YAMAHA
Revs Your Heart

New product information

\ New addition to Robonity lineup. /

High agility model

Maximum acceleration of 2G

Your choice of Motor and Driver System

Motor-less Single Axis Actuator

Robonity

series

Wide selection of payload and speed requirements

Choice of ball screw leads

Wide selection of stroke range

Choice of stroke range from 50 mm up to 1450 mm

(Advanced model LGXS only)

Motor-less single axis actuator

LBAS | LGXS

Basic model | **Advanced model**

Wide range of selection for transfer and positioning application

Wide variety of ball screw lead and stroke length to choose from

POINT 1 Supports major brands and standards

» Build a system with motor/driver of your choice.

In addition to the conventional servomotors, stepping motors are also newly supported and actuators can be used in accordance with customers' needs.

* For the supported models and capacities, refer to the detailed page of each model in this catalog.

LBAS Supported motor manufacturers and standards

[Servo motor]

Yasukawa Electric
Mitsubishi Electric
KEYENCE
OMRON
SANYO DENKI
TAMAGAWA SEIKI
DELTA ELECTRONICS
Panasonic
FANUC
Siemens AG
Rockwell Automation, Inc.
Schneider Electric SA
KINGSERVO Hoof automation CO., LTD.
Beckhoff Automation GmbH & Co. KG

[Stepping motor]

Oriental Motor

[NEMA standards]

NEMA17
NEMA23

LGXS Supported motor manufacturers

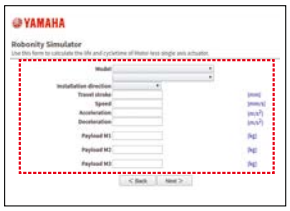
[Servo motor]

Yasukawa Electric
Mitsubishi Electric
KEYENCE
OMRON
Panasonic

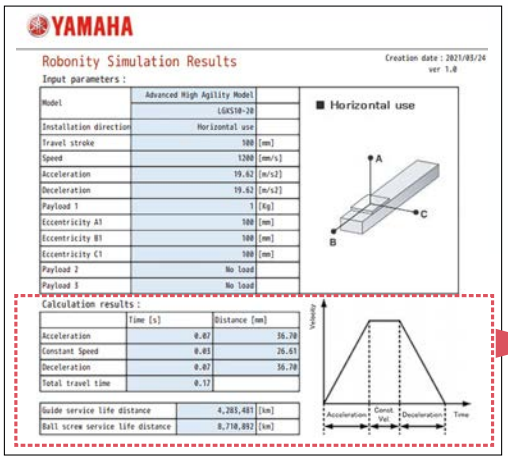
POINT 2 Easy selection

» Easy simulation of cycle time and service life of motorless single axis actuator.

Simulator on web site will provide cycle time and service life of ball screw or guide.
Selection of most suitable model with confidence.



Just enter simple parameters ...



Easy Automatic calculation

- Acceleration/deceleration time
- Uniform velocity time
- Total movement time
- Uniform velocity distance
- Life distance of guide
- Life distance of ball screw

Access the website below.

https://robot.yamaha-motor.co.jp/robot/member/motorless_eng/motorless.php

* These contents are not available on smartphones.

» Most suitable specification from wide range of selection.

Many selection of leads, stroke length, and size to choose from.

» Long stroke

Strong length from 50 mm to 1450 mm to choose from.

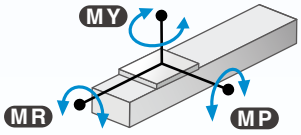
LBAS Basic model

- Maximum payload: Up to 100 kg
- Maximum speed: 300 to 1,333 mm/sec
- Stroke: 50 to 1,100 mm

High Rigidity | Compact | Low Cost

High Rigidity

Moment rigidity is increased approximately three times from current models.



	Existing product T6L	LBAS05
MY	35	59
MP	40	63
MR	50	103

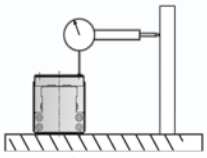
(N · m)

	Existing product T9H	LBAS08
MY	86	221
MP	133	309
MR	117	343

(N · m)

High Precision

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



Motor mounting orientation – Easily adjustable with Adapter Kit.

Straight type

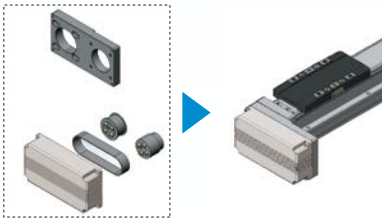
Standard

Bending type

Left

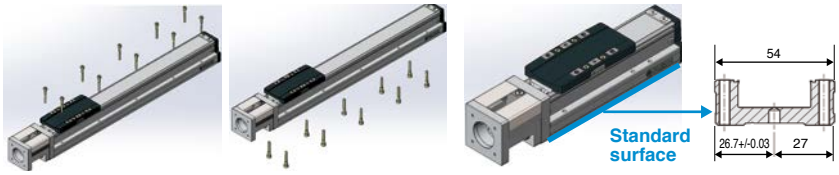
Right

Bottom



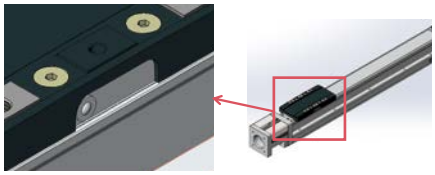
Installation process is simple and easy

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

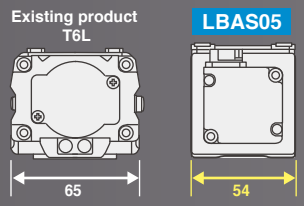
Moving parts can be lubricated from outside without opening actuator



Grease nipple on the slider side surface

» Compact

Space efficient compact design (20% less than current model).



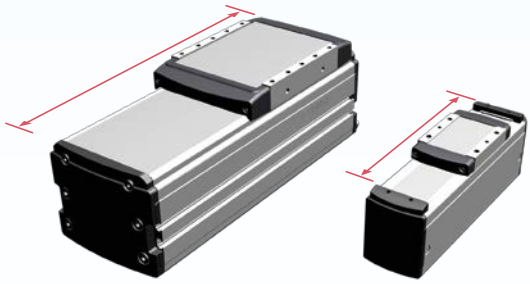
LGXS Advanced model

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

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

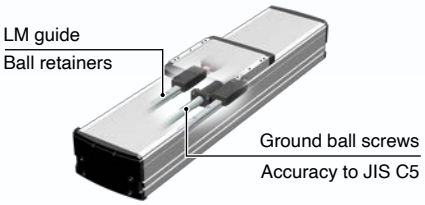
Shortest Overall Length

Shortest overall length per effective stroke in industry.



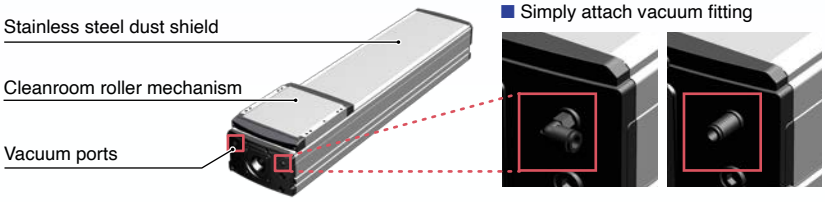
High Precision

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



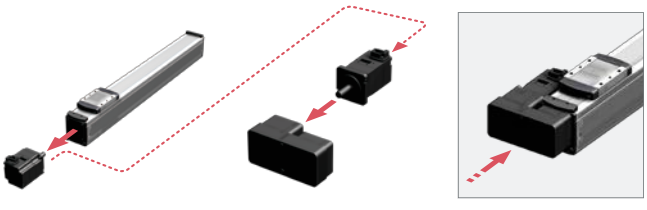
Cleanroom Ready Design

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



Motor orientation is changeable with optional conversion unit

Choice of motor orientation (standard, right, or left) .



Standard + Conversion adapter ▶ Right angle mount

LGXS
Advanced model

with Maximum acceleration of 2G

KAIZEN process of productivity

LGXS series were added to Robonity line to meet the increasing demand of productivity improvement.

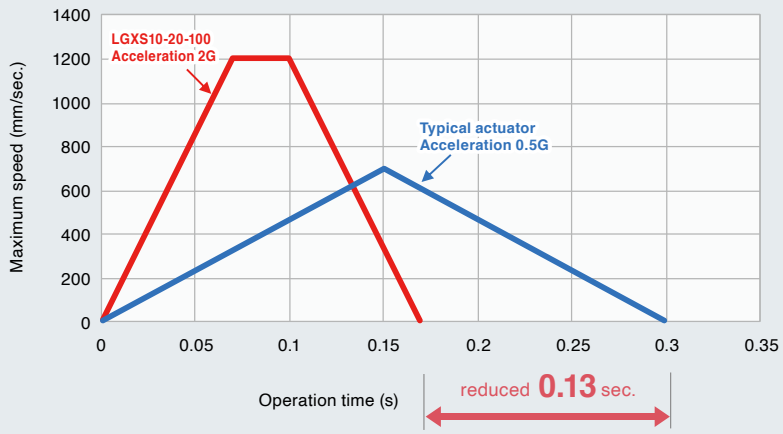
Benefit of higher acceleration/deceleration:

Reduction of operation time in the same lot = increased production volume in the same time

Impact of higher G acceleration/deceleration

Comparison of tact time with the payload of 1 kg.

For LGXS10-20-100 **Comparison of 2G and 0.5G acceleration/deceleration**



Production volume is increased only by increasing the acceleration/deceleration of the single-axis robot!

Improvement effect

<Example> Movement stroke is 100 mm. Payload is 1 kg. Robot operates 8 times per cycle.
Daily operation hours are 8 hours. Robot operates for 20 days every month. Operating ratio is 100%.
The estimation is made under the above conditions.

	Work time	Robot operation time	Total time	Production volume per hour	Production volume per day	Production volume per month
0.5G	8 sec.	0.3 sec.	10.4 sec.	346 pcs.	2,768 pcs.	55,360 pcs.
2.0G	8 sec.	0.17 sec.	9.36 sec.	384 pcs.	3,072 pcs.	61,440 pcs.

As a result, there is a difference of **about 6,000 pcs. (about 10%)** in one month under exactly the same operating conditions.

starts from single axis robots.

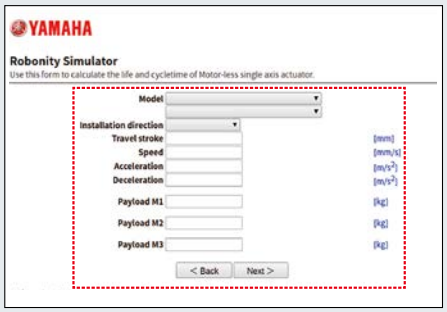
What's new with advanced LGXS series?

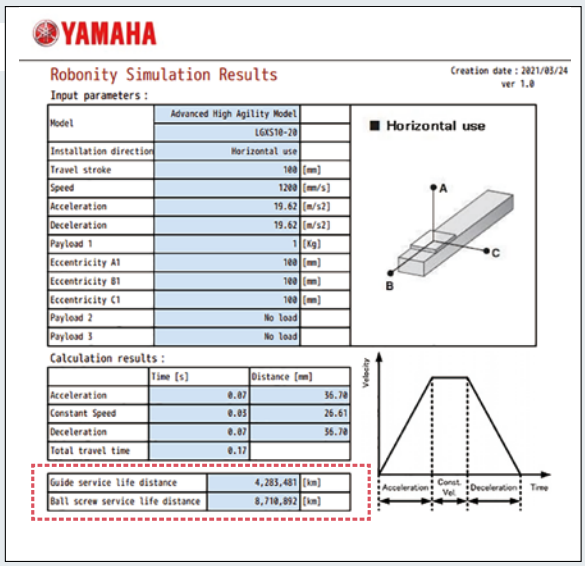
It is a ground ball screw for higher precision, longer life, and better dynamic characteristics.

Service life when the payload is 1 kg.

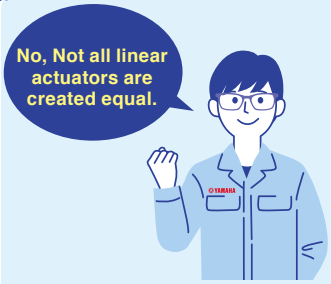
For LGXS10-20-100

<Example> Overhang amount
A: 100mm B: 100mm C: 100mm





A robot is a robot....
regardless of brand...isn't it?



From Yamaha R&D

Yamaha's single-axis robots have excellent durability and long product service life. The "Robonity" series has been evolved further. By utilizing our accumulated know-how and the features of each component to the maximum extent, the products confidently meet various needs of our customers, such as low cost, productivity, space saving, and quality improvement.
Please contact Yamaha representative for all features Robonity series privide.

LBAS04

Basic model **Motor-less Single Axis Actuator**

Ordering method

LBAS04 - [ ] [ ] [ ] - [ ]

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

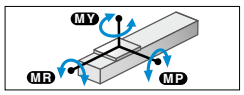
[Caution]
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility.
Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. 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		50 W	
Repeatability Note 1		+/-0.01 mm	
Deceleration mechanism		Shifting position ball screw ϕ 10 (C7 class)	
Stroke		50 mm to 800 mm (50 mm pitch)	
Maximum speed Note 2 **(or equivalent)**		800 mm/sec	400 mm/sec
Ball screw lead		12 mm	6 mm
Maximum payload Note 3 **(or equivalent)**	Horizontal	12 kg	20 kg
	Vertical	2 kg	5 kg
Rated thrust Note 3 **(or equivalent)**		71 N	141 N
Maximum dimensions of cross section of main unit		W 44 mm × H 52 mm	
Overall length		ST + 214 mm	
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (non-condensing)	

Note 1. Positioning repeatability in one direction.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
If the effective stroke exceeds 500 mm, the ball screw may resonate. (Critical speed)
At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
Note. See P.14 for acceleration/deceleration and inertia moment.

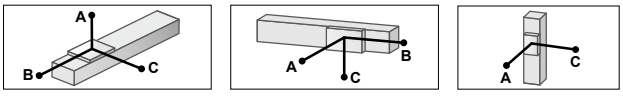
Static loading moment



(Unit: N·m)

MY	MP	MR
54	54	75

Allowable overhang Note



LBAS04-12

Horizontal installation (Unit: mm)

	A	B	C
2kg	1187	271	325
8kg	473	62	77
12kg	431	41	53

Wall installation (Unit: mm)

	A	B	C
2kg	325	271	1187
8kg	77	62	473
12kg	53	41	431

Vertical installation (Unit: mm)

	A	C
1kg	534	534
2kg	265	265

LBAS04-6

Horizontal installation (Unit: mm)

	A	B	C
4kg	1808	155	217
12kg	801	47	65
20kg	546	25	35

Wall installation (Unit: mm)

	A	B	C
4kg	217	155	1808
12kg	65	47	801
20kg	35	25	546

Vertical installation (Unit: mm)

	A	C
1kg	639	639
3kg	208	208
5kg	122	122

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

Applicable motor

• Adaptable Servo Motor

Specification	Flange size	□40
	Wattage	50 W

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

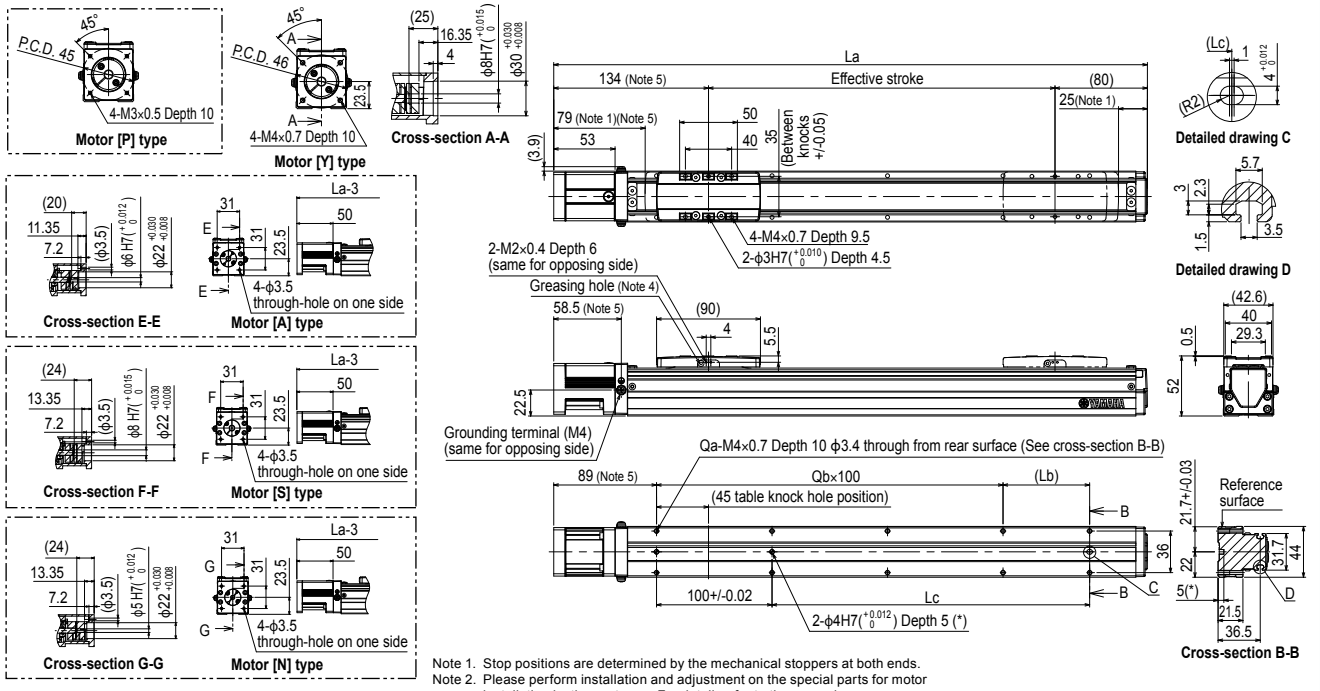
Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-A5
		SGM7J-A5
	Keyence Corp.	SV- □005
		SV2- □005
	Mitsubishi Electric Corp.	HF-KP053
		HG-KR053
		HK-KT053
	Omron Electronics	R88M-K05030
		R88M-1M05030
	Panasonic Corp.	MHMF5A
	Sanyo Denki	R2 □ A04005
	Tamagawa Seiki	TSM3102
	Delta Electronics	ECMA-C1040F
	Fanuc Corp.	βiS0.2/5000
	Siemens	1FK2102-0AG
		1FL6022-2AF
	Schneider	BCH2MBA53
	Beckhoff	AM3011B *
	Allen-Bradley	TLY-A120 *
P	Panasonic Corp.	MSMD5A
		MSMF5A

• Applicable stepping motor

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

Note. For the NEMA standard motor, check the shaft diameter and shaft length.
Note. For the motor specifications A, S, and N, the parts dedicated for bending cannot be used.

LBAS04 Straight type (S)

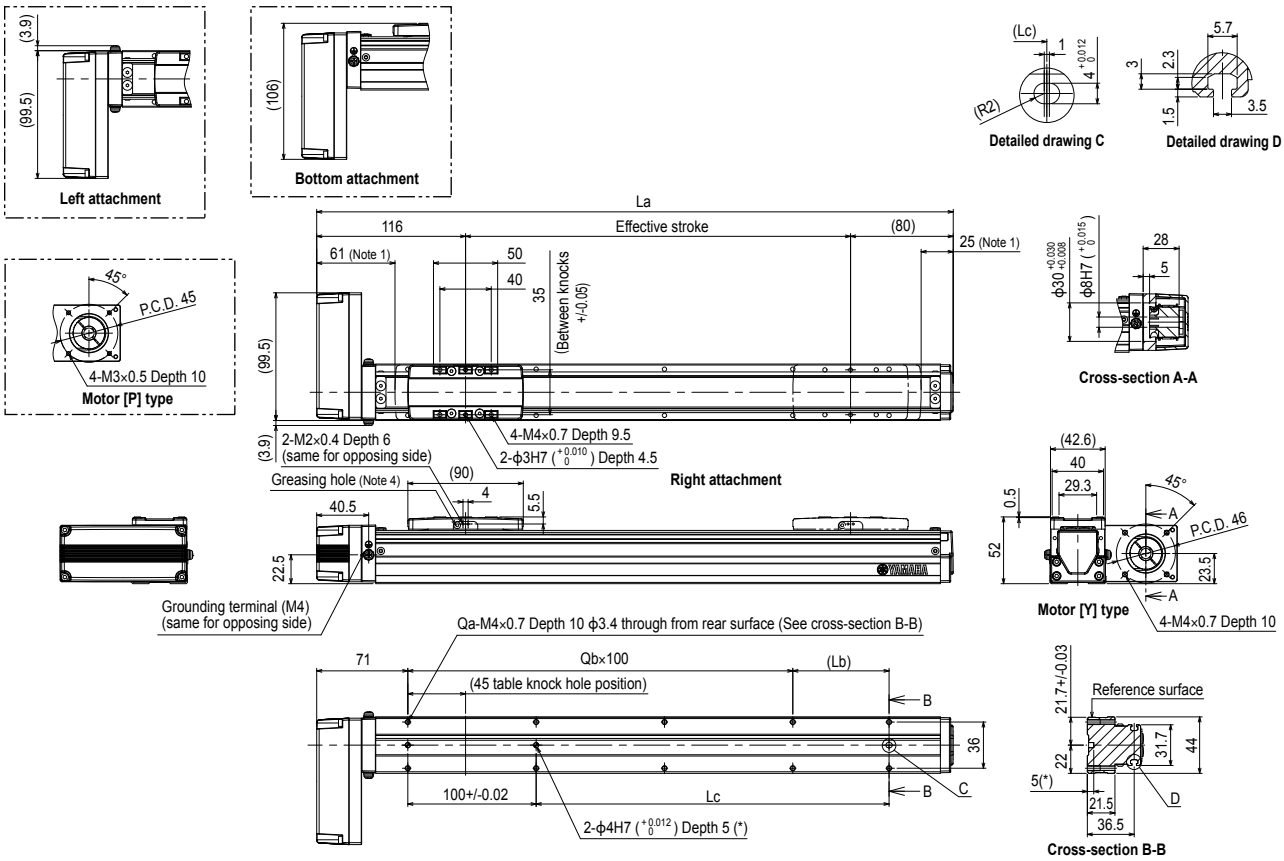


Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	264	314	364	414	464	514	564	614	664	714	764	814	864	914	964	1014
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg)	0.9	1.1	1.3	1.5	1.6	1.8	2	2.2	2.4	2.5	2.7	2.9	3.1	3.3	3.4	3.6
Maximum speed (mm/sec) Lead 12	800										720	600	480	400	360	320
Maximum speed (mm/sec) Lead 6	400										360	300	240	200	180	160
Maximum speed (mm/sec) Speed setting	–										90%	75%	60%	50%	45%	40%

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.
Note 4. Nozzle set for greasing (recommended) (see P.54 for detail)
Part number: KFU-M3861-00
Note 5. For the motor specifications A, S, and N, the dimensions are that those stated in the table <<-3 mm>>.

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
Maximum speed (mm/sec) Lead 6	400										360	300	240	200	180	160
Maximum speed (mm/sec) 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 × 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.
Note 4. Nozzle set for greasing (recommended) (see P.54 for detail)
Part number: KFU-M3861-00

LBAS05

Basic model **Motor-less Single Axis Actuator**

Ordering method

LBAS05 - [ ] [ ] [ ] - [ ]

Model	Lead	Shape	Motor specification	Stroke
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below) A: A specification (see below) S: S specification (see below) N: N specification (see below)	50 to 800 (50 mm pitch)

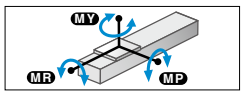
[Caution]
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility.
Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. 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		100 W		
Repeatability Note 1		+/-0.01 mm		
Deceleration mechanism		Shifting position ball screw ϕ 12 (C7 class)		
Stroke		50 mm to 800 mm (50 mm pitch)		
Maximum speed Note 2 **(or equivalent)**		1333 mm/sec	666 mm/sec	333 mm/sec
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload Note 3 **(or equivalent)**	Horizontal	12 kg	24 kg	40 kg
	Vertical	3 kg	6 kg	12 kg
Rated thrust Note 3 **(or equivalent)**		84 N	169 N	339 N
Maximum dimensions of cross section of main unit		W 54 mm × H 60 mm		
Overall length		ST + 220.5 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 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.15 for acceleration/deceleration and inertia moment.

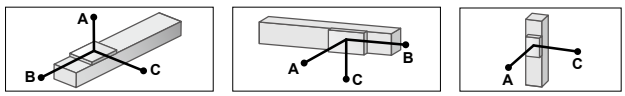
Static loading moment



(Unit: N·m)

MY	MP	MR
59	63	103

Allowable overhang Note



LBAS05-20

Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

	A	C
1kg	544	544
2kg	276	276
3kg	195	195

LBAS05-10

Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

	A	C
2kg	443	443
4kg	218	218
6kg	142	142

LBAS05-5

Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

	A	C
3kg	345	345
8kg	124	124
12kg	79	79

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

Applicable motor

• Adaptable Servo Motor

Specification		
Flange size		□40
Wattage		100 W

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

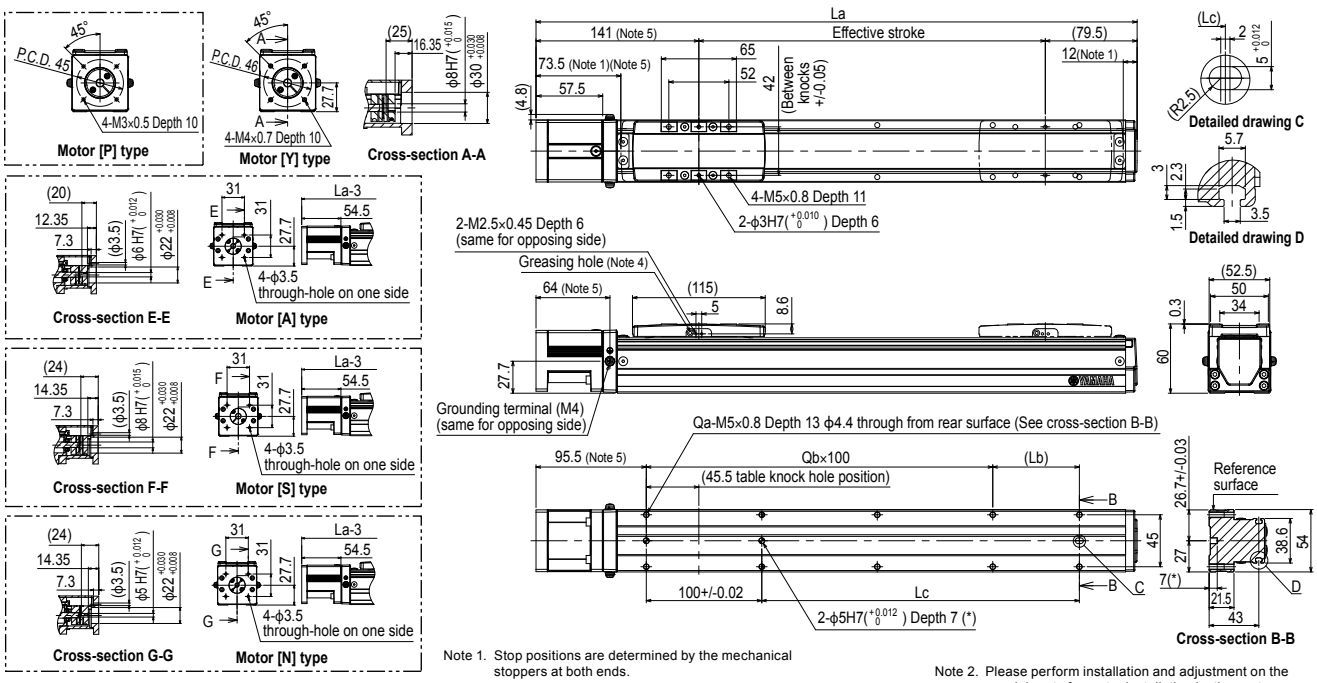
Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-01
		SGM7J-01
	Keyence Corp.	SV- □010
		SV2- □010
	Mitsubishi Electric Corp.	HF-KP13
		HG-KR13
		HK-KT13
	Omron Electronics	R88M-K10030
		R88M-1M10030
	Panasonic Corp.	MHMF01
	Sanyo Denki	R2 □A04010
	Tamagawa Seiki	TSM3104
	Delta Electronics	ECMA-C10401
	Fanuc Corp.	βiS0.3/5000
	Kingservo	KSMA01LI □S
		KSMA01LG
	Siemens	1FK2102-1AG
		1FL6024-2AF
	Schneider	BCH2MB013
	Beckhoff	AM3012C *
	Allen-Bradley	TLY-A130 *
P	Panasonic Corp.	MSMD01
		MSMF01

• Applicable stepping motor

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

Note. For the NEMA standard motor, check the shaft diameter and shaft length.
Note. For the motor specifications A, S, and N, the parts dedicated for bending cannot be used.

LBAS05 Straight type (S)

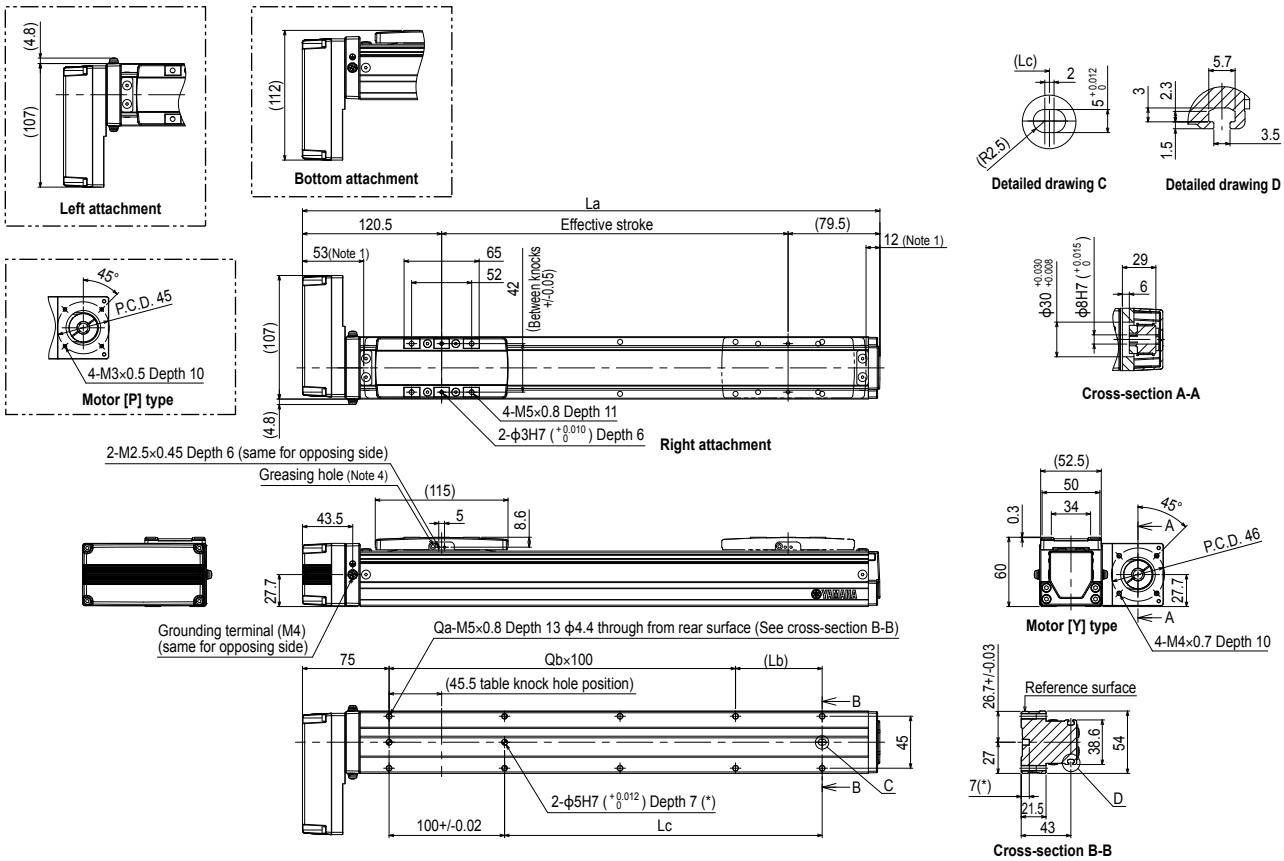


Note 1. Stop positions are determined by the mechanical stoppers at both ends.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La		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
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)		1.6	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
Maximum speed (mm/sec)	Lead 20	1333											1133	933	799	666	599
	Lead 10	666											566	466	399	333	299
	Lead 5	333											283	233	199	166	149
	Speed setting	–											85%	70%	60%	50%	45%

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.54 for detail)
Part number: KFU-M3861-00
Note 5. For the motor specifications A, S, and N, the dimensions are that those stated in the table <<-3 mm>>.

LBAS05 Bending type (A)

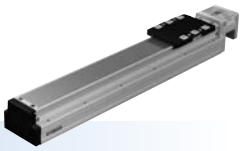


Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La		250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Lb		25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
Lc		25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg)		1.7	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
Maximum speed (mm/sec)	Lead 20	1333											1133	933	799	666	599
	Lead 10	666											566	466	399	333	299
	Lead 5	333											283	233	199	166	149
	Speed setting	–											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.54 for detail)
Part number: KFU-M3861-00

LBAS08

Basic model **Motor-less Single Axis Actuator**



Ordering method

LBAS08 - [ ] [ ] [ ] - [ ]

Model	Lead	Shape	Motor specification	Stroke
	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) A: A specification (see below) N: N specification (see below)	50 to 1100 (50 mm pitch)

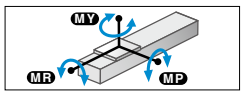
[Caution]
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility.
Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

Specifications

Adaptable motor		200 W		
Repeatability Note 1		+/-0.01 mm		
Deceleration mechanism		Shifting position ball screw ϕ 16 (C7 class)		
Stroke		50 mm to 1100 mm (50 mm pitch)		
Maximum speed Note 2 **(or equivalent)**		1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload Note 3 **(or equivalent)**	Horizontal	40 kg	80 kg	100 kg
	Vertical	8 kg	20 kg	30 kg
Rated thrust Note 3 **(or equivalent)**		174 N	341 N	683 N
Maximum dimensions of cross section of main unit		W 82 mm × 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.17 for acceleration/deceleration and inertia moment.

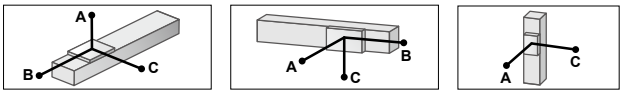
Static loading moment



(Unit: N·m)

MY	MP	MR
221	309	343

Allowable overhang Note



LBAS08-20

Horizontal installation (Unit: mm)

	A	B	C
15kg	356	131	146
25kg	278	73	86
40kg	517	54	76

Wall installation (Unit: mm)

	A	B	C
15kg	146	131	356
25kg	86	73	278
40kg	76	54	517

Vertical installation (Unit: mm)

	A	C
3kg	634	634
6kg	321	321
8kg	240	240

LBAS08-10

Horizontal installation (Unit: mm)

	A	B	C
30kg	465	83	120
50kg	341	44	65
80kg	228	22	34

Wall installation (Unit: mm)

	A	B	C
30kg	120	83	465
50kg	65	44	341
80kg	34	22	228

Vertical installation (Unit: mm)

	A	C
5kg	551	551
10kg	270	270
20kg	129	129

LBAS08-5

Horizontal installation (Unit: mm)

	A	B	C
30kg	1604	95	153
50kg	1035	52	83
80kg	719	27	44
100kg	608	19	31

Wall installation (Unit: mm)

	A	B	C
30kg	153	95	1604
50kg	83	52	1035
80kg	44	27	719
100kg	31	19	608

Vertical installation (Unit: mm)

	A	C
10kg	312	312
20kg	149	149
30kg	95	95

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.

Applicable motor

• Adaptable Servo Motor

Specification	Flange size	□60
	Wattage	200 W

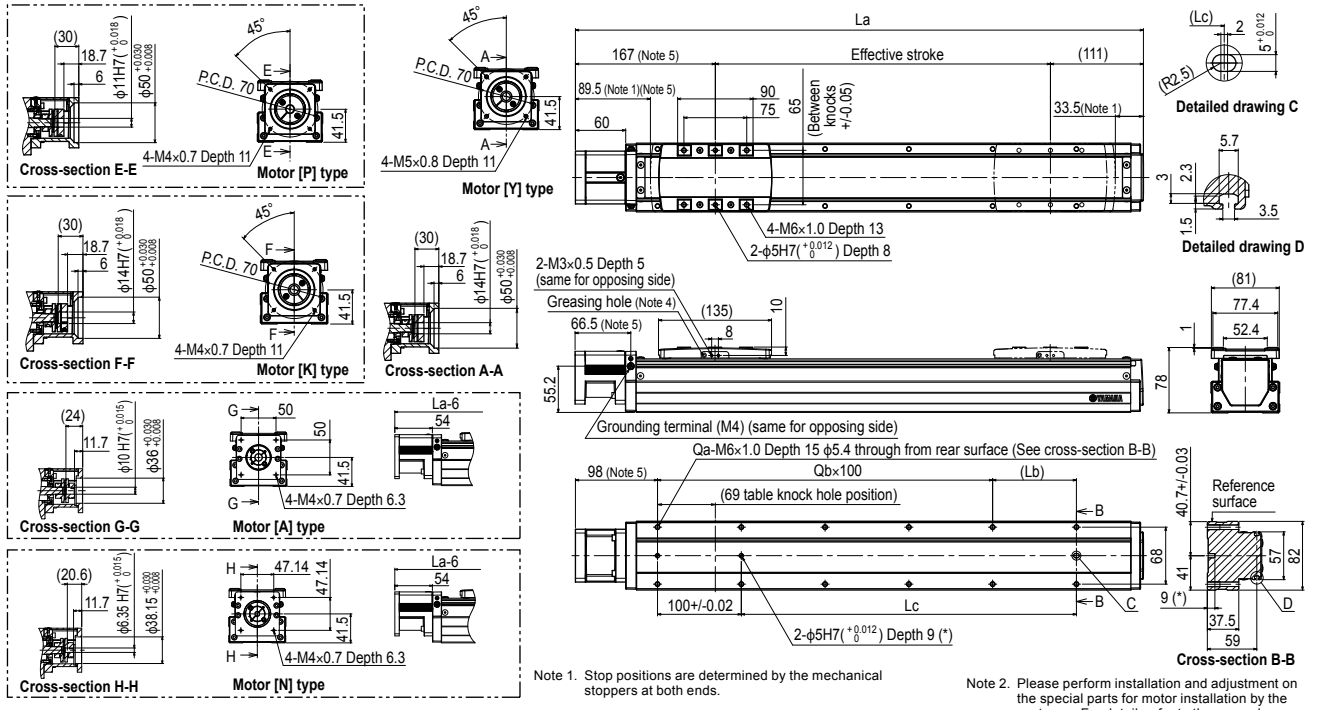
Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-02
		SGM7J-02
	Keyence Corp.	SV-□020
		SV2-□020
	Mitsubishi Electric Corp.	HF-KP23
		HG-KR23
		HK-KT23
	Sanyo Denki	R2□A06020
	Tamagawa Seiki	TSM3202
	Delta Electronics	ECMA-C10602
	Siemens	1FL6032-2AF
	Schneider	BCH2LD023
P	Omron Electronics	R88M-K20030
		R88M-1M20030
	Panasonic Corp.	MSMD02
		MSMF02
		MHMF02
K	Kingservo	KSMA02LI
		KSMA02LG

• Applicable stepping motor

Specification	Flange size	□60
A	Oriental Motor	AZM66
		AZM69
		ARM66
		ARM69
		RKS56
N	NEMA standard	NEMA23

Note. For the NEMA standard motor, check the shaft diameter, shaft length, and dimensional tolerance of the spigot diameter.
Note. For the motor specifications A and N, the parts dedicated for bending cannot be used.

LBAS08 Straight type (S)

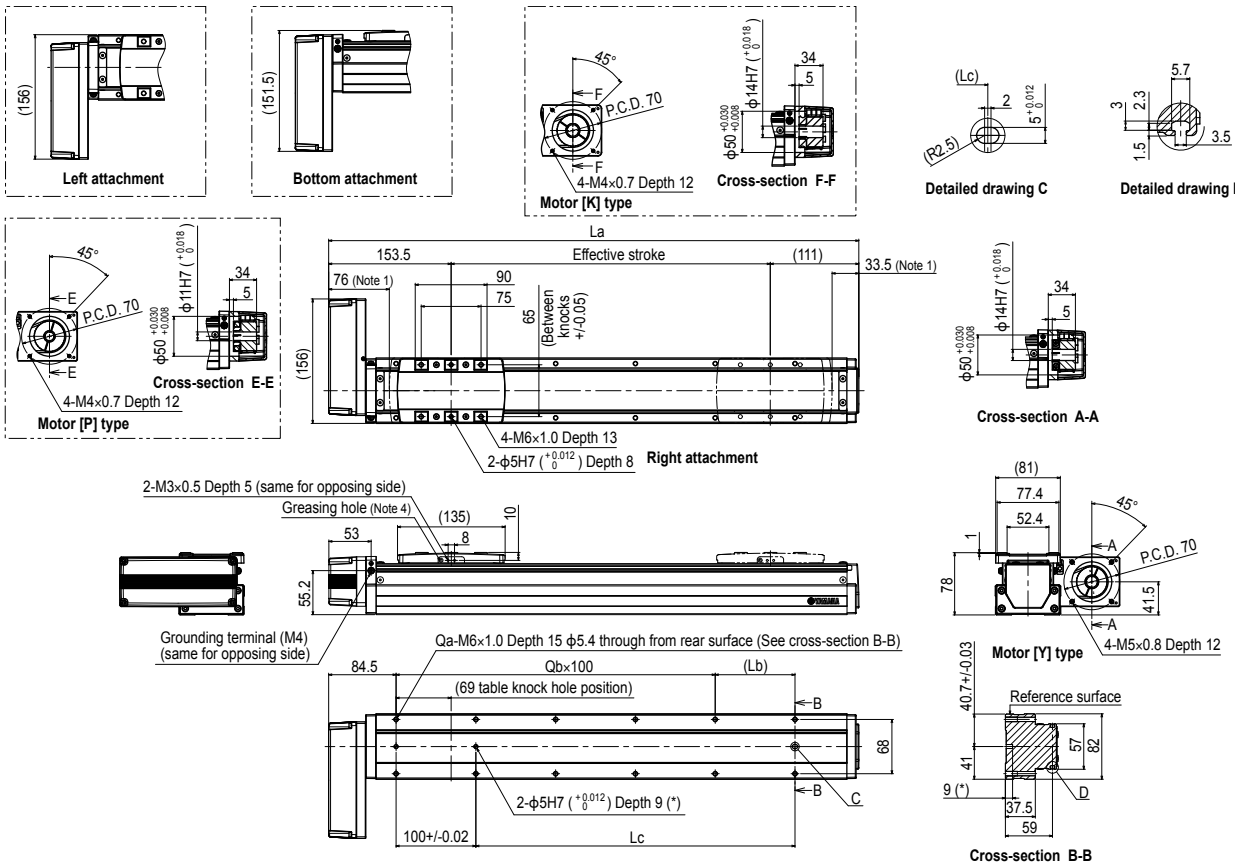


Note 1. Stop positions are determined by the mechanical stoppers at both ends.

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													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 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.54 for detail)
Part number: KFU-M3861-00
Note 5. For the motor specifications A and N the dimensions are that those stated in the table <<-3 mm>>.

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.54 for detail)
Part number: KFU-M3861-00

Inertia Moment

LBAS04

[kg·m^2×10^{-4}]	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

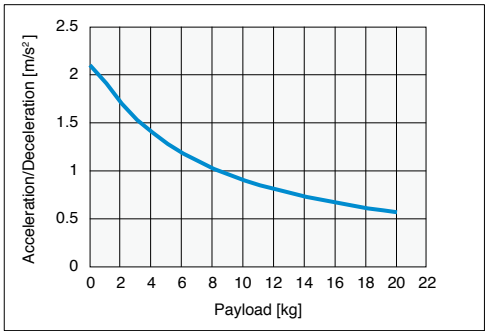
LBAS04

Model	LBAS04-6		LBAS04-12	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]	
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			

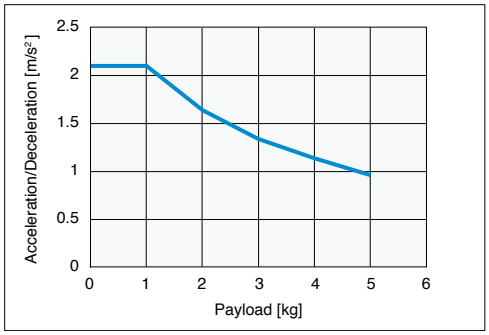
Payload – Acceleration/Deceleration Graph (Estimate)

LBAS04-6

Horizontal/ Wall hanging

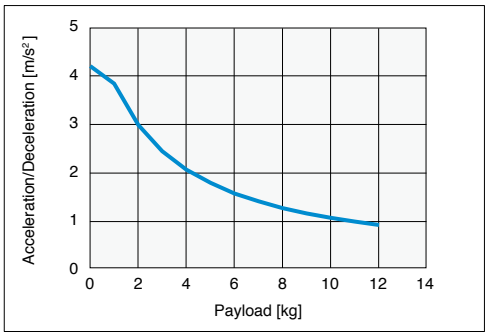


Vertical

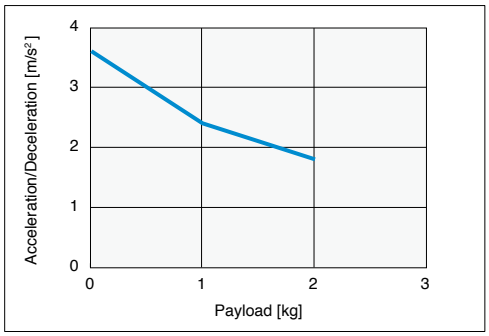


LBAS04-12

Horizontal/ Wall hanging



Vertical



Inertia Moment

LBAS05

[kg·m²×10⁻⁴]	Effective stroke [mm]															
Model	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
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

Acceleration/Deceleration

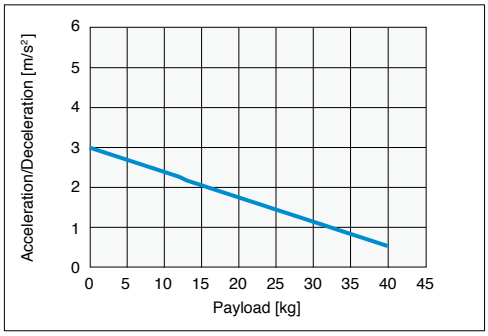
LBAS05

Model	LBAS05-5		LBAS05-10		LBAS05-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	3.04	3.34	4.64	4.86	7.44	7.44
1	2.97	3.18	4.44	4.56	7.44	6.99
2	2.91	3.03	4.25	4.3	7.44	5.65
3	2.85	2.88	4.07	4.06	7.44	3.42
4	2.79	2.73	3.9	3.85	7.44	
5	2.73	2.58	3.73	3.66	7.44	
6	2.67	2.43	3.57	3.49	6.64	
7	2.61	2.28	3.41		6	
8	2.55	2.13	3.27		5.47	
9	2.49	1.98	3.12		5.02	
10	2.43	1.83	2.99		4.65	
11	2.37	1.68	2.86		4.32	
12	2.31	1.53	2.74		4.04	
13	2.24		2.62			
14	2.18		2.51			
15	2.12		2.41			
16	2.06		2.31			
17	2		2.22			
18	1.94		2.14			
19	1.88		2.06			
20	1.82		1.99			
21	1.76		1.93			
22	1.7		1.87			
23	1.64		1.82			
24	1.58		1.77			
25	1.52					
26	1.45					
27	1.39					
28	1.33					
29	1.27					
30	1.21					
31	1.15					
32	1.09					
33	1.03					
34	0.97					
35	0.91					
36	0.85					
37	0.79					
38	0.72					
39	0.66					
40	0.6					

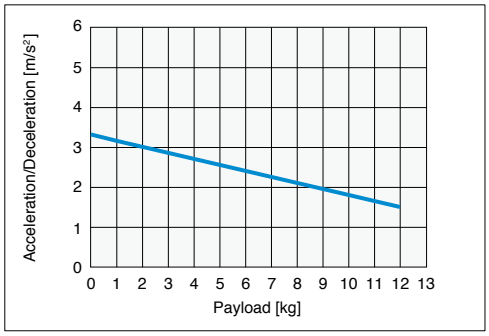
Payload – Acceleration/Deceleration Graph (Estimate)

LBAS05-5

Horizontal/ Wall hanging



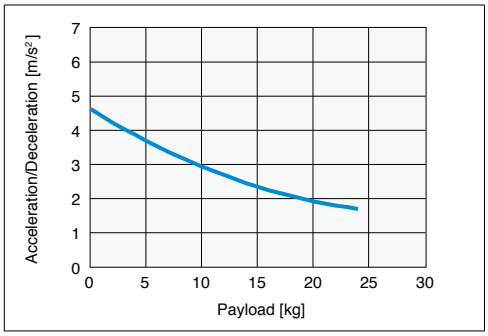
Vertical



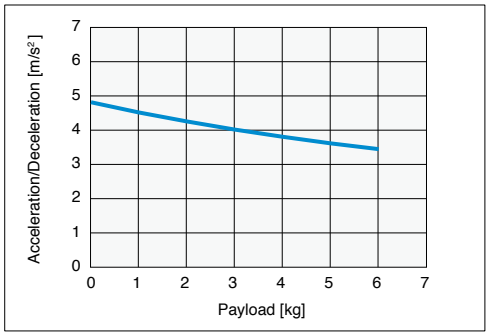
■ Payload – Acceleration/Deceleration Graph (Estimate)

LBAS05-10

Horizontal/
Wall hanging

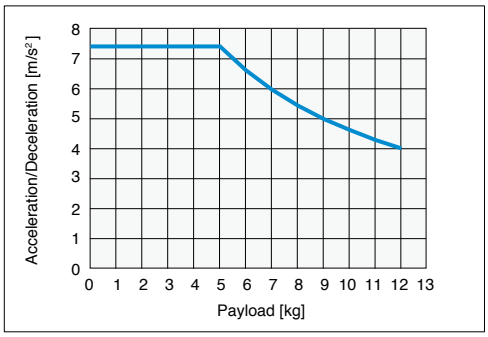


Vertical

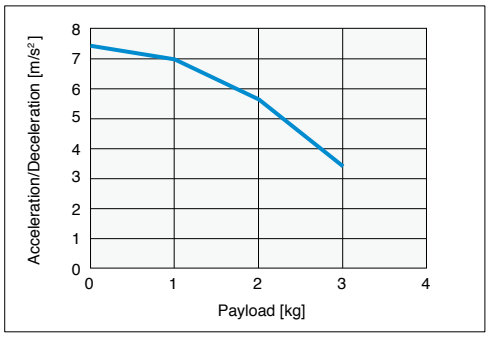


LBAS05-20

Horizontal/
Wall hanging



Vertical



Inertia Moment

LBAS08

[kg·m²×10⁻⁴]	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

Acceleration/Deceleration

LBAS08

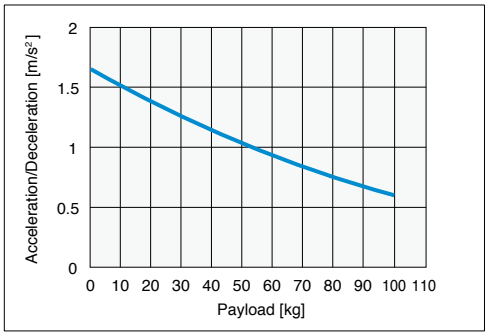
Model	LBAS08-5		LBAS08-10		LBAS08-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	1.65	1.65	6.09	4.79	8.51	8.5
1	1.63	1.62	5.97	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			

Model	LBAS08-5	LBAS08-10	LBAS08-20
	Horizontal/ Wall hanging / Vertical	Horizontal/ Wall hanging / Vertical	Horizontal/ Wall hanging / Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]	Acceleration/Deceleration [m/s²]	Acceleration/Deceleration [m/s²]
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		
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		

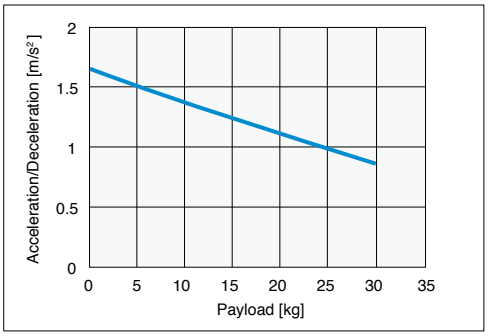
■ Payload – Acceleration/Deceleration Graph (Estimate)

LBAS08-5

Horizontal/ Wall hanging

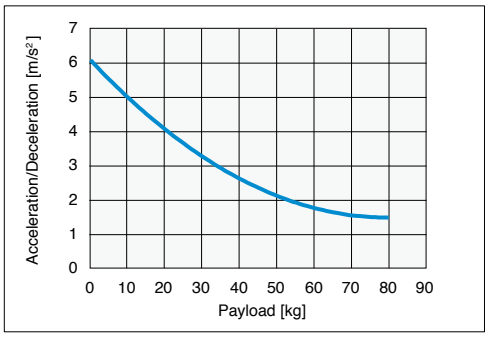


Vertical

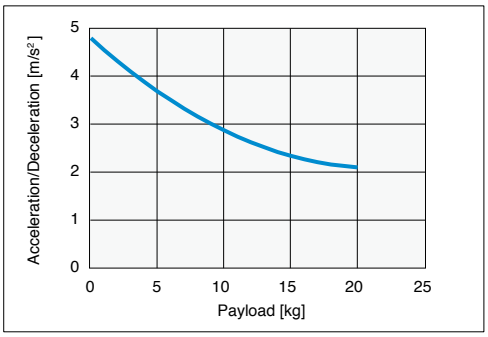


LBAS08-10

Horizontal/ Wall hanging

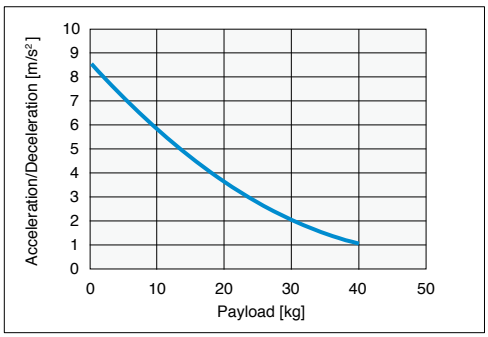


Vertical

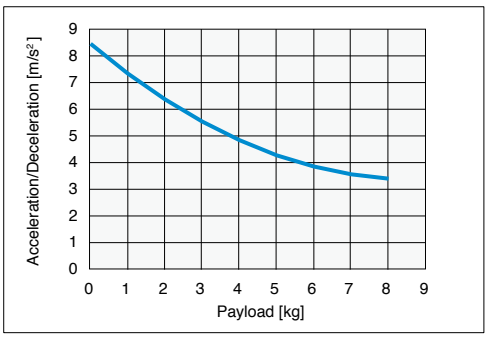


LBAS08-20

Horizontal/ Wall hanging



Vertical



MEMO

LGXS05

Advanced model **Motor-less Single Axis Actuator**

Ordering method

LGXS05 – [ ] – [ ] – [ ]

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

[Caution]

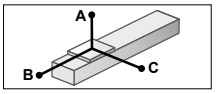
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

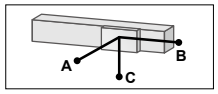
Specifications

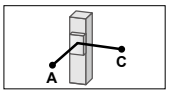
Adaptable motor		50 W		
Repeatability Note 1		+/-0.005 mm		
Deceleration mechanism		Ground ball screw ϕ 12 (C5 class)		
Stroke		50 mm to 800 mm (50 mm pitch)		
Maximum speed (or equivalent) Note 2		1333 mm/sec	666 mm/sec	333 mm/sec
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload (or equivalent) Note 3	Horizontal	5 kg	8 kg	13 kg
	Vertical	2 kg	4 kg	8 kg
Rated thrust (or equivalent) Note 3		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 Note 4		ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air Note 5		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.34 for acceleration/deceleration and inertia moment.

Allowable overhang Note







LGXS05-20

Horizontal installation (Unit: mm)			
	A	B	C
2kg	898	269	350
5kg	583	112	159

Wall installation (Unit: mm)			
	A	B	C
2kg	323	234	809
5kg	119	76	427

Vertical installation (Unit: mm)		
	A	C
1kg	452	452
2kg	217	217

LGXS05-10

Horizontal installation (Unit: mm)			
	A	B	C
2kg	2505	382	625
5kg	1366	149	246
8kg	1036	90	150

Wall installation (Unit: mm)			
	A	B	C
2kg	585	346	2386
5kg	195	113	1164
8kg	95	54	745

Vertical installation (Unit: mm)		
	A	C
1kg	732	732
2kg	351	351
4kg	160	160

LGXS05-5

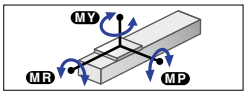
Horizontal installation (Unit: mm)			
	A	B	C
3kg	4604	281	497
8kg	2197	101	179
13kg	1593	59	105

Wall installation (Unit: mm)			
	A	B	C
3kg	439	245	4371
8kg	117	65	1812
13kg	42	24	1000

Vertical installation (Unit: mm)		
	A	C
4kg	183	183
6kg	111	111
8kg	75	75

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
24	27	23

Adaptable Servo Motor

Specification		
	Flange size	□40
	Wattage	50 W

Manufacturer	Model
Yaskawa Electric Corp.	SGMJV-A5
	SGM7J-A5
Keyence Corp.	SV-□005
	SV2-□005
Mitsubishi Electric Corp.	HF-KP053 Note
	HG-KR053 Note
	HK-KT053 Note
Omron Electronics	R88M-K05030
	R88M-1M05030 Note
Panasonic Corp.	MHMF5A

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

When used with high acceleration or deceleration (High agility model)

Specifications

Stroke		50 mm to 550 mm (50 mm pitch)		
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload	Horizontal	2 kg	3 kg	-
Maximum acceleration		11.77 m/s² (1.2 G)	11.77 m/s² (1.2 G)	-
Maximum payload	Vertical	1 kg	2 kg	3 kg
Maximum acceleration		11.77 m/s² (1.2 G)	11.77 m/s² (1.2 G)	7.17 m/s² (0.7 G)

Allowable overhang Note

LGXS05-20

Horizontal installation (Unit: mm)			
	A	B	C
1kg	498	324	323
2kg	230	157	150

Wall installation (Unit: mm)			
	A	B	C
1kg	297	288	468
2kg	123	120	199

Vertical installation (Unit: mm)		
	A	C
1kg	223	223

LGXS05-10

Horizontal installation (Unit: mm)			
	A	B	C
1kg	1159	460	645
3kg	381	148	206

Wall installation (Unit: mm)			
	A	B	C
1kg	606	424	1129
3kg	163	112	346

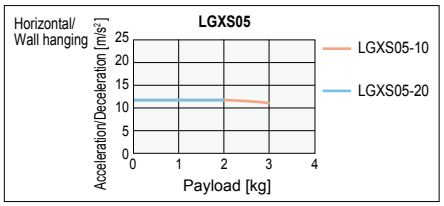
Vertical installation (Unit: mm)		
	A	C
1kg	396	396
2kg	182	182

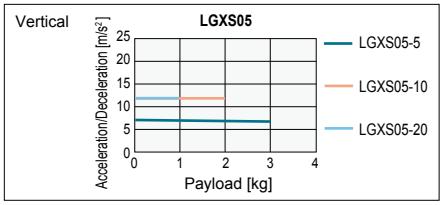
LGXS05-5

Vertical installation (Unit: mm)		
	A	C
1kg	478	478
3kg	138	138

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 550 mm stroke models.

Payload – Acceleration / Deceleration Graph (Estimate)





Effective stroke and maximum speed during high acceleration or deceleration

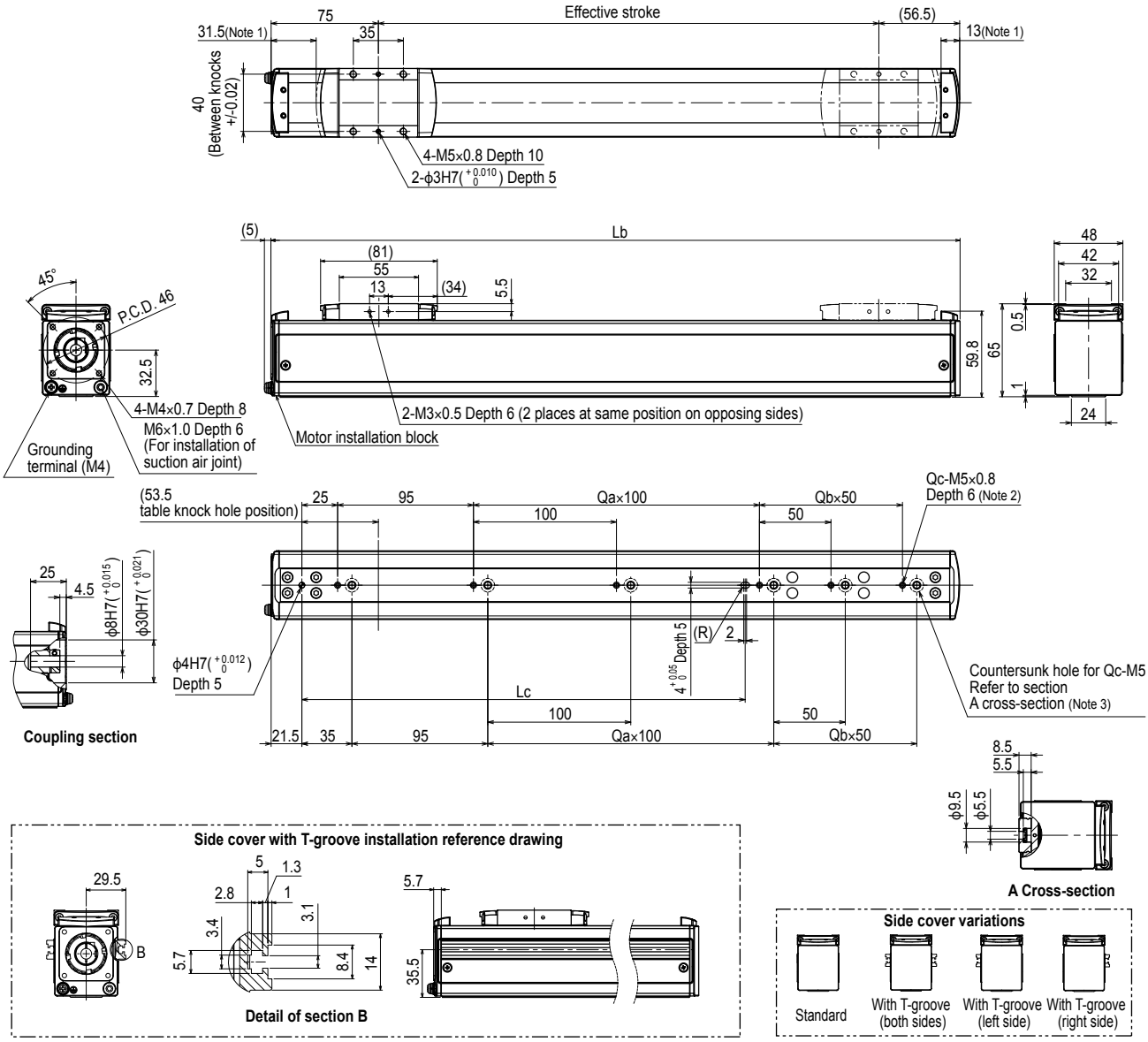
Effective stroke		50	100	150	200	250	300	350	400	450	500	550
Maximum speed (mm/sec)	Lead 20	1333										
	Lead 10	666										
	Lead 5	333										

Note. The bending unit cannot be used for the high agility model.
Note. The high agility model is used in an effective stroke range of 50 to 550 (50 mm pitch).
Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
Note. See P.35 for acceleration/deceleration and inertia moment.

Access the website below.

▶ The tact simulation and service life calculation can be performed easily from our member site. For details, see P.3.

LGXS05

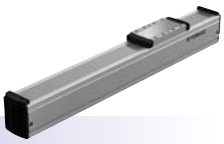


Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. When using the tap holes to mount the body, remove the set screws first.
Note 3. When using the countersunk holes (section A cross section) to mount the body, remove the cap from the inner side and then fix.
The length 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.

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	933	800	666
	Lead 10	666												532	466	400	333
	Lead 5	333												266	233	200	166
	Speed setting	–												80%	70%	60%	50%

LGXS05L

Advanced model **Motor-less Single Axis Actuator**



Ordering method

LGXS05L – [ ] – [ ] – [ ]

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

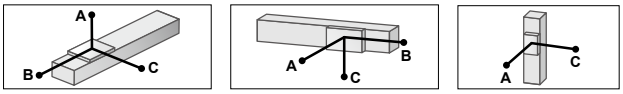
[Caution]
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

Specifications

Adaptable motor		100 W		
Repeatability Note 1		+/-0.005 mm		
Deceleration mechanism		Ground ball screw ϕ 12 (C5 class)		
Stroke		50 mm to 800 mm (50 mm pitch)		
Maximum speed (or equivalent) Note 2		1333 mm/sec	666 mm/sec	333 mm/sec
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload (or equivalent) Note 3	Horizontal	12 kg	24 kg	32 kg
	Vertical	3 kg	6 kg	12 kg
Rated thrust (or equivalent) Note 3		84 N	169 N	339 N
Maximum dimensions of cross section of main unit		W 48 mm × H 65 mm		
Overall length		ST + 161.5 mm		
Degree of cleanliness Note 4		ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air Note 5		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.36 for acceleration/deceleration and inertia moment.

Allowable overhang Note



LGXS05L-20

Horizontal installation (Unit: mm)			
	A	B	C
3kg	1755	559	426
8kg	737	200	153
12kg	608	133	104

Wall installation (Unit: mm)			
	A	B	C
3kg	396	486	1594
8kg	106	128	525
12kg	52	61	329

Vertical installation (Unit: mm)		
	A	C
1kg	1486	1486
2kg	730	730
3kg	478	478

LGXS05L-10

Horizontal installation (Unit: mm)			
	A	B	C
6kg	2416	389	333
12kg	1397	187	161
24kg	875	87	74

Wall installation (Unit: mm)			
	A	B	C
6kg	277	316	2192
12kg	101	115	1084
24kg	12	14	276

Vertical installation (Unit: mm)		
	A	C
4kg	555	555
6kg	360	360

LGXS05L-5

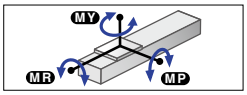
Horizontal installation (Unit: mm)			
	A	B	C
10kg	3127	254	225
20kg	1841	120	106
32kg	1554	70	62

Wall installation (Unit: mm)			
	A	B	C
10kg	162	181	2800
20kg	42	47	1273
32kg	0	0	0

Vertical installation (Unit: mm)		
	A	C
5kg	501	501
10kg	235	235
12kg	190	190

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
72	72	64

Adaptable Servo Motor

Specification		
	Flange size	□40
	Wattage	100 W

Manufacturer	Model
Yaskawa Electric Corp.	SGMJV-01
	SGM7J-01
Keyence Corp.	SV-□010
	SV2-□010
Mitsubishi Electric Corp.	HF-KP13 Note
	HG-KR13 Note
	HK-KT13 Note
Omron Electronics	R88M-K10030
	R88M-1M10030 Note
Panasonic Corp.	MHMF01

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

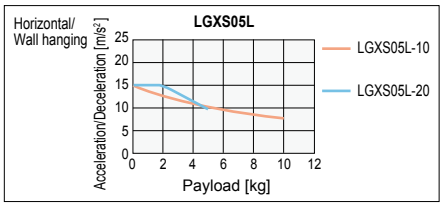
Conversion adapter product model	Shim plate part number
GX-BEND-40	KES-M2295-00

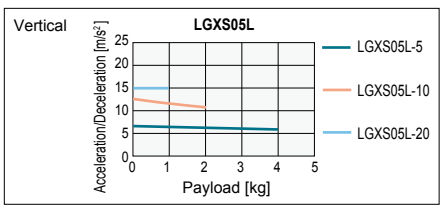
When used with high acceleration or deceleration (High agility model)

Specifications

Stroke		50 mm to 550 mm (50 mm pitch)		
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload	Horizontal	5 kg	10 kg	-
Maximum acceleration		14.72 m/s² (1.5 G)	14.72 m/s² (1.5 G)	-
Maximum payload	Vertical	1 kg	2 kg	4 kg
Maximum acceleration		14.72 m/s² (1.5 G)	12.68 m/s² (1.3 G)	6.65 m/s² (0.7 G)

Payload – Acceleration / Deceleration Graph (Estimate)





Allowable overhang Note

LGXS05L-20

Horizontal installation (Unit: mm)			
	A	B	C
2kg	675	501	332
5kg	330	191	131

Wall installation (Unit: mm)			
	A	B	C
2kg	294	428	626
5kg	87	118	251

Vertical installation (Unit: mm)		
	A	C
1kg	728	728

LGXS05L-10

Horizontal installation (Unit: mm)			
	A	B	C
3kg	1208	469	385
6kg	665	227	188
10kg	441	130	108

Wall installation (Unit: mm)			
	A	B	C
3kg	331	396	1144
6kg	131	155	580
10kg	49	58	315

Vertical installation (Unit: mm)		
	A	C
1kg	1298	1298
2kg	636	636

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 550 mm stroke models.

LGXS05L-5

Vertical installation (Unit: mm)		
	A	C
1kg	1555	1555
2kg	762	762
4kg	365	365

Effective stroke and maximum speed during high acceleration or deceleration

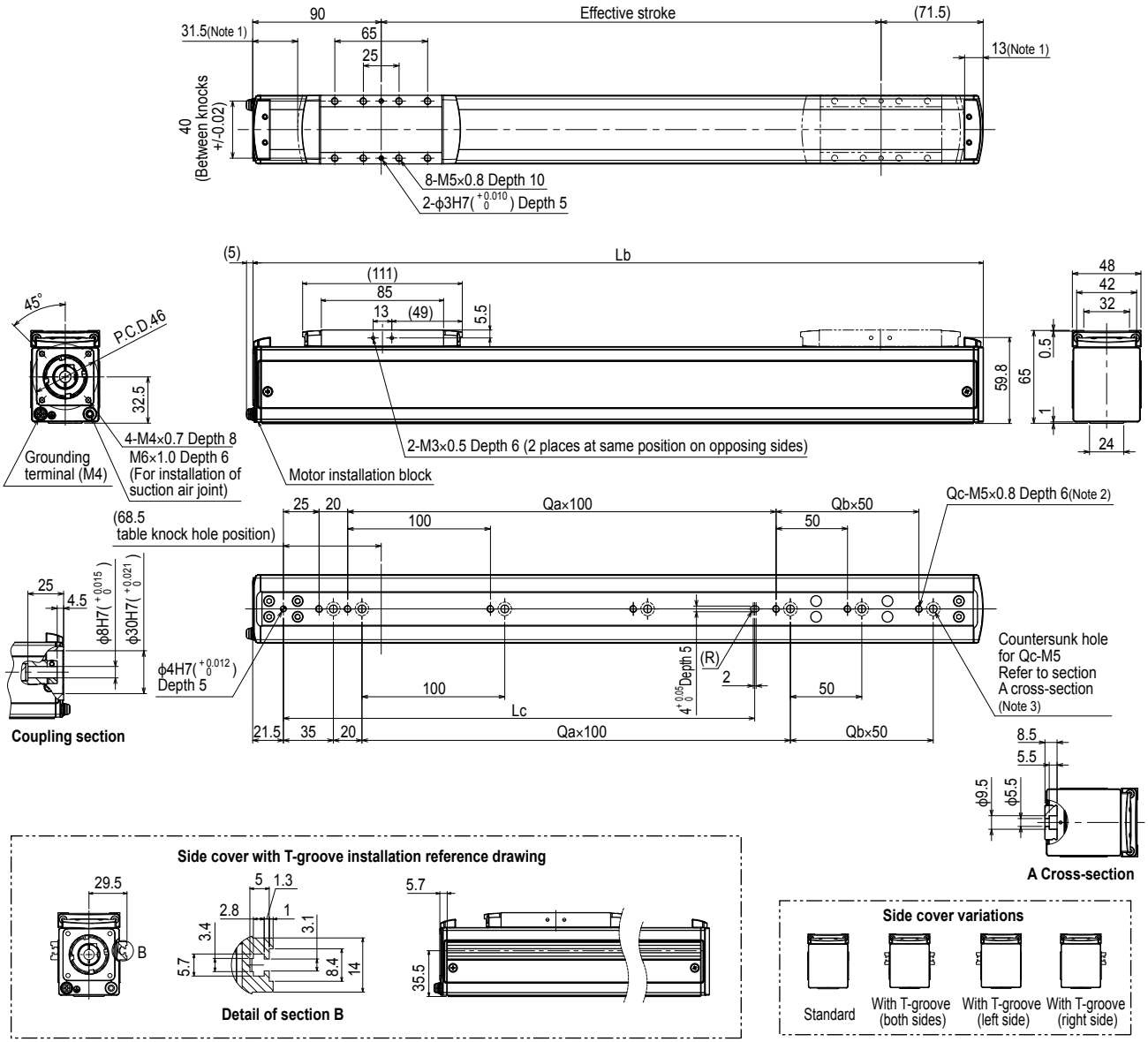
Effective stroke		50	100	150	200	250	300	350	400	450	500	550
Maximum speed (mm/sec)	Lead 20	1333										
	Lead 10	666										
	Lead 5	333										

Note. The bending unit cannot be used for the high agility model.
Note. The high agility model is used in an effective stroke range of 50 to 550 (50 mm pitch).
Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
Note. See P.37 for acceleration/deceleration and inertia moment.

Access the website below.

▶ The tact simulation and service life calculation can be performed easily from our member site. For details, see P.3.

LGXS05L

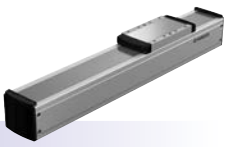


Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. When using the tap holes to mount the body, remove the set screws first.
Note 3. When using the countersunk holes (section A cross section) to mount the body, remove the cap from the inner side and then fix.
The length 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.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Lb		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
Lc		130	130	130	130	330	330	330	330	330	330	630	630	630	630	630	630
Qa		1	1	1	1	3	3	3	3	3	3	6	6	6	6	6	6
Qb		0	1	2	3	0	1	2	3	4	5	0	1	2	3	4	5
Qc		3	4	5	6	5	6	7	8	9	10	8	9	10	11	12	13
Weight (kg)		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
Maximum speed (mm/sec)	Lead 20	1333												1066	933	800	666
	Lead 10	666												532	466	400	333
	Lead 5	333												266	233	200	166
	Speed setting	–												80%	70%	60%	50%

LGXS07

Advanced model **Motor-less Single Axis Actuator**



Ordering method

LGXS07 – [ ] – [ ] – [ ]

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

[Caution]

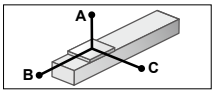
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

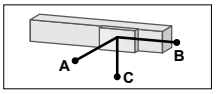
Specifications

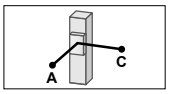
Adaptable motor		100 W			
Repeatability Note 1		+/-0.005 mm			
Deceleration mechanism		Ground ball screw ϕ 15 (C5 class)			
Stroke		50 mm to 1100 mm (50 mm pitch)			
Maximum speed (or equivalent) Note 2		1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead		30 mm	20 mm	10 mm	5 mm
Maximum payload (or equivalent) Note 3	Horizontal	10 kg	25 kg	45 kg	85 kg
	Vertical	2 kg	4 kg	8 kg	16 kg
Rated thrust (or equivalent) Note 3		56 N	84 N	169 N	339 N
Maximum dimensions of cross section of main unit		W 70 mm × H 76.5 mm			
Overall length		ST + 202 mm			
Degree of cleanliness Note 4		ISO CLASS 3 (ISO14644-1) or equivalent			
Intake air Note 5		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.
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.38 for acceleration/deceleration and inertia moment.

Allowable overhang Note







LGXS07-30

Horizontal installation (Unit: mm)

	A	B	C
2kg	3078	1509	1221
6kg	1191	501	418
10kg	957	317	282

Wall installation (Unit: mm)

	A	B	C
2kg	1237	1442	2975
6kg	393	435	1062
10kg	244	251	793

Vertical installation (Unit: mm)

	A	C
1kg	2335	2335
2kg	1158	1158

LGXS07-20

Horizontal installation (Unit: mm)

	A	B	C
10kg	1327	370	358
20kg	1136	186	188
25kg	1509	163	173

Wall installation (Unit: mm)

	A	B	C
10kg	313	304	1164
20kg	131	119	804
25kg	109	97	1010

Vertical installation (Unit: mm)

	A	C
1kg	3416	3416
2kg	1701	1701
4kg	841	841

LGXS07-10

Horizontal installation (Unit: mm)

	A	B	C
15kg	2420	338	372
30kg	1531	160	176
45kg	1181	101	111

Wall installation (Unit: mm)

	A	B	C
15kg	306	271	2192
30kg	106	94	1155
45kg	39	34	623

Vertical installation (Unit: mm)

	A	C
3kg	1688	1688
6kg	827	827
8kg	612	612

LGXS07-5

Horizontal installation (Unit: mm)

	A	B	C
30kg	2915	172	197
50kg	2535	96	110
85kg	2024	49	56

Wall installation (Unit: mm)

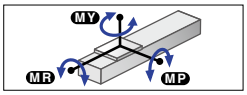
	A	B	C
30kg	122	106	2458
50kg	34	30	1476
85kg	0	0	0

Vertical installation (Unit: mm)

	A	C
6kg	907	907
9kg	591	591
16kg	314	314

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
138	121	121

Adaptable Servo Motor

Specification		
	Flange size	□40
	Wattage	100 W

Manufacturer	Model
Yaskawa Electric Corp.	SGMJV-01
	SGM7J-01
Keyence Corp.	SV-□010
	SV2-□010
Mitsubishi Electric Corp.	HF-KP13 Note
	HG-KR13 Note
	HK-KT13 Note
Omron Electronics	R88M-K10030
	R88M-1M10030 Note
Panasonic Corp.	MHMF01

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

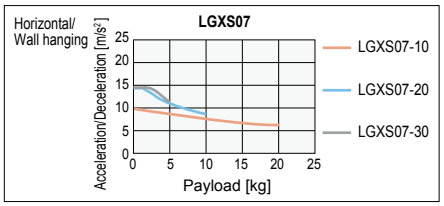
Conversion adapter product model	Shim plate part number
GX-BEND-40	KES-M2295-00

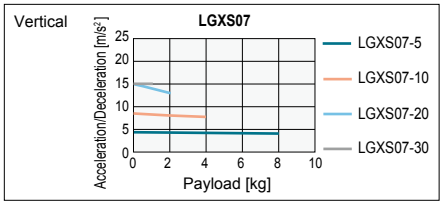
When used with high acceleration or deceleration (High agility model)

Specifications

Stroke		50 mm to 650 mm (50 mm pitch)			
Ball screw lead		30 mm	20 mm	10 mm	5 mm
Maximum payload	Horizontal	5 kg	10 kg	20 kg	-
Maximum acceleration		14.72 m/s² (1.5 G)	14.72 m/s² (1.5 G)	9.64 m/s² (1 G)	-
Maximum payload	Vertical	1 kg	2 kg	4 kg	8 kg
Maximum acceleration		14.72 m/s² (1.5 G)	14.72 m/s² (1.5 G)	8.44 m/s² (0.9 G)	4.32 m/s² (0.4 G)

Payload – Acceleration / Deceleration Graph (Estimate)





Allowable overhang Note

LGXS07-30

Horizontal installation (Unit: mm)

	A	B	C
2kg	1020	897	608
5kg	461	346	245

Wall installation (Unit: mm)

	A	B	C
2kg	579	830	976
5kg	208	279	401

Vertical installation (Unit: mm)

	A	C
1kg	1165	1165

LGXS07-20

Horizontal installation (Unit: mm)

	A	B	C
3kg	1224	758	640
6kg	684	369	321
10kg	459	214	190

Wall installation (Unit: mm)

	A	B	C
3kg	600	692	1175
6kg	274	303	621
10kg	138	147	376

Vertical installation (Unit: mm)

	A	C
1kg	1793	1793
2kg	891	891

LGXS07-10

Horizontal installation (Unit: mm)

	A	B	C
5kg	2208	622	665
12kg	991	249	266
20kg	637	142	152

Wall installation (Unit: mm)

	A	B	C
5kg	603	556	2129
12kg	200	182	890
20kg	83	75	497

Vertical installation (Unit: mm)

	A	C
1kg	3012	3012
2kg	1487	1487
4kg	725	725

LGXS07-5

Vertical installation (Unit: mm)

	A	C
3kg	1093	1093
5kg	639	639
8kg	384	384

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.

Effective stroke and maximum speed during high acceleration or deceleration

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650
Maximum speed (mm/sec)	Lead 30	1800												
	Lead 20	1200												
	Lead 10	600												
	Lead 5	300												

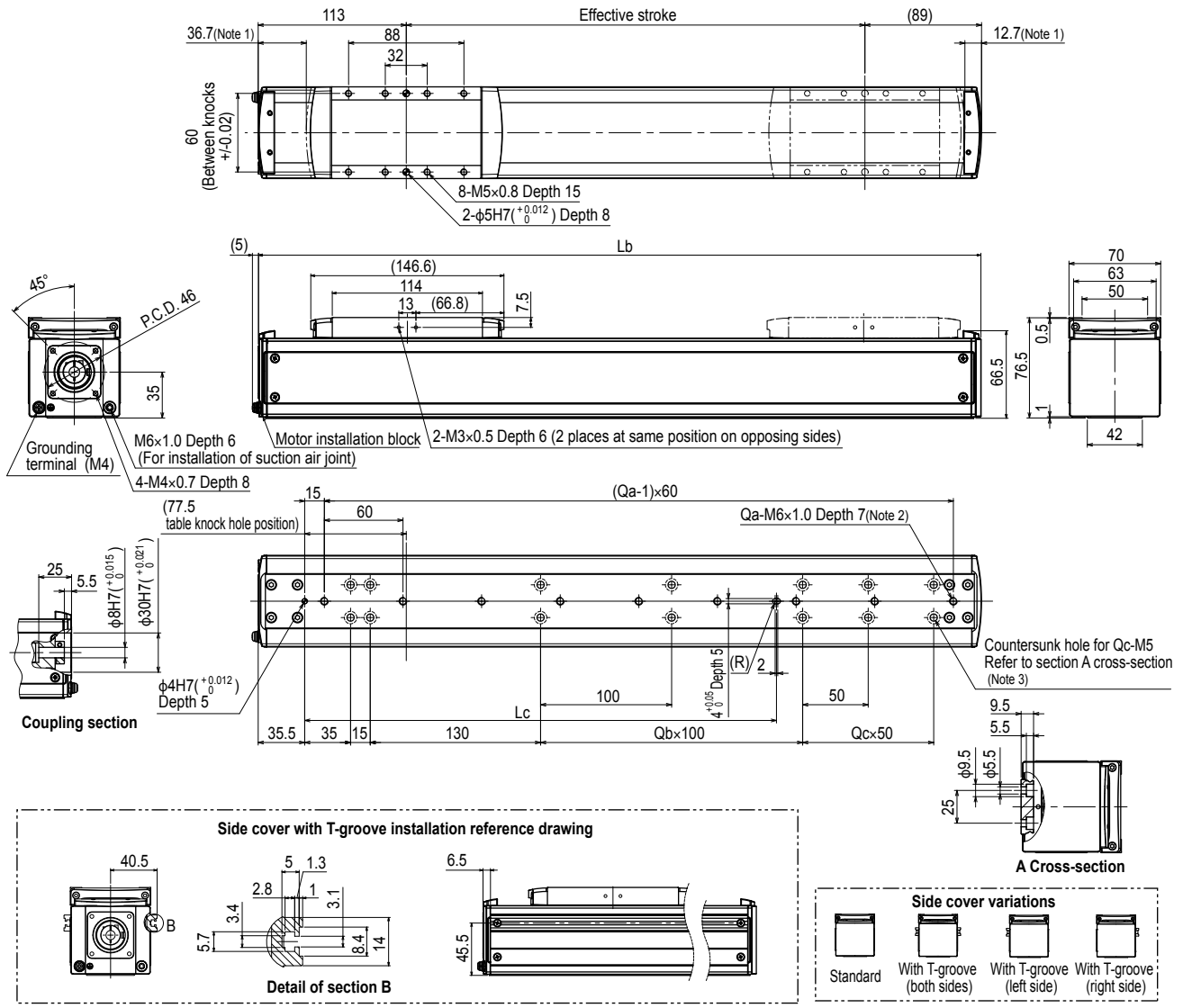
Note. The bending unit cannot be used for the high agility model.
Note. The high agility model is used in an effective stroke range of 50 to 650 (50 mm pitch).
Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
Note. See P.40 for acceleration/deceleration and inertia moment.

Access the website below.

YAMAHA

▶ The tact simulation and service life calculation can be performed easily from our member site. For details, see P.3.

LGXS07

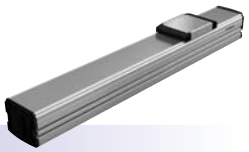


Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. When using the tap holes to mount the body, remove the set screws first.
Note 3. When using the countersunk holes (section A cross section) to mount the body, remove the cap from the inner side and then fix.
Note 4.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

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	760	760	760	760	760	760	760	760	760	760
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	0	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
Maximum speed (mm/sec)	Lead 30	1800														1530	1350	1170	990	900	810	720	630
	Lead 20	1200														1020	900	780	660	600	540	480	420
	Lead 10	600														510	450	390	330	300	270	240	210
	Lead 5	300														255	225	195	165	150	135	120	105
	Speed setting	–														85%	75%	65%	55%	50%	45%	40%	35%

LGXS10

Advanced model **Motor-less Single Axis Actuator**



Ordering method

LGXS10 – [ ] [ ] – [ ]

Model	Lead	Motor specification	Stroke
	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	No entry: Standard P: P specification (see below)	100 to 1250 (50 mm pitch)

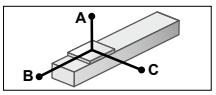
[Caution]
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

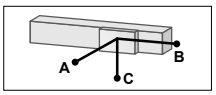
Specifications

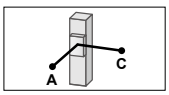
Adaptable motor		200 W			
Repeatability Note 1		+/-0.005 mm			
Deceleration mechanism		Ground ball screw ϕ 15 (C5 class)			
Stroke		100 mm to 1250 mm (50 mm pitch)			
Maximum speed (or equivalent) Note 2		1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead		30 mm	20 mm	10 mm	5 mm
Maximum payload (or equivalent) Note 3	Horizontal	25 kg	40 kg	80 kg	100 kg
	Vertical	4 kg	8 kg	20 kg	30 kg
Rated thrust (or equivalent) Note 3		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 Note 4		ISO CLASS 3 (ISO14644-1) or equivalent			
Intake air Note 5		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.41 for acceleration/deceleration and inertia moment.

Allowable overhang Note







LGXS10-30

Horizontal installation (Unit: mm)

	A	B	C
10kg	878	537	292
20kg	609	256	146
25kg	608	211	124

Wall installation (Unit: mm)

	A	B	C
10kg	271	473	803
20kg	118	192	481
25kg	93	147	454

Vertical installation (Unit: mm)

	A	C
1kg	4135	4135
4kg	985	985

LGXS10-20

Horizontal installation (Unit: mm)

	A	B	C
15kg	1269	451	282
25kg	754	253	158
40kg	466	142	88

Wall installation (Unit: mm)

	A	B	C
15kg	252	387	1159
25kg	123	189	629
40kg	51	78	311

Vertical installation (Unit: mm)

	A	C
3kg	2062	2062
6kg	1012	1012
8kg	750	750

LGXS10-10

Horizontal installation (Unit: mm)

	A	B	C
30kg	1794	298	203
50kg	1358	162	111
80kg	1266	86	59

Wall installation (Unit: mm)

	A	B	C
30kg	162	234	1623
50kg	68	98	1060
80kg	16	22	552

Vertical installation (Unit: mm)

	A	C
5kg	1926	1926
10kg	931	931
20kg	434	434

LGXS10-5

Horizontal installation (Unit: mm)

	A	B	C
30kg	5605	321	225
50kg	3694	177	124
80kg	2619	95	67
100kg	2224	68	48

Wall installation (Unit: mm)

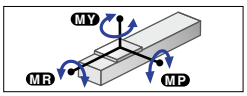
	A	B	C
30kg	181	258	5195
50kg	79	113	3111
80kg	22	31	1557
100kg	0	0	0

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	□60	
Wattage	200 W	

Motor specification	Manufacturer	Model
No entry	Yaskawa Electric Corp.	SGMJV-02
		SGM7J-02
	Keyence Corp.	SV-□020
		SV2-□020
	Mitsubishi Electric Corp.	HF-KP23
		HG-KR23 Note 1
		HK-KT23 Note 1
P Note 2	Omron Electronics	R88M-K20030
		R88M-1M20030
	Panasonic Corp.	MSMD02
		MSMF02
		MHMF02

Note 1.To combine with the conversion adapter <GX-BEND-60>, the shim plate (t1) is necessary.
Note 2.For the specifications P, the bending unit cannot be used.

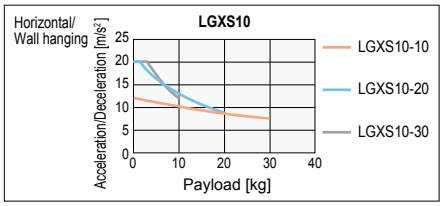
Conversion adapter product model	Shim plate part number
GX-BEND-60	KEV-M2295-00

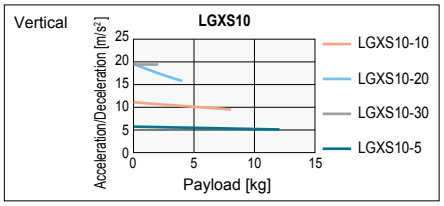
When used with high acceleration or deceleration (High agility model)

Specifications

Stroke		100 mm to 650 mm (50 mm pitch)			
Ball screw lead		30 mm	20 mm	10 mm	5 mm
Maximum payload	Horizontal	10 kg	20 kg	30 kg	-
Maximum acceleration		19.62 m/s² (2 G)	19.62 m/s² (2 G)	11.71 m/s² (1.2 G)	-
Maximum payload	Vertical	2 kg	4 kg	8 kg	12 kg
Maximum acceleration		19.62 m/s² (2 G)	19.62 m/s² (2 G)	10.84 m/s² (1.1 G)	5.53 m/s² (0.6 G)

Payload – Acceleration / Deceleration Graph (Estimate)





Allowable overhang Note

LGXS10-30

Horizontal installation (Unit: mm)

	A	B	C
3kg	1041	1117	541
6kg	581	534	266
10kg	384	300	153

Wall installation (Unit: mm)

	A	B	C
3kg	521	1046	1009
6kg	241	466	539
10kg	125	235	327

Vertical installation (Unit: mm)

	A	C
1kg	2054	2054
2kg	994	994

LGXS10-20

Horizontal installation (Unit: mm)

	A	B	C
5kg	1218	844	493
12kg	575	326	193
20kg	375	177	106

Wall installation (Unit: mm)

	A	B	C
5kg	464	778	1177
12kg	159	261	516
20kg	70	113	290

Vertical installation (Unit: mm)

	A	C
2kg	1602	1602
4kg	788	788

LGXS10-10

Horizontal installation (Unit: mm)

	A	B	C
10kg	1851	568	383
20kg	973	263	177
30kg	671	162	109

Wall installation (Unit: mm)

	A	B	C
10kg	343	504	1784
20kg	136	199	885
30kg	67	98	552

Vertical installation (Unit: mm)

	A	C
3kg	1849	1849
5kg	1086	1086
8kg	656	656

LGXS10-5

Vertical installation (Unit: mm)

	A	C
4kg	1550	1550
8kg	743	743
12kg	474	474

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.

Effective stroke and maximum speed during high acceleration or deceleration

Effective stroke		100	150	200	250	300	350	400	450	500	550	600	650
Maximum speed (mm/sec)	Lead 30	1800											
	Lead 20	1200											
	Lead 10	600											
	Lead 5	300											

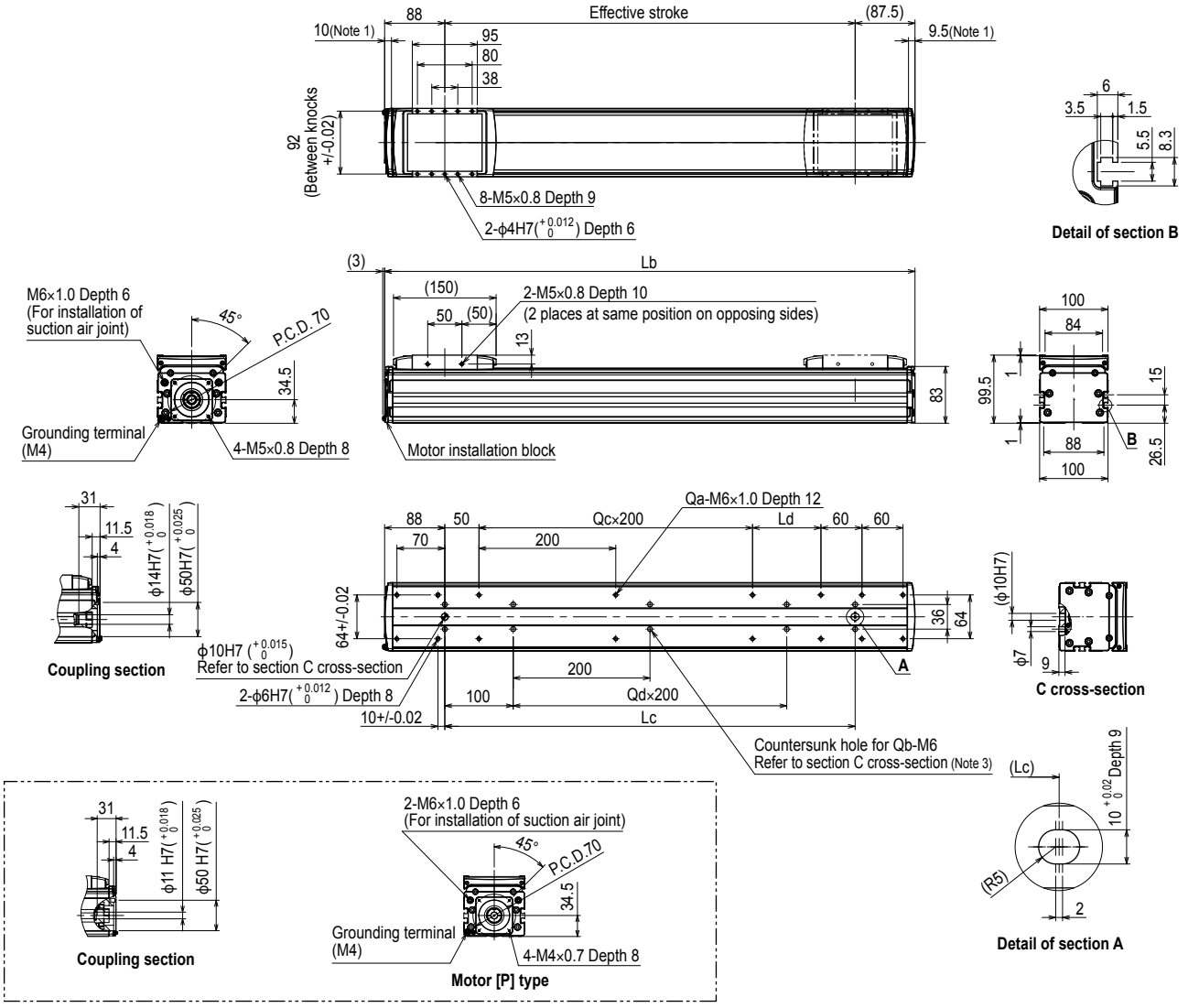
Note. The bending unit cannot be used for the high agility model.
Note. The high agility model is used in an effective stroke range of 100 to 650 (50 mm pitch).
Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
Note. See P.43 for acceleration/deceleration and inertia moment.

Access the website below.

YAMAHA

▶ **The tact simulation and service life calculation can be performed easily from our member site. For details, see P.3.**

LGXS10



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.

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
Lb		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
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
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
Qa		8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20
Qb		4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
Qc		0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
Qd		0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
Weight (kg)		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
Maximum speed (mm/sec)	Lead 30	1800													1530	1350	1170	990	900	810	720	630	540		450
	Lead 20	1200													1020	900	780	660	600	540	480	420	360		300
	Lead 10	600													510	450	390	330	300	270	240	210	180		150
	Lead 5	300													255	225	195	165	150	135	120	105	90		75
	Speed setting	–													85%	75%	65%	55%	50%	45%	40%	35%	30%		25%

LGXS12

Advanced model **Motor-less Single Axis Actuator**

Ordering method

LGXS12 - [ ] [ ] - [ ]

Model	Lead	Motor specification	Stroke
	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	No entry: Standard P: P specification (see below)	100 to 1250 (50 mm pitch)

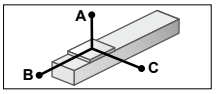
[Caution]
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

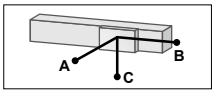
Specifications

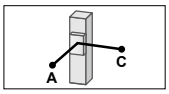
Adaptable motor		400 W			
Repeatability Note 1		+/-0.005 mm			
Deceleration mechanism		Ground ball screw ϕ 15 (C5 class)			
Stroke		100 mm to 1250 mm (50 mm pitch)			
Maximum speed (or equivalent) Note 2		1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead		30 mm	20 mm	10 mm	5 mm
Maximum payload (or equivalent) Note 3	Horizontal	35 kg	50 kg	95 kg	115 kg
	Vertical	8 kg	15 kg	25 kg	45 kg
Rated thrust (or equivalent) Note 3		225 N	339 N	678 N	1360 N
Maximum dimensions of cross section of main unit		W 125 mm × H 101 mm			
Overall length		ST + 211.5 mm			
Degree of cleanliness Note 4		ISO CLASS 3 (ISO14644-1) or equivalent			
Intake air Note 5		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.45 for acceleration/deceleration and inertia moment.

Allowable overhang Note







LGXS12-30

Horizontal installation (Unit: mm)

	A	B	C
10kg	1796	1074	637
20kg	1300	531	332
35kg	1341	334	227

Wall installation (Unit: mm)

	A	B	C
10kg	631	1009	1720
20kg	316	466	1171
35kg	197	269	1130

Vertical installation (Unit: mm)

	A	C
3kg	2642	2642
6kg	1289	1289
8kg	951	951

LGXS12-20

Horizontal installation (Unit: mm)

	A	B	C
15kg	2231	904	613
30kg	1290	428	293
50kg	882	237	164

Wall installation (Unit: mm)

	A	B	C
15kg	591	839	2141
30kg	260	363	1167
50kg	126	172	710

Vertical installation (Unit: mm)

	A	C
5kg	2424	2424
10kg	1207	1207
15kg	803	803

LGXS12-10

Horizontal installation (Unit: mm)

	A	B	C
30kg	3109	607	456
50kg	2421	345	260
80kg	2417	198	150
95kg	2559	159	121

Wall installation (Unit: mm)

	A	B	C
30kg	413	542	2978
50kg	215	280	2208
80kg	103	133	1927
95kg	73	95	1830

Vertical installation (Unit: mm)

	A	C
10kg	1862	1862
15kg	1221	1221
25kg	708	708

LGXS12-5

Horizontal installation (Unit: mm)

	A	B	C
30kg	11079	653	504
50kg	7434	373	288
80kg	5458	215	166
115kg	4364	136	105

Wall installation (Unit: mm)

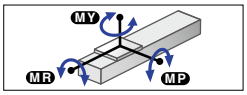
	A	B	C
30kg	456	588	10692
50kg	239	308	6935
80kg	117	150	4713
115kg	55	71	3221

Vertical installation (Unit: mm)

	A	C
15kg	1332	1332
30kg	634	634
45kg	402	402

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
334	334	294

Adaptable Servo Motor

Specification		
	Flange size	□60
	Wattage	400 W

Motor specification	Manufacturer	Model
No entry	Yaskawa Electric Corp.	SGMJV-04
		SGM7J-04
	Keyence Corp.	SV-□040
		SV2-□040
	Mitsubishi Electric Corp.	HF-KP43
		HG-KR43 Note 1
		HK-KT43 Note 1
P Note 2	Omron Electronics	R88M-K40030
		R88M-1M40030
	Panasonic Corp.	MSMD04
		MSMS04
		MHMF04

Note 1.To combine with the conversion adapter <GX-BEND-60>, the shim plate (t1) is necessary.
Note 2.For the specifications P, the bending unit cannot be used.

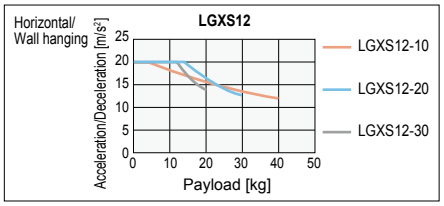
Conversion adapter product model	Shim plate part number
GX-BEND-60	KEV-M2295-00

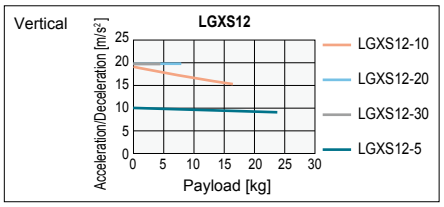
When used with high acceleration or deceleration (High agility model)

Specifications

Stroke		100 mm to 650 mm (50 mm pitch)			
Ball screw lead		30 mm	20 mm	10 mm	5 mm
Maximum payload	Horizontal	20 kg	30 kg	40 kg	-
Maximum acceleration		19.62 m/s² (2 G)	19.62 m/s² (2 G)	19.62 m/s² (2 G)	-
Maximum payload	Vertical	4 kg	8 kg	16 kg	24 kg
Maximum acceleration		19.62 m/s² (2 G)	19.62 m/s² (2 G)	19.62 m/s² (2 G)	9.85 m/s² (1 G)

Payload – Acceleration / Deceleration Graph (Estimate)





Allowable overhang Note

LGXS12-30

Horizontal installation (Unit: mm)

	A	B	C
5kg	1216	1297	669
12kg	461	506	252
20kg	316	280	147

Wall installation (Unit: mm)

	A	B	C
5kg	648	1224	1183
12kg	226	436	427
20kg	117	213	266

Vertical installation (Unit: mm)

	A	C
2kg	1984	1984
4kg	960	960

LGXS12-20

Horizontal installation (Unit: mm)

	A	B	C
10kg	999	807	489
20kg	521	378	231
30kg	382	234	146

Wall installation (Unit: mm)

	A	B	C
10kg	458	740	966
20kg	196	311	479
30kg	109	168	325

Vertical installation (Unit: mm)

	A	C
3kg	2031	2031
5kg	1193	1193
8kg	722	722

LGXS12-10

Horizontal installation (Unit: mm)

	A	B	C
15kg	1668	737	535
25kg	1060	423	308
40kg	709	246	180

Wall installation (Unit: mm)

	A	B	C
15kg	491	672	1628
25kg	263	358	1012
40kg	134	181	644

Vertical installation (Unit: mm)

	A	C
5kg	2071	2071
10kg	1011	1011
16kg	612	612

LGXS12-5

Vertical installation (Unit: mm)

	A	C
8kg	1487	1487
16kg	712	712
24kg	454	454

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.

Effective stroke and maximum speed during high acceleration or deceleration

Effective stroke		100	150	200	250	300	350	400	450	500	550	600	650
Maximum speed (mm/sec)	Lead 30	1800											
	Lead 20	1200											
	Lead 10	600											
	Lead 5	300											

Note. The bending unit cannot be used for the high agility model.
Note. The high agility model is used in an effective stroke range of 100 to 650 (50 mm pitch).
Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
Note. See P.47 for acceleration/deceleration and inertia moment.

Access the website below.

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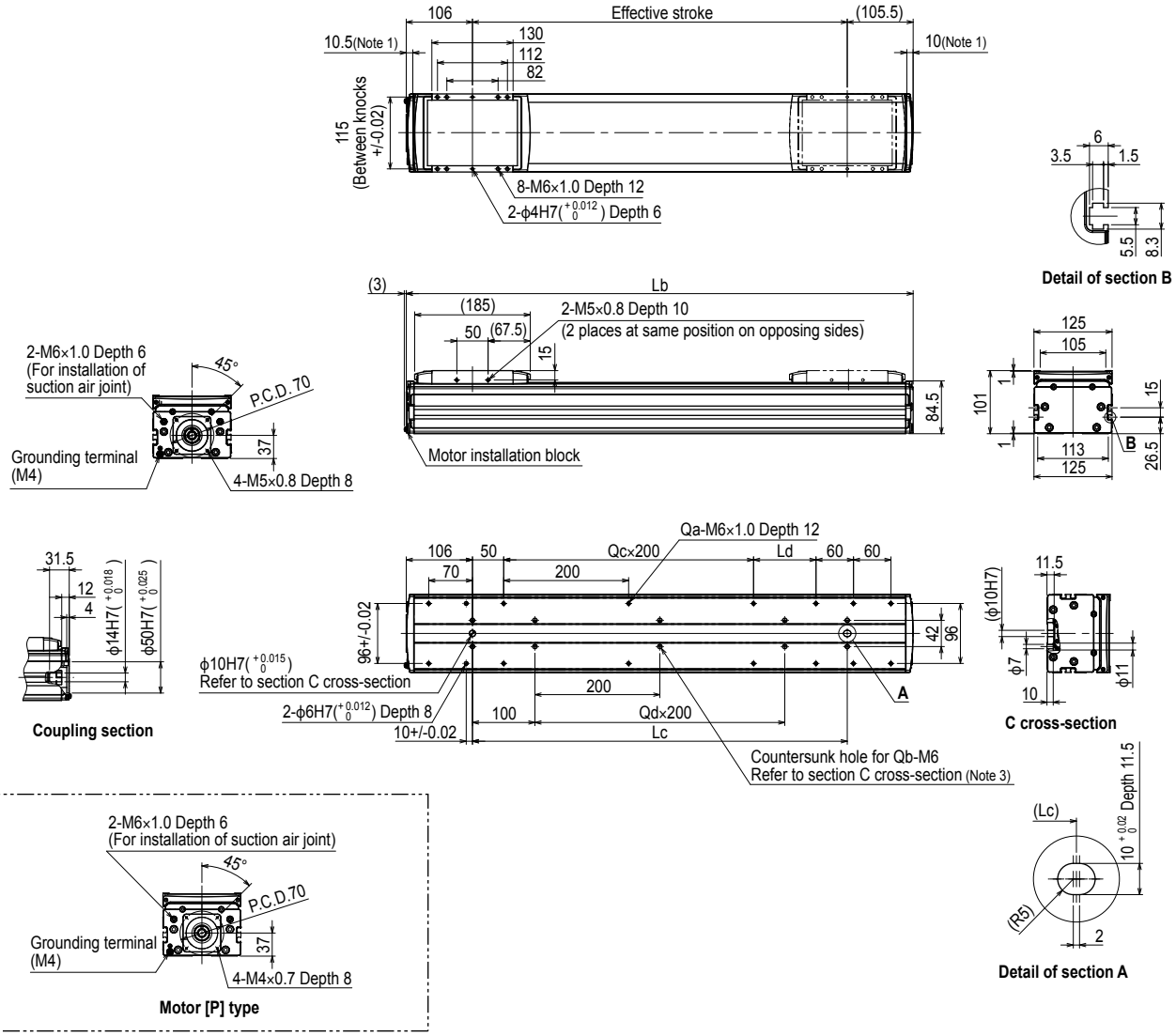
▶ The tact simulation and service life calculation can be performed easily from our member site. For details, see P.3.

LGXS12



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.

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
Lb		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	1011.5	1061.5	1111.5	1161.5	1211.5	1261.5	1311.5	1361.5	1411.5	1461.5
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
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
Qa		8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20
Qb		4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
Qc		0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
Qd		0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
Weight (kg)		6.5	7.1	7.8	8.5	9.1	9.8	10.5	11.2	11.8	12.5	13.2	13.9	14.5	15.2	15.9	16.5	17.2	17.9	18.6	19.2	19.9	20.6	21.3	21.9
Maximum speed (mm/sec)	Lead 30	1800													1530	1350	1170	990	900	810	720	630	540		450
	Lead 20	1200													1020	900	780	660	600	540	480	420	360		300
	Lead 10	600													510	450	390	330	300	270	240	210	180		150
	Lead 5	300													255	225	195	165	150	135	120	105	90		75
	Speed setting	–													85%	75%	65%	55%	50%	45%	40%	35%	30%		25%

LGXS16

Advanced model **Motor-less Single Axis Actuator**

Ordering method

LGXS16 – [ ] [ ] – [ ]

Model	Lead	Motor specification	Stroke
	40: 40 mm 20: 20 mm 10: 10 mm	No entry: Standard P: P specification (see below)	100 to 1450 (50 mm pitch)

[Caution]

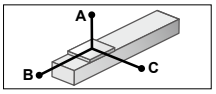
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

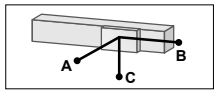
Specifications

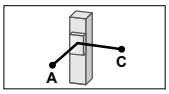
Adaptable motor		750 W		
Repeatability Note 1		+/-0.005 mm		
Deceleration mechanism		Ground ball screw ϕ 20 (C5 class)		
Stroke		100 mm to 1450 mm (50 mm pitch)		
Maximum speed (or equivalent) Note 2		2400 mm/sec	1200 mm/sec	600 mm/sec
Ball screw lead		40 mm	20 mm	10 mm
Maximum payload (or equivalent) Note 3	Horizontal	45 kg	95 kg	130 kg
	Vertical	12 kg	28 kg	55 kg
Rated thrust (or equivalent) Note 3		320 N	640 N	1280 N
Maximum dimensions of cross section of main unit		W 160 mm × H 130 mm		
Overall length		ST + 242.5 mm		
Degree of cleanliness Note 4		ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air Note 5		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 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.49 for acceleration/deceleration and inertia moment.

Allowable overhang Note







LGXS16-40

Horizontal installation (Unit: mm)

	A	B	C
15kg	2876	1866	1253
30kg	2385	997	776
45kg	2339	720	604

Wall installation (Unit: mm)

	A	B	C
15kg	1273	1802	2797
30kg	782	935	2263
45kg	598	658	2174

Vertical installation (Unit: mm)

	A	C
3kg	6605	6605
6kg	3699	3699
12kg	2827	2827

LGXS16-20

Horizontal installation (Unit: mm)

	A	B	C
30kg	3862	1255	1106
50kg	2568	733	652
80kg	1798	440	394
95kg	1579	362	325

Wall installation (Unit: mm)

	A	B	C
30kg	1102	1192	3742
50kg	630	671	2422
80kg	360	377	1612
95kg	288	300	1373

Vertical installation (Unit: mm)

	A	C
10kg	3404	3404
20kg	1740	1740
28kg	1504	1504

LGXS16-10

Horizontal installation (Unit: mm)

	A	B	C
50kg	6253	1026	1024
80kg	4447	623	624
100kg	3957	489	490
130kg	3786	365	367

Wall installation (Unit: mm)

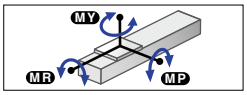
	A	B	C
50kg	980	964	6089
80kg	573	561	4240
100kg	437	426	3706
130kg	312	302	3422

Vertical installation (Unit: mm)

	A	C
15kg	3434	3434
30kg	1684	1684
55kg	889	889

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		□80
Wattage		750 W

Motor specification	Manufacturer	Model
No entry	Yaskawa Electric Corp.	SGMJV-08
		SGM7J-08
	Keyence Corp.	SV-□075
		SV2-□075
	Mitsubishi Electric Corp.	HF-KP73
		HG-KR73 Note 1
		HK-KT7M3 Note 1
P Note 2	Omron Electronics	R88M-K75030
		R88M-1M75030
	Panasonic Corp.	MSMD08
		MSMF08
		MHMF08

Note 1.To combine with the conversion adapter <GX-BEND-80>, the shim plate (t1) is necessary.
Note 2.For the specifications P, the bending unit cannot be used.

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

When used with high acceleration or deceleration (High agility model)

Specifications

Stroke		100 mm to 800 mm (50 mm pitch)		
Ball screw lead		40 mm	20 mm	10 mm
Maximum payload	Horizontal	30 kg	60 kg	-
Maximum acceleration	Horizontal	19.62 m/s² (2 G)	19.84 m/s² (2 G)	-
Maximum payload	Vertical	8 kg	16 kg	32 kg
Maximum acceleration	Vertical	19.62 m/s² (2 G)	18.43 m/s² (1.9 G)	11.17 m/s² (1.1 G)

Allowable overhang Note

LGXS16-40

Horizontal installation (Unit: mm)

	A	B	C
10kg	1271	1669	836
20kg	725	803	429
30kg	534	514	287

Wall installation (Unit: mm)

	A	B	C
10kg	816	1585	1240
20kg	404	725	683
30kg	259	441	480

Vertical installation (Unit: mm)

	A	C
3kg	2904	2904
5kg	1710	1710
8kg	1038	1038

LGXS16-20

Horizontal installation (Unit: mm)

	A	B	C
20kg	1722	1123	875
40kg	952	535	428
60kg	682	339	276

Wall installation (Unit: mm)

	A	B	C
20kg	842	1056	1679
40kg	388	470	895
60kg	232	275	611

Vertical installation (Unit: mm)

	A	C
5kg	3473	3473
10kg	1723	1723
16kg	1064	1064

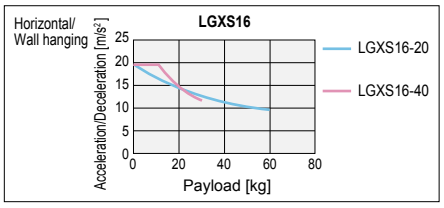
LGXS16-10

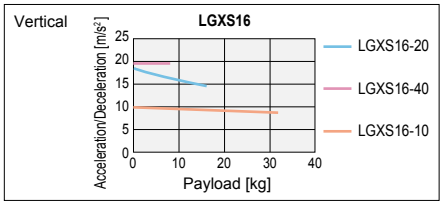
Vertical installation (Unit: mm)

	A	C
10kg	2951	2951
20kg	1438	1438
32kg	870	870

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.

Payload – Acceleration / Deceleration Graph (Estimate)





Effective stroke and maximum speed during high acceleration or deceleration

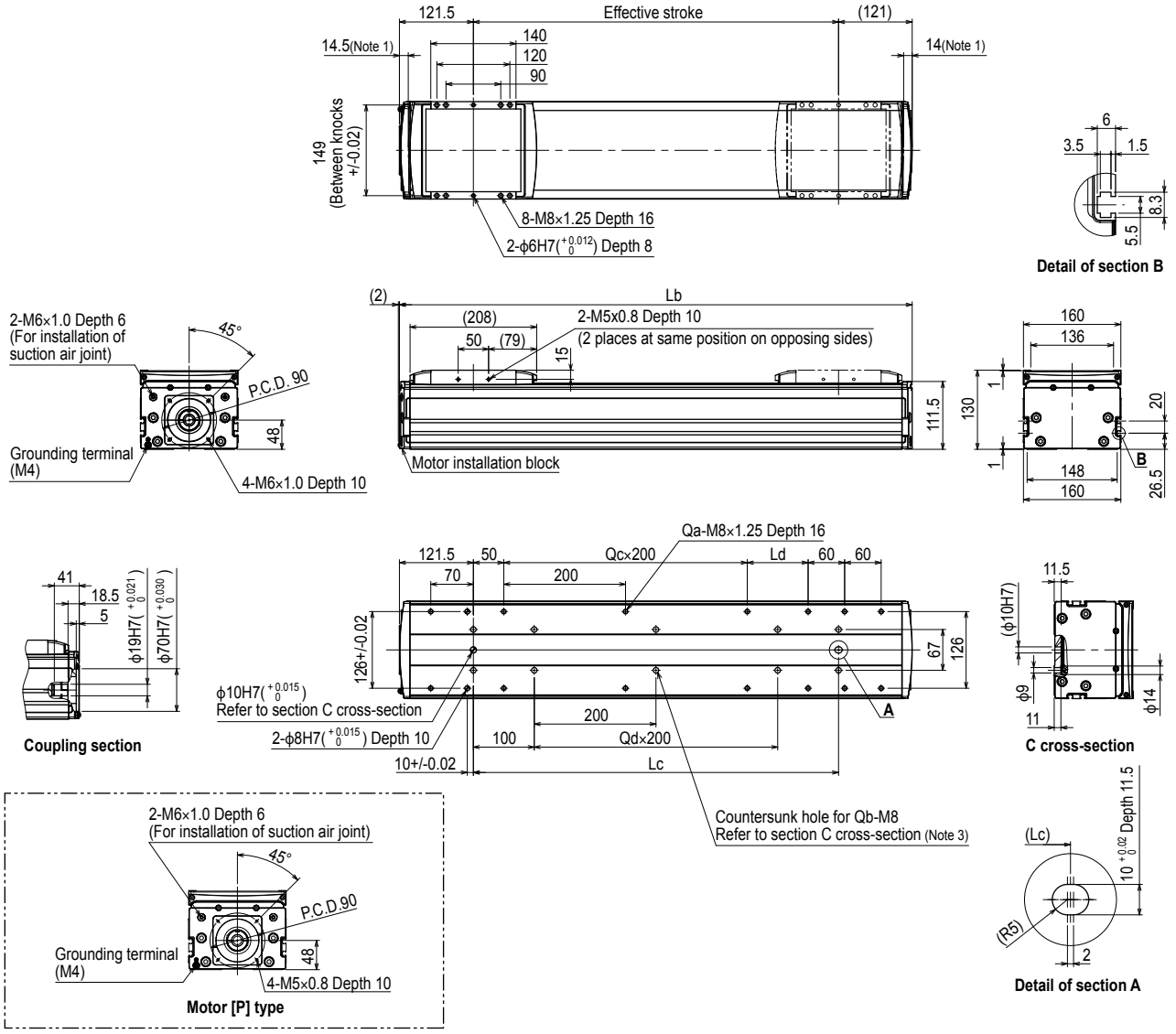
Effective stroke		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Maximum speed (mm/sec)	Lead 40	2400														
	Lead 20	1200														
	Lead 10	600														

Note. The bending unit cannot be used for the high agility model.
Note. The high agility model is used in an effective stroke range of 100 to 800 (50 mm pitch).
Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
Note. See P.51 for acceleration/deceleration and inertia moment.

Access the website below.

▶ **The tact simulation and service life calculation can be performed easily from our member site. For details, see P.3.**

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	16	18	18	18	18	20	20	20	20	22	22	22
Qb		4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	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	3	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	3	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
	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

LGXS20 - [ ] [ ] - [ ]

Model	Lead	Motor specification	Stroke
	40: 40 mm 20: 20 mm 10: 10 mm	No entry: Standard P: P specification (see below)	100 to 1450 (50 mm pitch)

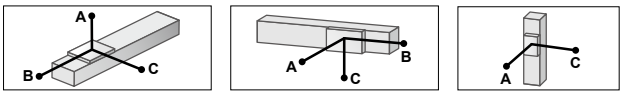
[Caution]
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. 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		750 W		
Repeatability Note 1		+/-0.005 mm		
Deceleration mechanism		Ground ball screw ϕ 20 (C5 class)		
Stroke		100 mm to 1450 mm (50 mm pitch)		
Maximum speed (or equivalent) Note 2		2400 mm/sec	1200 mm/sec	600 mm/sec
Ball screw lead		40 mm	20 mm	10 mm
Maximum payload (or equivalent) Note 3	Horizontal	65 kg	130 kg	160 kg
	Vertical	15 kg	35 kg	65 kg
Rated thrust (or equivalent) Note 3		320 N	640 N	1280 N
Maximum dimensions of cross section of main unit		W 200 mm × H 140 mm		
Overall length		ST + 288.5 mm		
Degree of cleanliness Note 4		ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air Note 5		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 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.52 for acceleration/deceleration and inertia moment.

Allowable overhang Note



LGXS20-40

Horizontal installation (Unit: mm)

	A	B	C
20kg	5318	2821	2096
40kg	4836	1609	1369
65kg	4824	1088	1001

Wall installation (Unit: mm)

	A	B	C
20kg	2171	2751	5211
40kg	1417	1539	4667
65kg	1013	1018	4575

Vertical installation (Unit: mm)

	A	C
5kg	8187	8187
10kg	5203	5203
15kg	4810	4810

LGXS20-20

Horizontal installation (Unit: mm)

	A	B	C
50kg	5436	1493	1377
80kg	4417	911	854
100kg	4592	756	727
130kg	4338	596	584

Wall installation (Unit: mm)

	A	B	C
50kg	1390	1423	5265
80kg	849	841	4153
100kg	708	686	4253
130kg	550	526	3933

Vertical installation (Unit: mm)

	A	C
20kg	3436	3436
30kg	2600	2600
35kg	3073	3073

LGXS20-10

Horizontal installation (Unit: mm)

	A	B	C
40kg	22519	2607	2713
80kg	16716	1274	1331
120kg	14066	830	868
160kg	12284	608	637

Wall installation (Unit: mm)

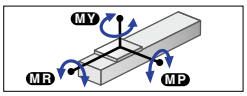
	A	B	C
40kg	2704	2537	22210
80kg	1293	1204	16141
120kg	818	760	13223
160kg	580	538	11190

Vertical installation (Unit: mm)

	A	C
20kg	5157	5157
40kg	2553	2553
65kg	1600	1600

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

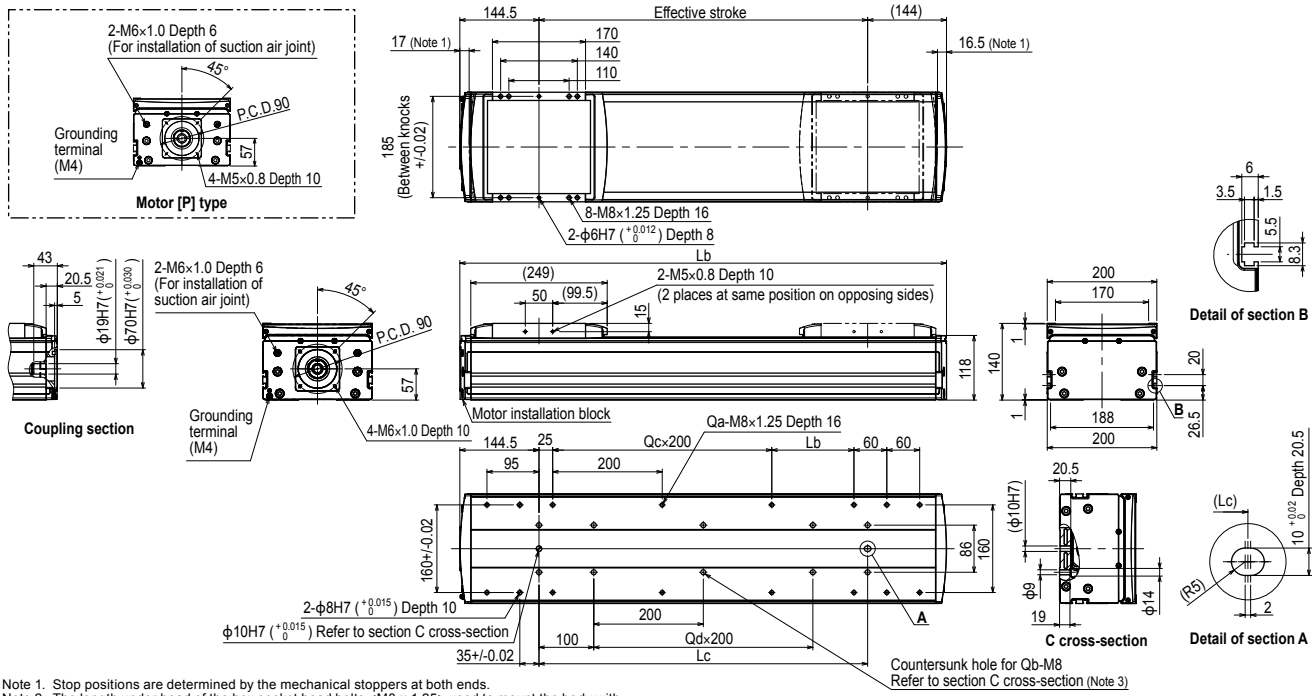
Specification		
Flange size		□80
Wattage		750 W

Motor specification	Manufacturer	Model
No entry	Yaskawa Electric Corp.	SGMJV-08 SGM7J-08
	Keyence Corp.	SV-□075 SV2-□075
	Mitsubishi Electric Corp.	HF-KP73 HG-KR73 Note 1 HK-KT7M3 Note 1
P Note 2	Omron Electronics	R88M-K75030 R88M-1M75030
	Panasonic Corp.	MSMD08 MSMF08 MHMF08

Note 1.To combine with the conversion adapter <GX-BEND-80>, the shim plate (t1) is necessary.
Note 2.For the specifications P, the bending unit cannot be used.

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	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
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	12	14	14	14	14	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	3	4	4	4	4	5	5	5	5	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															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
	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%

MEMO

Inertia Moment

LGXS05

[kg·m^2×10^{-4}]	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

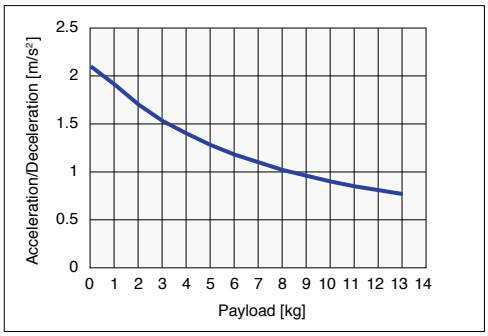
LGXS05

Model	LGXS05-5		LGXS05-10		LGXS05-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]	
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

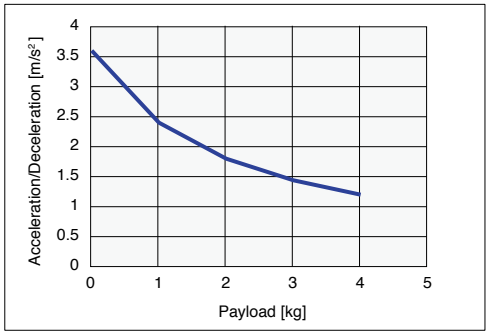


Vertical

LGXS05-10

Horizontal/ Wall hanging

Vertical



LGXS05-20

Horizontal/ Wall hanging

Vertical

■ Acceleration/Deceleration

High agility model

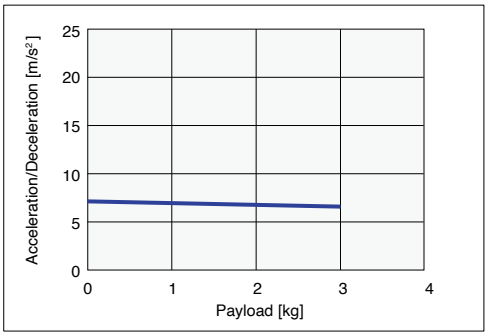
LGXS05

Model	LGXS05-5	LGXS05-10		LGXS05-20	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	7.17	11.77	11.77	11.77	11.77
1	6.99	11.77	11.77	11.77	11.77
2	6.82	11.77	11.58	11.77	
3	6.66	10.91			

■ Payload – Acceleration/Deceleration Graph (Estimate)

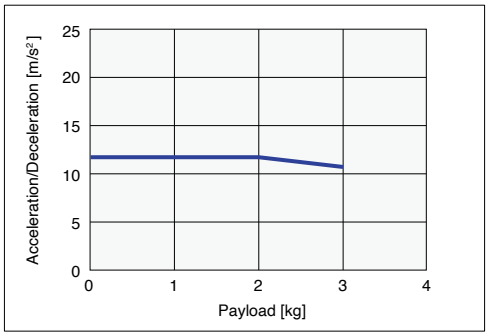
LGXS05-5

Vertical

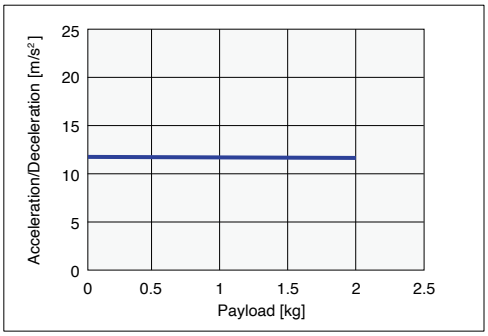


LGXS05-10

Horizontal/ Wall hanging

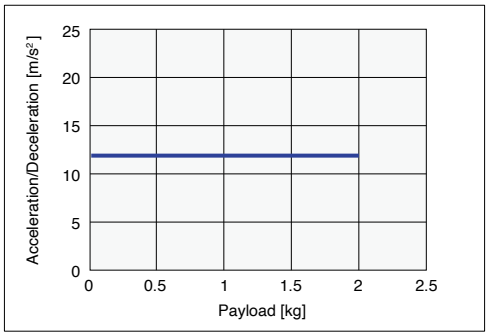


Vertical

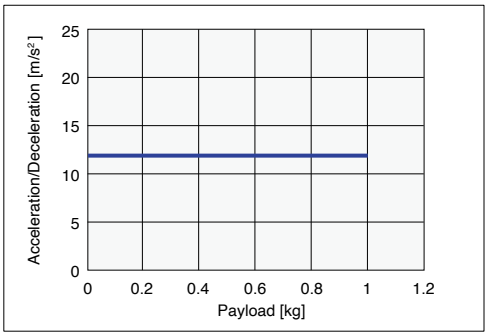


LGXS05-20

Horizontal/ Wall hanging



Vertical



Inertia Moment

LGXS05L

[kg·m²×10⁻⁴]	Effective stroke [mm]															
Model	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

LGXS05L

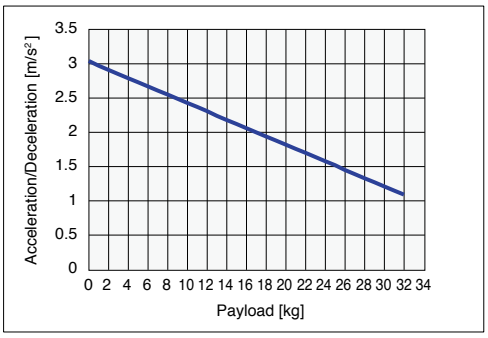
Model	LGXS05L-5		LGXS05L-10		LGXS05L-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	3.04	3.34	4.26	4.86	5.07	5.07
1	2.97	3.18	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			
18	1.94		1.96			

Model	LGXS05L-5	LGXS05L-10	LGXS05L-20
	Horizontal/ Wall hanging / Vertical	Horizontal/ Wall hanging / Vertical	Horizontal/ Wall hanging / Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]	Acceleration/Deceleration [m/s²]	Acceleration/Deceleration [m/s²]
19	1.88	1.89	
20	1.82	1.83	
21	1.76	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		

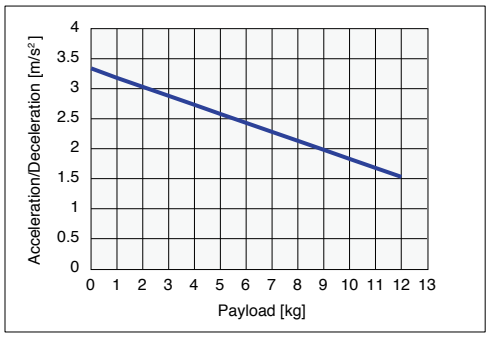
Payload – Acceleration/Deceleration Graph (Estimate)

LGXS05L-5

Horizontal/ Wall hanging



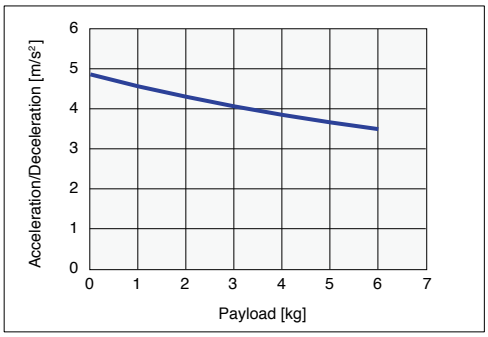
Vertical



LGXS05L-10

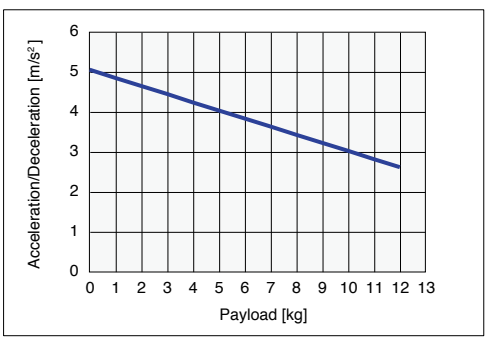
Horizontal/ Wall hanging

Vertical

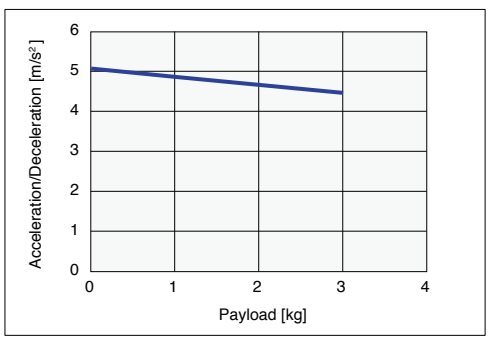


LGXS05L-20

Horizontal/ Wall hanging



Vertical



Acceleration/Deceleration

High agility model

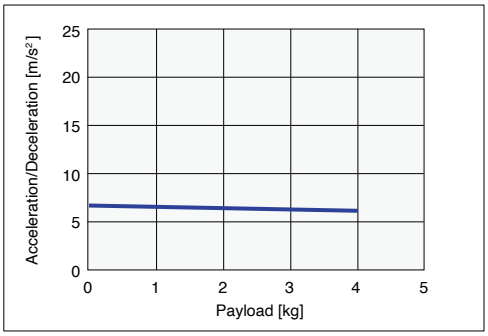
LGXS05L

Model	LGXS05L-5	LGXS05L-10		LGXS05L-20	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	6.65	14.72	12.68	14.72	14.72
1	6.50	13.50	11.65	14.72	14.72
2	6.35	12.46	10.78	14.72	
3	6.22	11.58		12.93	
4	6.08	10.81		11.16	
5		10.13		9.81	
6		9.54			
7		9.01			
8		8.54			
9		8.11			
10		7.73			

Payload – Acceleration/Deceleration Graph (Estimate)

LGXS05L-5

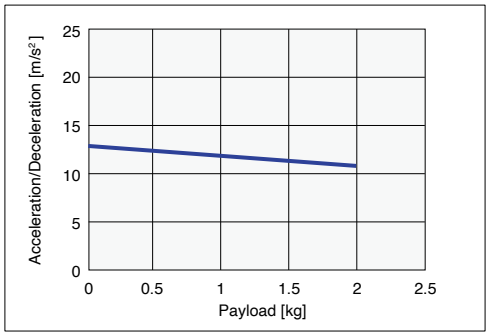
Vertical



LGXS05L-10

Horizontal/ Wall hanging

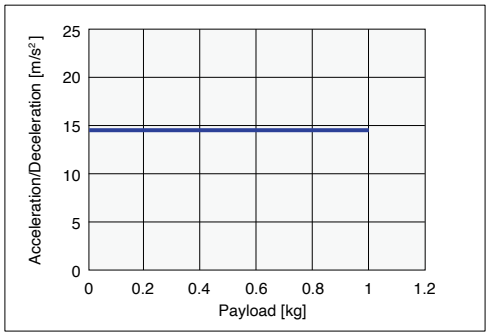
Vertical



LGXS05L-20

Horizontal/ Wall hanging

Vertical



Inertia Moment

LGXS07

[kg·m^2×10^{-4}]	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
LGXS07-5	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
LGXS07-10	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
LGXS07-20	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
LGXS07-30	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

Acceleration/Deceleration

LGXS07

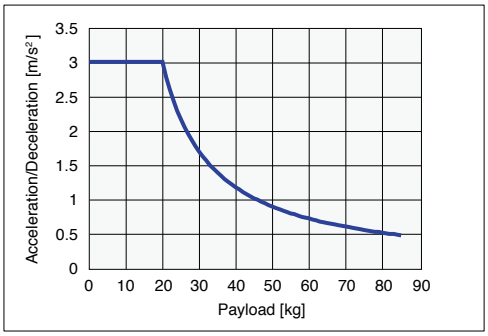
Model	LGXS07-5		LGXS07-10		LGXS07-20		LGXS07-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]	
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					
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							

Model	LGXS07-5		LGXS07-10		LGXS07-20		LGXS07-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]		Acceleration/Deceleration [m/s^2]	
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

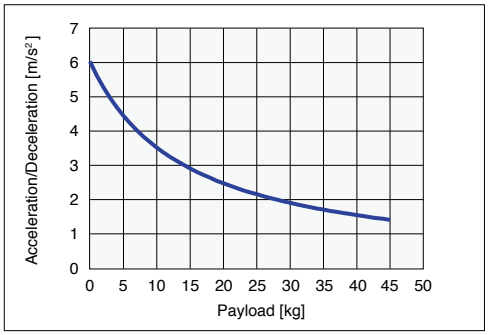
Horizontal/ Wall hanging



Vertical

LGXS07-10

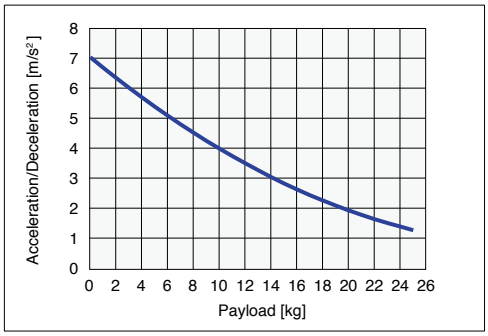
Horizontal/ Wall hanging



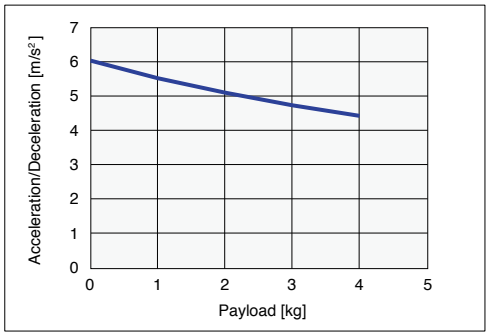
Vertical

LGXS07-20

Horizontal/ Wall hanging



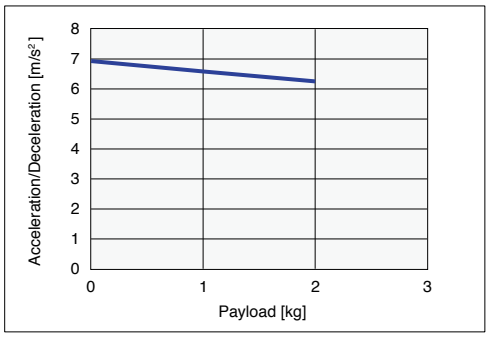
Vertical



LGXS07-30

Horizontal/ Wall hanging

Vertical



■ Acceleration/Deceleration

High agility model

LGXS07

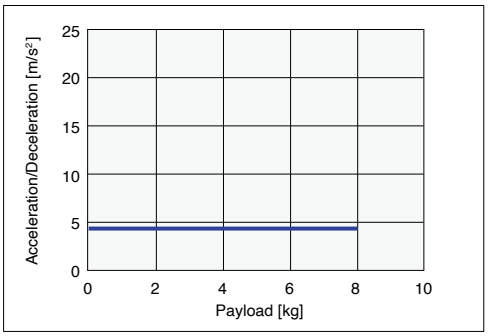
Model	LGXS07-5	LGXS07-10		LGXS07-20		LGXS07-30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	4.32	9.64	8.44	14.72	14.72	14.72	14.72
1	4.29	9.36	8.20	14.72	13.96	14.72	14.72
2	4.26	9.10	7.97	14.47	12.71	14.72	
3	4.23	8.85	7.75	13.26		14.03	
4	4.20	8.61	7.54	12.23		12.39	
5	4.17	8.39		11.36		11.09	
6	4.14	8.17		10.59			
7	4.11	7.97		9.93			
8	4.08	7.78		9.34			
9		7.59		8.82			
10		7.42		8.36			

Model	LGXS07-5	LGXS07-10		LGXS07-20		LGXS07-30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
11		7.25					
12		7.09					
13		6.94					
14		6.79					
15		6.65					
16		6.52					
17		6.39					
18		6.26					
19		6.14					
20		6.03					

■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS07-5

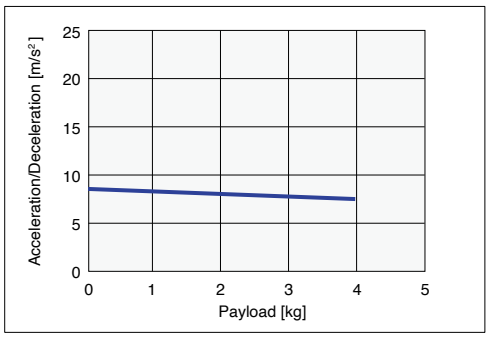
Vertical



LGXS07-10

Horizontal/ Wall hanging

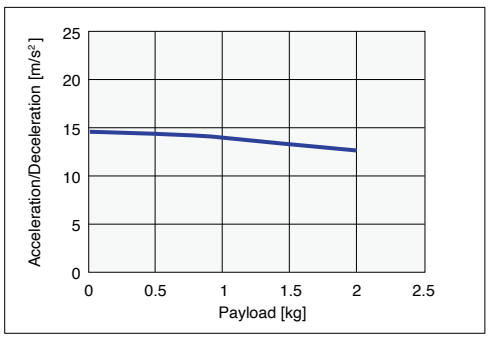
Vertical



LGXS07-20

Horizontal/ Wall hanging

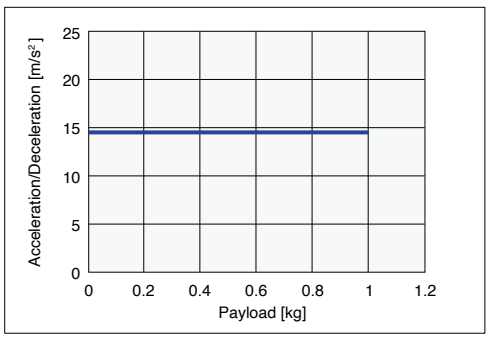
Vertical



LGXS07-30

Horizontal/ Wall hanging

Vertical



Inertia Moment

LGXS10

[kg·m²×10⁻⁴]	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	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

Acceleration/Deceleration

LGXS10

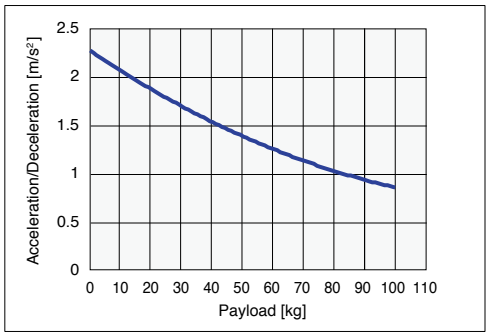
Model	LGXS10-5		LGXS10-10		LGXS10-20		LGXS10-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
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					

Model	LGXS10-5		LGXS10-10		LGXS10-20		LGXS10-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
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							
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							

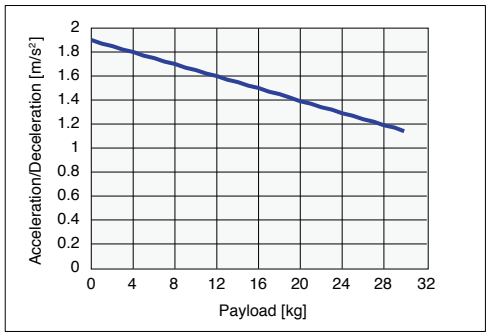
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS10-5

Horizontal/ Wall hanging

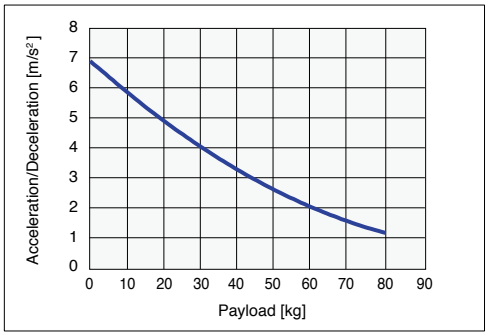


Vertical



LGXS10-10

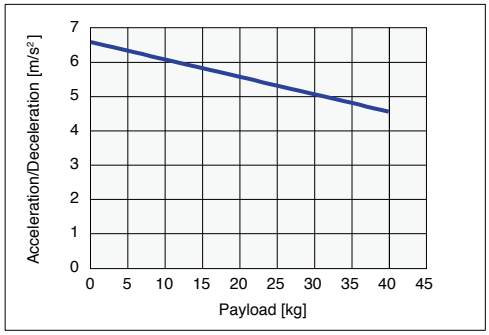
Horizontal/ Wall hanging



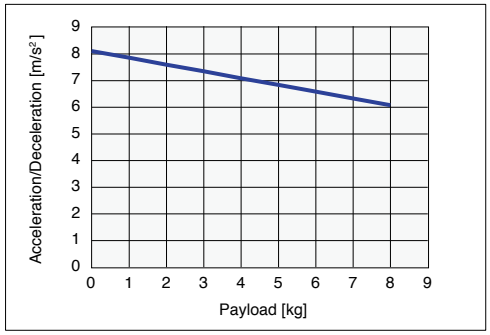
Vertical

LGXS10-20

Horizontal/ Wall hanging



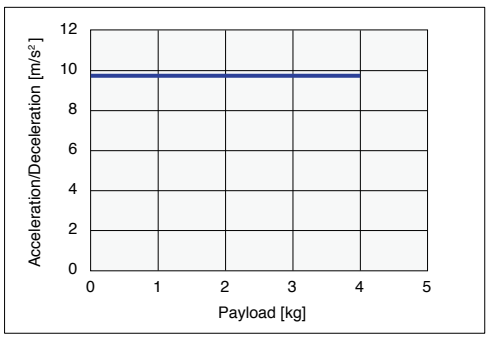
Vertical



LGXS10-30

Horizontal/ Wall hanging

Vertical



Acceleration/Deceleration

High agility model

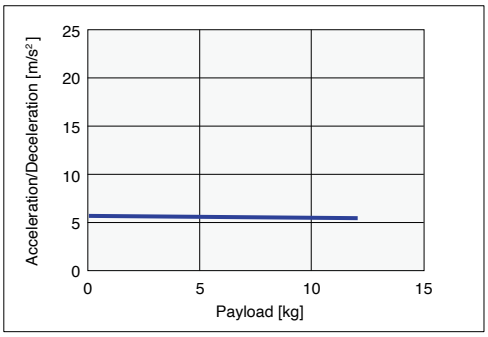
LGXS10

Model	LGXS10-5	LGXS10-10		LGXS10-20		LGXS10-30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	5.53	11.71	10.84	19.62	19.62	19.62	19.62
1	5.51	11.47	10.63	19.62	18.69	19.62	19.62
2	5.48	11.25	10.44	18.66	17.55	19.62	19.62
3	5.46	11.03	10.26	17.52	16.54	19.55	
4	5.43	10.82	10.08	16.52	15.65	17.74	
5	5.41	10.62	9.90	15.62		16.24	
6	5.38	10.43	9.74	14.81		14.96	
7	5.36	10.24	9.57	14.09		13.88	
8	5.33	10.06	9.42	13.43		12.94	
9	5.31	9.89		12.83		12.12	
10	5.28	9.72		12.28		11.40	
11	5.26	9.56		11.78			
12	5.23	9.40		11.32			
13		9.25		10.89			
14		9.10		10.49			
15		8.96		10.12			
16		8.82		9.78			
17		8.69		9.45			
18		8.56		9.15			
19		8.43		8.87			
20		8.31		8.60			
21		8.19					
22		8.07					
23		7.96					
24		7.85					
25		7.75					
26		7.64					
27		7.54					
28		7.44					
29		7.35					
30		7.26					

Payload – Acceleration/Deceleration Graph (Estimate)

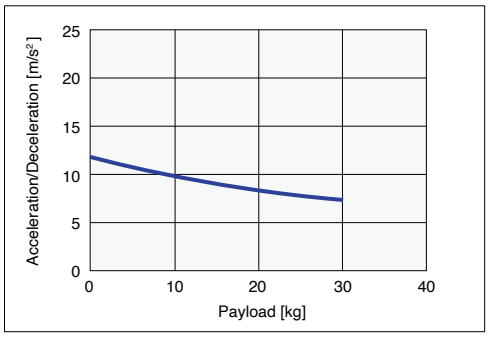
LGXS10-5

Vertical

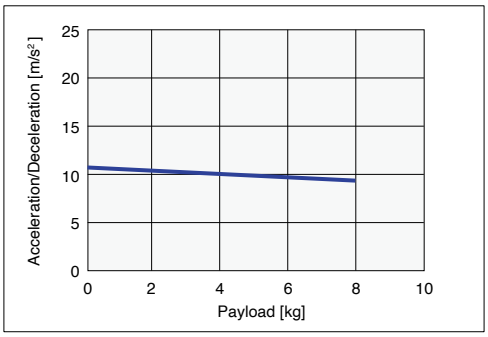


LGXS10-10

Horizontal/ Wall hanging



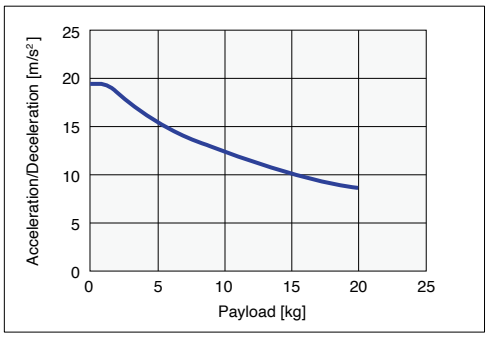
Vertical



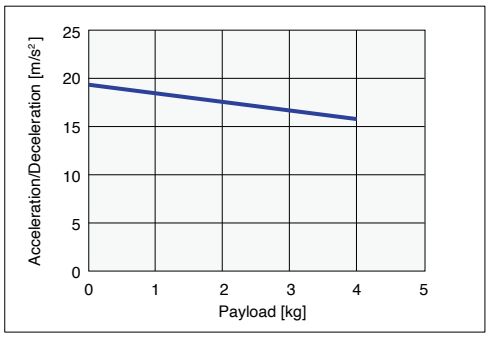
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS10-20

Horizontal/
Wall hanging

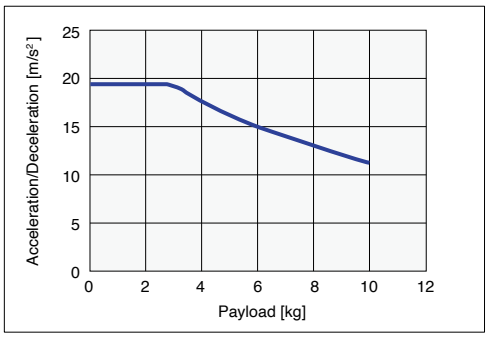


Vertical

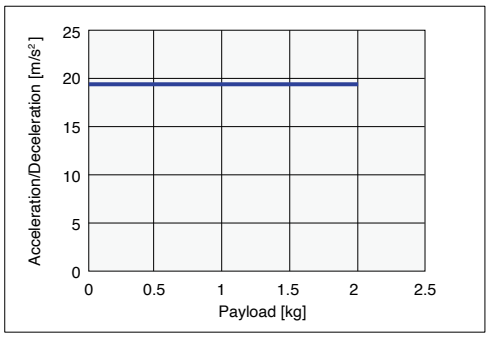


LGXS10-30

Horizontal/
Wall hanging



Vertical



Inertia Moment

LGXS12

[kg·m²×10⁻⁴]	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	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

Acceleration/Deceleration

LGXS12

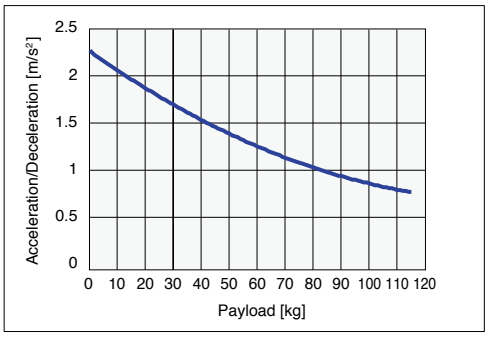
Model	LGXS12-5		LGXS12-10		LGXS12-20		LGXS12-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
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					

Model	LGXS12-5		LGXS12-10		LGXS12-20		LGXS12-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
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					
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							

■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS12-5

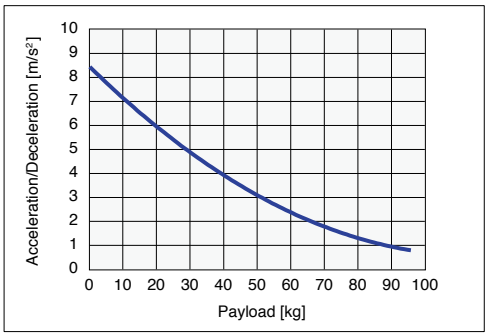
Horizontal/ Wall hanging



Vertical

LGXS12-10

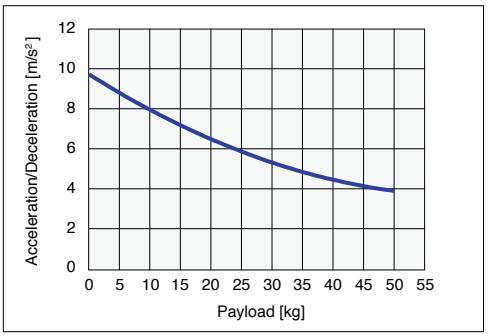
Horizontal/ Wall hanging



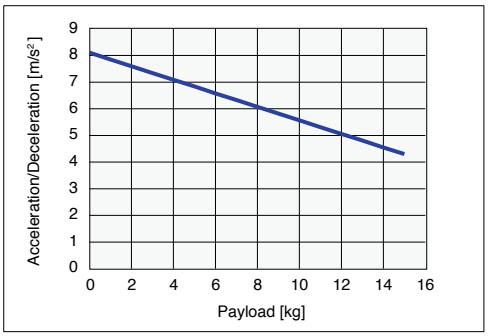
Vertical

LGXS12-20

Horizontal/ Wall hanging

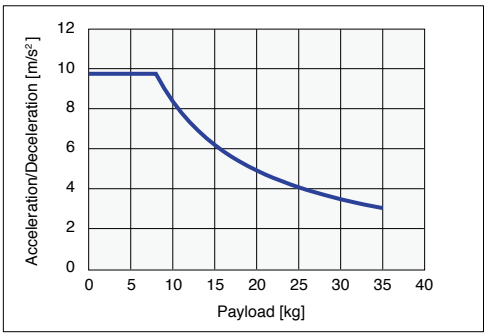


Vertical

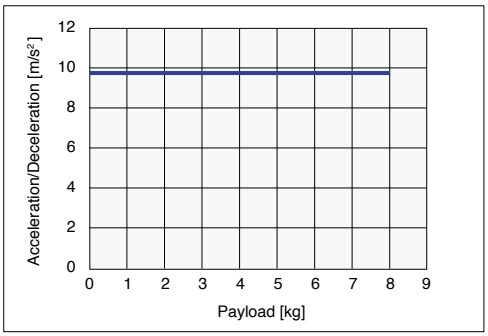


LGXS12-30

Horizontal/ Wall hanging



Vertical



■ Acceleration/Deceleration

High agility model

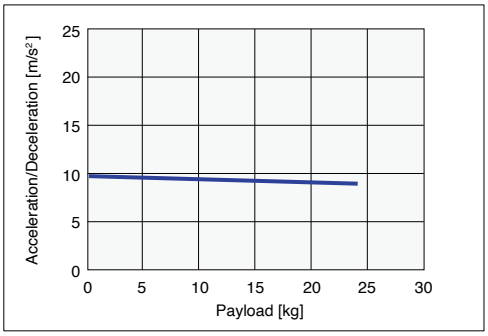
LGXS12

Model	LGXS12-5	LGXS12-10		LGXS12-20		LGXS12-30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	9.85	19.62	19.21	19.62	19.62	19.62	19.62
1	9.81	19.62	18.90	19.62	19.62	19.62	19.62
2	9.77	19.62	18.59	19.62	19.62	19.62	19.62
3	9.73	19.62	18.29	19.62	19.62	19.62	19.62
4	9.69	19.62	18.00	19.62	19.62	19.62	19.62
5	9.65	19.53	17.72	19.62	19.62	19.62	
6	9.61	19.20	17.45	19.62	19.62	19.62	
7	9.57	18.89	17.19	19.62	19.62	19.62	
8	9.53	18.58	16.94	19.62	19.62	19.62	
9	9.49	18.28	16.69	19.62		19.62	
10	9.45	17.99	16.45	19.62		19.62	
11	9.41	17.71	16.21	19.62		19.62	
12	9.37	17.44	15.99	19.62		19.31	
13	9.34	17.18	15.77	19.62		18.37	
14	9.30	16.93	15.55	19.62		17.53	
15	9.26	16.68	15.34	19.06		16.75	
16	9.22	16.44	15.14	18.45		16.05	
17	9.19	16.21		17.87		15.40	
18	9.15	15.98		17.33		14.80	
19	9.11	15.76		16.83		14.24	
20	9.08	15.54		16.35		13.73	
21	9.04	15.33		15.89			
22	9.01	15.13		15.47			
23	8.97	14.93		15.06			
24	8.94	14.74		14.67			
25		14.55		14.31			
26		14.37		13.96			
27		14.19		13.63			
28		14.02		13.31			
29		13.85		13.01			
30		13.68		12.72			
31		13.52					
32		13.36					
33		13.21					
34		13.06					
35		12.91					
36		12.76					
37		12.62					
38		12.48					
39		12.35					
40		12.22					

■ Payload – Acceleration/Deceleration Graph (Estimate)

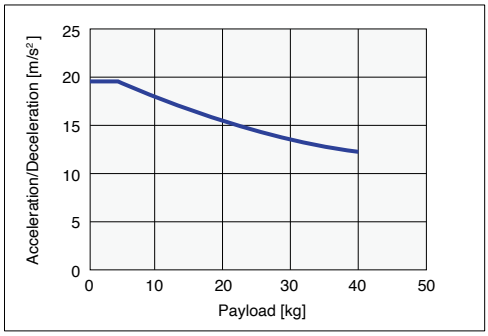
LGXS12-5

Vertical



LGXS12-10

Horizontal/ Wall hanging

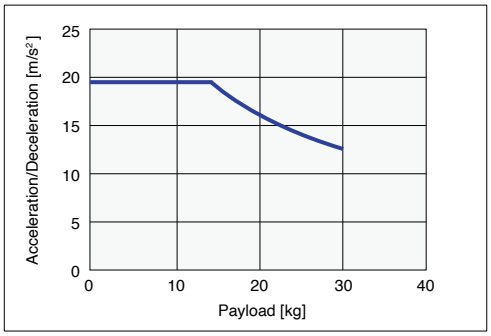


Vertical

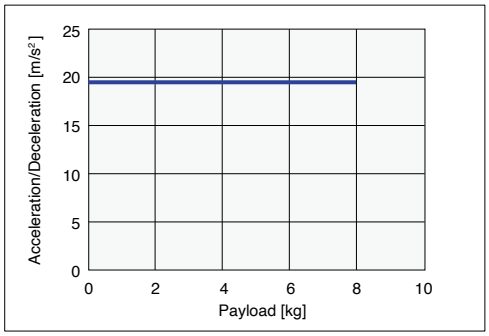
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS12-20

Horizontal/
Wall hanging



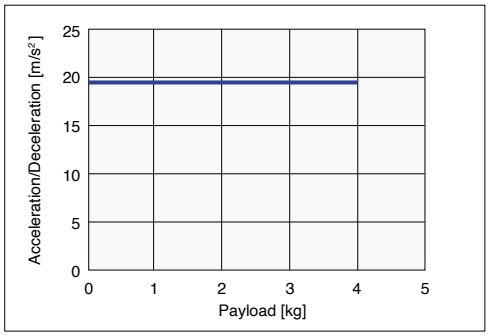
Vertical



LGXS12-30

Horizontal/
Wall hanging

Vertical



Inertia Moment

LGXS16

[kg·m²×10⁻⁴]	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	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

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/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
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			

Model	LGXS16-10		LGXS16-20		LGXS16-40	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
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			
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					

■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS16-10

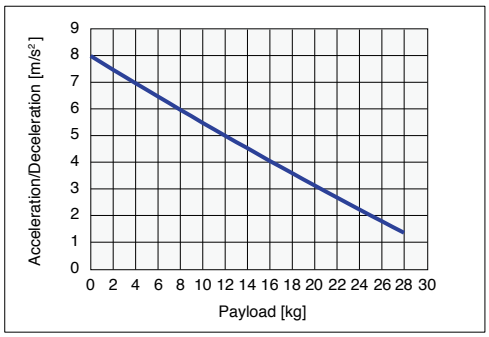
Horizontal/ Wall hanging

Vertical

LGXS16-20

Horizontal/ Wall hanging

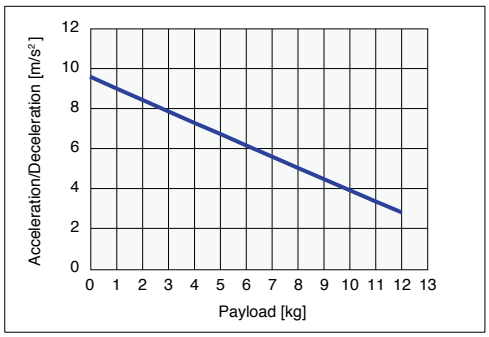
Vertical



LGXS16-40

Horizontal/ Wall hanging

Vertical



Acceleration/Deceleration

High agility model

LGXS16

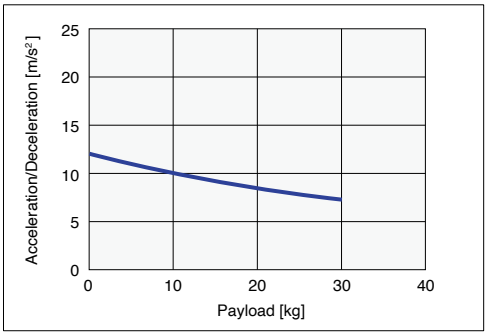
Model	LGXS16-10	LGXS16-20		LGXS16-40	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	11.17	19.48	18.43	19.62	19.62
1	11.11	19.14	18.11	19.62	19.62
2	11.07	18.80	17.81	19.62	19.62
3	11.02	18.48	17.52	19.62	19.62
4	10.97	18.16	17.24	19.62	19.62
5	10.92	17.86	16.97	19.62	19.62
6	10.87	17.57	16.70	19.62	19.62
7	10.82	17.28	16.45	19.62	19.62
8	10.78	17.01	16.20	19.62	19.62
9	10.73	16.74	15.96	19.62	
10	10.68	16.49	15.72	19.62	
11	10.64	16.24	15.50	19.30	
12	10.59	15.99	15.27	18.63	
13	10.55	15.76	15.06	18.00	
14	10.50	15.53	14.85	17.42	
15	10.46	15.31	14.65	16.87	
16	10.41	15.09	14.45	16.35	
17	10.37	14.88		15.87	
18	10.33	14.68		15.41	
19	10.28	14.48		14.98	
20	10.24	14.29		14.57	
21	10.20	14.10		14.19	
22	10.16	13.91		13.82	
23	10.12	13.74		13.47	
24	10.07	13.56		13.14	
25	10.03	13.39		12.83	
26	9.99	13.23		12.53	
27	9.95	13.07		12.24	
28	9.91	12.91		11.97	
29	9.87	12.75		11.71	
30	9.83	12.60		11.46	
31	9.79	12.46			
32	9.76	12.31			

Model	LGXS16-10	LGXS16-20		LGXS16-40	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s²]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
33		12.17			
34		12.04			
35		11.90			
36		11.77			
37		11.64			
38		11.52			
39		11.40			
40		11.28			
41		11.16			
42		11.04			
43		10.93			
44		10.82			
45		10.71			
46		10.61			
47		10.50			
48		10.40			
49		10.30			
50		10.20			
51		10.11			
52		10.01			
53		9.92			
54		9.83			
55		9.74			
56		9.65			
57		9.56			
58		9.48			
59		9.40			
60		9.31			

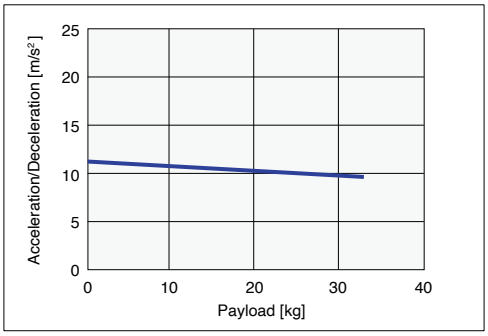
Payload – Acceleration/Deceleration Graph (Estimate)

LGXS16-10

Horizontal/ Wall hanging

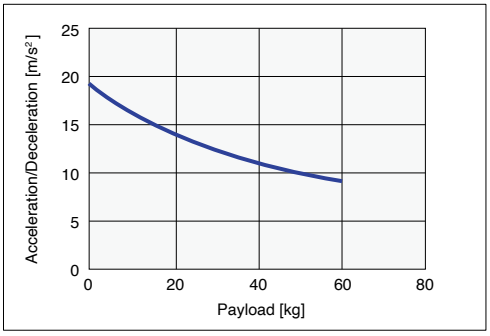


Vertical

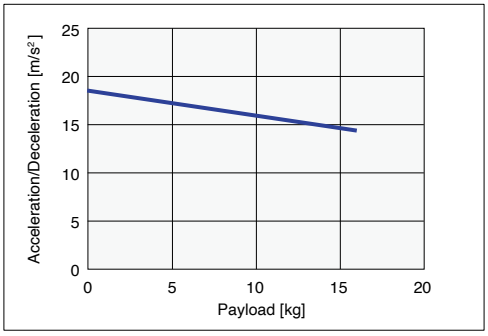


LGXS16-20

Horizontal/ Wall hanging

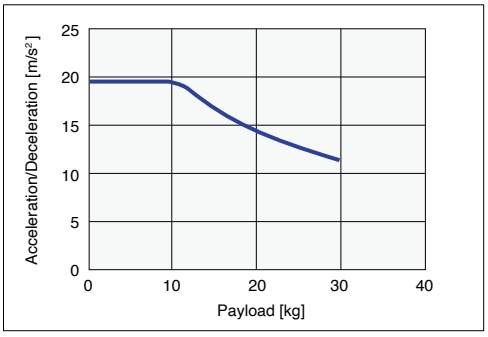


Vertical

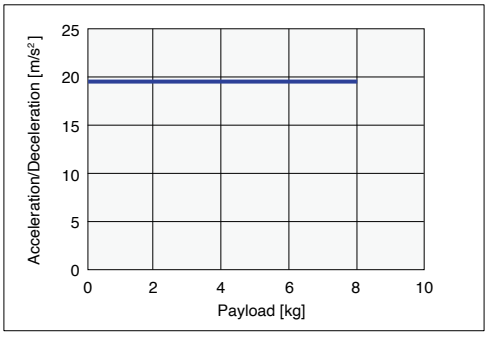


LGXS16-40

Horizontal/ Wall hanging



Vertical



Inertia Moment

LGXS20

[kg·m²×10⁻⁴]	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	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

Acceleration/Deceleration

LGXS20

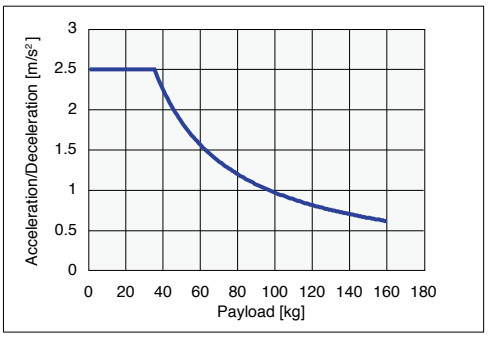
Model	LGXS20-10		LGXS20-20		LGXS20-40	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
0	2.5	3.8	7.8	9.95	9.61	9.61
1	2.5	3.74	7.7	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			

Model	LGXS20-10		LGXS20-20		LGXS20-40	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]		Acceleration/Deceleration [m/s²]	
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			
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					

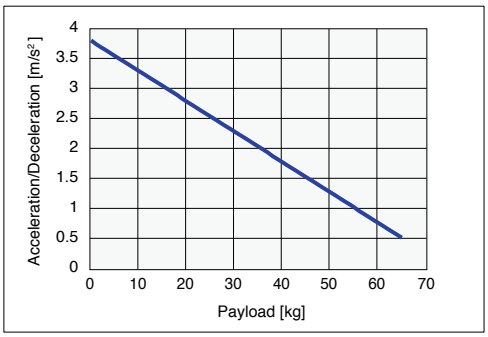
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS20-10

Horizontal/
Wall hanging

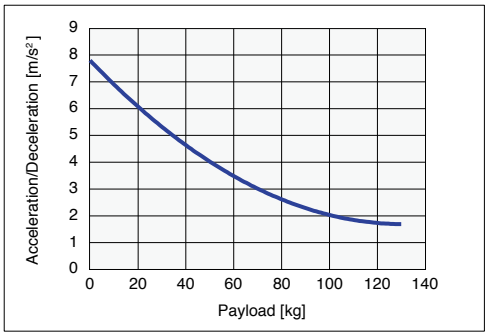


Vertical

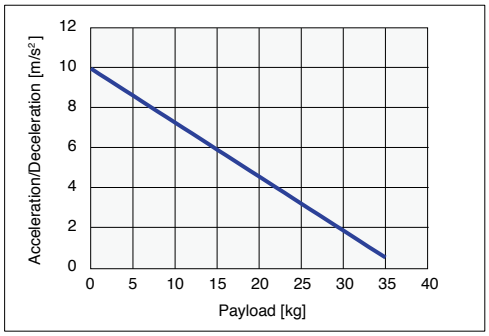


LGXS20-20

Horizontal/
Wall hanging

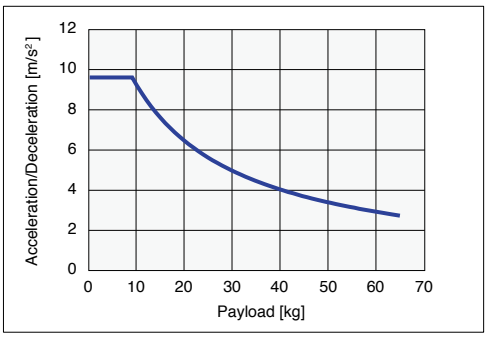


Vertical



LGXS20-40

Horizontal/
Wall hanging



Vertical

Robonity series External Sensor Installation Guide (Left side shown)

Sensor Spec

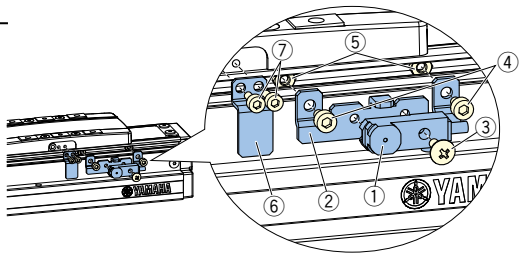
Item	Specification	
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.	
Model	GX-F8A	GX-F8B
Output method	NPN type	
Output action	ON when approaching	ON when leaving
Power voltage	DC12 to 24V	
Load current	100 mA or less	
Consumption current	15 mA or less	

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]

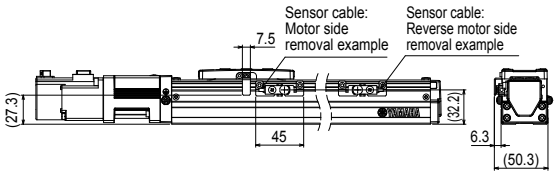
- Bracket screw tightening torque: 0.5 N·m
- The detection surface of the sensor and sensor plate clearance is approx. 1 mm.

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



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

LBAS04



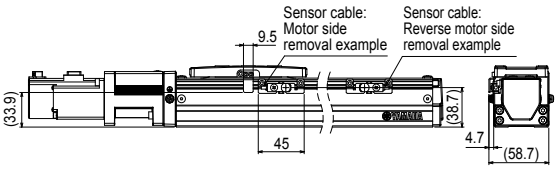
Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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
Assy		Target plate option	KFT-M2206-00		
Component	⑥	Switch target plate	KFT-M22G5-00	1	
	⑦	Target plate bolt	90112-02J005	2	M2 × 0.4 Length 5

LBAS05



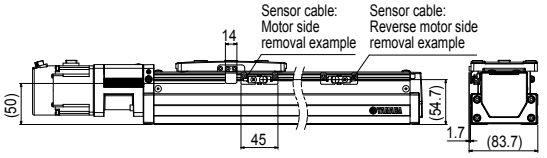
Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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
Assy		Target plate option	KFU-M2206-00		
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: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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
Assy		Target plate option	KFV-M2206-00		
Component	⑥	Switch target plate	KFV-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.

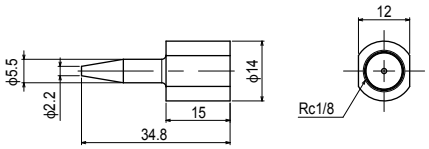
* It can be used by attaching to a commercially available general grease gun.

Lubrication Kit

Grease nozzle and nozzle tip

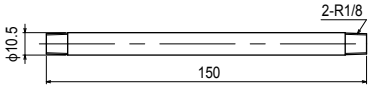
Part number	KFU-M3861-00

Nozzle tip



Part number	KFU-M2941-00

Grease nozzle



Part number	KFU-M2942-00

Robonity series External Sensor Installation Guide (Left side shown)

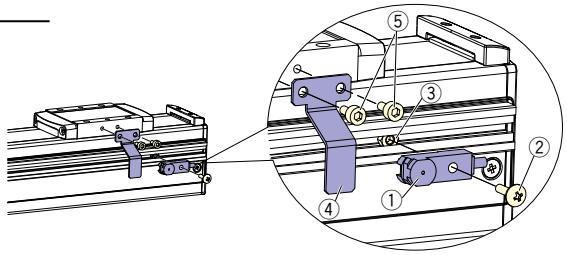
Sensor Spec

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]

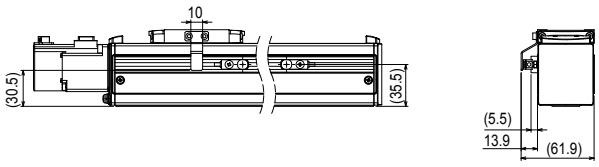
- Bracket screw tightening torque: 0.5 N·m
- The detection surface of the sensor and sensor plate clearance is approx. 1 mm.



① Proximity sensor
② Bracket screw
③ Bracket nut
④ Switch target plate
⑤ 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. To install the sensor option, side cover with T groove is needed.

LGXS05



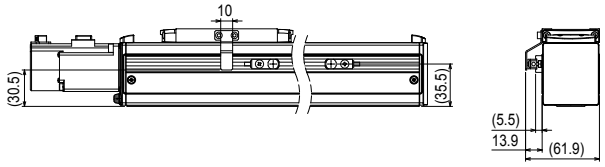
Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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
Assy		Target plate option	KES-M2206-00		
Component	④	Switch target plate	KES-M22G5-00	1	
	⑤	Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

LGXS05L



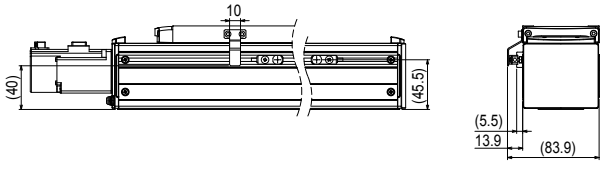
Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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
Assy		Target plate option	KES-M2206-00		
Component	④	Switch target plate	KES-M22G5-00	1	
	⑤	Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

LGXS07



Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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
Assy		Target plate option	KES-M2206-00		
Component	④	Switch target plate	KES-M22G5-00	1	
	⑤	Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

Robonity series External Sensor Installation Guide (Left side shown)

Sensor Spec

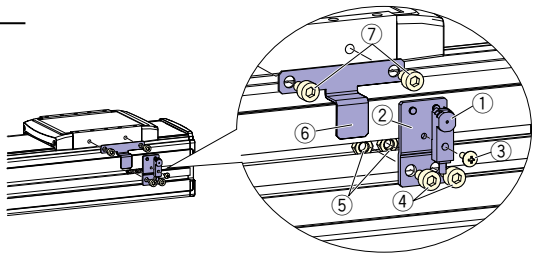
Item	Specification	
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.	
Model	GX-F8A	GX-F8B
Output method	NPN type	
Output action	ON when approaching	ON when leaving
Power voltage	DC12 to 24V	
Load current	100 mA or less	
Consumption current	15 mA or less	

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

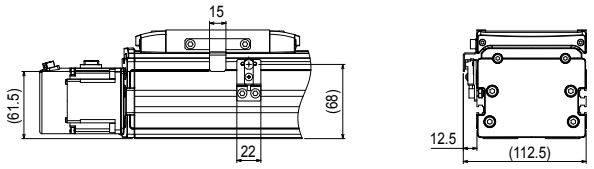
[Caution]

- 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



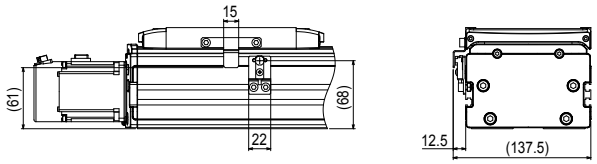
Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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



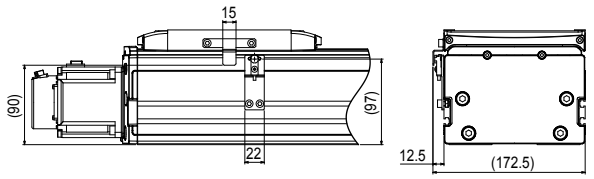
Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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



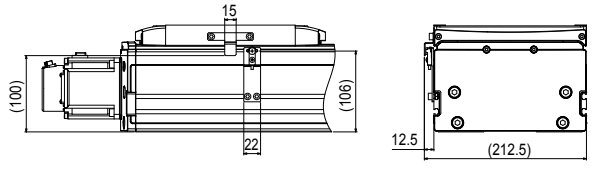
Proximity sensor option

Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
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

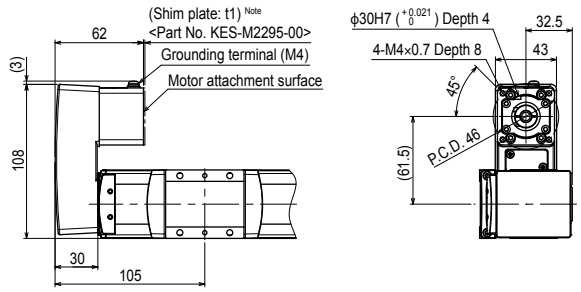
Class		Name	Number: ON when approaching (NO, Normally Open)	Number: ON when leaving (NC, Normally Closed)	Qty	Remarks
Assy		Proximity sensor option	KEY-M2205-10	KEY-M2205-00		
Component	①	Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	②	Sensor Bracket	KEY-M22FF-00		1	
	③	Bracket screw	90990-66J004		1	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

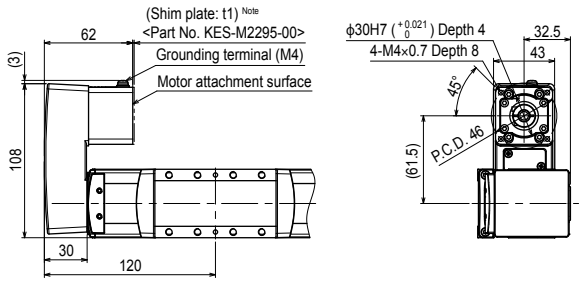
Robonity series — Reference guide for right angle motor mount (right side shown)

LGXS05



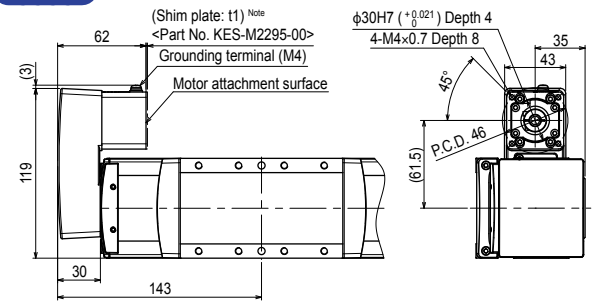
Note. For the availability of shim plate, see the adaptable servo motor table (P.20).

LGXS05L



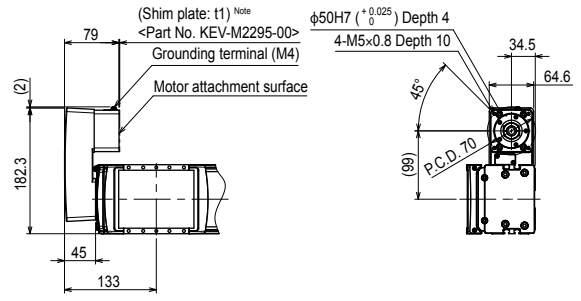
Note. For the availability of shim plate, see the adaptable servo motor table (P.22).

LGXS07



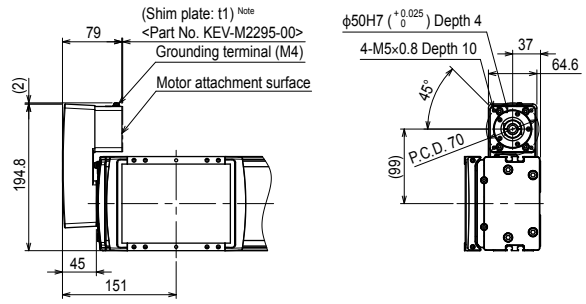
Note. For the availability of shim plate, see the adaptable servo motor table (P.24).

LGXS10



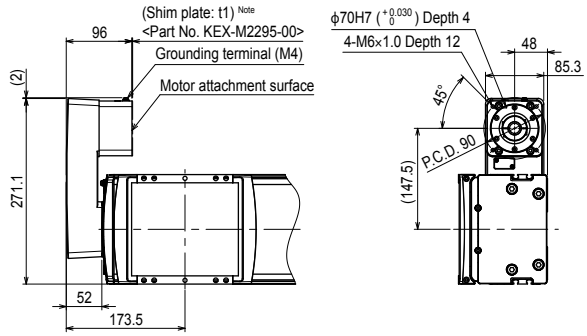
Note. For the availability of shim plate, see the adaptable servo motor table (P.26).

LGXS12



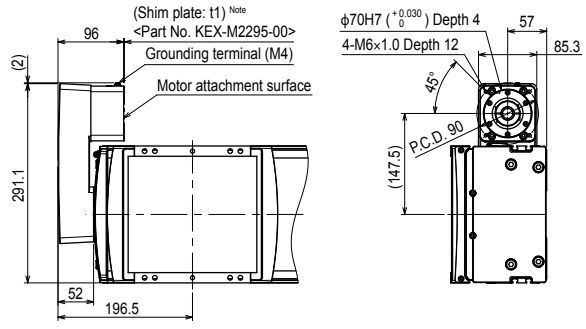
Note. For the availability of shim plate, see the adaptable servo motor table (P.28).

LGXS16



Note. For the availability of shim plate, see the adaptable servo motor table (P.30).

LGXS20



Note. For the availability of shim plate, see the adaptable servo motor table (P.32).

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

MEMO

Safety Precautions

Read the instruction manual thoroughly to operate the robot in a correct manner.

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Robotics Operations FA Section

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