

Available Modules



1762 Expansion I/O Modules

Cat. No.	Description
Digital	
1762-IA8	8-Point 120V AC Input Module
1762-IQ8	8-Point Sink/Source 24V DC Input Module
1762-IQ8OW6	8 Point Sink/Source 24V DC Input/6-Point AC/DC Relay Output Combination Module
1762-IQ16	16-Point Sink/Source 24V DC Input Module
1762-OA8	8-Point 120/240V AC Triac Output Module
1762-OB8	8-Point Sourcing 24V DC Output Module
1762-OB16	16-Point Sourcing 24V DC Output Module
1762-OW8	8-Point AC/DC Relay Output Module
1762-OW16	16-Point AC/DC Relay Output Module
1762-OX6I	6-Point Isolated AC/DC Relay Output Module
1762-OV32T	32-Point Solid State 24V DC Sink Output Module
1762-OB32T	32-Point Solid State 24V DC Source Output Module
1762-IQ32T	32-Point DC Input Module
Analog	
1762-IF4	4-Channel Voltage/Current Analog Input Module
1762-OF4	4-Channel Voltage/Current Analog Output Module
1762-IF2OF2	Combination 2-Channel Input 2-Channel Output Voltage/Current Analog Module
Specialty	
1762-IR4	4-Channel RTD/Resistance Input Module
1762-IT4	4-Channel Thermocouple/mV Input Module

1762 Temperature Input Modules

Use these modules as a cost effective means of addressing process applications that require temperature measurement and control. Each channel can be individually configured by using RSLogix 500 programming software. On-screen configuration lets you choose the input type, filtering frequency, data format, and status data. On-board scaling is also provided.

1762 Temperature Expansion Input Modules Specifications

Attribute	1762-IT4	1762-IR4
Bus Current Draw, max	40 mA @ 5V DC 50 mA @ 24V DC	40 mA @ 5V DC 50 mA @ 24V DC
Number of Channels	4 input channels plus a CJC sensor	4 input channels
Accepted Inputs	Thermocouples Types: J, K, T, E, R, S, B, N, C Millivolt Input Ranges: ± 50 mV and ± 100 mV	RTDs: Platinum (385 and 3916), Copper (426), Nickel (672 and 618), Nickel-Iron (518) Resistance Ranges: 0...3000 Ω
Filter Frequency	10 Hz...1 kHz	10 Hz...1 kHz
Temperature Units	$^{\circ}\text{C}$ or $^{\circ}\text{F}$	$^{\circ}\text{C}$ or $^{\circ}\text{F}$
Data Formats	Raw/Proportional, Engineering Units, Engineering Units x 10, Scaled-for-PID, Percent Range	
Accuracy at 25 $^{\circ}\text{C}$ (77 $^{\circ}\text{F}$)	Thermocouple Inputs: ± 0.5 ... ± 3.0 $^{\circ}\text{C}$ (± 0.9 ... ± 5.4 $^{\circ}\text{F}$) depending on thermocouple type Millivolt Inputs: ± 15 ... ± 20 mV	With Autocalibration enabled... RTD Inputs: ± 0.2 ... ± 0.6 $^{\circ}\text{C}$ (± 0.36 ... ± 1.08 $^{\circ}\text{F}$) depending on RTD type Resistance Inputs: ± 0.5 ... ± 1.5 Ω depending on resistance value
Accuracy at 0...55 $^{\circ}\text{C}$ (32...131 $^{\circ}\text{F}$)	± 0.8 ... ± 10 $^{\circ}\text{C}$ (± 1.5 ... ± 18 $^{\circ}\text{F}$) depending on thermocouple type Millivolt Inputs: ± 25 ... ± 30 mV	With Autocalibration enabled... RTD Inputs: ± 0.4 ... ± 1.1 $^{\circ}\text{C}$ (± 0.72 ... ± 1.98 $^{\circ}\text{F}$) depending on RTD type Resistance Inputs: ± 0.25 ... ± 2.5 Ω depending on resistance value
Channel Update Time (typical)	7...303 ms per enabled channel + CJC update time, depending on filter selection (CJC update time is equal to the largest enabled channel's update time.)	6...303 ms per enabled channel, depending on filter selection
Channel Diagnostics	Over- or under-range and open-circuit by bit reporting	Over- or under-range or broken input by bit reporting
Calibration	The module performs autocalibration on channel enable and on a configuration change between channels. You can also program the module to calibrate every five minutes.	
Common Mode Noise Rejection	115 dB min @ 50 Hz (with 10 Hz or 50 Hz filter) 115 dB min @ 60 Hz (with 10 Hz or 60 Hz filter)	110 dB min @ 50 Hz (with 10 or 50 Hz filter) 110 dB min @ 60 Hz (with 10 or 60 Hz filter)
Normal Mode Noise Rejection	85 dB min @ 50 Hz (with 10 Hz or 50 Hz filter) 85 dB min @ 60 Hz (with 10 Hz or 60 Hz filter)	70 dB min @ 50 Hz (with 10 or 50 Hz filter) 70 dB min @ 60 Hz (with 10 or 60 Hz filter)
Input Group to System Isolation	720V DC for 1 minute	707V DC for 1 minute
Channel-to-Channel Isolation	± 10 V DC	± 10 V DC
Repeatability ⁽¹⁾	Thermocouples at 25 $^{\circ}\text{C}$ (77 $^{\circ}\text{F}$) and 10 Hz filter selected: ± 0.1 ... ± 2.0 $^{\circ}\text{C}$ (± 0.18 ... ± 3.6 $^{\circ}\text{F}$) depending on thermocouple type Millivolt Inputs: ± 6 μV	± 0.1 $^{\circ}\text{C}$ (± 0.18 $^{\circ}\text{F}$) for Nickel and Nickel-Iron ± 0.2 $^{\circ}\text{C}$ (± 0.36 $^{\circ}\text{F}$) for other RTD inputs ± 0.04 Ω for 150 Ω resistances ± 0.2 Ω for other resistances
Input Impedance	>10 M Ω	>10 M Ω

(1) Repeatability is the ability of the input module to register the same reading in successive measurements for the same input signal.

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.

Master List of Catalog Numbers

Cat. No.	Description	Quantity Selected
1762-L40BWA	MicroLogix 1200 40-Point AC Controller	
1762-L40BWAR	MicroLogix 1200 40-Point AC Controller with Programming/HMI Port	
1762-L40BXB	MicroLogix 1200 40-Point DC Controller	
1762-L40BXHR	MicroLogix 1200 40-Point DC Controller with Programming/HMI Port	
1762-MM1	MicroLogix 1200 Memory Module	
1762-MM1RTC	MicroLogix 1200 Memory Module with Real-Time Clock	
1762-RTC	MicroLogix 1200 Real-Time Clock Module	
MicroLogix 1100/1200/1400 I/O		
1762-IA8	8-Point 120V AC Input Module	
1762-IF2OF2	Combination 2-Channel Input 2-Channel Output Voltage/Current Analog Module	
1762-IF4	4-Channel Voltage/Current Analog Input Module	
1762-IQ16	16-Point Sink/Source 24V DC Input Module	
1762-IQ8	8-Point Sink/Source 24V DC Input Module	
1762-IQ8OW6	8 Point Sink/Source 24V DC Input/6-Point AC/DC Relay Output Combination Module	
1762-IR4	4-Channel RTD/Resistance Input Module	
1762-IT4	4-Channel Thermocouple/mV Input Module	
1762-OA8	8-Point 120/240V AC Triac Output Module	
1762-OB16	16-Point Sourcing 24V DC Output Module	
1762-OB8	8-Point Sourcing 24V DC Output Module	
1762-OF4	4-Channel Voltage/Current Analog Output Module	
1762-OW16	16-Point AC/DC Relay Output Module	
1762-OW8	8-Point AC/DC Relay Output Module	
1762-OX6I	6-Point Isolated AC/DC Relay Output Module	
1762-OV32T	Solid State 24V DC Sink Output Module	
1762-OB32T	Solid State 24V DC Source Output Module	
1762-IQ32T	DC Input Module	
MicroLogix 1400 Controllers and Accessories		
1766-L32BWA	MicroLogix 1400 32-point AC controller	
1766-L32AWA	MicroLogix 1400 32-point AC controller	
1766-L32BXB	MicroLogix 1400 32-point DC controller	
1766-L32BWAA	MicroLogix 1400 32-point AC controller with Analog	
1766-L32AWAA	MicroLogix 1400 32-point AC controller with Analog	
1766-L32BXBA	MicroLogix 1400 32-point DC controller with Analog	
1766-MM1	MicroLogix 1400 Memory Module	
MicroLogix 1500 Controllers and Accessories		
1764-24AWA	MicroLogix 1500 24-Point AC Base Unit	
1764-24BWA	MicroLogix 1500 24-Point AC Base Unit	
1764-28BXB	MicroLogix 1500 28-Point DC Base Unit	
1764-DAT	MicroLogix Data Access Tool	
1764-LRP	MicroLogix 1500 Processor Unit with RS-232 Port	
1764-LSP	MicroLogix 1500 Processor Unit	
1764-MM1	MicroLogix 1500 8 KB Memory Module	
1764-MM1RTC	MicroLogix 1500 8 KB Memory Module with Real-Time Clock	
1764-MM2	MicroLogix 1500 16 KB Memory Module	