV/bit 0...10V DC: 14.89 bits, 330 µV/bit 0...5V DC: 13.89 bits, 330 µV/bit 1...5V DC: 13.57 bits, 330 µV/bit	8

Analog Combination Input and Output Module

Cat. No.	Inputs/Outputs	Range	Resolution	Power Supply Distance Rating
1769-IF4XOF2	4 differential or single-ended inputs 2 single-ended outputs	0...10V 0...20 mA	Input: 8 bits plus sign Output: 8 bits plus sign	8
1769-IF4FXOF2F	4 fast differential or single-ended inputs 2 fast single-ended outputs	±10V 0...10V 0...5V 1...5V 0...20 mA 4...20 mA	Input: 14 bits (unipolar) 14 bits plus sign (bipolar) Output: 13 bits (unipolar) 13 bits plus sign (bipolar)	8

Specialty I/O Modules

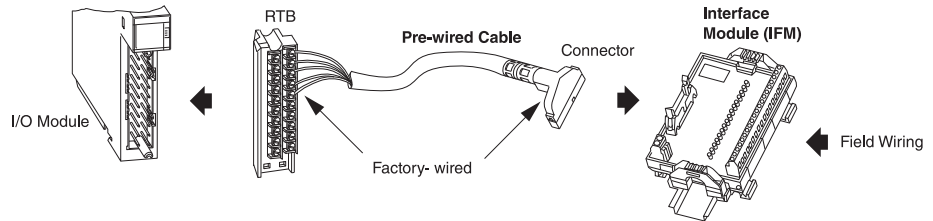
Cat. No.	Description	Power Supply Distance Rating
1769-ARM	Use a 1769-ARM address reserve module to reserve module slots. After creating an I/O configuration and user program, you can remove and replace any I/O module in the system with a 1769-ARM module once you inhibit the removed module in RSLogix 5000 programming software.	8
1769-ASCII	The 1769-ASCII module, a general purpose two-channel ASCII interface, provides a flexible network interface to a wide variety of RS-232, RS-485, and RS-422 ASCII devices. The module provides the communication connections to the ASCII device.	4
1769-BOOLEAN	Use the 1769-BOOLEAN module in applications that require repeatability, such as material handling and packaging, when there is a requirement to activate an output based on an input's transition. If the Boolean expression is true, the output is directed to the ON state. If the Boolean expression is false, the output channel is directed to the OFF state. There are four operators that you can configure as OR, AND, XOR, or none.	8
1769-HSC	Use the 1769-HSC when you need: <ul style="list-style-type: none"> • a counter module that is capable of reacting to high-speed input signals. • to generate rate and time-between-pulses (pulse interval) data. • as many as two channels of quadrature or four channels of pulse/count inputs. 	4
1769-SM1	The Compact I/O to DPI/SCANport module connects to PowerFlex 7-class drives, other DPI-based host devices, and SCANport-based host devices such as 1305 and 1336 PLUS II drives.	6
1769-SM2	The Compact I/O to DSI/Modbus module connects to PowerFlex 4-class drives and to other Modbus RTU slave devices, such as PowerFlex 7-class drives with 20-COMM-H RS485 HVAC adapters.	4

Wiring Systems

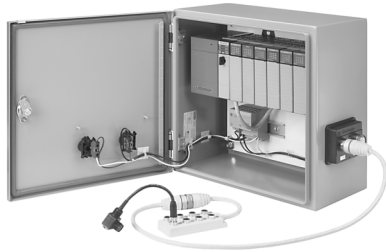
As an alternative to buying removable terminal blocks (RTBs) and connecting the wires yourself, you can buy a wiring system of:



- interface modules (IFMs) that provide the output terminal blocks for digital I/O modules. Use the pre-wired cables that match the I/O module to the IFM.
- analog interface modules (AIFMs) that provide the output terminal blocks for analog I/O modules. Use the pre-wired cables that match the I/O module to the AIFM.
- I/O module-ready cables. One end of the cable assembly is an RTB that plugs into the front of the I/O module. The other end has individually color-coded conductors that connect to a standard terminal block.



PanelConnect Modules



A PanelConnect module and its sensor connection system connect sensors directly to I/O modules by using convenient pre-built cables and connectors.

The PanelConnect module mounts on the enclosure and creates the correct seal for the entry of the sensor connections. You do not need to seal the opening where the sensor cables enter the enclosure, create custom connectors, or wire to those custom connectors.

CompactLogix Power Supplies

Select power supplies based on the controller and the number of additional I/O banks.

For a	Select
1768-L4x controller	<ul style="list-style-type: none"> One 1768 power supply for the controller and 1768 modules One 1769 power supply for each additional bank of I/O modules
1769-L3x controller	<ul style="list-style-type: none"> One 1769 power supply for the controller and local I/O One 1769 power supply for each additional bank of I/O modules
1769-L23x controller	<ul style="list-style-type: none"> No power supply as it is integral to the controller package

Power Supplies

Cat. No.	Description	Voltage Category	Operating Voltage Range
1768-PA3	1768 CompactLogix power supply	120V/220V AC	85...265V AC or 108...132V DC
1768-PB3		24V DC	16.8...31.2V DC
1769-PA2	1769 Compact I/O expansion power supply	120V/220V AC	85...265V AC
1769-PB2		24V DC	19.2...31.2V DC
1769-PA4		120V/220V AC	85...265V AC or 170...265V AC (switch selectable) 47...63 Hz
1769-PB4		24V DC	19.2...31.2V DC

For detailed specifications, see Compact Power Supplies Specifications, publication [1769-TD008](#).

Visualization Products

The visualization strategy combines Rockwell Automation expertise in Allen-Bradley electronic operator interface and industrialized personal computer hardware with Rockwell Software supervisory control software. Current visualization products include:

- FactoryTalk View software.
- PanelView Plus operator interface.
- PanelView Plus CE operator interface.
- industrial computers and monitors.

For more information, see the Operator Interface catalog pages at <http://www.ab.com/en/epub/catalogs/12762/2181376/1239781/>.

Programming Software

Your selection of modules and network configuration determines what software packages you need to configure and program your system.

CompactLogix System Software

If you have	You need	Order
CompactLogix controller 1768 SERCOS motion module	RSLogix 5000 Enterprise Series software	9324 series
1756-CN2, 1756-CN2R 1756-CNB, 1756-CNBR ControlNet communication module	RSNetWorx for ControlNet software (comes with the Standard/RSNetWorx and Professional Editions of RSLogix 5000 Enterprise Series software)	9324-RLD300NXENE (RSNetWorx option) or 9324-RLD700NXENE (RSLogix 5000 Professional software) or 9357-CNETL3 (RSNetWorx for ControlNet software)
1756-DNB DeviceNet communication module	RSNetWorx for DeviceNet software (comes with the Standard/RSNetWorx and Professional Editions of RSLogix 5000 Enterprise Series software)	9324-RLD300NXENE (RSNetWorx option) or 9324-RLD700NXENE (RSLogix 5000 Professional software) or 9357-DNETL3 (RSNetWorx for DeviceNet software)
1756-EN2F, 1756-EN2T 1756-ENBT, 1756-EWEB EtherNet/IP communication module (set the IP address)	RSLinx software or BOOTP/DHCP server utility to set IP addresses (RSLinx Lite and BOOTP server come with RSLogix 5000 Enterprise Series software) Optional RSNetWorx for EtherNet/IP software (comes with the Standard/RSNetWorx and Professional Editions of RSLogix 5000 Enterprise Series software)	9324 series Optional 9357-ENETL3 (RSNetWorx for EtherNet/IP software)
1756-DHRIO communication module 1756-DH485 communication module	RSLinx software	9324 series
1757-FFLD FOUNDATION Fieldbus linking device	RSFieldbus Configuration Software	9308 series
1788-CN2FF FOUNDATION Fieldbus linking device	NI-FBUS Configurator Software and one of the following: RSLinx Gateway, OEM, or Professional software (RSLinx Lite software is not sufficient)	1788-FFCT and 9355 series
Communication card in a workstation	RSLinx software (RSLinx Lite comes with RSLogix 5000 Enterprise Series software)	9324 series

RSLogix 5000 Programming Software

RSLogix 5000 Enterprise Series software is designed to work with Logix5000 controller platforms. RSLogix 5000 Enterprise Series software is an IEC 61131-3 compliant software package that offers relay ladder, structured text, function block diagram, and sequential function chart editors for you to develop application programs. Create your own instructions by encapsulating a section of logic in any programming language into an Add-On Instruction.

RSLogix 5000 Enterprise Series Software Requirements

Description	Value
Personal computer	Pentium II 450 MHz min Pentium III 733 MHz (or better) recommended
Software requirements	<p>Supported operating systems:</p> <p>RSLogix 5000 software, version 17, has been tested on the following operating systems:</p> <ul style="list-style-type: none"> • Microsoft Windows XP Professional with Service Pack 2 • Microsoft Windows Server 2003 R2 Standard Edition with Service Pack 1 and User Account Control (UAC) turned off • Microsoft Windows 2000 Professional with Service Pack 4 • Microsoft Windows Vista Home Basic with SPI • Microsoft Windows Vista Business with SPI <p>RSLogix 5000 software is expected to operate correctly on the following operating systems, but has not been tested:</p> <ul style="list-style-type: none"> • Microsoft • Microsoft Windows XP Home • Microsoft Windows Server 2003 Standard Edition with Service Pack 1 • Microsoft Windows 2000 Professional with Service Pack 1, 2, or 3 • Microsoft Windows Vista Ultimate • Microsoft Windows Vista Home Premium <p>The Chinese, Japanese, and Korean editions of RSLogix 5000 software are supported only on Microsoft Windows XP, Microsoft Windows Vista, and Microsoft Windows Server 2003. RSLogix 5000 software is supported for 32-bit architectures (x86) and has not been tested with 64-bit architectures (x64).</p>
RAM	128 MB min 256 MB recommended
Hard disk space	3 GB of free hard disk space (or more based on application requirements)
Optical drives	DVD
Video requirements	256-color VGA graphics adapter 800 x 600 min resolution (True Color 1024 x 768 recommended)

RSLogix 5000 Enterprise Series Software Packages

- Replace *xx* in the catalog number with the appropriate language designation: ZH=Chinese, EN=English, FR=French, DE=German, IT=Italian, JP=Japanese, KO=Korean, PT=Portuguese, and ES=Spanish.
- For upgrades from one package to another, see the StepForward program.

Available Features	Service Edition 9324-RLD000xxE	Mini Edition 9324-RLD200xxE	Lite Edition 9324-RLD250xxE	Standard Edition: Node Locked 9324-RLD300xxE Concurrent License ⁽¹⁾ 9324-RLD300xxF	Standard/ RSNetWorx Edition 9324-RLD300NXxxE	Full Edition: Node Locked 9324-RLD600xxE Concurrent License ⁽¹⁾ 9324-RLD600xxF	Professional Edition: Node Locked: 9324-RLD700NXxxE Concurrent License ⁽¹⁾ 9324-RLD700NXxxF
Logix5000 controllers supported	All ⁽²⁾	CompactLogix FlexLogix	CompactLogix FlexLogix	All	All	All ⁽³⁾	All
Relay ladder diagram editor ⁽⁴⁾	Upload/download and view	Full support	Full support	Full support	Full support	Full support	Full support
Function block diagram 9324-RLDFBDENE ⁽⁴⁾	Upload/download and view	Upload/download Available separately	Full support	Upload/download Available separately	Upload/download Available separately	Full support	Full support
Sequential function chart editor 9324-RLDSFCE ⁽⁴⁾⁽⁵⁾	Upload/download and view	Upload/download Available separately	Full support	Upload/download Available separately	Upload/download Available separately	Full support	Full support
Structured text 9324-RLDSTXE ⁽⁴⁾	Upload/download and view	Upload/download Available separately	Full support	Upload/download Available separately	Upload/download Available separately	Full support	Full support
PhaseManager 9324-RLDPME	Upload/download	Upload/download Available separately	Upload/download Available separately	Upload/download Available separately	Upload/download Available separately	Full support	Full support
GuardLogix Safety 9324-RLDGLXE ⁽⁶⁾	Upload/download and view	N/A	N/A	Upload/download Available separately	Upload/download Available separately	Full support	Full support
Highly integrated motion	Upload/download and view	Upload/download	Full support	Full support	Full support	Full support	Full support
Graphical trending	Full support	Full support ⁽⁷⁾	Full support ⁽⁷⁾	Full support	Full support	Full support	Full support
DriveExecutive Lite 9303-4DTE01ENE	Available separately	Available separately	Available separately	Included	Included	Included	Included
PIDE Autotune 9323-ATUNEENE ⁽⁸⁾	Available separately	Available separately	Available separately	Available separately	Available separately	Included	Included
Advanced Process Control instructions 9324-RLDAPCENE 9324-RLDAPCCLENE ⁽⁹⁾	Upload/download and view	Available separately	Available separately	Available separately	Available separately	Available separately	Available separately
Routine source protection	Included	Included	Included	Included	Included	Included	Included
RSLogix 5000 project compare	Included	Included	Included	Included	Included	Included	Included

⁽¹⁾ As of RSLogix 5000 programming software, version 16. The software is designed to grab the highest functionality license first. For example, if Standard, Full, and Professional Concurrent licenses are available on the FactoryTalk Activation server, RSLogix 5000 software will grab the highest functionality license first.

⁽²⁾ Service Edition supports controllers with firmware revision 12 and later.

⁽³⁾ Full Edition supports controllers with firmware revision 10 and later.

⁽⁴⁾ A multiple language editor package is available as catalog number 9324-RLDMLPE. It contains the function block, sequential function chart, and structured text editors.

⁽⁵⁾ The Structured Text editor option (catalog number 9324-RLDSTXE) is required to program SFC actions in structured text.

⁽⁶⁾ As of RSLogix 5000 programming software, version 16.

⁽⁷⁾ As of RSLogix 5000 programming software, version 15.

⁽⁸⁾ PIDE Autotune is supported on 1769-L23x controllers, as of RSLogix 5000 programming software, version 18.

⁽⁹⁾ Select catalog number 9324-RLDAPCENE for a design license for software and a runtime license for one controller. Select catalog number 9324-RLDAPCCLENE for only a runtime license for one controller (for pay to deploy).

RSLogix 5000 Integration with Other Applications

Available Features	Service Edition 9324-RLD000xxE	Mini Edition 9324-RLD200xxE	Lite Edition 9324-RLD250xxE	Standard Edition: Node Locked 9324-RLD300xxE Concurrent License ⁽¹⁾ 9324-RLD300xxF	Standard/ RSNetWorx Edition 9324-RLD300NXxxE	Full Edition: Node Locked 9324-RLD600xxE Concurrent License ⁽¹⁾ 9324-RLD600xxF	Professional Edition: Node Locked: 9324-RLD700NXxxE Concurrent License ⁽¹⁾ 9324-RLD700NXxxF
RSlinx Classic software	Lite included	Lite included	Lite included	Lite included	Lite included	Lite included	Lite included
RSNetWorx ControlNet, RSNetWorx DeviceNet, RSNetWorx EtherNet/IP software ⁽²⁾	Available separately	Available separately	Available separately	Available separately	Included	Available separately	Included
FactoryTalk AssetCentre audit support	Included	Included	Included	Included	Included	Included	Included
FuzzyDesigner 9324-RLDFZYENE ⁽³⁾	N/A	Available separately	Available separately	Available separately	Available separately	Available separately	Available separately
RSLogix Emulate 5000 9310-WED200ENE ⁽⁴⁾	Available separately	N/A	N/A	Available separately	Available separately	Available separately	Included
FactoryTalk Security server ⁽⁵⁾	Included	Included	Included	Included	Included	Included	Included
Security server emulator ⁽⁵⁾	Included	Included	Included	Included	Included	Included	Included
RSLogix Architect 9326-LGXARCHENE ⁽⁶⁾	Available separately	Available separately	Available separately	Available separately	Available separately	Available separately	Included
FactoryTalk View SE demo (50 tags/2 hours)	Available separately	Available separately	Available separately	Available separately	Available separately	Available separately	Included

⁽¹⁾ As of RSLogix 5000 programming software, version 16. The software is designed to grab the highest functionality license first. For example, if Standard, Full, and Professional Concurrent licenses are available on the FactoryTalk Activation server, RSLogix 5000 software will grab the highest functionality license first.

⁽²⁾ RSNetWorx for ControlNet software is catalog number 9357-CNETL3. RSNetWorx for DeviceNet software is catalog number 9357-DNETL3. RSNetWorx for EtherNet/IP software is catalog number 9357-ENETL3. They are available together as catalog number 9357-ANETL3.

⁽³⁾ As of RSLogix 5000 programming software, version 16.

⁽⁴⁾ RSLogix Emulate 5000 software does not support the Microsoft Windows Vista operating system at this time.

⁽⁵⁾ FactoryTalk Automation Platform install required - included on disk.

⁽⁶⁾ As of RSLogix 5000 programming software, version 15.

Notes:

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Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products. At <http://www.rockwellautomation.com/support/>, you can find technical manuals, a knowledge base of FAQs, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools.

For an additional level of technical phone support for installation, configuration, and troubleshooting, we offer TechConnect support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://www.rockwellautomation.com/support/>.

Installation Assistance

If you experience an anomaly within the first 24 hours of installation, review the information that is contained in this manual. You can contact Customer Support for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the Worldwide Locator at http://www.rockwellautomation.com/support/americas/phone_en.html , or contact your local Rockwell Automation representative.

New Product Satisfaction Return

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United States	Contact your distributor. You must provide a Customer Support case number (call the phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for the return procedure.

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