

Your choice of Motor  
and Driver System

Motor-less Single Axis Actuator

NEW

# Robonity series



Wide selection of payload and speed requirements

Choice of ball screw leads

Wide selection stroke range

Choice of stroke range from  
50 mm up to 1450 mm

(Advanced model LGXS only)

# LBAS

High Rigidity

Compact

Low Cost

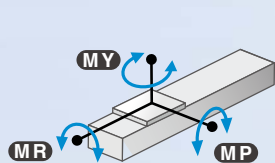
**Maximum payload** 2 kg to 100 kg  
**Maximum speed** 133 to 1,333 mm/sec  
**Stroke** 50 to 1,100 mm



Newly designed integrated guide rail/frame structure.  
 Improved moment load capacity in compact frame size.  
 Designed to accommodate motors from most leading manufacturers.

## High Rigidity

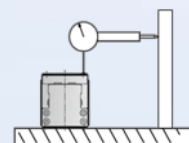
Moment rigidity is increased approximately three times from current models.



	Existing product T6L	<b>NEW</b> LBAS05		Existing product T9H	<b>NEW</b> LBAS08
MY	35	59	MY	86	221
MP	40	63	MP	133	309
MR	50	103	MR	117	343
		(N · m)			(N · m)

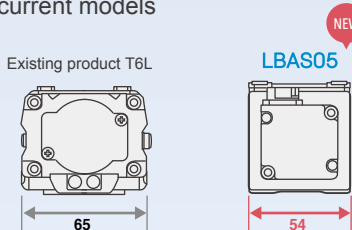
## High Precision

Straightness (running parallelism):  
 +/-0.02/800 mm

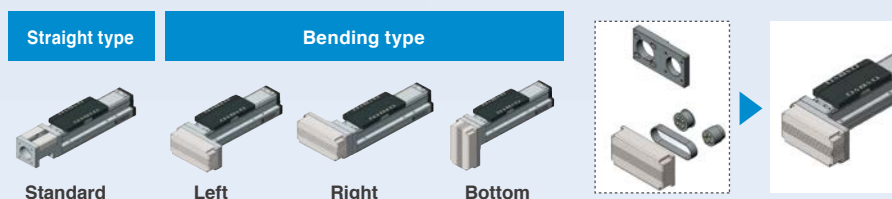


## Compact

Frame width is reduced by approximately 20% from current models

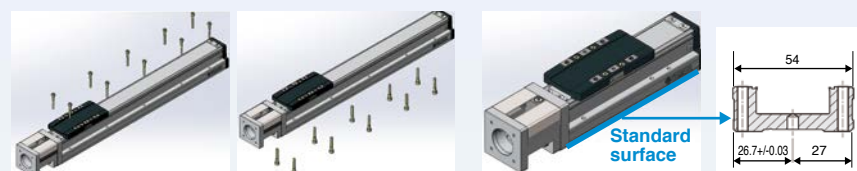


## Motor attaching direction, Easily changeable with the special bending part



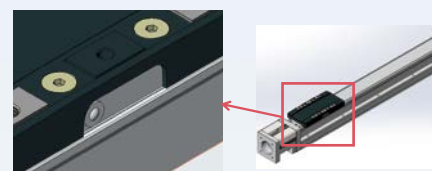
## Installation process is simple and easy

1. Mounting holes are accessible from top or bottom without disassembling actuator unit.
2. Standard surface on the side and dowel pin holes on the bottom.



## Easy Maintenance

Moving parts can be lubricated from outside without opening actuator



Grease nipple on the slider side surface

# LGXS



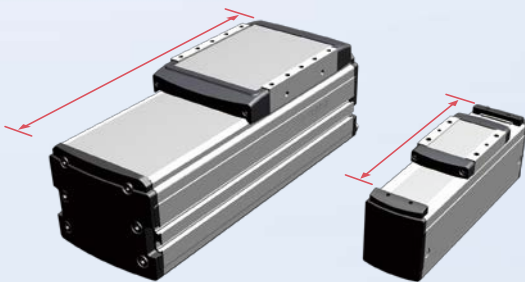
- High Precision Accuracy Class C5
- High Durability
- Clean specification as a standard feature

Maximum payload	2 kg to 160 kg
Maximum speed	300 to 2,400 mm/sec
Stroke	50 to 1,450 mm

Higher efficiency, accuracy, and reliability from ground ball screw.  
Ideal for base axis of multi-axis configuration.

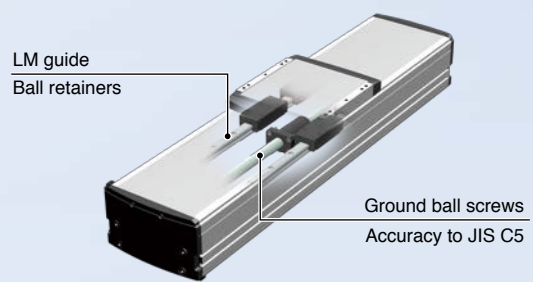
## Shortest Overall Length

The industry's shortest class is achieved for the total length in relation to the effective stroke.



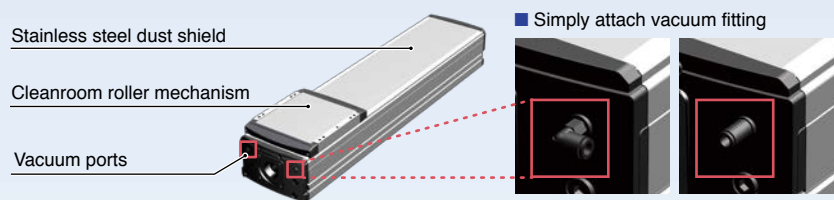
## High Precision

- Adopted ground ball screws  
Ball screw Remove Accuracy: Accuracy class C5
- Positioning Remove Accuracy repeatability: +/-5 μm



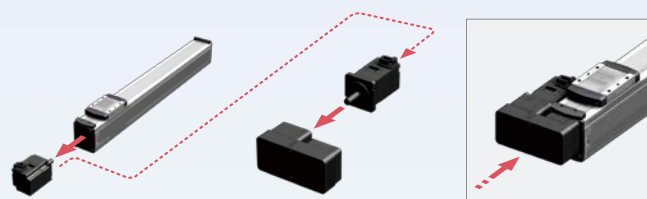
## Cleanroom Ready Design

- Protective stainless dust shield
- Ports are ready for vacuum fittings



## Motor orientation is changeable with optional conversion unit

Motor unit of standard straight type can be used for side-mount setup.



Standard + Conversion adapter ▶ Right attachment of bending

Features

Basic model  
LBAS

LBAS  
Acceleration/Deceleration  
Inertia Moment

Advanced model  
LGXS

LGXS  
Acceleration/Deceleration  
Inertia Moment

Option

# 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>
	12: 12 mm 6: 6 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below)
			<b>Stroke</b>
			50 to 800 (50 mm pitch)

### [Caution]

This system is provided as mechanical actuator unit and not including any adapters 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 φ 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)	Horizontal	12 kg
	Vertical	2 kg
<b>Rated thrust</b> <small>Note 3</small> (or equivalent)	Horizontal	71 N
	Vertical	141 N
<b>Maximum dimensions of cross section of main unit</b>	W 44 mm × 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.  
 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.10 for acceleration/deceleration and inertia moment.

### Static loading moment

<b>Static loading moment</b>		
	(Unit: N·m)	
<b>MY</b>	<b>MP</b>	<b>MR</b>
54	54	75

### Allowable overhang Note

<b>LBAS04-12</b>		
<b>Horizontal installation</b> (Unit: mm)	<b>Wall installation</b> (Unit: mm)	<b>Vertical installation</b> (Unit: mm)
<b>2kg</b>	<b>2kg</b>	<b>1kg</b>
A 1187, B 271, C 325	A 325, B 271, C 1187	A 534, C 534
<b>8kg</b>	<b>8kg</b>	<b>2kg</b>
A 473, B 62, C 77	A 77, B 62, C 473	A 265, C 265
<b>12kg</b>	<b>12kg</b>	
A 431, B 41, C 53	A 53, B 41, C 431	

<b>LBAS04-6</b>		
<b>Horizontal installation</b> (Unit: mm)	<b>Wall installation</b> (Unit: mm)	<b>Vertical installation</b> (Unit: mm)
<b>4kg</b>	<b>4kg</b>	<b>1kg</b>
A 1808, B 155, C 217	A 217, B 155, C 1808	A 639, C 639
<b>12kg</b>	<b>12kg</b>	<b>3kg</b>
A 801, B 47, C 65	A 60, B 42, C 756	A 208, C 208
<b>20kg</b>	<b>20kg</b>	<b>5kg</b>
A 546, B 25, C 35	A 35, B 25, C 546	A 122, C 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.

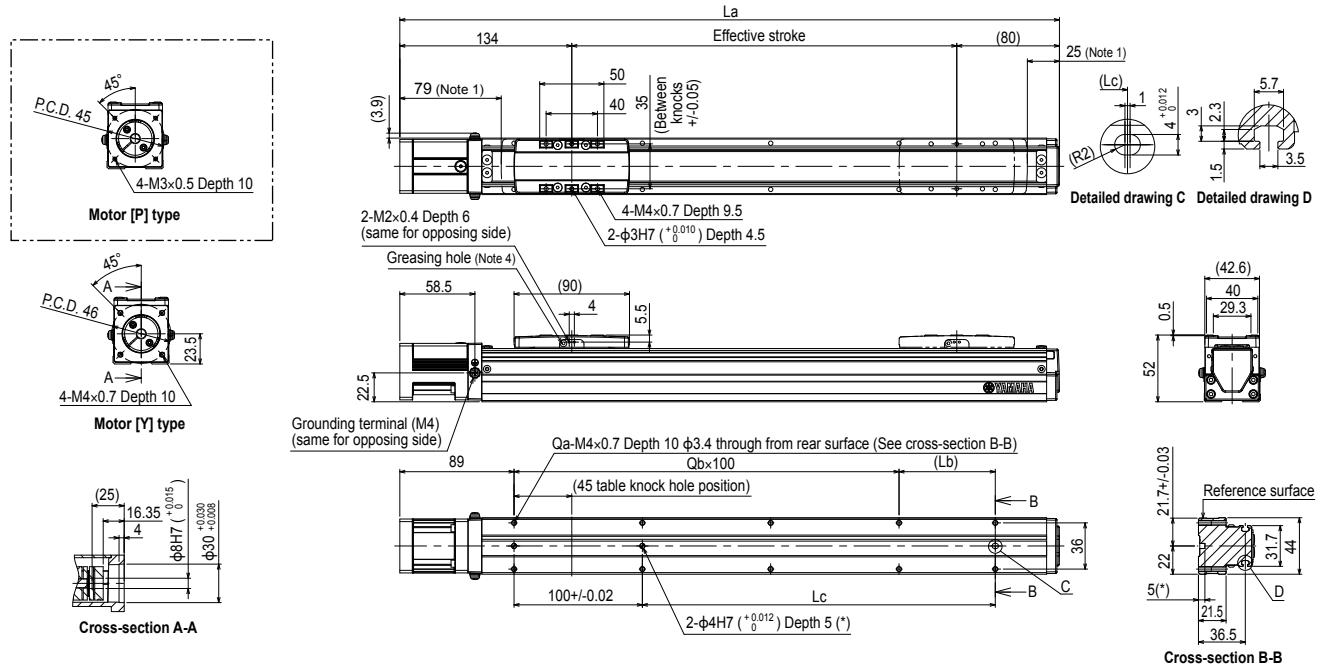
### Adaptable Servo Motor

<b>Specification</b>	<b>Flange size</b>	□40
	<b>Wattage</b>	50 W

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

<b>Motor specification</b>	<b>Manufacturer</b>	<b>Model</b>
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
	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

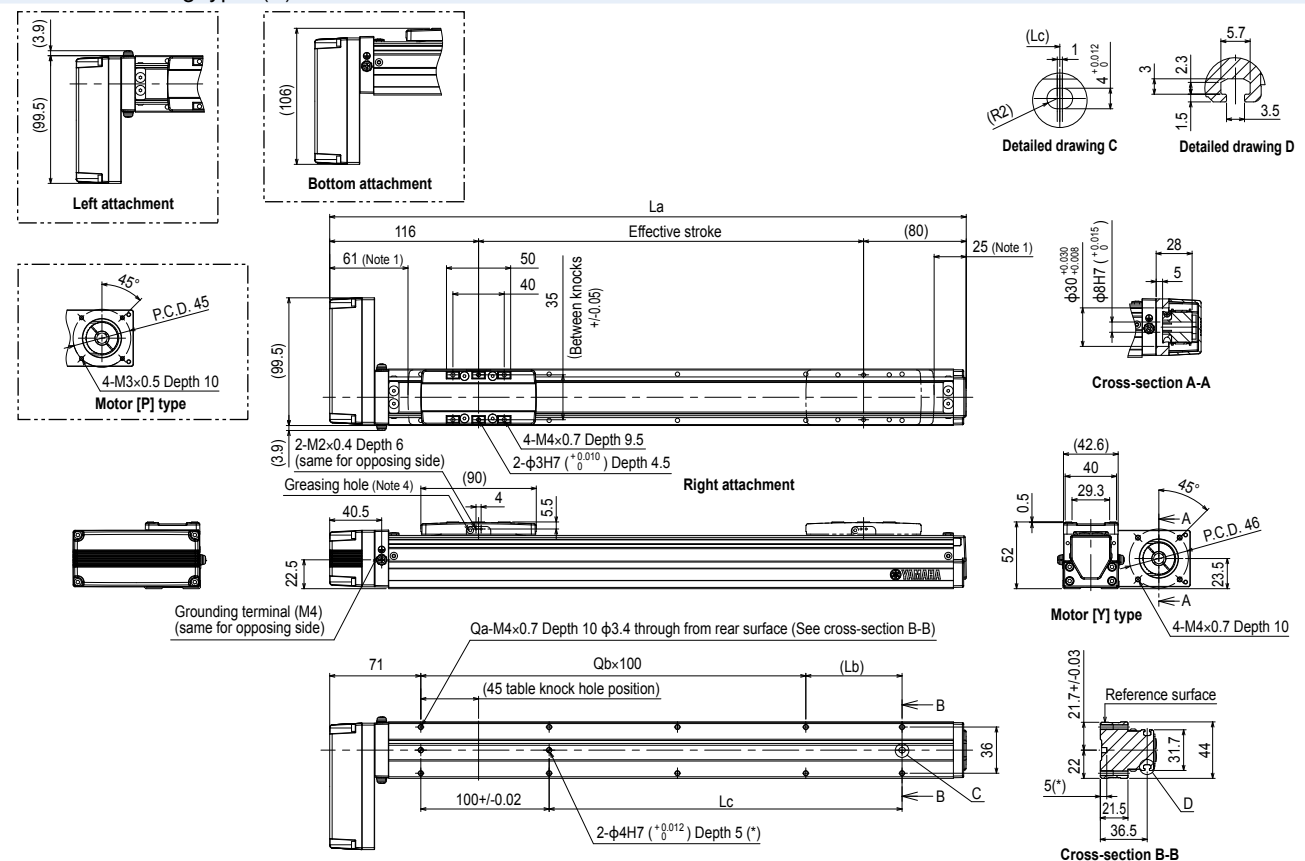
### LBAS04 Straight type (S)



<b>Effective stroke</b>	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	25	75	25	75	25	75	25	75	25	75	25	75	25	75		
<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</b>	<b>Lead 12</b>											800	720	600	480	400	360	320
	<b>Lead 6</b>											400	360	300	240	200	180	160
<b>(mm/sec)</b>	<b>Speed setting</b>											-	90%	75%	60%	50%	45%	40%

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 × 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 set for greasing (recommended) (see P.34 for detail)  
 Note 4. Nozzle set for greasing (recommended) (see P.34 for detail)  
 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
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%

- 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. Nozzle set for greasing (recommended) (see P.34 for detail)
- Part number: KFU-M3861-00



# LBAS05

Basic model



## Motor-less Single Axis Actuator

### Ordering method

<b>LBAS05</b>				
<b>Model</b>	<b>Lead designation</b>	<b>Shape</b>	<b>Motor specification</b>	<b>Stroke</b>
	20: 20 mm 10: 10 mm 5: 5 mm 2: 2 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below)	50 to 800 (50 mm pitch)

### [Caution]

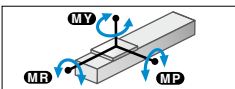
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration 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>	100 W
<b>Repeatability</b> <sup>Note 1</sup>	+/-0.01 mm
<b>Deceleration mechanism</b>	Shifting position ball screw $\phi$ 12 (C7 class)
<b>Stroke</b>	50 mm to 800 mm (50 mm pitch)
<b>Maximum speed (or equivalent)</b>	1333 mm/sec 666 mm/sec 333 mm/sec 133 mm/sec
<b>Ball screw lead</b>	20 mm 10 mm 5 mm 2 mm
<b>Maximum payload (or equivalent)</b> <sup>Note 3</sup>	<b>Horizontal</b>
	<b>Vertical</b>
<b>Rated thrust (or equivalent)</b> <sup>Note 3</sup>	84 N 169 N 339 N 854 N
<b>Maximum dimensions of cross section of main unit</b>	W 54 mm x H 60 mm
<b>Overall length</b>	ST + 220.5 mm
<b>Using ambient temperature and humidity</b>	0 to 40 °C, 35 to 80 %RH (non-condensing)

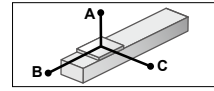
- Note 1. Positioning repeatability in one direction.  
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 550 mm, the ball screw may resonate. (Critical speed)  
 At this time, make the adjustment to decrease 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.11 for acceleration/deceleration and inertia moment.

### Static loading moment



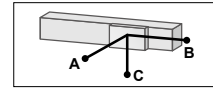
(Unit: N·m)		
<b>MY</b>	<b>MP</b>	<b>MR</b>
59	63	103

### Allowable overhang <sup>Note</sup>



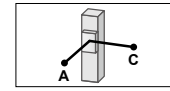
**LBAS05-20**  
Horizontal installation (Unit: mm)

	A	B	C
<b>2kg</b>	549	324	272
<b>8kg</b>	155	73	65
<b>12kg</b>	117	46	42



**Wall installation** (Unit: mm)

	A	B	C
<b>2kg</b>	272	324	549
<b>8kg</b>	65	73	155
<b>12kg</b>	42	46	117



**Vertical installation** (Unit: mm)

	A	C
<b>1kg</b>	544	544
<b>2kg</b>	276	276
<b>3kg</b>	195	195

**LBAS05-10**  
Horizontal installation (Unit: mm)

	A	B	C
<b>5kg</b>	769	178	213
<b>15kg</b>	314	53	64
<b>24kg</b>	216	29	36

**Wall installation** (Unit: mm)

	A	B	C
<b>5kg</b>	213	178	769
<b>15kg</b>	64	53	314
<b>24kg</b>	36	29	216

**Vertical installation** (Unit: mm)

	A	C
<b>2kg</b>	443	443
<b>4kg</b>	218	218
<b>6kg</b>	142	142

**LBAS05-5**  
Horizontal installation (Unit: mm)

	A	B	C
<b>10kg</b>	921	97	131
<b>25kg</b>	459	33	45
<b>40kg</b>	436	17	23

**Wall installation** (Unit: mm)

	A	B	C
<b>10kg</b>	131	97	921
<b>25kg</b>	45	33	459
<b>40kg</b>	23	17	436

**Vertical installation** (Unit: mm)

	A	C
<b>3kg</b>	345	345
<b>8kg</b>	124	124
<b>12kg</b>	79	79

**LBAS05-2**  
Horizontal installation (Unit: mm)

	A	B	C
<b>15kg</b>	2685	78	109
<b>30kg</b>	1833	34	47
<b>45kg</b>	2621	19	27

**Wall installation** (Unit: mm)

	A	B	C
<b>15kg</b>	109	78	2685
<b>30kg</b>	47	34	1833
<b>45kg</b>	27	19	2621

**Vertical installation** (Unit: mm)

	A	C
<b>5kg</b>	254	254
<b>10kg</b>	122	122
<b>15kg</b>	0	0

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.

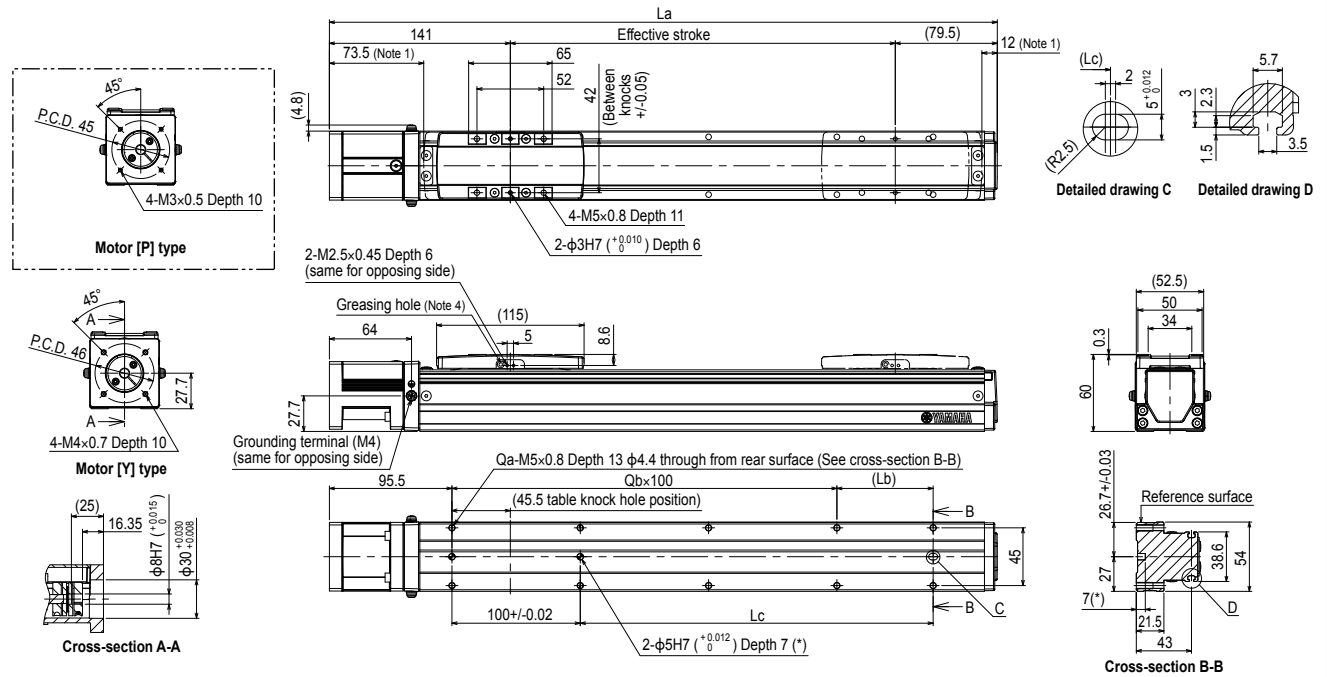
### Adaptable Servo Motor

<b>Specification</b>	Flange size <input type="checkbox"/> 40
	Wattage 100 W

Note. Motor models marked with \* may not be 100W, but can be installed.

Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-01 SGM7J-01
	Keyence Corp.	SV-□010 SV2-□010
	Mitsubishi Electric Corp.	HF-KP13 HG-KR13 HK-KT13
	Omron Electronics	R88M-K10030 R88M-1M10030
	Sanyo Denki	R2 □A04010
	Tamagawa Seiki	TSM3104
	Delta Electronics	ECMA-C10401
	Fanuc Corp.	$\beta$ IS0.3/5000 KSM A01L □S KSM A01LG
	Kingserve	1FK2102-1AG 1FL6024-2AF
	Siemens	BCH2MB013
Schneider	AM3012C *	
Beckhoff	TLY-A130 *	
Allen-Bradley	MSMD100 *	
P	Panasonic Corp.	MSMF01

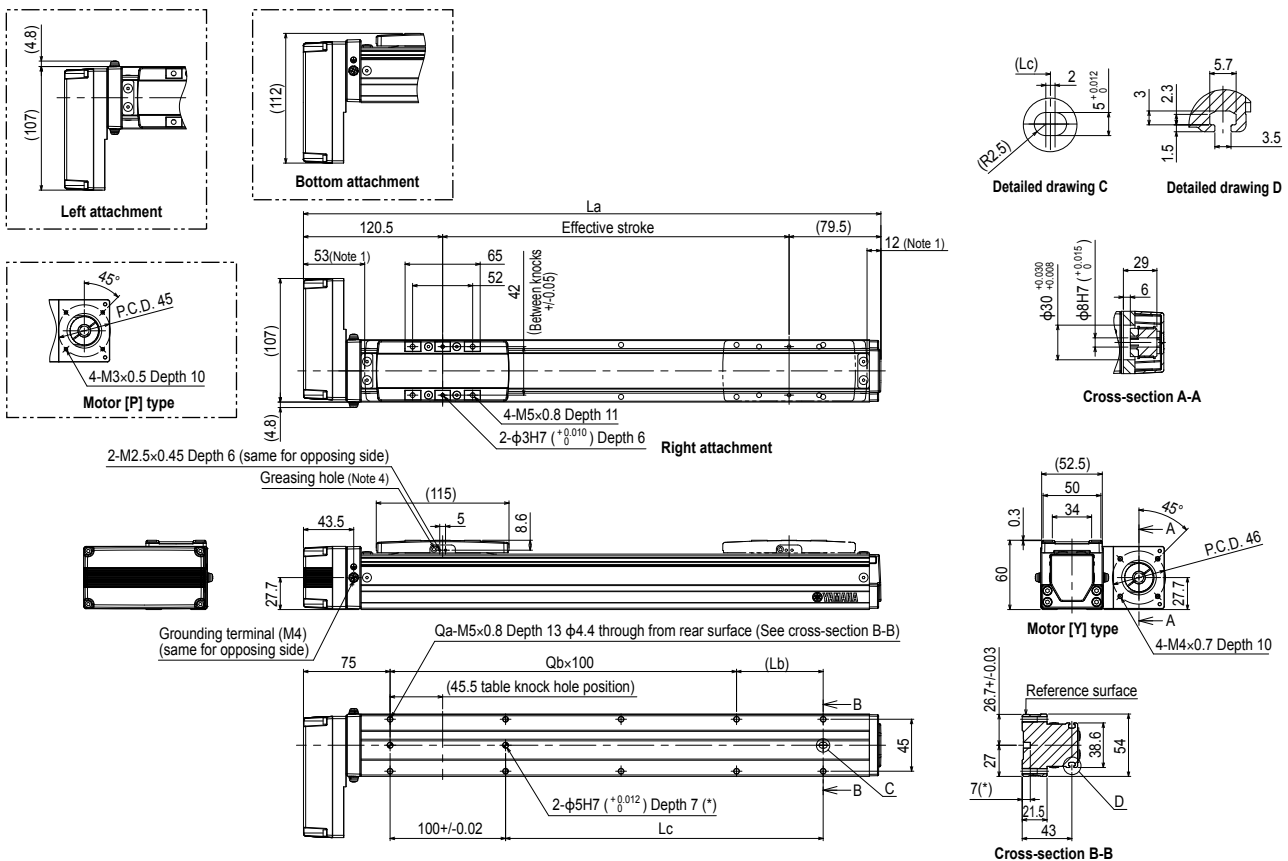
### LBAS05 Straight type (S)



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
<b>La</b>	270.5	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5
<b>Lb</b>	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
<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>	1.6	1.8	1.9	2.1	2.4	2.5	2.5	2.7	2.8	2.9	3.1	3.3	3.4	3.6	3.7	4.1
<b>Maximum speed (mm/sec)</b>	<b>Lead 20</b>	1333										1133	933	799	666	599
	<b>Lead 10</b>	666										566	466	399	333	299
	<b>Lead 5</b>	333										283	233	199	166	149
	<b>Lead 2</b>	133										113	93	79	66	59
<b>Speed setting</b>	-										85%	70%	60%	50%	45%	

- 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 <M4 x 0.7>. In the installation tap hole, the length under head << thickness of stand +10 mm or less >> is recommended for the hex socket head bolts <M5 x 0.8> used to install the main unit.  
 Note 4. Nozzle set for greasing (recommended) (see P.34 for detail)  
 Part number: KFU-M3861-00

LBAS05 Bending type (A)



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
$L_a$	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
$L_b$	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
$L_c$	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
$Q_a$	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
$Q_b$	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
<b>Weight (kg)</b>	1.7	1.8	2	2.2	2.4	2.6	2.6	2.8	2.9	3	3.2	3.3	3.5	3.6	3.8	4.1
<b>Maximum speed (mm/sec)</b>	<b>Lead 20</b>	1333														
	<b>Lead 10</b>	666														
	<b>Lead 5</b>	333														
	<b>Lead 2</b>	133														
<b>Speed setting</b>	-											85%	70%	60%	50%	45%

- 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 <M4 × 0.7>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M5 × 0.8> used to install the main unit.
- Note 4. Nozzle set for greasing (recommended) (see P.34 for detail)  
Part number: KFU-M3861-00

# LBAS08

Basic model



## Motor-less Single Axis Actuator

### Ordering method

## LBAS08

<b>Model</b>	<b>Lead designation</b>	<b>Shape</b>	<b>Motor specification</b>	<b>Stroke</b>
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below) K: K specification (see below)	50 to 1100 (50 mm pitch)

### [Caution]

This system is provided as mechanical actuator unit and not including any adaptors 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

Adaptable motor	200 W		
Repeatability <sup>Note 1</sup>	+/-0.01 mm		
Deceleration mechanism	Shifting position ball screw $\phi$ 16 (C7 class)		
Stroke	50 mm to 1100 mm (50 mm pitch)		
Maximum speed <sup>Note 2</sup> (or equivalent)	1200 mm/sec 600 mm/sec 300 mm/sec		
Ball screw lead	20 mm 10 mm 5 mm		
Maximum payload (or equivalent) <sup>Note 3</sup>	Horizontal	40 kg 80 kg 100 kg	
	Vertical	8 kg 20 kg 30 kg	
Rated thrust (or equivalent) <sup>Note 3</sup>	174 N	341 N	683 N
	Maximum dimensions of cross section of main unit		
	W 82 mm x H 78 mm		
Overall length	ST + 278 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 650 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.13 for acceleration/deceleration and inertia moment.

### Static loading moment

	(Unit: N·m)		
<b>MY</b>	<b>MP</b>	<b>MR</b>	
221	309	343	

### Allowable overhang <sup>Note</sup>

LBAS08-20				
Horizontal installation (Unit: mm)				
	A	B	C	
15kg	356	131	146	
25kg	278	73	86	
40kg	255	41	53	

Wall installation (Unit: mm)				
	A	B	C	
15kg	146	131	356	
25kg	86	73	278	
40kg	53	41	255	

Vertical installation (Unit: mm)				
	A	C		
3kg	645	645		
6kg	333	333		
8kg	252	252		

LBAS08-10				
Horizontal installation (Unit: mm)				
	A	B	C	
30kg	466	83	120	
50kg	342	44	65	
80kg	228	22	34	

Wall installation (Unit: mm)				
	A	B	C	
30kg	120	83	466	
50kg	65	44	342	
80kg	34	22	228	

Vertical installation (Unit: mm)				
	A	C		
5kg	564	564		
10kg	284	284		
20kg	142	142		

LBAS08-5				
Horizontal installation (Unit: mm)				
	A	B	C	
30kg	1612	95	153	
50kg	1041	52	83	
80kg	719	27	44	
100kg	608	19	31	

Wall installation (Unit: mm)				
	A	B	C	
30kg	153	95	1612	
50kg	83	52	1041	
80kg	44	27	719	
100kg	31	19	608	

Vertical installation (Unit: mm)				
	A	C		
10kg	325	325		
20kg	163	163		
30kg	109	109		

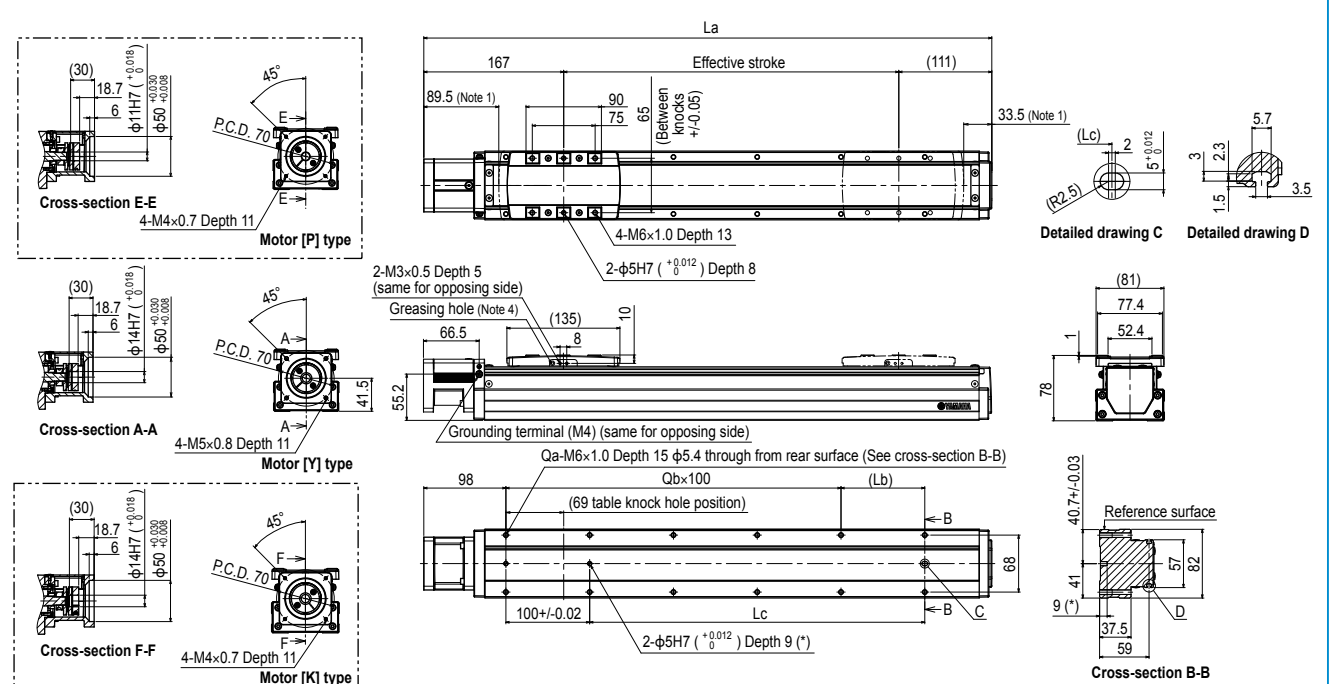
Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.  
 Note. Service life is calculated for 600 mm stroke models.

### Adaptable Servo Motor

Specification	Flange size	<input type="checkbox"/> 60
	Wattage	200 W

Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-02 SGM7J-02
	Keyence Corp.	SV <input type="checkbox"/> 020 SV2 <input type="checkbox"/> 020
	Mitsubishi Electric Corp.	HF-KP23 HG-KR23 HK-KT23
	Sanyo Denki	R2 <input type="checkbox"/> A06020
	Tamagawa Seiki	TSM3202
	Delta Electronics	ECMA-C10602
	Siemens	1FL6032-2AF
	Schneider	BCH2LD023
	Omron Electronics	R88M-K20030 R88M-IM20030
	Panasonic Corp.	MSMD02 MSMF02
K	Kingservo	KSMA02LI KSMA02LG

### LBAS08 Straight type (S)



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
La	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	1128	1178	1228	1278	1328	1378	
Lb	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
Lc	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	
Weight (kg)	3.7	4.1	4.5	4.8	5.2	5.5	5.8	6.2	6.5	6.8	7.2	7.5	7.9	8.2	8.5	8.8	9.2	9.4	9.8	10.1	10.5	10.9	
Maximum speed (mm/sec)	Lead 20	1200																					
	Lead 10	600																					
	Lead 5	300																					
	Speed setting	-																					

- 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 << 45 mm or more >> is recommended for the hex socket head bolts <M5 x 0.8>. In the installation tap hole, the length under head << thickness of stand +15 mm or less >> is recommended for the hex socket head bolts <M6 x 1.0> used to install the main unit.  
 Note 4. Nozzle set for greasing (recommended) (see P.34 for detail)  
 Part number: KFU-M3861-00

Features

Basic model LBAS

LBAS

Acceleration/Deceleration  
Inertia Moment

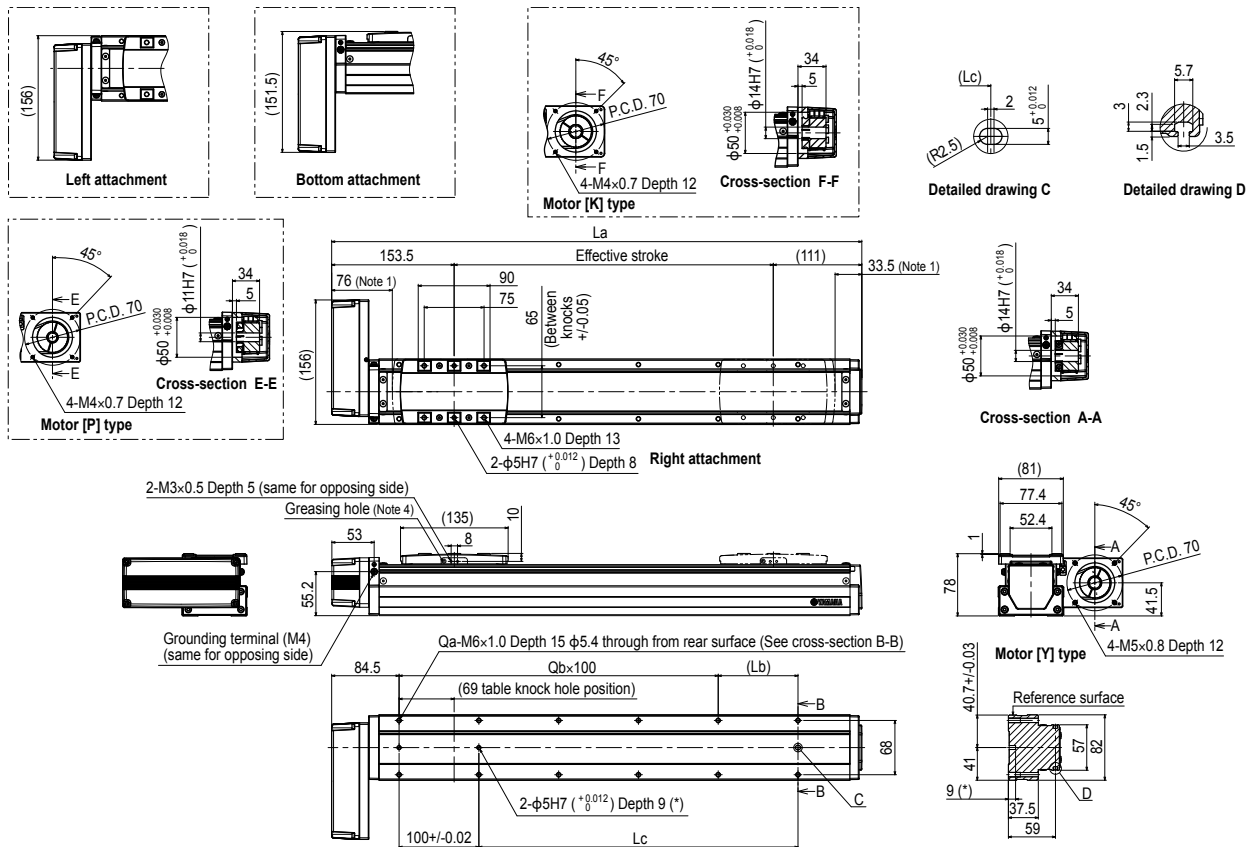
Advanced model LGXS

LGXS  
Acceleration/Deceleration  
Inertia Moment

Option



LBAS08 Bending type (A)



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
La	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5	1114.5	1164.5	1214.5	1264.5	1314.5	1364.5
Lb	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
Lc	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
Weight (kg)	4.1	4.5	4.9	5.2	5.6	5.9	6.2	6.6	6.9	7.2	7.6	7.9	8.3	8.6	8.9	9.2	9.6	9.8	10.2	10.5	10.9	11.3
Maximum speed (mm/sec)	Lead 20												1200	1020	900	780	660	600	540	480	420	360
	Lead 10												600	510	450	390	330	300	270	240	210	180
	Lead 5												300	255	225	195	165	150	135	120	105	90
	Speed setting												-	85%	75%	65%	55%	50%	45%	40%	35%	30%

- 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 << 45 mm or more >> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head << thickness of stand +15 mm or less >> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
- Note 4. Nozzle set for greasing (recommended) (see P.34 for detail)  
Part number: KFU-M3861-00

# Acceleration/Deceleration and Inertia Moment (Basic model)

## Acceleration/Deceleration

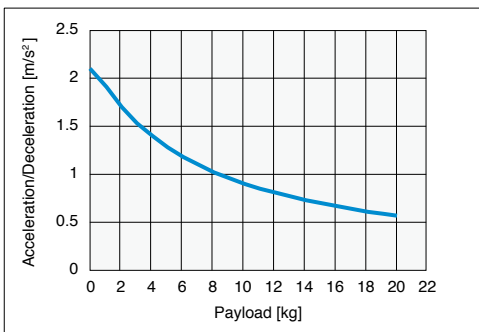
### LBAS04

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			

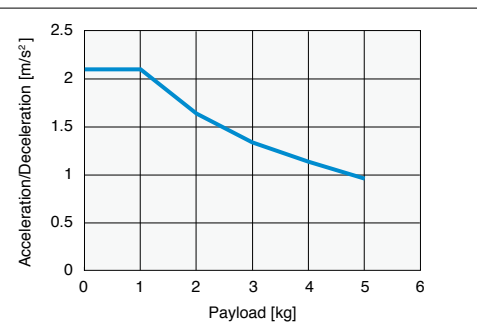
## Payload – Acceleration/Deceleration Graph (Estimate)

### LBAS04-6

Horizontal/  
Wall hanging

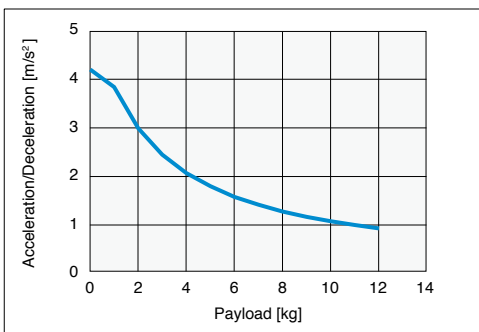


Vertical

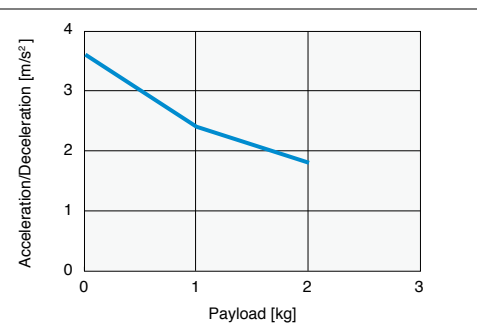


### LBAS04-12

Horizontal/  
Wall hanging



Vertical



## Inertia Moment

### LBAS04

[kg·m <sup>2</sup> ·10 <sup>-4</sup> ]	Effective stroke [mm]															
Model	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

Acceleration/Deceleration

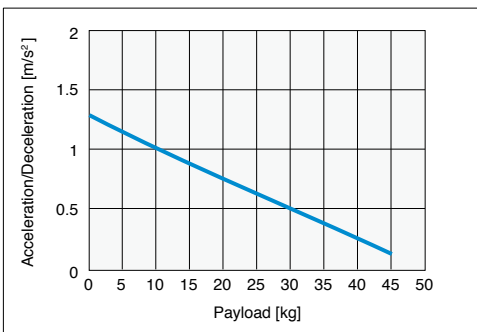
LBAS05

Model	LBAS05-2 Horizontal/ Wall hanging	LBAS05-2 Vertical	LBAS05-5 Horizontal/ Wall hanging	LBAS05-5 Vertical	LBAS05-10 Horizontal/ Wall hanging	LBAS05-10 Vertical	LBAS05-20 Horizontal/ Wall hanging	LBAS05-20 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> ]	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	1.3	1	3.04	3.34	4.64	4.86	7.44	7.44
1	1.27	0.95	2.97	3.18	4.44	4.56	7.44	6.99
2	1.24	0.91	2.91	3.03	4.25	4.3	7.44	5.65
3	1.22	0.86	2.85	2.88	4.07	4.06	7.44	3.42
4	1.19	0.82	2.79	2.73	3.9	3.85	7.44	
5	1.17	0.77	2.73	2.58	3.73	3.66	7.44	
6	1.14	0.73	2.67	2.43	3.57	3.49	6.64	
7	1.11	0.68	2.61	2.28	3.41		6	
8	1.09	0.64	2.55	2.13	3.27		5.47	
9	1.06	0.59	2.49	1.98	3.12		5.02	
10	1.04	0.55	2.43	1.83	2.99		4.65	
11	1.01	0.5	2.37	1.68	2.86		4.32	
12	0.98	0.46	2.31	1.53	2.74		4.04	
13	0.96	0.41	2.24					2.62
14	0.93	0.37	2.18					2.51
15	0.91	0.32	2.12					2.41
16	0.88		2.06					2.31
17	0.85		2					2.22
18	0.83		1.94					2.14
19	0.8		1.88					2.06
20	0.78		1.82					1.99
21	0.75		1.76					1.93
22	0.72		1.7					1.87
23	0.7		1.64					1.82
24	0.67		1.58					1.77
25	0.65		1.52					
26	0.62		1.45					
27	0.59		1.39					
28	0.57		1.33					
29	0.54		1.27					
30	0.52		1.21					
31	0.49		1.15					
32	0.46		1.09					
33	0.44		1.03					
34	0.41		0.97					
35	0.39		0.91					
36	0.36		0.85					
37	0.33		0.79					
38	0.31		0.72					
39	0.28		0.66					
40	0.26		0.6					
41	0.23							
42	0.2							
43	0.18							
44	0.15							
45	0.13							

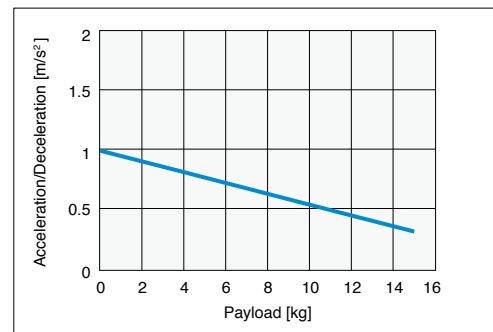
Payload – Acceleration/Deceleration Graph (Estimate)

LBAS05-2

Horizontal/  
Wall hanging

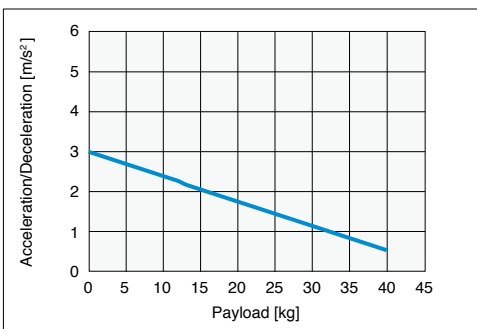


Vertical

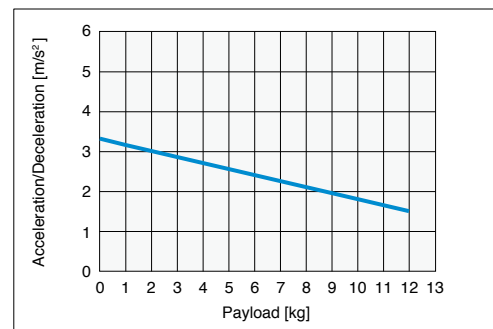


LBAS05-5

Horizontal/  
Wall hanging



Vertical



Features

Basic model  
LBAS

LBAS  
Acceleration/Deceleration  
Inertia Moment

Advanced model  
LGXS

LGXS  
Acceleration/Deceleration  
Inertia Moment

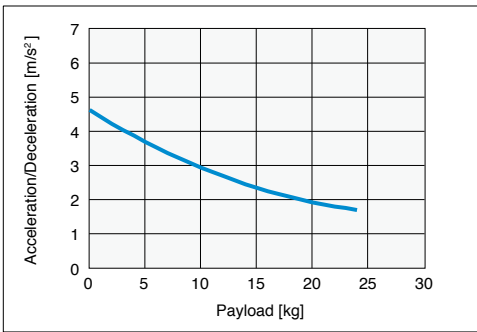
Option

# Acceleration/Deceleration and Inertia Moment (Basic model)

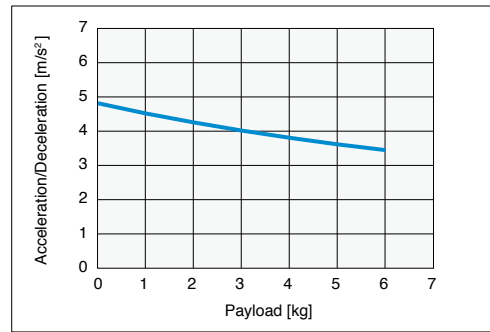
## ■ Payload – Acceleration/Deceleration Graph (Estimate)

### LBAS05-10

Horizontal/  
Wall hanging



Vertical

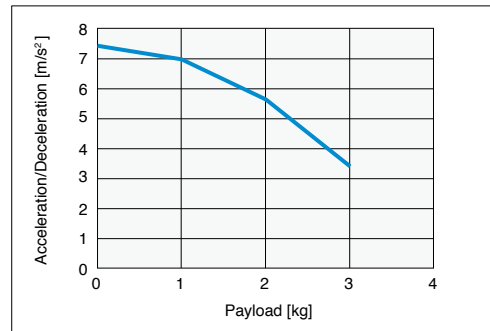


### LBAS05-20

Horizontal/  
Wall hanging



Vertical



## ■ Inertia Moment

### LBAS05

[kg·m <sup>2</sup> ·10 <sup>-4</sup> ]	Effective stroke [mm]															
Model	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
LBAS05-2	0.082	0.090	0.098	0.106	0.114	0.122	0.130	0.138	0.146	0.154	0.162	0.170	0.178	0.186	0.194	0.202
LBAS05-5	0.085	0.093	0.101	0.109	0.117	0.125	0.133	0.141	0.149	0.157	0.165	0.173	0.181	0.189	0.197	0.205
LBAS05-10	0.097	0.105	0.113	0.121	0.129	0.137	0.145	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.209	0.217
LBAS05-20	0.145	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.209	0.217	0.224	0.232	0.240	0.248	0.256	0.264

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

Advanced model LGXS

LGXS Acceleration/Deceleration Inertia Moment

Option

Acceleration/Deceleration

LBAS08

Model	LBAS08 -5 Horizontal/Wall hanging	LBAS08 -5 Vertical	LBAS08 -10 Horizontal/Wall hanging	LBAS08 -10 Vertical	LBAS08 -20 Horizontal/Wall hanging	LBAS08 -20 Vertical
0	1.65	1.65	6.09	4.79	8.51	8.5
1	1.63	1.62	5.97	4.54	8.2	7.39
2	1.62	1.59	5.86	4.31	7.9	6.42
3	1.6	1.57	5.74	4.09	7.61	5.59
4	1.59	1.54	5.63	3.88	7.33	4.89
5	1.58	1.51	5.52	3.68	7.05	4.33
6	1.56	1.49	5.42	3.5	6.77	3.91
7	1.55	1.46	5.31	3.32	6.51	3.62
8	1.54	1.44	5.21	3.16	6.24	3.46
9	1.52	1.41	5.1	3.01	5.99	
10	1.51	1.38	5	2.87	5.74	
11	1.5	1.36	4.9	2.74	5.5	
12	1.49	1.33	4.8	2.62	5.26	
13	1.47	1.3	4.7	2.52	5.03	
14	1.46	1.28	4.61	2.42	4.8	
15	1.45	1.25	4.51	2.34	4.58	
16	1.43	1.23	4.42	2.27	4.37	
17	1.42	1.2	4.33	2.21	4.16	
18	1.41	1.17	4.24	2.16	3.96	
19	1.4	1.15	4.15	2.13	3.76	
20	1.38	1.12	4.06	2.1	3.57	
21	1.37	1.09	3.98		3.38	
22	1.36	1.07	3.89		3.21	
23	1.35	1.04	3.81		3.03	
24	1.34	1.02	3.73		2.87	
25	1.32	0.99	3.65		2.71	
26	1.31	0.96	3.57		2.55	
27	1.3	0.94	3.49		2.4	
28	1.29	0.91	3.42		2.26	
29	1.28	0.88	3.34		2.13	
30	1.26	0.86	3.27		1.99	
31	1.25		3.2		1.87	
32	1.24		3.13		1.75	
33	1.23		3.06		1.64	
34	1.22		2.99		1.53	
35	1.21		2.93		1.43	
36	1.19		2.86		1.34	
37	1.18		2.8		1.25	
38	1.17		2.74		1.16	
39	1.16		2.68		1.09	
40	1.15		2.62		1.02	
41	1.14		2.57			
42	1.13		2.51			
43	1.12		2.46			
44	1.11		2.41			
45	1.09		2.36			
46	1.08		2.31			
47	1.07		2.26			
48	1.06		2.21			
49	1.05		2.17			
50	1.04		2.12			
51	1.03		2.08			
52	1.02		2.04			
53	1.01		2			
54	1		1.96			
55	0.99		1.93			
56	0.98		1.89			
57	0.97		1.86			
58	0.96		1.83			
59	0.95		1.8			
60	0.94		1.77			
61	0.93		1.74			
62	0.92		1.72			
63	0.91		1.69			
64	0.9		1.67			
65	0.89		1.65			
66	0.88		1.63			
67	0.87		1.61			
68	0.86		1.59			
69	0.85		1.57			
70	0.84		1.56			
71	0.84		1.55			
72	0.83		1.54			
73	0.82		1.53			
74	0.81		1.52			
75	0.8		1.51			
76	0.79		1.51			
77	0.78		1.5			
78	0.77		1.5			
79	0.76		1.5			
80	0.76		1.5			
81	0.75					
82	0.74					
83	0.73					
84	0.72					
85	0.71					
86	0.71					
87	0.7					
88	0.69					
89	0.68					

Model	LBAS08 -5 Horizontal/Wall hanging	LBAS08 -5 Vertical	LBAS08 -10 Horizontal/Wall hanging	LBAS08 -10 Vertical	LBAS08 -20 Horizontal/Wall hanging	LBAS08 -20 Vertical
90	0.67					
91	0.67					
92	0.66					
93	0.65					
94	0.64					
95	0.63					
96	0.63					
97	0.62					
98	0.61					
99	0.6					
100	0.6					

Features  
Basic model LBAS  
LBAS Acceleration/Deceleration Inertia Moment  
Advanced model LGXS  
LGXS Acceleration/Deceleration Inertia Moment  
Option

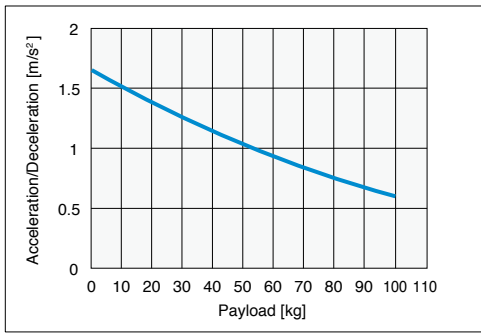


# Acceleration/Deceleration and Inertia Moment (Basic model)

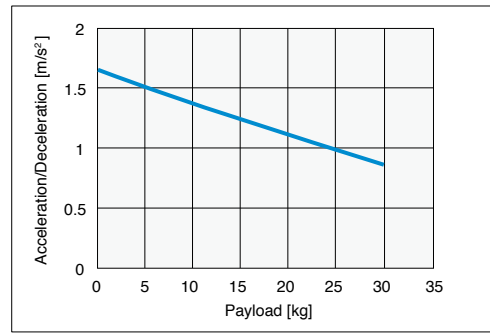
## ■ Payload – Acceleration/Deceleration Graph (Estimate)

### LBAS08-5

Horizontal/  
Wall hanging

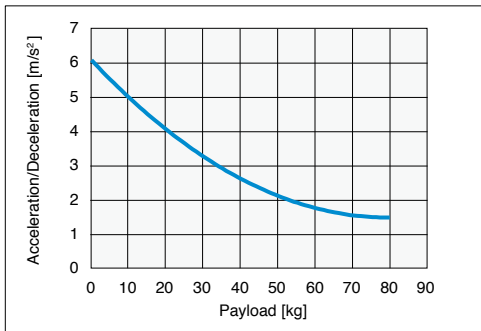


Vertical

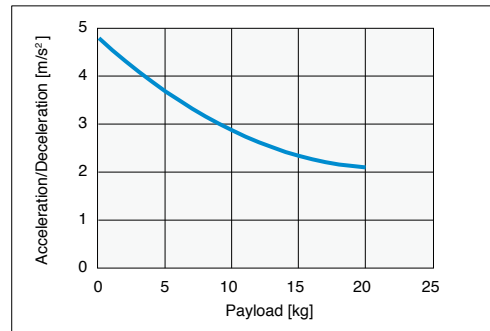


### LBAS08-10

Horizontal/  
Wall hanging

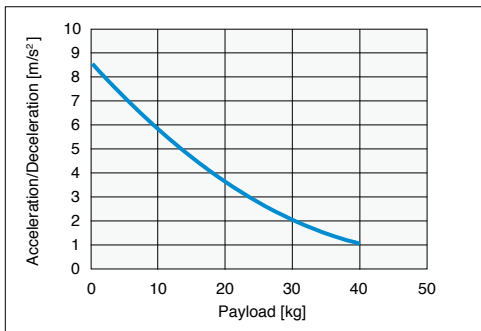


Vertical

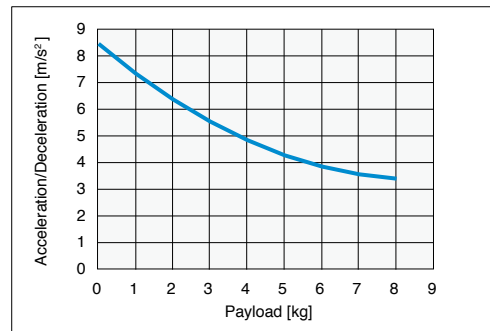


### LBAS08-20

Horizontal/  
Wall hanging



Vertical



## ■ Inertia Moment

### LBAS08

[kg·m <sup>2</sup> ·10 <sup>-4</sup> ]	Effective stroke [mm]																					
Model	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
LBAS08-5	0.160	0.168	0.176	0.184	0.192	0.200	0.208	0.216	0.224	0.232	0.240	0.248	0.256	0.263	0.271	0.279	0.287	0.295	0.303	0.311	0.319	0.327
LBAS08-10	0.190	0.198	0.206	0.214	0.222	0.230	0.238	0.246	0.254	0.261	0.269	0.277	0.285	0.293	0.301	0.309	0.317	0.325	0.333	0.341	0.349	0.357
LBAS08-20	0.309	0.317	0.325	0.333	0.341	0.349	0.357	0.365	0.373	0.381	0.389	0.397	0.405	0.413	0.421	0.429	0.437	0.445	0.453	0.461	0.469	0.477

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

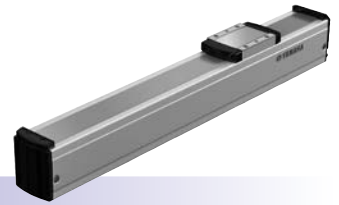
Advanced model LGXS

LGXS Acceleration/Deceleration Inertia Moment

Option

# LGXS05 Advanced model

Motor-less Single Axis Actuator



## Ordering method

### LGXS05

Model	Lead designation	Side cover	Stroke
	20: 20 mm 10: 10 mm 5: 5 mm	No entry: Standard W: With T-groove (both sides) L: With T-groove (left side) R: With T-groove (right side)	50 to 800 (50 mm pitch)

### [Caution]

This system is provided as mechanical actuator unit and not including any adapters 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.

## Specifications

Adaptable motor	50 W		
Repeatability <sup>Note 1</sup>	±0.005 mm		
Deceleration mechanism	Ground ball screw φ 12 (C5 class)		
Stroke	50 mm to 800 mm (50 mm pitch)		
Maximum speed <sup>Note 2</sup> (or equivalent)	1333 mm/sec	666 mm/sec	333 mm/sec
	20 mm	10 mm	5 mm
	5 kg	8 kg	13 kg
Maximum payload <sup>Note 3</sup> (or equivalent)	Horizontal	5 kg	8 kg
	Vertical	2 kg	4 kg
Rated thrust <sup>Note 3</sup> (or equivalent)	41 N	69 N	138 N
	Maximum dimensions of cross section of main unit	W 48 mm × H 65 mm	
Overall length	ST + 131.5 mm		
Degree of cleanliness <sup>Note 4</sup>	ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air <sup>Note 5</sup>	30 Nℓ/min to 100 Nℓ/min		
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 600 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 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.  
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.  
 Note. See P.22 for acceleration/deceleration and inertia moment.

## Allowable overhang <sup>Note</sup>

LGXS05-20				Horizontal installation (Unit: mm)				Wall installation (Unit: mm)				Vertical installation (Unit: mm)			
	A	B	C		A	B	C		A	C		A	C		
2kg	900	270	351	2kg	324	234	812	1kg	454	454	1kg	454	454		
5kg	583	112	159	5kg	119	76	427	2kg	218	218	2kg	218	218		

LGXS05-10				Horizontal installation (Unit: mm)				Wall installation (Unit: mm)				Vertical installation (Unit: mm)			
	A	B	C		A	B	C		A	C		A	C		
2kg	2506	382	625	2kg	585	346	2387	1kg	732	732	1kg	732	732		
5kg	1368	149	246	5kg	195	113	1165	2kg	351	351	2kg	351	351		
8kg	1038	90	150	8kg	95	54	747	4kg	160	160	4kg	160	160		

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 600 mm stroke models.

## Static loading moment

Static loading moment (Unit: N·m)			
MY	MP	MR	
24	27	23	

## Adaptable Servo Motor

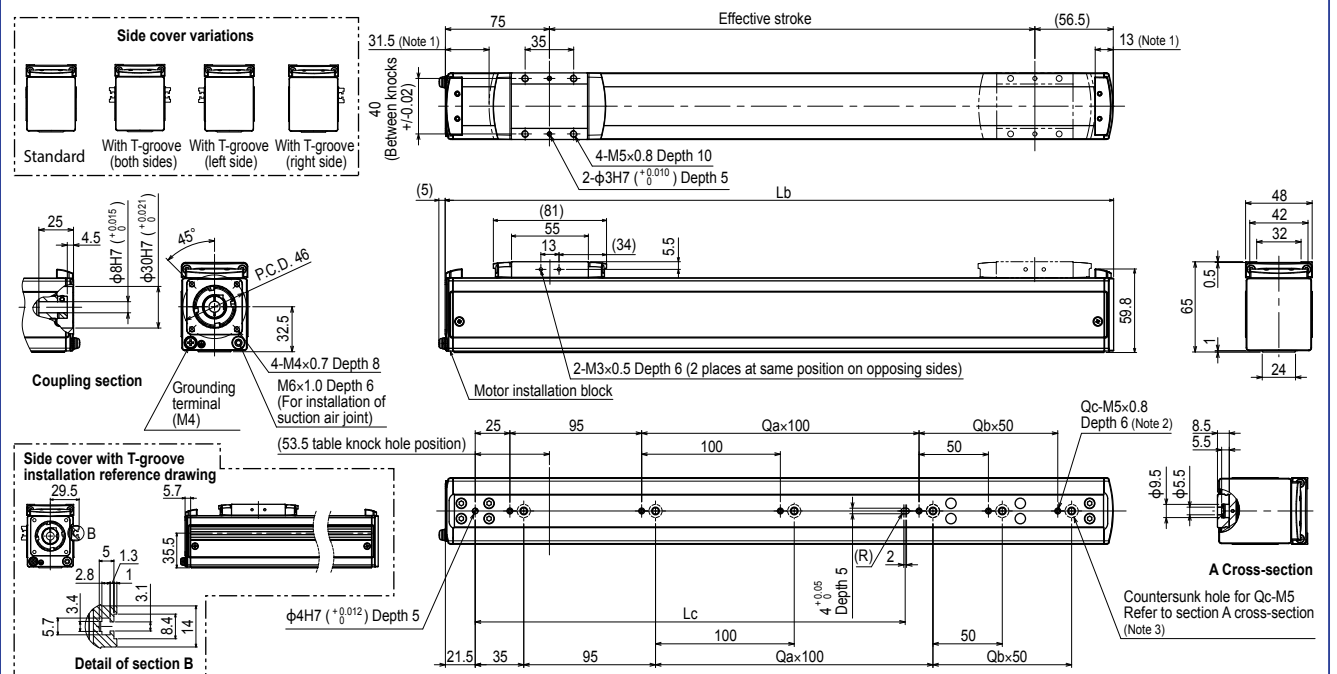
Specification	Flange size	Wattage
	□ 40	50 W

Manufacturer	Model
Yaskawa Electric Corp.	SGMJV-A5 SGM7J-A5
Keyence Corp.	SV-□005 SV2-□005
Mitsubishi Electric Corp.	HF-KP053 <sup>Note</sup> HG-KR053 <sup>Note</sup>

Note. To combine with the conversion adapter <GX-BEND-40>, the shim plate (t1) is necessary.

Conversion adapter product model	Shim plate part number
GX-BEND-40	KES-M2295-00

## LGXS05

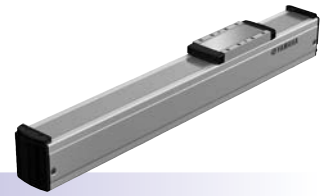


Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
Lb	181.5	231.5	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	
Lc	110	110	110	110	310	310	310	310	310	310	610	610	610	610	610	610	
Qa	0	0	0	0	2	2	2	2	2	2	5	5	5	5	5	5	
Qb	0	1	2	3	0	1	2	3	4	5	0	1	2	3	4	5	
Qc	2	3	4	5	4	5	6	7	8	9	7	8	9	10	11	12	
Weight (kg)	1.2	1.4	1.5	1.7	1.9	2.0	2.2	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.4	3.5	
Maximum speed (mm/sec)	Lead 20	1333										1066					
	Lead 10	666										532					
	Lead 5	333										266					
	Speed setting	-										80%					

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. When using the tap holes to mount the body, remove the set screws first.  
 Note 3. When using the countersunk holes (section A cross section) to mount the body, remove the cap from the inner side and then fix. The length under head of the hex socket head bolts (M5 × 0.8) used must be 15 mm or less.  
 Note 4. Side cover with T-groove is used to install the sensor.

Features  
 Basic model LBAS  
 LBAS  
 Acceleration/Deceleration Inertia Moment  
 Advanced model LGXS  
 LGXS  
 Acceleration/Deceleration Inertia Moment  
 Option

# LGXS05L Advanced model



## Motor-less Single Axis Actuator

### Ordering method

<b>LGXS05L</b>			
<b>Model</b>	<b>Lead designation</b>	<b>Side cover</b>	<b>Stroke</b>
	20: 20 mm 10: 10 mm 5: 5 mm	No entry: Standard W: With T-groove (both sides) L: With T-groove (left side) R: With T-groove (right side)	50 to 800 (50 mm pitch)

### [Caution]

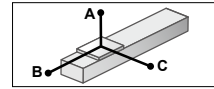
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

### Specifications

<b>Adaptable motor</b>	100 W
<b>Repeatability</b> <small>Note 1</small>	+/-0.005 mm
<b>Deceleration mechanism</b>	Ground ball screw $\phi$ 12 (C5 class)
<b>Stroke</b>	50 mm to 800 mm (50 mm pitch)
<b>Maximum speed</b> <small>Note 2</small> (or equivalent)	1333 mm/sec    666 mm/sec    333 mm/sec
<b>Ball screw lead</b>	20 mm    10 mm    5 mm
<b>Maximum payload</b> <small>Note 3</small> (or equivalent)	<b>Horizontal</b> 12 kg    24 kg    32 kg <b>Vertical</b> 3 kg    6 kg    12 kg
<b>Rated thrust</b> <small>Note 3</small> (or equivalent)	84 N    169 N    339 N
<b>Maximum dimensions of cross section of main unit</b>	W 48 mm $\times$ H 65 mm
<b>Overall length</b>	ST + 161.5 mm
<b>Degree of cleanliness</b> <small>Note 4</small>	ISO CLASS 3 (ISO14644-1) or equivalent
<b>Intake air</b> <small>Note 5</small>	30 N $\ell$ /min to 100 N $\ell$ /min
<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.  
 If the effective stroke exceeds 600 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 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.  
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.  
 Note. See P.23 for acceleration/deceleration and inertia moment.

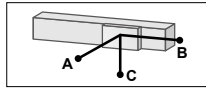
### Allowable overhang Note



**LGXS05L-20**

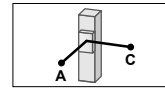
**Horizontal installation** (Unit: mm)

	A	B	C
3kg	1760	560	427
8kg	739	201	154
12kg	611	134	105



**Wall installation** (Unit: mm)

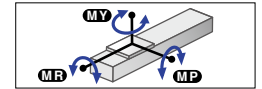
	A	B	C
3kg	397	488	1599
8kg	107	128	528
12kg	52	61	331



**Vertical installation** (Unit: mm)

	A	C
1kg	1490	1490
2kg	732	732
3kg	480	480

### Static loading moment



(Unit: N·m)

MY	MP	MR
72	72	64

### Adaptable Servo Motor

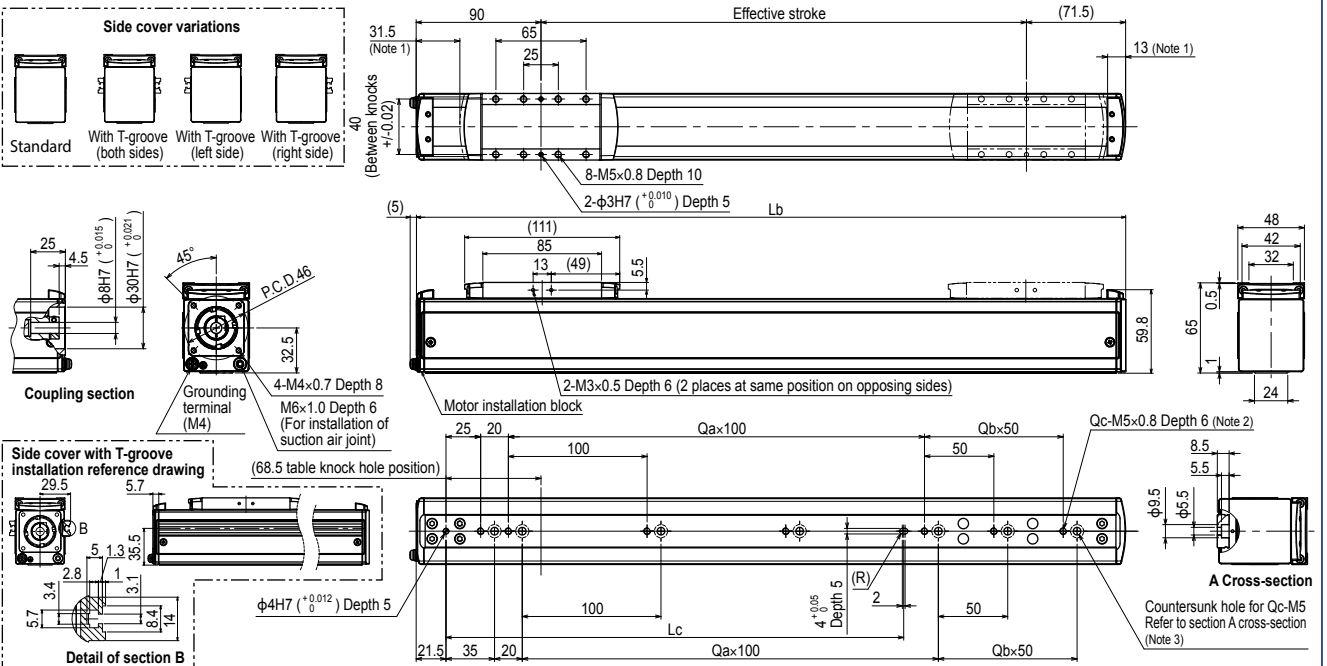
<b>Specification</b>	Flange size <input type="checkbox"/> 40
	Wattage 100 W

Manufacturer	Model
Yaskawa Electric Corp.	SGMJV-01 SGM7J-01
Keyence Corp.	SV-□010 SV2-□010
Mitsubishi Electric Corp.	HF-KP13 <small>Note</small> HG-KR13 <small>Note</small>

Note. To combine with the conversion adapter <GX-BEND-40>, the shim plate (t1) is necessary.

<b>Conversion adapter product model</b>	Shim plate part number
GX-BEND-40	KES-M2295-00

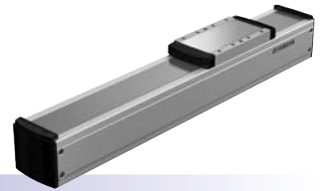
## LGXS05L



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
<b>Lb</b>	211.5	261.5	311.5	361.5	411.5	461.5	511.5	561.5	611.5	661.5	711.5	761.5	811.5	861.5	911.5	961.5	
<b>Lc</b>	130	130	130	130	330	330	330	330	330	630	630	630	630	630	630	630	
<b>Qa</b>	1	1	1	1	3	3	3	3	3	6	6	6	6	6	6	6	
<b>Qb</b>	0	1	2	3	0	1	2	3	4	5	0	1	2	3	4	5	
<b>Qc</b>	3	4	5	6	5	6	7	8	9	10	8	9	10	11	12	13	
<b>Weight (kg)</b>	1.4	1.5	1.7	1.8	2.0	2.2	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.4	3.5	3.7	
<b>Maximum speed (mm/sec)</b>	<b>Lead 20</b> 1333																
	<b>Lead 10</b> 666																
	<b>Lead 5</b> 333																
	<b>Speed setting</b> -																
		1066	933	800	666	532	466	400	333	266	233	200	166	80%	70%	60%	50%

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. When using the tap holes to mount the body, remove the set screws first.  
 Note 3. When using the countersunk holes (section A cross section) to mount the body, remove the cap from the inner side and then fix. The length under head of the hex socket head bolts (M5  $\times$  0.8) used must be 15 mm or less.  
 Note 4. Side cover with T-groove is used to install the sensor.

# LGXS07 Advanced model



Motor-less Single Axis Actuator

## Ordering method

LGXS07			
Model	Lead designation	Side cover	Stroke
	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	No entry: Standard W: With T-groove (both sides) L: With T-groove (left side) R: With T-groove (right side)	50 to 1100 (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.

## Specifications

Adaptable motor	100 W
Repeatability <sup>Note 1</sup>	+/-0.005 mm
Deceleration mechanism	Ground ball screw $\phi$ 15 (C5 class)
Stroke	50 mm to 1100 mm (50 mm pitch)
Maximum speed <sup>Note 2</sup> (or equivalent)	1800 mm/sec 1200 mm/sec 600 mm/sec 300 mm/sec
Ball screw lead	30 mm 20 mm 10 mm 5 mm
Maximum payload <sup>Note 3</sup> (or equivalent)	Horizontal 10 kg 25 kg 45 kg 85 kg Vertical 2 kg 4 kg 8 kg 16 kg
Rated thrust <sup>Note 3</sup> (or equivalent)	56 N 84 N 169 N 339 N
Maximum dimensions of cross section of main unit	W 70 mm $\times$ H 76.5 mm
Overall length	ST + 202 mm
Degree of cleanliness <sup>Note 4</sup>	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air <sup>Note 5</sup>	30 N $\ell$ /min to 115 N $\ell$ /min
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 700 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 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.  
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.  
 Note. See P24 for acceleration/deceleration and inertia moment.

## Allowable overhang <sup>Note</sup>

LGXS07-30	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
2kg	3084	1512	1223	2kg	1240	1445	2981	1kg	2340	2340
6kg	1191	502	418	6kg	393	435	1063	2kg	1160	1160
10kg	957	318	282	10kg	245	251	794			

LGXS07-20	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
10kg	1331	371	358	10kg	314	305	1168	1kg	3425	3425
20kg	1144	187	189	20kg	132	120	812	2kg	1705	1705
25kg	1829	169	182	25kg	117	103	1249	4kg	843	843

LGXS07-10	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
15kg	2431	339	373	15kg	307	273	2203	3kg	1693	1693
30kg	1536	160	177	30kg	107	94	1161	6kg	830	830
45kg	1188	101	112	45kg	39	35	629	8kg	614	614

LGXS07-5	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
30kg	2918	172	197	30kg	122	106	2461	6kg	907	907
50kg	2543	96	110	50kg	34	30	1480	9kg	591	591
85kg	2031	49	56	85kg	0	0	0	16kg	315	315

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 600 mm stroke models.

## Static loading moment

	MY	MP	MR
(Unit: N·m)	138	121	121

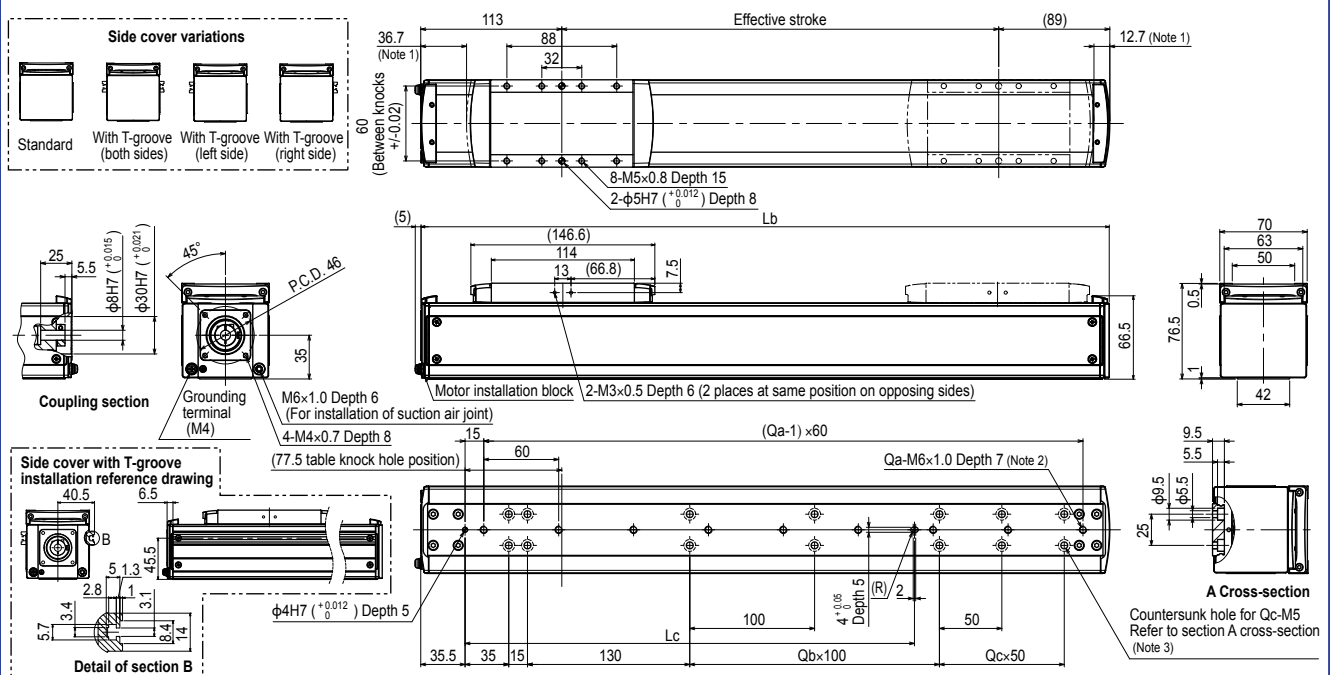
## Adaptable Servo Motor

Specification	Flange size <input type="checkbox"/> 40
	Wattage 100 W
Manufacturer	Model
Yaskawa Electric Corp.	SGMJV-01 SGM7J-01
Keyence Corp.	SV-□010 SV2-□010
Mitsubishi Electric Corp.	HF-KP13 <sup>Note</sup> HG-KR13 <sup>Note</sup>

Note. To combine with the conversion adapter <GX-BEND-40>, the shim plate (t1) is necessary.

Conversion adapter product model	Shim plate part number
GX-BEND-40	KES-M2295-00

## LGXS07



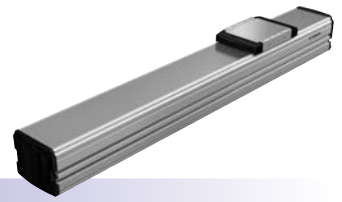
Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100		
Lb	252	302	352	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202	1252	1302		
Lc	160	160	160	160	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360		
Qa	4	5	5	6	7	8	9	10	10	11	12	13	14	15	15	16	17	18	19	20	20	21		
Qb	0	0	0	2	2	2	2	2	2	2	2	2	6	6	6	6	6	6	6	6	6	6		
Qc	0	1	2	3	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9		
Qd	6	8	10	12	10	12	14	16	18	20	22	24	18	20	22	24	26	28	30	32	34	36		
Weight (kg)	3.2	3.4	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6	5.9	6.2	6.4	6.7	7.0	7.2	7.5	7.8	8.1	8.3	8.6	8.9		
Lead 30	1800																							
Lead 20	1200																							
Lead 10	600																							
Lead 5	300																							
Speed setting	-																							
Maximum speed (mm/sec)	1530	1350	1170	990	900	810	720	630	1020	900	780	660	600	540	480	420	510	450	390	330	300	270	240	210
	255	225	195	165	150	135	120	105	85%	75%	65%	55%	50%	45%	40%	35%								

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. When using the tap holes to mount the body, remove the set screws first.  
 Note 3. When using the countersunk holes (section A cross section) to mount the body, remove the cap from the inner side and then fix.  
 Note 4. Side cover with T-groove is used to install the sensor.

Features  
Basic model LBAS  
LBAS Acceleration/Deceleration Inertia Moment  
Advanced model LGXS  
LGXS Acceleration/Deceleration Inertia Moment  
Option



# LGXS10 Advanced model



## Motor-less Single Axis Actuator

### Ordering method

<b>LGXS10</b>	Model	Lead designation	Stroke
		30: 30 mm	100 to 1250
		20: 20 mm	(50 mm pitch)
		10: 10 mm	
		5: 5 mm	

#### [Caution]

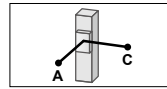
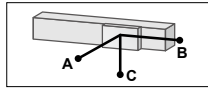
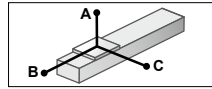
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

### Specifications

Adaptable motor	200 W			
Repeatability <sup>Note 1</sup>	±0.005 mm			
Deceleration mechanism	Ground ball screw φ 15 (C5 class)			
Stroke	100 mm to 1250 mm (50 mm pitch)			
Maximum speed <sup>Note 2</sup> (or equivalent)	1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
	30 mm	20 mm	10 mm	5 mm
	Ball screw lead	25 kg	40 kg	80 kg
Maximum payload (or equivalent) <sup>Note 3</sup>	Horizontal	4 kg	8 kg	20 kg
	Vertical	4 kg	8 kg	20 kg
Rated thrust (or equivalent) <sup>Note 3</sup>	113 N	170 N	341 N	683 N
	Maximum dimensions of cross section of main unit	W 100 mm × H 99.5 mm		
Overall length	ST + 175.5 mm			
Degree of cleanliness <sup>Note 4</sup>	ISO CLASS 3 (ISO14644-1) or equivalent			
Intake air <sup>Note 5</sup>	30 Nl/min to 90 Nl/min			
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 700 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 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.  
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.  
 Note. See P.26 for acceleration/deceleration and inertia moment.

### Allowable overhang <sup>Note</sup>



**LGXS10-30**  
Horizontal installation (Unit: mm)

	A	B	C
10kg	880	538	292
20kg	607	256	146
25kg	608	211	124

Wall installation (Unit: mm)

	A	B	C
10kg	272	474	805
20kg	118	192	480
25kg	93	147	454

Vertical installation (Unit: mm)

	A	C
1kg	4142	4142
4kg	987	987

**LGXS10-20**  
Horizontal installation (Unit: mm)

	A	B	C
15kg	1272	452	282
25kg	756	254	158
40kg	468	142	88

Wall installation (Unit: mm)

	A	B	C
15kg	253	388	1162
25kg	124	190	631
40kg	51	78	313

Vertical installation (Unit: mm)

	A	C
3kg	2067	2067
6kg	1015	1015
8kg	752	752

**LGXS10-10**  
Horizontal installation (Unit: mm)

	A	B	C
30kg	1801	299	204
50kg	1361	163	111
80kg	1273	87	59

Wall installation (Unit: mm)

	A	B	C
30kg	163	235	1630
50kg	69	99	1064
80kg	16	23	559

Vertical installation (Unit: mm)

	A	C
5kg	1932	1932
10kg	934	934
20kg	436	436

**LGXS10-5**  
Horizontal installation (Unit: mm)

	A	B	C
30kg	5603	321	225
50kg	3691	177	124
80kg	2614	95	67
100kg	2218	68	48

Wall installation (Unit: mm)

	A	B	C
30kg	181	258	5193
50kg	79	113	3109
80kg	22	31	1555
100kg	0	0	0

Vertical installation (Unit: mm)

	A	C
10kg	1018	1018
20kg	477	477
30kg	296	296

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 600 mm stroke models.

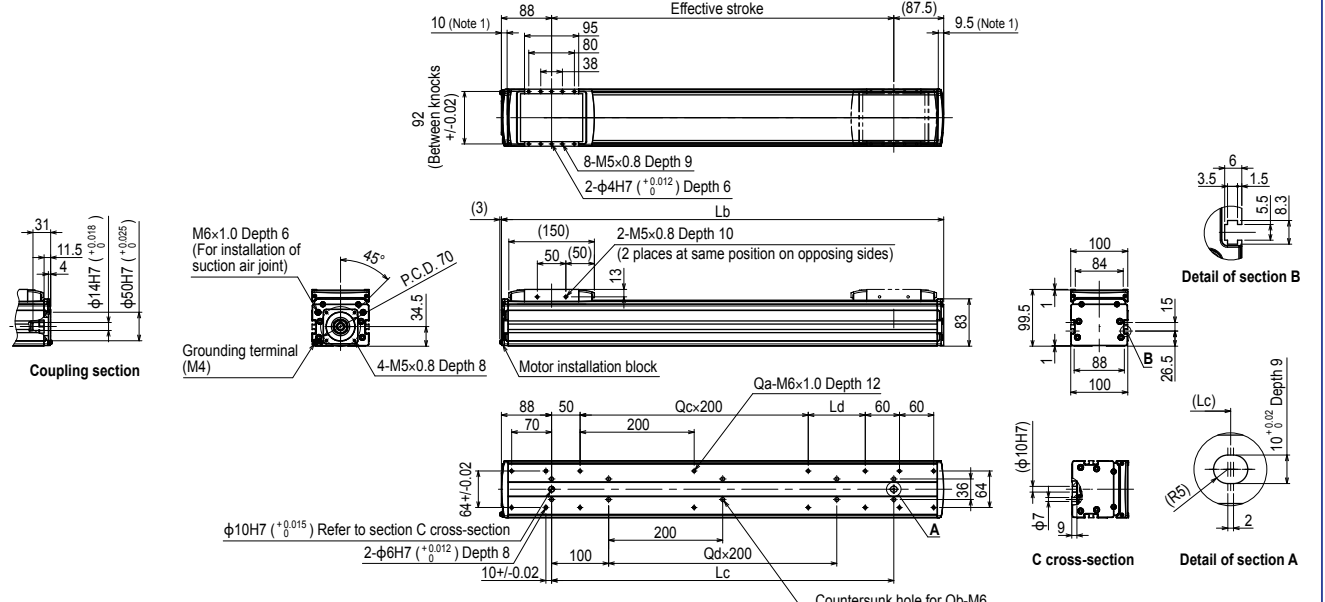
### Static loading moment

	(Unit: N-m)		
	MY	MP	MR
	274	274	241

### Adaptable Servo Motor

Specification	Flange size	<input type="checkbox"/> 60
	Wattage	200 W
Manufacturer	Model	
Yaskawa Electric Corp.	SGMJV-02 SGM7J-02	
Keyence Corp.	SV-□020	
	SV2-□020	
Mitsubishi Electric Corp.	HF-KP23	
	HG-KR23 <sup>Note</sup>	
Note. To combine with the conversion adapter <GX-BEND-60>, the shim plate (t1) is necessary.		
Conversion adapter product model	Shim plate part number	
GX-BEND-60	KEV-M2295-00	

## LGXS10



<b>Effective stroke</b>	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	
<b>Lb</b>	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5	975.5	1025.5	1075.5	1125.5	1175.5	1225.5	1275.5	1325.5	1375.5	1425.5	
<b>Lc</b>	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	
<b>Ld</b>	0	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	
<b>Qa</b>	8	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	18	20	20	20	
<b>Qb</b>	4	6	6	6	6	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	14	16	16	16	
<b>Qc</b>	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	
<b>Qd</b>	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	4	5	5	5	
<b>Weight (kg)</b>	4.6	5.1	5.6	6.1	6.6	7.1	7.6	8.1	8.6	9.1	9.6	10.1	10.6	11.1	11.6	12.1	12.6	13.1	13.6	14.1	14.6	15.1	15.6	16.1	
<b>Maximum speed (mm/sec)</b>	Lead 30	1800																							
	Lead 20	1200																							
	Lead 10	600																							
	Lead 5	300																							
<b>Speed setting</b>		85%																							
		75%																							
		65%																							
		55%																							
	50%																								
	45%																								
	40%																								
	35%																								
	30%																								
	25%																								

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. The length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting countersunk holes (section C cross-section) must be <<20 mm or more>>. The recommended length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting tap hole specifications is <<frame thickness + 10 mm or less>>.  
 Note 3. When using the mounting countersunk holes (section C cross-section) to mount the body, remove the seal, and then fix.





# LGXS16 Advanced model



## Motor-less Single Axis Actuator

### Ordering method

<b>LGXS16</b>		
Model	Lead designation	Stroke
	40: 40 mm	100 to 1450
	20: 20 mm	(50 mm pitch)
	10: 10 mm	

#### [Caution]

This system is provided as mechanical actuator unit and not including any adaptors 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.

### Specifications

<b>Adaptable motor</b>	750 W		
<b>Repeatability</b> <small>Note 1</small>	±0.005 mm		
<b>Deceleration mechanism</b>	Ground ball screw φ20 (C5 class)		
<b>Stroke</b>	100 mm to 1450 mm (50 mm pitch)		
<b>Maximum speed</b> <small>Note 2</small> (or equivalent)	2400 mm/sec	1200 mm/sec	600 mm/sec
<b>Ball screw lead</b>	40 mm	20 mm	10 mm
<b>Maximum payload</b> <small>Note 3</small> (or equivalent)	Horizontal	Vertical	
	45 kg	12 kg	95 kg
		28 kg	130 kg
		55 kg	
<b>Rated thrust</b> <small>Note 3</small> (or equivalent)	320 N	640 N	1280 N
<b>Maximum dimensions of cross section of main unit</b>	W 160 mm × H 130 mm		
<b>Overall length</b>	ST + 242.5 mm		
<b>Degree of cleanliness</b> <small>Note 4</small>	ISO CLASS 3 (ISO14644-1) or equivalent		
<b>Intake air</b> <small>Note 5</small>	30 Nℓ/min to 90 Nℓ/min		
<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.  
 If the effective stroke exceeds 800 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 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.  
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.  
 Note. See P.30 for acceleration/deceleration and inertia moment.

### Allowable overhang Note

LGXS16-40	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
15kg	2876	1866	1253	1273	1801	2798	3kg	6604
30kg	3071	1062	869	884	999	2925	6kg	3834
45kg	3920	810	731	728	747	3677	12kg	3466

LGXS16-20	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
30kg	3873	1258	1109	1105	1195	3753	10kg	3411
50kg	2573	735	653	632	672	2427	20kg	1744
80kg	1801	441	395	361	378	1615	28kg	1566
95kg	1584	363	326	289	301	1378		

LGXS16-10	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
50kg	6270	1030	1028	984	967	6106	15kg	3444
80kg	4459	625	626	575	563	4252	30kg	1689
100kg	3975	491	492	439	428	3723	55kg	891
130kg	3792	366	368	313	304	3429		

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 600 mm stroke models.

### Static loading moment

(Unit: N·m)		
MY	MP	MR
706	706	620

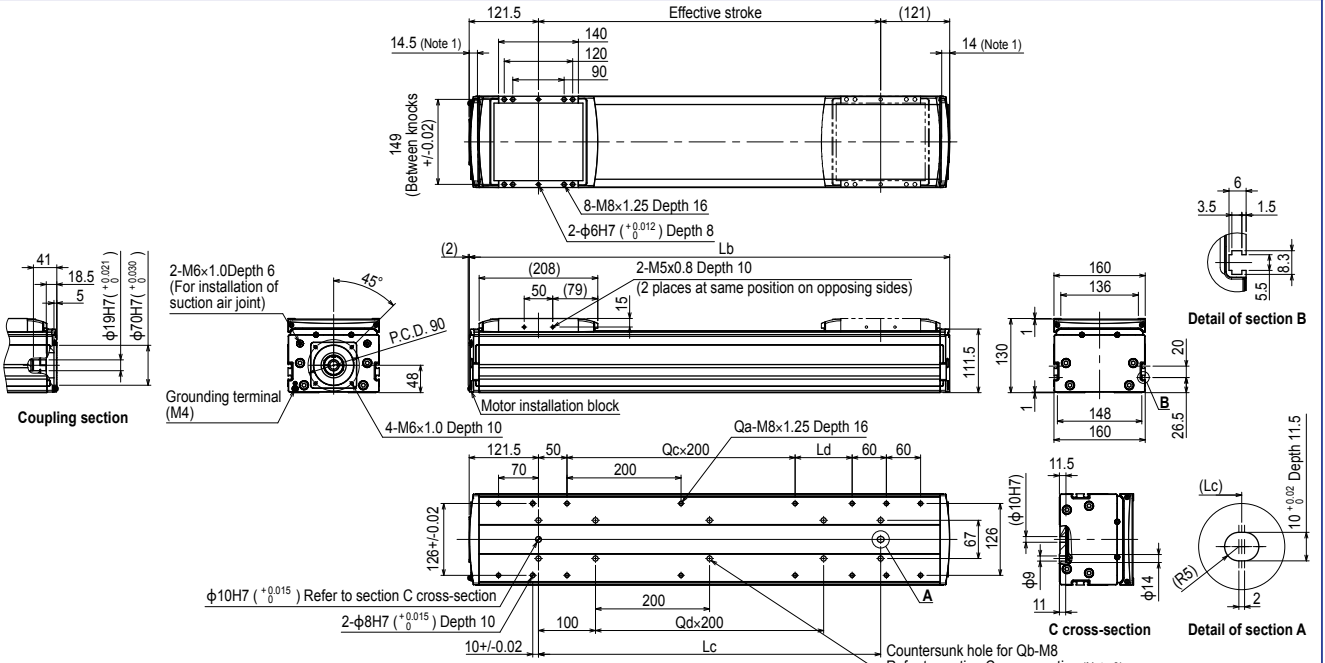
### Adaptable Servo Motor

Specification	Flange size	Wattage	750 W
Manufacturer	Model		
Yaskawa Electric Corp.	SGMJV-08		
	SGMJ7J-08		
Keyence Corp.	SV-□075		
	SV2-□075		
Mitsubishi Electric Corp.	HF-KP73		
	HG-KR73 <small>Note</small>		

Note. To combine with the conversion adapter <GX-BEND-80>, the shim plate (t1) is necessary.

Conversion adapter product model	Shim plate part number
GX-BEND-80	KEX-M2295-00

### LGXS16

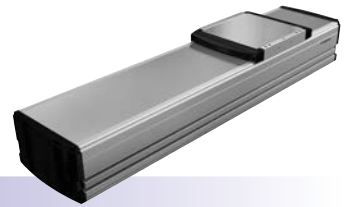


- Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. The length under head of the hex socket head bolts <M8 × 1.25> used to mount the body with the mounting countersunk holes (section C cross-section) must be <<25 mm or more>>. The recommended length under head of the hex socket head bolts <M8 × 1.25> used to mount the body with the mounting tap hole specifications is <<frame thickness + 15 mm or less>>.  
 Note 3. When using the mounting countersunk holes (section C cross-section) to mount the body, remove the seal, and then fix.

Effective stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450					
Lb	342.5	392.5	442.5	492.5	542.5	592.5	642.5	692.5	742.5	792.5	842.5	892.5	942.5	992.5	1042.5	1092.5	1142.5	1192.5	1242.5	1292.5	1342.5	1392.5	1442.5	1492.5	1542.5	1592.5	1642.5	1692.5					
Lc	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450					
Ld	0	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150					
Qa	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	18	18	18	18	18	18	20	20	20	22	22	22					
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	14	14	14	14	14	16	16	16	16	18	18	18					
Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	4	5	5	5	5	6	6	6					
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	4	5	5	5	5	6	6	6					
Weight (kg)	11.7	12.7	13.7	14.7	15.7	16.6	17.6	18.6	19.6	20.6	21.5	22.5	23.5	24.5	25.5	26.5	27.4	28.4	29.4	30.4	31.4	32.4	33.3	34.3	35.3	36.3	37.3	38.2					
Maximum speed (mm/sec)	Lead 40	2400																2160	1920	1680	1440	1320	1200	1080	960	840	720	600					
	Lead 20	1200																1080	960	840	720	660	600	540	480	420	360	300					
Speed setting	Lead 10	600																540	480	420	360	330	300	270	240	210	180	150					
	Speed setting	-																90%	80%	70%	60%	55%	50%	45%	40%	35%	30%	25%					

# LGXS20 Advanced model

**Motor-less Single Axis Actuator**



## Ordering method

<b>LGXS20</b>	Model	
	Lead designation	
	40: 40 mm	100 to 1450
	20: 20 mm	(50 mm pitch)
10: 10 mm		

### [Caution]

This system is provided as mechanical actuator unit and not including any adapters 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.

## Specifications

<b>Adaptable motor</b>	750 W		
<b>Repeatability</b> <small>Note 1</small>	±0.005 mm		
<b>Deceleration mechanism</b>	Ground ball screw φ20 (C5 class)		
<b>Stroke</b>	100 mm to 1450 mm (50 mm pitch)		
<b>Maximum speed (or equivalent)</b> <small>Note 2</small>	2400 mm/sec	1200 mm/sec	600 mm/sec
<b>Ball screw lead</b>	40 mm	20 mm	10 mm
<b>Maximum payload (or equivalent)</b> <small>Note 3</small>	Horizontal	65 kg	130 kg
	Vertical	15 kg	35 kg
<b>Rated thrust (or equivalent)</b> <small>Note 3</small>	Horizontal	320 N	640 N
	Vertical	640 N	1280 N
<b>Maximum dimensions of cross section of main unit</b>	W 200 mm × H 140 mm		
<b>Overall length</b>	ST + 288.5 mm		
<b>Degree of cleanliness</b> <small>Note 4</small>	ISO CLASS 3 (ISO14644-1) or equivalent		
<b>Intake air</b> <small>Note 5</small>	30 Nℓ/min to 90 Nℓ/min		
<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. If the effective stroke exceeds 800 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 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.  
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.  
 Note. See P.32 for acceleration/deceleration and inertia moment.

## Allowable overhang Note

<b>LGXS20-40</b>	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
	20kg	5460	2838	2124	20kg	2203	2768	5351	5kg	8187
40kg	7494	1781	1626	40kg	1690	1711	7259	10kg	5885	5885
65kg	10253	1282	1270	65kg	1276	1212	9808	15kg	5971	5971

<b>LGXS20-20</b>	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
	50kg	5451	1497	1381	50kg	1394	1426	5279	20kg	3443
80kg	4429	913	856	80kg	851	843	4165	30kg	2603	2603
100kg	4588	755	726	100kg	707	685	4249	35kg	3174	3174
130kg	4351	597	585	130kg	551	526	3945			

<b>LGXS20-10</b>	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
	40kg	22572	2615	2722	40kg	2713	2545	22263	20kg	5173
80kg	16750	1278	1336	80kg	1297	1208	16175	40kg	2561	2561
120kg	14083	833	871	120kg	821	763	13243	65kg	1604	1604
160kg	12387	610	639	160kg	582	540	11284			

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 600 mm stroke models.

## Static loading moment

(Unit: N·m)		
MY	MP	MR
1423	1423	1251

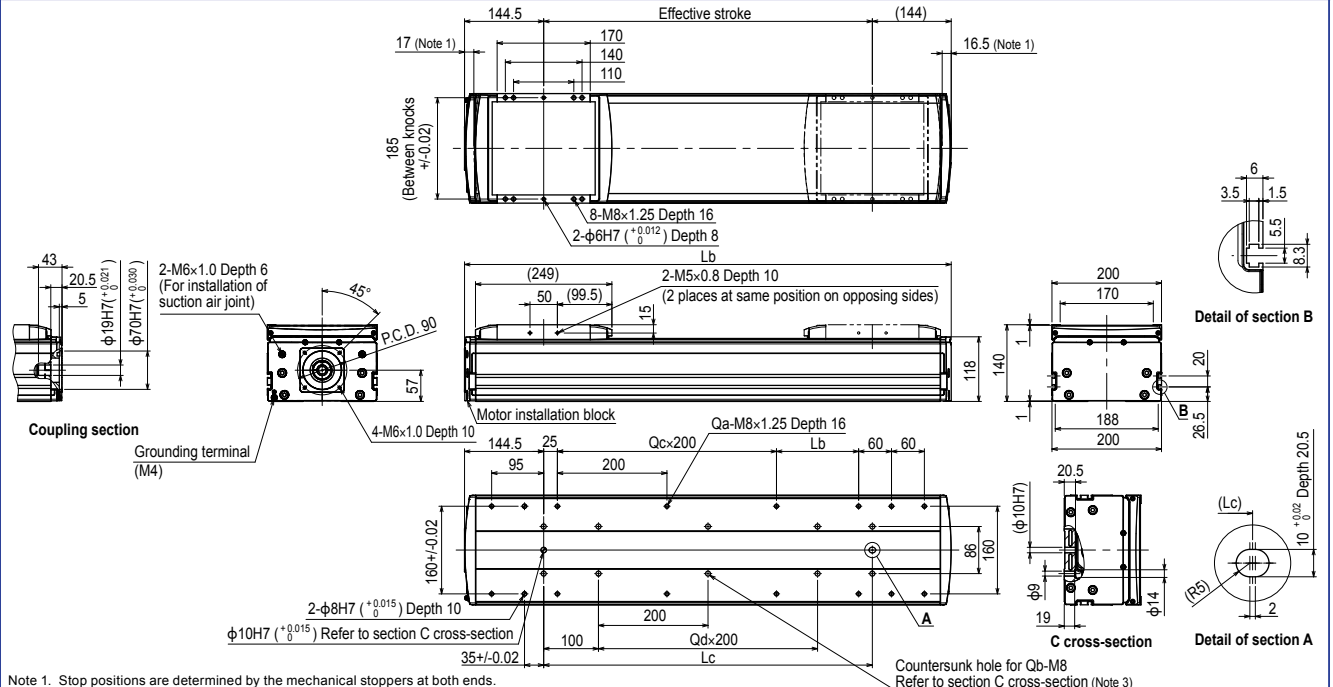
## Adaptable Servo Motor

Specification	Flange size	□80
	Wattage	750 W
Manufacturer	Model	
Yaskawa Electric Corp.	SGMJV-08	
	SGM7J-08	
Keyence Corp.	SV-□075	
	SV2-□075	
Mitsubishi Electric Corp.	HF-KP73	
	HG-KR73 <small>Note</small>	

Note. To combine with the conversion adapter <GX-BEND-80>, the shim plate (t1) is necessary.

Conversion adapter product model	Shim plate part number
GX-BEND-80	KEX-M2295-00

## LGXS20



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. The length under head of the hex socket head bolts <M8 × 1.25> used to mount the body with the mounting countersunk holes (section C cross-section) must be <<25 mm or more>>. The recommended length under head of the hex socket head bolts <M8 × 1.25> used to mount the body with the mounting tap hole specifications is <<frame thickness + 15 mm or less>>.  
 Note 3. When using the mounting countersunk holes (section C cross-section) to mount the body, remove the seal, and then fix.

Effective stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	
Lb	388.5	438.5	488.5	538.5	588.5	638.5	688.5	738.5	788.5	838.5	888.5	938.5	988.5	1038.5	1088.5	1138.5	1188.5	1238.5	1288.5	1338.5	1388.5	1438.5	1488.5	1538.5	1588.5	1638.5	1688.5	1738.5	
Lc	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	
Ld	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	
Qa	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20	20	22	22	22	22	
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	16	18	18	18	
Qc	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	
Weight (kg)	17.2	18.5	19.8	21.1	22.4	23.7	25.0	26.3	27.6	28.8	30.1	31.4	32.7	34.0	35.3	36.6	37.9	39.2	40.4	41.7	43.0	44.3	45.6	46.9	48.2	49.5	50.8	52.0	
Maximum speed (mm/sec)	Lead 40	2400																											
	Lead 20	1200																											
	Lead 10	600																											
	Speed setting	-																											

Features

Basic model LBAS

LBAS

Acceleration/Deceleration Inertia Moment

Advanced model LGXS

LGXS

Acceleration/Deceleration Inertia Moment

Option

Acceleration/Deceleration

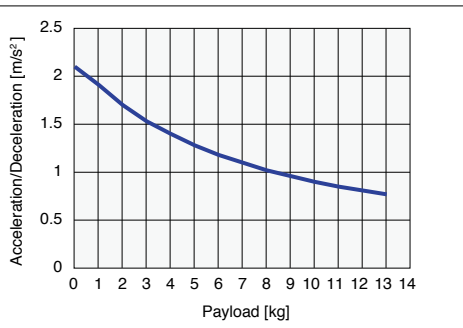
LGXS05

Model	LGXS05-5 Horizontal/ Wall hanging	LGXS05-5 Vertical	LGXS05-10 Horizontal/ Wall hanging	LGXS05-10 Vertical	LGXS05-20 Horizontal/ Wall hanging	LGXS05-20 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> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]
0	2.1	2.1	4.2	3.6	5.3	5.3
1	1.91	2.1	3.84	2.4	5.3	5.3
2	1.7	1.64	2.99	1.8	3.98	3.98
3	1.53	1.34	2.45	1.44	3.19	
4	1.4	1.14	2.07	1.2	2.66	
5	1.28	0.99	1.8		2.28	
6	1.18	0.87	1.58			
7	1.1	0.78	1.42			
8	1.02	0.7	1.28			
9	0.96					
10	0.9					
11	0.85					
12	0.81					
13	0.77					

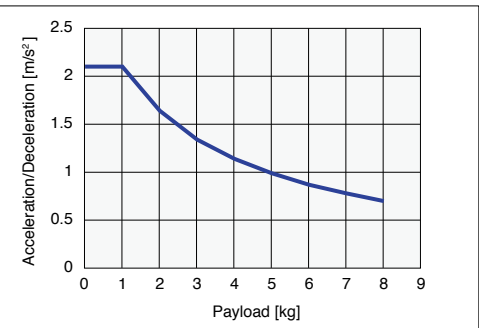
Payload – Acceleration/Deceleration Graph (Estimate)

LGXS05-5

Horizontal/  
Wall hanging

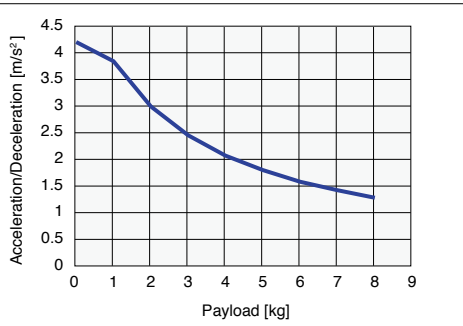


Vertical

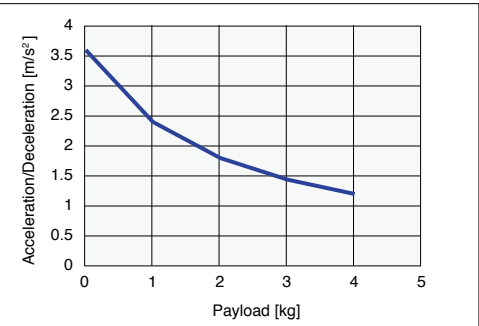


LGXS05-10

Horizontal/  
Wall hanging

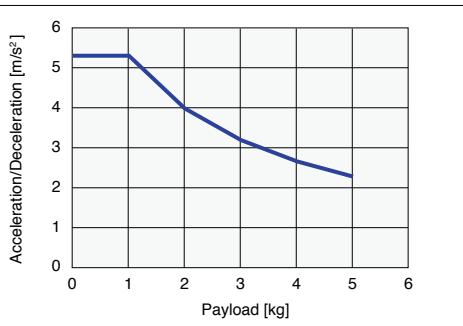


Vertical

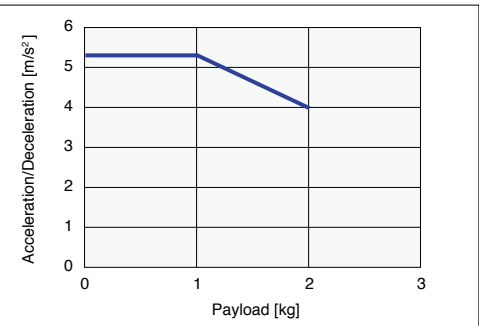


LGXS05-20

Horizontal/  
Wall hanging



Vertical



Inertia Moment

LGXS05

[kg·m <sup>2</sup> ·10 <sup>-4</sup> ]	Effective stroke [mm]															
Model	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
LGXS05-5	0.139	0.147	0.155	0.163	0.171	0.179	0.187	0.195	0.203	0.211	0.219	0.227	0.235	0.243	0.251	0.259
LGXS05-10	0.146	0.154	0.162	0.170	0.178	0.186	0.194	0.202	0.210	0.218	0.226	0.234	0.242	0.250	0.258	0.266
LGXS05-20	0.177	0.185	0.193	0.201	0.209	0.217	0.225	0.233	0.241	0.249	0.257	0.265	0.273	0.281	0.289	0.297

Acceleration/Deceleration

LGXS05L

Model	LGXS05L -5	LGXS05L -5	LGXS05L -10	LGXS05L -10	LGXS05L -20	LGXS05L -20
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	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> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]
0	3.04	3.34	4.26	4.86	5.07	5.07
1	2.97	3.18	4.08	4.56	4.86	4.86
2	2.91	3.03	3.9	4.3	4.66	4.66
3	2.85	2.88	3.74	4.06	4.46	4.46
4	2.79	2.73	3.58	3.85	4.25	
5	2.73	2.58	3.42	3.66	4.05	
6	2.67	2.43	3.28	3.49	3.85	
7	2.61	2.28	3.13		3.65	
8	2.55	2.13	3		3.44	
9	2.49	1.98	2.87		3.24	
10	2.43	1.83	2.74		3.04	
11	2.37	1.68	2.62		2.83	
12	2.31	1.53	2.51		2.63	
13	2.24		2.41			
14	2.18		2.3			
15	2.12		2.21			
16	2.06		2.12			
17	2		2.04			

Model	LGXS05L -5	LGXS05L -5	LGXS05L -10	LGXS05L -10	LGXS05L -20	LGXS05L -20
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	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> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]
18	1.94		1.96			
19	1.88		1.89			
20	1.82		1.83			
21	1.77		1.77			
22	1.7		1.72			
23	1.64		1.67			
24	1.58		1.63			
25	1.52					
26	1.45					
27	1.39					
28	1.33					
29	1.27					
30	1.21					
31	1.15					
32	1.09					

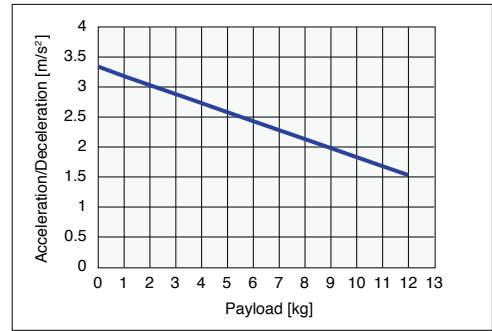
Payload – Acceleration/Deceleration Graph (Estimate)

LGXS05L-5

Horizontal/Wall hanging

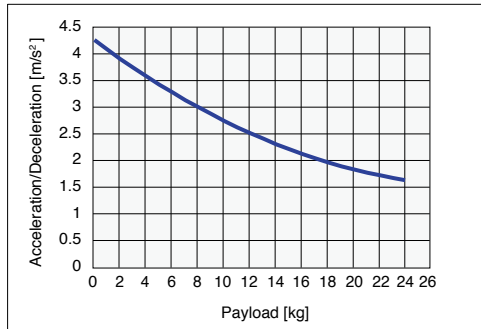


Vertical

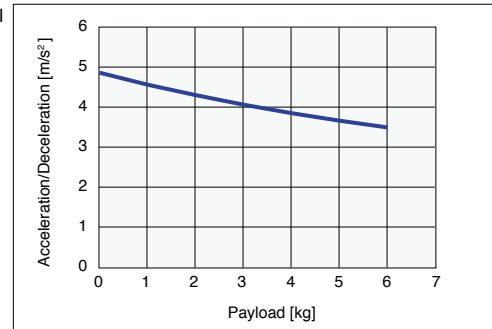


LGXS05L-10

Horizontal/Wall hanging

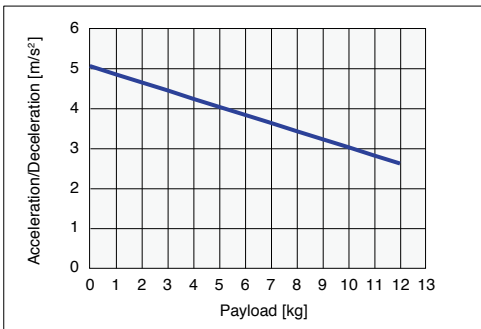


Vertical

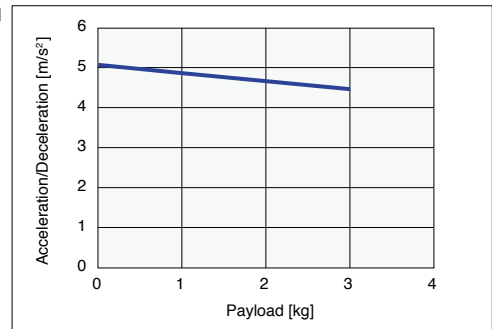


LGXS05L-20

Horizontal/Wall hanging



Vertical



Inertia Moment

LGXS05L

Model	Effective stroke [mm]															
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
LGXS05L-5	0.144	0.152	0.160	0.168	0.176	0.184	0.192	0.200	0.208	0.216	0.224	0.232	0.240	0.248	0.256	0.264
LGXS05L-10	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.209	0.217	0.225	0.233	0.241	0.249	0.257	0.265	0.273
LGXS05L-20	0.192	0.200	0.208	0.216	0.224	0.232	0.240	0.248	0.256	0.264	0.271	0.279	0.287	0.295	0.303	0.311



## Acceleration/Deceleration

### LGXS07

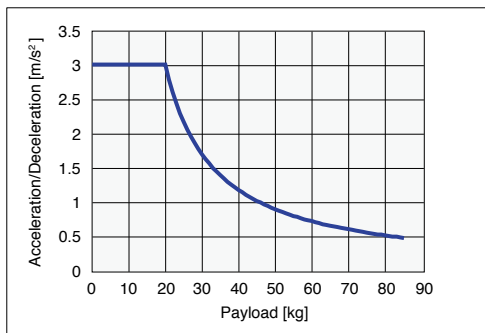
Model	LGXS07 -5	LGXS07 -5	LGXS07 -10	LGXS07 -10	LGXS07 -20	LGXS07 -20	LGXS07 -30	LGXS07 -30
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
0	3.04	2.53	6.08	5.57	7.09	6.08	6.99	6.99
1	3.04	2.47	5.68	5.29	6.74	5.57	6.64	6.64
2	3.04	2.42	5.33	5.02	6.4	5.15	6.31	6.31
3	3.04	2.37	5.02	4.75	6.07	4.78	5.98	
4	3.04	2.32	4.75	4.5	5.75	4.47	5.67	
5	3.04	2.27	4.5	4.24	5.44		5.36	
6	3.04	2.22	4.28	3.99	5.14		5.06	
7	3.04	2.17	4.08	3.75	4.85		4.78	
8	3.04	2.12	3.89	3.52	4.57		4.5	
9	3.04	2.07	3.73		4.3		4.24	
10	3.04	2.02	3.57		4.04		3.98	
11	3.04	1.97	3.43		3.79			
12	3.04	1.92	3.3		3.55			
13	3.04	1.87	3.18		3.32			
14	3.04	1.82	3.07		3.09			
15	3.04	1.77	2.96		2.88			
16	3.04	1.72	2.86		2.68			
17	3.04		2.77		2.49			
18	3.04		2.69		2.31			
19	3.04		2.6		2.14			
20	3.04		2.53		1.98			
21	2.82		2.46		1.83			
22	2.64		2.39		1.69			
23	2.48		2.32		1.56			
24	2.33		2.26		1.44			
25	2.21		2.21		1.32			
26	2.09		2.15					
27	1.99		2.1					
28	1.9		2.05					
29	1.81		2					
30	1.73		1.96					
31	1.66		1.91					
32	1.6		1.87					
33	1.53		1.83					
34	1.48		1.79					
35	1.43		1.76					
36	1.38		1.72					
37	1.33		1.69					
38	1.29		1.66					
39	1.25		1.63					
40	1.21		1.6					
41	1.18		1.57					
42	1.14		1.54					
43	1.11		1.51					
44	1.08		1.49					
45	1.05		1.46					

Model	LGXS07 -5	LGXS07 -5	LGXS07 -10	LGXS07 -10	LGXS07 -20	LGXS07 -20	LGXS07 -30	LGXS07 -30
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
46		1.03						
47		1						
48		0.98						
49		0.95						
50		0.93						
51		0.91						
52		0.89						
53		0.87						
54		0.85						
55		0.83						
56		0.82						
57		0.8						
58		0.78						
59		0.77						
60		0.76						
61		0.74						
62		0.73						
63		0.71						
64		0.7						
65		0.69						
66		0.68						
67		0.67						
68		0.66						
69		0.65						
70		0.64						
71		0.63						
72		0.62						
73		0.61						
74		0.6						
75		0.59						
76		0.58						
77		0.57						
78		0.56						
79		0.56						
80		0.55						
81		0.54						
82		0.53						
83		0.53						
84		0.52						
85		0.51						

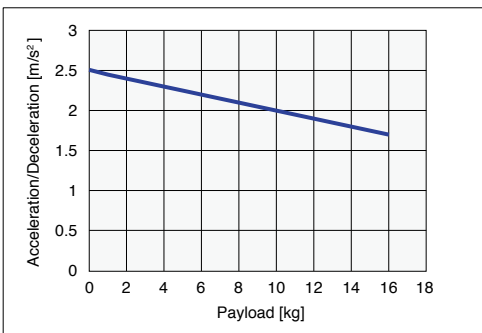
## Payload – Acceleration/Deceleration Graph (Estimate)

### LGXS07-5

Horizontal/Wall hanging

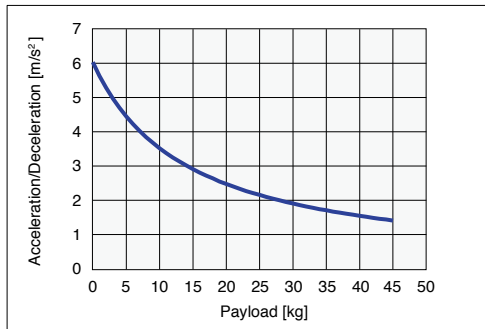


Vertical

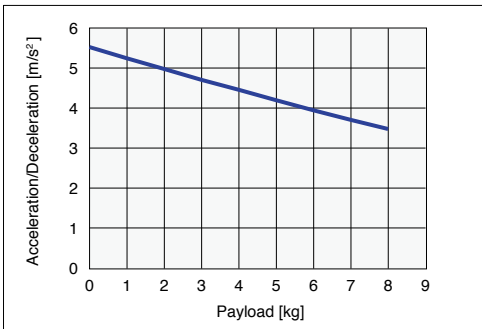


### LGXS07-10

Horizontal/Wall hanging



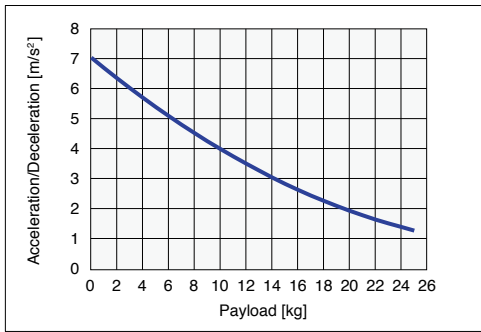
Vertical



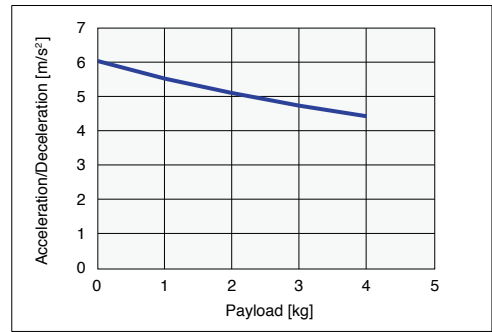
■ Payload – Acceleration/Deceleration Graph (Estimate)

**LGXS07-20**

Horizontal/  
Wall hanging

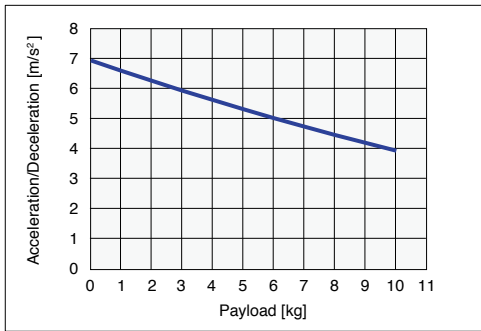


Vertical

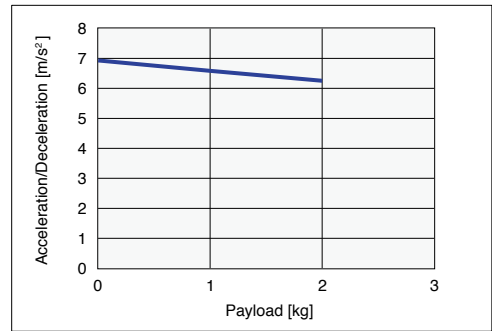


**LGXS07-30**

Horizontal/  
Wall hanging



Vertical



■ Inertia Moment

**LGXS07**

[kg·m <sup>2</sup> ·10 <sup>-4</sup> ]	Effective stroke [mm]																					
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
<b>LGXS07-5</b>	0.623	0.643	0.662	0.682	0.701	0.721	0.740	0.760	0.779	0.799	0.818	0.838	0.857	0.877	0.896	0.916	0.935	0.955	0.974	0.994	1.013	1.033
<b>LGXS07-10</b>	0.644	0.663	0.683	0.702	0.722	0.741	0.761	0.780	0.800	0.819	0.839	0.858	0.878	0.897	0.917	0.936	0.956	0.975	0.995	1.014	1.034	1.053
<b>LGXS07-20</b>	0.728	0.747	0.767	0.787	0.806	0.826	0.845	0.865	0.884	0.904	0.923	0.943	0.962	0.982	1.001	1.021	1.040	1.060	1.079	1.099	1.118	1.138
<b>LGXS07-30</b>	0.885	0.905	0.924	0.944	0.963	0.983	1.002	1.022	1.041	1.061	1.080	1.100	1.119	1.139	1.158	1.178	1.197	1.217	1.236	1.256	1.275	1.295

Features

Basic model  
LBAS

LBAS  
Acceleration/Deceleration  
Inertia Moment

Advanced model  
LGXS

LGXS  
Acceleration/Deceleration  
Inertia Moment

Option

# Acceleration/Deceleration and Inertia Moment (Advanced model)

## Acceleration/Deceleration

### LGXS10

Model	LGXS10 -5 Horizontal/ Wall hanging	LGXS10 -5 Vertical	LGXS10 -10 Horizontal/ Wall hanging	LGXS10 -10 Vertical	LGXS10 -20 Horizontal/ Wall hanging	LGXS10 -20 Vertical	LGXS10 -30 Horizontal/ Wall hanging	LGXS10 -30 Vertical
0	2.27	1.9	6.89	3.29	6.59	8.11	9.75	9.75
1	2.25	1.87	6.78	3.27	6.54	7.86	9.75	9.75
2	2.23	1.85	6.67	3.24	6.49	7.6	9.75	9.75
3	2.21	1.82	6.56	3.22	6.44	7.35	9.75	9.75
4	2.19	1.8	6.46	3.2	6.39	7.09	9.75	9.75
5	2.17	1.77	6.35	3.17	6.34	6.84	9.75	
6	2.15	1.75	6.25	3.15	6.29	6.59	9.75	
7	2.13	1.72	6.14	3.13	6.24	6.33	9.75	
8	2.11	1.7	6.04	3.1	6.18	6.08	9.75	
9	2.09	1.67	5.94	3.08	6.13		9.01	
10	2.07	1.65	5.84	3.05	6.08		8.38	
11	2.05	1.62	5.74	3.03	6.03		7.83	
12	2.03	1.6	5.64	3	5.98		7.34	
13	2.01	1.57	5.54	2.97	5.93		6.91	
14	1.99	1.55	5.44	2.95	5.88		6.53	
15	1.97	1.52	5.34	2.92	5.83		6.19	
16	1.95	1.5	5.25	2.89	5.78		5.89	
17	1.93	1.47	5.16	2.87	5.73		5.61	
18	1.91	1.45	5.06	2.84	5.68		5.36	
19	1.9	1.42	4.97	2.81	5.63		5.13	
20	1.88	1.39	4.88	2.78	5.58		4.91	
21	1.86	1.37	4.79		5.53		4.72	
22	1.84	1.34	4.7		5.48		4.54	
23	1.82	1.32	4.61		5.42		4.37	
24	1.8	1.29	4.52		5.37		4.22	
25	1.79	1.27	4.44		5.32		4.07	
26	1.77	1.24	4.35		5.27			
27	1.75	1.22	4.27		5.22			
28	1.74	1.19	4.18		5.17			
29	1.72	1.17	4.1		5.12			
30	1.7	1.14	4.02		5.07			
31	1.68		3.94		5.02			
32	1.67		3.86		4.97			
33	1.65		3.78		4.92			
34	1.63		3.7		4.87			
35	1.62		3.62		4.82			
36	1.6		3.55		4.77			
37	1.59		3.47		4.71			
38	1.57		3.4		4.66			
39	1.55		3.32		4.61			
40	1.54		3.25		4.56			
41	1.52		3.18					
42	1.51		3.11					
43	1.49		3.04					
44	1.48		2.97					
45	1.46		2.91					
46	1.45		2.84					
47	1.43		2.77					
48	1.42		2.71					
49	1.41		2.65					
50	1.39		2.58					
51	1.38		2.52					
52	1.36		2.46					
53	1.35		2.4					
54	1.34		2.34					
55	1.32		2.29					
56	1.31		2.23					
57	1.3		2.17					
58	1.28		2.12					
59	1.27		2.06					
60	1.26		2.01					
61	1.25		1.96					
62	1.23		1.91					
63	1.22		1.86					
64	1.21		1.81					
65	1.2		1.76					
66	1.18		1.72					
67	1.17		1.67					
68	1.16		1.62					
69	1.15		1.58					
70	1.14		1.54					
71	1.13		1.49					
72	1.12		1.45					
73	1.11		1.41					
74	1.09		1.37					
75	1.08		1.33					
76	1.07		1.3					
77	1.06		1.26					
78	1.05		1.23					
79	1.04		1.19					
80	1.03		1.16					
81	1.02							
82	1.01							
83	1							
84	0.99							
85	0.99							
86	0.98							
87	0.97							
88	0.96							
89	0.95							

Model	LGXS10 -5 Horizontal/ Wall hanging	LGXS10 -5 Vertical	LGXS10 -10 Horizontal/ Wall hanging	LGXS10 -10 Vertical	LGXS10 -20 Horizontal/ Wall hanging	LGXS10 -20 Vertical	LGXS10 -30 Horizontal/ Wall hanging	LGXS10 -30 Vertical
90	0.94							
91	0.93							
92	0.92							
93	0.92							
94	0.91							
95	0.9							
96	0.89							
97	0.89							
98	0.88							
99	0.87							
100	0.86							

Features

Basic model LBAS

LBAS

Acceleration/Deceleration  
Inertia Moment

Advanced model LGXS

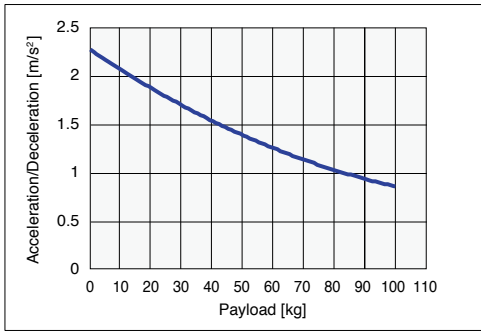
LGXS  
Acceleration/Deceleration  
Inertia Moment

Option

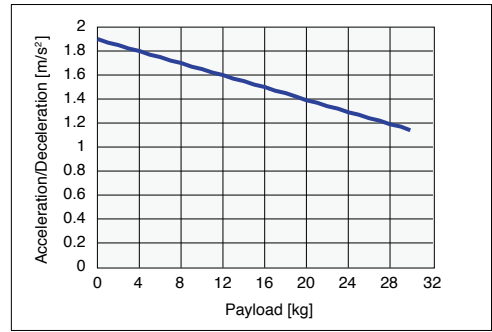
■ Payload – Acceleration/Deceleration Graph (Estimate)

**LGXS10-5**

Horizontal/  
Wall hanging

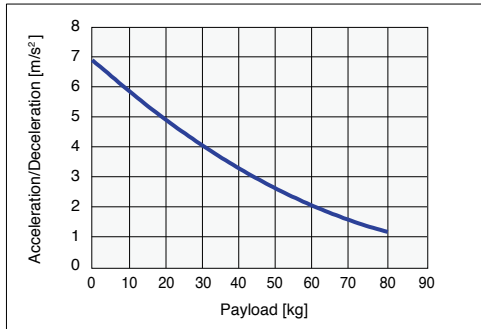


Vertical

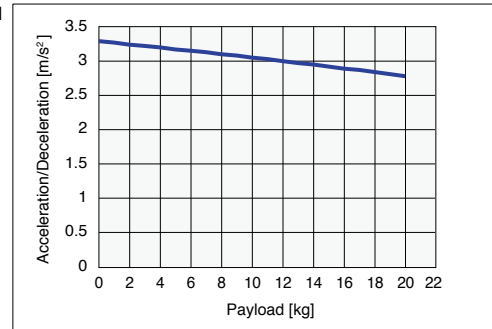


**LGXS10-10**

Horizontal/  
Wall hanging

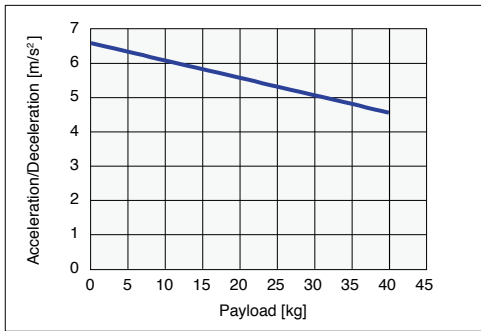


Vertical

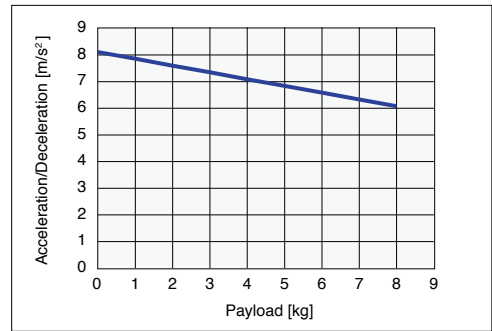


**LGXS10-20**

Horizontal/  
Wall hanging



Vertical

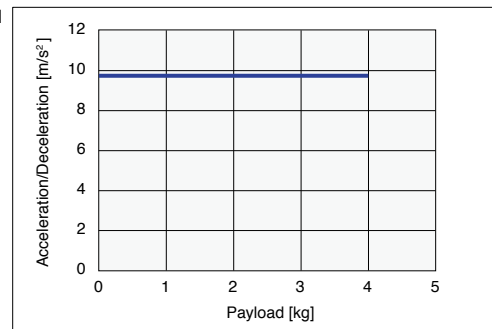


**LGXS10-30**

Horizontal/  
Wall hanging



Vertical



■ Inertia Moment

**LGXS10**

Model	Effective stroke [mm]																								
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
LGXS10-5	-	0.686	0.706	0.726	0.745	0.765	0.784	0.804	0.823	0.843	0.862	0.882	0.901	0.921	0.940	0.960	0.979	0.999	1.018	1.038	1.057	1.077	1.096	1.116	1.135
LGXS10-10	-	0.707	0.726	0.746	0.765	0.785	0.804	0.824	0.843	0.863	0.882	0.902	0.921	0.941	0.960	0.980	0.999	1.019	1.038	1.058	1.077	1.097	1.116	1.136	1.155
LGXS10-20	-	0.789	0.809	0.828	0.848	0.867	0.887	0.906	0.926	0.945	0.965	0.984	1.004	1.023	1.043	1.062	1.082	1.101	1.121	1.140	1.160	1.179	1.199	1.218	1.238
LGXS10-30	-	0.944	0.963	0.983	1.002	1.022	1.041	1.061	1.080	1.100	1.119	1.139	1.158	1.178	1.197	1.217	1.236	1.256	1.275	1.295	1.314	1.334	1.353	1.373	1.392

Features

Basic model  
LBAS

LBAS  
Acceleration/Deceleration  
Inertia Moment

Advanced model  
LGXS

LGXS  
Acceleration/Deceleration  
Inertia Moment

Option

# Acceleration/Deceleration and Inertia Moment (Advanced model)

## Acceleration/Deceleration

### LGXS12

Model	LGXS12 -5 Horizontal/ Wall hanging	LGXS12 -5 Vertical	LGXS12 -10 Horizontal/ Wall hanging	LGXS12 -10 Vertical	LGXS12 -20 Horizontal/ Wall hanging	LGXS12 -20 Vertical	LGXS12 -30 Horizontal/ Wall hanging	LGXS12 -30 Vertical
0	2.27	1.9	8.61	3.29	9.73	8.11	9.75	9.75
1	2.24	1.87	8.47	3.26	9.53	7.85	9.75	9.75
2	2.22	1.84	8.33	3.24	9.35	7.6	9.75	9.75
3	2.2	1.82	8.2	3.22	9.16	7.34	9.75	9.75
4	2.18	1.79	8.06	3.19	8.98	7.09	9.75	9.75
5	2.16	1.77	7.93	3.17	8.8	6.84	9.75	9.75
6	2.14	1.74	7.8	3.15	8.62	6.58	9.75	9.75
7	2.12	1.72	7.67	3.12	8.45	6.33	9.75	9.75
8	2.1	1.69	7.54	3.1	8.28	6.07	9.75	9.75
9	2.08	1.67	7.41	3.07	8.11	5.82	9.01	
10	2.06	1.64	7.29	3.05	7.95	5.57	8.37	
11	2.04	1.62	7.16	3.02	7.79	5.31	7.82	
12	2.02	1.59	7.04	3	7.63	5.06	7.34	
13	2	1.57	6.92	2.97	7.48	4.81	6.91	
14	1.98	1.54	6.79	2.94	7.33	4.55	6.53	
15	1.96	1.52	6.67	2.92	7.18	4.3	6.19	
16	1.95	1.49	6.56	2.89	7.03		5.88	
17	1.93	1.47	6.44	2.86	6.89		5.6	
18	1.91	1.44	6.32	2.83	6.75		5.35	
19	1.89	1.41	6.21	2.81	6.61		5.12	
20	1.87	1.39	6.09	2.78	6.48		4.91	
21	1.85	1.36	5.98	2.75	6.35		4.71	
22	1.84	1.34	5.87	2.72	6.22		4.53	
23	1.82	1.31	5.76	2.69	6.1		4.37	
24	1.8	1.29	5.65	2.66	5.98		4.21	
25	1.78	1.26	5.54	2.63	5.86		4.07	
26	1.76	1.24	5.43		5.74		3.93	
27	1.75	1.21	5.32		5.63		3.81	
28	1.73	1.19	5.22		5.52		3.69	
29	1.71	1.16	5.12		5.41		3.58	
30	1.7	1.14	5.01		5.31		3.47	
31	1.68	1.11	4.91		5.21		3.37	
32	1.66	1.09	4.81		5.11		3.28	
33	1.65	1.06	4.72		5.02		3.19	
34	1.63	1.04	4.62		4.93		3.11	
35	1.61	1.01	4.52		4.84		3.03	
36	1.6	0.99	4.43		4.76			
37	1.58	0.96	4.33		4.67			
38	1.57	0.93	4.24		4.6			
39	1.55	0.91	4.15		4.52			
40	1.53	0.88	4.06		4.45			
41	1.52	0.86	3.97		4.38			
42	1.5	0.83	3.88		4.31			
43	1.49	0.81	3.8		4.25			
44	1.47	0.78	3.71		4.19			
45	1.46	0.76	3.63		4.13			
46	1.44		3.54		4.07			
47	1.43		3.46		4.02			
48	1.42		3.38		3.97			
49	1.4		3.3		3.93			
50	1.39		3.22		3.89			
51	1.37		3.15					
52	1.36		3.07					
53	1.35		3					
54	1.33		2.92					
55	1.32		2.85					
56	1.3		2.78					
57	1.29		2.71					
58	1.28		2.64					
59	1.27		2.58					
60	1.25		2.51					
61	1.24		2.44					
62	1.23		2.38					
63	1.22		2.32					
64	1.2		2.26					
65	1.19		2.2					
66	1.18		2.14					
67	1.17		2.08					
68	1.16		2.02					
69	1.14		1.97					
70	1.13		1.92					
71	1.12		1.86					
72	1.11		1.81					
73	1.1		1.76					
74	1.09		1.71					
75	1.08		1.66					
76	1.07		1.62					
77	1.06		1.57					
78	1.05		1.53					
79	1.04		1.48					
80	1.03		1.44					
81	1.02		1.4					
82	1.01		1.36					
83	1		1.32					
84	0.99		1.29					
85	0.98		1.25					
86	0.97		1.22					
87	0.96		1.18					
88	0.95		1.15					
89	0.94		1.12					

Model	LGXS12 -5 Horizontal/ Wall hanging	LGXS12 -5 Vertical	LGXS12 -10 Horizontal/ Wall hanging	LGXS12 -10 Vertical	LGXS12 -20 Horizontal/ Wall hanging	LGXS12 -20 Vertical	LGXS12 -30 Horizontal/ Wall hanging	LGXS12 -30 Vertical
90	0.94							1.09
91	0.93							1.06
92	0.92							1.03
93	0.91							1.01
94	0.9							0.98
95	0.9							0.96
96	0.89							
97	0.88							
98	0.87							
99	0.87							
100	0.86							
101	0.85							
102	0.84							
103	0.84							
104	0.83							
105	0.82							
106	0.82							
107	0.81							
108	0.81							
109	0.8							
110	0.79							
111	0.79							
112	0.78							
113	0.78							
114	0.77							
115	0.77							

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

Advanced model LGXS

LGXS Acceleration/Deceleration Inertia Moment

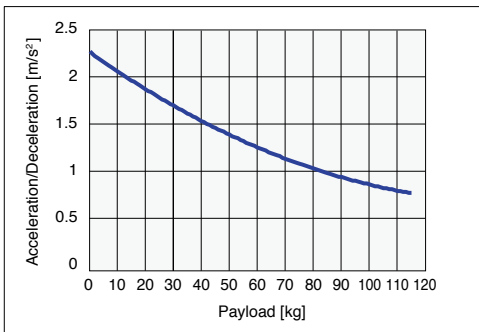
Option



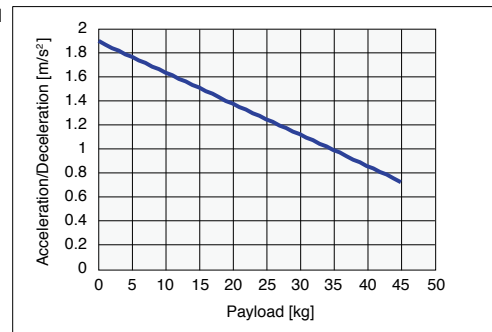
■ Payload – Acceleration/Deceleration Graph (Estimate)

**LGXS12-5**

Horizontal/  
Wall hanging

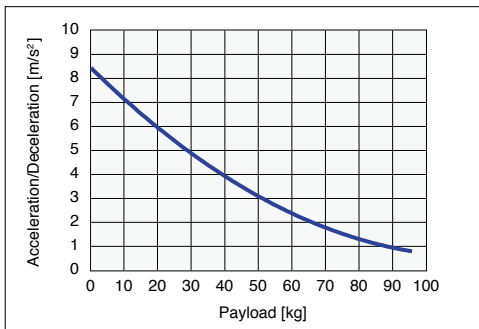


Vertical

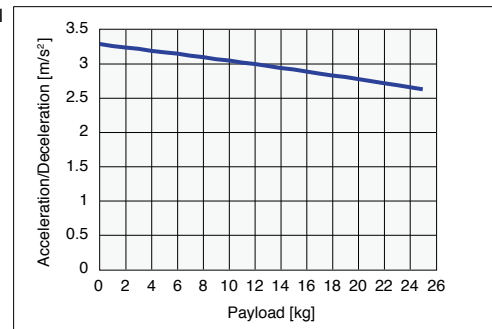


**LGXS12-10**

Horizontal/  
Wall hanging

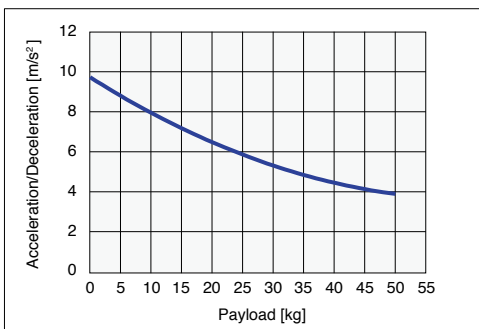


Vertical

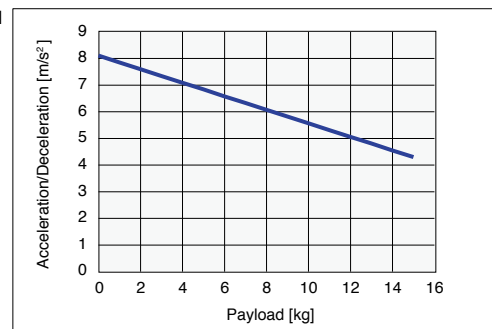


**LGXS12-20**

Horizontal/  
Wall hanging

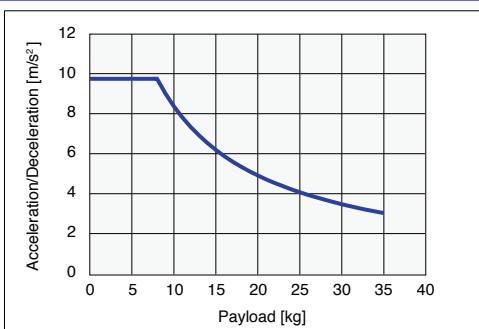


Vertical

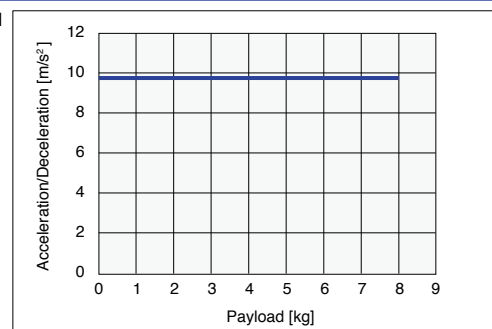


**LGXS12-30**

Horizontal/  
Wall hanging



Vertical



■ Inertia Moment

**LGXS12**

[kg·m <sup>2</sup> ×10 <sup>-4</sup> ]	Effective stroke [mm]																								
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
LGXS12-5	-	0.702	0.721	0.741	0.761	0.780	0.800	0.819	0.839	0.858	0.878	0.897	0.917	0.936	0.956	0.975	0.995	1.014	1.034	1.053	1.073	1.092	1.112	1.131	1.151
LGXS12-10	-	0.733	0.753	0.772	0.792	0.811	0.831	0.850	0.870	0.889	0.909	0.928	0.948	0.967	0.987	1.006	1.026	1.045	1.065	1.085	1.104	1.124	1.143	1.163	1.182
LGXS12-20	-	0.862	0.881	0.901	0.920	0.940	0.959	0.979	0.998	1.018	1.037	1.057	1.076	1.096	1.115	1.135	1.154	1.174	1.193	1.213	1.232	1.252	1.271	1.291	1.310
LGXS12-30	-	1.092	1.111	1.131	1.150	1.170	1.189	1.209	1.228	1.248	1.267	1.287	1.306	1.326	1.345	1.365	1.384	1.404	1.423	1.443	1.462	1.482	1.501	1.521	1.540

Features

Basic model  
LBAS

LBAS  
Acceleration/Deceleration  
Inertia Moment

Advanced model  
LGXS

LGXS  
Acceleration/Deceleration  
Inertia Moment

Option

# Acceleration/Deceleration and Inertia Moment (Advanced model)

## Acceleration/Deceleration

### LGXS16

Model	LGXS16 -10		LGXS16 -20		LGXS16 -40	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	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> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]
0	5.07	3.8	7.6	7.99	9.6	9.6
1	5.04	3.74	7.48	7.73	9.6	9.02
2	5.01	3.69	7.36	7.47	9.6	8.45
3	4.99	3.64	7.25	7.22	9.6	7.87
4	4.96	3.59	7.14	6.97	9.6	7.3
5	4.94	3.54	7.03	6.72	9.6	6.74
6	4.91	3.49	6.93	6.47	9.6	6.17
7	4.89	3.44	6.83	6.22	9.6	5.61
8	4.86	3.39	6.73	5.97	9.6	5.04
9	4.84	3.34	6.64	5.73	9.6	4.48
10	4.81	3.29	6.55	5.48	9.6	3.92
11	4.79	3.24	6.46	5.24	9.18	3.36
12	4.76	3.19	6.37	5	8.8	2.81
13	4.74	3.14	6.29	4.76	8.45	
14	4.71	3.09	6.2	4.53	8.13	
15	4.68	3.04	6.12	4.29	7.83	
16	4.66	2.99	6.05	4.05	7.55	
17	4.63	2.94	5.97	3.82	7.3	
18	4.61	2.89	5.9	3.59	7.05	
19	4.58	2.83	5.82	3.36	6.83	
20	4.56	2.78	5.75	3.13	6.62	
21	4.53	2.73	5.68	2.9	6.42	
22	4.51	2.68	5.62	2.68	6.23	
23	4.48	2.63	5.55	2.45	6.05	
24	4.46	2.58	5.49	2.23	5.88	
25	4.43	2.53	5.42	2.01	5.73	
26	4.41	2.48	5.36	1.79	5.58	
27	4.38	2.43	5.3	1.57	5.43	
28	4.36	2.38	5.24	1.35	5.3	
29	4.33	2.33	5.19		5.17	
30	4.3	2.28	5.13		5.05	
31	4.28	2.23	5.08		4.93	
32	4.25	2.18	5.02		4.82	
33	4.23	2.13	4.97		4.71	
34	4.2	2.08	4.92		4.61	
35	4.18	2.03	4.87		4.51	
36	4.15	1.98	4.82		4.42	
37	4.13	1.93	4.77		4.33	
38	4.1	1.87	4.72		4.24	
39	4.08	1.82	4.67		4.16	
40	4.05	1.77	4.63		4.08	
41	4.03	1.72	4.58		4	
42	4	1.67	4.54		3.93	
43	3.97	1.62	4.5		3.86	
44	3.95	1.57	4.46		3.79	
45	3.92	1.52	4.41		3.72	
46	3.9	1.47	4.37			
47	3.87	1.42	4.33			
48	3.85	1.37	4.29			
49	3.82	1.32	4.26			
50	3.8	1.27	4.22			
51	3.77	1.22	4.18			
52	3.75	1.17	4.14			
53	3.72	1.12	4.11			
54	3.7	1.07	4.07			
55	3.67	1.02	4.04			
56	3.65		4			
57	3.62		3.97			
58	3.59		3.94			
59	3.57		3.9			
60	3.54		3.87			
61	3.52		3.84			
62	3.49		3.81			
63	3.47		3.78			
64	3.44		3.75			
65	3.42		3.72			
66	3.39		3.69			
67	3.37		3.66			
68	3.34		3.63			
69	3.32		3.61			
70	3.29		3.58			
71	3.27		3.55			
72	3.24		3.53			
73	3.21		3.5			
74	3.19		3.47			
75	3.16		3.45			
76	3.14		3.42			
77	3.11		3.4			
78	3.09		3.38			
79	3.06		3.35			
80	3.04		3.33			
81	3.01		3.31			
82	2.99		3.28			
83	2.96		3.26			
84	2.94		3.24			
85	2.91		3.22			
86	2.88		3.19			
87	2.86		3.17			
88	2.83		3.15			
89	2.81		3.13			

Model	LGXS16 -10		LGXS16 -20		LGXS16 -40	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	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> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]
90	2.78				3.11	
91	2.76				3.09	
92	2.73				3.07	
93	2.71				3.05	
94	2.68				3.03	
95	2.66				3.01	
96	2.63					
97	2.61					
98	2.58					
99	2.56					
100	2.53					
101	2.5					
102	2.48					
103	2.45					
104	2.43					
105	2.4					
106	2.38					
107	2.35					
108	2.33					
109	2.3					
110	2.28					
111	2.25					
112	2.23					
113	2.2					
114	2.18					
115	2.15					
116	2.12					
117	2.1					
118	2.07					
119	2.05					
120	2.02					
121	2					
122	1.97					
123	1.95					
124	1.92					
125	1.9					
126	1.87					
127	1.85					
128	1.82					
129	1.79					
130	1.77					

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

Advanced model LGXS

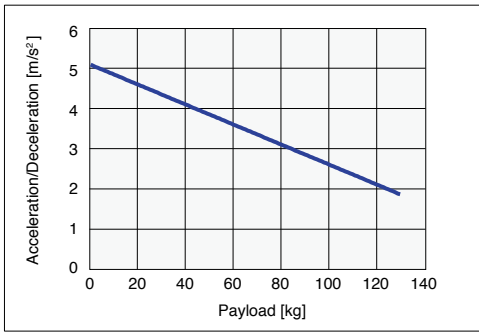
LGXS Acceleration/Deceleration Inertia Moment

Option

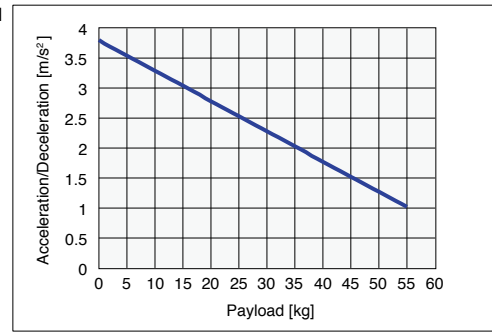
■ Payload – Acceleration/Deceleration Graph (Estimate)

**LGXS16-10**

Horizontal/  
Wall hanging

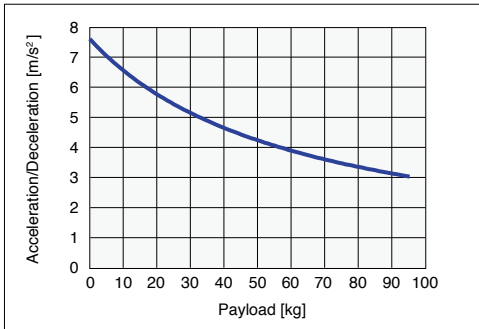


Vertical

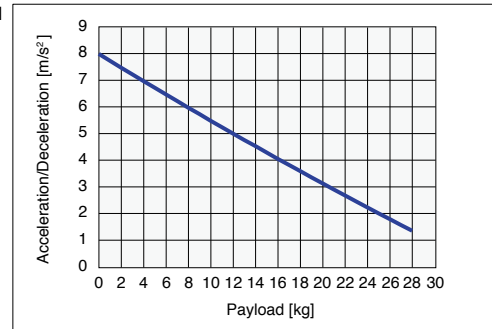


**LGXS16-20**

Horizontal/  
Wall hanging

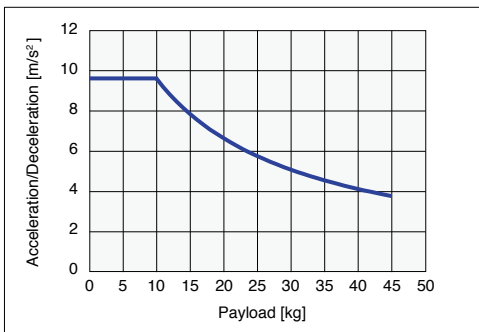


Vertical



**LGXS16-40**

Horizontal/  
Wall hanging



Vertical



■ Inertia Moment

**LGXS16**

Model	Effective stroke [mm]																												
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
LGXS16-10	-	2.433	2.495	2.557	2.618	2.680	2.742	2.803	2.865	2.927	2.988	3.050	3.112	3.173	3.235	3.297	3.358	3.420	3.482	3.543	3.605	3.667	3.728	3.790	3.851	3.913	3.975	4.036	4.098
LGXS16-20	-	2.653	2.715	2.777	2.838	2.900	2.961	3.023	3.085	3.146	3.208	3.270	3.331	3.393	3.455	3.516	3.578	3.640	3.701	3.763	3.825	3.886	3.948	4.010	4.071	4.133	4.195	4.256	4.318
LGXS16-40	-	3.624	3.685	3.747	3.809	3.870	3.932	3.994	4.055	4.117	4.179	4.240	4.302	4.364	4.425	4.487	4.548	4.610	4.672	4.733	4.795	4.857	4.918	4.980	5.042	5.103	5.165	5.227	5.288

# Acceleration/Deceleration and Inertia Moment (Advanced model)

## Acceleration/Deceleration

### LGXS20

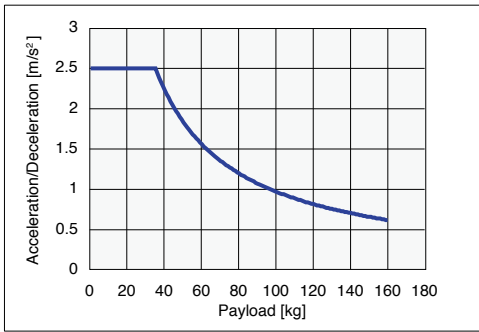
Model	LGXS20 -10		LGXS20 -20		LGXS20 -40	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]
0	2.5	3.8	7.8	9.95	9.61	9.61
1	2.5	3.74	7.7	9.67	9.61	9.12
2	2.5	3.69	7.61	9.4	9.61	8.64
3	2.5	3.64	7.52	9.13	9.61	8.16
4	2.5	3.59	7.43	8.86	9.61	7.68
5	2.5	3.54	7.34	8.59	9.61	7.2
6	2.5	3.49	7.25	8.32	9.61	6.72
7	2.5	3.44	7.16	8.05	9.61	6.24
8	2.5	3.39	7.07	7.78	9.61	5.76
9	2.5	3.34	6.98	7.51	9.61	5.28
10	2.5	3.29	6.89	7.24	9.2	4.8
11	2.5	3.24	6.81	6.97	8.83	4.32
12	2.5	3.19	6.72	6.7	8.48	3.84
13	2.5	3.14	6.64	6.43	8.17	3.36
14	2.5	3.09	6.55	6.16	7.87	2.88
15	2.5	3.04	6.47	5.89	7.6	2.4
16	2.5	2.99	6.39	5.62	7.34	
17	2.5	2.94	6.31	5.35	7.1	
18	2.5	2.89	6.23	5.08	6.88	
19	2.5	2.83	6.15	4.81	6.67	
20	2.5	2.78	6.07	4.54	6.47	
21	2.5	2.73	5.99	4.27	6.28	
22	2.5	2.68	5.91	4	6.11	
23	2.5	2.63	5.83	3.73	5.94	
24	2.5	2.58	5.76	3.46	5.78	
25	2.5	2.53	5.68	3.19	5.63	
26	2.5	2.48	5.6	2.92	5.49	
27	2.5	2.43	5.53	2.65	5.36	
28	2.5	2.38	5.46	2.38	5.23	
29	2.5	2.33	5.38	2.11	5.11	
30	2.5	2.28	5.31	1.84	4.99	
31	2.5	2.23	5.24	1.57	4.88	
32	2.5	2.18	5.17	1.3	4.77	
33	2.5	2.13	5.1	1.03	4.67	
34	2.5	2.08	5.03	0.76	4.57	
35	2.5	2.03	4.96	0.5	4.48	
36	2.44	1.98	4.89		4.39	
37	2.38	1.93	4.82		4.3	
38	2.33	1.87	4.76		4.22	
39	2.28	1.82	4.69		4.14	
40	2.23	1.77	4.63		4.06	
41	2.18	1.72	4.56		3.99	
42	2.14	1.67	4.5		3.91	
43	2.09	1.62	4.43		3.85	
44	2.05	1.57	4.37		3.78	
45	2.01	1.52	4.31		3.71	
46	1.97	1.47	4.25		3.65	
47	1.94	1.42	4.19		3.59	
48	1.9	1.37	4.13		3.53	
49	1.87	1.32	4.07		3.48	
50	1.83	1.27	4.01		3.42	
51	1.8	1.22	3.95		3.37	
52	1.77	1.17	3.9		3.32	
53	1.74	1.12	3.84		3.27	
54	1.71	1.07	3.79		3.22	
55	1.68	1.02	3.73		3.17	
56	1.66	0.96	3.68		3.13	
57	1.63	0.91	3.63		3.08	
58	1.61	0.86	3.57		3.04	
59	1.58	0.81	3.52		3	
60	1.56	0.76	3.47		2.96	
61	1.53	0.71	3.42		2.92	
62	1.51	0.66	3.37		2.88	
63	1.49	0.61	3.32		2.84	
64	1.47	0.56	3.27		2.8	
65	1.45	0.51	3.23		2.77	
66	1.43		3.18			
67	1.41		3.13			
68	1.39		3.09			
69	1.37		3.04			
70	1.35		3			
71	1.34		2.96			
72	1.32		2.92			
73	1.3		2.87			
74	1.29		2.83			
75	1.27		2.79			
76	1.26		2.75			
77	1.24		2.72			
78	1.23		2.68			
79	1.21		2.64			
80	1.2		2.6			
81	1.18		2.57			
82	1.17		2.53			
83	1.16		2.5			
84	1.14		2.46			
85	1.13		2.43			
86	1.12		2.4			
87	1.11		2.37			
88	1.1		2.34			
89	1.08		2.31			

Model	LGXS20 -10		LGXS20 -20		LGXS20 -40	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	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> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]	Acceleration/Deceleration [m/s <sup>2</sup> ]
90	1.07				2.28	
91	1.06				2.25	
92	1.05				2.22	
93	1.04				2.19	
94	1.03				2.17	
95	1.02				2.14	
96	1.01				2.12	
97	1				2.09	
98	0.99				2.07	
99	0.98				2.05	
100	0.97				2.02	
101	0.96				2	
102	0.95				1.98	
103	0.94				1.96	
104	0.94				1.94	
105	0.93				1.92	
106	0.92				1.9	
107	0.91				1.89	
108	0.9				1.87	
109	0.9				1.86	
110	0.89				1.84	
111	0.88				1.83	
112	0.87				1.81	
113	0.87				1.8	
114	0.86				1.79	
115	0.85				1.78	
116	0.84				1.77	
117	0.84				1.76	
118	0.83				1.75	
119	0.82				1.74	
120	0.82				1.73	
121	0.81				1.72	
122	0.8				1.72	
123	0.8				1.71	
124	0.79				1.71	
125	0.79				1.7	
126	0.78				1.7	
127	0.77				1.69	
128	0.77				1.69	
129	0.76				1.69	
130	0.76				1.69	
131	0.75					
132	0.75					
133	0.74					
134	0.74					
135	0.73					
136	0.73					
137	0.72					
138	0.72					
139	0.71					
140	0.71					
141	0.7					
142	0.7					
143	0.69					
144	0.69					
145	0.68					
146	0.68					
147	0.67					
148	0.67					
149	0.66					
150	0.66					
151	0.66					
152	0.65					
153	0.65					
154	0.64					
155	0.64					
156	0.64					
157	0.63					
158	0.63					
159	0.62					
160	0.62					

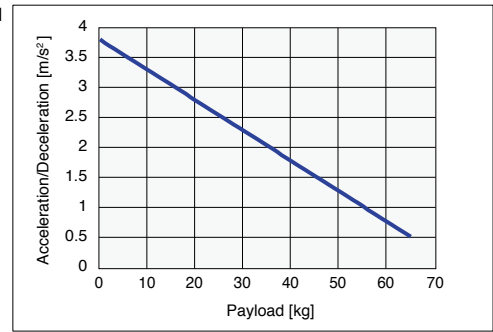
■ Payload – Acceleration/Deceleration Graph (Estimate)

**LGXS20-10**

Horizontal/  
Wall hanging

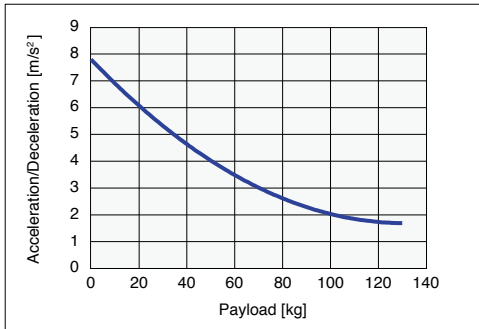


Vertical

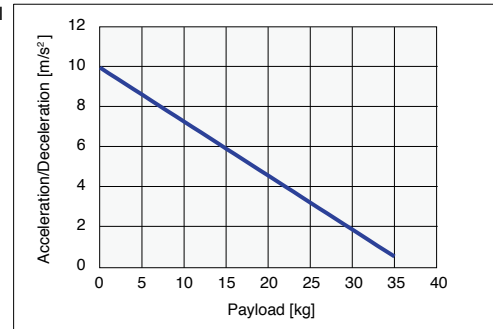


**LGXS20-20**

Horizontal/  
Wall hanging

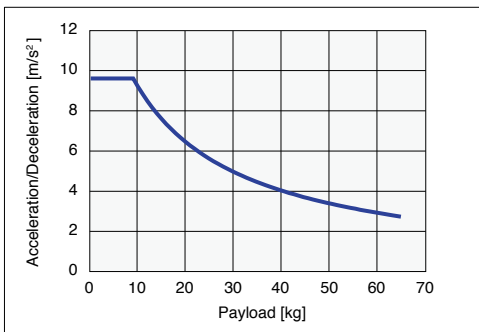


Vertical

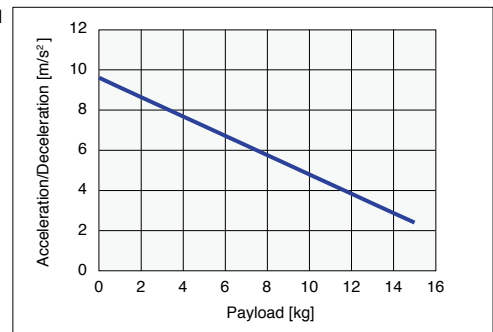


**LGXS20-40**

Horizontal/  
Wall hanging



Vertical



■ Inertia Moment

**LGXS20**

Model	Effective stroke [mm]																												
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
LGXS20-10	-	2.524	2.585	2.647	2.709	2.770	2.832	2.894	2.955	3.017	3.079	3.140	3.202	3.264	3.325	3.387	3.448	3.510	3.572	3.633	3.695	3.757	3.818	3.880	3.942	4.003	4.065	4.127	4.188
LGXS20-20	-	2.863	2.924	2.986	3.048	3.109	3.171	3.232	3.294	3.356	3.417	3.479	3.541	3.602	3.664	3.726	3.787	3.849	3.911	3.972	4.034	4.096	4.157	4.219	4.281	4.342	4.404	4.466	4.527
LGXS20-40	-	4.309	4.371	4.433	4.494	4.556	4.618	4.679	4.741	4.803	4.864	4.926	4.988	5.049	5.111	5.173	5.234	5.296	5.357	5.419	5.481	5.542	5.604	5.666	5.727	5.789	5.851	5.912	5.974

Features

Basic model  
LBAS

LBAS  
Acceleration/Deceleration  
Inertia Moment

Advanced model  
LGXS

LGXS  
Acceleration/Deceleration  
Inertia Moment

Option



## Robonity series

## External Sensor Installation Guide (Left side shown)

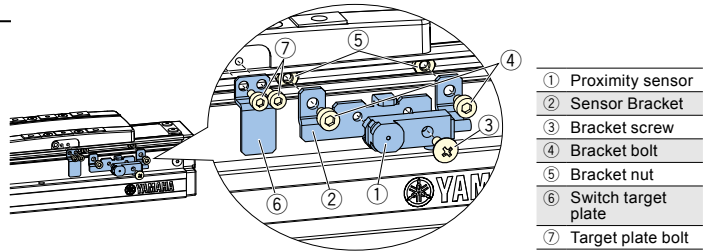
### ■ Sensor Spec

Item	Specification
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.
Model	GX-F8A GX-F8B
Output method	NPN type
Output action	ON when approaching ON when leaving
Power voltage	DC12 to 24V
Load current	100 mA or less
Consumption current	15 mA or less

Item	Specification
Display lamp	Orange LED (ON when output ON)
Ambient environment and humidity	-25 to +75 °C, 35 to 85 %RH
Protection structure	IP68
Cable length	5 m

#### [Caution]

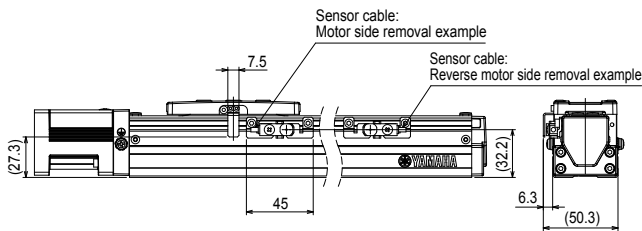
- Bracket screw tightening torque: 0.5 N-m
- The detection surface of the sensor and sensor plate clearance is approx. 1 mm.



- ① Proximity sensor
- ② Sensor Bracket
- ③ Bracket screw
- ④ Bracket bolt
- ⑤ Bracket nut
- ⑥ Switch target plate
- ⑦ Target plate bolt

Note 1. Installation is users' responsibility  
 Note 2. Mounting hardware included  
 Note 3. Sensor cable is 5 m. Adjust as needed.  
 Note 4. Sensor cable outlet can be either motor end or no motor end of actuator

### LBAS04



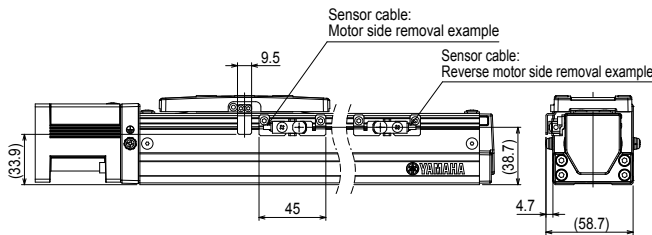
#### Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KFU-M2205-10	KFU-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KFU-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-03005		2	M3 × 0.5 Length 5
	⑤ Bracket nut	95302-03700		2	M3

#### Target plate option

Class	Name	Number	Qty	Remarks
Component	⑥ Switch target plate	KFT-M22G5-00	1	
	⑦ Target plate bolt	90112-02J005	2	M2 × 0.4 Length 5

### LBAS05



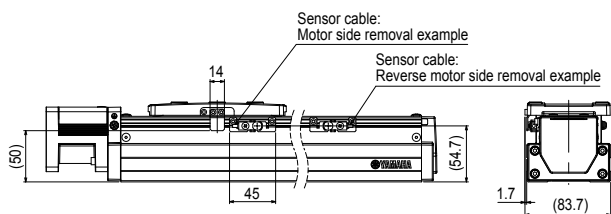
#### Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KFU-M2205-10	KFU-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KFU-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-03005		2	M3 × 0.5 Length 5
	⑤ Bracket nut	95302-03700		2	M3

#### Target plate option

Class	Name	Number	Qty	Remarks
Component	⑥ Switch target plate	KFU-M22G5-00	1	
	⑦ Target plate bolt	90112-2AJ005	2	M2.5 × 0.4 Length 5

### LBAS08



#### Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KFU-M2205-10	KFU-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KFU-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-03005		2	M3 × 0.5 Length 5
	⑤ Bracket nut	95302-03700		2	M3

#### Target plate option

Class	Name	Number	Qty	Remarks
Component	⑥ Switch target plate	KFU-M22G5-00	1	
	⑦ Target plate bolt	91312-03005	2	M3 × 0.5 Length 5

### ■ Grease Gun Nozzle (LBAS Model)

Specially designed for LBAS model for lubrication on ball screw and linear guide.

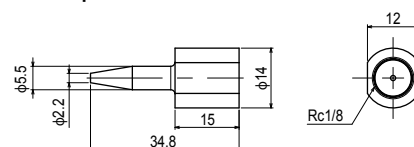
\* It can be used by attaching to a commercially available general grease gun.

#### ● Lubrication Kit

Grease nozzle and nozzle tip

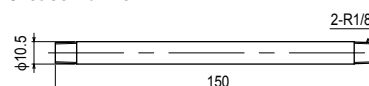
Part number KFU-M3861-00

#### ● Nozzle tip



Part number KFU-M2941-00

#### ● Grease nozzle



Part number KFU-M2942-00

Robonity series

External Sensor Installation Guide (Left side shown)

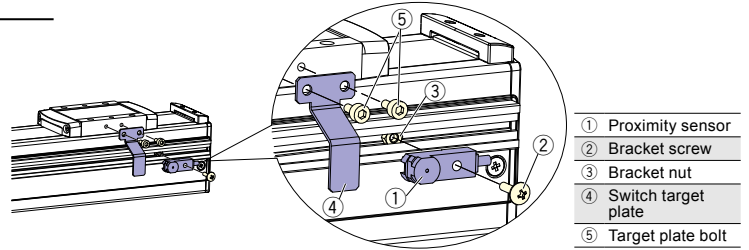
■ Sensor Spec

Item	Specification
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.
Model	GX-F8A GX-F8B
Output method	NPN type
Output action	ON when approaching ON when leaving
Power voltage	DC12 to 24V
Load current	100 mA or less
Consumption current	15 mA or less

Item	Specification
Display lamp	Orange LED (ON when output ON)
Ambient environment and humidity	-25 to +75 °C, 35 to 85 %RH
Protection structure	IP68
Cable length	5 m

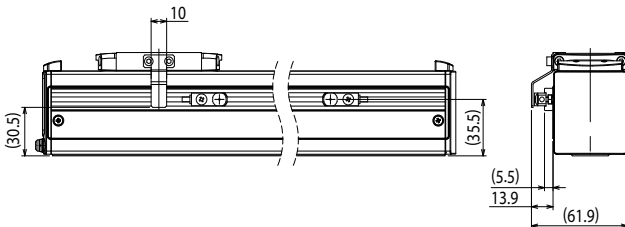
[Caution]

- Bracket screw tightening torque: 0.5 N-m
- The detection surface of the sensor and sensor plate clearance is approx. 1 mm.



Note 1. Installation is users' responsibility  
 Note 2. Mounting hardware included  
 Note 3. Sensor cable is 5 m. Adjust as needed.  
 Note 4. To install the sensor option, side cover with T groove is needed.

LGXS05



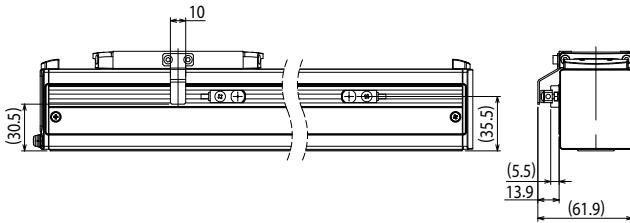
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KES-M2205-10	KES-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Bracket screw	90990-66J025		1	M3 × 0.5 Length 10
	③ Bracket nut	95302-03600		2	M3

Target plate option

Class	Name	Number	Qty	Remarks
Component	⑥ Switch target plate	KES-M22G5-00	1	
	⑦ Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

LGXS05L



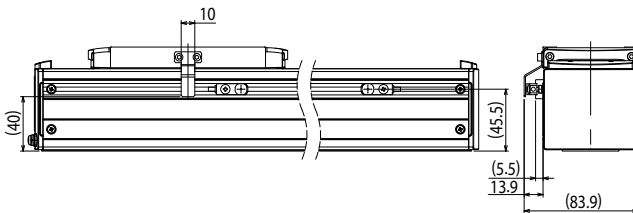
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KES-M2205-10	KES-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Bracket screw	90990-66J025		1	M3 × 0.5 Length 10
	③ Bracket nut	95302-03600		2	M3

Target plate option

Class	Name	Number	Qty	Remarks
Component	⑥ Switch target plate	KES-M22G5-00	1	
	⑦ Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

LGXS07



Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KES-M2205-10	KES-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Bracket screw	90990-66J025		1	M3 × 0.5 Length 10
	③ Bracket nut	95302-03600		2	M3

Target plate option

Class	Name	Number	Qty	Remarks
Component	⑥ Switch target plate	KES-M22G5-00	1	
	⑦ Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

Advanced model LGXS

LGXS Acceleration/Deceleration Inertia Moment

Option

# External Sensor Installation Guide (Left side shown) (Advanced Model)

## Robonity series

## External Sensor Installation Guide (Left side shown)

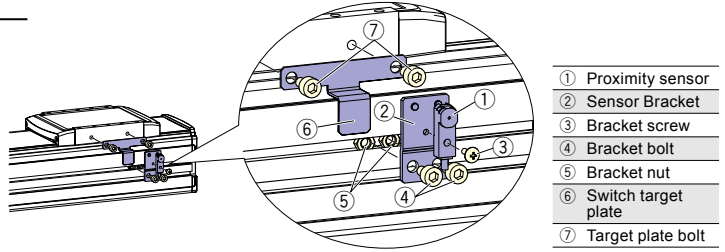
### ■ Sensor Spec

Item	Specification	
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.	
Model	GX-F8A	GX-F8B
Output method	NPN type	
Output action	ON when approaching	ON when leaving
Power voltage	DC12 to 24V	
Load current	100 mA or less	
Consumption current	15 mA or less	

Item	Specification
Display lamp	Orange LED (ON when output ON)
Ambient environment and humidity	-25 to +75 °C, 35 to 85 %RH
Protection structure	IP68
Cable length	5 m

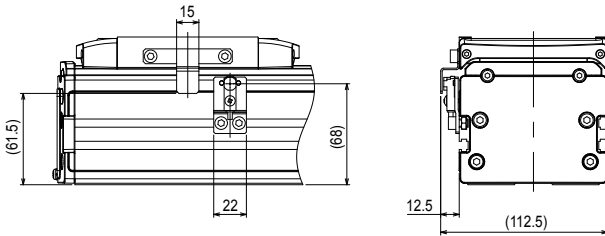
#### [Caution]

- Bracket screw tightening torque: 0.5 N-m
- The detection surface of the sensor and sensor plate clearance is approx. 1 mm.



Note 1. Installation is users' responsibility  
 Note 2. Mounting hardware included  
 Note 3. Sensor cable is 5 m. Adjust as needed.

### LGXS10



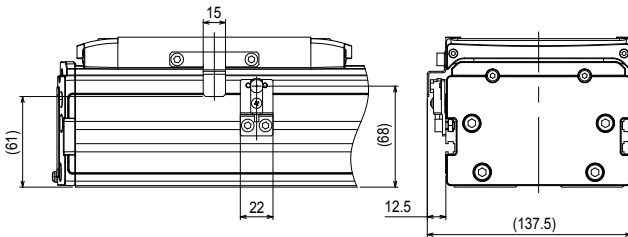
#### Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KEV-M2205-10	KEV-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEV-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

#### Target plate option

Class	Name	Number	Qty	Remarks
Assy	Target plate option	KEV-M2206-00		
Component	⑥ Switch target plate	KEV-M22G5-00	1	
	⑦ Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

### LGXS12



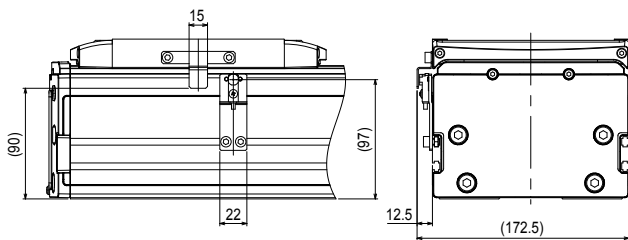
#### Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KEV-M2205-10	KEV-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEV-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

#### Target plate option

Class	Name	Number	Qty	Remarks
Assy	Target plate option	KEV-M2206-00		
Component	⑥ Switch target plate	KEV-M22G5-00	1	
	⑦ Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

### LGXS16



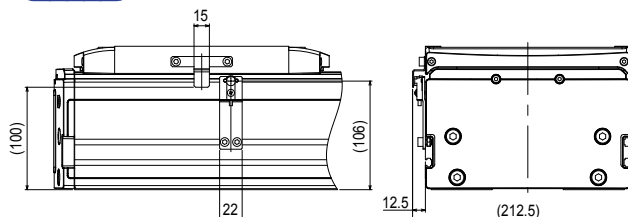
#### Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KEX-M2205-10	KEX-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEX-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

#### Target plate option

Class	Name	Number	Qty	Remarks
Assy	Target plate option	KEV-M2206-00		
Component	⑥ Switch target plate	KEV-M22G5-00	1	
	⑦ Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

### LGXS20



#### Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (a contact)	ON when leaving (b contact)		
Assy	Proximity sensor option	KEY-M2205-10	KEY-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEY-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

#### Target plate option

Class	Name	Number	Qty	Remarks
Assy	Target plate option	KEV-M2206-00		
Component	⑥ Switch target plate	KEV-M22G5-00	1	
	⑦ Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

Advanced model LGXS

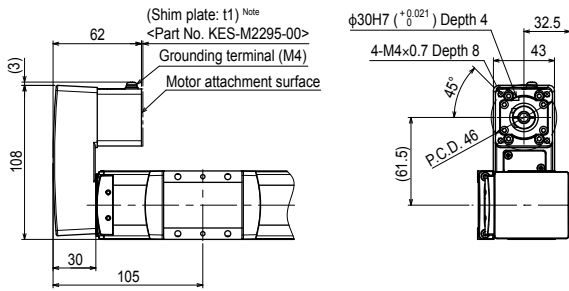
LGXS Acceleration/Deceleration Inertia Moment

Option

Robonity series

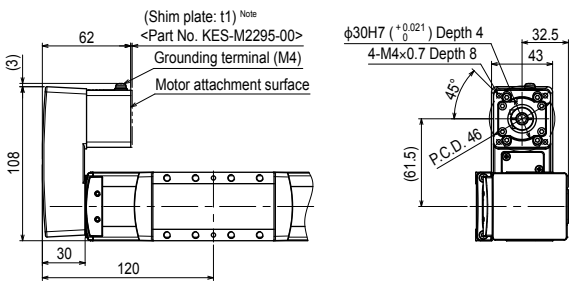
Reference guide for right angle motor mount (right side shown)

LGXS05



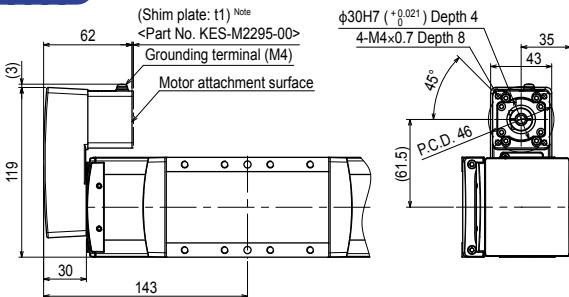
Note. For the availability of shim plate, see the adaptable servo motor table (P.15).

LGXS05L



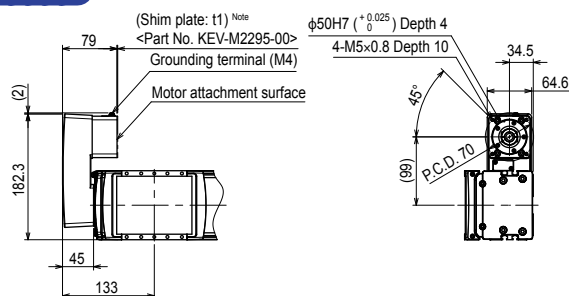
Note. For the availability of shim plate, see the adaptable servo motor table (P.16).

LGXS07



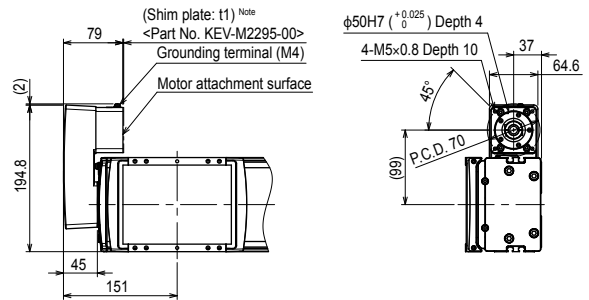
Note. For the availability of shim plate, see the adaptable servo motor table (P.17).

LGXS10



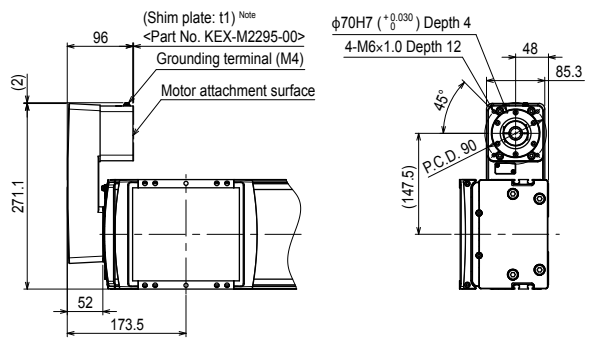
Note. For the availability of shim plate, see the adaptable servo motor table (P.18).

LGXS12



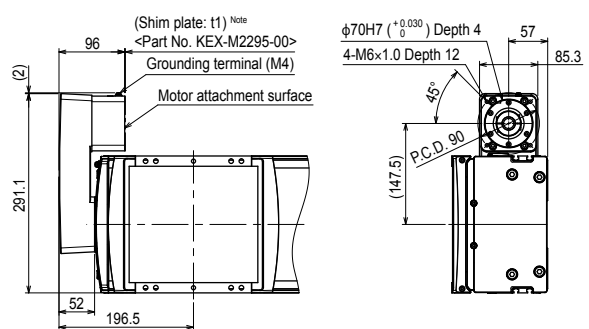
Note. For the availability of shim plate, see the adaptable servo motor table (P.19).

LGXS16



Note. For the availability of shim plate, see the adaptable servo motor table (P.20).

LGXS20



Note. For the availability of shim plate, see the adaptable servo motor table (P.21).

Note 1. Use by attaching the conversion adapter to the main unit. Refer to the manual for the attachment method.

Note 2. A motor is not included in the conversion adapter. Remove a motor from the main unit, and install the conversion adapter.

Note 3. Right installation and left installation are possible.

Model	Product model	Part No.	Weight
LGXS05, LGXS05L, LGXS07	GX-BEND-40	KES-M221M-00	0.4 kg
LGXS10, LGXS12	GX-BEND-60	KEV-M221M-00	1.2 kg
LGXS16, LGXS20	GX-BEND-80	KEX-M221M-00	2.7 kg

Features

Basic model LBAS

LBAS Acceleration/Deceleration Inertia Moment

Advanced model LGXS

LGXS Acceleration/Deceleration Inertia Moment

Option







# Basic Specifications List

**A motor is not attached to this product.  
For a motor and driver, prepare, attach, and adjust by the customer.**

## Basic model LBAS

Model	LBAS04		LBAS05				LBAS08				
Adaptable motor	50 W		100 W				200 W				
Repeatability <sup>Note 1</sup>	±0.01 mm		±0.01 mm				±0.01 mm				
Deceleration mechanism	Shifting position ball screw φ 10 (C7 class)		Shifting position ball screw φ 12 (C7 class)				Shifting position ball screw φ 16 (C7 class)				
Stroke	50 mm to 800 mm (50 mm pitch)		50 mm to 800 mm (50 mm pitch)				50 mm to 1100 mm (50 mm pitch)				
Maximum speed <sup>Note 2</sup> (or equivalent)	800 mm/sec	400 mm/sec	1333 mm/sec	666 mm/sec	333 mm/sec	133 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec		
Ball screw lead	12 mm	6 mm	20 mm	10 mm	5 mm	2 mm	20 mm	10 mm	5 mm		
Maximum payload <sup>Note 3</sup> (or equivalent)	Horizontal 12 kg		Vertical 20 kg		12 kg	24 kg	40 kg	45 kg	40 kg	80 kg	100 kg
Rated thrust <sup>Note 3</sup> (or equivalent)	71 N	141 N	84 N	169 N	339 N	854 N	174 N	341 N	683 N		
Maximum dimensions of cross section of main unit	W 44 mm × H 52 mm		W 54 mm × H 60 mm				W 82 mm × H 78 mm				
Overall length	ST + 214 mm		ST + 220.5 mm				ST + 278 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.  
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.

## Advanced model LGXS

Model	LGXS05			LGXS05L			LGXS07							
Adaptable motor	50 W			100 W			100 W							
Repeatability <sup>Note 1</sup>	±0.005 mm			±0.005 mm			±0.005 mm							
Deceleration mechanism	Ground ball screw φ 12 (C5 class)			Ground ball screw φ 12 (C5 class)			Ground ball screw φ 15 (C5 class)							
Stroke	50 mm to 800 mm (50 mm pitch)			50 mm to 800 mm (50 mm pitch)			50 mm to 1100 mm (50 mm pitch)							
Maximum speed <sup>Note 2</sup> (or equivalent)	1333 mm/sec	666 mm/sec	333 mm/sec	1333 mm/sec	666 mm/sec	333 mm/sec	1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec				
Ball screw lead	20 mm	10 mm	5 mm	20 mm	10 mm	5 mm	30 mm	20 mm	10 mm	5 mm				
Maximum payload <sup>Note 3</sup> (or equivalent)	Horizontal 5 kg			Vertical 8 kg			13 kg	12 kg	24 kg	32 kg	10 kg	25 kg	45 kg	85 kg
Rated thrust <sup>Note 3</sup> (or equivalent)	41 N	69 N	138 N	84 N	169 N	339 N	56 N	84 N	169 N	339 N				
Maximum dimensions of cross section of main unit	W 48 mm × H 65 mm			W 48 mm × H 65 mm			W 70 mm × H 76.5 mm							
Overall length	ST + 131.5 mm			ST + 161.5 mm			ST + 202 mm							
Degree of cleanliness <sup>Note 4</sup>	ISO CLASS 3 (ISO14644-1) or equivalent													
Intake air <sup>Note 5</sup>	30 Nℓ/min to 100 Nℓ/min			30 Nℓ/min to 100 Nℓ/min			30 Nℓ/min to 115 Nℓ/min							
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.  
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.  
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.  
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.

Model	LGXS10				LGXS12				LGXS16			LGXS20								
Adaptable motor	200 W				400 W				750 W			750 W								
Repeatability <sup>Note 1</sup>	±0.005 mm				±0.005 mm				±0.005 mm			±0.005 mm								
Deceleration mechanism	Ground ball screw φ 15 (C5 class)				Ground ball screw φ 15 (C5 class)				Ground ball screw φ 20 (C5 class)			Ground ball screw φ 20 (C5 class)								
Stroke	100 mm to 1250 mm (50 mm pitch)				100 mm to 1250 mm (50 mm pitch)				100 mm to 1450 mm (50 mm pitch)			100 mm to 1450 mm (50 mm pitch)								
Maximum speed <sup>Note 2</sup> (or equivalent)	1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec	1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec	2400 mm/sec	1200 mm/sec	600 mm/sec	2400 mm/sec	1200 mm/sec	600 mm/sec						
Ball screw lead	30 mm	20 mm	10 mm	5 mm	30 mm	20 mm	10 mm	5 mm	40 mm	20 mm	10 mm	40 mm	20 mm	10 mm						
Maximum payload <sup>Note 3</sup> (or equivalent)	Horizontal 25 kg				Vertical 40 kg				80 kg	100 kg	35 kg	50 kg	95 kg	115 kg	45 kg	95 kg	130 kg	65 kg	130 kg	160 kg
Rated thrust <sup>Note 3</sup> (or equivalent)	4 kg	8 kg	20 kg	30 kg	8 kg	15 kg	25 kg	45 kg	12 kg	28 kg	55 kg	15 kg	35 kg	65 kg	320 N	640 N	1280 N	320 N	640 N	1280 N
Maximum dimensions of cross section of main unit	W 100 mm × H 99.5 mm				W 125 mm × H 101 mm				W 160 mm × H 130 mm			W 200 mm × H 140 mm								
Overall length	ST + 175.5 mm				ST + 211.5 mm				ST + 242.5 mm			ST + 288.5 mm								
Degree of cleanliness <sup>Note 4</sup>	ISO CLASS 3 (ISO14644-1) or equivalent																			
Intake air <sup>Note 5</sup>	30 Nℓ/min to 90 Nℓ/min																			
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)																			



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