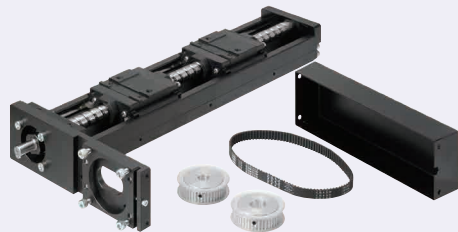


Single Axis Actuators LX45 Motor Folded Type



LX Related Information
Specifications P411 ~ P414
Selection / Life Calculation Example P2235~P2238

Convenient Sensor Sets are also available. P432



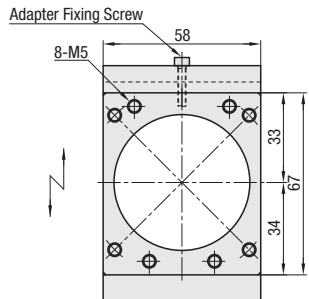
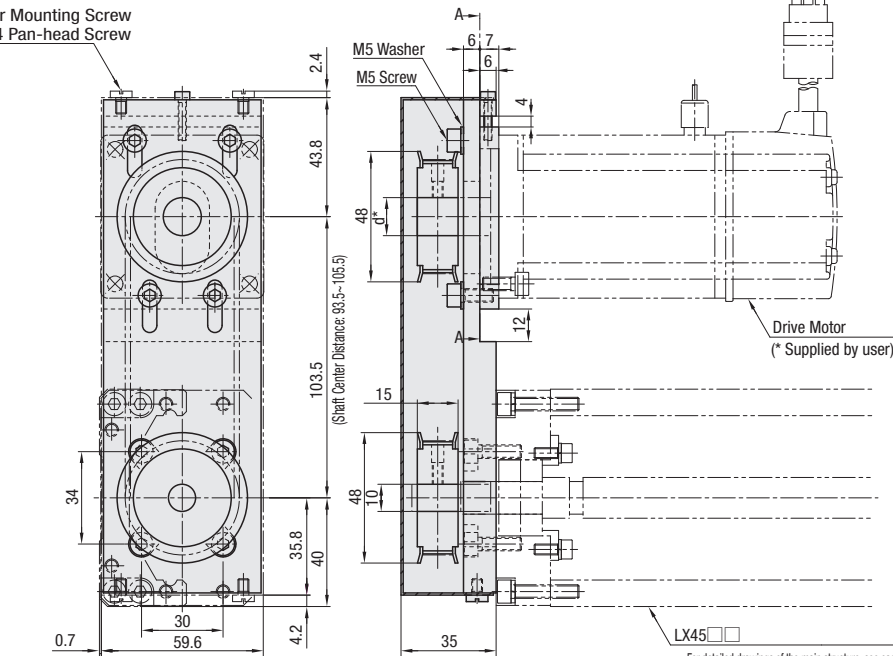
Specifications	
LX45	
Standard / Cover	
Screw Shaft Dia. (mm)	15
Lead (mm)	10, 20
Accuracy	High Grade
Accessory	
① Motor Adapter Plates	
② Adapter Plate Screw 4 pcs. EN 1.4567 Equiv.	
③ High Torque Timing Pulley Part Number: HTPA44S3M100	
④ High Torque Timing Belt Part Number: HTBN339S3M-100	

RoHS10

Part Number	Standard Grease		Lubrication Unit MX-equipped (Standard Grease)	
	High Grade Standard	High Grade with Cover	High Grade Standard	High Grade with Cover
Lead 10	LXR4510	LXR4510C	LXR4510-MX	LXR4510C-MX
Lead 20	LXR4520	LXR4520C	LXR4520-MX	LXR4520C-MX

Components	Base (Rail)	Block	Motor Bracket	Support Side Bearing with Housing	Cover	Stopper	Precision Ball Screw (Ground)
Material	Carbon Steel	SCM Material	EN AW-5052 Equiv.	EN AW-5052 Equiv.	EN AW-6063 Equiv.	NBR	EN 1.7242 Equiv.
Surface Treatment	LTBC Plating	LTBC Plating	Black Baked Paint	Black Anodize	Black Anodize	-	-
Hardness	Induction Hardened HRC58 ~ 64	HRC58~62	-	-	-	-	HRC58~62

Cover Mounting Screw
4-M4 Pan-head Screw



LX45□□
For detailed drawings of the main structure, see each page.
Standard Type P429
Cover Type P429

* d is Pulley Inner Dia.
Ø14 for Servo Motor Type and Ø8 for Stepping Motor Type. Selectable for No Adapter Plate Type. Selectable for No Adapter Plate Type.

- For recommended shaft center distance for belt tension 103.5mm, deflection when the center of belt is pressed with less than 3N is 1.7mm.
- Precision specification value is the value achieved after fixing rails. (It is not a value before tightening the rail screws.) For values, see P413.
- The actuator shaft end is of D cut specification.

Included High Torque Timing Pulley Part Number

Pulley mounting side		Part Number
Motor Side	Actuator mounting side	HTPA44S3M100-A-P10
	For Adapter Plate RA4560	HTPA44S3M100-A-N14
	For Adapter Plate RT4560	HTPA44S3M100-A-P10
	No Adapter Plate N8	HTPA44S3M100-A-P8
	No Adapter Plate N10	HTPA44S3M100-A-P10
Motor Side	No Adapter Plate N14	HTPA44S3M100-A-N14

- Part numbers with P at the end are of round hole+tap type.
- Part numbers with N at the end are of Key-slot hole+tap type.

Part Number	Block Qty.	Motor Adapter Plates	Base Length (L)	Details of Mounting Hole DimensionsP429, 430					
				A	P1	P2	B	Number of Pitches	Number of Holes (N)
(High Grade Standard) LXR4510 LXR4520	Long Blocks (1 pc.)B1 (2 pcs.)B2	(Servo) RA4560 (Stepping) RT4560	340	70	100	100	70	2	6
			390			50		3	8
(Lubrication Unit MX Standard) LXR4510-MX LXR4520-MX	Short Blocks (1 pc.)S1 (2 pcs.)S2	*(No Adapter Plate) N8(Pulley Inner Dia. Ø8) N10(Pulley Inner Dia. Ø10) N14(Pulley Inner Dia. Ø14)	440			100		4	10
			490			50		5	12
			540			100			
(High Grade with Cover) LXR4510C LXR4520C			590			50			

* Motor adapter plate and mounting screws are not included with No Adapter Plate Type.

Effective Stroke / Mass

Base Length (L)	* Effective Stroke								Total Mass (kg)							
	MX-unequipped				MX-equipped				LXR45□□							
	B1	B2	S1	S2	B1	S1	B1	B2	S1	S2	B1	B2	S1	S2	B1	S2
340	210.4	88.8	247.9	163.8	194.4	231.9	6.42	7.34	6.02	6.56	7.24	8.74	6.59	7.43		
390	260.4	138.8	297.9	213.8	244.4	281.9	7.02	7.94	6.63	7.16	7.88	9.38	7.22	8.06		
440	310.4	188.8	347.9	263.8	294.4	331.9	7.62	8.55	7.23	7.76	8.51	10.01	7.85	8.69		
490	360.4	238.8	397.9	313.8	344.4	381.9	8.22	9.15	7.83	8.36	9.14	10.64	8.49	9.33		
540	410.4	288.8	447.9	363.8	394.4	431.9	8.83	9.75	8.43	8.96	9.78	11.28	9.12	9.96		
590	460.4	338.8	497.9	413.8	444.4	481.9	9.43	10.35	9.04	9.57	10.41	11.91	9.75	10.59		

* Effective stroke is indicated in dimensions with a margin of 2.5mm each from the ends.

0.024kg will be added to MX-equipped types.

Accuracy Standards

Accuracy Standards	High Grade
Positioning (mm)	0.1
Backlash (mm)	0.02
Positioning Repeatability (mm)	±0.005
Running Parallelism (mm)	0.035
Starting Torque (N · cm)	10

Static Load Capacity / Allowable Moment

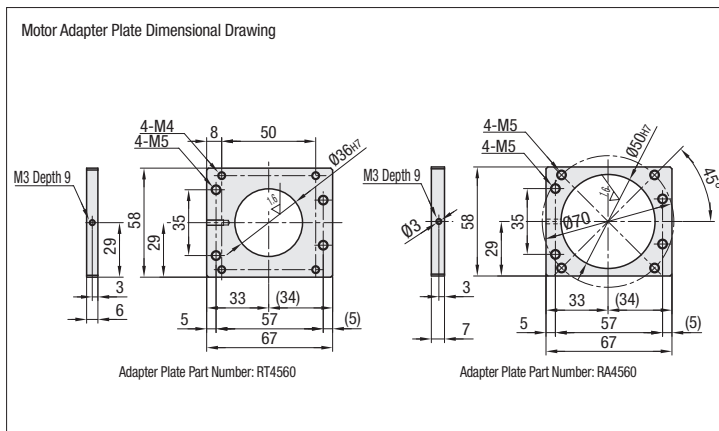
Block Qty.	Block Qty.	Static Load Capacity (N)	Allowable Static Moment (N · m)		
			Ma	Mb	Mc
Long Block	B1	32441	291	291	972
	B2	64882	3945	3945	1944
Short Block	S1	17175	145	145	515
	S2	34350	1444	1444	1029

- Reference values are for a static state. For life calculation, use our technical calculation software.
- For Allowable Static Moment, see P.411.

Max. Velocity

Max. Velocity (mm/s)	
LXR4510□	550
LXR4520□	1110

- The Max. Velocity is reference values derived from ball screw critical speeds and DN values but not guarantee data considering the motor's conditions.



Part Number	Block Qty.	Motor Adapter Plates	Base Length (L)
LXR4510	B1	RA4560	540
LXR4510C-MX	B1	RA4560	540
Part Number	Block Qty.	Motor Adapter Plates	Base Length (L)
LXR4510	B1	RA4560	540

(NBP)
NBP

Servo Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Wattage	Applicable Motor Shaft Dia.
RA4560	□60	Yaskawa Electric Corporation	SGMJV-02	200W	Ø14
			SGMJV-04	400W	
		Mitsubishi Electric Corporation	HG-MR23	200W	
			HG-KR23	400W	
		Sanyo Denki Co., Ltd.	Q1AA06020D	200W	
			Q1AA06040D	400W	
		Omron Corporation	R88M-K20030	200W	
			R88M-K40030	400W	
		Keyence Corporation	MV-M20	200W	
			SV-M020	400W	

Stepping Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Type	Applicable Motor Shaft Dia.
RT4560	□60	Oriental Motor Motor	RKSS6* AR6	5-phase α-Step	Ø10

- When selecting the motor shaft diameter Ø8, please select the alteration NBP (No Belt / No Pulley) and purchase the pulley and belt separately.
- LXR45□□-□□-RT4560-□□-NBP
- High Torque Timing Pulley: HTPA44S3M100-A-P8
- High Torque Timing Belt: HTBN339S3M-100
- Not compatible with geared motors made by Oriental Motor.

Alteration	Code	Spec.
No Belt / No Pulley	NBP	Excluded from the set.

Sensor Set P432