

Single Axis Actuator LX20

With Motor Standard Type / Cover Type



Oriental Stepper Motor Specification

Components
Actuator, Amplifier, Driver, Cable
Accessories: Instruction Manual for Driver

Actuator

	Base	Block
Material	Carbon Steel	SCM Material
Surface Treatment	Low Temperature Black Chrome Plating	
Hardness	Induction Hardened 58-64 HRC	58-62 HRC

Specification of Driver **P.556-558**
Cable Specifications **P.559**

RoHS10

Single Axis Actuator LX20

With Motor Standard Type / Cover Type



Load Capacity / Max. Velocity Correlation Table

Part Number	Manufacturer	Motor	Load Capacity (kg)		Maximum Speed (mm/sec)	
			Horizontal	Vertical	Horizontal	Vertical
LXM2001 LXM2001C	Oriental Motors	T1	15	—	30	—
		T2(B)E		2	45	50
		T4(B)E		40	35	
LXM2005 LXM2005C	Oriental Motors	T1E	10	—	125	—
		T2(B)E		2	200	225
		T4(B)E		120	115	

*Load capacity and max. velocity are reference values and may vary depending on operating conditions.
*Horizontal load capacity is for motor without brake and vertical load is for motor with brake.
*Distance for Acceleration / Deceleration: 25 mm

Motor Dimensions Table

Manufacturer Name	Motor Type	Width B (mm)	Width C (mm)	Length D (mm)	Height E (mm)	Bottom Height F (mm)
Oriental Motors	T1E	14	14	70	28	-1
	T2E	21	21	75	34	-8
	T2BE			104.6	34	-8
	T4E			53	34	-8
	T4BE	82	34	-8		

* E, F Value in () is for Sensor & Rail Position "Left".

Cable Configuration List

Cables come with terminal plug that directly connects to motor amplifier and driver.

Manufacturer Name	Motor Type	Motor Power Cable	Brake Cable	Encoder Cable
Oriental Motors	T1E	1 pc. CC030VA2R2	—	—
	T2E	1 pc. CC030VAR	—	—
	T2BE	1 pc. CC030VARB (Cable Set for Motor With Electromagnetic Brake)	—	—
	T4E	1 pc. CC030VPF	—	—
	T4BE	1 pc. CC030VPFB (Cable Set for Motor With Electromagnetic Brake)	—	—

Dimension / Actuator Body Weight

Part Number	Item	Base Length L (mm)		
		100	150	200
LXM2001 LXM2005 LXM2001C LXM2005C	Effective Stroke St	30	80	130
	A	20	15	40
	P	60	60	60
	Number of Pitches	1	2	2
	Number of Holes N	4	6	6
Cover Type	Body Mass (kg)	0.69	0.63	0.95

* Mass shown includes actuator, coupling, sensor rail, 3 sensors and sensor flag. For motor mass, see the control function table.
(Note 1) Choose motor with brake when unit is used in vertical position.
(Note 2) When ordering "Without Driver" Type, driver is not included.
(Note 3-1) When ordering "with cables" type, cables indicated in cable configuration list will be included with unit. Specifications, **P.559**.
(Note 3-2) To use cables with length other than 3 m, choose "without cable" type and order cable separately from the selection on **P.559**.
(Note 4-1) Sensor rail comes with the unit even when no. of sensor is specified as "none"; sensor flag will not be included.
(Note 4-2) Terminals for sensor cables is not provided.

Part Number	Selection					
	Motor	Driver Type	Cable (Note 3)	Number of Sensors (Note 4)	Sensor & Rail Location	Base Length L (mm)
LXM2001 LXM2005 LXM2001C LXM2005C	Select from control function table	Select from control function table	Included (3 m): 3 None: N	2 Units: 2 3 Units: 3 None: N	Right: R Left: L	100-200 (50 Pitch)

Part Number Example: **LXM2001 - T1E - D1E - 3 - 3 - R - 200**

LXM2001 LXM2005

LXM2001C LXM2005C

Standard Type

Cover Type

Note: When F dimensions are minus, the motor falls below the bottom of the base rail.

⊕ For hole dimension details, P.526. Avoid interference with Sensor Flag.

Standard Specifications

Part Number	Lead (mm)	Ball Screw Diameter (mm)	Positioning Repeatability (mm)	Positioning Accuracy (mm)	Parallelism (mm)	Backlash (mm)	Allowable Static Moment (N·m)		
							Ma	Mb	Mc
LXM2602	1	⌀6	±0.003	0.02	0.01	0.003	27	27	93
LXM2605	5	(Ground)							
LXM2001C	1	⌀6	±0.003	0.02	0.01	0.003	27	27	93
LXM2005C	5	(Ground)							

*For description of allowable static moment, P.520

Control Functions

Manufacturer	Motor						Driver Type			Motor Driver Set Part Number
	Selection	Motor	Manufacturer Part Number	Output / Type	Brake (Note 1)	Mass (kg)	Selection	Power Supply	Manufacturer Part Number	
Oriental Motors	T1E	Stepping	ARM26SAK	α-Step	None	0.22	D1E	DC24V	ARD-K	AR26SAK
	T2E		ARM46AC		Included	0.5	D2E		ARD-A	AR46AA
	T2BE		ARM46MC		Included	0.6	D2E		ARD-A	AR46MA
	T4E	5-Phase	PKE545AC	None	0.4	D4E	RKSD503-A	RKS545AA		
	T4BE		PKE545MC-A1	Included	0.52	D6E	RKSD503M-A	—		