

Single Axis Actuators LX30 Motor Folded Type



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

Convenient Sensor Sets are also available. P428

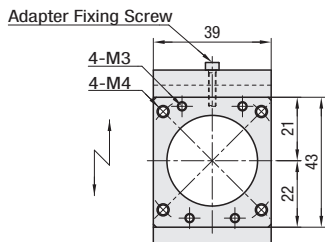
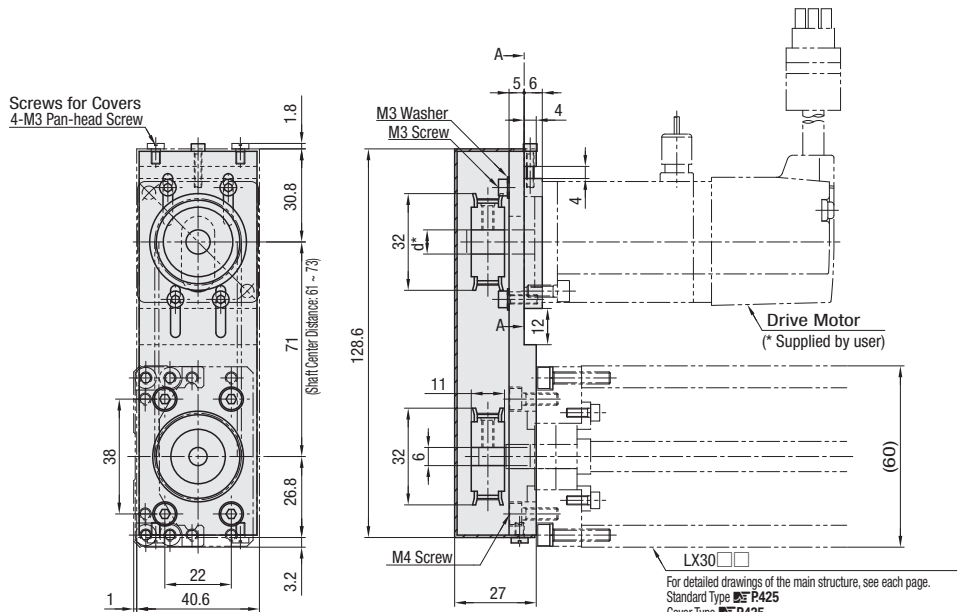


Specifications	
LX30	
Standard / Cover	
Screw Shaft Dia. (mm)	10
Lead (mm)	5, 10
Accuracy	High Grade
Accessory	
① Motor Adapter Plates	
M Steel S Low Temperature Black Chrome Plating	
② Adapter Plate Screw 4 pcs. M EN 1.4567 Equiv.	
③ High Torque Timing Pulley Part Number: HTPA44S2M060	
④ High Torque Timing Belt Part Number: HTBN230S2M-60	

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 5	LXR3005	LXR3005C	LXR3005-MX	LXR3005C-MX
Lead 10	LXR3010	LXR3010C	LXR3010-MX	LXR3010C-MX

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



Arrow View A-A
<Motor Adapter Plates>
* For details of motor adapter plate dimensions, see the right-hand page.

- For recommended shaft center distance for belt tension 71mm, deflection when the center of belt is pressed with less than 1N is 1.1mm.
- 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
Actuator mounting side		HTPA44S2M060-A-P6
Motor Side	For Adapter Plate RA3038	HTPA44S2M060-A-N8
	For Adapter Plate RA3040	HTPA44S2M060-A-P6
	For Adapter Plate RT3042	HTPA44S2M060-A-P5
	No Adapter Plate N5	HTPA44S2M060-A-P5
	No Adapter Plate N6	HTPA44S2M060-A-P6
No Adapter Plate N8		HTPA44S2M060-A-N8

- 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 Plate	Base Overall Length (L)	Details of Mounting Hole Dimensions P425, 426					
				A	P1	P2	B	Number of Pitches	Number of Holes (N)
(High Grade Standard) LXR3005 LXR3010	Long Blocks (1 pc.) B1 (2 pcs.) B2 For B2, L≥300	(Servo) RA3038 RA3040 (Stepping) RT3042	125	12.5	-	100	12.5	1	4
			150	25	-	100	25	2	6
			200	-	-	50	-	3	8
			250	-	-	100	-	4	10
			300	-	-	50	-	5	12
			350	-	-	100	-	-	-
			400	-	-	50	-	-	-
			450	-	-	100	-	-	-
			500	-	-	50	-	-	-
			550	-	-	100	-	-	-
(Lubrication Unit MX Standard) LXR3005-MX LXR3010-MX	Short Blocks (1 pc.) S1 (2 pcs.) S2 *Lubrication Units MX-equipped types are available in B1/S1 only.	*(No Adapter Plate) N5 (Pulley Inner Dia. 05) N6 (Pulley Inner Dia. 06) N8 (Pulley Inner Dia. 08)	125	12.5	-	100	12.5	1	4
			150	25	-	100	25	2	6
			200	-	-	50	-	3	8
			250	-	-	100	-	4	10
			300	-	-	50	-	5	12
			350	-	-	100	-	-	-
			400	-	-	50	-	-	-
			450	-	-	100	-	-	-
			500	-	-	50	-	-	-
			550	-	-	100	-	-	-
(High Grade with Cover) LXR3005C LXR3010C	Long Blocks (1 pc.) B1 (2 pcs.) B2 For B2, L≥300	(Servo) RA3038 RA3040 (Stepping) RT3042	125	12.5	-	100	12.5	1	4
			150	25	-	100	25	2	6
			200	-	-	50	-	3	8
			250	-	-	100	-	4	10
			300	-	-	50	-	5	12
			350	-	-	100	-	-	-
			400	-	-	50	-	-	-
			450	-	-	100	-	-	-
			500	-	-	50	-	-	-
			550	-	-	100	-	-	-
(Lubrication Unit MX with Cover) LXR3005C-MX LXR3010C-MX	Short Blocks (1 pc.) S1 (2 pcs.) S2 *Lubrication Units MX-equipped types are available in B1/S1 only.	*(No Adapter Plate) N5 (Pulley Inner Dia. 05) N6 (Pulley Inner Dia. 06) N8 (Pulley Inner Dia. 08)	125	12.5	-	100	12.5	1	4
			150	25	-	100	25	2	6
			200	-	-	50	-	3	8
			250	-	-	100	-	4	10
			300	-	-	50	-	5	12
			350	-	-	100	-	-	-
			400	-	-	50	-	-	-
			450	-	-	100	-	-	-
			500	-	-	50	-	-	-
			550	-	-	100	-	-	-

* 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
125	29	-	54.5	-	-	-	1.55	-	1.43	-	2.01	-	1.75	-
150	54	-	79.5	17	-	65.5	1.72	-	1.60	1.78	2.17	-	1.92	2.23
200	104	-	129.5	67	90	115.5	2.06	-	1.93	2.11	2.50	-	2.25	2.57
250	154	-	179.5	117	140	165.5	2.39	-	2.27	2.45	2.84	-	2.59	2.91
300	204	116	229.5	167	190	215.5	2.73	3.04	2.60	2.78	3.17	3.74	2.92	3.24
350	254	166	279.5	217	240	265.5	3.06	3.37	2.94	3.12	3.51	4.08	3.26	3.58
400	304	216	329.5	267	290	315.5	3.40	3.71	3.27	3.46	3.85	4.41	3.60	3.91
450	354	266	379.5	317	340	365.5	3.74	4.04	3.61	3.79	4.18	4.75	3.93	4.25
500	404	316	429.5	367	390	415.5	4.07	4.38	3.95	4.13	4.52	5.08	4.27	4.58
550	454	366	479.5	417	440	465.5	4.41	4.72	4.28	4.46	4.85	5.42	4.60	4.92
600	504	416	529.5	467	490	515.5	4.74	5.05	4.62	4.80	5.19	5.76	4.94	5.26

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

Accuracy Standards

Accuracy Standards	L≤400		L≥450	
	High Grade		High Grade	
Positioning (mm)	0.06	0.1	0.06	0.1
Backlash (mm)	0.02	0.02	0.02	0.02
Positioning Repeatability (mm)	±0.005	±0.005	±0.005	±0.005
Running Parallelism (mm)	0.025	0.035	0.025	0.035
Starting Torque (N·cm)	4			

Static Load Capacity / Allowable Moment

Block Qty.	Block Qty.	Static Load Capacity (N)	Allowable Static Moment (N·m)		
			Ma	Mb	Mc
Long Block	B1	17218	126	126	387
	B2	34436	1515	1515	774
Short Block	S1	9271	63	63	208
	S2	18542	579	579	417

- Reference values are for a static state. For life calculation, use our technical calculation software.
- For Allowable Static Moment, see P411.

Max. Velocity

Max. Velocity (mm/sec)	L125-L450	L500	L550	L600
LXR3005	410	370	300	250
LXR3010	830	740	600	500

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

Servo Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Wattage	Applicable Motor Shaft Dia.
RA3038	□38	Panasonic	MSMD5A	50W	08
			MSME5A	50W	
			MSMD01*	100W	
			MSME01*	100W	
RA3040	□40	Yaskawa Electric Corporation	SGMJV-A5	50W	
			SGMAH-01	100W	
		Mitsubishi Electric Corporation	HG-MR053	50W	
			HG-MR13	100W	
		Sanyo Denki Co., Ltd.	O1AA04005D	50W	
			O1AA04010D	100W	
		Omron Corporation	R88M-K10030	50W	
			LMV-M05	50W	
		Keyence Corporation	SV-M005	50W	
			MV-M10	100W	

Stepping Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Type	Applicable Motor Shaft Dia.
RT3042	□42	Oriental Motor	PK24*	2-phase	06
			RKS54*	5-phase	
			AR46	αStep	

* When selecting the motor shaft diameter 05, please select the alteration NBP (No Belt / No Pulley) and purchase the pulley and belt separately.
LXR30□□-□□-RT3040-□□□-NBP
High Torque Timing Pulley: HTPA44S2M060-A-P5
High Torque Timing Belt: HTBN230S2M-60
Not compatible with geared motors made by Oriental Motor.

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

Sensor Set P428

High Grade Unit Price														
Part Number	L=125 (Lead 5 only)	L=150	L=200	L=250	L=300	L=350	L=400	L=450	L=500	L=550	L=600	Motor Adapter Plates	Block Qty.	Screw Shaft Dia.
LXR30□□-B1/S1-□												Servo Stepping No Adapter Stepping No Adapter Plate	1	10
LXR30□□-B2/S2-□	-												2	
LXR30□□-C-B1/S1-□													1	
LXR30□□-C-B2/S2-□	-												2	