



For Single Axis Actuator LX Series selections, please use our 2D and 3D CAD data and Technical Calculation Software (free of charge).
http://download.misumi.jp/mol/fa_soft.html

Single Axis Actuators LX45 Standard / Cover Type

Convenient Sensor Sets are also available. P.392

Design / Utility Model Registered

<Standard Long Block Type> <Long Blocks with Cover> <No Motor Bracket Type>

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

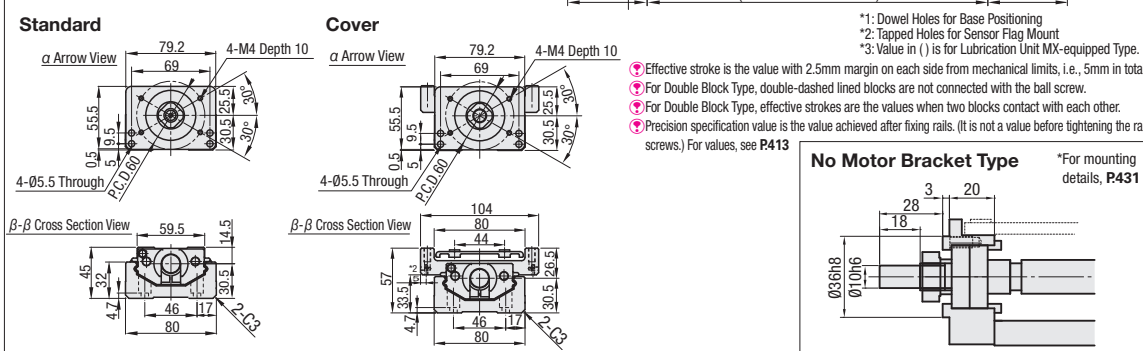
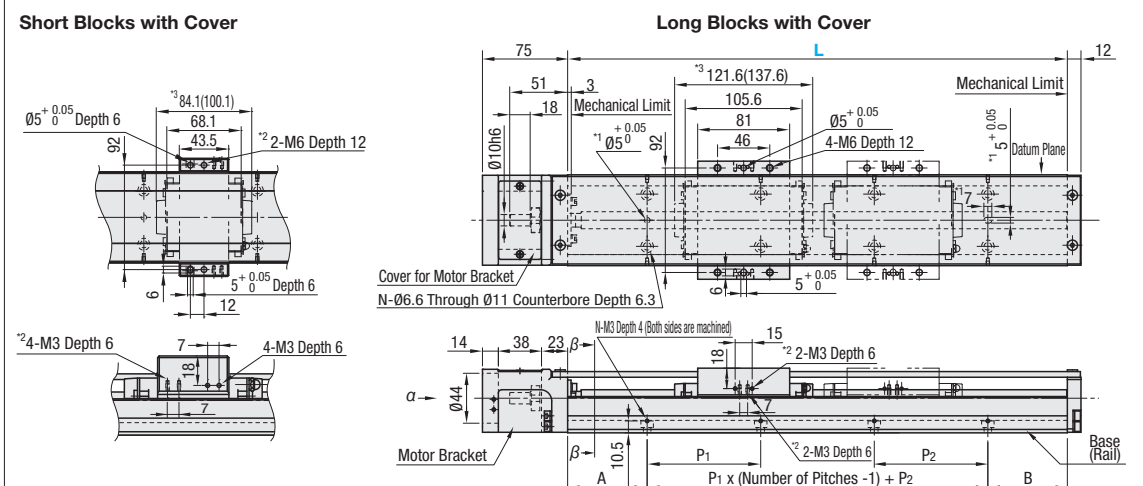
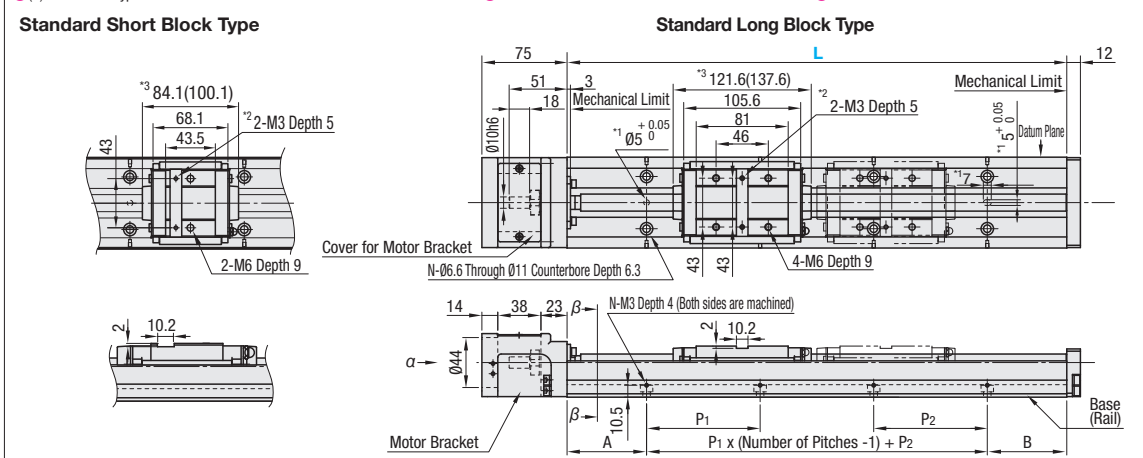
Accessory

① Motor Adapter Plates
 A5052 S Black Anodize
 Adapter Plate Screw 4 pcs. SUSXW7
 ② No accessory is included with No Motor Bracket Type.

For Material table, see P.411

Part Number	Standard Grease		Low Dust Generation Grease		Lubrication Unit MX-equipped (Standard Grease)	
	High Grade	Precision Grade	High Grade	Precision Grade	High Grade	Precision Grade
Lead 10	LX4510 (C)	LX4510 (C) P	LX4510 (C) G	LX4510 (C) PG	LX4510 (C) -MX	LX4510 (C) P-MX
Lead 20	LX4520 (C)	LX4520 (C) P	LX4520 (C) G	LX4520 (C) PG	LX4520 (C) -MX	LX4520 (C) P-MX

Ⓢ (C) is for Cover Type. Ⓢ Low Dust Generation Grease Information P414 Ⓢ Lubrication Unit MX Information P408



Part Number	Block Qty.	Motor Adapter Plates	Base Length (L)	Mounting Hole Dimensions					
				A	P1	P2	B	Number of Pitches	Number of Holes (N)
(Standard Grease) LX4510 (C) LX4520 (C)	Long Blocks (1 pc.) B1 (2 pcs.) B2	(Standard Grease) LX4510 (C) P LX4520 (C) P	340	70	100	100	70	2	6
(Low Dust Generation Grease) LX4510 (C) G LX4520 (C) G	Short Blocks (1 pc.) S1 (2 pcs.) S2	(Low Dust Generation Grease) LX4510 (C) PG LX4520 (C) PG	390			50		3	8
(Lubrication Unit MX-equipped, Standard Grease) LX4510 (C) -MX LX4520 (C) -MX	*Lubrication Units MX-equipped types are available in B1/S1 only.	(Lubrication Unit MX-equipped, Standard Grease) LX4510 (C) P-MX LX4520 (C) P-MX	440			100		4	10
			490			50	5	12	
			540			100			
			590			50			

* Precision Certificate is enclosed with precision grade products. * Motor adapter plate and mounting screws are not included with No Adapter Plate Type. * (C) is for Cover Type.

Accuracy Standards

Accuracy Standards	High Grade	Precision Grade
Positioning (mm)	0.1	0.025
Backlash (mm)	0.02	0.003
Positioning Repeatability (mm)	±0.005	±0.003
Running Parallelism (mm)	0.035	0.015
Starting Torque (N·cm)	10	

Ⓢ See P.413 for Maximum Velocity.
 Ⓢ See P.412 for Moment of Inertia.

Effective Stroke, Total Mass

Base Overall Length (L)	* Effective Stroke				* Total Mass (kg)									
	MX-unequipped				MX-equipped		Standard				Cover			
	B1	B2	S1	S2	B1	S1	B2	S1	S2	B1	B2	S1	S2	
340	210.4	88.8	247.9	163.8	194.4	231.9	5.77	6.69	5.37	5.91	6.59	8.09	5.94	6.78
390	260.4	138.8	297.9	213.8	244.4	281.9	6.37	7.29	5.98	6.51	7.23	8.73	6.57	7.41
440	310.4	188.8	347.9	263.8	294.4	331.9	6.97	7.9	6.58	7.11	7.86	9.36	7.2	8.04
490	360.4	238.8	397.9	313.8	344.4	381.9	7.57	8.5	7.18	7.71	8.49	9.99	7.84	8.68
540	410.4	288.8	447.9	363.8	394.4	431.9	8.18	9.1	7.78	8.31	9.13	10.63	8.47	9.31
590	460.4	338.8	497.9	413.8	444.4	481.9	8.78	9.7	8.39	8.92	9.76	11.26	9.1	9.94

* Effective stroke is indicated in dimensions with a margin of 2.5mm each from the ends.
 * MX-equipped types are +0.024kg.

Servo Motor Application Table

Part Number	Flange Size	Manufacturer	Wattage
A4538	□38	Panasonic	50W/100W
A4540	□40	Yasukawa Electric Corporation Mitsubishi Electric Corporation Keyence Corporation Omron Corporation Sanyo Denki Co., Ltd.	
A4560	□60	Yasukawa Electric Corporation Mitsubishi Electric Corporation Sanyo Denki Co., Ltd. Omron Corporation Keyence Corporation	
MA4560		Panasonic	100W/200W/300W

Ⓢ For detailed diagram of Motor Adapter Plates, see P.431
 Ⓢ For details on supported motor types, see P.437

Servo Motor Application Table

Part Number	Flange Size	Manufacturer	Wattage
E4540	□40	SIEMENS	50W/100W
E4555	□55		380W

Stepping Motor Application Table

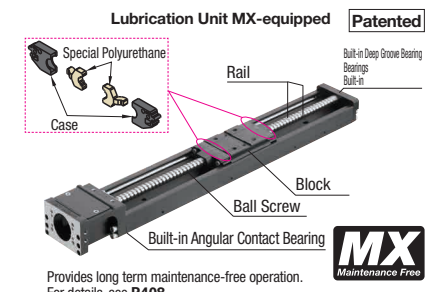
Part Number	Flange Size	Manufacturer	Type
T4560	□60	Oriental Motor	5-phase / α-Step
T4556.4	□56.4	NEMA standards	-
T4585	□85		

Ⓢ NEMA standards are a set of standards stipulated by National Electrical Manufacturers Association of United States.
 Ⓢ For details on supported motor types and detailed diagram of Motor Adapter Plates, see P.437
 Ⓢ Not compatible with geared motors made by Oriental Motor.

Ordering Example

Part Number - Block Qty. - Motor Adapter Plates - Base Length (L)

LX4510C - B1 - A4540 - 540
 LX4520-MX - B1 - A4560 - 390



Unit price for Precision Grade / Low Particle Generation Grease Option / Lubrication Unit MX-equipped

Specifications	Unit Price
Precision Grade	
Low Dust Generation Grease	
Lubrication Unit MX-equipped	

Ⓢ Listed Price + Unit Price = Product Price
 Ⓢ Volume Discount Rate is applicable.

High Grade Unit Price

Part Number	L=340	L=390	L=440	L=490	L=540	L=590	Motor Adapter Plates	Block Qty.	Screw Shaft Dia.	Lead
LX45□□-B1/S1-□							Servo Stepping No Adapter Plate	1	15	10
LX45□□-B2/S2-□							No Bracket	2		
LX45□□-B1/S1-F							Servo Stepping No Adapter Plate	1	15	20
LX45□□-B2/S2-F							No Bracket	2		

Ⓢ LX45□□(C) Series sensor set can be specified as an alteration. For Detailed alteration diagram, see P.432



Motor Adapter Plate Dimensional Drawing

Note: Note that the Motor Adapter protrudes beyond the rail at * marked area.

<p>A4538 Servo □38</p>	<p>A4540 Servo □40</p>
<p>MA4560 Servo □60</p>	<p>A4560 Servo □60</p>
<p>E4540 Servo □40</p>	<p>E4555 Servo □55</p>
<p>T4560 Stepping □60</p>	<p>T4585 Stepping □85</p>
<p>T4556.4 Stepping □56.4</p>	<p>F No Motor Bracket Type</p>

Motor Adapter Centering Tool

Material: A5056
Surface Treatment: Clear Anodize

Part Number	D	Applicable Adapter Plate	d	D1	d1	L	T	ℓ	Unit Price 1-5pcs
30	30	A4538 / A4540 / T4556.4	15	25	10	62	22	20	
JIGLX45	36	T4560				62	22	20	
	50	A4560 / MA4560 / T4585				61.5	13.5		

For orders larger than indicated quantity, please check with WOS.

Ordering Example: Part Number - D
JIGLX45 - 30

Proximity Sensor (SUNX) - Set Part Specification

LX Part Number	Code (□ is Sensor Qty.) * Up to 3 Sensors	Sensor Type/Qty.		Sensor Rail		Sensor (* Qty per Sensor Included)		Sensor Flag		Unit Price (L≤440)			Unit Price (L≥490)		
		GX-F12A (ON when near)	GX-F12B (ON when away)	Rail (1 pc.)	Mounting Screw (Pitch +1 pc.)	Sensor Mounting Screw (1 pc.)	Mounting Nut (1 pc.)	Sensor Flag (1 pc.)	Sensor Flag Mounting Screw	1 pc.	2 pcs.	3 pcs.	1 pc.	2 pcs.	3 pcs.
LX45 □□ -B	XA	□ pc(s).	-	SENC3□H	SCB3-5	CBSST3-8	LBNR3	Dedicated	Flat Head Machine Screw M3-5 (1 pc.)						
LX45 □□ -S	XB	-	□ pc(s).												
LX45 □□ -C-B	FA	□ pc(s).	-												
	FB	-	□ pc(s).												
LX45 □□ -C-S	FAS	□ pc(s).	-												
	FBS	-	□ pc(s).												
LX45 □□ -B	XW1	1 pc.	1 pc.												
LX45 □□ -S	XW2	2 pcs.	2 pcs.												
	XW3	2 pcs.	1 pc.												
	FW1	1 pc.	1 pc.												
LX45 □□ -C-B	FW2	1 pc.	2 pcs.												
	FW3	2 pcs.	1 pc.												
LX45 □□ -C-S	FWS1	1 pc.	1 pc.												
	FWS2	1 pc.	2 pcs.												
	FWS3	2 pcs.	1 pc.												

Photo Sensor (SUNX) - Set Part Specification

LX Part Number	Code (□ is the number of Sensors) * Up to 3 Sensors	Photo Sensor	Sensor Rail		Sensor* Qty per Sensor Included				Sensor Flag		Unit Price (L≤440)			Unit Price (L≥490)		
			Rail (1 pc.)	Mounting Screw (Pitch +1 pc.)	Sensor Bracket	Bracket Mounting Screw Nut	Sensor Mounting Screw	Sensor Mounting Washer	Sensor Flag (1 pc.)	Sensor Flag Mounting Screw	1 pc.	2 pcs.	3 pcs.	1 pc.	2 pcs.	3 pcs.
LX45 □□ -B	SP	PM-L25	SENC3□H	SCB3-5	Dedicated	SCB3-5 (2 pcs.)	LBNR3 (2 pcs.)	M2 Small Flat Washer (2 pcs.)	Dedicated	Flat Head Machine Screw M3-5 (1 pc.)						
LX45 □□ -S	MP															
LX45 □□ -C-B	MP															
LX45 □□ -C-S	MPS															

The Photo Sensor PM-L24 is to be discontinued and replaced by the next-generation product PM-L25 in April 2017.

Photo Sensor (Omron) - Set Part Specification

LX Part Number	Code (□ is the number of Sensors) * Up to 3 Sensors	Photo Sensor	Sensor Rail		Sensor* Qty per Sensor Included				Sensor Flag		Unit Price (L≤440)			Unit Price (L≥490)		
			Rail (1 pc.)	Mounting Screw (Pitch +1 pc.)	Sensor Bracket	Bracket Mounting Screw Nut	Sensor Mounting Screw	Sensor Mounting Washer	Sensor Flag (1 pc.)	Sensor Flag Mounting Screw	1 pc.	2 pcs.	3 pcs.	1 pc.	2 pcs.	3 pcs.
LX45 □□ -B	OP	EE-SX911-R 1M	SENC3□H	SCB3-5	Dedicated	SCB3-5 (2 pcs.)	LBNR3 (2 pcs.)	M3 Small Flat Washer (2 pcs.)	Dedicated	Flat Head Machine Screw M3-5 (1 pc.)						
LX45 □□ -S	EP															
LX45 □□ -C-B	EP															
LX45 □□ -C-S	EPS															

* Sensors are not sold separately.
EE-SX911-R1M is scheduled to change to EE-SX951-R1M from April 2015.

Alterations

Part Number - Block Qty. - Motor Adapter Plates - Base Length (L) - (Code)

LX4510 - B1 - A4540 - 590 - XW1

LX4520C - B1 - A4560 - 340 - EP2

Proximity Sensor Type Installation Drawings - SUNX

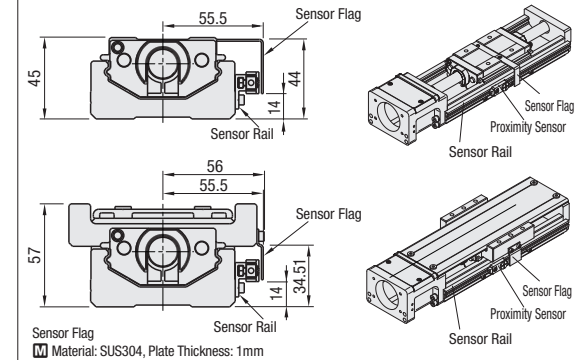
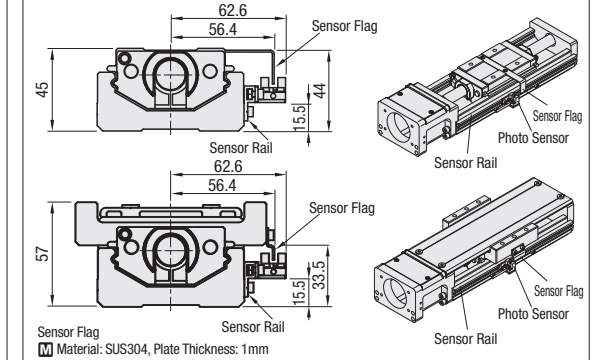


Photo Sensor Type Installation Drawings - SUNX / Omron



Cautions

- Sensor set is shipped with LX Actuator. Assembly required.
- Please check for all included parts immediately after unpacking. Some small parts can be lost.
- Please handle the products with great care.

- Please access each sensor manufacturer's website for the specifications of sensors in use.
- The sensor can also be installed on the opposite side.
- The drawing shows an example of sensor orientation. The sensor can also be installed in the opposite direction (i.e. with the cable wiring on the right).