

# [Medium Accuracy] Single Axis Actuators LST10

Belt Driven



Linear Actuators

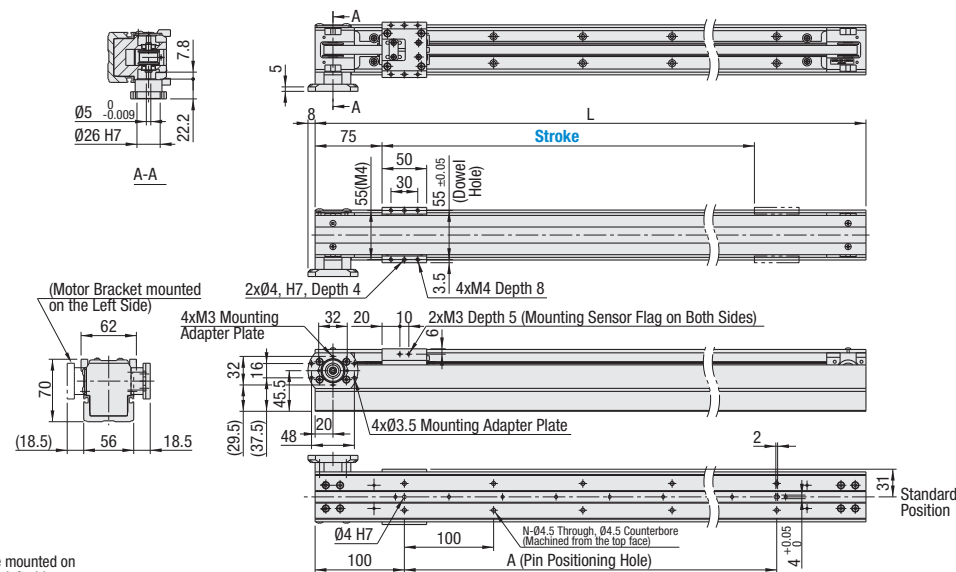
**CAD** 2D  
3D

Example of Mounting a Motor Bracket

RoHS 10

Accessory	Material	Surface Treatment	Qty	Note
Motor Bracket	Aluminum Alloy	Gold Anodize	1	—
Spacer	Aluminum Alloy	Black Anodize	2	—
Hex Socket Head Cap Screw M4 x 20	Steel	Black Oxide	4	Motor Bracket For fixing Adapter Plate
Adapter Plate	Aluminum Alloy	Black Anodize	1	—
Hex Socket Head Cap Screw M3 x 8	Steel	Black Oxide	4	Adapter Plate For fixing Adapter Plate

① The Motor Bracket and Adapter Plate are not installed yet when being shipped from the factory.  
② The motor bracket can be mounted on either the right side or the left side.



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<p><b>A25 Servo</b> 25 Sq.</p>	<p><b>A38 Servo</b> 38 Sq.</p>
<p><b>A40 Servo</b> 40 Sq.</p>	<p><b>E40 Servo</b> 40 Sq.</p>
<p><b>T28 Stepping</b> 28 Sq.</p>	<p><b>T42 Stepping</b> 42 Sq.</p>
<p><b>T56.4 Stepping</b> 56.4 Sq.</p>	

# [Medium Accuracy] Single Axis Actuators LST10

Belt Driven, continued



Linear Actuators

Part Number	Stroke (mm)	Motor Adapter Plates	L	A	Mass (kg)	Number of Holes (N)	Travel per Pulley Rotation (mm)	Base Mounting
LST10	500	Servo Motor A25 A38 A40 E40 Stepping Motor T28, T42, T56.4 No Adapter Plate N	700	500	3.3	12	59.97	From the Top of Base Rail (Counterbored Hole)
	600		800	600	3.7	14		
	700		900	700	4.1	16		
	800		1000	800	4.5	18		
	900		1100	900	4.9	20		
	1000		1200	1000	5.3	22		

### Accuracy Standards

Accuracy Standards	Standard Value
Positioning Repeatability (mm)	±0.05
Running Parallelism (mm)	±0.05

① The standard values are measured after the rail is mounted. (It is not the value measured before the rails are bolted down.)

### Stepping Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Wattage	Recommended Coupling
T28	28 Sq.	Oriental Motor	CSK22	2-Phase	SCXW21 SCPW21 CPDW19
			CSK52	5-Phase	
			ASC3	α-Step	
T42	42 Sq.	Oriental Motor	PK24	2-Phase	
			CSK24	2-Phase	
			RK54	5-Phase	
T56.4	56.4 Sq.	NEMA Standards	RKS54 / PK54	α-Step	
			AS46, ASC46, AR46	α-Step	
			NEMA23	—	CPDW19

① The NEMA standard is standardized by National Electrical Manufacturers Association in U.S.

**Part Number Example**  
**LST10 - 500 - A25**

**Part Number Alterations**  
**LST10 - 500 - A25 - MP3**

### Servo Motor Application Table

Part Number	Flange Size	Manufacturer	Product Number	Wattage	Recommended Coupling
A25	25 Sq.	Yasukawa Electric Corporation	SGMMJ-A1	10 W	SCXW21 SCPW21 CPDW19
			SGMMJ-A2	20 W	
			SGMMJ-A3	30 W	
A38	38 Sq.	Mitsubishi Electric Corporation	HG-AK0136	10 W	
			HG-AK0236	20 W	
			HG-AK0336	30 W	
A40	40 Sq.	Panasonic	MSMD5A	50 W	
			MSME5A	50 W	
			MSMD01	100 W	
			MSME01	100 W	
			Yasukawa Electric Corporation	SGMJV-A5	50 W
				SGMAH-A5	50 W
SGMAS-A5	50 W				
Mitsubishi Electric Corporation	40 Sq.	Sanyo Denki Co., Ltd.	HG-MR053	50 W	
			HG-KR053	50 W	
			HF-KP053	50 W	
Omron Corporation	40 Sq.	Keyence Corporation	Q1AA04003D	30 W	
			Q1AA04005D	30 W	
SIEMENS	40 Sq.		R88M-K05030	50 W	
			MV-M05	50 W	
			SV-M005	50 W	
E40	40 Sq.		1FK7011-5	50 W	
			1FK7015-5	100 W	
			CPDW19		

① Product numbers and specifications of motors are subject to change. Please check the manufacturers' information.

② Applicable motors and couplings are not limited to the above listed products. Please confirm each mounting dimension.

### Photo Sensor Types – Set Part Specification

Code	Sensor Type	Sensor	Sensor Type/Qty.	Sensor Flag Mounting	Sensor Mounting	Sensor Bracket Mounting			Note	
			Configurable to turn ON or OFF when Light is blocked.	Sensor Flag	Sensor Flag Mounting Screw	Sensor Mounting Screw	Bracket	Bracket Mounting Screw		Bracket Mounting Nut
MP	Photomicro Sensor	FPMY45	—pc(s)	Dedicated	Hex Socket Head Cap Screw M3 x 6, 2 pcs.	Hex Socket Head Cap Screw M3 x 6, 2 pcs.	Dedicated	Hex Socket Head Cap Screw M3 x 6, 2 pcs.	Hex Nut, 2 pcs.	1 m Cable

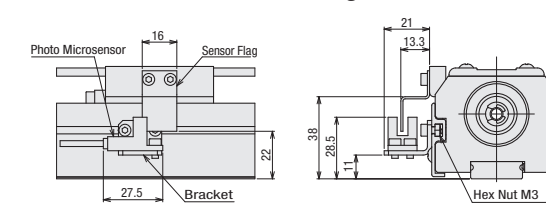
① The Sensor Qty. is inserted in the "" part (within the range of 1–3 pc(s)). When the stroke amount is 100 or less, however, the upper limit for the Sensor Qty. is 2 pcs.

### Proximity Sensor Types – Set Part Specification

Code	Sensor Type	Sensor	Sensor Type/Qty.	Sensor Flag Mounting	Sensor Mounting	Note
			ON When Near	ON When Away	Sensor Flag	
PR	Proximity Sensor – Two-Wire Type	EX4-T12	—pc(s)	—	Dedicated Hex Socket Head Cap Screw M3 x 6, 2 pcs.	Pan Head Screw M3 x 10 Hex Nut 1 pc. 1 m Cable
PRO	Proximity Sensor – Three-Wire Type with N.O. Output	EMX4-T12	—pc(s)	—		
PRC	Proximity Sensor – Three-Wire Type with N.C. Output	EMX4-T12C	—pc(s)	—		
PRW1	Proximity Sensor – Three-Wire, Combination Type	—	1 pc.	1 pc.	Dedicated Hex Socket Head Cap Screw M3 x 6, 2 pcs.	Pan Head Screw M3 x 10 Hex Nut 1 pc. 1 m Cable
PRW2			1 pc.	2 pcs.		
PRW3			2 pcs.	1 pc.		

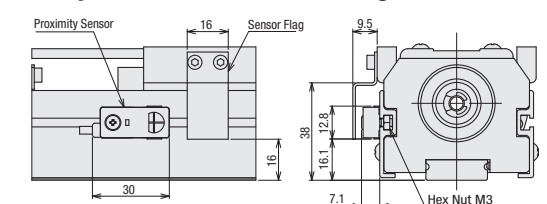
① The Sensor Qty. is inserted in the "" part (within the range of 1–3 pc(s)). When the stroke amount is 100 or less, however, the upper limit for the Sensor Qty. is 2 pcs.

### Photo Sensor Installation Drawing



The sensor can be installed also on the opposite side. The drawing only 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 side).

### Proximity Sensor Installation Drawing

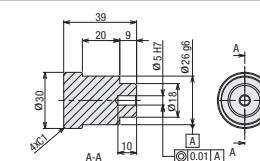


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### Motor Bracket Mounting Fixture dedicated for LST10

#### JIGLST10

Material:  
Aluminum Alloy  
Clear Anodize



### Part Number Example

Part Number  
JIGLST10

### Application Example

Use this jig for centering when a motor bracket is assembled.

