MELSEC-L Series Control Network Modules

Network Modules

CC-Link IE Field Master/Slave

CC-Link IE Field brings 1 Gigabit speed for cyclic, acyclic and transient data transmission to RJ45 and Cat 5e cabling infrastructure. Create mixtures of line and star topology, and maintain control over up to 120 controller or remote I/O stations simultaneously on the same network.

Model Number		LJ71GF11-T2
Stocked Item		S
Certification		UL • cUL • CE
Network Common Memory		32k bytes
Transient Transmission Capacity		2048 bytes
Ethernet	Communication Speed	1Gbps
	Connection Cable	An Ethernet cable that meets the 1000BASE-T standard (Category 5e or higher, shielded RJ45)
	Maximum Station-to-Station Distance	100m max. (Compliant with ANSI/TIA/EIA-568-B (Category 5e))
	Total Distance	Line topology: 12000m (when connected to 1 master station and 120 slave stations) Star topology: Depends on the system configuration
	Number of Cascade Connections	Up to 20
	Transmission Path	Star, Line, Mixed Star & Line, and Ring
Number of Connected Stations in One Network	Master Station	1 station
	Local Station	120 stations (Local station or Remote I/O) (*1)
Maximum Number of Networks		239
Communication Method		Token passing method
Number of Occupied I/O Points		32 points (I/O assignment: Intelligent 32 points)
Internal Current Consumption (5VDC) (A)		0.89
Weight (kg)		0.27
Dimensions (W x H x D) mm		45 x 90 x 95

1. **Note 1:** For CC-Link IE Field Remote I/O stations, refer to the LJ72GF15-T2 CC-Link IE Field Slave Head station.

CC-Link IE Field Slave Head Station

In place of an L Series CPU, CC-Link IE Field Slave Head Stations can be used to provide remote control over Digital I/O, Analog, Motion, High-Speed Counter, Serial Communication, and CC-Link Master/Local Station modules via CC-Link IE Field.

Model Number	LJ72GF15-T2 (*1)
Stocked Item	S
Certification	UL • cUL • CE
Transmission Speed	1Gbps
Network Topology	Star, Line, Mixed Star & Line, and Ring
Communication Method	Deterministic (token passing)
Maximum Number of Mountable Modules	10 (120 when using extension and branch modules)
Communication Port	CC-Link IE field network port x 2, USB port (Mini-B terminal) x 1
RAS Function	Network event logging, unit error logging, testing, monitoring, and error history preservation function
Connection Cable	Ethernet cable (category 5 or higher)
Dimensions (W x H x D) mm	50 x 90 x 95

Note 1: CC-Link IE Field network requires CC-Link IE Field Master module.

Modules that Cannot be Connected to CC-Link IE Field Head Station

Model Number	Description
L6EXB	Branch module
L6EXE	Extension module
L6ADP-R2	RS-232 adapter
L6DSPU	Display unit
LJ71GF11-T2	CC-Link IE Field Network master/local module
LJ72MS15	SSCNET III/H head module
LJ71E71-100	Ethernet interface module
LD40PD01	Flexible high-speed I/O control module

1. **Note:** Positioning modules and simple motion modules can only be connected to head module with a serial number starting with "12071" or later.

CC-Link Master/Local Station
Additional CC-Link Master/Local Stations can be added on and configured in GX Works2.

Model Number	LJ61BT11
Stocked Item	S
Certification	UL • cUL • CE
Transmission Speed	156kbps/625kbps/2.5Mbps/5Mbps/10Mbps
Maximum Overall Cable Distance (Maximum Transmission Distance)	1.2 km (without repeater, varies according to the transmission speed)
Maximum Number of Connected Stations (Master Station)	64
Number of Occupied Stations (Local Station)	1 to 4 stations (The number of stations can be switched using the GX Works2 parameter setting)
Maximum Number of Link Points Per System (*1)	Remote I/O (RX, RY)	2048 points
	Remote Register (RWw)	256 points (master station remote device station/local station/intelligent device station/standby master station)
	Remote Register (RWr)	256 points (remote device station/local station/intelligent device station/standby master station master station)
Number of Link Points Per Station (*1)	Remote I/O (RX, RY)	32 points (local station is 30 points)
	Remote Register (RWw)	4 points (master station remote device station/local station/intelligent device station/standby master station)
	Remote Register (RWr)	4 points (remote device station/local station/intelligent device station/standby master station master station)
Transmission Path	Bus (RS-485)
RAS Function	Automatic return function; Slave station cut-off function; Error detection via link special relay/register
Connection Cable	CC-Link dedicated cables compatible with Ver.1.10
I/O Device Points Occupied	32 points (I/O assignment: 32 points for intelligent function module)
5VDC Internal Current Consumption	0.46A
Weight (kg)	0.15
Dimensions (W x H x D) mm	28.5 x 90 x 118

Note 1: Indicates the number of link points for Remote net Ver.1 mode.

IO Link Master

Model Number		ME1IOL6-L
Stocked Item		-
Number of Ports		6
Port Configuration		IO-Link, Digital output (SIO mode), Digital input (SIO mode), Disabled
IO-Link Mode	Rated Voltage	24 VDC
	Rated Output Current (C/Q)	15 mA
	Rated Sensor/Actuator Supply Current (L+)	200 mA
SIO Mode	Digital Input	Input Type	Sink
		Rated Voltage	24 VDC
		Internal Pull-Down Current (C/Q)	5 mA
		Input Filter (HW and SW)	200 µs
	Digital Output	Rated Voltage	24 VDC
		Rated Output Current (C/Q)	200 mA Max. current per port (sum of C and L+): 215 mA
		Rated Sensor/Actuator Supply Current (L+)	
		Output Type	Push-pull
Port Disabled	Communication Line (C/Q)	Switched OFF
	Sensor/Actuator Supply Line Switched OFF (L+)	
Protection Functions	Communication Line (C/Q)	Over-current, over-load and short-circuit
	Sensor/Actuator Supply Line (L+)	
Insulation Method	Between the I/O Terminals and PLC Power Supply	Photocoupler isolation
	Between Channels	No isolation
Dielectric Withstand Voltage		Between I/O terminals and programmable controller power supply: 500 VACrms for 1 minute
Insulation Resistance		Between I/O terminals and programmable controller power supply: 500 VDC 10 MΩ or more
Number of I/O Occupied Points		32 points (I/O assignment: Intelligent 32 points)
External Wiring Connection System		18-points terminal block
Cable Specification	Cable Type	Unshielded cable
	Maximum Length	20 m
	Applicable Wire Size	0.3 to 0.75mm²
	Overall Loop Resistance	6 Ω
	Effective Line Capacitance	3 nF
Applicable Solderless Terminals		R1.25-3 (Solderless terminals with sleeves cannot be used)
External Supply Power	Voltage	24 VDC (+20%, -15%); ripple, spike within 500mVP-P In order to keep the specified IO-Link output voltage levels (L+ line) the external supply voltage must be higher than 22 VDC
	Current (A)	The sum current on the L- lines must not exceed 1.7
	Inrush Current	8 A within 230 µs
Internal Current Consumption (5 VDC) (A)		0.06
Online Module Change		Not supported
Weight (kg)		0.18

CC-Link/LT Master Module

Model Number	LJ61CL12
Stocked Item	-
Certification	UL • cUL • CE
Transmission Speed	156kbps/625kbps/2.5Mbps
Network Topology	T-branch
Communication Method	Deterministic (CRC)
Number of Connectable Modules	64
Number of Occupied I/O Points	16 points (I/O assignment: 1024points for intelligent function module)
5VDC Internal Current Consumption	0.16A
Weight (kg)	0.12
Dimensions (W x H x D) mm	28.5 x 90 x 95