SMC
Expertise – Passion – Automation

SWITCHOVER DOCUMENT

LECP1/LECP2 Series
Programless controllers

Improved features and related benefits

Supported Motor Types:

- JXC51/61: Supports both step motors (servo 24VDC) and battery-less absolute step motors (24VDC).
- LECP1/P2: Only supports step motors (servo 24VDC).

Enhanced Flexibility and Compatibility:

- The JXC51/61 supports a broader range of motor types, including both step motors and battery-less absolute step motors, providing greater flexibility in application design.

Operating Temperature Range

- JXC51/61: Operates within a wider temperature range of 0-55°C.
- LECP1/P2: Limited to 0-40°C.

Wider Operating Temperature Range:

- With an operating temperature range of 0-55°C, the JXC51/61 can be used in more demanding environments compared to the LECP1/P2, which is limited to 0-40°C.

Input/Output Points

- JXC51/61 : Input: 11 points / Output: 13 points
- LECP1/P2: Input: 6 points / Output: 6 points

Increased I/O Capability:

- The JXC51/61 offers significantly more input and output points (11 inputs and 13 outputs), enabling more complex control systems and integration with other devices.

Improved features and related benefits

Input Signal:

- JXC51/61: Includes additional signals such as RESET, STOP, and STUDY (only in LECP2 mode for stroke learning).
- LECP1/P2: Limited to basic signals like IN0, IN1, IN2, IN3, and ALARM.

Advanced Signal Handling:

- Additional input signals such as RESET, STOP, and STUDY, along with enhanced output signals like *READY and STUDY_OUT, provide more sophisticated control and monitoring capabilities.

Output Signal:

- JXC51/61: Offers enhanced output signals including BUSY, *READY, and STUDY_OUT (only in LECP2 mode for stroke learning).
- LECP1/P2: Basic outputs include OUT0, OUT1, OUT2, OUT3, and BUSY.

Precise Configuration Options:

- The ability to configure position/pushing force, speed, acceleration/deceleration, and other parameters using the Setting Software ACT Controller 2 allows for highly customised and precise control, unlike the limited settings available on the LECP1/P2.

Improved features and related benefits

Origin Return Method:

• JXC51/61: More flexible origin return methods:

- LECP1 mode: All ON (IN0-3)
- LECP2 mode: First operation instruction when power is turned on.

• LECP1/P2: Fixed origin return methods based on specific input conditions

Improved Origin Return Mechanism:

- The JXC51/61 offers more flexible origin return methods, allowing for easier setup and operation, especially in scenarios requiring dynamic adjustments.

Additional Alarm Functionality:

- JXC51/61: Includes an added capacitor life alarm.
- LECP1/P2: No additional alarm functionality.

Extended Reliability and Maintenance

- The added capacitor life alarm feature in the JXC51/61 provides proactive maintenance alerts, reducing downtime and extending the product's lifespan.

Replacement Comparison Data

		LECP1/P2		LECP1/2 mode function of JXC51/61	
Basic Specifications	**Number of axes supported**	1 axis		1 axis	
	Supported motor types	Step motor (servo 24VDC)		Step motor (servo 24VDC) Battery-less Absolute (Step motor 24VDC)	
	Supported motor sizes	20/28/42/56		20/28/42/56	
	Supported ACT	LECP1: LE* All species LECP2: LEM		LECP1 mode: LE* All species LECP2 mode: LEM	
	Operating temperature range	0-40°C		0-55°C	
	Acquired standards	CE/UKCA/UL		CE/UKCA/UL	
P1/P2 equivalent function	**Number of positioning points**	14 points		14 points	
	Position/pushing force Setting method	Controller buttons		Specified by the SettingSoftware ACT Controller 2	
	Pushing setting	Possible (weak, medium, strong)		Possible (value Setting)	
	Position setting method	JOG or Direct Teach		Specify the value in the SettingSoftware ACT Controller 2	
	Speed setting method	Rotary switch settings		Specify the value in the SettingSoftware ACT Controller 2	
	Acceleration/deceleration setting method	Rotary switch settings		Specify the value in the SettingSoftware ACT Controller 2	
	Number of input/output points	Input 6 points/Output 6 points		Input 11 points/Output 13 points	
	Input signal	IN0, IN1, IN2, IN3 RESET STOP	6 points	IN0, IN1, IN2, IN3 RESET STOP STUDY (only in LECP2 mode for stroke learning)	6 points (7 points)
	Output signal	OUT0, OUT1, OUT2, OUT3 BUSY *ALARM	6 points	OUT0, OUT1, OUT2, OUT3 BUSY *READY STUDY_OUT (only in LECP2 mode for stroke learning)	6 points (7 points)
	Origin return method	LECP 1: IN0-3 All ON LECP 2: IN0 or IN1 ON		LECP 1 mode → IN0-3 all ON LECP 2 mode → First operation instruction when power is turned on	
	Servo ON	Power supply 24VDC applied		Power supply 24VDC applied	
	Alarm	—		Added capacitor life alarm	

Difference in specifications

Dimensions

LECP1

JXC61