

LBAS04

Basic model

Motor-less Single Axis Actuator

Slider type



Ordering method

LBAS04

Model	Lead	Shape	Motor specification	Stroke
	12: 12 mm 6: 6 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below) A: A specification (see below) S: S specification (see below) N: N specification (see below)	50 to 800 (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 the 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

Applicable motor	50 W	
Repeatability ^{Note 1}	±0.01 mm	
Deceleration mechanism	Shifting position ball screw φ 10 (C7 class)	
Stroke	50 mm to 800 mm (50 mm pitch)	
Maximum speed ^{Note 2} (or equivalent)	800 mm/sec	400 mm/sec
Ball screw lead	12 mm	6 mm
Maximum payload ^{Note 3} (or equivalent)	Horizontal	12 kg
	Vertical	2 kg
Rated thrust ^{Note 3} (or equivalent)	Horizontal	12 kg
	Vertical	2 kg
Maximum dimensions of cross section of main unit	W 44 mm × H 52 mm	
Overall length	Straight	ST + 214 mm
	Bending	ST + 196 mm
Using ambient temperature and humidity	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.

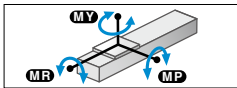
If the effective stroke exceeds 500 mm, the ball screw may resonate. (Critical speed)

At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.

Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.

Note. See P.106 for acceleration/deceleration and inertia moment.

Static loading moment



	MY	MP	MR
(Unit: N·m)	54	54	75

Applicable motor

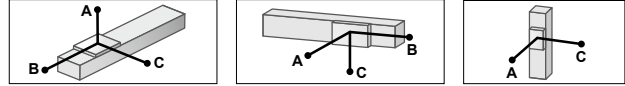
Applicable servo motor

Specification	Flange size	□ 40
	Wattage	50 W

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

Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-A5
		SGM7J-A5
	Keyence Corp.	SV- □ 005
		SV2- □ 005
	Mitsubishi Electric Corp.	HF-KP053
		HG-KR053
		HK-KT053
	Omron Electronics	R88M-K05030
		R88M-1M05030
	Panasonic Corp.	MHMF5A
	Sanyo Denki	R2 □ A04005
	Tamagawa Seiki	TSM3102
	Delta Electronics	ECMA-C1040F
	Fanuc Corp.	β iS0.2/5000
Siemens	1FK2102-0AG	
	1FL6022-2AF	
Schneider	BCH2MBA53	
Beckhoff	AM3011B*	
Allen-Bradley	TLY-A120*	
P	Panasonic Corp.	MSMD5A
		MSMF5A

Allowable overhang^{Note}



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

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

Applicable stepping motor

Specification	Flange size	□ 42
Motor specification	Manufacturer	Model
A	Oriental Motor	AZM46
		ARM46
		RKS54
S	Oriental Motor	AZM48
N	NEMA standard	NEMA17

Note. Be aware that the dimensions of the NEMA standard motor may vary depending on the manufacturer.

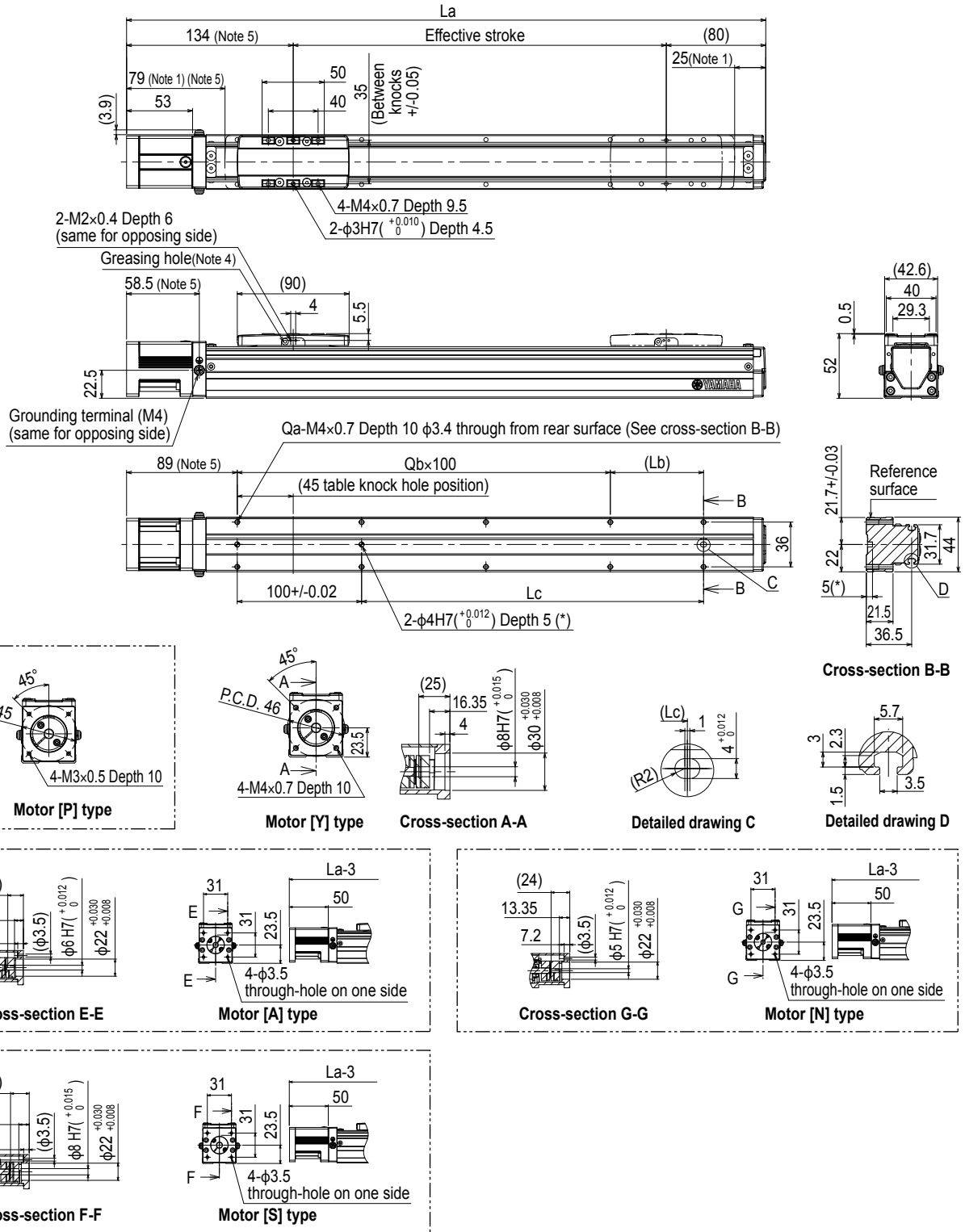
Note. For the motor specifications A, S, and N, the parts dedicated for bending cannot be used.

Access the website below.



▶ The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.16.

LBAS04 Straight type (S)



- 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.
 Note 4. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00
 Note 5. For the motor specifications A, S, and N, the dimensions are that those stated in the table << 3 mm >>.

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800		
La	264	314	364	414	464	514	564	614	664	714	764	814	864	914	964	1014		
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		
Weight (kg)	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		
Maximum speed (mm/sec)	Lead 12	800										720	600	480	400	360	320	
	Lead 6	400										360	300	240	200	180	160	
	Speed setting	-										90%	75%	60%	50%	45%	40%	

Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

Motorless
Slider type
Basic model

ABAS

Motorless
Slider type
Advanced model

AGXS

Motorless
Rod type
Basic model

ABAR

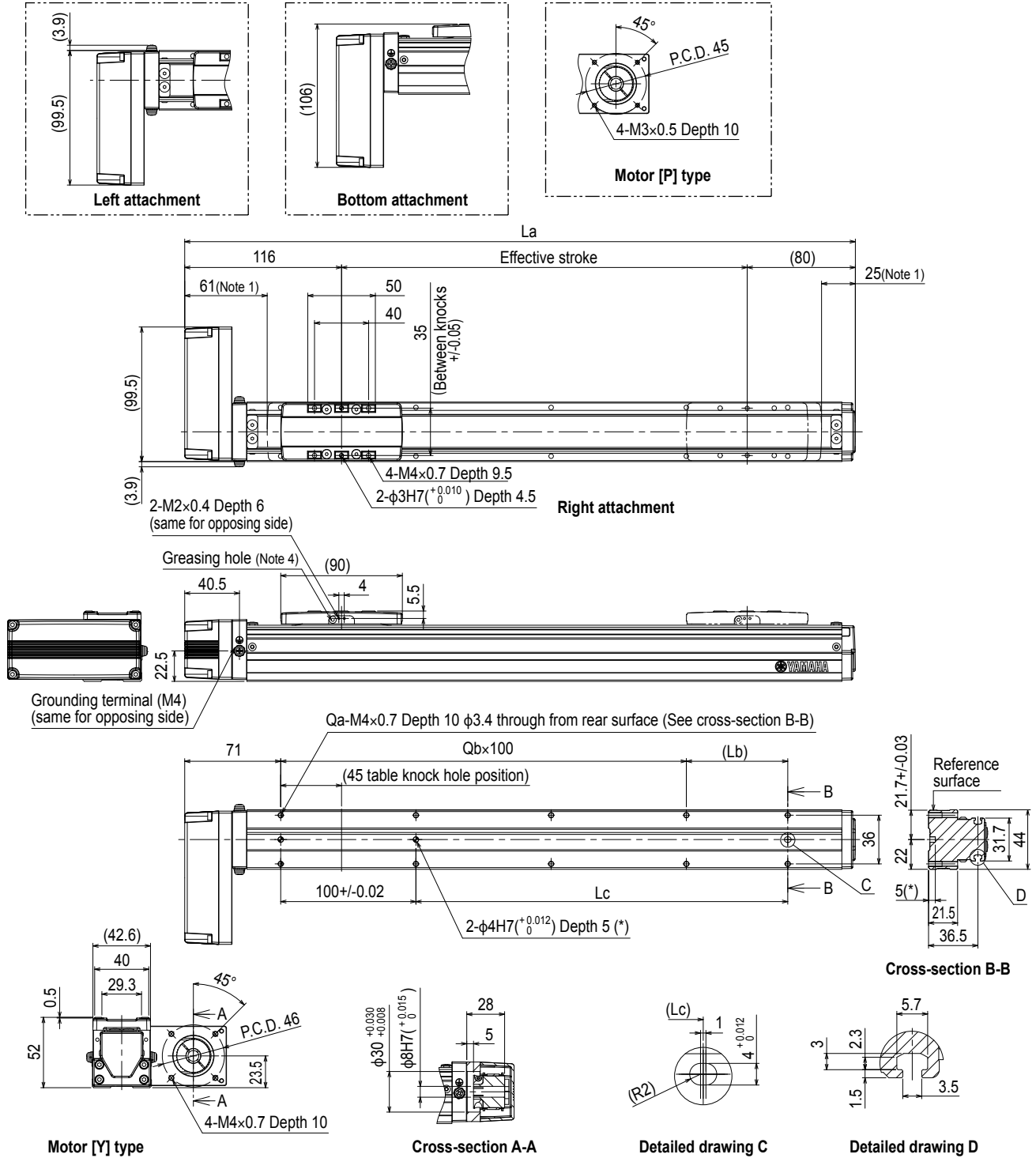
Acceleration/Deceleration
Inertia Moment

Option

Single axis robot positioner

EP-01

LBAS04 Bending type (A)



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.
 Note 4. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00

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
Weight (kg)	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
Maximum speed (mm/sec)	Lead 12	800									720	600	480	400	360	320
	Lead 6	400									360	300	240	200	180	160
	Speed setting	-									90%	75%	60%	50%	45%	40%