

# MELSEC-L Series I/O Modules

## Digital I/O Modules

### AC / DC Input Module

Model Number	LX10	LX28	LX40C6	LX41C4	LX42C4
Stocked Item	S	S	S	S	S
Certification	UL • cUL • CE				
Number of Input Points	16 points	8 points	16 points	32 points	64 points
Rated Input Voltage	100 to 120VAC (+10%/ -15%), 50/60Hz (±3Hz)	100 to 240VAC (+10%/ -15%), 50/60Hz (±3Hz)	24VDC (+20/-15%, ripple ratio within 5%)		
Rated Input Current	8.2mA (100VAC, 60Hz), 6.8mA (100VAC, 50Hz)	16.4mA (200VAC, 60Hz), 13.7mA (200VAC, 50Hz), 8.2mA (100VAC, 60Hz), 6.8mA (100VAC, 50Hz)	6.0mA TYP. (at 24VDC input)	4.0mA TYP. (at 24VDC input)	4.0mA TYP. (at 24VDC input)
Response Time	OFF – ON	15ms or less (100VAC 50Hz, 60Hz)	1ms/5ms/10ms/20ms/70ms (Initial setting is 10ms.)		
	ON – OFF	20ms or less (100VAC 50Hz, 60Hz)			
Common Terminal Arrangement	16 points/common (common terminal: TB17)	8 points/common (common terminal: TB17)	16 points, 1 common	32 points, 1 common	32 points, 1 common
Number of Occupied I/O Points	16 points (I/O assignment: input 16 points)		16 points (I/O assignment: 16 input points)	32 points (I/O assignment: 32 input points)	64 points (I/O assignment: 64 input point)
External Connections	18-point screw terminal block (M3 × 6 screw)		18-point terminal block	40-pin connector	40-pin connector x 2
5VDC Internal Current Consumption	90mA (TYP. all points ON)	80mA (TYP. all points ON)	90mA (TYP. all points ON)	100mA (TYP. all points ON)	120mA (TYP. all points ON)
Weight (kg)	0.17	0.15	0.15	0.11	0.12
Dimensions (W x H x D) mm	28.5 x 90 x 117			28.5 x 90 x 95	

### Digital Output Module Specifications (Relay and Triac)

Model Number	LY10R2 (Relay)	LY20S6 (Triac)	LY18R2A (Isolated Relay)	LY28S1A (Isolated Triac)
Stocked Item	S	S	S	S
Certification	UL • cUL • CE			
Number of Output Points	16 points		8 points	
Maximum Load Voltage	24VDC / 240VAC	264VAC	264VAC 125VDC	264VAC
Maximum Load Current	2A/point, 8A/common	0.6A/point, 4.8A/common	2A/point	1A/point, 8A/module
Protection Function	Surge Suppressor	-	-	CR absorber
	Fuse	-	-	-
Common Terminal Arrangement	16 points/common	16 points/common (common terminal: TB17)	No common (all-point independent contact)	No common (all-point independent contact)
Number of Occupied I/O points	16 points (I/O assignment: 16 input points)	16 points (I/O assignment: output 16 points)	16 points (I/O assignment: output 16 points)	16 points (I/O assignment: output 16 points)
External Connections	18-point terminal block	18-point screw terminal block (M3 × 6 screw)	18-point screw terminal block (M3 × 6 screw)	18-point screw terminal block (M3 × 6 screw)
5VDC Internal Current Consumption	460mA (TYP. all points ON)	300mA (TYP. all points ON)	260mA (TYP. all points ON)	200mA (TYP. all points ON)
Weight (kg)	0.21	0.22	0.18	0.19
Dimensions (W x H x D) mm	28.5 x 90 x 117			

### Digital Output Module Specifications (Sink Transistor Output Modules)

Model Number	LY40NT5P	LY41NT1P	LY42NT1P
Stocked Item	S	S	S
Certification	UL • cUL • CE		
Number of Output Points	16 points	32 points	64 points
Rated Load Voltage	12 to 24VDC (+20%/-15%)		
Maximum Load Current	0.5A/point, 5A common	0.1A / point, 2A / common	
Response Time	OFF – ON	0.5ms or less	
	ON – OFF	1ms or less (rated load, resistive load)	
External Supply Power	Voltage	12 to 24VDC (+20%/-15%, ripple ratio within 5%)	
	Current	9mA (at 24VDC)	13mA (at 24VDC)/common
Common Terminal Arrangement	16 points/common	32 points/common	32 points/common
Number of Occupied I/O points	16 points (I/O assignment: 16 output points)	32 points (I/O assignment: 32 output points)	64 points (I/O assignment: 64 output points)
External Connections	18-point terminal block	40-pin connector	40-pin connector x 2
5VDC Internal Current Consumption	100mA (TYP. all points ON)	140mA (TYP. all points ON)	190mA (TYP. all points ON)
Weight (kg)	0.15	0.11	0.12
Dimensions (W x H x D) mm	28.5 x 90 x 117		

### Digital Output Module Specifications (Source Transistor Output Modules)

Model Number	LY40PT5P	LY41PT1P	LY42PT1P
Stocked Item	S	S	S
Certification	UL • cUL • CE		
Number of Output Points	16 points	32 points	64 points
Rated Load Voltage	10.2 to 28.8VDC		
Maximum Load Current	0.5A / point, 5A / common	0.1A / point, 2A / common	
Response Time	OFF – ON	0.5ms or less	
	ON – OFF	1ms or less (rated load, resistive load)	
External Supply Power	Voltage	10.2 to 28.8VDC (ripple ratio within 5%)	
	Current	17mA (at 24VDC)	20mA (at 24VDC)
Common Terminal Arrangement	16 points/common	32 points/common	32 points/common
Number of Occupied I/O points	16 points (I/O assignment: 16 output points)	32 points (I/O assignment: 32 output points)	64 points (I/O assignment: 64 output points)
External Connections	18-point screw terminal block	40-pin connector	40-pin connector
5VDC Internal Current Consumption	100mA (TYP. all points ON)	140mA (TYP. all points ON)	190mA (TYP. all points ON)
Weight (kg)	0.15	0.11	0.12
Dimensions (W x H x D) mm	28.5 x 90 x 117		

### Combination I/O Modules

Model Number	LH42C4NT1P	LH42C4PT1P	
Stocked Item	S	S	
Certification	UL • cUL • CE		
Number of Input Points	32 points		
Rated Input Voltage	24 VDC (ripple rate 5% or less)		
Rated Input Current	4.0mA TYP (at 24 VDC)		
Number of Output Points	32 points		
Output Type	Sink	Source	
Rated Load Voltage	10.2 to 28.8 VDC		
Maximum Load Current	0.1A/point, 2A / common		
Input Response Time	OFF – ON	1ms, 5ms, 10ms, 20ms, 70ms, or less	
	ON – OFF	1ms, 5ms, 10ms, 20ms, 70ms, or less	
Output Response Time	OFF – ON	0.5ms or less	
	ON – OFF	1ms or less	
External Supply Power	Voltage	12/24 VDC (ripple rate: 5% or less)	
	Current	9mA (at 24 VDC)/common	20mA (at 24 VDC) / common
Input Common Terminal Arrangement	32 points / common		
Output Common Terminal Arrangement	32 points / common		
Number of Occupied I/O points	32 points		
External Connections	40-pin connector		
5VDC Internal Current Consumption	160 mA (TYP all points ON)	150mA (TYP all points ON)	
Weight (kg)	0.12	0.12	
Dimensions (W x H x D) mm	28.5 x 90 x 95		