MicroLogix 1200 Controller

The MicroLogix 1200 controller provides more computing power and flexibility than the MicroLogix 1000 controller to solve a variety of application needs.

Available in 24- and 40-point versions, the I/O count can be expanded by using rackless I/O modules. This results in larger control systems, greater application flexibility and expandability at a lower cost and reduced parts inventory.

A field-upgradable flash operating system that helps to make sure you will always be up-to-date with the latest features, without having to replace hardware. The controller can be easily updated with the latest firmware via a website download.

Advantages for the MicroLogix 1200 Controller

- Large 6 KB memory (4 KB User Program with 2 KB User Data) to solve a variety of applications.
- High performance expansion I/O options (up to six modules depending on current/power budget).
- Four high-speed inputs (for controllers with 24V DC inputs) that can be used individually as latching (pulse-catch) inputs, event interrupts,or alternately combined as one 20 kHz high-speed counter featuring eight modes of operation.
- One high-speed output that can be configured as 20 kHz pulse train output (PTO) or as pulse width modulated (PWM) output (availableon controllers with embedded 24V DC outputs).
- One, 1 ms, selectable timed interrupt (STI).
- High-resolution, 1 ms timers.
- The same advanced communication options as the MicroLogix 1000 controller, including peer-to-peer and SCADA/RTU networks, DF1 full-duplex, DF1 half-duplex slave, DH-485, DeviceNet and EtherNet/IP , plus DF1 half-duplex master, Modbus master and slave, and DF1 radio modem protocols.
- ASCII read/write capability.
- An additional Programming/HMI Port, providing connectivity to a DF1 full-duplex compatible device such as an operator interface or programming terminal (MicroLogix 1200R controllers only, catalog number 1762-L*xxxxx*R).
- Communication toggle pushbutton that allows the controller's Channel 0 port to toggle between user configured communication parameters and factory default settings for an easy means to switch from Modbus RTU or ASCII protocols (which do not support programming) to DF1 full-duplex (to upload/download, monitor, or edit your program), so a programming computer is able to connect to a controller with an unknown or incorrect communication parameter settings for troubleshooting.
- Optional real-time clock, to allow control to be based on actual time of day, day of week, or other calendar related timing.
- Optional memory module, for external program backup, transport and transfer to another controller. Control program and data are securely backed up to internal flash memory when power is not applied.
- Data file download protection prevents critical user data from being altered via program downloads from programming computers or memory modules.
- Two built-in analog trim potentiometers.
- 32-bit signed integer math.
- Floating-point and double integer data file support.
- Built-in PID capabilities.
- Finger-safe terminal blocks meet global safety standards.
- Removable terminal blocks on 40-point controllers allow pre-wiring.
- Regulatory agency certifications for world-wide market (CE, C-Tick, UL, c-UL, including Class 1 Division 2 Hazardous Location).

Select Family: MicroLogix 1000, 1200 or 1500 Controller

Review the Features, Programming Instructions, Controller Specifications, and Controller Dimensions to determine which level of MicroLogix controller is required.

Features

Step 1 - Select:

- controller family - based on memory, I/O, added functionality, programming instructions and dimensions
- consider future expansion requirements
- consider requirement for online editing
- consider the need for networked communication

MicroLogix Controllers Feature Comparison Chart

Controller	MicroLogix 1000	MicroLogix 1200/1200R	MicroLogix 1500 1764-LSP, 1764-LRP
Bulletin Number	1761	1762	1764
Memory (in user words) User Program/User Data			
Up to 1 KB	1 KB combined (preconfigured)		
Up to 6 KB		4 KB/2 KB	
Up to 7 KB			3.6 KB/4 KB 1764-LSP
Up to 8 KB			
Up to 14 KB			10 KB/4 KB 1764-LRP
Online editing			
Nonvolatile program and data	EEPROM	Flash	Battery back-up static RAM
Memory Module (for program back-up and transport)	Through hand-held programmer	Optional	Optional
I/O			
Embedded Digital I/O, max	32	40	28
Embedded Analog I/O	Two current and two voltage inputs with one current or voltage output on 20 pt. controllers		
Local Expansion I/O, max	None	96	512
Thermocouple/RTD	None	Expansion	Expansion
Networked Expansion I/O, max	None	None	DeviceNet network using 1769-SDN scanner can own 63 slave devices (such as a 1769-ADN adapter with up to 30 I/O modules per 1769-ADN adapter)
Added Functionality			
Trim Potentiometers		2	2
PID		✓	✓
High Speed Counters (embedded)	One @ 6.6 kHz	One @ 20 kHz	Two @ 20 kHz
High Speed Counters (expansion)			with 1769-HSC counter With two quadrature or four pulse/count @ 1 MHz
Real Time Clock		Optional	Optional
Motion: Pulse Width Modulated		1 @ 20 kHz	2 @ 20 kHz
Motion: Pulse Train Outputs		1 @ 20 kHz	2 @ 20 kHz
Data Access Tool			Optional
Data Logging			48 KB
Recipe Storage			Uses user program memory or 48 KB data logging memory
Floating Point Math		✓	✓
Programming			
Windows - RSLogix 500/Micro Software	✓	✓	✓
Hand-held Programmer	✓		
Communication			

MicroLogix Controllers Feature Comparison Chart

Controller	MicroLogix 1000	MicroLogix 1200/1200R	MicroLogix 1500 1764-LSP, 1764-LRP
Bulletin Number	**1761**	**1762**	**1764**
RS-232 Ports	(1) 8-pin mini DIN	(1) 8-pin mini DIN (1) 8-pin mini DIN Programming/HMI	(1) 8-pin mini DIN (1) 9-pin D-shell
DeviceNet Peer-to-Peer Messaging, slave I/O	With 1761-NET-DNI	With 1761-NET-DNI	With 1761-NET-DNI With 1769-SDN
DeviceNet Scanner			With 1769-SDN
EtherNet/IP	With 1761-NET-ENI or 1761-NET-ENIW	With 1761-NET-ENI or 1761-NET-ENIW	With 1761-NET-ENI or 1761-NET-ENIW
Web Server Capabilities	With 1761-NET-ENIW	With 1761-NET-ENIW	With 1761-NET-ENIW
DH-485	Network with 1761-NET-AIC	Network with 1761-NET-AIC	Network with 1761-NET-AIC
SCADA RTU - DF1 half-duplex slave	✓	✓	✓
SCADA RTU - DF1 radio modem		✓	✓
SCADA RTU - Modbus RTU slave		✓	✓
SCADA RTU - Modbus RTU master		✓	✓
ASCII - Read/Write		✓	✓
Operating Power			
120/240V AC	✓	✓	✓
24V DC	✓	✓	✓
12V DC			
Agency Certifications			
CE, C-Tick, UL, and C-UL (including Class I, Division 2 Hazardous Location)	✓	✓	✓

Programming Instructions

MicroLogix controllers have the range of functionality necessary to address diverse applications. The controllers use the following types of instructions:

- Basic instructions (for example, Examine if On, Examine if Off)
- Data Comparison instructions (for example, Equal, Greater than or Equal, Less than or Equal)
- Data Manipulation instructions (for example, Copy, Move)
- Math instructions (for example, Add, Subtract, Multiply)
- Program Flow Control instructions (for example, Jump, Subroutine)
- Application Specific instructions (for example, Programmable Limit Switch, Sequencer)
- High-speed Counter instruction
- High-speed pulse train output (PTO) and pulse width modulated (PWM) instructions (for MicroLogix 1200 and 1500 controllers only)
- Communication instruction (including ASCII for MicroLogix 1200 and 1500 controllers only)
- Recipe instruction (MicroLogix 1500 controllers only)
- Data Logging instruction (MicroLogix 1500 1764-LRP processor only)

Controller Specifications

Controller General Specifications

Attribute	MicroLogix 1000 (Bulletin 1761)	MicroLogix 1200 (Bulletin 1762)	MicroLogix 1500 (Bulletin 1764)
Memory Size and Type	1 KB EEPROM (approximately 737 instruction words, 437 data words)	6 KB flash memory: 4 KB user program, 2 KB user data	1764-LSP processor: 7 KB user memory (total user program plus data)
			1764-LRP processor: 14 KB user memory (total user program plus data)
Data Elements	512 internal bits, 40 timers, 32 counters, 16 control files, 105 integer files, 33 diagnostic status	configurable, user-defined file structure, 2 KB max data size	configurable, user-defined file structure, 4 KB max data size
Throughput	1.5 ms (for a typical 500-instruction program)[1]	2 ms (for a typical 1 KB word user program)[2]	1 ms (for a typical 1 KB word user program)[2]

(1)   A typical program contains 360 contacts, 125 coils, 7 timers, 3 counters, and 5 comparison instructions.

(2)   A typical user program contains bit, timer, counter, math, and file instructions.

Environmental Specifications and Certifications

Attribute	1761 Controllers	1762 Controllers	1764 Controllers
Operating Temperature	Horizontal mounting: 0…55 °C (32…131 °F) Vertical mounting[1]: 0 °C…45 °C (32 °F…113 °F) for digital I/O, 0 °C…40 °C (32 °F…104 °F) for analog I/O	0…55 °C (32…131 °F)	0…55 °C (32…131 °F)
Storage Temperature	-40…85 °C (-40…185 °F)	-40…85 °C (-40…185 °F)	-40…85 °C (-40…185 °F)[2]
Relative Humidity	5…95%, noncondensing	5…95%, noncondensing	5…95%, noncondensing
Vibration	Operating: 5 Hz…2 kHz, 0.381 mm (0.015 in.) peak-to-peak, 2.5 g panel mounted[3], 1 hr per axis Nonoperating: 5 Hz…2 kHz, 0.762 mm (0.030 in.) peak-to-peak, 5 g, 1 hr per axis	10…500 Hz, 5 g, 0.030 in. max peak-to-peak, 2 hours each axis (Relay Operation: 1.5 g)	10…500 Hz, 5 g, 0.030 in. max peak-to-peak (Relay Operation: 2 g)
Shock, Operating	10 and 16 Point Controllers: 10 g peak acceleration (7.5 g DIN rail mounted) (11 ± 1 ms duration) 3 times each direction, each axis 32 Point and Analog Controllers: 7.5 g peak acceleration (5.0 g DIN rail mounted) (11 ± 1 ms duration) 3 times each direction, each axis	30 g; 3 pulses each direction, each axis (Relay Operation: 7 g)	without Data Access Tool installed: 30 g panel mounted (15 g DIN Rail mounted) Relay operation: 7.5 g panel mounted (5 g DIN Rail mounted) with Data Access Tool installed: 20 g panel mounted (15 g DIN Rail mounted) Relay operation: 7.5 g panel mounted (5 g DIN Rail mounted)

Environmental Specifications and Certifications

Attribute	1761 Controllers	1762 Controllers	1764 Controllers
Shock, Nonoperating	10 and 16 Point Controllers: 20g peak acceleration (11 ± 1 ms duration), 3 times each direction, each axis 32 Point and Analog Controllers: 20g peak acceleration (11 ± 1 ms duration), 3 times each direction, each axis	50 g panel mounted (40 g DIN Rail mounted); 3 pulses each direction, each axis	without Data Access Tool installed: 40 g panel mounted (30 g DIN Rail mounted) with Data Access Tool installed: 30 g panel mounted (20 g DIN Rail mounted)
Agency Certification	- UL Listed Industrial Control Equipment for use in Class 1, Division 2, Hazardous Locations, Groups A, B, C, D - C-UL Listed Industrial Control Equipment for use in Canada - CE marked for all applicable directives - C-Tick marked for all applicable acts		
Electrical/EMC	The controller has passed testing at the following level		
ESD Immunity	EN 61000-4-2 8 kV	EN 61000-4-2 4 kV contact, 8 kV air, 4 kV indirect	
Radiated Immunity			
Radiated RF Immunity	EN 61000-4-3 10 V/m, 27…1000 MHz, 3 V/m, 87…108 MHz, 174…230 MHz, and 470…790 MHz	EN 61000-4-3 10 V/m, 80…1000 MHz, 80% amplitude modulation, +900 MHz keyed carrier	
Electronic Fast Transient/Burst (EFT/B) Immunity	EN 61000-4-4 Power Supply, I/O: 2 kV Communication: 1 kV	EN 61000-4-4 Power Supply, I/O: 2 kV, 5 kHz Communication Cable: 1 kV, 5 kHz	
Surge Transient Immunity	EN 61000-4-5 Communication: 1 kV galvanic gun I/O: 2 kV CM (Common mode), 1 kV DM (Differential mode) AC Power Supply: 4 kV CM (Common mode), 1 kV DM (Differential mode)	EN 61000-4-5 Communication: 1 kV galvanic gun I/O: 2 kV CM (common mode), 1 kV DM (differential mode) AC Power Supply: 4 kV CM (Common mode), 2 kV DM (Differential mode) DC Power Supply: 500V CM (Common mode), 500V DM (Differential mode)	
Conducted RF Immunity	EN 61000-4-6 Power Supply, I/O: 10V, 150 kHz…30 MHz Communication Cable 3V	EN 61000-4-6 Power Supply, I/O: 10V Communication Cable 3V	

(1)   DC input voltage derated linearly from 30 °C (86 °F) (30…26.4V).

(2)   Recommended storage temperature for maximum battery life (5 years typical with normal operating/storage conditions) of Real-time Clock modules is -40…40 °C (-40…104 °F). Battery life can be significantly shorter at elevated temperatures. Applies to 1762-RTC, 1762-MM1RTC, 1764-RTC, 1764-MM1RTC, and 1764-MM2RTC devices.

(3)   DIN rail mounted controller is 1 g.

Select MicroLogix 1200 Controllers

MicroLogix 1200 Controllers Catalog Number Detail

1762 - L 24 A W A R

Bulletin Number

Base Unit

Number of I/O

Input Type:
A = 120V AC
B = 24V DC

Programming/HMI Port
R = Equipped
None = Not Equipped

Power Supply
A = 120/240V AC
B = 24V DC

Output Type:
W = Relay
X = Relay/24V DC FET

Step 8 - Select:

- controller - review power and I/O configurations to select a controller catalog number; see power supply and I/O specifications for more detailed information
- accessories - memory and real-time clock modules
- record your selections in the Selection Record (start on page 86)
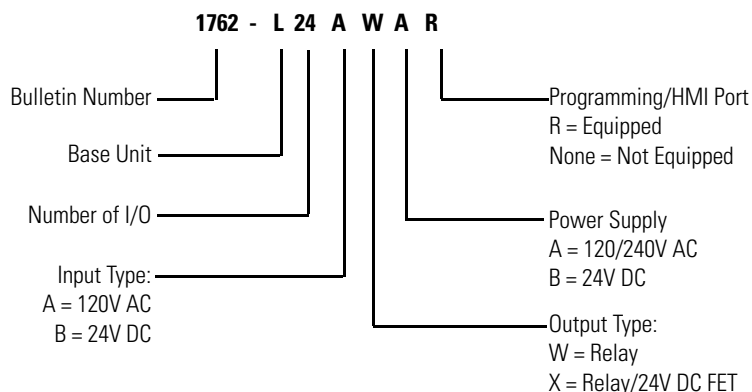
MicroLogix 1200 Controller Power and I/O Configuration

Cat. No.	Line Voltage	Number of Inputs	Number of Outputs	High Speed I/O
1762-L24AWA, -L24AWAR	120/240V AC	(14) 120V AC	(10) Relay	N/A
1762-L40AWA, -L40AWAR	120/240V AC	(24) 120V AC	(16) Relay	N/A
1762-L24BWA, -L24BWAR	120/240V AC	(10) Standard 24V DC (4) Fast 24V DC	(10) Relay	(4) 20 kHz input
1762-L40BWA, -L40BWAR	120/240V AC	(20) Standard 24V DC (4) Fast 24V DC	(16) Relay	(4) 20 kHz input
1762-L24BXB, -L24BXBR	24V DC	(10) Standard 24V DC (4) Fast 24V DC	(5) Relay (4) Standard 24V DC FET (1) Fast 24V DC FET	(4) 20 kHz input (1) 20 kHz output
1762-L40BXB, -L40BXBR	24V DC	(20) Standard 24V DC (4) Fast 24V DC	(8) Relay (7) Standard 24V DC FET (1) Fast 24V DC FET	(4) 20 kHz input (1) 20 kHz output

MicroLogix 1200 Controller Power Supply Specifications

Attribute		1762-					
		L24AWA, L24AWAR	L40AWA, L40AWAR	L24BWA, L24BWAR	L40BWA, L40BWAR	L24BXB, L24BXBR	L40BXB, L40BXBR
Power Supply Voltage		85…265V AC @ 47…63 Hz				20.4…26.4V DC Class 2 SELV	
Power Consumption		68 VA	80 VA	70 VA	82 VA	27 W	40 W
Power Supply Inrush Current, max		120V AC: 25 A for 8 ms 240V AC: 40 A for 4 ms				24V DC: 15 A for 20 ms	24V DC: 15 A for 30 ms
Load Current[1], max	5V DC	400 mA	600 mA	400 mA	600 mA	400 mA	600 mA
	24V DC	350 mA	500 mA	350 mA	500 mA	350 mA	500 mA
Load Power, max		10.4 W	15 W	12 W	16 W	10.4 W	15 W
24V DC Sensor Power		---	---	250 mA, 400 µF capacitance, max	400 mA, 400 µF capacitance, max	---	---

(1) See Perform MicroLogix 1200 Controller System Expansion Calculations on page 62 for an example system validation worksheet to calculate expansion I/O power usage.

MicroLogix 1200 Controller DC Input Power Requirements for BXB Units

1762-L24BXB, 1762-L24BXBR Typical Power Requirements

1762-L40BXB, 1762-L40BXBR Typical Power Requirements
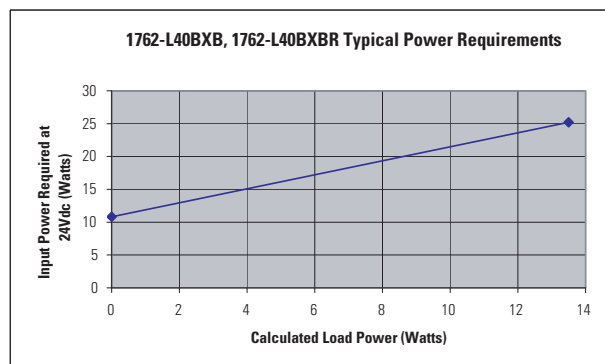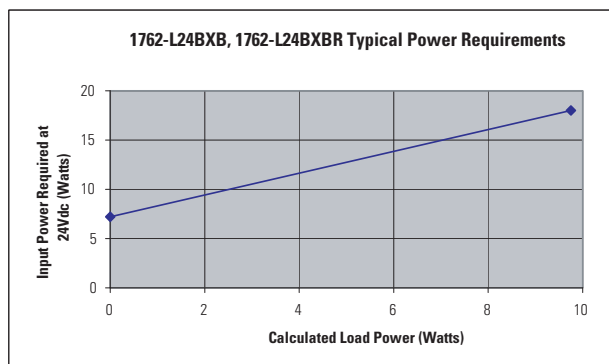
MicroLogix 1200 Controller Input Specifications

Attribute	1762-L24AWA, 1762-L24AWAR 1762-L40AWA, 1762-L40AWAR	1762-L24BWA, 1762-L24BXB, 1762-L40BWA, 1762-L40BXB 1762-L24BWAR, 1762-L24BXBR, 1762-L40BWAR, 1762-L40BXBR	
		Inputs 0 through 3	**Inputs 4 and higher**
On-state Voltage Range	79…132V AC @ 47 Hz…63 Hz	14…26.4V DC @ 55 °C (131 °F) 14…30.0V DC @ 30 °C (86 °F)	10…26.4V DC @ 55 °C (131 °F) 10…30.0V DC @ 30 °C (86 °F)
Off-state Voltage Range	0…20V AC	0…5V DC	
Operating Frequency	N/A	0 Hz…20 kHz	0 Hz…1 kHz (scan time dependent)
Signal Delay, max	ON Delay = 20 ms OFF Delay = 20 ms	Standard inputs: selectable from 0.5…16 ms high-speed inputs: selectable from 0.025…16 ms	
On-state Current: min nom max	5.0 mA @ 79V AC 12 mA @ 120V AC 16.0 mA @ 132V AC	2.5 mA @ 14V DC 7.3 mA @ 24V DC 12.0 mA @ 30V DC	2.0 mA @ 10V DC 8.9 mA @ 24V DC 12.0 mA @ 30V DC
Off-state Leakage Current, max	2.5 mA, max	1.5 mA, min	
Impedance, nom	12 kΩ @ 50 Hz 10 kΩ @ 60 Hz	3.3 kΩ	2.7 kΩ
Inrush Current, max	250 mA at 120V AC	---	

MicroLogix 1200 Controller Digital Output Specifications

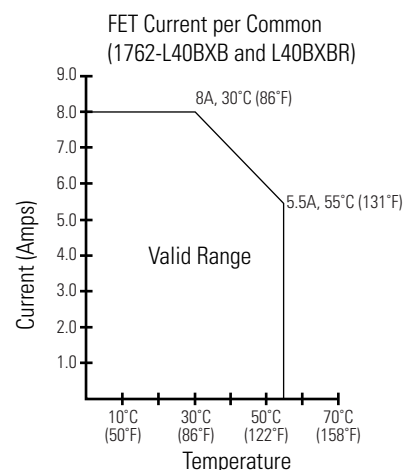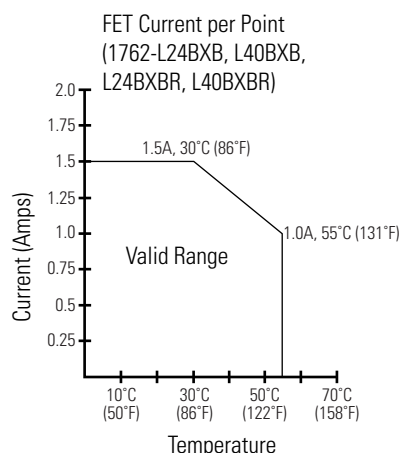| Attribute	1762-		
	L24AWA, L24BWA, L24BXB, L40AWA, L40BWA, L40BXB, L24AWAR, L24BWAR, L24BXBR, L40AWAR, L40BWAR, L40BXBR	**L24BXB, L40BXB L24BXBR, L40BXBR**	
	Relay	**FET Standard Operation**	**FET High-speed Operation (Output 2 only)**
Operating Voltage Range	5…125V DC 5…264V AC	21.6…27.6V DC	21.6…27.6V DC
Continuous Current per Point, max	See MicroLogix 1500 Controller Relay Contact Rating on page 72.	See below, MicroLogix 1200 Controller FET Standard Outputs Continuous Current per Point, max.	100 mA
Continuous Current per Common, max	8.0 A	7.5 A for L24BXB, L24BXBR 8.0 A for L40BXB, L40BXBR	
Continuous Current per Controller, max	30 A or total of per-point loads, whichever is less at 150V max 20 A or total of per-point loads, whichever is less at 240V max		
On-state Current, min	10.0 mA	1 mA	10.0 mA
Off-state Leakage Current, max	0 mA	1 mA	
Signal Delay, max - resistive load	ON Delay = 10 ms OFF Delay = 10 ms	ON Delay = 0.1 ms OFF Delay = 1.0 ms	ON Delay = 6 µs OFF Delay = 18 µs
Surge Current per Point (peak)	---	4 A for 10 ms[1]	

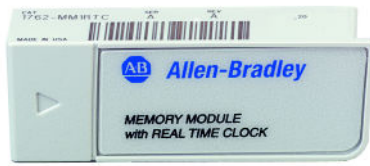(1) Repeatability is once every 2 seconds @ 55 °C (131 °F), once every 1 second @ 30 °C (86 °F).

MicroLogix 1200 Controller Relay Contact Rating

Voltage, max	Amperes		Amperes Continuous	Voltamperes	
	Make	**Break**		**Make**	**Break**
240V AC	7.5 A	0.75 A	2.5 A	1800 VA	180 VA
120V AC	15 A	1.5 A			
125V DC	0.22 A[1]		1.0 A	28 VA	
24V DC	1.2 A[1]		2.0 A		

(1) For DC voltage applications, the make/break ampere rating for relay contacts can be determined by dividing 28 VA by the applied DC voltage.
For example, 28 VA/48V DC = 0.58 A. For DC voltage applications less than 48V, the make/break ratings for relay contacts cannot exceed 2 A. For DC voltage applications greater than 48V, the make/break ratings for relay contact cannot exceed 1 A.

MicroLogix 1200 Controller FET Standard Outputs Continuous Current per Point, max

FET Current per Point (1762-L24BXB, L40BXB, L24BXBR, L40BXBR)

FET Current per Common (1762-L40BXB and L40BXBR)

MicroLogix 1200 Memory and Real-Time Clock Modules

The controller is shipped with a memory module port cover in place. You can order the memory module, real-time clock, or combination module to suit your needs.

Real-time Clock (1762-RTC)

- Allows for time/date scheduling
- Self-contained battery provides long-term time base

Memory Module (1762-MM1)

- User program and data back-up
- Program compare
- Data file protection
- Memory module write protection
- Removal/insertion under power

Combination Memory and Real-time Clock Module (1762-MM1RTC)

Provides all real-time clock and memory back-up functions of the 1762-RTC and 1762-MM1 modules

Select MicroLogix 1200 Expansion I/O

MicroLogix 1200 controllers expand by using the same 1762 I/O platform as MicroLogix 1100 controllers. The 1762 I/O expansion modules provide superior functionality in a small sized low-cost package. A variety of modules complement and extend the capabilities of MicroLogix 1200 controllers by maximizing the flexibility of I/O count and type.

The MicroLogix 1200 system design allows modules to be either DIN rail or panel mounted. The DIN latches and screw mounting holes are an integral part of the package design.

Controller I/O can be expanded by using up to six expansion modules per controller (depending on power budget).

Step 9 - Select:

- I/O modules - digital, analog, and temperature
- perform system expansion calculations
- record your selections in the Selection Record (start on)

1762 Expansion I/O Modules Connected to a MicroLogix 1200 Controller

Perform MicroLogix 1200 Controller System Expansion Calculations

A download is also available for system validation. On the Internet, go to http://www.ab.com/micrologix.

To have a valid system, both current and power requirements must be satisfied. Use the following worksheets to make your calculations.

Follow these steps to verify the controller power supply loading.

1. Use the following table to select the components for your system. Do not exceed the MAXIMUM LIMIT for the number of I/O modules.

2. Fill in the current amounts and add up the TOTAL CALCULATED CURRENT.

MicroLogix 1200 Controller Power Supply Loading - Calculate System Current

Cat. No.		Bus Current Draw Attribute		Calculated Current for System	
		at 5V DC (mA)	at 24V DC (mA)	at 5V DC (mA)	at 24V DC (mA)
1761-NET-AIC[1][2]		0	120[2]		
1761-NET-ENI, 1761-NET-ENIW[1][2]		0	100[2]		
2707-MVH232 or 2707-MVP232[1][2]		0	80[2]		
Cat. No.	**n = Number of Modules (6 max)**	**A**	**B**	**n x A**	**n x B**
1762-IA8		50	0		
1762-IQ8		50	0		
1762-IQ8OW6		110	80		
1762-IQ16 (Series A)		60	0		
1762-OA8		115	0		
1762-OB8		115	0		
1762-OB16		175	0		
1762-OW8		80	90		
1762-OW16 (Series A)		120	140		
1762-OX6I		110	110		
1762-IF2OF2		40	105		
1762-IF4		40	50		
1762-OF4		40	165		
1762-IR4		40	50		
1762-IT4		40	50		
1762-OV32T		175	0		
1762-OB32T		175	0		
1762-IQ32T		170	0		
1762-IQ16 (Series B)		70	0		
1762-OW16 (Series B)		140	180		
TOTAL MODULES:		**TOTAL CALCULATED CURRENT:**		**(C)**	**(D)**
For 1762-L24BWA, 1762-L40BWA, 1762-L24BWAR, and 1762-L40BWAR only, add sum of any User 24V DC Sensor Current				**(E)**	

(1) These are optional accessories. Current is consumed only if the accessory is installed.

(2) Current for the 1761-NET-AIC or 1761-NET-ENI(W) can be supplied by the controller's communication port or from an external 24V DC source. No current is consumed from the controller when a user-supplied, external source is used. If an external source is to be used, do not select the device here. The current for a 2707-MVH232 or 2707-MVP232 MicroView Operator Interface is supplied from the controller's communication port, if directly connected.

3. Using the table below, verify that (C), (D), and (E) do not exceed the MAXIMUM LIMITS. If the MAXIMUM LIMIT is exceeded, you will need to adjust your selections.

MicroLogix 1200 Controller Maximum Load Current

Cat. No.	Load Current	5V DC	24V DC	User 24V DC Sensor Current
1762-L24AWA 1762-L24AWAR 1762-L24BXB, 1762-L24BXBR	Calculated Value	(C)	(D)	N/A
	MAXIMUM LIMIT	400 mA	350 mA	
1762-L24BWA 1762-L24BWAR	Calculated Value	(C)	(D)	(E)
	MAXIMUM LIMIT	400 mA	350 mA	250 mA
1762-L40AWA 1762-L40AWAR 1762-L40BXB, 1762-L40BXBR	Calculated Value	(C)	(D)	N/A
	MAXIMUM LIMIT	600 mA	500 mA	
1762-L40BWA 1762-L40BWAR	Calculated Value	(C)	(D)	(E)
	MAXIMUM LIMIT	600 mA	500 mA	400 mA

4. Use the table below to verify that the system is within the power loading limits of the controller.

Fill in the (C), (D), and (E) values where indicated. Then calculate Watts and add up the Total Watts. Verify that Total Watts does not exceed the MAXIMUM POWER LIMIT. If the MAXIMUM POWER LIMIT is exceeded, you will need to adjust your selections.

MicroLogix 1200 Controller Maximum Load Power

Cat. No.	5V Power Consumption Calculated Watts			24V Power Consumption Calculated Watts			Calculated Watts (sum of 5V and 24V)	MAXIMUM POWER LIMIT
1762-L24AWA 1762-L24AWAR	**(C)**	x 5V	= W	**(D)**	x 24V	= W	W	10.4 W
1762-L24BXB 1762-L24BXBR	**(C)**	x 5V	= W	**(D)**	x 24V	= W	W	10.4 W
1762-L24BWA 1762-L24BWAR	**(C)**	x 5V	= W	**(D)+(E)**	x 24V	= W	W	12 W
1762-L40AWA 1762-L40AWAR	**(C)**	x 5V	= W	**(D)**	x 24V	= W	W	15 W
1762-L40BXB 1762-L40BXBR	**(C)**	x 5V	= W	**(D)**	x 24V	= W	W	15 W
1762-L40BWA 1762-L40BWAR	**(C)**	x 5V	= W	**(D)+(E)**	x 24V	= W	W	16 W

Select Replacement Parts

Step 14 - Select:

- replacement parts
- record your selections in the Selection
  Record (start on)

MicroLogix 1000 Replacement Parts

Description	Cat. No.
Terminal Cover Doors for 1761-L32AWA, -L32BWA, or -L32AAA (2 doors per package)	1761-RPL-T32X
Replacement Terminal Block — 6-position DH-485 plug/connector used with the 1761-NET-AIC.	1746-RT30
Replacement Terminal Block — 5-position DeviceNet plug/connector used with the 1761-NET-DNI.	1761-RPL-RT00

MicroLogix 1100 Replacement Part

Description	Cat. No.
Replacement Battery	1763-BA

MicroLogix 1200 Replacement Parts

Description	Cat. No.
Replacement Removable Terminal Block — (1) 25-pt double row, (1) 29-point double row for 1762-L40AWA and -L40BWA	1762-RPLRTB40

MicroLogix 1400 Replacement Parts

Description	Cat. No.
Replacement Battery	1747-BA
Replacement Removable Terminal Block — (1) 25-pt double row, (1) 29-point double row for all 1766-L32*xxxx*	1762-RPLRTB40

MicroLogix 1500 Replacement Parts

Description	Cat. No.
Replacement Terminal Block — 17-pt for 1764-24AWA and 1764-24BWA inputs	1764-RPLTB1
Replacement Terminal Block — 21-pt for 1764-28BXB inputs and outputs for all base units	1764-RPLTB2
Replacement Battery	1747-BA