

# L Series

## MELSEC Programmable Controllers

### Rack-free modular controller packed with built-in features



Compact and easy-to-expand rack-free design



Many important features already built-in as standard



Built-in CC-Link Master/Local Station



Fully supported in iQ Works and GX Works2

# High performance on a small footprint



Labeling machine controlled by a L series PLC

The L series is a powerful but compact modular controller with many features built-in to the CPU itself. With its excellent cost performance and usability it is ideal for use in mid-size control applications.

## Reliable, ease to use and flexible

The modular MELSEC L series has been designed with high reliability, user friendliness and flexibility in mind and has built-in functions that are usually found only in compact PLCs. Engineers and programmers can use their time more efficiently, saving valuable development time. Thanks to its sophisticated approach, the L series can be used at low costs and with minimum space requirements in a variety of applications. A system that easily fits perfectly in every respect.

## High system flexibility

The rack-free design promotes high system flexibility with minimum form factor. The single-CPU architecture includes built-in Ethernet and Mini-USB interfaces, a SD/SDHC memory card slot for program storage and data logging, and 24 digital I/O for simple high-speed counting and positioning functions. The high-performance CPU also includes a CC-Link V2 Master/Local station for connection to the powerful open field network CC-Link.

Besides the functions already built-in, the CPU can be supplemented with up to 10 extension and special function modules for additional digital and analog I/Os, high-speed counters, communications interfaces, Simple Motion, positioning etc. .

The compact size, easy expandability, networking capabilities, and multitude of built-in high-powered functions makes the L series ideal for both stand-alone machines as well as networked stations in larger applications.

## Built-in I/O functions

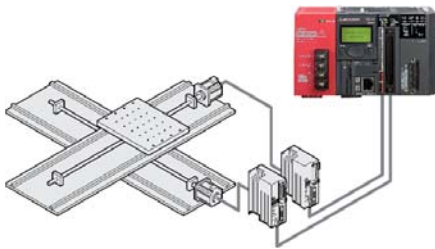
The L series CPU has all the most important features normally needed already built-in. This minimizes hardware and engineering costs significantly.

Every L series CPU comes with 24 points of built-in I/Os as standard. These I/O points are capable of many functions usually reserved for separate modules. Save on system costs by using the built-in functions for a variety of applications.

Configuring built-in I/O functions can be done easily by setting parameters using the programming tool.

## Positioning control

The built-in positioning function has a start time of just 30  $\mu$ s with a maximum high speed output of 200 k pulses per second. Furthermore, it supports S-curve acceleration and deceleration for applications that require minimal machine vibration.



Positioning control functions

Two channels support the high speed counting function. The differential line driver inputs support counting speeds up to 200 k pulses per second.

## Data logging

The built-in data logging function provides an easy way to collect information for troubleshooting, performance evaluation, and other uses. The included configuration tool makes setting up the data logging function a breeze with a step-by-step wizard like interface. Using GX LogViewer, the captured data is easy to interpret and understand.

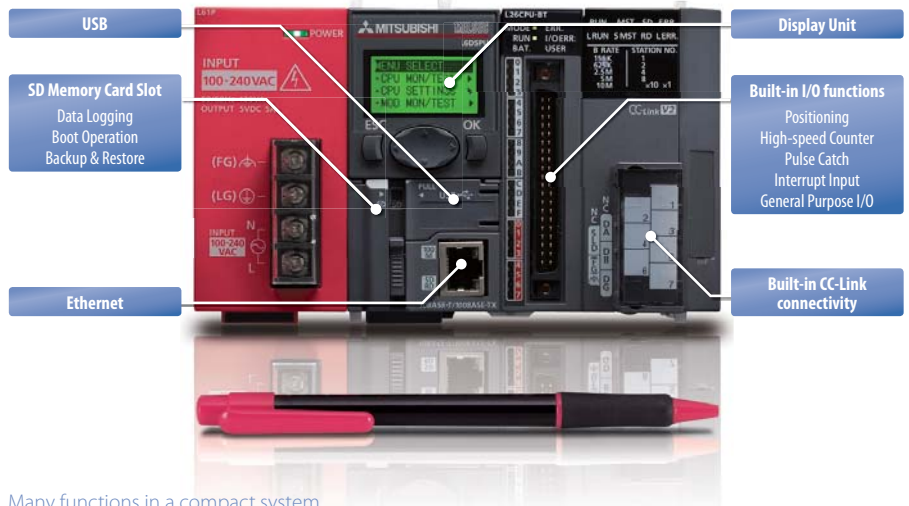
## USB and Ethernet as standard

The built-in USB 2.0 port or Ethernet interface can be used to connect directly at the installation site. The Ethernet interface supports direct connection and does not require any configuration of the PLC or PC to operate.

All CPUs connected to the same hub can be searched and displayed in a list. By selecting the access target CPU from the list, it can be connected to even if the IP address is unknown.



USB and Ethernet connections as standard



Many functions in a compact system

## SD memory card

Use the SD/SDHC compatible memory card to quickly and easily back-up the CPU programs and parameters.

The backups can then be just as easily restored or used to program other CPUs. The memory card can also be used to hold data captured with the data logging function.



Easy plug-in from the frontside

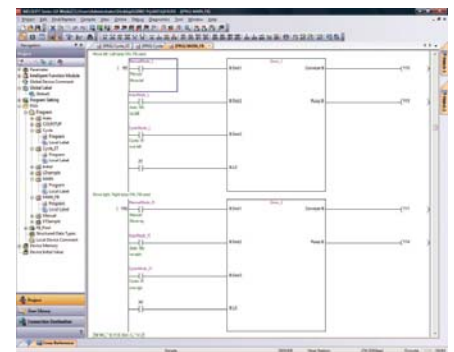
## CC-Link network connectivity

The high-performance CPU L26CPU-BT has a built-in CC-Link Master/Slave interface and is compatible with the latest generation of CC-Link devices and support connections. Without adding a module, these CPU can perform high-speed communication with a maximum of 128 words between a master station and a local station. CC-Link is the dominate FA network standard in Asia and continues to gain support worldwide.

## Advanced programming software

GX Works2 represents the next generation in PLC maintenance and programming software and is perfectly suitable for the L series.

GX Works2 focuses on driving down total cost by including features that speed up commissioning, reduce downtime, improve programming productivity, and provide strong security.



Easy L series programming with GX Works2



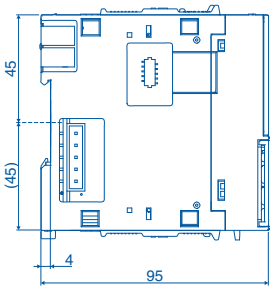
# Specifications ///

Item	L02CPU	L26CPU-BT
Control method	Stored program repeat operation	
I/O control mode	Refresh mode (Direct mode is available by specifying the direct access input/output (DX, DY).)	
Programming language (sequence control language)	Function block, relay symbol language, MELSP3 (SFC), MELSP-L, structured text (ST), logic symbolic language	
Processing speed	40 ns	9.5 ns
Program size	20 k steps (80 k bytes)	260 k steps (1040 k bytes)
Memory capacity	Program memory	1040 k bytes
	Standard RAM	768 k bytes
	Standard ROM	2048 k bytes
Expandability with additional modules	Up to 10 extension and special function modules (for additional digital/analog I/Os, high-speed counters, interfaces, network, Simple Motion, positioning etc.)*	
Built-in I/O function	Positioning, high-speed counter, pulse catch, interrupt input, general input/output	
Data Logging function	High-speed data sampling, auto logging function, easy-to-see graphical analysis, trigger logging function	
Built-in Ethernet function	100 or 10 Mbps. Direct connection with either a cross or straight LAN cable. No configuration necessary	
Built-in CC-Link function	—	Operates as Master or Local CC-Link station
Clock function	Year, month, date, hour, minute, second, and day of the week (automatic leap year detection)	
5 V DC internal current consumption	0.94 A	1.37 A
Number of I/O device points	8192 points (X/Y0 to X/Y1FFF)	
Number of I/O points	1024 points (X/Y0 to X/Y3FF)	4096 points (X/Y0 to X/YFFF)
Operating ambient temperature	0–55 °C	

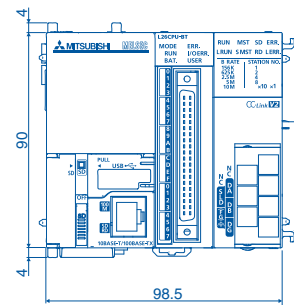
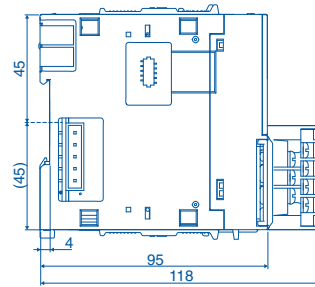
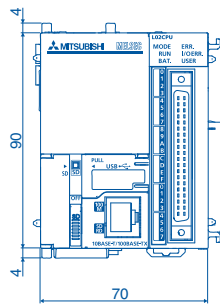
\*For further details please refer to the technical L series catalogue or to the Mitsubishi Automation Book

# Dimensions ///

L02CPU



L26CPU-BT



All dimensions in mm

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