

Single Axis Actuator LX45

Motor Wrap Type



Single Axis Actuator LX45 – Motor Wrap Type



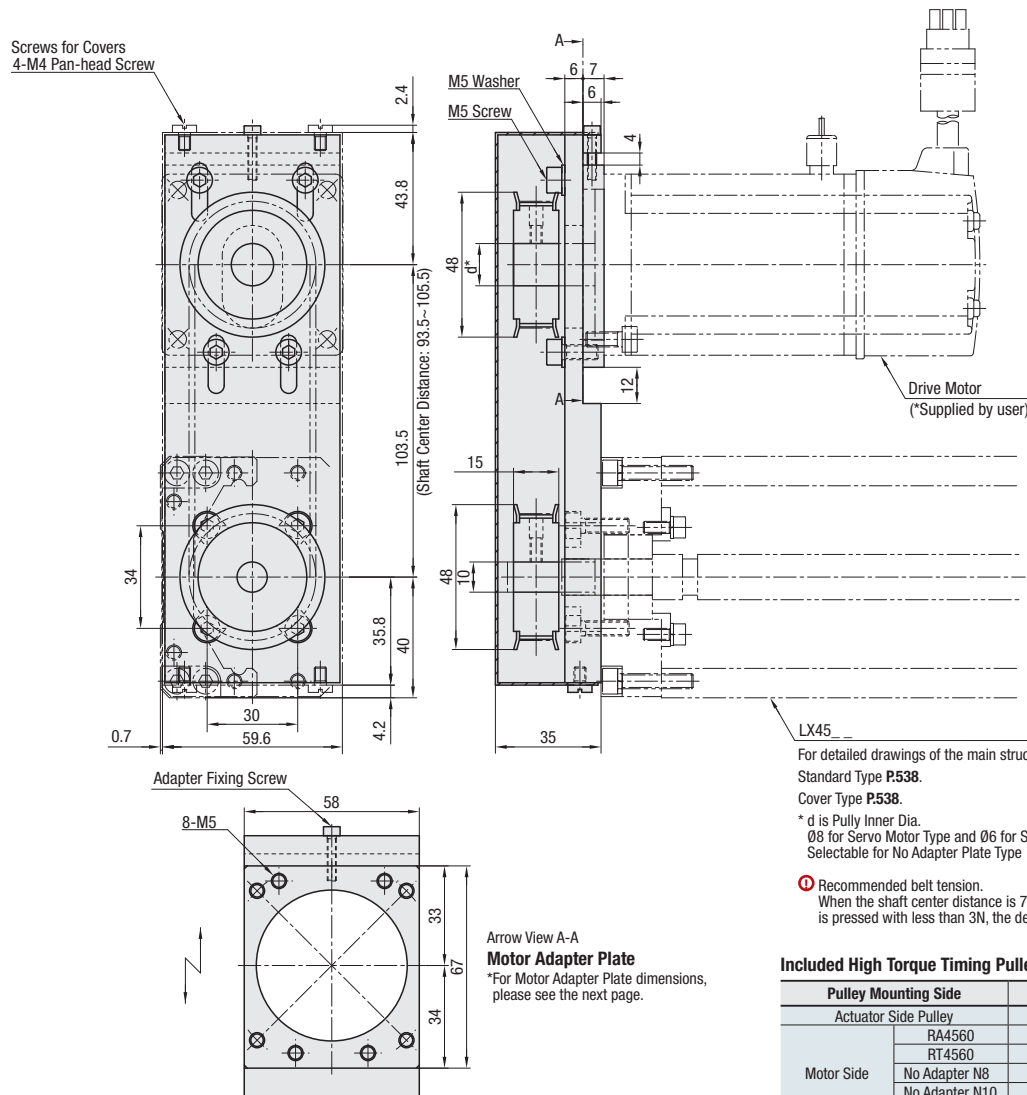
RoHS10

Specifications	
LX45	
Standard / Cover	
Screw Shaft Diameter (mm)	15
Lead (mm)	10, 20
Accuracy	High Grade

- Accessories**
- (1) Motor Adapter Plate
Material: Steel
Surface Treatment: Low Temperature Black Chrome Plating
 - (2) Adapter Plate Screw 4 Pcs. Material: 302HQ Stainless Steel
 - (3) High Torque Timing Pulley Part Number: HTPA44S3 m100
 - (4) High Torque Timing Belt Part Number: HTBN339S3 m-100

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	5052 Aluminum Alloy	5052 Aluminum Alloy	6063 Aluminum Alloy	NBR Nitrile Rubber	SCM415 Alloy Steel (JIS)
Surface Treatment	Low Temperature Black Chrome Plating	Low Temperature Black Chrome Plating	Black Baked Paint Finish	Black Anodize	Black Anodize	—	—
Hardness	Induction Hardened 58–64 HRC	58–62 HRC	—	—	—	—	58–62 HRC



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For Single Axis Actuator LX Series selections, please use our free 2D and 3D CAD data and Technical Calculation Software.

<http://www.misumiusa.com/lx-actuator/>

LX Related Information
Specifications..... P.518–523
Selection & Life Calculation Example..... P.3952–3955

Part Number	Block Qty.	Motor Adapter Plates	Base Overall Length (L)	Detailed Mounting Hole Dimensions. See P.538					
				A	P ₁	P ₂	B	No. 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	70	100	50	70	3	8
			440	70	100	100	70	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) N14 (Pulley Inner Dia. Ø14)	490	70	100	50	70	4	10
			540	70	100	100	70	4	10
			590	70	100	50	70	5	12

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

Effective Stroke / Mass

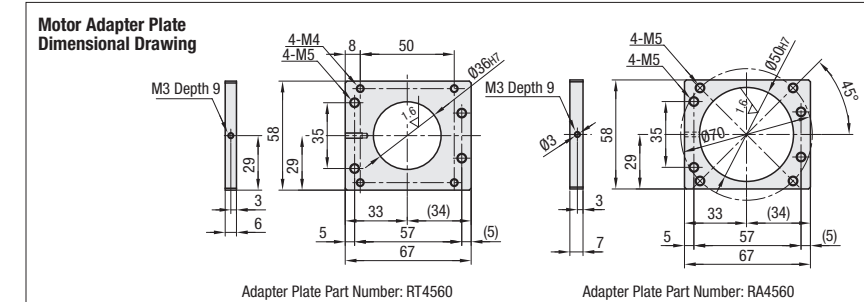
Base Length (L)	* Effective Stroke						Total Mass (kg)							
	MX-Unequipped				MX-Equipped		LXR30				LXR30 C			
	B1	B2	S1	S2	B1	S1	B1	B2	S1	S2	B1	B2	S1	S2
340	210.4	88.8	247.9	163.8	194.4	231.9	6.42	7.34	6.02	6.56	7.24	8.74	6.59	7.43
390	260.4	138.8	297.9	213.8	244.4	281.9	7.02	7.94	6.63	7.16	7.88	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

⊕ MX-Equipped types are +0.011 kg.

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

Part Number Example: LXR4510 - B1 - RA4560 - 540

Part Number Alterations: LXR4510 - B1 - RA4560 - 540 - NBP



Servo Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Wattage	Applicable Motor Shaft Dia.
RA4560	60 Sq.	Yasukawa Electric Corporation	SGMJV-02	200W	Ø14
			SGMJV-04	400W	
			HC-MFS23	200W	
			HC-KFS23	200W	
			HC-MFS43	400W	
			HC-KFS43	400W	
		Sanyo Denki Co., Ltd.	Q1AA06020D	200W	
			Q1AA06040D	400W	
			R88M-W20030	200W	
		Omron Corporation	R88M-W40030	400W	
			MV-M20	200W	
		Keyence Corporation	SV-M020	200W	
MV-M40	400W				

Stepping Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Type	Applicable Motor Shaft Dia.
RT4560	60 Sq.	Oriental Motor	RKS56*	5-Phase	Ø8
			AR6	σ Step	

*When selecting the motor shaft diameter Ø8, please select the alteration NBP (No Belt / No Pulley) and purchase the pulley and belt separately.

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

⊕ Sensor Set, P.541.

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

Allowable Static Load / Moment

Block Types	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 description of allowable static moment, see P.520.

Maximum Velocity

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

⊕ The Maximum Velocity speeds are reference values derived from Ball Screw critical speeds and DN values. They are not guaranteed values since motor conditions vary.

LXR45_ _ _RT4560_ _NBP
High Torque Timing Pulley: HTPA44S3 m100-A-P8
High Torque Timing Belt: HTBN339S3 m-100