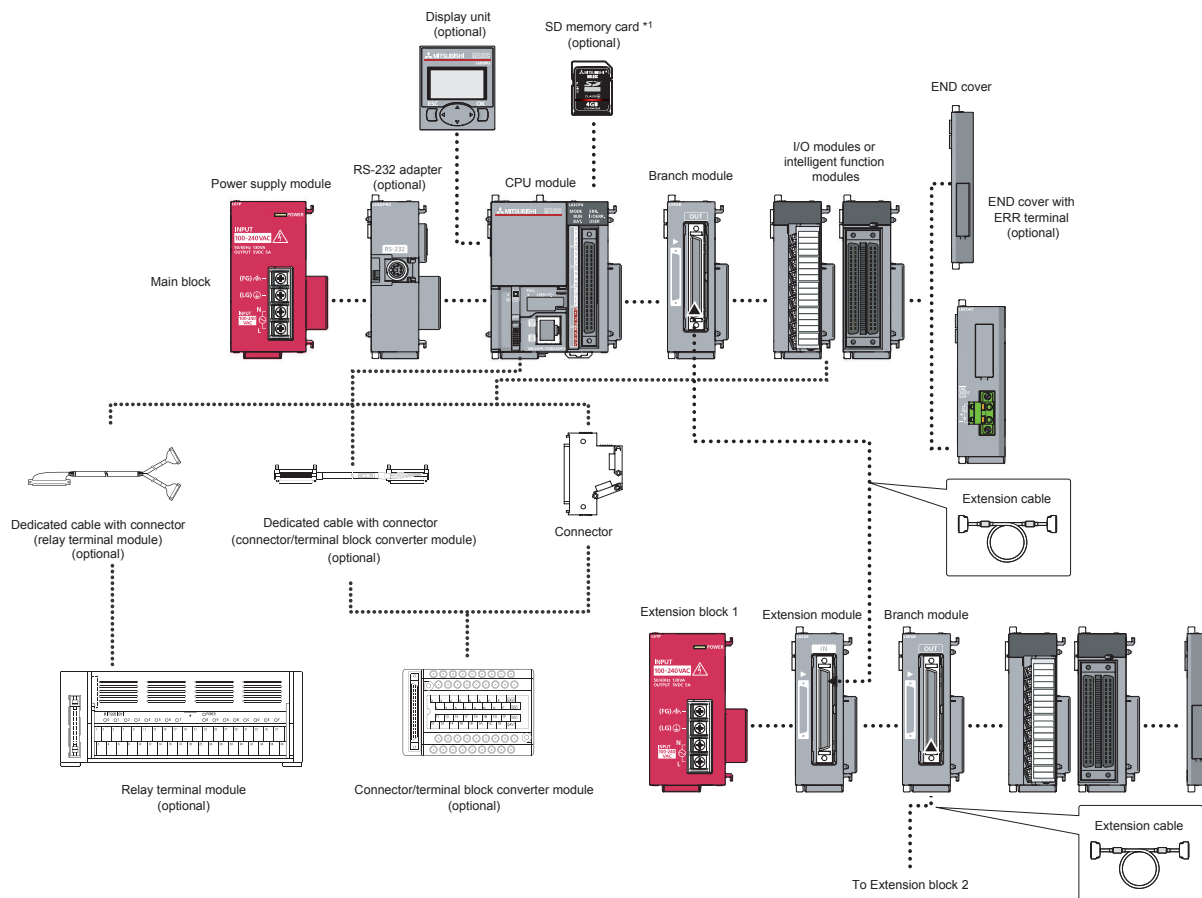


# CPU

## L Series System Configuration



## L Series CPU Modules

### Key Features:

- Flexible rack-free modular design
- All-in-one CPU with built-in Ethernet, and positioning I/O functions
- Up to 260K Step memory
- As low as 9.5ns instruction processing
- 24 points of built-in I/O
- Built-in data logging capabilities
- Commonly available SD/SDHC memory media
- Expansion capabilities for I/O, Analog, Communication, and Motion/Positioning
- Integration into iQ Works and GX Works2 next generation software

## CPU Specifications

Model Number		L02CPU • L02CPU-P	L06CPU • L06CPU-P	L26CPU • L26CPU-P	L26CPU-BT • L26CPU-PBT
Stocked Item		S	S	S	S
Certification		UL • cUL • CE	UL • cUL • CE	UL • cUL • CE	UL • cUL • CE
Processing Speed	LD Instruction	40ns	9.5ns		
	MOV Instruction	80ns	19ns		
Program Capacity		20k steps	60k steps	260k steps	
Memory Capacity	Program Memory (Drive 0)	80 kB	240 kB	1040 kB	
	Standard RAM (Drive 3)	128 kB	768 kB	768 kB	
	Standard RAM (Drive 4)	512 kB	1024 kB	2048 kB	
Maximum Number of Files	Program Memory	64 programs	124 programs	252 programs	
	Standard RAM	4 files (file register file, local device file, sampling trace file, and module error collection file)			
	Standard ROM	128 files	256 files	256 files	
Memory Card Type		SD/SDHC			
Max. Number of Intelligent Function Module Parameter Settings	Initial Setting	2048	4096	4096	
	Refresh	1024	2048	2048	
5VDC Internal Current Consumption	With Display Module	1.00A	1.06A	1.06A	1.43A
	Without Display Module	0.94A	1.00A	1.00A	1.37A
Max. I/O Device Points		8192 points (X/Y0 to X/Y1FFF)			
Max. Physical I/O Points		1024 points (X/Y0 to X/Y3FF)	4096 points (X/Y0 to X/YFFF)		
Built-in CC-Link		No	No	No	Yes
Weight (kg)		0.37			0.47
Dimensions (W x H x D) mm		70 x 90 x 95			98.5 x 90 x 95

## CPU Built-In Input Specifications

Standard Input	Number of Input Points	10 points
	Rated Input Voltage	24VDC (+20%/-15%, ripple ratio within 5%)
	Rated Input Current	4.1mA TYP. (at 24VDC)
	Minimum Input Response Speed	100µs
	Input Response Time Setting	0.1ms/1ms/5ms/10ms/20ms/70ms
High-Speed Input	Number of Input Points	6 points
	Rated Input Voltage	24V input: 24VDC (+20%/-15%, ripple ratio within 5%) Differential input: EIA Standard RS-422-A differential type line driver level
	Rated Input Current	24V input: 6.0mA TYP. (at 24VDC) Differential input: EIA Standard RS-422-A differential type line driver level
	Minimum Input Response Speed	10µs
	Input Response Time Setting	0.01ms/0.1ms/0.2ms/0.4ms/0.6ms/1ms

## CPU Built-In Output Specifications

Model Number		L02CPU • L06CPU	L26CPU • L26CPU-BT	L02CPU-P • L06CPU-P	L26CPU-P • L26CPU-P
Output Type		Sink Transistor		Source Transistor	
Number of Output Points		8 points			
Rated Load Voltage		5 to 24VDC 0.1A			
Response Time	OFF – ON	1μs or less (rated load, resistive load)			
	ON – OFF	1μs or less (rated load, resistive load)			

## CPU Built-In I/O – Positioning Function Specifications

Number of Control Axes			2 axes
Control Unit			Pulse
Positioning Control	Positioning Control Method	PTP Control (*1 )	INC system, ABS system
		Speed-Position Switching Control	INC system
	Positioning Control Range	PTP Control (*1 )	-2147483648 to 2147483647 pulse
		Speed-Position Switching Control	0 to 2147483647 pulse
	Speed Command		0 to 200kpulse/s
	Acceleration/Deceleration System Selection		Automatic trapezoidal acceleration/deceleration and S-pattern acceleration/deceleration
Acceleration/Deceleration Time		0 to 32767ms	
Starting Time (1-Axis Linear Control)			Trapezoidal acceleration/deceleration (1-axis start): 30μs/axis S-pattern acceleration/deceleration (1-axis start): 35μs/axis
Command Pulse Output	Pulse Output Method		Open collector output (5 to 24VDC), sink or source logic
	Maximum Output Speed		200kpulse/s
	Maximum Connection Distance from Drive Unit		2m
External Input	Zero Signal		24VDC 6mA Equivalent with differential driver 20mA
	Speed-Position Switching Signal		DC24V 4.1mA
	Near-Point Dog Signal		
	Upper and Lower Limit Signal		
	Drive Unit READY Signal		
	Minimum Input Response Time		Zero signal: 10μs Speed-position switching signal, near-point dog signal: 100μs Upper and lower limit signal, drive unit READY signal: 2ms
External Output	Deviation Counter Clear Signal		ADY signal: 2ms External output; Deviation counter clear signal, sink or source logic
	Response Time	OFF – ON	1μs or less (rated load, resistive load)
		ON – OFF	

Note 1: The abbreviation for Point To Point, referring to position control.

## CPU Built-In I/O – High Speed Counter Specifications

Number of Channels			2ch
Count Input Signal	Phase		1-phase input (multiple of 1/2), CW/CCW, 2-phase input (multiple of 1/2/4)
	Signal Level	24V Input	24VDC 6mA
		Differential Input	EIA Standard RS-422-A differential type line driver level (Equivalent with AM26LS31 (manufactured by Texas Instruments Japan Limited))
Counter	Maximum Counting Speed		200kpulse/s (1-phase multiple of 2, 2-phase multiple of 4)
	Counting Range		Binary with 32-bit code (-2147483648 to 2147483647)
	Type		UP/DOWN preset counter (+ ring counter function)
	Minimum Count Pulse Width (Duty Ratio 50%)	Phase 1	5μs
		Phase 2	10μs
	Minimum Phase Differential for 2-Phase Input		5μs
Coincidence Output	Comparison Range		Binary with 32-bit code (-2147483648 to 2147483647)
	Comparison Result		Set value < Count value; Set value = Count value; Set value > Count value
External Input	Phase Z (Preset)	24V Input	Open collector; 24VDC 6mA
		Differential Input	EIA Standard RS-422-A differential type line driver level (Equivalent with AM26LS31 (manufactured by Texas Instruments Japan Limited))
	Function Start		24VDC 4.1mA
	Latch		
	Minimum Input Response Time		Phase Z: 10μs Function start, latch: 100μs
External Output	Comparison Output		2 points/ch
	Output Voltage/Current		5 to 24VDC 0.1A
	Output Response Time	OFF – ON	1μs or less (rated load, resistive load)
		ON – OFF	
PWM Output	Output Frequency Range		DC to 200kHz
	Minimum ON Width		1μs
	Duty Ratio		ON time can be set in increments of 0.1μs.
Pulse Width Measurement	Measurement Item		Pulse width (ON width: 200μs or more, OFF width: 200μs or more)
	Measurement Resolution		5μs
	Measurement Points		1 point/ch

## CPU Built-In Ethernet Port Specifications

Transmission Specification	Data Transfer Speed		100/10Mbps
	Communication Mode		Full-duplex/Half-duplex
	Transmission Method		Base band
	Maximum Distance Between Hub and Node		100m
	Maximum Number of Connectable Nodes	10BASE-T	Maximum of cascading hub connections
100BASE-TX		Maximum of 2 cascading hub connections	
Number of Connections	TCP/IP		Total of 16 for socket communications, MELSOFT connections, and MC protocol (*1). One for FTP
	UDP/IP		
Cable to Use (*2)	For 10BASE-T Connection		Cables compliant to Ethernet standards, category 3 or higher (STP/UTP cables) (*3)
	For 100BASE-TX Connection		Cables compliant to Ethernet standards, category 5 or higher (STP cables)

### Notes:

1. Only 3E frames may be used.
2. Straight through cable. Also, CPU is connected directly with a GOT, a cross cable may be used.
3. The use of STP (Shielded Twisted Pair) cables is recommended in noisy environments.