

MicroLogix 1000 Controllers

Specifications

General Specifications

24V DC Sensor Power	200 mA max. with 200 µF capacitive load max. (for 1761-L10BWA, -L16NWA, -L16BWA, -L20BWA-5A, and -L32BWA only)
Power Cycles	50,000 minimum
Operating Temperature	
Horizontal mounting	0...55 °C (32...131 °F)
Vertical mounting	0...40 °C (32...104 °F)
Nonoperating Temperature	-40...85 °C (-40...185 °F)
Relative Humidity	5...95% noncondensing
Operating Shock	10 g peak acceleration (7.5g DIN rail mounted)* (11±1 ms duration), 3 times each direction, each axis
Nonoperating Shock	20 g peak acceleration (11±1 ms duration), 3 times each direction, each axis
Vibration	5 Hz...2 kHz, 0.381 mm (0.015 in) peak-to-peak, 2.5 g panel mounted, 1 hr per axis
Vibration, Non-Operating	5 Hz...2 kHz, 0.762 mm (0.030 in) peak-to-peak, 5 g, 1 hr per axis
Terminal Screw Torque	0.9 N•m max (8.0 lb•in)
ESD Immunity	8 kV air (IEC801-2)
Radiated RF Immunity	10V/m, 27...1000 MHz, 3V/m, 87...108 MHz, 174...230 MHz, and 470...790 MHz (IEC801-3)
EFT/B Immunity	2 kV Power Supply, 1 kV I/O (IEC801-4)
Isolation Voltage	1500V AC
Memory Type	EEPROM
Memory Size	1K words (approximately 737 instruction words, 437 data-table words)
Timers/Counters, Max.	40 timers; 32 counters (fixed)
Program Scan Time/Kword, Typical	2 ms
I/O Scan Time, Typical	0.21 ms
Communication Port	RS-232-C (Can be configured for communication through 1761-NET-AIC in a DH-485 network)

* Relays are derated an additional 2.5 g on 32 I/O controllers.

‡ DIN rail mounted controller is 1 g.

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Cat. No.	I/O	Digital Inputs	Analog Inputs	Digital Outputs	Analog Outputs	Real Input Power	Apparent Input Power	Transformer Load
1761-L10BWA	10	6 inputs 24V DC sink/source	0	4 contact outputs	0	13 W at 120V AC 14 W at 240V AC	24 VA at 120V AC 32 VA at 240V AC	33 VA at 120V AC 35 VA at 240V AC
1761-L10BWB	10	6 inputs 24V DC sink/source	0	4 contact outputs	0	5 W at 24V DC	—	—
1761-L10BXB	10	6 inputs 24V DC sink/source	0	2 contact outputs 2 source 24V DC outputs	0	5 W at 24V DC	—	—
1761-L16AWA	16	10 inputs 120V AC	0	6 contact outputs	0	7 W at 120V AC 8 W at 240V AC	15 VA at 120V AC 21 VA at 240V AC	18 VA at 120V AC 20 VA at 240V AC
1761-L32AWA	32	20 inputs 120V AC	0	12 contact outputs	0	9.1 W at 120V AC 10.6 W at 240V AC	19 VA at 120V AC 25 VA at 240V AC	23 VA at 120V AC 27 VA at 240V AC
1761-L16BWA	16	10 inputs 24V DC sink/source	0	6 contact outputs	0	14 W at 120V AC 15 W at 240V AC	26 VA at 120V AC 33 VA at 240V AC	35 VA at 120V AC 38 VA at 240V AC
1761-L16NWA	16	10 inputs 24V DC sink/source or 24V AC	0	6 contact outputs	0	14 W at 120V AC 15 W at 240V AC	26 VA at 120V AC 33 VA at 240V AC	35 VA at 120V AC 38 VA at 240V AC
1761-L32BWA	32	20 inputs 24V DC sink/source	0	12 contact outputs	0	15 W at 120V AC 16 W at 240V AC	29 VA at 120V AC 36 VA at 240V AC	38 VA at 120V AC 40 VA at 240V AC
1761-L32AAA	32	20 inputs 120V AC	0	10 triAC outputs, 120/240V AC 2 contact outputs	0	7 W at 120V AC 9 W at 240V AC	16 VA at 120V AC 22 VA at 240V AC	18 VA at 120V AC 23 VA at 240V AC
1761-L16BWB	16	10 inputs 24V DC sink/source	0	6 contact outputs	0	5 W at 24V DC	—	—
1761-L16NWB	16	10 inputs 24V DC sink/source or 24V AC	0	6 contact outputs	0	5 W at 24V DC	—	—
1761-L32BWB	32	20 inputs 24V DC sink/source	0	12 contact outputs	0	7 W at 24V DC	—	—
1761-L16BBB	16	10 inputs 24V DC sink/source	0	4 source 24V DC outputs 2 contact outputs	0	5 W at 24V DC	—	—
1761-L32BBB	32	20 inputs 24V DC sink/source	0	10 source 24V DC outputs 2 contact outputs	0	7 W at 24V DC	—	—
1761-L20AWA-5A	25	12 inputs 120V AC	2 voltage ($\pm 10V$) 2 current (0...20 mA)	8 contact outputs	1 voltage/current (0...10V, 4...20 mA)	12 W at 120V AC 13 W at 240V AC	20 VA at 120V AC 27 VA at 240V AC	30 VA at 120V AC 33 VA at 240V AC
1761-L20BWA-5A	25	12 inputs 24V DC sink/source	2 voltage ($\pm 10V$) 2 current (0...20 mA)	8 contact outputs	1 voltage/current (0...10V, 4...20 mA)	18 W at 120V AC 19 W at 240V AC	30 VA at 120V AC 38 VA at 240V AC	45 VA at 120V AC 48 VA at 240V AC
1761-L20BWB-5A	25	12 inputs 24V DC sink/source	2 voltage ($\pm 10V$) 2 current (0...20 mA)	8 contact outputs	1 voltage/current (0...10V, 4...20 mA)	7 W at 24V DC	—	—

Analog Input Specifications

Voltage Range	$\pm 10.5V$ -1LSB
Current Range	0...20 mA -1LSB
Data Format	Natural binary 16-bit signed integer
Voltage Input Impedance	210 k Ω
Current Input Impedance	160 k Ω
Resolution	16 bits*
Overall Accuracy 0...55 °C	$\pm 0.7\%$ of full scale

* Also a function of the input filter selection.

Analog Output Specifications

Voltage Range	0...10V -1LSB
Current Range	4...20 mA -1LSB
Data Format	Natural binary 16-bit signed integer
Step Response	2.5 ms at 95% $\pm 10.5V$ -1LSB
Load Range	0...500 Ω
Output Coding (4...20 mA -1LSB, 0...10V -1LSB)	0...32,767
Resolution	15 bits
Overall Accuracy 0...55 °C	$\pm 1.0\%$ of full scale

