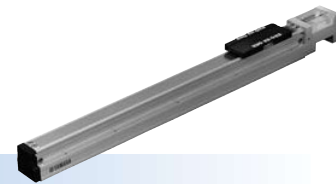


# LBAS04 Basic model



## Motor-less Single Axis Actuator

### Ordering method

<b>LBAS04</b>				
<b>Model</b>	<b>Lead designation</b>	<b>Shape</b>	<b>Motor specification</b>	<b>Stroke</b>
	12 12 mm	S: Straight	Y: Y specification (see below)	50 to 800
	6 6 mm	A: Bending	P: P specification (see below)	(50 mm pitch)

### Caution

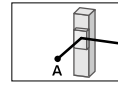
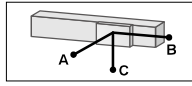
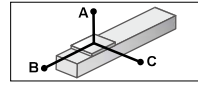
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration or resonance from actuator will affect service life of actuator. The product performance may not be satisfied depending on the compatible motor. For special parts for motor installation, install and adjust on your side.

### Specifications

<b>Adaptable motor</b>	50 W		
<b>Repeatability</b> <small>Note 1</small>	+/-0.01 mm		
<b>Deceleration mechanism</b>	Shifting position ball screw $\phi$ 10 (C7 class)		
<b>Stroke</b>	50 mm to 800 mm (50 mm pitch)		
<b>Maximum speed</b> <small>Note 2</small> (or equivalent)	800 mm/sec	400 mm/sec	
<b>Ball screw lead</b>	12 mm	6 mm	
<b>Maximum payload</b> <small>Note 3</small> (or equivalent)	<b>Horizontal</b>	12 kg	20 kg
	<b>Vertical</b>	2 kg	5 kg
<b>Rated thrust</b> <small>Note 3</small> (or equivalent)		71 N	141 N
<b>Maximum dimensions of cross section of main unit</b>	W 44 mm x H 52 mm		
<b>Overall length</b>	ST + 214 mm		
<b>Using ambient temperature and humidity</b>	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.  
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.  
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.  
 Note. See P.10 for acceleration/deceleration and inertia moment.

### Allowable overhang Note



#### LBAS04-12

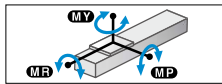
Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)						
	A	B	C	A	B	C				
2kg	1187	271	325	2kg	325	271	1187	1kg	534	534
8kg	473	62	77	8kg	77	62	473	2kg	265	265
12kg	431	41	53	12kg	53	41	431			

#### LBAS04-6

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)						
	A	B	C	A	B	C				
4kg	1808	155	217	4kg	217	155	1808	1kg	639	639
12kg	801	47	65	12kg	60	42	756	3kg	208	208
20kg	546	25	35	20kg	35	25	546	5kg	122	122

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.  
 Note. Service life is calculated for 500 mm stroke models.

### Static loading moment



(Unit: N·m)		
MY	MP	MR
54	54	75

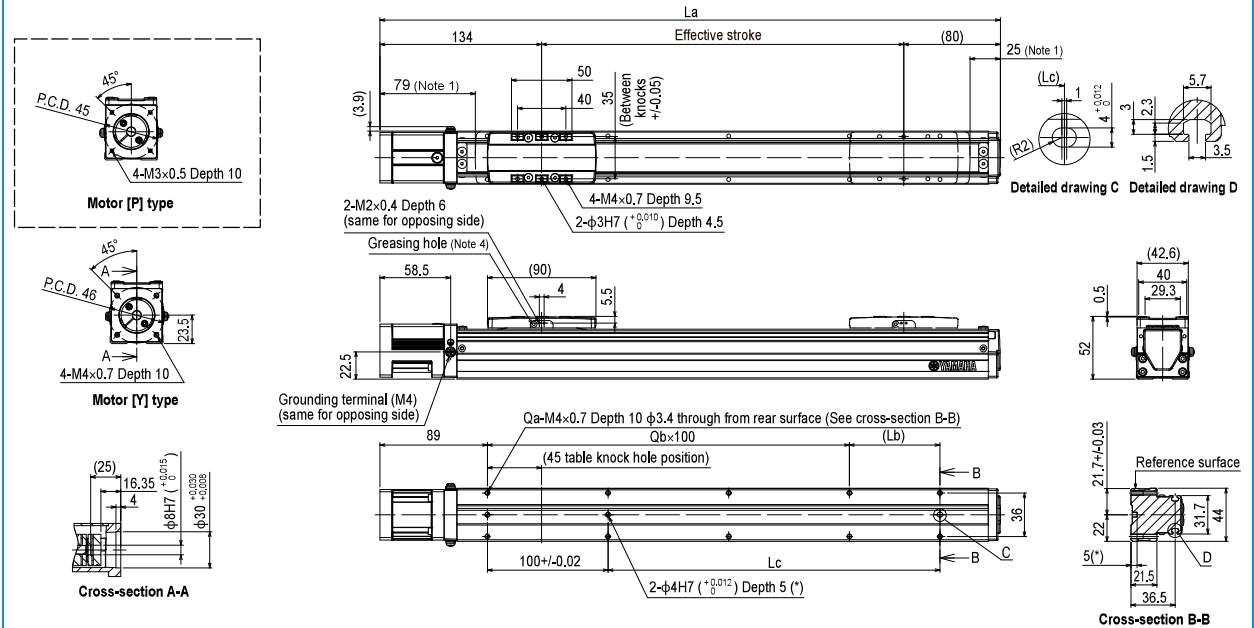
### Adaptable Servo Motor

<b>Specification</b>	Flange size <input type="checkbox"/> 40
	Wattage 50 W

Note. Motor models marked with \* may not be 50W, but can be installed.

Motor specification	Manufacturer	Model
Y	Yasukawa Electric Corp.	SGMJV-A5 SGMJ7-A5
	Keyence Corp.	SV-□005 SV2-□005
	Mitsubishi Electric Corp.	HF-KP053 HG-KR053 HK-KT053
	Omron Electronics	R88M-K05030 R88M-1M05030
	Sanyo Denki	R2□A04005
	Tamagawa Seiki	TSM3102
	Delta Electronics	ECMA-C1040F
	Fanuc Corp.	β ISO 2/5000
	Siemens	1FK2102-0AG 1FL6022-2AF
	Schneider	BCH2MBA53
P	Beckhoff	AM3011B *
	Allen-Bradley	TLY-A120 *
	Panasonic Corp.	MSMD5A MSMF5A

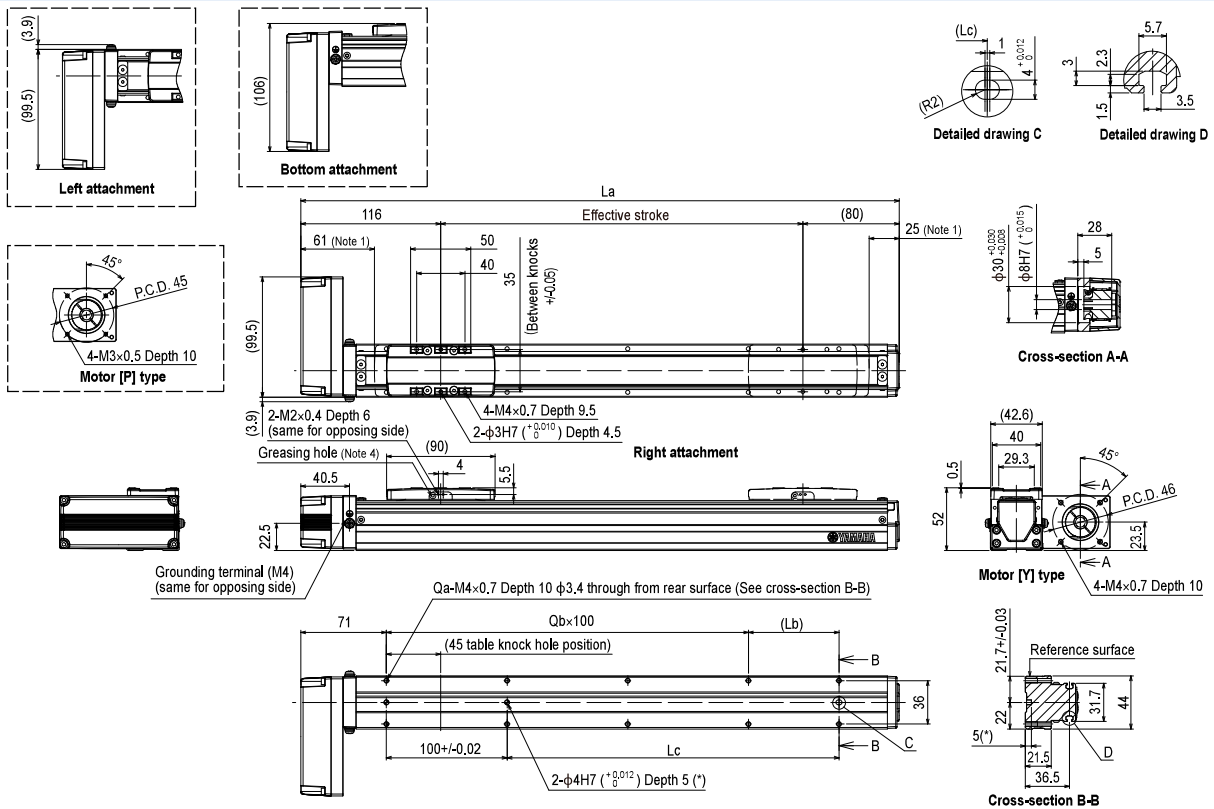
### LBAS04 Straight type (S)



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
<b>La</b>	264	314	364	414	464	514	564	614	664	714	764	814	864	914	964	1014
<b>Lb</b>	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
<b>Lc</b>	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
<b>Qa</b>	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
<b>Qb</b>	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
<b>Weight (kg)</b>	0.9	1.1	1.3	1.5	1.6	1.8	2	2.2	2.4	2.5	2.7	2.9	3.1	3.3	3.4	3.6
<b>Maximum speed (mm/sec)</b>	<b>Lead 12</b>	800														
	<b>Lead 6</b>	400														
<b>Speed setting</b>		-														

Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.  
 Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 x 0.5>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M4 x 0.7> used to install the main unit. Nozzle is set for greasing (recommended) (see P.34 for detail).  
 Note 4. Part number: KFU-M3861-00

LBAS04 Bending type (A)



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	246	296	346	396	446	496	546	596	646	696	746	796	846	896	946	996
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
<b>Weight (kg)</b>	1.1	1.2	1.4	1.6	1.8	1.9	2.1	2.3	2.5	2.7	2.8	3	3.2	3.4	3.6	3.7
<b>Maximum speed (mm/sec)</b>	<b>Lead 12</b>	800														
	<b>Lead 6</b>	400														
	<b>Speed setting</b>	-														
<b>Acceleration (%)</b>	<b>Lead 12</b>	90%														
	<b>Lead 6</b>	75%														
	<b>Speed setting</b>	60%														
	<b>Speed setting</b>	50%														

- Note 1. Stop positions are determined by the mechanical limiters at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 × 0.5>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M4 × 0.7> used to install the main unit. Nozzle is set for greasing (recommended) (see P.34 for detail).
- Note 4. Part number: KFU-M3861-00

Acceleration/Deceleration

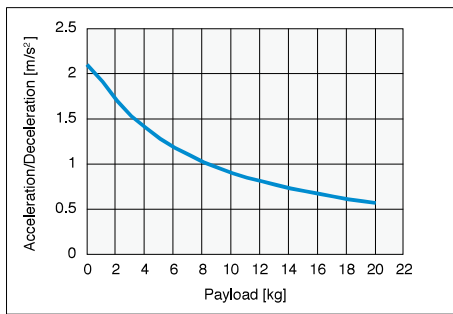
LBAS04

Model	LBAS04 -6 Horizontal/ Wall hanging	LBAS04 -6 Vertical	LBAS04 -12 Horizontal/ Wall hanging	LBAS04 -12 Vertical
Payload [kg]	Acceleration/ Deceleration [m/s <sup>2</sup> ]	Acceleration/ Deceleration [m/s <sup>2</sup> ]	Acceleration/ Deceleration [m/s <sup>2</sup> ]	Acceleration/ Deceleration [m/s <sup>2</sup> ]
0	2,1	2,1	4,2	3,6
1	1,91	2,1	3,84	2,4
2	1,7	1,64	2,99	1,8
3	1,53	1,34	2,45	
4	1,4	1,14	2,07	
5	1,28	0,99	1,8	
6	1,18		1,58	
7	1,1		1,42	
8	1,02		1,28	
9	0,96		1,17	
10	0,9		1,08	
11	0,85		1	
12	0,81		0,93	
13	0,77			
14	0,73			
15	0,7			
16	0,67			
17	0,64			
18	0,61			
19	0,59			
20	0,57			

Payload – Acceleration/Deceleration Graph (Estimate)

LBAS04-6

Horizontal/  
Wall hanging

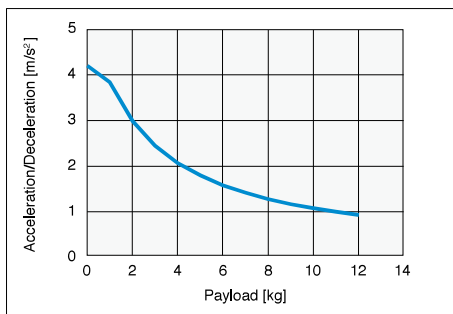


Vertical

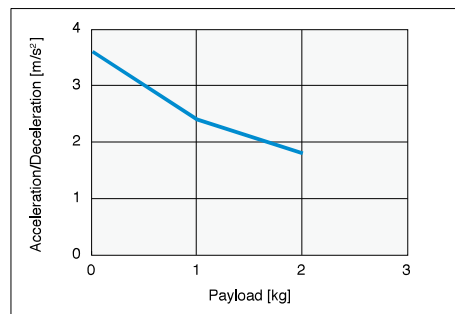


LBAS04-12

Horizontal/  
Wall hanging



Vertical



Inertia Moment

LBAS04

Model	Effective stroke [mm]															
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
LBAS04-6	0.060	0.063	0.067	0.071	0.075	0.079	0.083	0.087	0.090	0.094	0.098	0.102	0.106	0.110	0.114	0.117
LBAS04-12	0.069	0.072	0.076	0.080	0.084	0.088	0.092	0.096	0.099	0.103	0.107	0.111	0.115	0.119	0.123	0.126

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

Advanced model LGXS

LGXS Acceleration/Deceleration Inertia Moment

Option