

YAMAHA Motor-less Single Axis Actuator

Robonity

S e r i e s

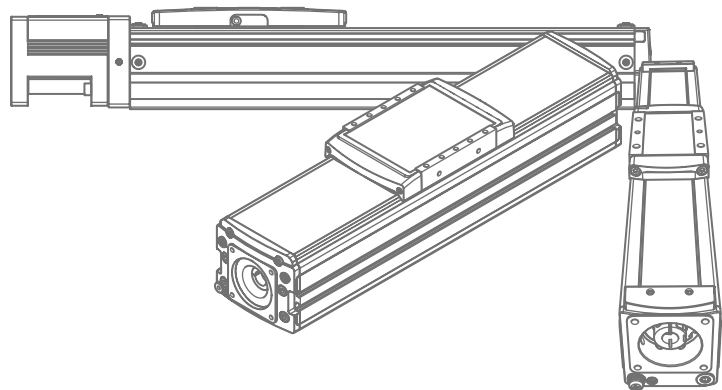
User's Manual

Basic Model

LBAS04 / LBAS05 / LBAS08

Advanced Model

LGXS05 / LGXS05L / LGXS07
LGXS10 / LGXS12 / LGXS16 / LGXS20



Warranty

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A Specifications

Warranty

For information on the warranty period and terms, please contact our distributor where you purchased the product.

■ This warranty does not cover any failure caused by:

1. Installation, wiring, connection to other control devices, operating methods, inspection or maintenance that does not comply with industry standards or instructions specified in the YAMAHA manual;
2. Usage that exceeded the specifications or standard performance shown in the YAMAHA manual;
3. Product usage other than intended by YAMAHA;
4. Storage, operating conditions and utilities that are outside the range specified in the manual;
5. Damage due to improper shipping or shipping methods;
6. Accident or collision damage;
7. Installation of other than genuine YAMAHA parts and/or accessories;
8. Modification to original parts or modifications not conforming to standard specifications designated by YAMAHA, including customizing performed by YAMAHA in compliance with distributor or customer requests;
9. Pollution, salt damage, condensation;
10. Fires or natural disasters such as earthquakes, tsunamis, lightning strikes, wind and flood damage, etc;
11. Breakdown due to causes other than the above that are not the fault or responsibility of YAMAHA;

■ The following cases are not covered under the warranty:

1. Products whose serial number or production date (month & year) cannot be verified.
2. Changes in software or internal data such as programs, points, calibration, or registered models that were created or changed by the customer.
3. Products whose trouble cannot be reproduced or identified by YAMAHA.
4. Products utilized, for example, in radiological equipment, biological test equipment applications or for other purposes whose warranty repairs are judged as hazardous by YAMAHA.

THE WARRANTY STATED HEREIN PROVIDED BY YAMAHA ONLY COVERS DEFECTS IN PRODUCTS AND PARTS SOLD BY YAMAHA TO DISTRIBUTORS UNDER THIS AGREEMENT. ANY AND ALL OTHER WARRANTIES OR LIABILITIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY DISCLAIMED BY YAMAHA. MOREOVER, YAMAHA SHALL NOT BE HELD RESPONSIBLE FOR CONSEQUENTIAL OR INDIRECT DAMAGES IN ANY MANNER RELATING TO THE PRODUCT.

This manual does not serve as a guarantee of any industrial property rights or any other rights and does not grant a license in any form. Please acknowledge that we bear no liability whatsoever for any problems involving industrial property rights which may arise from the contents of this manual.

About this Manual

Thank you for purchasing YAMAHA's motorless single-axis actuator.

This manual describes the safety precautions, handling, adjustment, inspection, and maintenance to operate the Robonity series correctly, safely, and efficiently.

Be sure to read this manual before installing the Robonity series.

In addition, after reading this manual, store the manual in a safe place where it can be taken out easily and the necessary points can be referred to immediately at any time.

- This manual should be stored together with the product.
 1. Install, operate, or adjust the product while viewing the contents of the manual on your computer screen.
 2. Install, operate, or adjust the product while referring to a printout of the necessary pages from the manual.
 3. Keep the publication manual (charged) on hand, and then install, operate, or adjust the product.
- When relocating, transferring, or selling the Robonity series, you have to recommend a new recipient to read this manual thoroughly.
- When specifications other than the standard specifications are not described particularly in this manual, the explanation about the standard specifications is referred to.
- For details about the safety, read the separate "Safety Instructions" thoroughly and be sure to follow the instructions.
- For details about the actual operation of the Robonity series, see the manual for servo amplifier to be used.



NOTE

The Safety Instructions and this manual can be downloaded from our website (member site). To use the website, the member registration is needed.

<https://www2.yamaha-motor.co.jp/Robot/Member/memberindex/>

This manual uses the following safety alert symbols and signal words to provide safety instructions that must be observed and to describe handling precautions, prohibited actions, and compulsory actions. Make sure to understand the meaning of each symbol and signal word and then read this manual.



DANGER

This indicates an immediately hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

This indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

This indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury, or damage to the equipment.



NOTE

This gives a supplementary explanation.

Precautions of Handling Motorless Single-axis Actuator



WARNING

The work with the cover removed needs the special knowledge and skill. If unskilled work person performs such work, this may involve risk.

These tasks must be performed only by people who have the "Qualification of operators/workers". **REF** "Safety Instructions"

Be sure to read the manuals (this manual).

Handling or usage/operation other than that specified in the manuals may lead to breakage and operation failure of the product. Any damage attributed to the use beyond the specifications is not guaranteed.

Be sure to confirm the specification before usage.

- Actual speed may lack of the setting one according to payload/resistance conditions.
- Do not exceed the load/speed limit of the actuator specification.

The actuator operation out of specific range may occur noise, rattle or reduction of accuracy and might lead to reduce the product life.

- An excessive operating speed/inertia load may cause malfunction.

Securely tighten all stationary parts and connected parts so that they will not become loose.

Design the system to avoid human injury.

- The actuator has a potential hazard that it performs an impact operation at a speed exceeding the setting if the force changes as the machine sliding part is pried.

Such operation may cause human injury or damage to the peripheral equipment.

- If a driven object and moving parts of the product are in close proximity, injury may occur. Design the system to avoid contact with human body, such as attaching a protective cover.

Ensure safety design in consideration of load fluctuations, ascending / descending movements, changes in the frictional resistance and safety measures during failure/emergency stop.

- Design the system to prevent human injury and equipment damage when it is stopped by a safety device for abnormal conditions such as a power outage or an emergency stop / restart of whole system.
- When the actuator is used for clamping, the clamping (pushing) force could be decreased due to power failure, potentially creating a hazardous situation in which the workpiece is released.
- Take measures to prevent injury and equipment damage even in the case of a power source failure.
- In case that the workpiece gravity is added to the operating direction, the workpiece may fall down while the power is turned off or the (emergency) stop status.

When using in the vertical direction, use the servo motor with a brake.

Since the actuator without brake does not have any holding force, the workpiece may drop when the servo / power is turned off. If the actuator without brake is used, the equipment must be designed to ensure the safety even when the workpiece drops.

Always wear safety shoes and gloves during work.



CAUTION

Do not apply any load or impact other than the transfer load.

- Be careful not to dent or damage the following parts:
body, mounting surface, transfer surfaces (rail, guide) or driving parts (slider, rod).
Each part is manufactured with a precise tolerance. So, even a slight deformation or positional deviation may cause malfunction (rattle, looseness, increasing in sliding resistance and so on).
- Do not apply any excessive load to servo motor. Positional deviation of servo motor may cause signal detection error, increasing internal resistance or damage and so on.
- Do not drive body fixing movable parts (slider, rod).
An excessive load will be applied to driving parts, which leads to reduce accuracy / service life of actuator.
- The external force applied to the slider is necessary to be added to the total payload.
- When a piping duct or tube is attached to the actuator, the sliding resistance increases and may lead to operational failure.



CAUTION

- Make sure the bolts are not loosened after the slider collision with the mechanical end or tools.
- As the origin position may be changed at the slider collision, check the origin position when operating the main body actuator again.

Repetitive positioning accuracies under the following conditions are not guaranteed.

- The ambient temperature changes intensively.
- The temperature of the actuator changes intensively.
- The load conditions vary during operation.

No servomotor is mounted on this product.

- The servomotor and driver are prepared, mounted, and adjusted by the customer.
 - For details about how to adjust the servomotor, see the manual for servomotor prepared by the customer.
-

Chapter 1

Product Overview

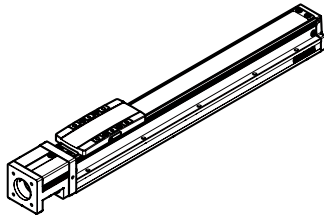
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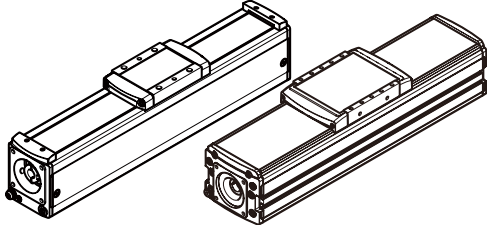
1. Overview

YAMAHA's motorless single-axis actuator Robonity series is separated to the Basic model and Advanced model so as to provide the product lineup that meets the users' demands.

Basic model Features: High rigidity, compact design, and low cost
Model: **LBAS04** **LBAS05** **LBAS08**

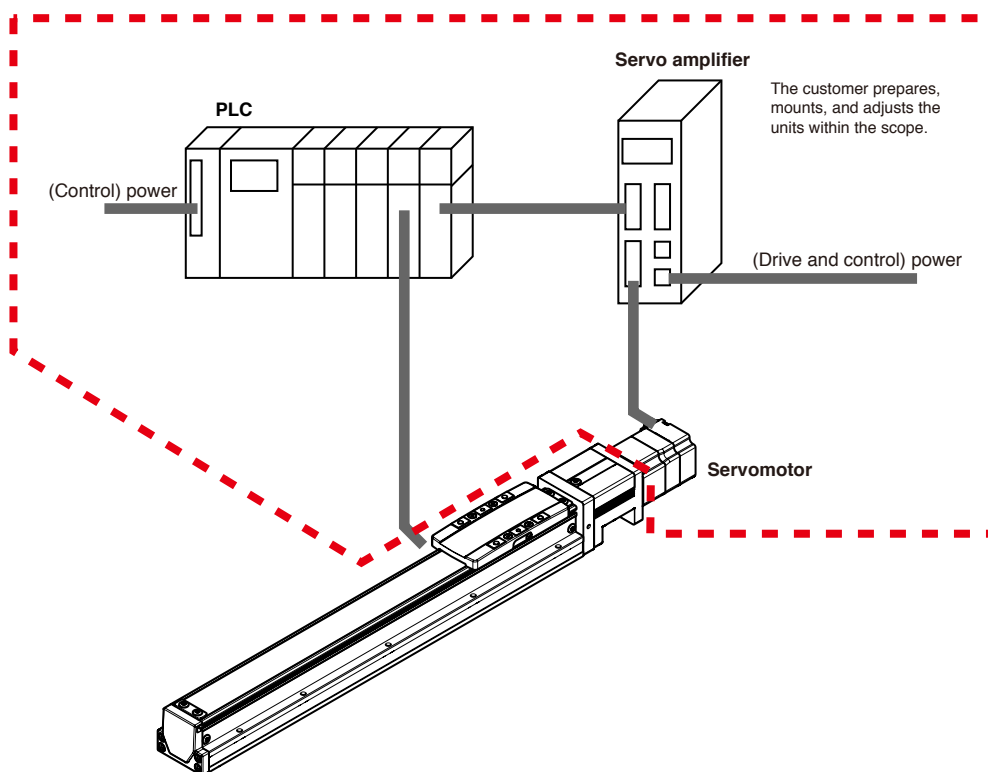


Advanced model Features: High accuracy, accuracy class C5, high durability, clean specifications are supported as standard.
Model: **LGXS05** **LGXS05L** **LGXS07** **LGXS10** **LGXS12** **LGXS16** **LGXS20**



2. Example of System Configuration

No servomotor is mounted on this product.
The servomotor and servo amplifier are prepared, mounted, and adjusted by the customer.



3. Part Names



NOTE

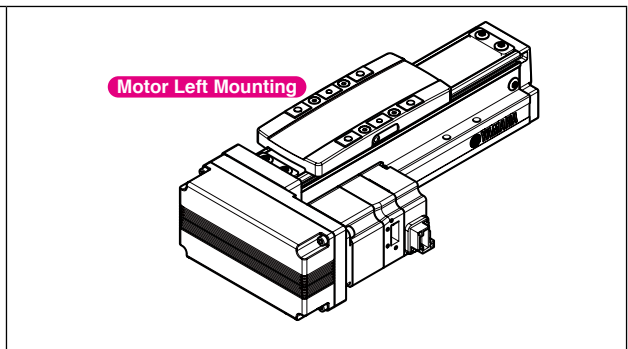
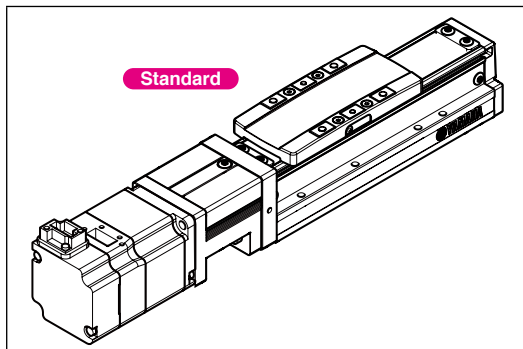
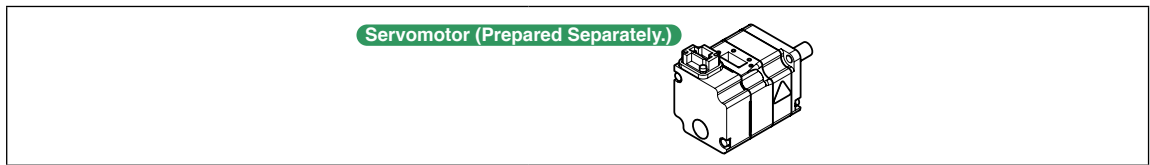
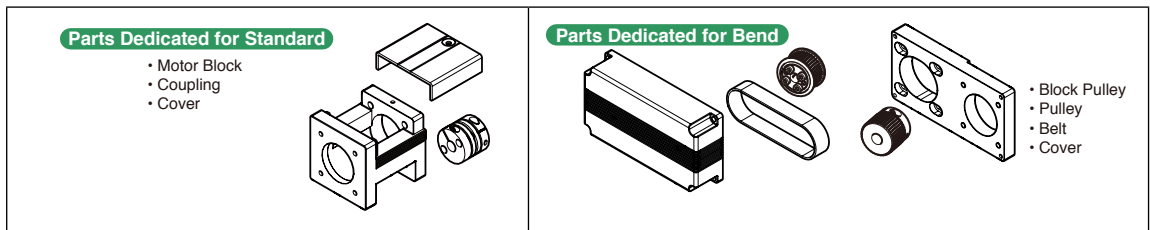
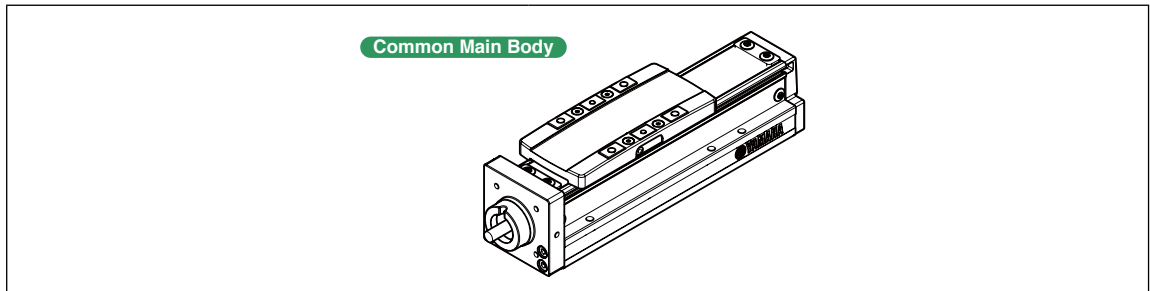
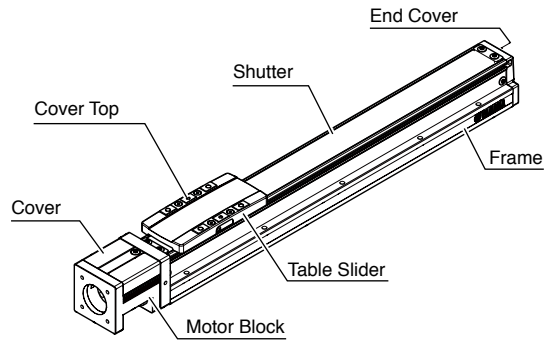
How to mount the servomotor on each model (REF "3. Motor" in Chapter 2)

3.1 LBAS04 LBAS05 LBAS08



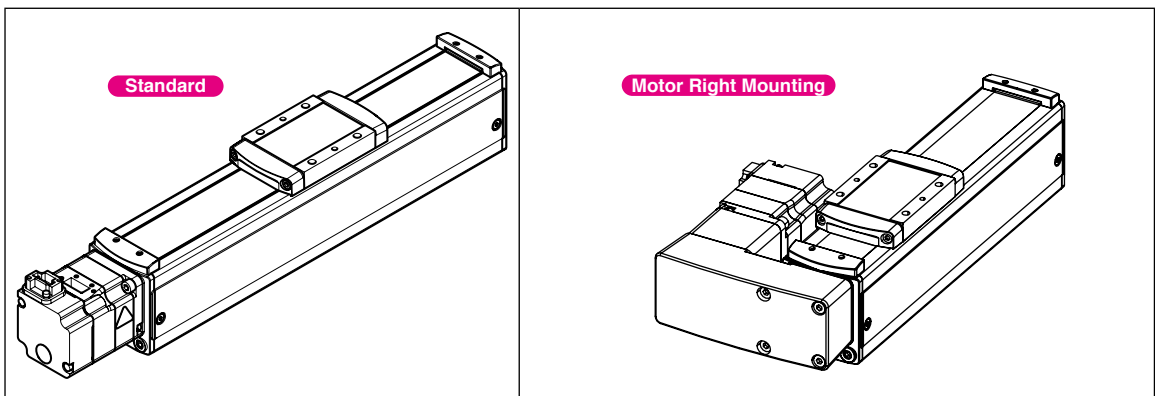
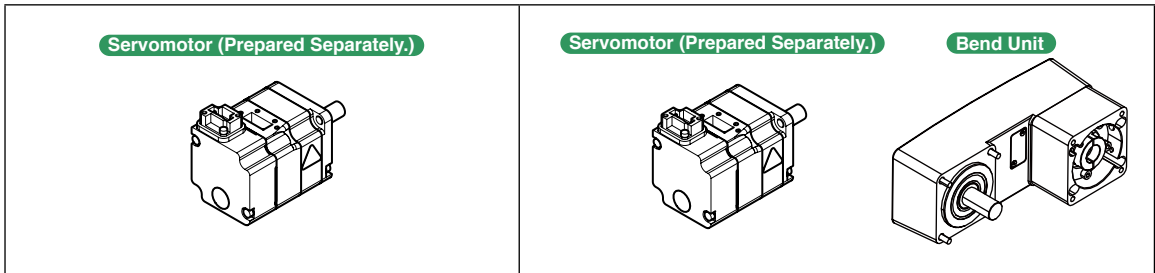
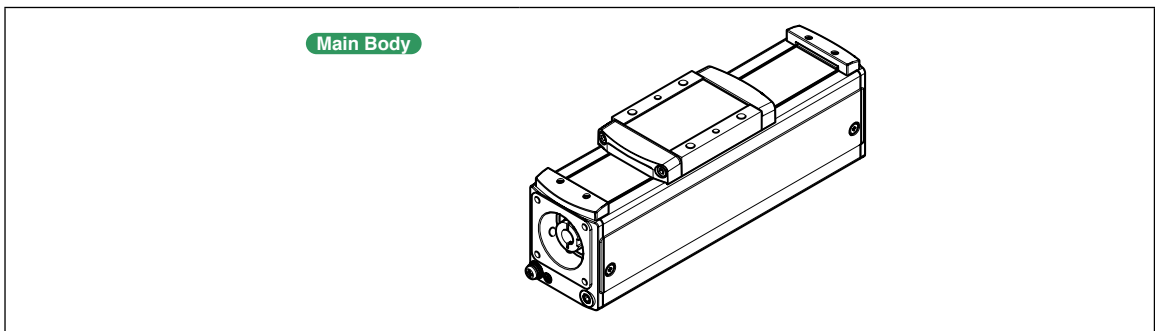
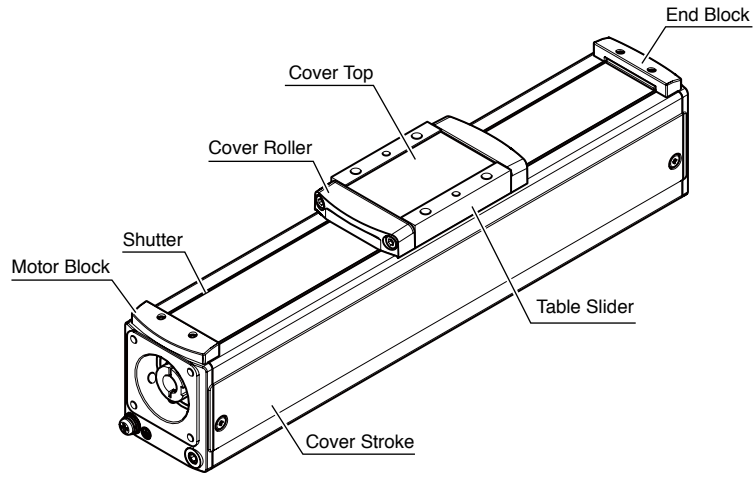
NOTE

The dedicated parts are mounted and adjusted by the customer.



3.2

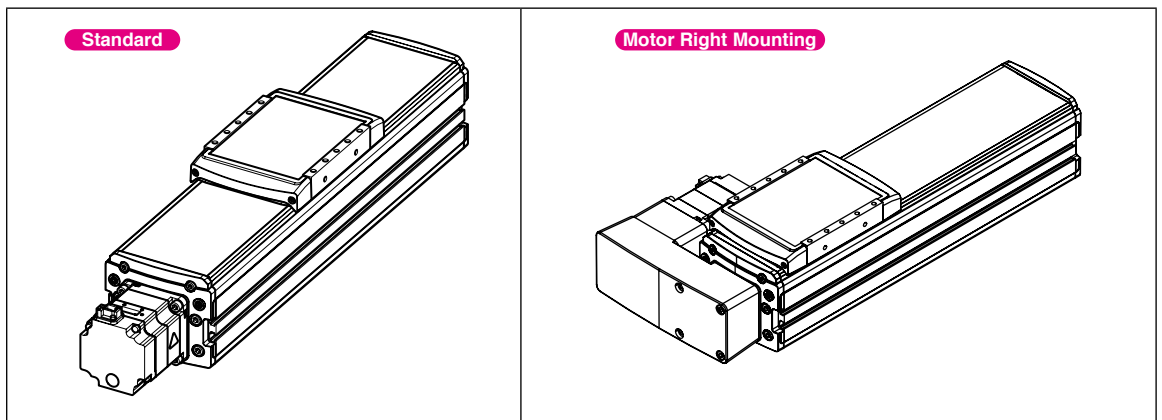
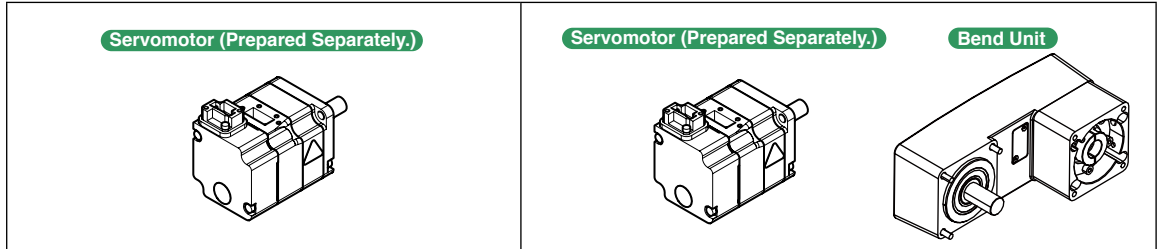
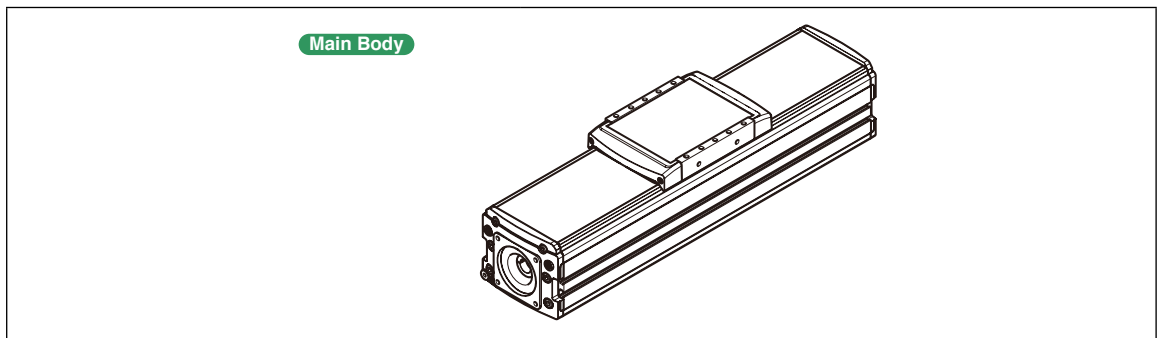
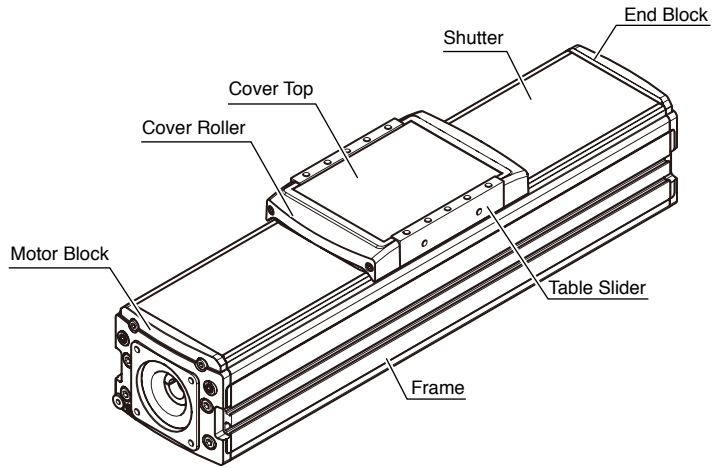
LGXS05 LGXS05L LGXS07



3.3 LGXS10 LGXS12 LGXS16 LGXS20

1

Product Overview



4. Noise Level

The following shows the maximum sound pressure level when this product operates at its maximum speed.

(The maximum sound pressure measurement method conforms to EN292-2.)

Model	Maximum Speed	Maximum Sound Pressure Level
LBAS04	800 mm/sec	78 dB or less
LBAS05	1333 mm/sec	80 dB or less
LBAS08	1200 mm/sec	80 dB or less
LGXS05 / LGXS05L	1333 mm/sec	70 dB or less
LGXS07	1800 mm/sec	73 dB or less
LGXS10 / LGXS12	1800 mm/sec	75 dB or less
LGXS16 / LGXS20	2400 mm/sec	75dB or less

Chapter 2

Motor Mounting and Installation

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1. Unpacking and Carrying



WARNING

- An actuator weighing 30 kg or more should be taken out of the package or carried by at least two operators. Actuator Weight [REF](#) Catalog
- Hold the bottom close to the both ends of the actuator and keep its balance with the table slider upward.
- Take great care not to drop the actuator.

1.1 Unpacking and Checking Product

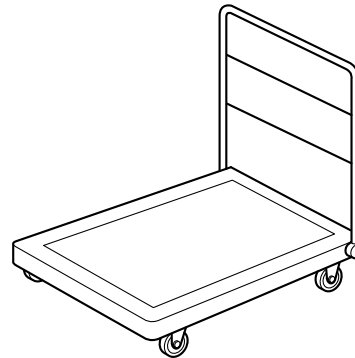
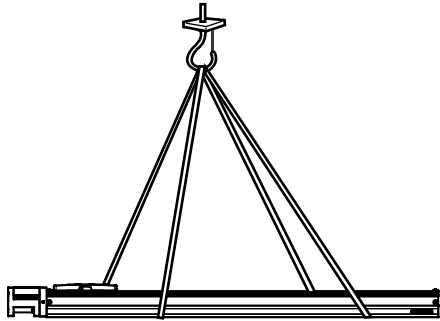
Check the product for any damage on the exterior, then unpack it.

Please notify your distributor immediately in the following conditions:

- There is any damage on the package or the product which has been received before unpacking.
- The received product is different from the ordered one.

1.2 Carrying by Hoist or Dolly

Using a hoist, carry cart (dolly) or forklift is recommended for carrying a heavy actuator.



WARNING

Serious injury may occur if the actuator falls and pins someone under it.

- Use a hoist and rope with carrying capacity strong enough to support the actuator weight.
- Make sure the rope stays securely on the hoist hook.
- Remove all loads attached to the actuator end. If any load is still attached, the actuator balance might shift while being carried, and it may topple over causing accidents.
- Always wear a safety helmet, shoes and gloves during work.
- When carrying the actuator by equipment such as a forklift that requires a license, only properly qualified operator may operate such equipment. The equipment and tools used for carrying the actuator should be serviced daily.

1.3 Carrying by Work Personnel



WARNING

Follow the precautions below when carrying the actuator.

- **Before carrying the actuator, remove any and all objects (such as a hand) attached on the table slider.**
Otherwise, the actuator may lose balance or the table slider may move causing serious injuries.
- **Keep the actuator balanced and don't let it tilt while carrying it.**
Otherwise, the table slider may move under its own weight causing serious injuries such as crushed fingers.
- **Fix the table slider temporarily so that the part is positioned in the near center of the actuator before carrying the actuator.**
Failure to do so may cause the ball screw to swing or vibrate largely while carrying the actuator.
- **Do not attempt to carry the actuator by holding the following parts.**
Table slider Cables Driver parts
- **Always wear safety shoes and gloves during work.**



CAUTION

When moving or carrying the actuator by hand, avoid placing the hands or fingers on the shutter at the top of the actuator. Pressing down on the shutter, even by a little force, may cause it to warp or deform, resulting in a premature life end of the related parts.-

2. Installation/Storage Environments

The following table shows installation and storage environments / conditions to assure optimum actuator functionality and service life.

Environments	Conditions	Precautions
Allowable Ambient Temperature	0 to 40°C Storage environments: -10 to 60°C	Shield the actuator if there is a heat source nearby. Otherwise, the radiated heat may cause damage to the actuator.
Allowable Ambient Humidity	35 to 85% RH (non condensation for storage)	
Altitude	0 to 1000 meters above sea level	Avoid using the actuator at high altitude. Malfunction, failure or short circuits may otherwise result.
Ambient Environments	Avoid installing near water, cutting fluid, oil dust, metallic chips, organic solvent, corrosive gas and corrosive materials.	<ul style="list-style-type: none"> • If cutting fluid, coolant or oil mist contaminates the product, failure or increase of sliding resistance may result. • Install a protective cover when the product is used in an environment directly exposed to foreign matters such as dust, cutting chips and spatter. Rattle or increase of sliding resistance may result. • Malfunction, failure or short circuits may result.
	Avoid installation in atmospheres containing flammable gas, dust, liquid or other flammable materials.	This actuator was not designed for use under the conditions described in the left. Do not operate this actuator near flammable materials.
	Avoid areas exposed to direct sunlight (ultraviolet ray) for both installation and storage.	Shade the sunlight in the place where the product is applied with direct sunshine.
	Avoid installation near strong magnetic fields, objects causing electromagnetic interference, electrostatic discharge and radio frequency interference.	Malfunction may occur.
Vibration	Avoid installation or storage in an environment subject to impact or vibration.	Do not use the actuator in locations with excessive vibration. Actuator installation bolts may become loose causing the actuator to fall over.
Working Space	Allow sufficient space around the actuator to perform jobs such as teaching, inspection, repair, etc.	

3. Motor

3.1 Motor Manufacturers and Compatible Models

No motor is mounted on this product. The motor and driver are prepared, mounted, and adjusted by the customer.



CAUTION

Refer to the external view, check the selected motor and the depth of the bolt hole in this product, and then prepare the motor securing bolts. [REF](#) "Specifications" in Chapter A.

3.2 Basic Model

Motor specification*	Manufacturer	LBAS04		LBAS05	
		50W(□40)		100W(□40)	
		Manufacturer's Series Name		Manufacturer's Series Name	
Y	Yasukawa Electric Corp.	Σ-V	SGMJV-A5	Σ-V	SGMJV-01
		Σ-7	SGM7J-A5	Σ-7	SGM7J-01
	Keyence Corp.	SV	SV-□005	SV	SV-□010
		SV2	SV2-□005	SV2	SV2-□010
	Mitsubishi Electric Corp.	MELSERVO J3	HF-KP053	MELSERVO J3	HF-KP13
		MELSERVO J4	HG-KR053	MELSERVO J4	HG-KR13
		MELSERVO J5	HK-KT053	MELSERVO J5	HK-KT13
	Omron Electronics	G5	R88M-K05030	G5	R88M-K10030
		1S	R88M-1M05030	1S	R88M-1M10030
	Sanyo Denki	SANMOTION R	R2□A04005	SANMOTION R	R2□A04010
Tamagawa Seiki	TBL-i IV	TSM3102	TBL-i IV	TSM3104	
Delta Electronics	ECMA-C	ECMA-C1040F	ECMA-C	ECMA-C10401	
Fanuc Corp.	βiS	0.2/5000	βiS	0.3/5000	
P	Panasonic Corp.	MINAS A5	MSMD5A	MINAS A5	MSMD01
		MINAS A6	MSMF5A	MINAS A6	MSMF01

Motor specification*	Manufacturer	LBAS08	
		200W(□60)	
		Manufacturer's Series Name	
Y	Yasukawa Electric Corp.	Σ-V	SGMJV-02
		Σ-7	SGM7J-02
	Keyence Corp.	SV	SV□020
		SV2	SV2□020
	Mitsubishi Electric Corp.	MELSERVO J3	HF-KP23
		MELSERVO J4	HG-KR23
		MELSERVO J5	HK-KT23
	Sanyo Denki	SANMOTION R	R2□A06020
Tamagawa Seiki	TBL-i IV	TSM3202	
Delta Electronics	ECMA-C	ECMA-C10602	
P	Omron Electronics	G5	R88M-K20030
		1S	R88M-1M20030
	Panasonic Corp.	MINAS A5	MSMD02
		MINAS A6	MSMF02

*The type of the dedicated part may vary depending on the motor specifications.

Details about the dedicated parts [REF](#) "3.4 Mounting [LBAS04](#) [LBAS05](#) [LBAS08](#)" in this Chapter

3.3 Advanced Model

Manufacturer	LGXS05		LGXS05L LGXS07	
	50W(□40)		100W(□40)	
	Manufacturer's Series Name		Manufacturer's Series Name	
Yasukawa Electric Corp.	Σ-V	SGMJV-A5	Σ-V	SGMJV-01
	Σ-7	SGM7J-A5	Σ-7	SGM7J-01
Keyence Corp.	SV	SV-□005	SV	SV-□010
	SV2	SV2-□005	SV2	SV2-□010
Mitsubishi Electric Corp.	MELSERVO J3	HF-KP053*	MELSERVO J3	HF-KP13*
	MELSERVO J4	HG-KR053*	MELSERVO J4	HG-KR13*

Manufacturer	LGXS10		LGXS12		LGXS16 LGXS20	
	200W(□60)		400W(□60)		750W(□80)	
	Manufacturer's Series Name		Manufacturer's Series Name		Manufacturer's Series Name	
Yasukawa Electric Corp.	Σ-V	SGMJV-02	Σ-V	SGMJV-04	Σ-V	SGMJV-08
	Σ-7	SGM7J-02	Σ-7	SGM7J-04	Σ-7	SGM7J-08
Keyence Corp.	SV	SV□020	SV	SV□040	SV	SV□075
	SV2	SV2□020	SV2	SV2□040	SV2	SV2□075
Mitsubishi Electric Corp.	MELSERVO J3	HF-KP23	MELSERVO J3	HF-KP43	MELSERVO J3	HF-KP73
	MELSERVO J4	HG-KR23*	MELSERVO J4	HG-KR43*	MELSERVO J4	HG-KR73*

A combination of the motor with an asterisk (*) mark and the bend unit needs the shim plate. The models and shim plate part numbers are as follows.

Model	Bend Unit Product Model	Shim Plate Part Number
LGXS05, LGXS05L, LGXS07	GX-BEND40	KES-M2295-00
LGXS10, LGXS12	GX-BEND60	KEV-M2295-00
LGXS16, LGXS20	GX-BEND80	KEX-M2295-00

3.4 Mounting LBAS04 LBAS05 LBAS08



WARNING

- Be sure to turn off the servo amplifier before starting the work.
- The adjustment work needs the special knowledge and skill. If an unskilled person performs the adjustment, this may cause serious accident.
Only skilled people who have the "Qualification of operators/workers" must carry out such work after reading the "Safety Instructions".



CAUTION

Be sure to wear gloves during the work. If the steel section is directly touched with bare hands, this may cause rust.

■ Tightening Torque

Bolt Size	Torque [Nm]	Bolt Size	Torque [Nm]
M2.5	1.1	M6	13
M3	2.0	M8	26
M4	3.8	M10	59
M5	7.5	M12	103.5

Dedicated Parts List



NOTE

Details about the motor specifications **REF** "3.2 Basic Model" in this Chapter.

LBAS04: Motor Specifications: Y Parts Dedicated for Standard (Assembly No.: KFT-M2010-00)

Name	Number	Qty	Remarks
BLOCK,MOTOR	KFT-M228M-00	1	
COUPLING	KFU-M2241-00	1	
COVER	KFT-M22HE-00	1	
BOLT	KFT-2296-00	1	Cover Securing Screw M3 × 0.5 Length 5
BOLT	KFT-M223J-00	4	Block Securing Bolt M3 × 0.5 Length 16

LBAS04: Motor Specifications: P Parts Dedicated for Standard (Assembly No.: KFT-M2010-10)

Name	Number	Qty	Remarks
BLOCK,MOTOR	KFT-M228M-10	1	
COUPLING	KFU-M2241-00	1	
COVER	KFT-M22HE-00	1	
BOLT	KFT-2296-00	1	Cover Securing Screw M3 × 0.5 Length 5
BOLT	KFT-M223J-00	4	Block Securing Bolt M3 × 0.5 Length 16

LBAS04: Motor Specifications: Y Parts Dedicated for Bend (Assembly No.: KFT-M2011-00)

Name	Number	Qty	Remarks
BLOCK,PULLEY	KFT-M2285-00	1	
PULLEY,DRIVE	KFU-M2251-00	1	
PULLEY,DRIVEN	KFU-M2253-00	1	
BELT	KFT-M225E-00	1	
COVER,BELT	KFT-M22H5-00	1	
BOLT	KFU-M223J-00	8	Block, Cover Securing Bolt M3 × 0.5 Length 12

LBAS04: Motor Specifications: P Parts Dedicated for Bend (Assembly No.: KFT-M2011-10)

Name	Number	Qty	Remarks
BLOCK,PULLEY	KFT-M2285-10	1	
PULLEY,DRIVE	KFU-M2251-00	1	
PULLEY,DRIVEN	KFU-M2253-00	1	
BELT	KFT-M225E-00	1	
COVER,BELT	KFT-M22H5-00	1	
BOLT	KFU-M223J-00	8	Block, Cover Securing Bolt M3 × 0.5 Length 12

LBAS05: Motor Specifications: Y Parts Dedicated for Standard (Assembly No.: KFU-M2010-00)

Name	Number	Qty	Remarks
BLOCK,MOTOR	KFU-M228M-00	1	
COUPLING	KFU-M2241-00	1	
COVER	KFU-M22HE-00	1	
BOLT	KFU-M2296-00	1	Cover Securing Screw M3 × 0.5 Length 6
BOLT	KFU-M223K-00	4	Block Securing Bolt M4 × 0.7 Length 16

LBAS05: Motor Specifications: P Parts Dedicated for Standard (Assembly No.: KFU-M2010-10)

Name	Number	Qty	Remarks
BLOCK,MOTOR	KFU-M228M-10	1	
COUPLING	KFU-M2241-00	1	
COVER	KFU-M22HE-00	1	
BOLT	KFU-M2296-00	1	Cover Securing Screw M3 × 0.5 Length 6
BOLT	KFU-M223K-00	4	Block Securing Bolt M4 × 0.7 Length 16

LBAS05: Motor Specifications: Y Parts Dedicated for Bend (Assembly No.: KFU-M2011-00)

Name	Number	Qty	Remarks
BLOCK,PULLEY	KFU-M2285-00	1	
PULLEY,DRIVE	KFU-M2251-00	1	
PULLEY,DRIVEN	KFU-M2253-00	1	
BELT	KFU-M225E-00	1	
COVER,BELT	KFU-M22H5-00	1	
BOLT	KFU-M223K-00	4	Block Securing Bolt M4 × 0.7 Length 16
BOLT	KFU-M223J-00	4	Cover Securing Bolt M3 × 0.5 Length 12

LBAS05: Motor Specifications: P Parts Dedicated for Bend (Assembly No.: KFU-M2011-10)

Name	Number	Qty	Remarks
BLOCK,PULLEY	KFU-M2285-10	1	
PULLEY,DRIVE	KFU-M2251-00	1	
PULLEY,DRIVEN	KFU-M2253-00	1	
BELT	KFU-M225E-00	1	
COVER,BELT	KFU-M22H5-00	1	
BOLT	KFU-M223K-00	4	Block Securing Bolt M4 × 0.7 Length 16
BOLT	KFU-M223J-00	4	Cover Securing Bolt M3 × 0.5 Length 12

LBAS08: Motor Specifications: Y Parts Dedicated for Standard (Assembly No.: KFV-M2010-00)

Name	Number	Qty	Remarks
BLOCK,MOTOR	KFV-M228M-00	1	
COUPLING	KFV-M2241-00	1	
COVER	KFV-M22HE-00	1	
BOLT	KFU-M2296-00	1	Cover Securing Screw M3 × 0.5 Length 6
BOLT	KFV-M223K-00	4	Block Securing Bolt M4 × 0.7 Length 20

LBAS08: Motor Specifications: P Parts Dedicated for Standard (Assembly No.: KFV-M2010-10)

Name	Number	Qty	Remarks
BLOCK,MOTOR	KFV-M228M-10	1	
COUPLING	KFV-M2241-00	1	
COVER	KFV-M22HE-00	1	
BOLT	KFU-M2296-00	1	Cover Securing Screw M3 × 0.5 Length 6
BOLT	KFV-M223K-00	4	Block Securing Bolt M4 × 0.7 Length 20

LBAS08: Motor Specifications: Y Parts Dedicated for Bend (Assembly No.: KFV-M2011-00)

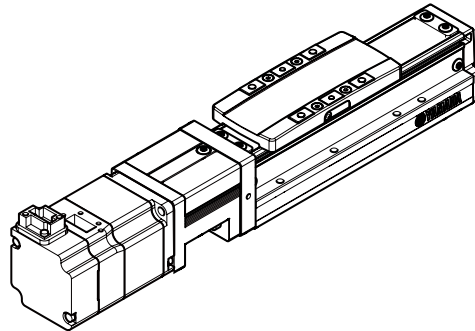
Name	Number	Qty	Remarks
BLOCK,PULLEY	KFV-M2286-00	1	
PULLEY,DRIVE	KFV-M2251-00	1	
PULLEY,DRIVEN	KFV-M2253-00	1	
BELT	KFV-M225E-00	1	
COVER,BELT	KFV-M22H5-00	1	
BOLT	KFV-M223K-10	4	Block Securing Bolt M4 × 0.7 Length 14
BOLT	KFU-M223J-00	4	Cover Securing Bolt M3 × 0.5 Length 12

LBAS08: Motor Specifications: P Parts Dedicated for Bend (Assembly No.: KFV-M2011-10)

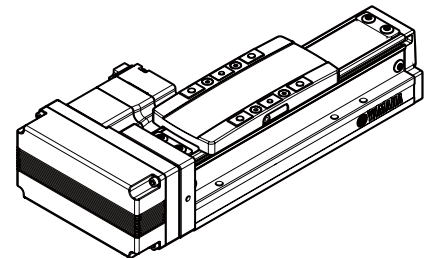
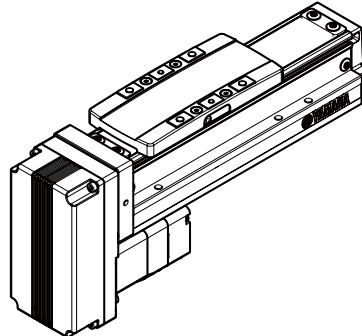
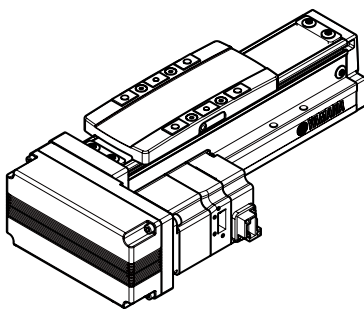
Name	Number	Qty	Remarks
BLOCK,PULLEY	KFV-M2286-10	1	
PULLEY,DRIVE	KFV-M2251-10	1	
PULLEY,DRIVEN	KFV-M2253-00	1	
BELT	KFV-M225E-00	1	
COVER,BELT	KFV-M22H5-00	1	
BOLT	KFV-M223K-10	4	Block Securing Bolt M4 × 0.7 Length 14
BOLT	KFU-M223J-00	4	Cover Securing Bolt M3 × 0.5 Length 12

Standard

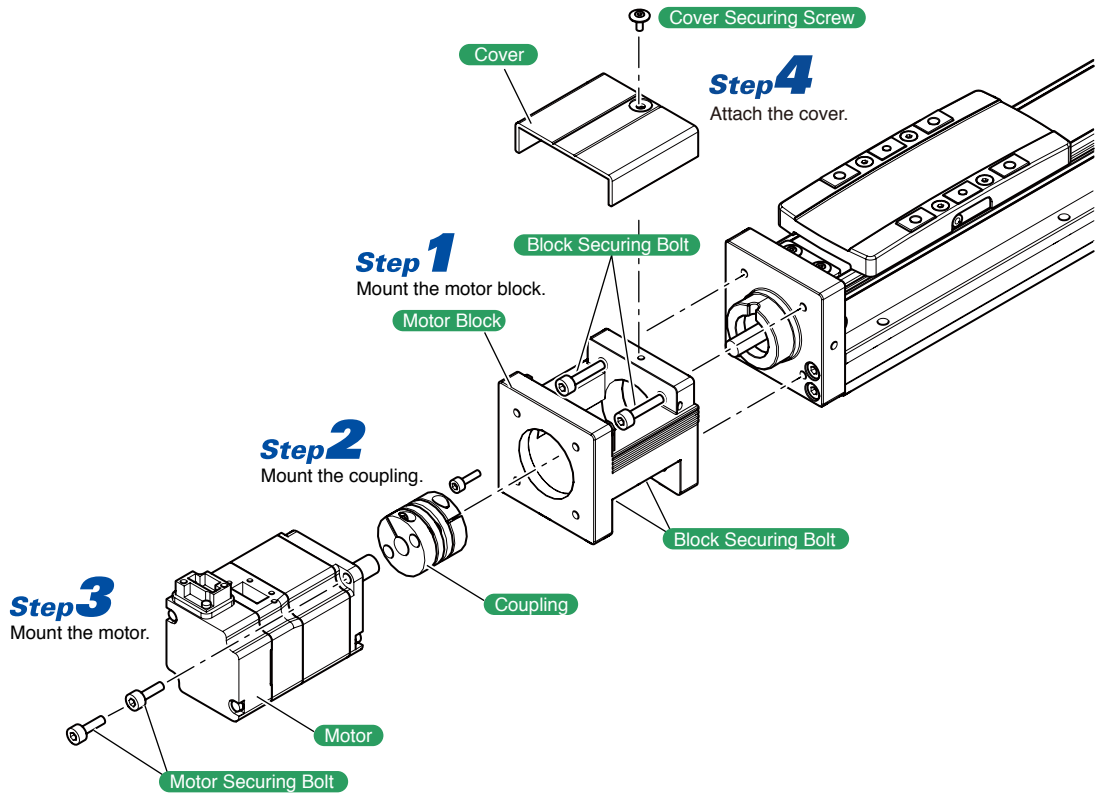
S: Standard (Straight)



Motor Left Mounting L: Left Mounting **Motor Down Mounting** D: Down Mounting **Motor Right Mounting** R: Right Mounting

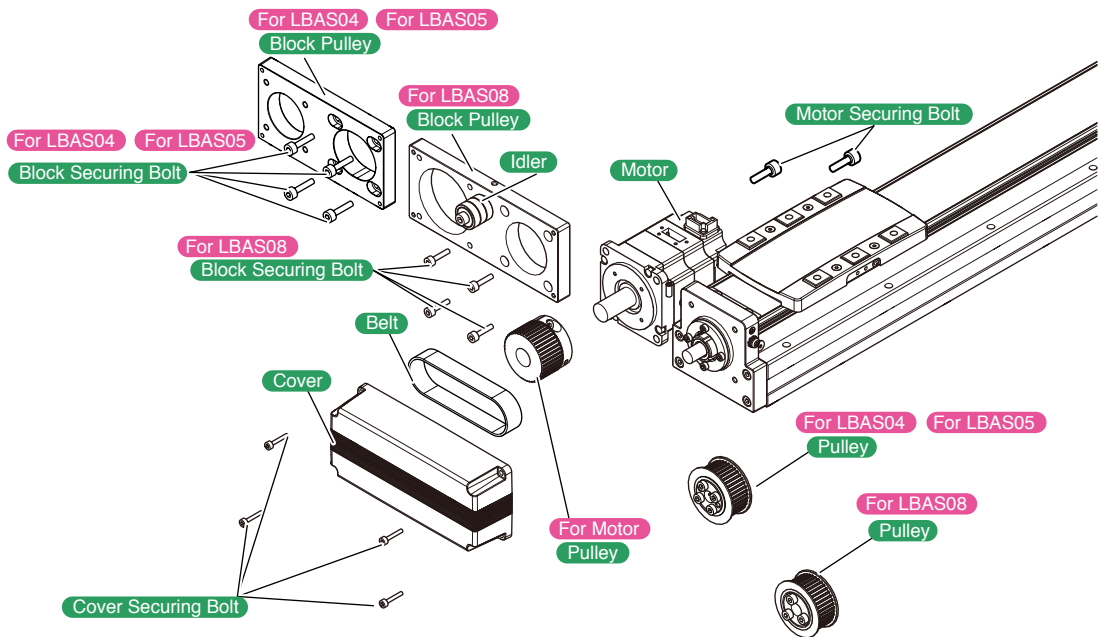


3.4.1 Standard



NOTE
Bolt sizes of the dedicated parts [REF](#) Dedicated Parts List in "3.4 Mounting [LBAS04](#) [LBAS05](#) [LBAS08](#)" of this Chapter
Cover securing screw: Torque value 0.64 N•m

3.4.2 Bend



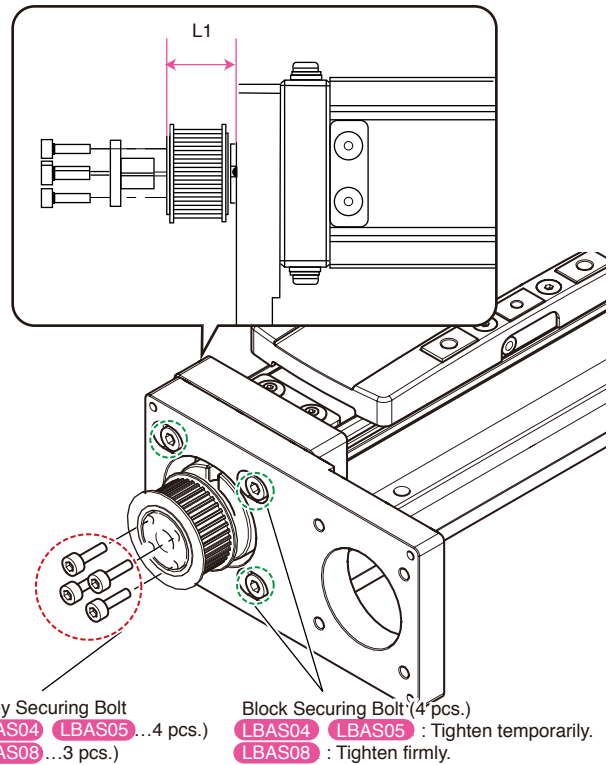
NOTE
Bolt sizes of the dedicated parts [REF](#) Dedicated Parts List in "3.4 Mounting [LBAS04](#) [LBAS05](#) [LBAS08](#)" of this Chapter
Cover securing bolt: Torque value 0.85 N•m

- Step 1** Mount the block pulley and pulley on the main body corresponding to the model, and then set the L1 size.
Mount the block pulley on the main body.
Mount the pulley on the main body with the pulley securing bolts.

Model	L1 size (mm)
LBAS04	17.5
LBAS05	18
LBAS08	21



CAUTION
Tighten the bolts uniformly.

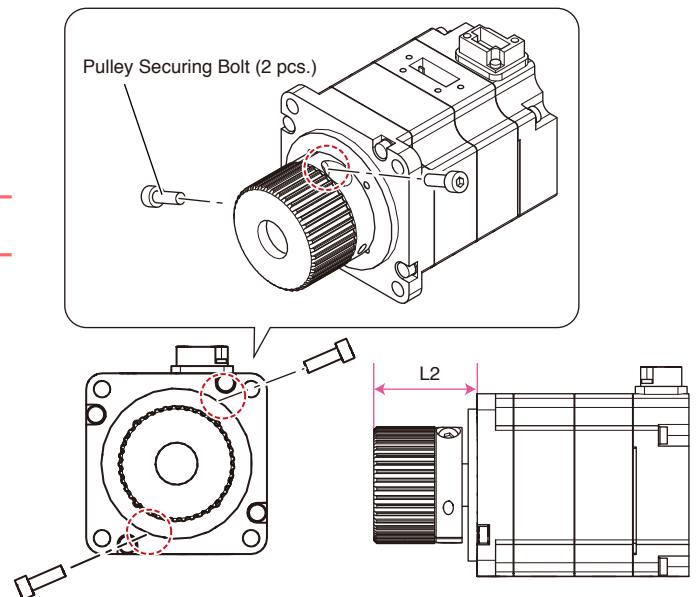


- Step 2** Mount the pulley on the motor corresponding to the model, and then set the L2 size.

Model	L2 size (mm)
LBAS04	28
LBAS05	29
LBAS08	34



CAUTION
Tighten the bolts uniformly.

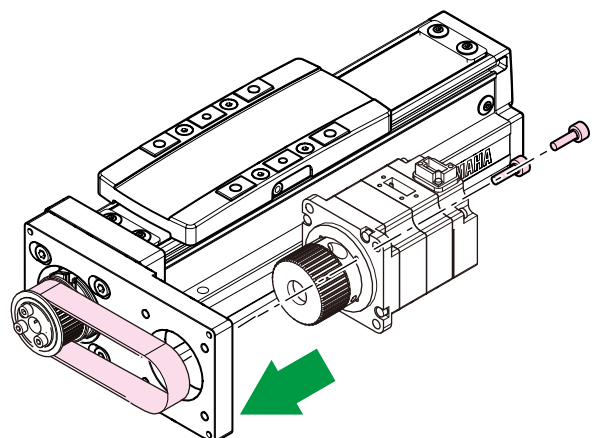


- Step 3** Mount the motor on the block pulley while applying the belt to the pulley, and then adjust the belt tension.

In a state where the bolts are tightened temporarily, check that the belt is in parallel to the block pulley.



CAUTION
Take great care so that there is no foreign object on the mounting surface.



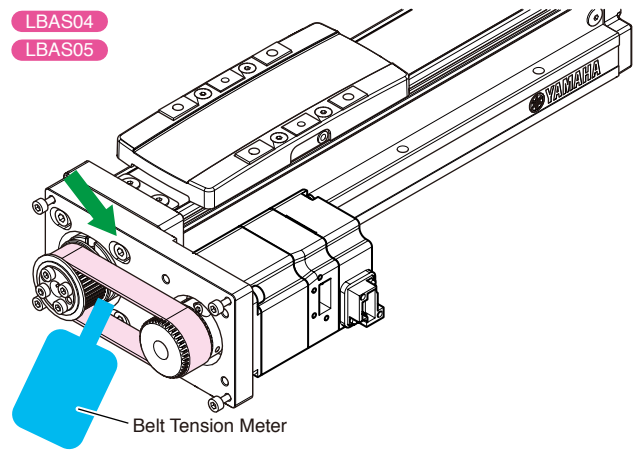
LBAS04 LBAS05

1. Adjust the belt tension while adjusting the block pulley.
2. Check the belt tension with a belt tension meter.
(For details about the belt tension, see the separate description.)
3. When the tension enters the reference value range, secure the block pulley firmly. (Tighten the locations firmly that are tightened temporarily in **Step 1**.)

■ Recommended Tension of Timing Belt

Model	Belt tension (N)
LBAS04	20 to 32
LBAS05	27 to 44

LBAS04 LBAS05



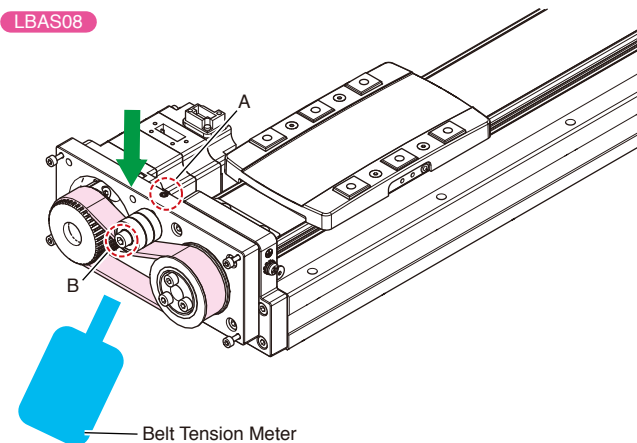
LBAS08

1. Adjust the idler position with the set screw A to adjust the belt tension.
 2. Tighten the idler securing bolt B and check the belt tension with a belt tension meter.
(For details about the belt tension, see the separate description.)
 3. When the tension enters the reference value range, secure the idler securing bolt firmly.
- * The idler and set screws for the left mounting are located opposite to those shown in the figure.

■ Recommended Tension of Timing Belt

Model	Belt tension (N)
LBAS08	59 to 96

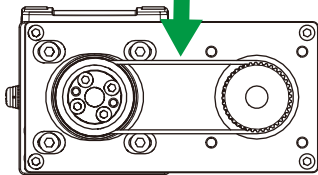
LBAS08



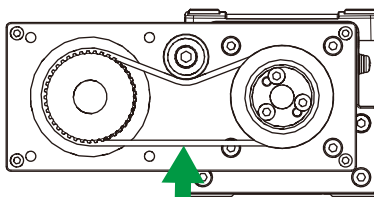
NOTE

Measure the distortion of the belt with a push-pull gauge. (When no belt tension meter is available.) Push the center of the belt with a push-pull gauge to find a load range in which the distortion amount of the belt outer periphery surface is 2.0 mm.

LBAS04 LBAS05



LBAS08

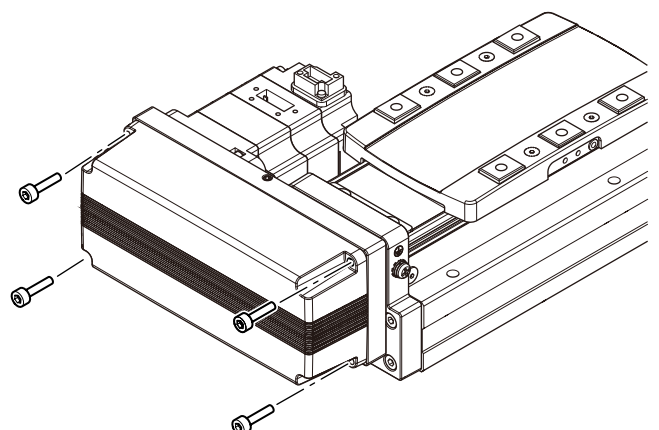


Model	Load (N)	Distortion (mm)
LBAS04	6 to 8	2
LBAS05	5.9 to 7.6	2
LBAS08	7.6 to 10	2

Load Measure the distortion amount.

Idler securing bolt: Torque value 5.8 N•m

Step 4 Attach the cover.



3.5 Mounting **LGXS05** **LGXS05L** **LGXS07**



WARNING

- Make sure to turn off the power of servo amplifier during work.
- These work must be performed only by those who have the required qualifications. Otherwise, it may result in hazardous situation. **REF** "Qualification of operators/workers" in "Safety Instructions"



CAUTION

- Always wear safety gloves during work. Touching any steel material part by bare hands may cause rust.
- When mounting the motor, insert it gradually. Handling the motor roughly may cause damage to the connection section.



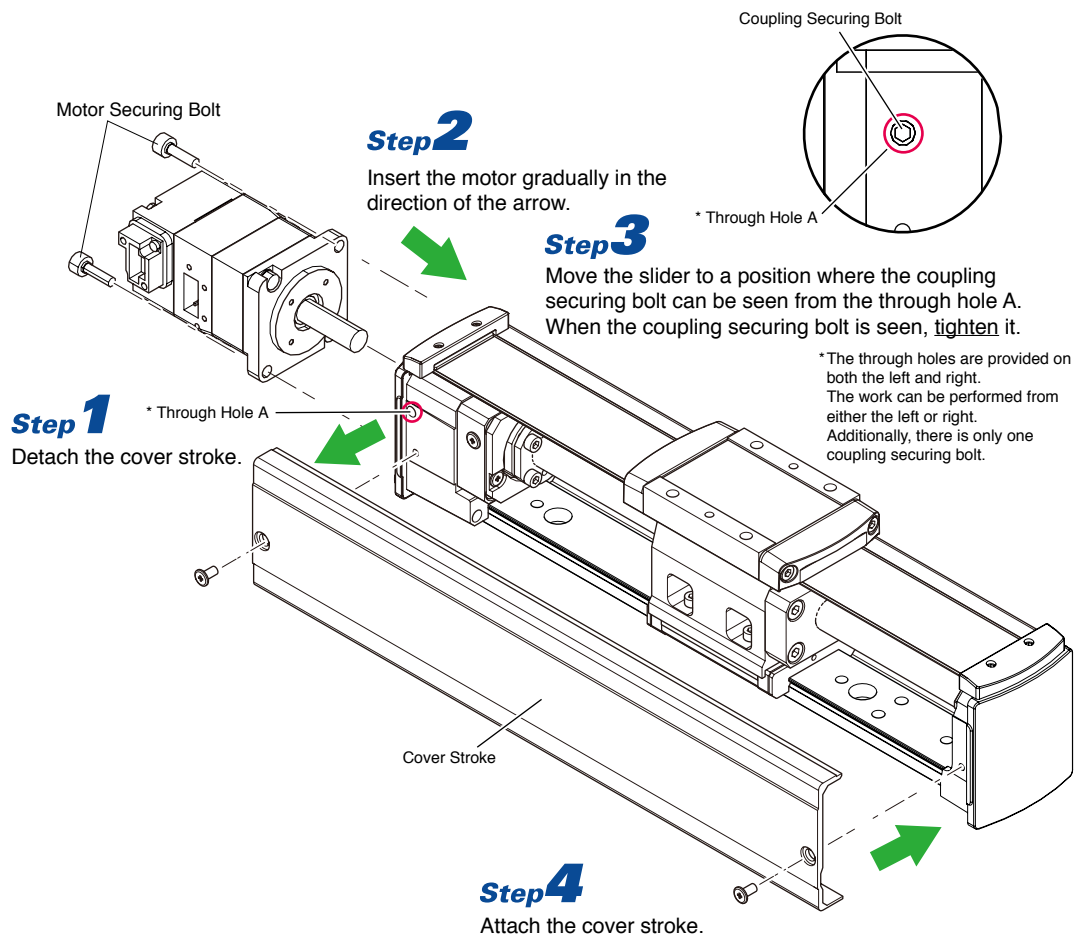
NOTE

Dimensions **REF** "Specifications" in Chapter A

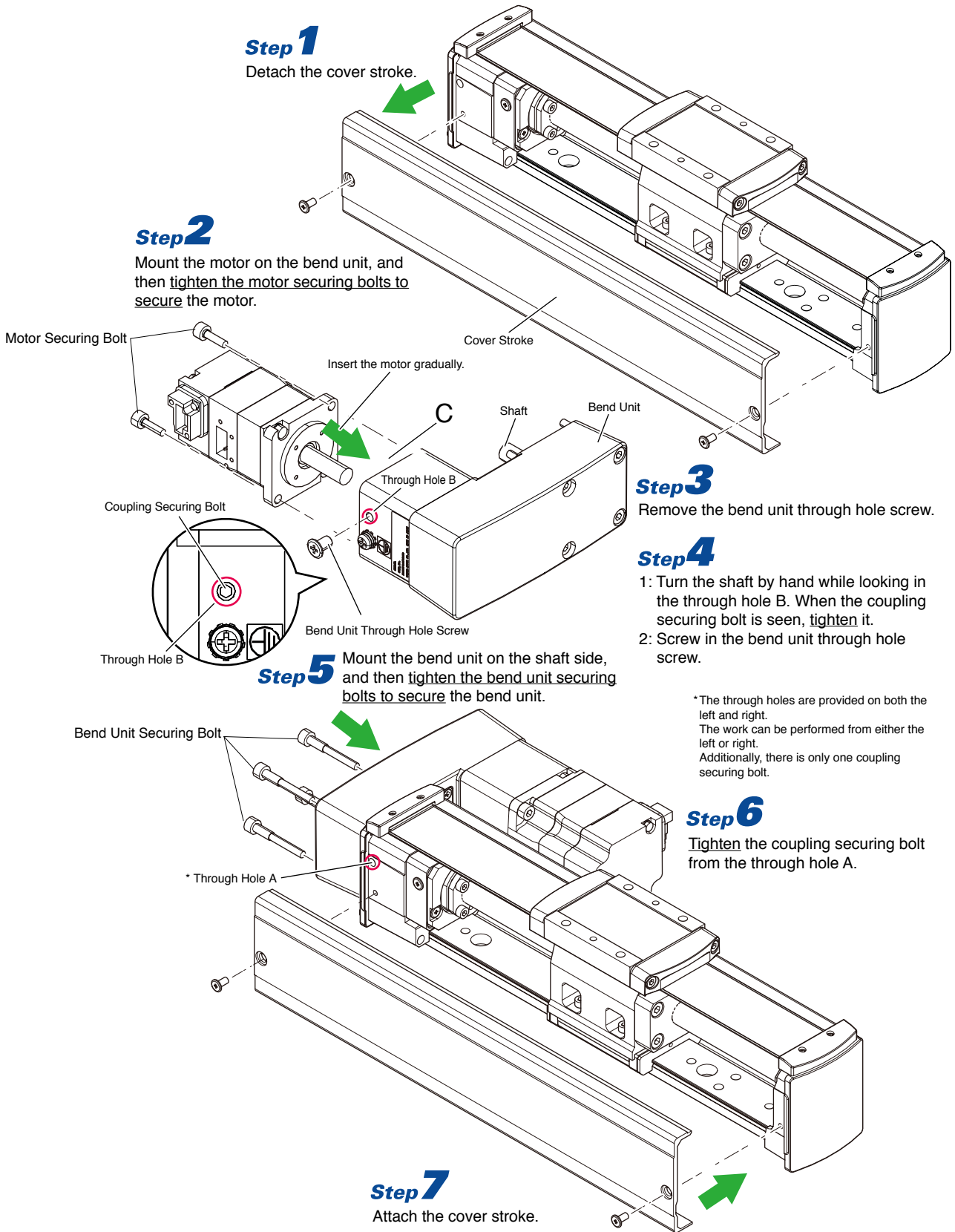
■ Tightening Torque

Bolt Size	Torque [Nm]	Bolt Size	Torque [Nm]
M2.5	1.1	M6	13
M3	2.0	M8	26
M4	3.8	M10	59
M5	7.5	M12	103.5

3.5.1 Standard



3.5.2 Bend



NOTE

In accordance with the motor type, add the shim plate to the position C shown in the figure above.

REF "3.3 Advanced Model" in this Chapter for the part number.

3.6 Mounting **LGXS10** **LGXS12** **LGXS16** **LGXS20**



WARNING

- Make sure to turn off the power of servo amplifier during work.
- These work must be performed only by those who have the required qualifications. Otherwise, it may result in hazardous situation. [REF](#) "Qualification of operators/workers" in "Safety Instructions"



CAUTION

- Always wear safety gloves during work. Touching any steel material part by bare hands may cause rust.
- When mounting the motor, insert it gradually. Handling the motor roughly may cause damage to the connection section.



NOTE

- Shutter mounting and removal [REF](#) "3.2.2 Disassembling and Reassembling" in Chapter 4
- Dimensions [REF](#) "Specifications" in Chapter A

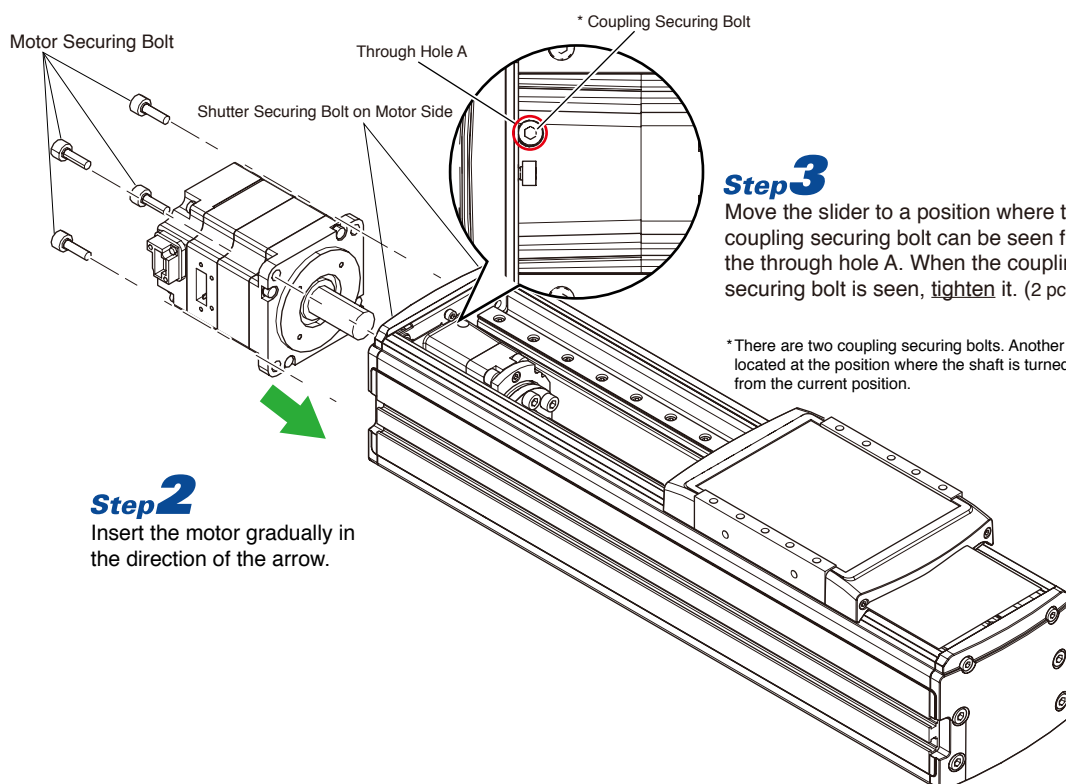
■ Tightening Torque

Bolt Size	Torque [Nm]	Bolt Size	Torque [Nm]
M2.5	1.1	M6	13
M3	2.0	M8	26
M4	3.8	M10	59
M5	7.5	M12	103.5

3.6.1 Standard

Step 1

Loosen the shutter securing bolts on the motor side, and then turn over the shutter on the motor side.



Step 3

Move the slider to a position where the coupling securing bolt can be seen from the through hole A. When the coupling securing bolt is seen, **tighten** it. (2 pcs.)

* There are two coupling securing bolts. Another bolt is located at the position where the shaft is turned 180° from the current position.

Step 2

Insert the motor gradually in the direction of the arrow.

3.6.2 Bend

Step 1

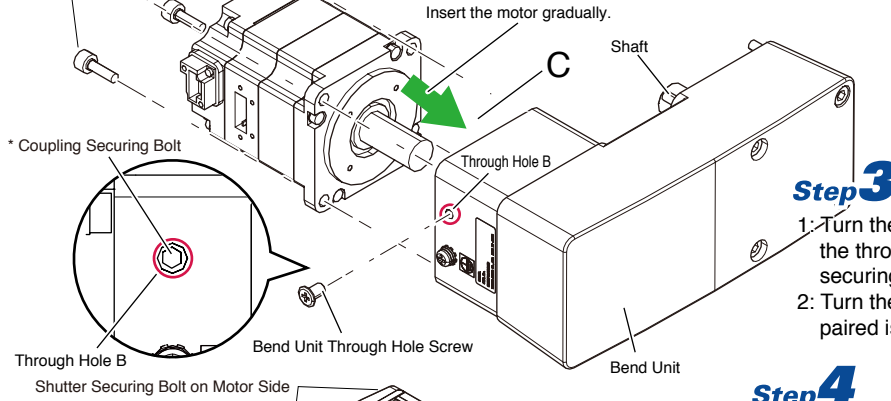
Mount the motor on the bend unit, and then tighten the motor securing bolts to secure the motor.

Motor Securing Bolt

Step 2

Remove the bend unit through hole screw from the through hole B.

* There are two coupling securing bolts. Another bolt is located at the position where the shaft is turned 180° from the current position.



Step 3

- 1: Turn the shaft by hand while looking in the through hole B. When the coupling securing bolt is seen, tighten it.
- 2: Turn the shaft. When the bolt to be paired is seen, tighten it uniformly.

Step 4

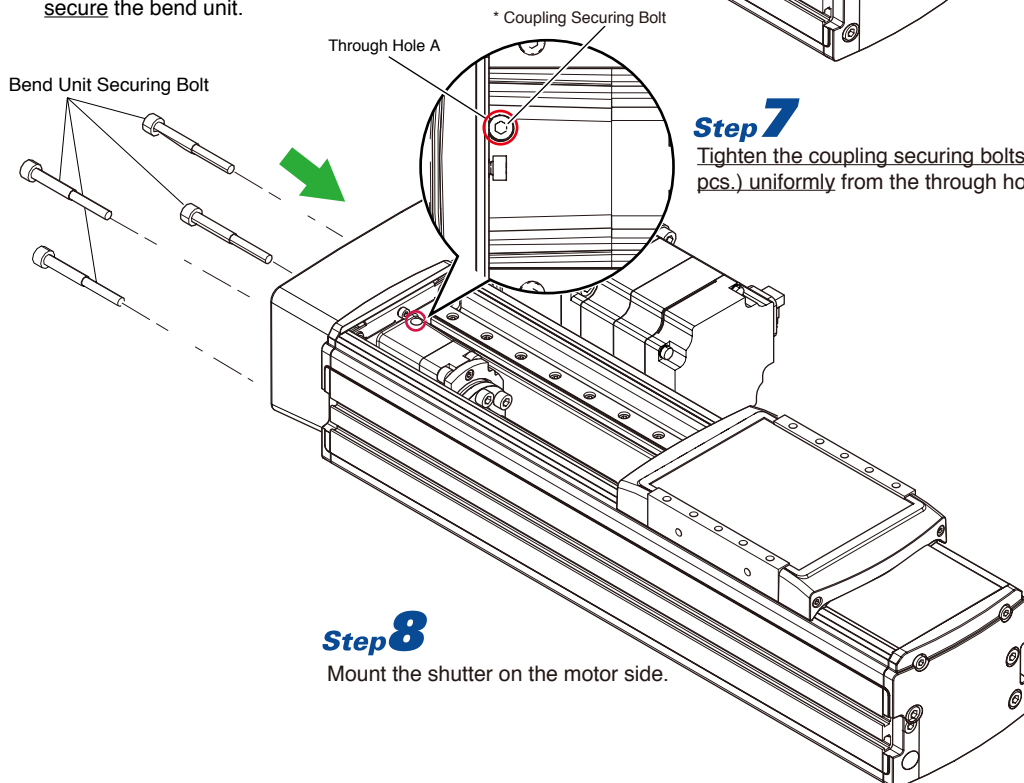
Screw in the bend unit through hole screw that has been removed in **Step 2**

Step 5

Loosen the shutter securing bolts on the motor side, and then turn over the shutter on the motor side.

Step 6

Mount the bend unit on the shaft side, and then tighten the bend unit securing bolts to secure the bend unit.



Step 7

Tighten the coupling securing bolts (2 pcs.) uniformly from the through hole A.

Step 8

Mount the shutter on the motor side.



NOTE

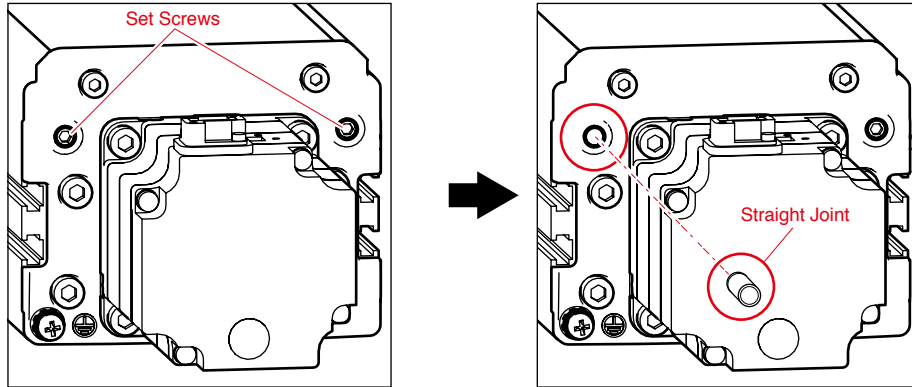
In accordance with the motor type, add the shim plate to the position C shown in the figure. (REF "3.3 Advanced Model" in this Chapter for the part numbers.

3.7 Clean Type (Advanced Model)

For the Advanced model, remove either set screw shown in the figure below and mount the suction joint to change the specifications to the clean specifications.

LGXS10 as an example

Attaching Position (Either of Set Screws)



■ Recommended Joints

Manufacturer	Model Number
SMC Corporation	KQ2S06-M6N1
PISCO	POC6-M6M
Koganei Corporation	TSH6-M6M

4. Installation



WARNING

- Before installing the actuator, always make sure that the actuator is disconnected from the servo amplifier and/ or the power is off. Serious accidents may occur if the actuator starts to operate during installation.
- To prevent the actuator vibration, position deviation (poor position accuracy), reduced service life or serious injury, tighten the specified bolts securely (to proper torque) into the installation holes of the actuator.
- Bolts longer than the specified length may come into contact with the actuator body and possibly cause malfunction.



NOTE

Be careful not to drop any bolts.

4.1 Installation Base

To mount the actuator, use an installation base that satisfies the following conditions.

■ Rigidity

The installation base is subjected to a great deal of stress while the actuator is in operation. Prepare a sufficiently rigid and stable installation base.



CAUTION

If the installation base is not sufficiently rigid, vibration (resonance) may occur during operation, causing adverse effects on the actuator work.

■ Flatness

- The installation base surface must be machined within $\pm 0.05\text{mm} / 500\text{mm}$ accuracy.
- Be careful not to dent or damage the installation base surface.
Do not deform the installation base surface by installing entangled tool.

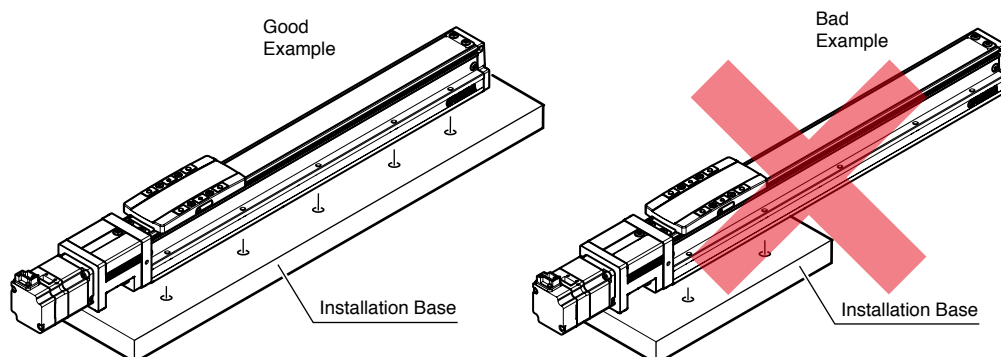


CAUTION

The actuator positioning accuracy and service life might decrease if the installation surface precision is insufficient.

■ Size

- Use an installation base of sufficient size to match the actuator body so that the actuator can be installed with the specified number of bolts.
- Avoid installing the actuator closer to one end.



NOTE

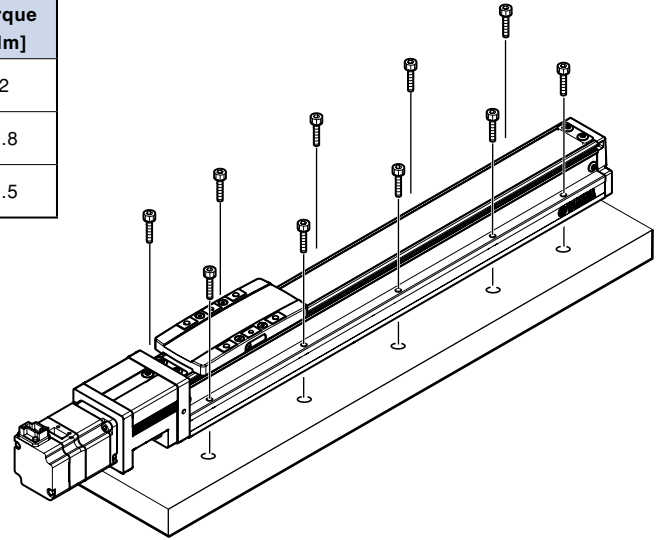
The position and number of the installation holes depend on the actuator stroke length.
External View and Dimensions [REF](#) Catalog

4.2 Securing Procedure (Basic Model)

The main body can be installed from the top or bottom without removing the exterior parts. After the through holes have been made in the installation base surface, install the product with the specified bolts.

4.2.1 Securing from Top

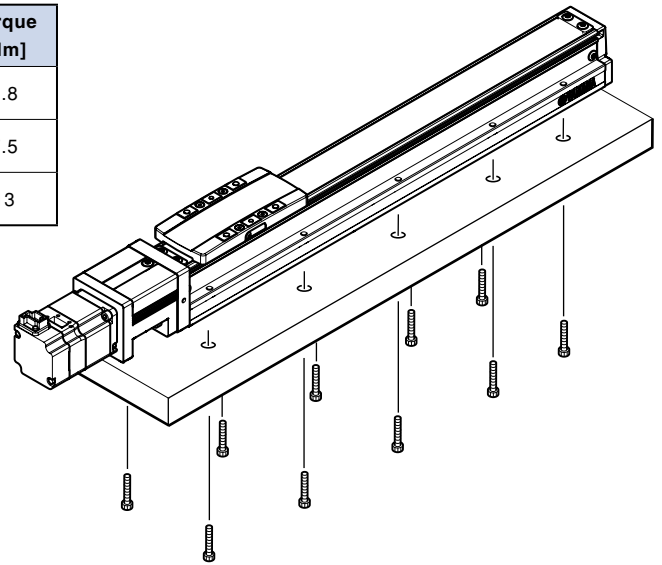
Model	Bolt Nominal Diameter × Pitch	Bolt Length (mm or more)	Torque [Nm]
LBAS04	M3 × 0.5	30	2
LBAS05	M4 × 0.7	30	3.8
LBAS08	M5 × 0.8	45	7.5



4.2.2 Securing from Bottom

Model	Bolt Nominal Diameter × Pitch	Bolt Length * (mm or more)	Torque [Nm]
LBAS04	M4 × 0.7	+10	3.8
LBAS05	M5 × 0.8	+10	7.5
LBAS08	M6 × 1	+15	13

*This value shows the length to be added to the installation base thickness.



4.3 Using Tapped Holes of actuator (Recommended) (Advanced Model)

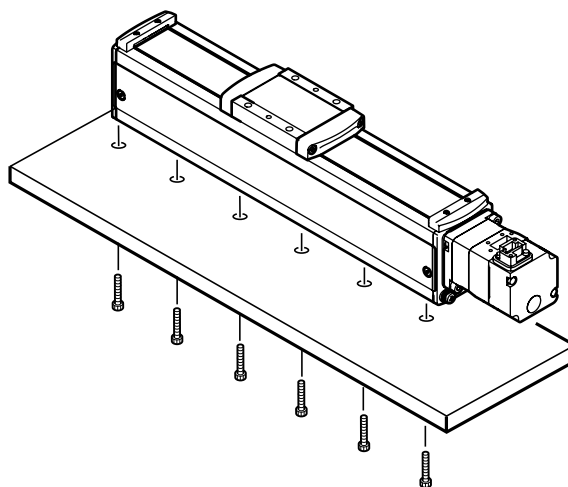
Drill holes through the installation base where the actuator is to be secured, then secure the actuator with the specified bolts from the bottom.

4.3.1 LGXS05 LGXS05L LGXS07

The installation holes of the actuator are plugged. Remove the plugs before starting installation work.

Model	Bolt Nominal Diameter × Pitch	Bolt Length * (mm or more)	Torque [Nm]
LGXS05 LGXS05L	M5 × 0.8	+8	7.5
LGXS07	M6 × 1	+8	13

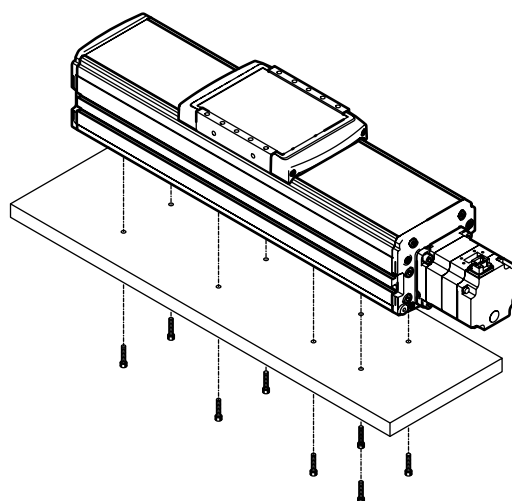
*This value shows the length to be added to the installation base thickness.



4.3.2 LGXS10 LGXS12 LGXS16 LGXS20

Model	Bolt Nominal Diameter × Pitch	Bolt Length * (mm or more)	Torque [Nm]
LGXS10 LGXS12	M6 × 1	+11	13
LGXS16 LGXD20	M8 × 1.25	+15	26

*This value shows the length to be added to the installation base thickness.

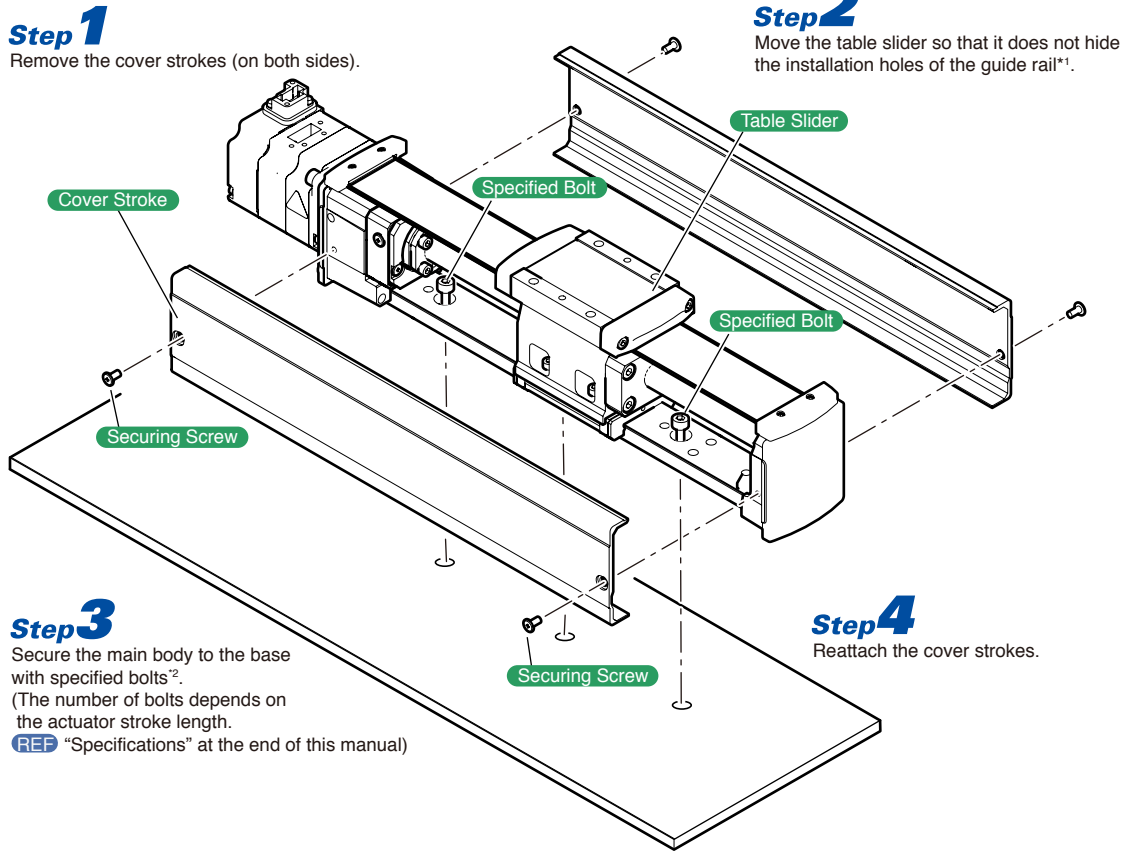


4.4 Using Tapped Holes of Installation Base (Advanced Model)

The installation holes of the actuator are plugged. Remove the plugs before starting installation work.

4.4.1 LGXS05 LGXS05L LGXS07

LGXS05 as an example



*1 For actuator with brake

Release the brake of the actuator connected to the servo amplifier, then move the table slider. Make sure to turn off the power after moving it.

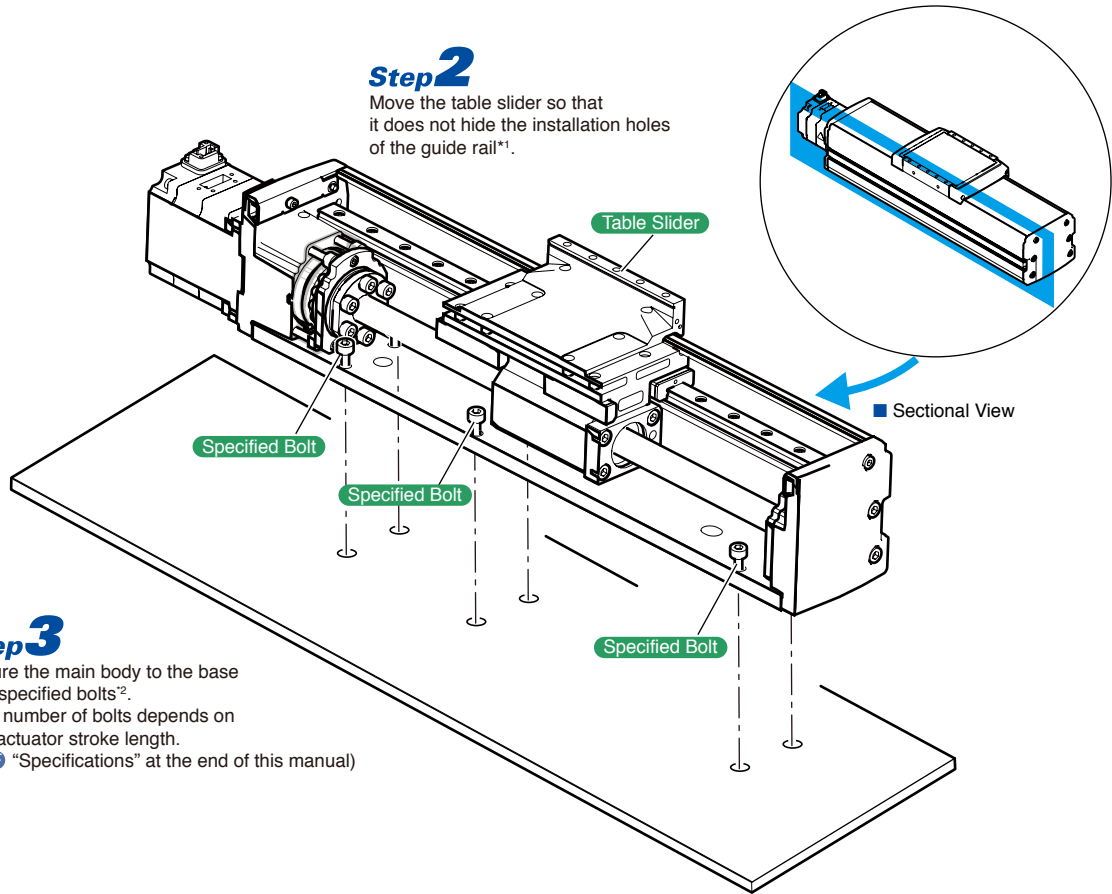
*2 Specified Bolts

Model	Bolt Nominal Diameter × Pitch	Bolt Length (mm or more)	Torque [Nm]
LGXS05	M5 × 0.8	12	7.5
LGXS05L			
LGXS07	M6 × 1	12	13

4.4.2 LGXS10 LGXS12 LGXS16 LGXS20

Step 1 Remove the shutter and cover roller.
 REF "3.1.2.1 Removing Shutter" in Chapter 4

LGXS10 as an example



*1 For the actuator with brake

Release the brake of the actuator connected to the servo amplifier, then move the table slider.
 Make sure to turn off the power after moving it.

*2 Specified Bolts

Model	Bolt Nominal Diameter × Pitch	Bolt Length (mm or more)	Torque [Nm]
LGXS10 LGXS12	M6 × 1	20	13
LGXS16	M8 × 1.25	30	26
LGXS20	M8 × 1.25	35	26

Step 4 Attach the shutter and cover roller.

For attaching the shutter REF "3.3.2.2 Temporarily Attaching Cover Roller and Shutter" and "3.3.2.3 Adjusting Shutter Looseness (Attaching Shutter)" in Chapter 4

4.5 Grounding

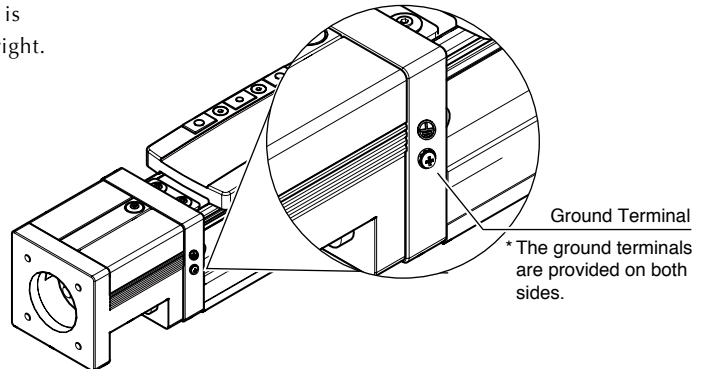


WARNING

- Always ground the actuator and servo amplifier unit to prevent electrical shock.
- Make sure to turn OFF the servo amplifier before grounding work.

■ Basic model

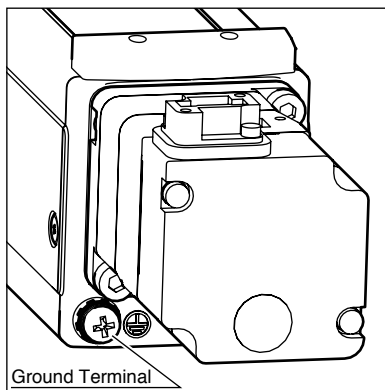
The ground terminal (M4 screw) on the main body is located at the position in the figure shown on the right.



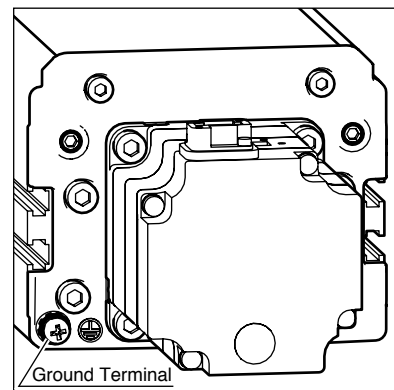
■ Advanced model

The ground terminal (M4 screw) on the main body is located at the position shown in the figure below.

LGXS05 LGXS05L LGXS07



LGXS10 LGXS12 LGXS16 LGXS20



CAUTION

- Class-D or more grounding (100 ohm or less electrical resistance) is recommended.
- Make sure to ground as close to the actuator as possible.
- Use electrical wire thicker than AWG14 (2 mm²) as the ground wire.

5. Operation

Read "About this Manual" in this manual thoroughly and operate the product within the specification range.

The recommended servomotor (REF "3.1 Motor Manufacturers and Compatible Models") has the gain adjustment function to suppress the vibration.

Adjust the gain and perform the operation using the control that suppresses the vibration during operation or stop.

When the operation is performed in a state where vibration or resonance occurs, the service life of the product may be shortened.

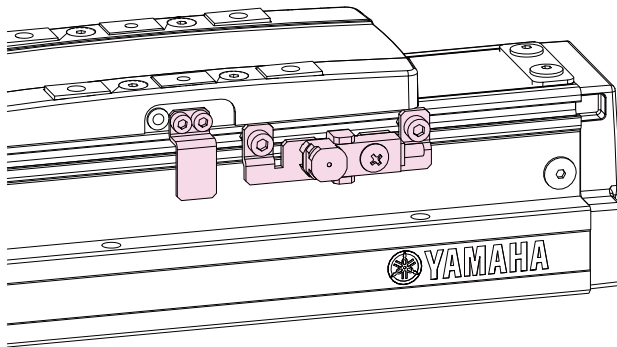
Chapter 3 Option

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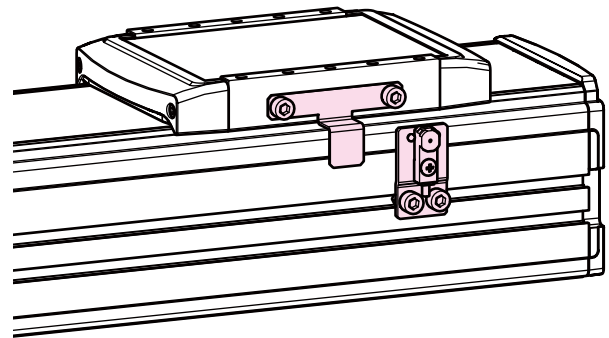
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1. External Sensor

LBAS05

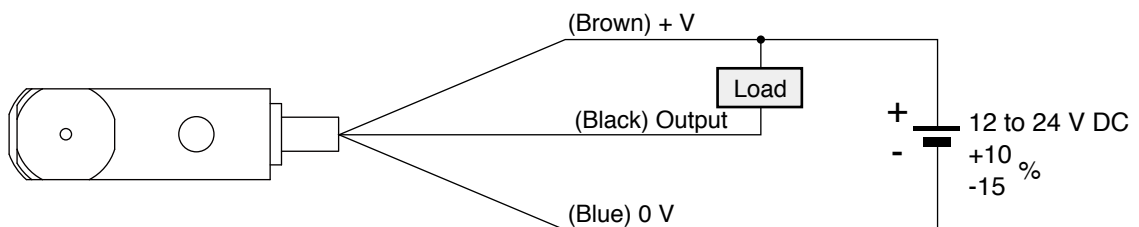


LGXS10



1.1 Overview

■ Connection Diagram



CAUTION

No short-circuit protection circuit is provided on "(black) output". Do not connect any power supply or capacity load to this output directly.

■ Sensor Spec

Item	Specification	Item	Specification
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.	Consumption current	15 mA or less
Model	GX-F8B	Display lamp	Orange LED (ON when output ON)
Output method	NPN type	Ambient environment and humidity	-25 to +75 °C, 35 to 85 %RH
Output action	ON released	Protection structure	IP68
Power voltage	DC12 to 24V	Cable length	5 m
Load current	100 mA or less		

For details, contact the respective manufacturer.

1.2 Basic Model

1.2.1 Replacement Parts and Tools

■ Parts

LBAS04

Proximity sensor option (No. KFU-M2205-00)

Name	Number	Qty	Remarks
Proximity sensor	KP6-M4855-01	1	
Sensor Bracket	KFU-M22FF-00	1	
Bracket screw	90990-66J004	1	M3 × 0.5 Length 8
Bracket bolt	91312-03005	2	M3 × 0.5 Length 5
Bracket nut	95302-03700	2	M3

Target plate option (No. KFT-M2206-00)

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

LBAS05

Proximity sensor option (No. KFU-M2205-00)

Name	Number	Qty	Remarks
Proximity sensor	KP6-M4855-01	1	
Sensor Bracket	KFU-M22FF-00	1	
Bracket screw	90990-66J004	1	M3 × 0.5 Length 8
Bracket bolt	91312-03005	2	M3 × 0.5 Length 5
Bracket nut	95302-03700	2	M3

Target plate option (No. KFU-M2206-00)

Name	Number	Qty	Remarks
Switch target plate	KFU-M22G5-00	1	
Target plate bolt	90112-2AJ005	2	M2.5 × 0.45 Length 5

LBAS08

Proximity sensor option (No. KFU-M2205-00)

Name	Number	Qty	Remarks
Proximity sensor	KP6-M4855-01	1	
Sensor Bracket	KFU-M22FF-00	1	
Bracket screw	90990-66J004	1	M3 × 0.5 Length 8
Bracket bolt	91312-03005	2	M3 × 0.5 Length 5
Bracket nut	95302-03700	2	M3

Target plate option (No. KFV-M2206-00)

Name	Number	Qty	Remarks
Switch target plate	KFV-M22G5-00	1	
Target plate bolt	91312-03005	2	M3 × 0.5 Length 5

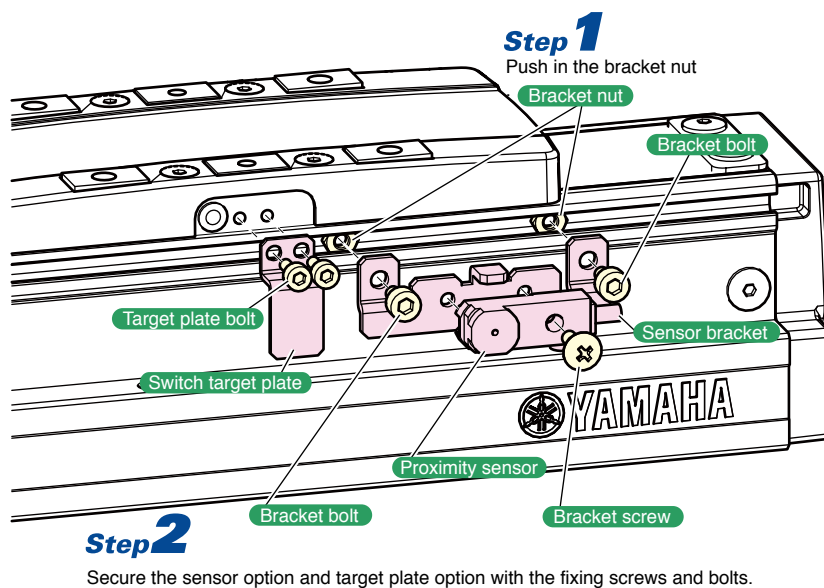
■ Tools

Name	Remarks
Hex Wrench	
Screwdriver	

1.2.2 Mounting Procedure

Tightening torque of bracket screw: 0.5 N•m

The clearance between the sensor detection surface and switch target plate is approx. 1 mm.



1.3 Advanced Model

1.3.1 Replacement Parts and Tools

■ Parts

LGXS10

Proximity sensor option (No. KEV-M2205-00)

Name	Number	Qty	Remarks
Proximity sensor	KP6-M4855-01	1	
Sensor Bracket	KEV-M22FF-00	1	
Bracket screw	90990-66J004	1	M3 × 0.5 Length 8
Bracket bolt	91312-05008	2	M5 × 0.8 Length 8
Bracket nut	95302-05700	2	M5

Target plate option (No. KEV-M2206-00)

Name	Number	Qty	Remarks
Switch target plate	KEV-M22G5-00	1	
Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

LGXS12**Proximity sensor option (No. KEV-M2205-00)**

Name	Number	Qty	Remarks
Proximity sensor	KP6-M4855-01	1	
Sensor Bracket	KEV-M22FF-00	1	
Bracket screw	90990-66J004	1	M3 × 0.5 Length 8
Bracket bolt	91312-05008	2	M5 × 0.8 Length 8
Bracket nut	95302-05700	2	M5

Target plate option (No. KEV-M2206-00)

Name	Number	Qty	Remarks
Switch target plate	KEV-M22G5-00	1	
Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

LGXS16**Proximity sensor option (No. KEX-M2205-00)**

Name	Number	Qty	Remarks
Proximity sensor	KP6-M4855-01	1	
Sensor Bracket	KEX-M22FF-00	1	
Bracket screw	90990-66J004	1	M3 × 0.5 Length 8
Bracket bolt	91312-05008	2	M5 × 0.8 Length 8
Bracket nut	95302-05700	2	M5

Target plate option (No. KEV-M2206-00)

Name	Number	Qty	Remarks
Switch target plate	KEV-M22G5-00	1	
Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

LGXS20**Proximity sensor option (No. KEY-M2205-00)**

Name	Number	Qty	Remarks
Proximity sensor	KP6-M4855-01	1	
Sensor Bracket	KEY-M22FF-00	1	
Bracket screw	90990-66J004	1	M3 × 0.5 Length 8
Bracket bolt	91312-05008	2	M5 × 0.8 Length 8
Bracket nut	95302-05700	2	M5

Target plate option (No. KEV-M2206-00)

Name	Number	Qty	Remarks
Switch target plate	KEV-M22G5-00	1	
Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

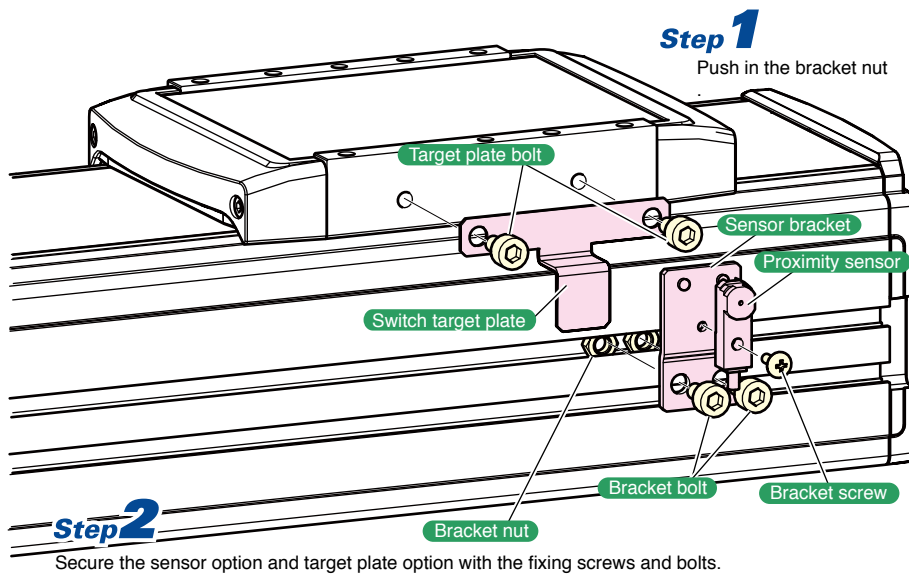
■ Tools

Name	Remarks
Hex Wrench	
Screwdriver	

1.3.2 Mounting Procedure

Tightening torque of bracket screw: 0.5 N•m

The clearance between the sensor detection surface and switch target plate is approx. 1 mm.



2. Lubrication Tool and Grease

Refer to each lubrication tool and grease in "3 Maintenance Procedures" of Chapter 4

Chapter 4 Maintenance

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1. Before Beginning Work

Periodic inspection and maintenance are essential to ensure safe and efficient operation of this product. The periodic inspection consists of "daily inspection", "three-month inspection", "six-month inspection", and "three-year inspection".

The daily inspection must be carried out before starting the operation and after completion of the day's work.

REF "2. List of Inspection Items" in this Chapter

The periodic inspection procedures are later described in "Maintenance Procedures". Before beginning the work, thoroughly read the safety precautions described below and "Safety Instructions".



DANGER

Do not enter the working envelope at adjustment and inspection work with operating the actuator. Take great care of actuator movement and safety of surroundings to immediately press the emergency stop button at dangerous situation.



WARNING

Inspection, adjustment, repair and replacement (especially with removing the cover) are hazardous and specialized technical knowledge is required.

- Contact your distributor if necessary.
- Repair and parts replacement must be performed by only people who have the required qualifications.
REF "Qualification of operators/ workers" on "Safety Instructions".
- Periodic inspection work should be performed by people who have the required qualifications or in the presence of them.

Never attempt to disassemble and modify actuator.

Doing this may result in unsatisfactory specifications and threaten operators' safety, such as electrical shock, injury or fire.

- Do not inspect, adjust, repair, nor replace parts other than that described in this manual.
These works require specialized technical knowledge and may involve hazards.

■ Preparation for Work

Work with moving the actuator should be performed out of the safety enclosure.

Do not attempt to enter the actuator movement range when adjusting or inspecting the moving actuator. Additionally, take great care about the actuator movement and surrounding safety so that the emergency button will be pressed as soon as a hazardous situation occurs.

Turn the power supply off when working inside the safety enclosure.

Moving the actuator while working may cause serious accidents.

- Release the tools and then disconnect the servo amplifier or turn off the power of the servo amplifier and external switch board.
- Press the emergency button when the actuator movement is not necessary on electrical system inspection.

Display a sign "Work in Progress". (To prevent other people from careless operation of the power switch on the servo amplifier, operation panel, and so on)

When necessary, provide a switch key lock mechanism and prepare a person other than the workers who supervises the work.

When several workers perform tasks:

Determine the procedures, sign, measures in emergency, and recovery procedure from the emergency measures beforehand, and place a guard apart from the workers.

If the safety enclosure is not prepared immediately after the installation:

Rope off or chain off the actuator movement range in place of the safety enclosure and observe the following points.

1. Columns should not move easily.
2. Rope or chain is legible from surroundings.
3. Post a sign stating "Entry prohibited under work" to prevent people other than those in charge of actuator adjustment work from entering the actuator movement range.

■ Precautions during Work

Be sure to tighten all the screws and bolts securely.

Tightening the cover insufficiently may cause trouble such as follows: noise occurrence, dropped cover flying, pinching hands and fingers into drive section in teaching, or burns by touching heated diver section.

■ Operation Check after Work

Checking operation after work **REF "Trial operation" in "Safety Instruction"**

When applying grease, be careful of the following points.



WARNING

- Wear protective gloves as touching grease may cause inflammation with skin.
- Wear protective gloves when opening containers as hands and fingers may be cut.
- Wear protective glasses as grease may cause inflammation with eyes.
- Do not take orally or eat. It may cause diarrhea or vomiting.
- Keep out of the reach of children.
- Do not heat the grease or place near an open flame since this could lead to sparks and fires.
- When applying grease to the parts of the actuator that is used vertically, do not release the brake. Releasing the brake may cause the table slider and tools to drop, leading to hazardous situation.

Emergency Treatment

- If this grease comes in contact with the skin, wash away completely with soap and water.
- If this grease gets in the eyes, wash liberally with pure water for about 15 minutes and consult a physician for treatment.
- If taken internally, do not induce vomiting but promptly consult a physician for treatment.

Disposing of Grease and Container

- Proper disposal is compulsory under federal, state and local regulations. Take appropriate measures in compliance with legal regulations.
- Do not pressurize the empty container. Doing so may cause the container to rupture.
- Do not attempt to weld, heat up, drill holes or cut this container. This might cause the container to explode and the remaining materials inside it to ignite.



CAUTION

- Do not use replacement parts and grease other than YAMAHA specifies.
- Take care not to contain any foreign matter at adjusting, replacing parts, or reassembling.
- Always wear safety gloves during work. Touching actuators with bare hands may cause rust.

2. List of Inspection Items



WARNING

Only certified/ qualified technicians may perform the maintenance procedures with the cover removed.

REF "Qualification of operators/workers" in "Safety Instructions".

2.1 Check Points

Inspection with Servo Amplifier Turned off

● : Implementation

Check Points	Contents	Daily	3-month	6-month	3-year	Measures
Cables	Check for scratch or excessive bend.	●				<ul style="list-style-type: none"> • Adjust the cables without applying any stress on them. • Replace the damaged cable according to the condition. (Prepared by the customer.)
Shutter	Check for scratch, dent, or excessive bend.	●				Looseness adjustment: REF This Chapter "3.1.2 Replacing and Adjusting Shutter" Replacement: REF This Chapter "3.1.2 Replacing and Adjusting Shutter"
	Check for looseness.		●			
	Check for flow-up (clearance).	●	●			
	Check if there is black belt on the surface.	●				Dirt: Wipe off the roller with a cloth rag. Damage: Replace according to the condition.
Top Surface of Shutter Close to Stop Point	Check for stripes caused by contamination.	●				<ul style="list-style-type: none"> • Wipe off the contamination with a cloth rag moistened with alcohol cleaning agent. • Contact your distributor if this occurs frequently.

Check Points	Contents	Daily	3-month	6-month	3-year	Measures	
Table Slider	If feeling heavy when pushing by hand, check for unusual friction.			●		Adjust the mating material so that the interference with the table slider is eliminated.	
	Check for unusual friction or breakage.			●		Contact your distributor.	
Bolts and Screws on Actuator Outside	Check for looseness.		●			Retighten the bolts and screws. REF Table below	
Linear Guide	Check for dirt or contamination.		●			Clean the linear guide and apply grease.	
	Check for dried part (insufficient grease).		●			Apply grease. Recommended grease Basic model: AFA (THK) Advanced model: LR3 (NSK) REF This Chapter "3. Maintenance Procedures"	
	Check for play.			●	●	Retighten bolts of the rail. REF Table below	Contact your distributor if the trouble is not solved.
	Check for vibration during operation.			●		<ul style="list-style-type: none"> Retighten bolts of the drive unit or axis installation. Adjust the gain. REF Table below	
	Apply grease.			●		Recommended grease Basic model: AFA (THK) Advanced model: LR3 (NSK) REF This Chapter "3. Maintenance Procedures"	
Ball Screw (Screws / Nuts)	Check for unusual sound or vibration.	●				Contact your distributor if any faulty is found.	
	Check for dirt or contamination.		●			Clean the linear guide and apply grease. REF This Chapter "3. Maintenance Procedures"	
	Check for dried part (insufficient grease).		●			Apply grease. Recommended grease Basic model: AFA (THK) Advanced model: LR3 (NSK) REF This Chapter "3. Maintenance Procedures"	
	Check for play.			●	●	Retighten nuts. REF Table below	Contact your distributor if the trouble is not solved.
	Check for vibration during operation.			●		<ul style="list-style-type: none"> Retighten bolts of the drive unit or axis installation. Adjust the gain. REF Table below	
	Apply grease.			●		Recommended grease Basic model: AFA (THK) Advanced model: LR3 (NSK) REF This Chapter "3. Maintenance Procedures"	

■ Tightening Torque

Bolt Size	Torque [Nm]	Bolt Size	Torque [Nm]
M2.5	1.1	M6	13
M3	2.0	M8	26
M4	3.8	M10	59
M5	7.5	M12	103.5

3. Maintenance Procedures



WARNING

Only certified / qualified technicians may perform the maintenance procedures.

REF "Qualification of operators/workers" in "Safety Instructions"

Perform the maintenance while referring to the manuals for servo amplifier, servomotor, and cable to be used.

Follow the procedures below for maintenance.

Step 1 Turn off the servo amplifier.

Step 2 Display a "Work in Progress" sign.

Step 3 Enter the safety enclosure to carry out the work.

3.1 LBAS04 LBAS05 LBAS08

3.1.1 Replacement Parts and Tools

■ Replacement Parts

Part Name		Part Number	Remarks
Shutter	SHUTTER	LBAS04 KFT-M225K-xx LBAS05 KFU-M225K-xx LBAS08 KFU-M225K-xx	

NOTE) "xx" represents the actuator stroke. **REF** Table below

xx	00	10	20	30	40	50	60	70	80	90	A0
Stroke Length (mm)	50	100	150	200	250	300	350	400	450	500	550
xx	B0	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0
Stroke Length (mm)	600	650	700	750	800	850	900	950	1000	1050	1100

LBAS05 as an example: KFU-M225K-90 means its stroke length is 500 mm.



NOTE

Stroke length range

- **LBAS04** **LBAS05** 50 to 800 mm
- **LBAS08** 50 to 1100 mm

■ Tools

Name	Remarks
Hex Wrench	

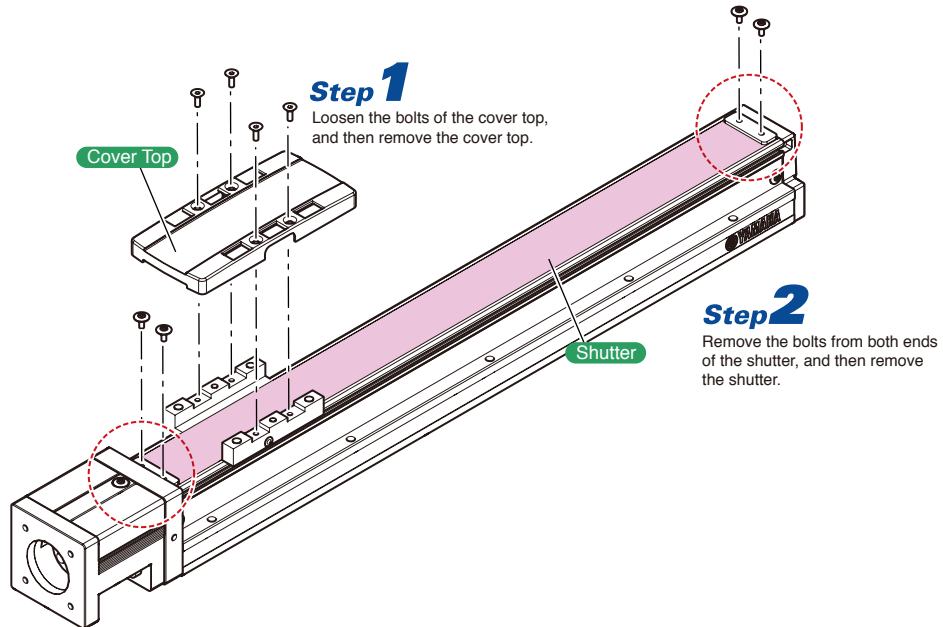
3.1.2 Replacing and Adjusting Shutter



CAUTION

- Replace and adjust the shutter with the power turned off.
- The shutter may be deformed easily. Be careful of handling the shutter.
- When handling a tool on the shutter, it may be attracted by the magnet. So, be careful of handling tools.

3.1.2.1 Removing Shutter



3.1.2.2 Mounting Shutter

Mount the shutter in the reverse order of the previous section "3.1.2.1 Removing Shutter".



CAUTION

The shutter may be deformed easily. Be careful of handling the shutter. Arrange the shutter straight in the same manner as the table, and then tighten the bolts.

3.1.3 Grease and Greasing Tool

3.1.3.1 Recommended Grease

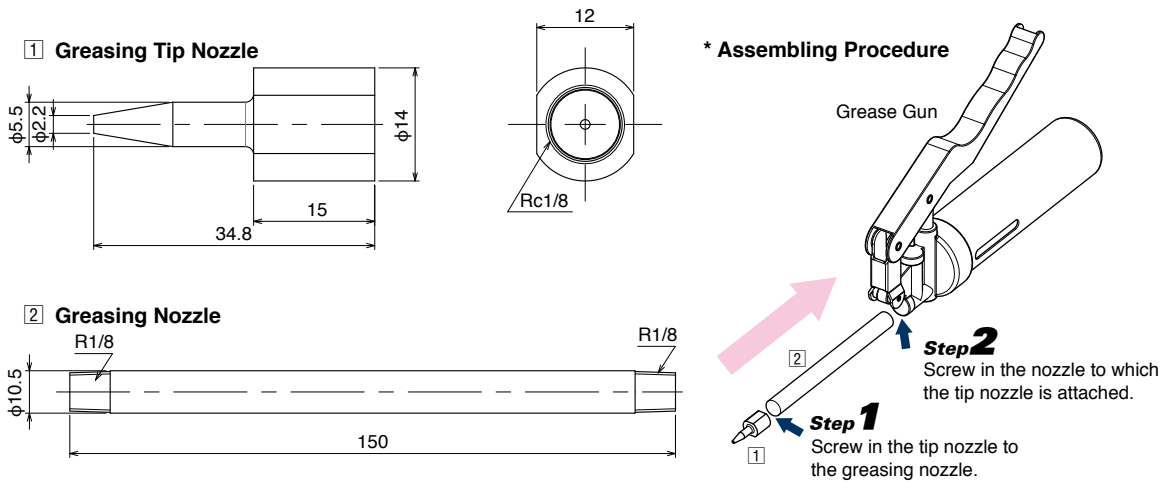
AFA(THK)

3.1.3.2 Greasing Nozzle

This nozzle is a dedicated nozzle to apply grease to the ball screw and linear guide sections of the Basic model LBAS.

The greasing nozzle is attached to a generally available grease gun.

Part Name	Part Number	Remarks
Greasing Nozzle Set	NOZZLE	* The customer assembles and adjusts the tip nozzle and greasing nozzle while referring to the figure below.
Greasing Tip Nozzle	NOZZLE	
Greasing Nozzle	PIPE	



3.1.3.3 Applying Grease

Using a grease gun, apply grease from the grease nipple shown in the figure below. Grease is then applied to the linear guide and ball screw sections.



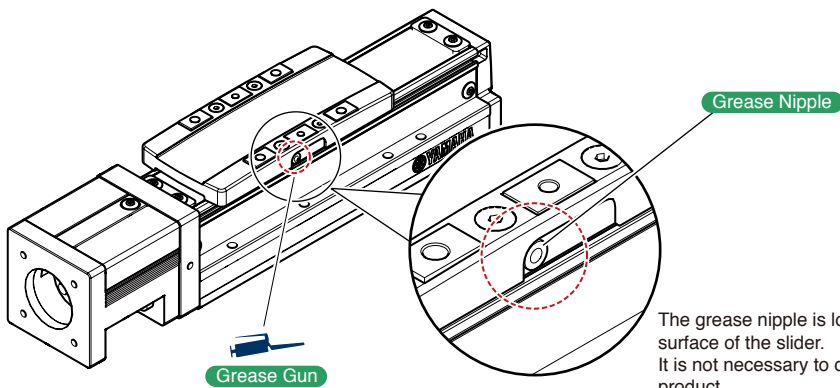
CAUTION

Be careful when moving the table slider to prevent your fingers from being caught in.



NOTE

Applying grease while moving the table slider spreads grease more uniformly.



Model	Application Amount (g)
LBAS04	3
LBAS05	4.3
LBAS08	6

The grease nipple is located on the side surface of the slider. It is not necessary to disassemble the product.

3.2 LGXS05 LGXS05L LGXS07

3.2.1 Replacement Parts and Tools

■ Replacement Parts

	Part Name		Part Number
A	Shutter	SHUTTER	LGXS05 KES-M225K-xx LGXS05L KET-M225K-xx LGXS07 KEU-M225K-xx
B	Cover Roller Assembly	COVER,ROLLER ASSY	LGXS05 LGXS05L KES-M22JN-00 LGXS07 KEU-M22JN-00
C	Roller	ROLLER	KES-M224K-00

NOTE) "xx" represents the actuator stroke. [REF](#) Table below

xx	00	10	20	30	40	50	60	70	80	90	A0
Stroke Length (mm)	50	100	150	200	250	300	350	400	450	500	550
xx	B0	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0
Stroke Length (mm)	600	650	700	750	800	850	900	950	1000	1050	1100

LGXS05 as an example: KES-M225K-90 means its stroke length is 500 mm.



NOTE

Stroke length range

- LGXS05 LGXS05L 50 to 800 mm
- LGXS07 50 to 1100 mm

■ Tools

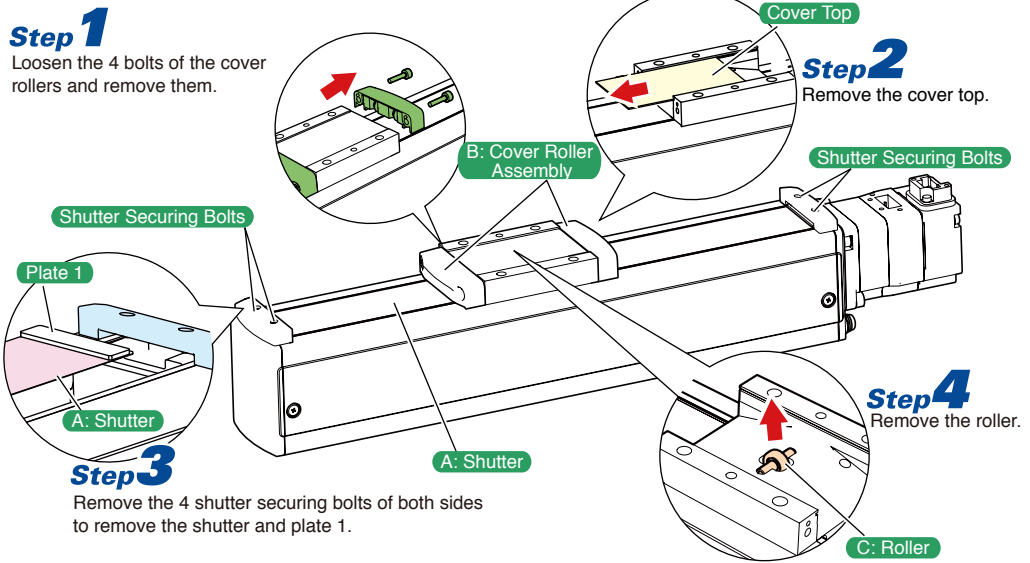
Name	Remarks
Hex Wrench	

3.2.2 Disassembling and Reassembling

The series of procedures from Robonity series dismantling to reassembling are described in this section. Replace the parts on the attachment procedure if necessary.

3.2.2.1 Removing Shutter and Roller

LGXS05 as an example

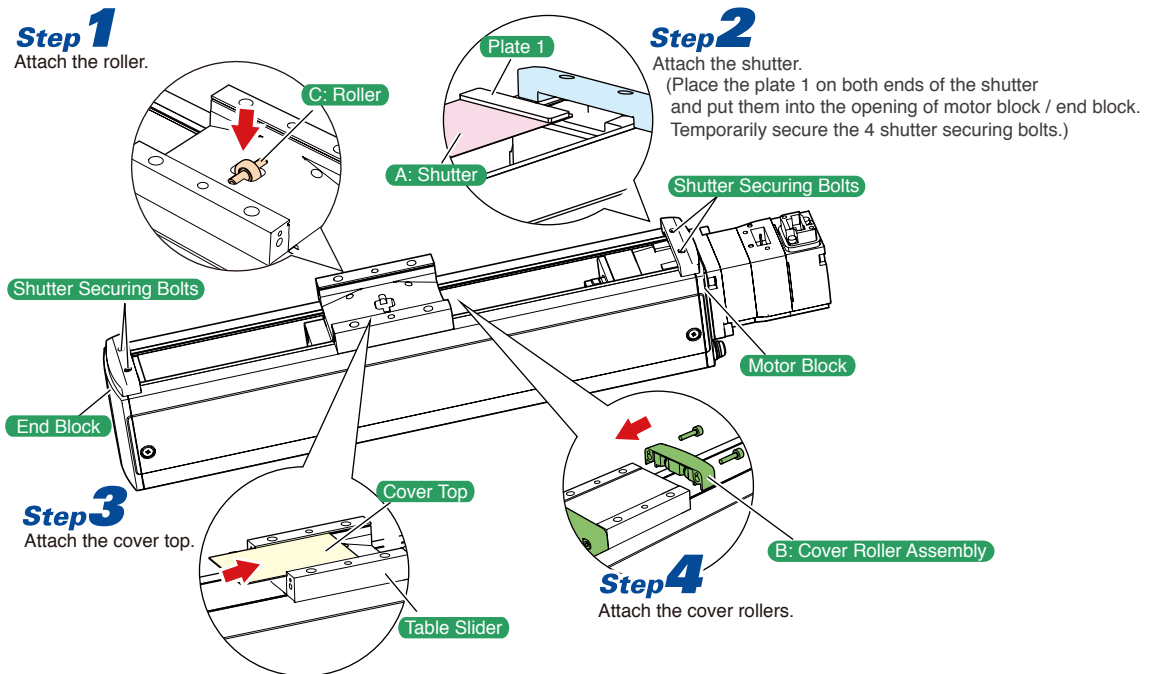


NOTE

- Be careful not to drop any bolts.
- Slide the cover top along the ditches to remove from the table slider.
- Be careful not to lose the plate 1 on the shutter.
- Apply grease if necessary. [REF "3.2.3.2 Applying Grease"](#) in this Chapter

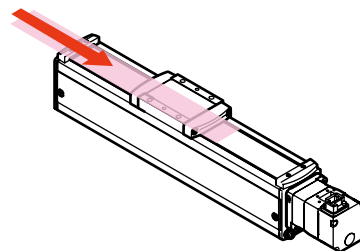
3.2.2.2 Temporarily Attaching Roller and Shutter

LGXS05 as an example



CAUTION

Always attach the shutter parallel to the table slider.



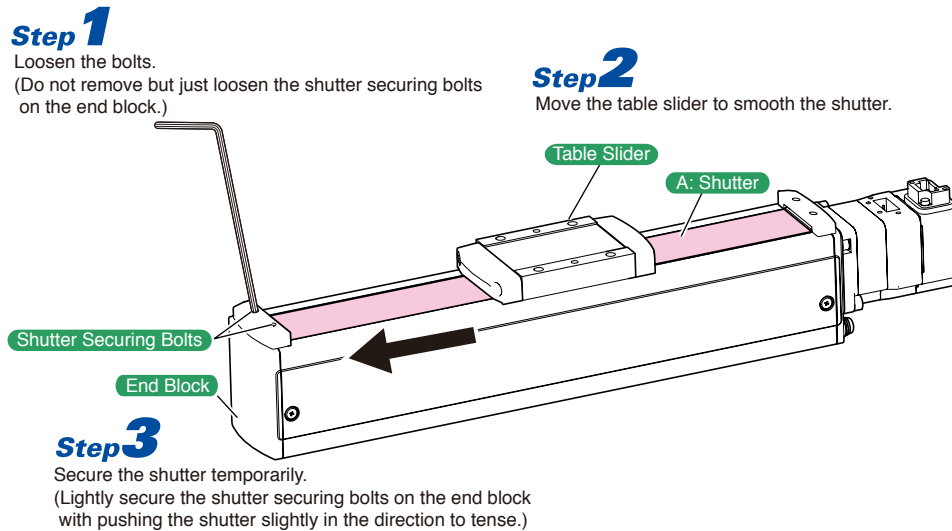


NOTE

- Push the shaft of the roller until it comes to the bottom of the ditch.
- Make sure to stretch the shutter with some space.
- Slide the cover top along the ditches to remove from the table slider.
- Be careful not to lose the plate 1 on the shutter.

3.2.2.3 Adjusting Shutter Looseness (Attaching Shutter)

LGXS05 as an example



For actuators with brake:

1. Move the actuator slowly by jog operation outside the safety enclosure.
2. Keep the table slider at the point where the shutter loosens most.
3. Turn off the servo amplifier.

Step 4 Check the shutter condition.

Manually move the table slider back and forth slowly a few times* to confirm the following points:

* For the actuator with brake, turn on the servo amplifier and move the table slider back and forth slowly a few times by jog operation.

- The shutter is not loosen too much.
- The shutter does not sway from side to side.

When no abnormality was found, tighten the bolts on both sides to secure the shutter.

When any abnormality was found, repeat from **Step 1** to **Step 3**.



CAUTION

- Do not push down the shutter strongly as it may deform.
- Always wear gloves when stretching the shutter by fingers. Touching the steel material part by bare hands may cause rust.

3.2.3 Grease and Greasing Tool

3.2.3.1 Recommended Grease

LR3(NSK)

3.2.3.2 Applying Grease

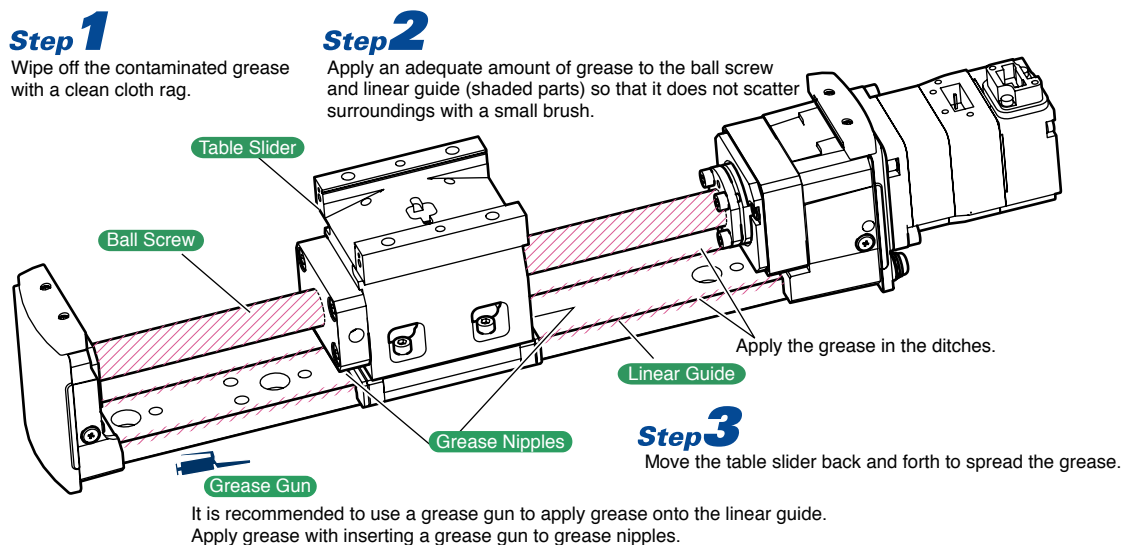
When there is no clearance around the installation place, remove the shutter, and then apply grease.

REF "3.2.2.1 Removing Shutter and Roller", "3.3.2.1 Removing Shutter and Cover Roller" in this Chapter

When there a clearance around the installation place, remove the cover stroke, and then apply grease.

REF Remove the cover stroke "4.4.1 **LGXS05** **LGXS05L** **LGXS07**" in Chapter 2

LGXS05 as an example



Model	Supply amount (g)		Grease tip nozzle (recommended)
	Linear Guide	Ball screw	
LGXS05	0.7	0.7	NSK HGP NZ4 (Point Nozzle for NSK Hand Grease Pump) or Equivalent (Point Nozzle Outer Diameter:φ10 / Inner Diameter:φ7)
LGXS05L	0.7 × 2	0.7	
LGXS07	0.7 × 2	1.4	

* Measured as 0.7g/ Shot

* Apply the grease with moving the table for all models.

Reattaching Shutter **REF** "3.2.2.2 Temporarily Attaching Roller and Shutter" and "3.2.2.3 Adjusting Shutter Looseness (Attaching Shutter)" in this Chapter



CAUTION

Be careful when moving the table slider to prevent your fingers from being caught in.

3.3 LGXS10 LGXS12 LGXS16 LGXS20

3.3.1 Replacement Parts and Tools

■ Replacement Parts

	Part Name		Part Number
A	Shutter	SHUTTER	LGXS10 KEV-M225K-xx LGXS12 KEW-M225K-xx LGXS16 KEX-M225K-xx LGXS20 KEY-M225K-xx
B	Cover Roller Assembly	COVER,ROLLER ASSY	LGXS10 KEV-M22JN-00 LGXS12 KEW-M22JN-00 LGXS16 KEX-M22JN-00 LGXS20 KEY-M22JN-00

NOTE) "xx" represents the actuator stroke. REF Table below

xx	10	20	30	40	50	60	70	80	90	A0	B0
Stroke Length (mm)	100	150	200	250	300	350	400	450	500	550	600

xx	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0	N0
Stroke Length (mm)	650	700	750	800	850	900	950	1000	1050	1100	1150

xx	P0	R0	S0	T0	U0	V0
Stroke Length (mm)	1200	1250	1300	1350	1400	1450

LGXS10 as an example: KEV-M225K-90 means its stroke length is 500 mm.



NOTE

Stroke length range

- LGXS10 LGXS12 100 to 1250 mm
- LGXS16 LGXS20 100 to 1450 mm

■ Tools

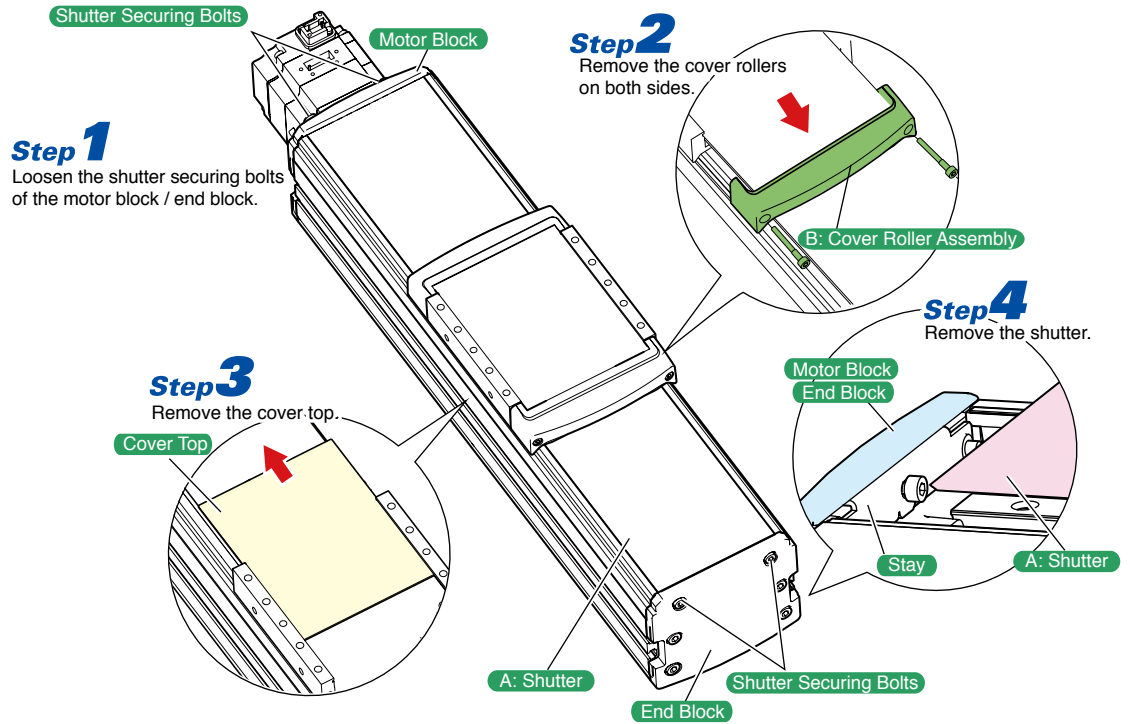
Name	Remarks
Hex Wrench	

3.3.2 Disassembling and Reassembling

The series of procedures from Robonity series dismantling to reassembling are described in this section. Replace the parts on the attachment procedure if necessary.

3.3.2.1 Removing Shutter and Cover Roller

LGXS10 as an example

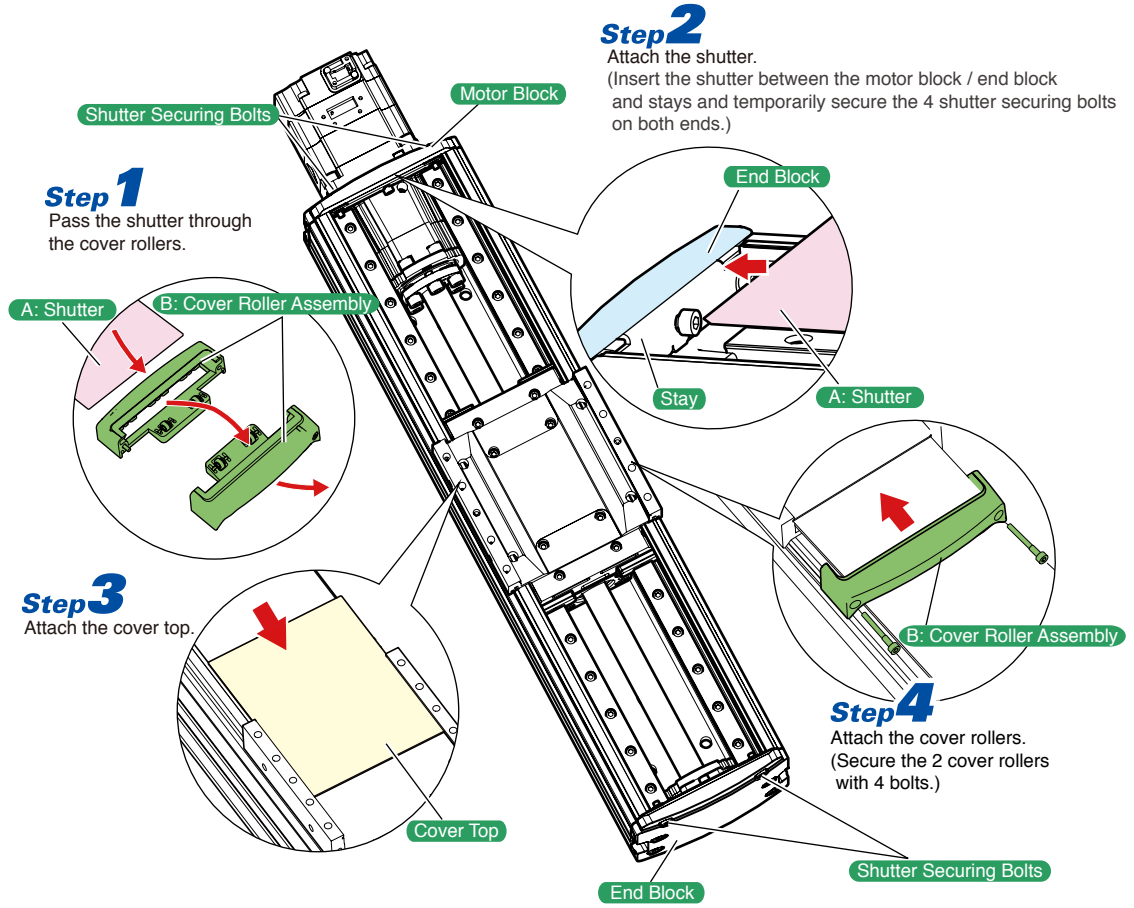


NOTE

- Slide the cover top along the ditches to remove from the table slider.
- Apply grease if necessary. **REF** "3.3.3.2 Applying Grease" in this Chapter

3.3.2.2 Temporarily Attaching Cover Roller and Shutter

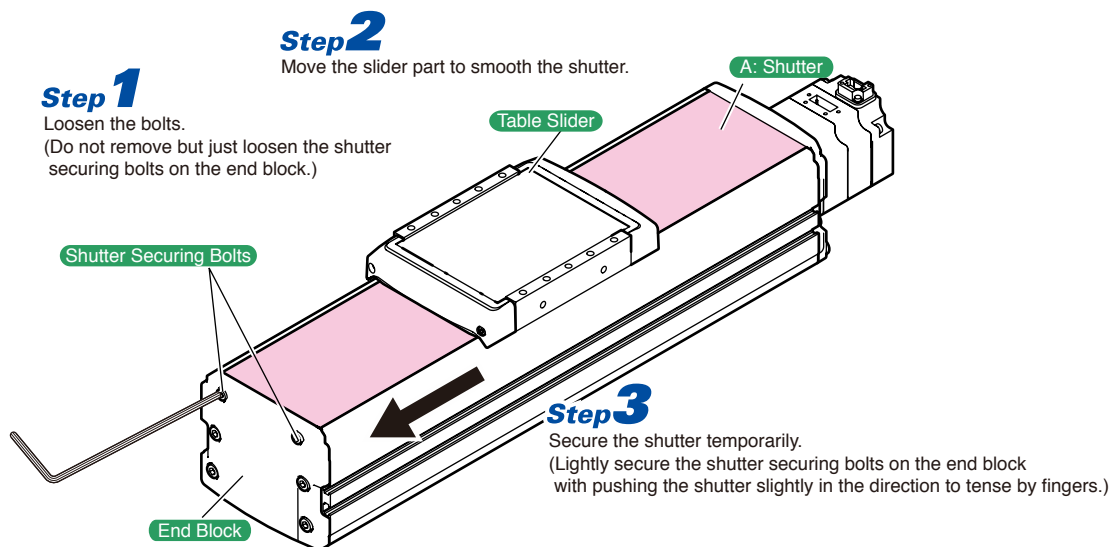
LGXS10 as an example



NOTE
Slide the cover top along the ditches to remove from the table slider.

3.3.2.3 Adjusting Shutter Looseness (Attaching Shutter)

LGXS10 as an example



For actuators with brake:

1. Move the actuator slowly by jog operation outside the safety enclosure.
2. Keep the table slider at the point where the shutter loosens most.
3. Turn off the servo amplifier.



CAUTION

Do not loosen the bolts other than the shutter securing bolts (2 locations) shown in the figure above. When these bolts are loosened, the sliding resistance may become heavier.

Step 4 Check the shutter condition.

Manually move the table slider back and forth slowly a few times* to confirm the following points:

* For the actuator with brake, turn on the servo amplifier and move the table slider back and forth slowly a few times by jog operation.

- The shutter is not loosen too much.
- The shutter does not sway from side to side.

When no abnormality was found, tighten the bolts on both sides to secure the shutter.

When any abnormality was found, repeat from **Step 1** to **Step 3**.



CAUTION

- Do not push down the shutter strongly as it may deform.
- Always wear gloves when stretching the shutter by fingers. Touching the steel material part by bare hands may cause rust.

3.3.3 Grease and Greasing Tool

3.3.3.1 Recommended Grease

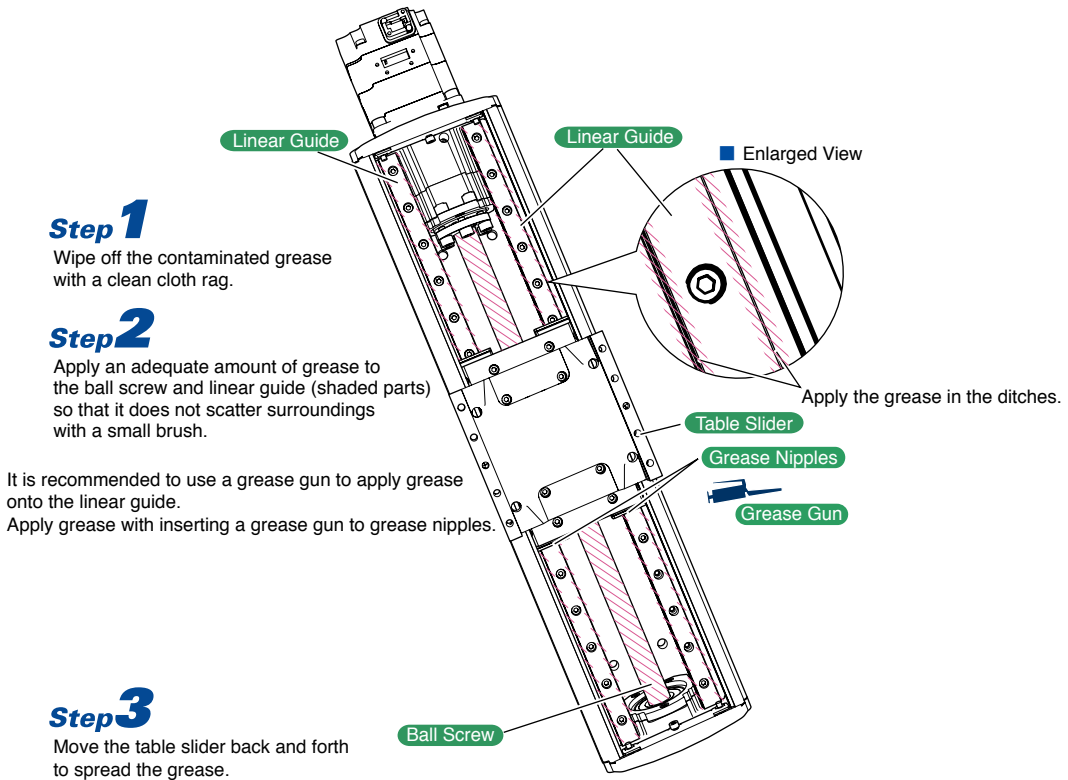
LR3 (NSK)

3.3.3.2 Applying Grease

Remove or pull off the shutter to apply the grease.

REF "3.3.2.1 Removing Shutter and Cover Roller" in this Chapter

LGXS10 as an example



Model	Supply amount (g)		Grease tip nozzle (recommended)
	Linear Guide	Ball screw	
LGXS10	0.7 × 4	1.4	NSK HGP NZ4 (Point Nozzle for NSK Hand Grease Pump) or Equivalent (Point Nozzle Outer Diameter:φ10 / Inner Diameter:φ7)
LGXS12	0.7 × 4	1.4	
LGXS16	1.4 × 4	2.8	Point Nozzle Outer Diameter: 10 / Inner Diameter: 6.5 to 7
LGXS20	2.8 × 4	2.8	

* Measured as 0.7g/ Shot

* Apply the grease with moving the table for all models.

Reattaching the shutter **REF** "3.2.2.2 Temporarily Attaching Roller and Shutter" and "3.2.2.3 Adjusting Shutter Looseness (Attaching Shutter)" in this Chapter.



CAUTION

Be careful when moving the table slider to prevent your fingers from being caught in.

4. Maintenance Parts

4.1 Shutter

Model	Part Number	Model	Part Number	Model	Part Number
LBAS04	KFT-M225K-xx	LGXS05	KES-M225K-xx	LGXS10	KEV-M225K-xx
LBAS05	KFU-M225K-xx	LGXS05L	KET-M225K-xx	LGXS12	KEW-M225K-xx
LBAS08	KFV-M225K-xx	LGXS07	KEU-M225K-xx	LGXS16	KEX-M225K-xx
				LGXS20	KEY-M225K-xx

NOTE1) "xx" represents the actuator stroke. [REF](#) Table below

xx	00	10	20	30	40	50	60	70	80	90	A0
Stroke Length (mm)	50	100	150	200	250	300	350	400	450	500	550

xx	B0	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0
Stroke Length (mm)	600	650	700	750	800	850	900	950	1000	1050	1100

xx	N0	P0	R0	S0	T0	U0	V0
Stroke Length (mm)	1150	1200	1250	1300	1350	1400	1450

LGXS05 as an example: KES-M225K-90 means its stroke length is 500 mm.



NOTE

Stroke length range

- LBAS04 LBAS05 50 to 800 mm
- LBAS08 50 to 1100 mm
- LGXS05 LGXS05L 50 to 800 mm
- LGXS07 50 to 1100 mm
- LGXS10 LGXS12 100 to 1250 mm
- LGXS16 LGXS20 100 to 1450 mm

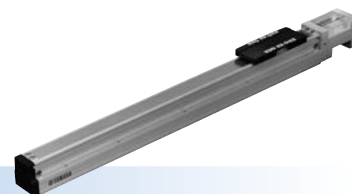
4.2 Cover Roller Assembly and Roller

Model	Part Number	
	Cover Roller Assembly	Roller
LGXS05	KES-M22JN-00	KES-M224K-00
LGXS05L		
LGXS07		
LGXS10	KEV-M22JN-00	
LGXS12	KEW-M22JN-00	
LGXS16	KEX-M22JN-00	
LGXS20	KEY-M22JN-00	

A

Specifications

LBAS04 Basic model



Motor-less Single Axis Actuator

Ordering method

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

Caution

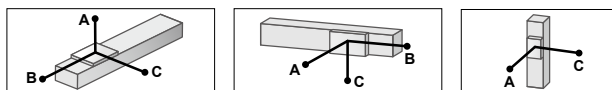
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

Specifications

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 x 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.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note. See P.A-8 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}



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

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

Adaptable Servo Motor

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

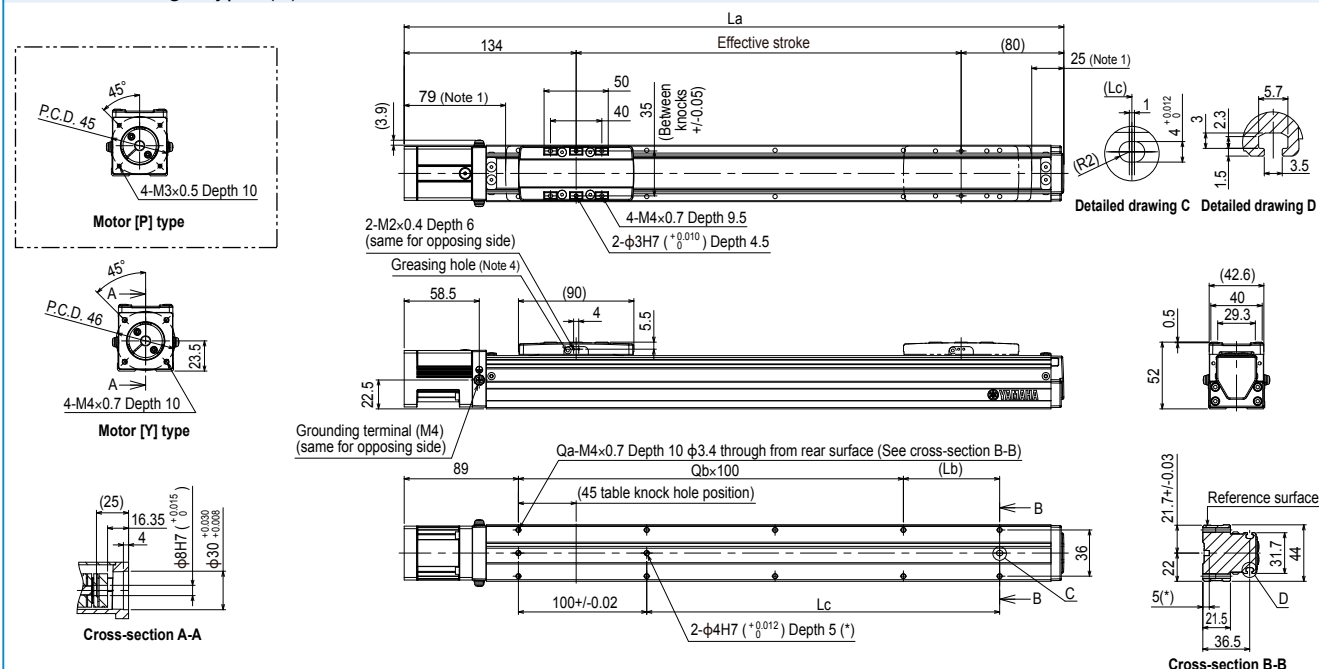
Note. Motor models marked with * may not be 50W, but can be installed.

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

Static loading moment

(Unit: N-m)			
MY	MP	MR	
54	54	75	

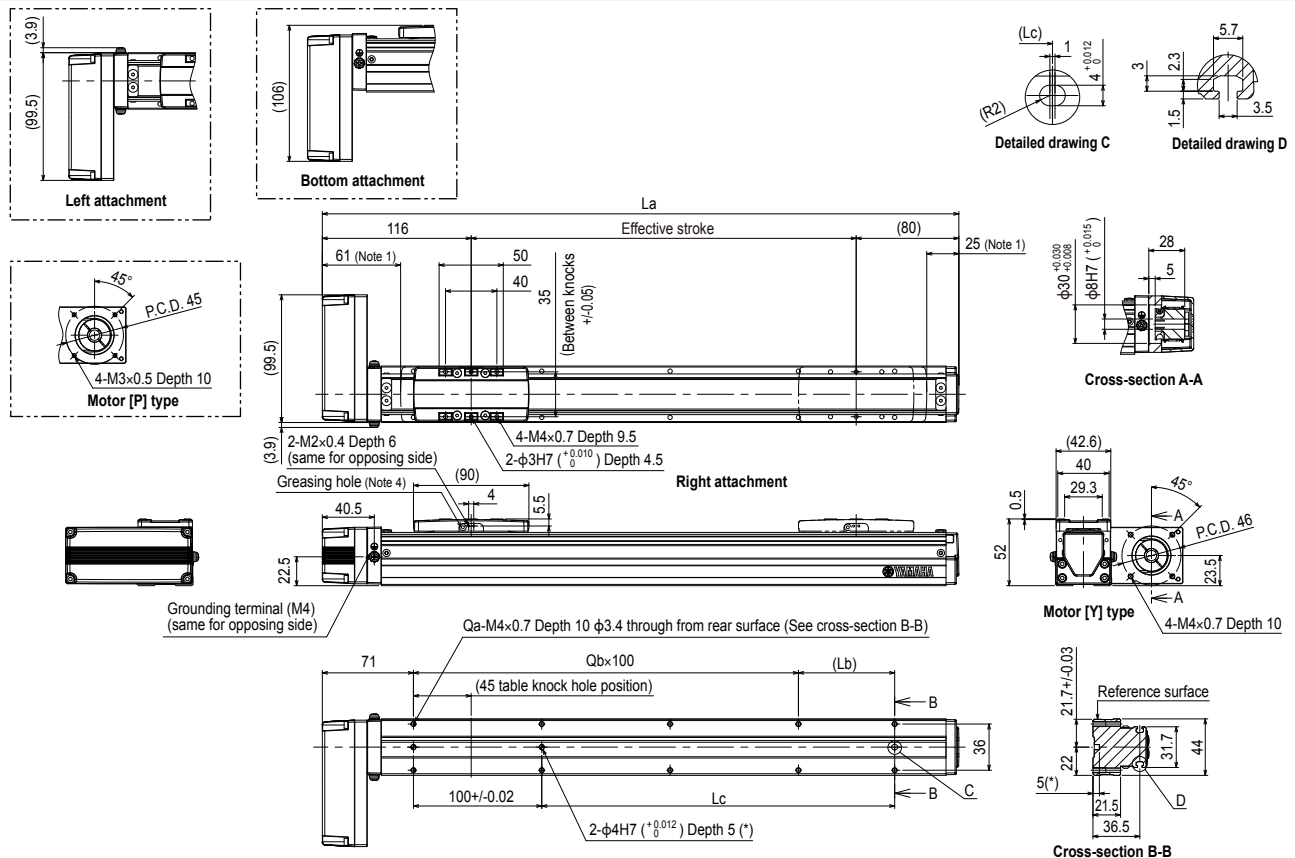
LBAS04 Straight type (S)



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														
	Lead 6	400														
Speed setting		-														
		90% 75% 60% 50% 45% 40%														

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 x 0.5>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M4 x 0.7> used to install the main unit.
 Note 4. Nozzle set for greasing (recommended) (see P.A-32 for detail)
 Part number: KFU-M3861-00

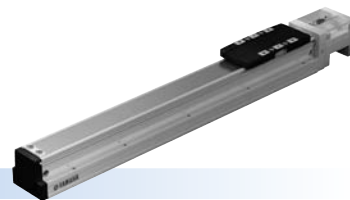
LBAS04 Bending type (A)



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	246	296	346	396	446	496	546	596	646	696	746	796	846	896	946	996	
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
Weight (kg)	1.1	1.2	1.4	1.6	1.8	1.9	2.1	2.3	2.5	2.7	2.8	3	3.2	3.4	3.6	3.7	
Maximum speed (mm/sec)	Lead 12	800									720	600	480	400	360	320	
	Lead 6	400									360	300	240	200	180	160	
	Speed setting	-									90%	75%	60%	50%	45%	40%	

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 × 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.A-32 for detail)
Part number: KFU-M3861-00

LBAS05 Basic model



Motor-less Single Axis Actuator

Ordering method

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

[Caution]

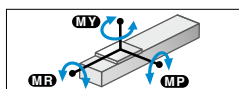
This system is provided as mechanical actuator unit and not including any adoptors or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration 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 133 mm/sec
Ball screw lead	20 mm 10 mm 5 mm 2 mm
Maximum payload ^{Note 3} (or equivalent)	Horizontal 12 kg 24 kg 40 kg 45 kg Vertical 3 kg 6 kg 12 kg 15 kg
Rated thrust ^{Note 3} (or equivalent)	84 N 169 N 339 N 854 N
Maximum dimensions of cross section of main unit	W 54 mm x H 60 mm
Overall length	ST + 220.5 mm
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

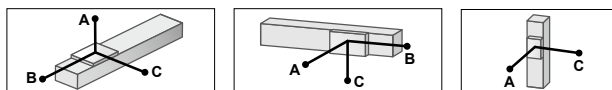
- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note. See PA-9 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)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C			
	2kg	549	324	272	272	324	549	1kg	544	544	
	8kg	155	73	65	8kg	65	73	155	2kg	276	276
	12kg	117	46	42	12kg	42	46	117	3kg	195	195

LBAS05-10	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C			
	5kg	769	178	213	5kg	213	178	769	2kg	443	443
	15kg	314	53	64	15kg	64	53	314	4kg	218	218
	24kg	216	29	36	24kg	36	29	216	6kg	142	142

LBAS05-5	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C			
	10kg	921	97	131	10kg	131	97	921	3kg	345	345
	25kg	459	33	45	25kg	45	33	459	8kg	124	124
	40kg	436	17	23	40kg	23	17	436	12kg	79	79

LBAS05-2	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C			
	15kg	2685	78	109	15kg	109	78	2685	5kg	254	254
	30kg	1833	34	47	30kg	47	34	1833	10kg	122	122
	45kg	2621	19	27	45kg	27	19	2621	15kg	0	0

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

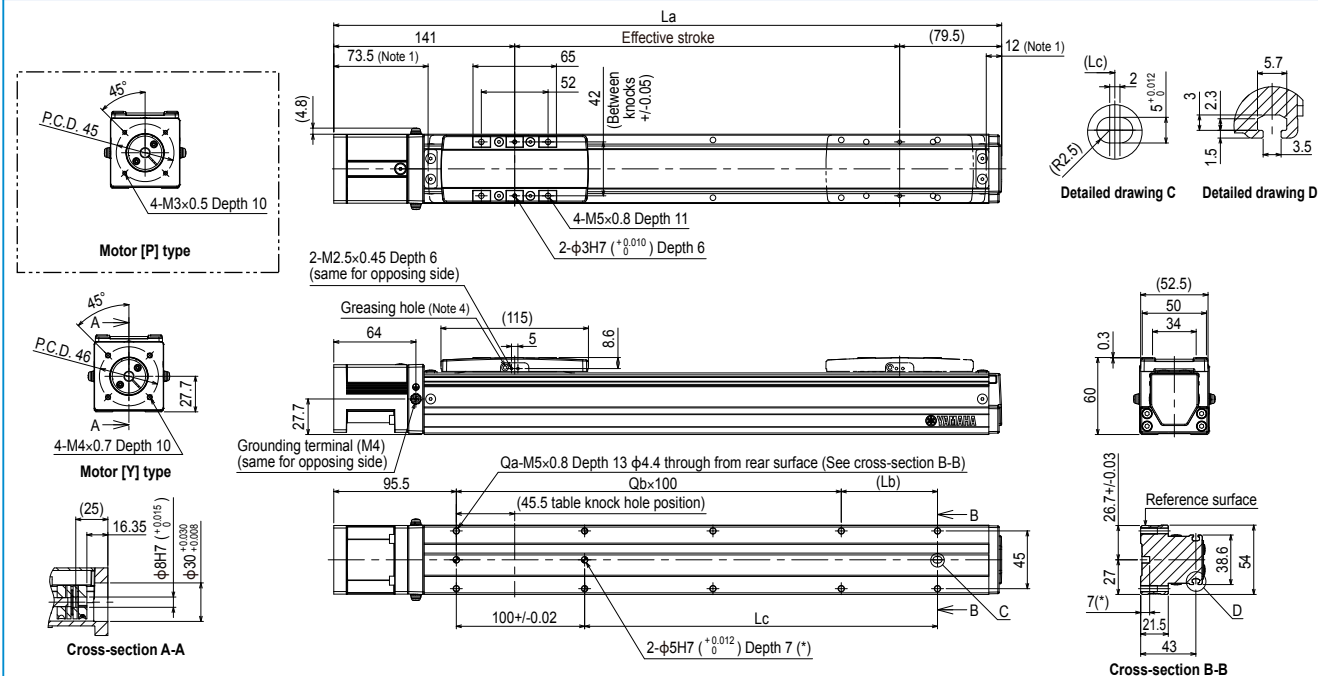
Adaptable Servo Motor

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

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

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

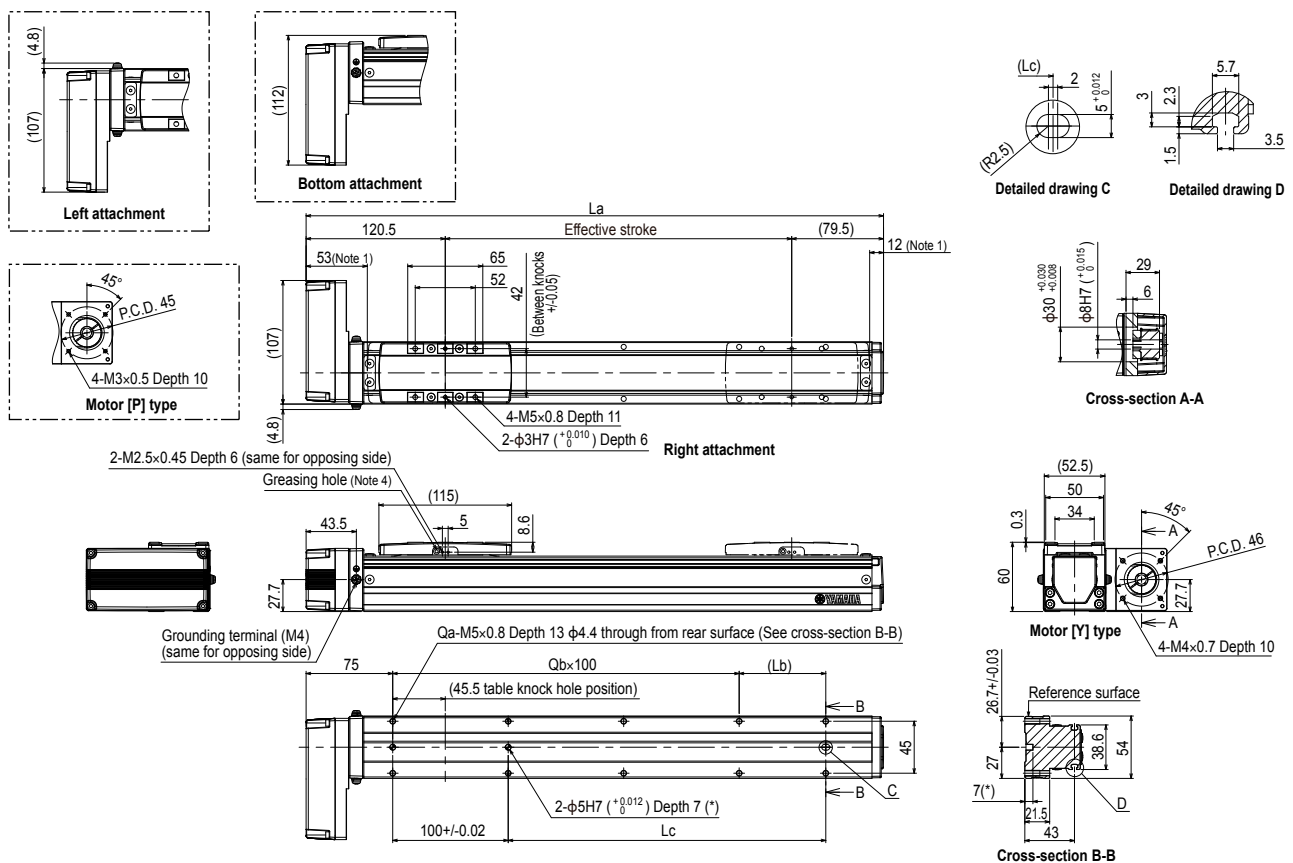
LBAS05 Straight type (S)



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														
	Lead 10	666														
	Lead 5	333														
	Lead 2	133														
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 x 0.7>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M5 x 0.8> used to install the main unit.
 Note 4. Nozzle set for greasing (recommended) (see P.A-32 for detail)
 Part number: KFU-M3861-00

LBAS05 Bending type (A)

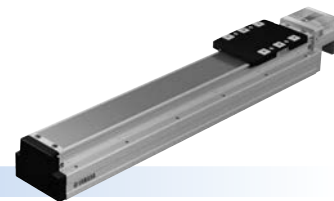


Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	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														
	Lead 10	666														
	Lead 5	333														
	Lead 2	133														
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 x 0.7>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M5 x 0.8> used to install the main unit.
 Note 4. Nozzle set for greasing (recommended) (see P.A-32 for detail)
 Part number: KFU-M3861-00

LBAS08

Basic model



Motor-less Single Axis Actuator

Ordering method

LBAS08

Model	Lead designation	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)	50 to 1100 (50 mm pitch)

[Caution]

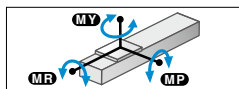
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

Specifications

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 x H 78 mm
Overall length	ST + 278 mm
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

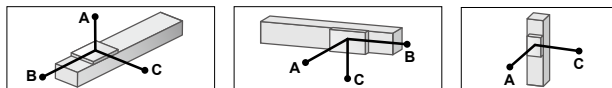
Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note. See P.A-11 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)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
15kg	356	131	146	15kg	146	131	356	3kg	645	645
25kg	278	73	86	25kg	86	73	278	6kg	333	333
40kg	255	41	53	40kg	53	41	255	8kg	252	252

LBAS08-10

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
30kg	466	83	120	30kg	120	83	466	5kg	564	564
50kg	342	44	65	50kg	65	44	342	10kg	284	284
80kg	228	22	34	80kg	34	22	228	20kg	142	142

LBAS08-5

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
30kg	1612	95	153	30kg	153	95	1612	10kg	325	325
50kg	1041	52	83	50kg	83	52	1041	20kg	163	163
80kg	719	27	44	80kg	44	27	719	30kg	109	109
100kg	608	19	31	100kg	31	19	608			

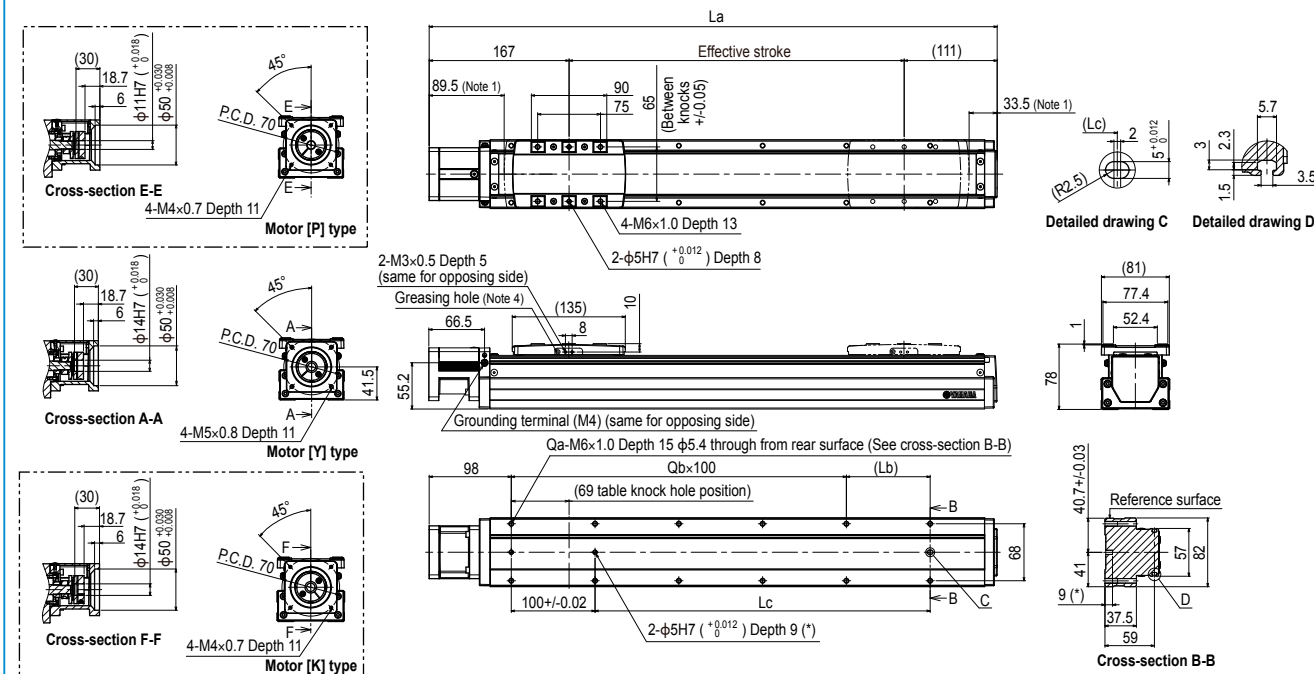
Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
 Note. Service life is calculated for 600 mm stroke models.

Adaptable Servo Motor

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

Motor specification	Manufacturer	Model	
Y	Yasukawa Electric Corp.	SGMJV-02 SGMJ7J-02	
	Keyence Corp.	SV \square 020 SV2 \square 020	
	Mitsubishi Electric Corp.	HF-KP23 HG-KR23 HK-KT23	
	Sanyo Denki	R2 \square A06020	
	Tamagawa Seiki	TSM3202	
	Delta Electronics	ECMA-C10602	
	Siemens	1FL6032-2AF	
	Schneider	BCH2LD023	
	P	Omron Electronics	R88M-K20030 R88M-1M20030
		Panasonic Corp.	MSMD02 MSMF02
K	Kingserve	KSMA02L1 KSMA02LG	

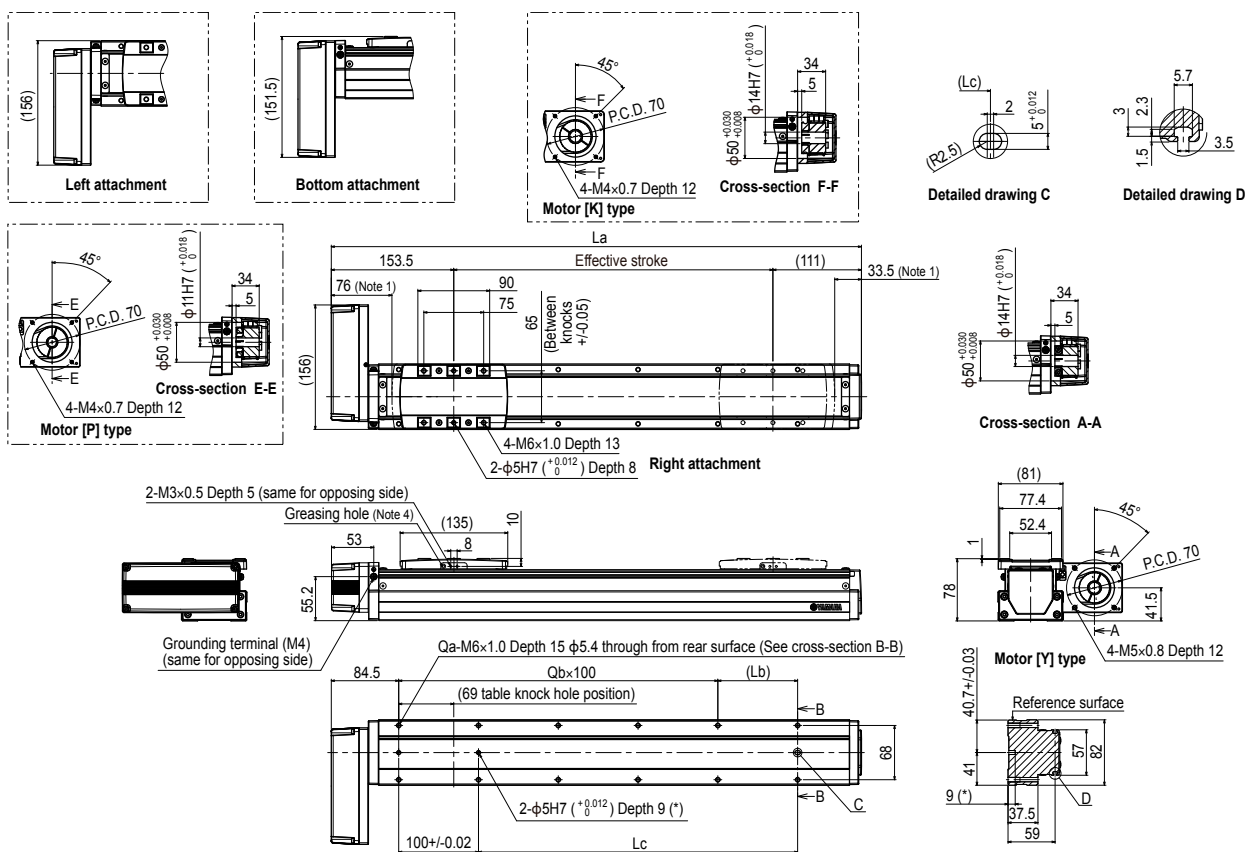
LBAS08 Straight type (S)



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

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts << M5 x 0.8 >>. In the installation tap hole, the length under head << thickness of stand +15 mm or less >> is recommended for the hex socket head bolts << M6 x 1.0 >> used to install the main unit.
 Note 4. Nozzle set for greasing (recommended) (see P.A-32 for detail)
 Part number: KFU-M3861-00

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										
	Lead 10											600										
	Lead 5											300										
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 x 0.8>. In the installation tap hole, the length under head << thickness of stand +15 mm or less >> is recommended for the hex socket head bolts <M6 x 1.0> used to install the main unit.
- Note 4. Nozzle set for greasing (recommended) (see P.A-32 for detail)
Part number: KFU-M3861-00

Acceleration/Deceleration

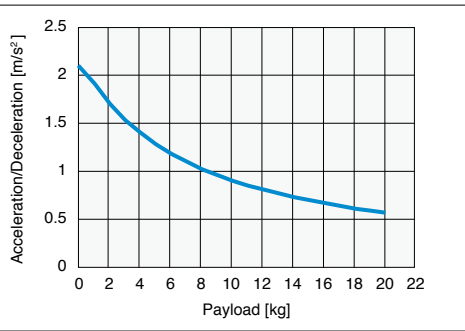
LBAS04

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

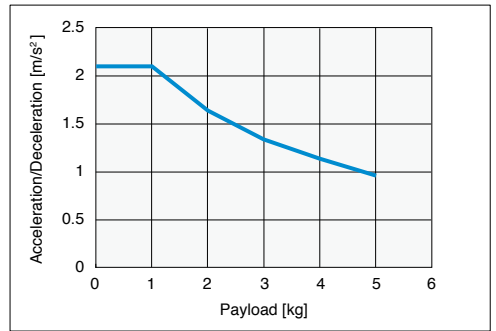
Payload – Acceleration/Deceleration Graph (Estimate)

LBAS04-6

Horizontal/
Wall hanging

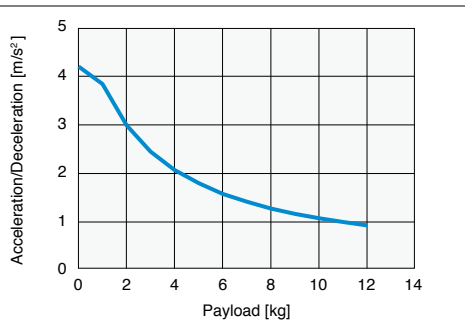


Vertical

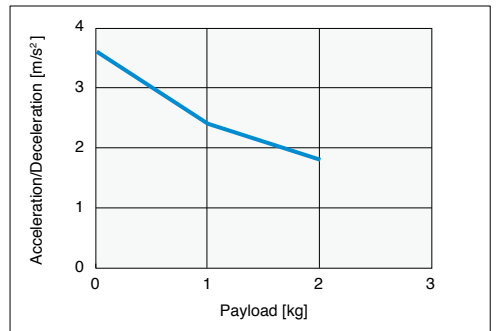


LBAS04-12

Horizontal/
Wall hanging



Vertical



Inertia Moment

LBAS04

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

Acceleration/Deceleration

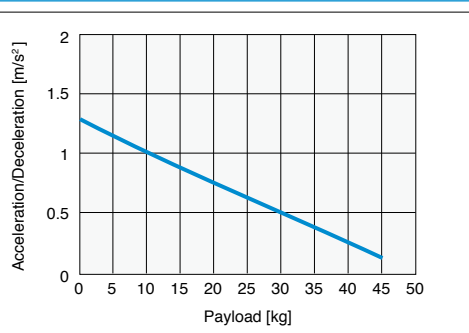
LBAS05

Model	LBAS05 -2 Horizontal/ Wall hanging	LBAS05 -2 Vertical	LBAS05 -5 Horizontal/ Wall hanging	LBAS05 -5 Vertical	LBAS05 -10 Horizontal/ Wall hanging	LBAS05 -10 Vertical	LBAS05 -20 Horizontal/ Wall hanging	LBAS05 -20 Vertical
0	1.3	1	3.04	3.34	4.64	4.86	7.44	7.44
1	1.27	0.95	2.97	3.18	4.44	4.56	7.44	6.99
2	1.24	0.91	2.91	3.03	4.25	4.3	7.44	5.65
3	1.22	0.86	2.85	2.88	4.07	4.06	7.44	3.42
4	1.19	0.82	2.79	2.73	3.9	3.85	7.44	
5	1.17	0.77	2.73	2.58	3.73	3.66	7.44	
6	1.14	0.73	2.67	2.43	3.57	3.49	6.64	
7	1.11	0.68	2.61	2.28	3.41		6	
8	1.09	0.64	2.55	2.13	3.27		5.47	
9	1.06	0.59	2.49	1.98	3.12		5.02	
10	1.04	0.55	2.43	1.83	2.99		4.65	
11	1.01	0.5	2.37	1.68	2.86		4.32	
12	0.98	0.46	2.31	1.53	2.74		4.04	
13	0.96	0.41	2.24		2.62			
14	0.93	0.37	2.18		2.51			
15	0.91	0.32	2.12		2.41			
16	0.88		2.06		2.31			
17	0.85		2		2.22			
18	0.83		1.94		2.14			
19	0.8		1.88		2.06			
20	0.78		1.82		1.99			
21	0.75		1.76		1.93			
22	0.72		1.7		1.87			
23	0.7		1.64		1.82			
24	0.67		1.58		1.77			
25	0.65		1.52					
26	0.62		1.45					
27	0.59		1.39					
28	0.57		1.33					
29	0.54		1.27					
30	0.52		1.21					
31	0.49		1.15					
32	0.46		1.09					
33	0.44		1.03					
34	0.41		0.97					
35	0.39		0.91					
36	0.36		0.85					
37	0.33		0.79					
38	0.31		0.72					
39	0.28		0.66					
40	0.26		0.6					
41	0.23							
42	0.2							
43	0.18							
44	0.15							
45	0.13							

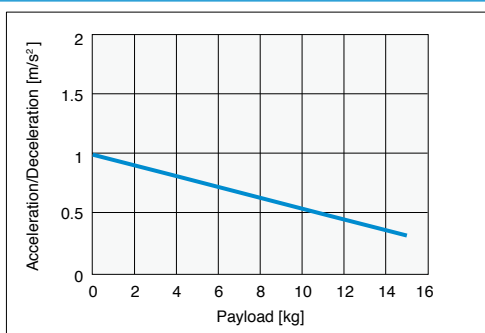
Payload – Acceleration/Deceleration Graph (Estimate)

LBAS05-2

Horizontal/
Wall hanging

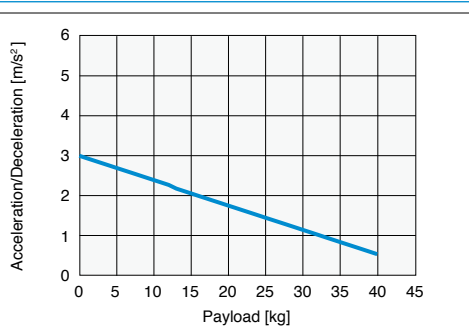


Vertical

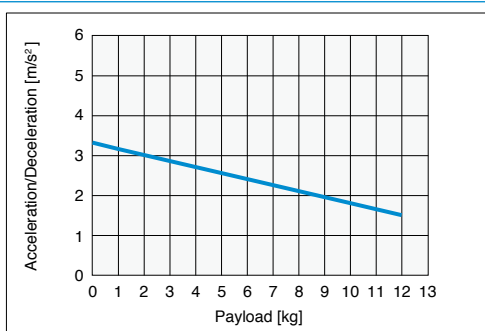


LBAS05-5

Horizontal/
Wall hanging



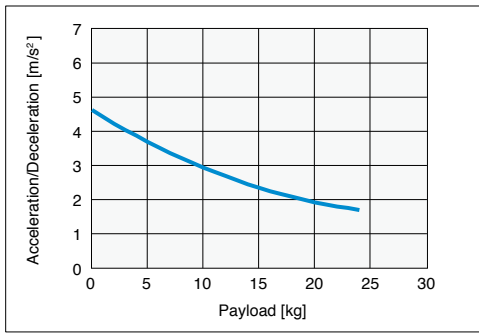
Vertical



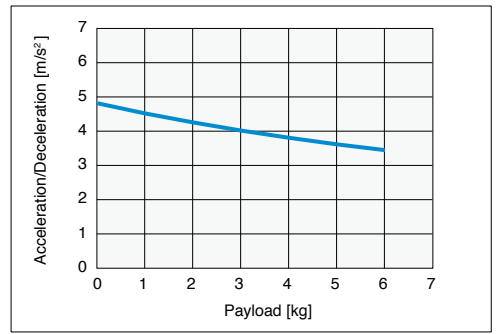
■ Payload – Acceleration/Deceleration Graph (Estimate)

LBAS05-10

Horizontal/
Wall hanging

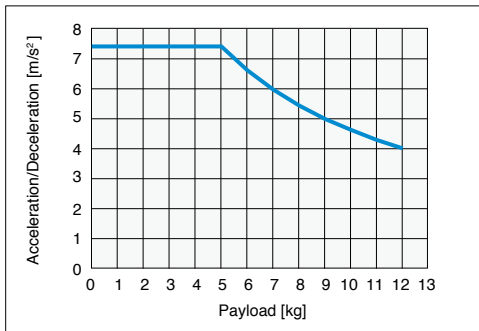


Vertical

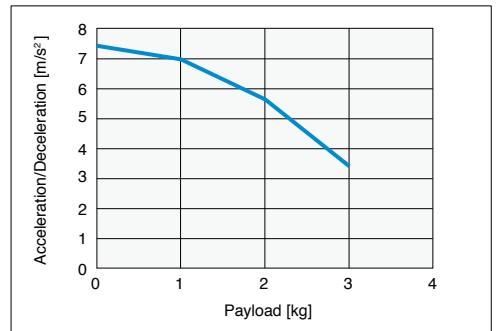


LBAS05-20

Horizontal/
Wall hanging



Vertical



■ Inertia Moment

LBAS05

[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
LBAS05-2	0.082	0.090	0.098	0.106	0.114	0.122	0.130	0.138	0.146	0.154	0.162	0.170	0.178	0.186	0.194	0.202
LBAS05-5	0.085	0.093	0.101	0.109	0.117	0.125	0.133	0.141	0.149	0.157	0.165	0.173	0.181	0.189	0.197	0.205
LBAS05-10	0.097	0.105	0.113	0.121	0.129	0.137	0.145	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.209	0.217
LBAS05-20	0.145	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.209	0.217	0.224	0.232	0.240	0.248	0.256	0.264

Acceleration/Deceleration

LBAS08

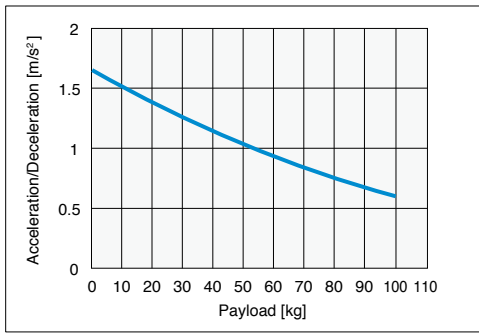
Model	LBAS08 -5 Horizontal/Wall hanging	LBAS08 -5 Vertical	LBAS08 -10 Horizontal/Wall hanging	LBAS08 -10 Vertical	LBAS08 -20 Horizontal/Wall hanging	LBAS08 -20 Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration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

Model	LBAS08 -5 Horizontal/Wall hanging	LBAS08 -5 Vertical	LBAS08 -10 Horizontal/Wall hanging	LBAS08 -10 Vertical	LBAS08 -20 Horizontal/Wall hanging	LBAS08 -20 Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]
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					

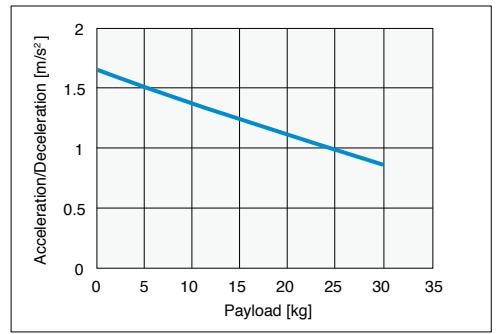
■ Payload – Acceleration/Deceleration Graph (Estimate)

LBAS08-5

Horizontal/
Wall hanging

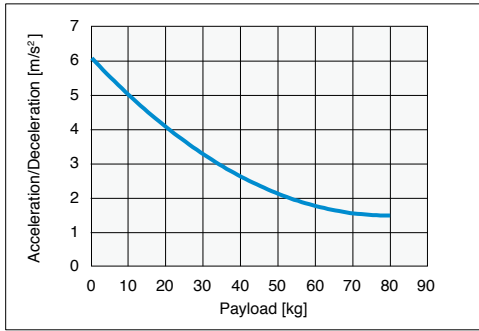


Vertical

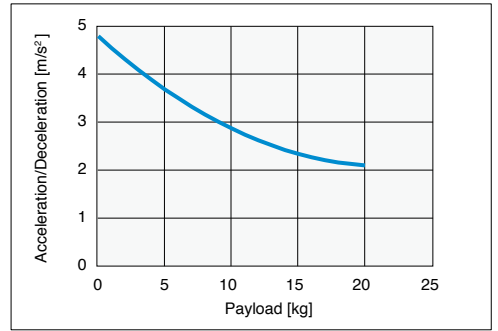


LBAS08-10

Horizontal/
Wall hanging

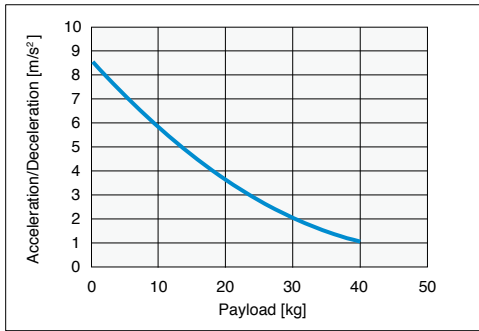


Vertical

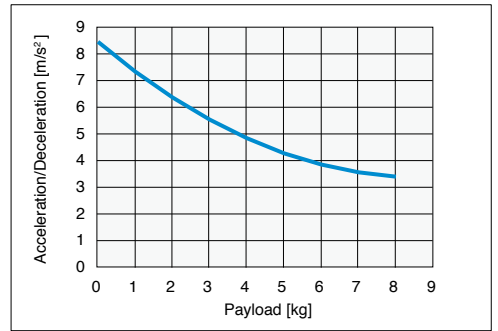


LBAS08-20

Horizontal/
Wall hanging



Vertical

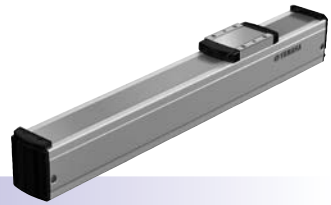


■ Inertia Moment

LBAS08

[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
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

LGXS05 Advanced model



Motor-less Single Axis Actuator

Ordering method

LGXS05		
Model	Lead designation	Stroke
	20: 20 mm	50 to 800
	10: 10 mm	(50 mm pitch)
	5: 5 mm	

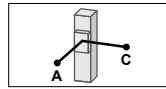
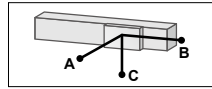
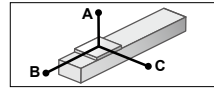
[Caution]

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

Specifications

Adaptable motor	50 W		
Repeatability ^{Note 1}	±0.005 mm		
Deceleration mechanism	Ground ball screw $\phi 12$ (C5 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	5 kg	8 kg
	Vertical	2 kg	4 kg
Rated thrust ^{Note 3} (or equivalent)		41 N	69 N
		69 N	138 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 N ℓ /min to 100 N ℓ /min		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Allowable overhang ^{Note}



LGXS05-20

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

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

Horizontal installation (Unit: mm)		Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C	
2kg	4635	281	497	2kg	439	245	4401	4kg	183
8kg	2211	101	179	8kg	117	65	1826	6kg	111
13kg	1599	59	105	13kg	42	24	1006	8kg	75

LGXS05-10

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

Horizontal installation (Unit: mm)		Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C	
3kg	4635	281	497	3kg	439	245	4401	4kg	183
8kg	2211	101	179	8kg	117	65	1826	6kg	111
13kg	1599	59	105	13kg	42	24	1006	8kg	75

Horizontal installation (Unit: mm)		Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C	
3kg	4635	281	497	3kg	439	245	4401	4kg	183
8kg	2211	101	179	8kg	117	65	1826	6kg	111
13kg	1599	59	105	13kg	42	24	1006	8kg	75

LGXS05-5

Horizontal installation (Unit: mm)		Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C	
3kg	4635	281	497	3kg	439	245	4401	4kg	183
8kg	2211	101	179	8kg	117	65	1826	6kg	111
13kg	1599	59	105	13kg	42	24	1006	8kg	75

Horizontal installation (Unit: mm)		Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C	
3kg	4635	281	497	3kg	439	245	4401	4kg	183
8kg	2211	101	179	8kg	117	65	1826	6kg	111
13kg	1599	59	105	13kg	42	24	1006	8kg	75

Horizontal installation (Unit: mm)		Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C	
3kg	4635	281	497	3kg	439	245	4401	4kg	183
8kg	2211	101	179	8kg	117	65	1826	6kg	111
13kg	1599	59	105	13kg	42	24	1006	8kg	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	<input type="checkbox"/> 40
	Wattage	50 W

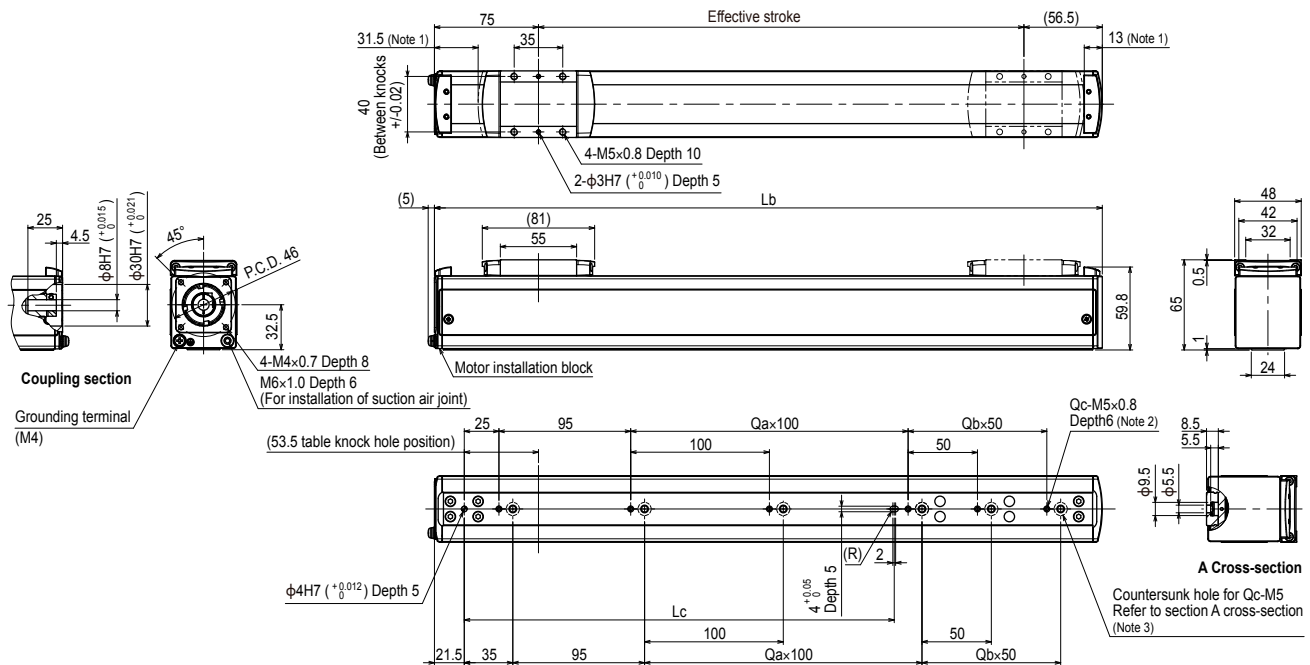
Manufacturer	Model
Yasukawa Electric Corp.	SGMJV-A5 SGM7J-A5
Keyence Corp.	SV- <input type="checkbox"/> 005 SV2- <input type="checkbox"/> 005
Mitsubishi Electric Corp.	HF-KP053 ^{Note} HG-KR053 ^{Note}

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

- Note 1. Positioning repeatability in one direction.
- Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
- Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
- Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
- Note 5. The required suction amount will vary according to the operating conditions and operating environment.
- Note. See P.A-20 for acceleration/deceleration and inertia moment.

LGXS05

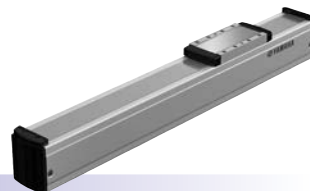


Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
	Lb	181.5	231.5	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5
Lc	110	110	110	110	310	310	310	310	310	310	610	610	610	610	610	610	
Qa	0	0	0	0	2	2	2	2	2	2	5	5	5	5	5	5	
Qb	0	1	2	3	0	1	2	3	4	5	0	1	2	3	4	5	
Qc	2	3	4	5	4	5	6	7	8	9	7	8	9	10	11	12	
Weight (kg)	1.2	1.4	1.5	1.7	1.9	2.0	2.2	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.4	3.5	
Maximum speed (mm/sec)	Lead 20	1333															
	Lead 10	666															
	Lead 5	333															
	Speed setting	-															
		80%	70%	60%	50%												

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

Specifications

LGXS05L Advanced model



Motor-less Single Axis Actuator

Ordering method

LGXS05L		
Model	Lead designation	Stroke
	20: 20 mm	50 to 800
	10: 10 mm	(50 mm pitch)
	5: 5 mm	

[Caution]

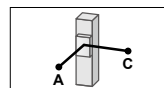
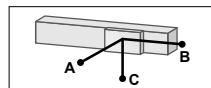
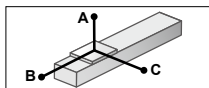
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

Specifications

Adaptable motor	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 ^{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 32 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 48 mm x H 65 mm
Overall length	ST + 161.5 mm	
Degree of cleanliness ^{Note 4}	ISO CLASS 3 (ISO 14644-1) or equivalent	
Intake air ^{Note 5}	30 N ℓ /min to 100 N ℓ /min	
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)	

- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.A-21 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}



LGXS05L-20

Horizontal installation (Unit: mm)	A	B	C
3kg	1760	560	427
8kg	739	201	154
12kg	611	134	105

Wall installation (Unit: mm)	A	B	C
3kg	397	488	1599
8kg	107	128	528
12kg	52	61	331

Vertical installation (Unit: mm)	A	C
1kg	1490	1490
2kg	732	732
3kg	480	480

LGXS05L-10

Horizontal installation (Unit: mm)	A	B	C
6kg	2418	388	333
12kg	1400	187	161
24kg	875	86	74

Wall installation (Unit: mm)	A	B	C
6kg	277	316	2194
12kg	101	115	1086
24kg	12	14	276

Vertical installation (Unit: mm)	A	C
4kg	554	554
6kg	360	360

LGXS05L-5

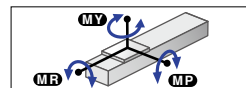
Horizontal installation (Unit: mm)	A	B	C
10kg	3144	254	225
20kg	1850	120	106
32kg	1560	70	62

Wall installation (Unit: mm)	A	B	C
10kg	162	181	2817
20kg	42	47	1282
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

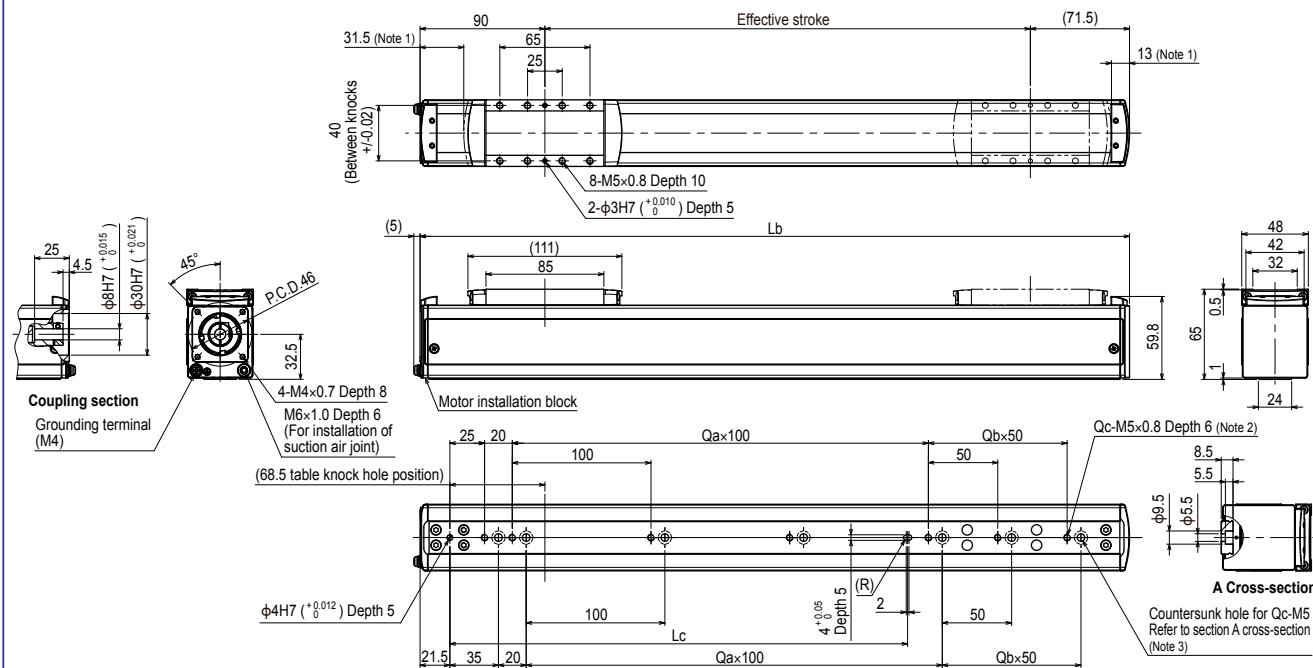
Specification	Flange size	<input type="checkbox"/> 40
	Wattage	100 W

Manufacturer	Model
Yasukawa Electric Corp.	SGMJV-01 SGM7J-01
Keyence Corp.	SV- <input type="checkbox"/> 010 SV2- <input type="checkbox"/> 010
Mitsubishi Electric Corp.	HF-KP13 ^{Note} HG-KR13 ^{Note}

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

LGXS05L

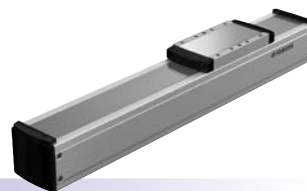


Effective stroke	Stroke (mm)																
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
Lb	211.5	261.5	311.5	361.5	411.5	461.5	511.5	561.5	611.5	661.5	711.5	761.5	811.5	861.5	911.5	961.5	
Lc	130	130	130	130	330	330	330	330	330	330	630	630	630	630	630	630	
Qa	1	1	1	1	3	3	3	3	3	3	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															
	Lead 10	666															
	Lead 5	333															
	Speed setting	-															
		1066 933 800 666															
		532 466 400 333															
		266 233 200 166															
		80% 70% 60% 50%															

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

LGXS07

Advanced model



Motor-less Single Axis Actuator

Ordering method

LGXS07		
Model	Lead designation	Stroke
	30: 30 mm	50 to 1100
	20: 20 mm	(50 mm pitch)
	10: 10 mm	
	5: 5 mm	

[Caution]

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

Specifications

Adaptable motor	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 ^{Note 2} (or equivalent)	1800 mm/sec, 1200 mm/sec, 600 mm/sec, 300 mm/sec
Ball screw lead	30 mm, 20 mm, 10 mm, 5 mm
Maximum payload ^{Note 3} (or equivalent)	Horizontal: 10 kg, 25 kg, 45 kg, 85 kg; Vertical: 2 kg, 4 kg, 8 kg, 16 kg
Rated thrust ^{Note 3} (or equivalent)	56 N, 84 N, 169 N, 339 N
Maximum dimensions of cross section of main unit	W 70 mm x 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 N ℓ /min to 115 N ℓ /min
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

- Note 1. Positioning repeatability in one direction.
- Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
- Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
- Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
- Note 5. The required suction amount will vary according to the operating conditions and operating environment.
- Note. See PA-22 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}

Model	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
LGXS07-30	2kg: 3084, 1512, 1223; 6kg: 1191, 502, 418; 10kg: 957, 318, 282	2kg: 1240, 1445, 2981; 6kg: 393, 435, 1063; 10kg: 245, 251, 794	1kg: 2340, 2340; 2kg: 1160, 1160
LGXS07-20	10kg: 1331, 371, 358; 20kg: 1144, 187, 189; 25kg: 1829, 169, 182	10kg: 314, 305, 1168; 20kg: 132, 120, 812; 25kg: 117, 103, 1249	1kg: 3425, 3425; 2kg: 1705, 1705; 4kg: 843, 843
LGXS07-10	15kg: 2431, 339, 373; 30kg: 1536, 160, 177; 45kg: 1188, 101, 112	15kg: 307, 273, 2203; 30kg: 107, 94, 1161; 45kg: 39, 35, 629	3kg: 1693, 1693; 6kg: 830, 830; 8kg: 614, 614
LGXS07-5	30kg: 2918, 172, 197; 50kg: 2543, 96, 110; 85kg: 2031, 49, 56	30kg: 122, 106, 2461; 50kg: 34, 30, 1480; 85kg: 0, 0, 0	6kg: 907, 907; 9kg: 591, 591; 16kg: 315, 315

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

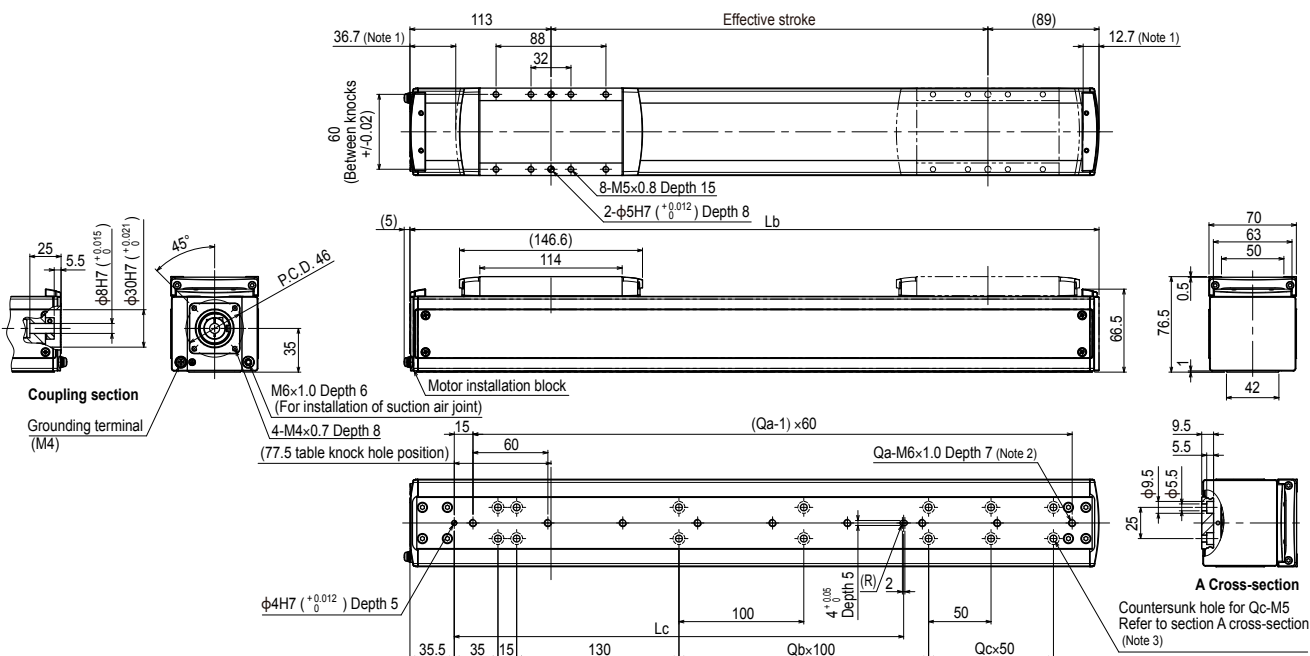
Static loading moment

	MY	MP	MR
(Unit: N·m)	138	121	121

Adaptable Servo Motor

Specification	Flange size	<input type="checkbox"/> 40
	Wattage	100 W
Manufacturer	Model	
Yasukawa Electric Corp.	SGMJV-01	
	SGM7J-01	
Keyence Corp.	SV-□010	
	SV2-□010	
Mitsubishi Electric Corp.	HF-KP13 ^{Note}	
	HG-KR13 ^{Note}	
Note. To combine with the conversion adapter <GX-BEND-40>, the shim plate (t1) is necessary.		
Conversion adapter product model	Shim plate part number	
GX-BEND-40	KES-M2295-00	

LGXS07

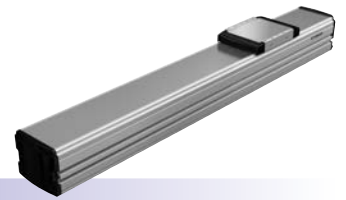


Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Lb	252	302	352	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202	1252	1302
Lc	160	160	160	160	360	360	360	360	360	360	360	760	760	760	760	760	760	760	760	760	760	760
Qa	4	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	6	6	6	6	6	6	6	6	6	6	6
Qc	0	1	2	3	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9
Qd	6	8	10	12	10	12	14	16	18	20	22	24	18	20	22	24	26	28	30	32	34	36
Weight (kg)	3.2	3.4	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6	5.9	6.2	6.4	6.7	7.0	7.2	7.5	7.8	8.1	8.3	8.6	8.9
Lead 30	1800																					
Lead 20	1200																					
Lead 10	600																					
Lead 5	300																					
Speed setting	-																					
Maximum speed (mm/sec)	1530	1350	1170	990	900	810	720	630	540	450	360	270	240	210	185	165	145	125	105	85	65	45
	85%	75%	65%	55%	50%	45%	40%	35%														

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

Specifications

LGXS10 Advanced model



Motor-less Single Axis Actuator

Ordering method

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

[Caution]

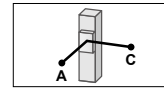
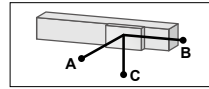
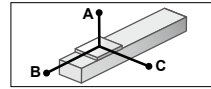
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

Specifications

Adaptable motor	200 W			
Repeatability ^{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 ^{Note 2} (or equivalent)	1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	30 mm	20 mm	10 mm	5 mm
Maximum payload ^{Note 3} (or equivalent)	Horizontal	25 kg	40 kg	80 kg
	Vertical	4 kg	8 kg	20 kg
Rated thrust ^{Note 3} (or equivalent)	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.
 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 PA-24 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}



LGXS10-30
Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

	A	C
1kg	4142	4142
4kg	987	987

LGXS10-20
Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

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

LGXS10-10
Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

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

LGXS10-5
Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

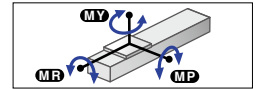
	A	B	C
30kg	181	258	5193
50kg	79	113	3109
80kg	22	31	1555
100kg	0	0	0

Vertical installation (Unit: mm)

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

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

Static loading moment



(Unit: N·m)

MY	MP	MR
274	274	241

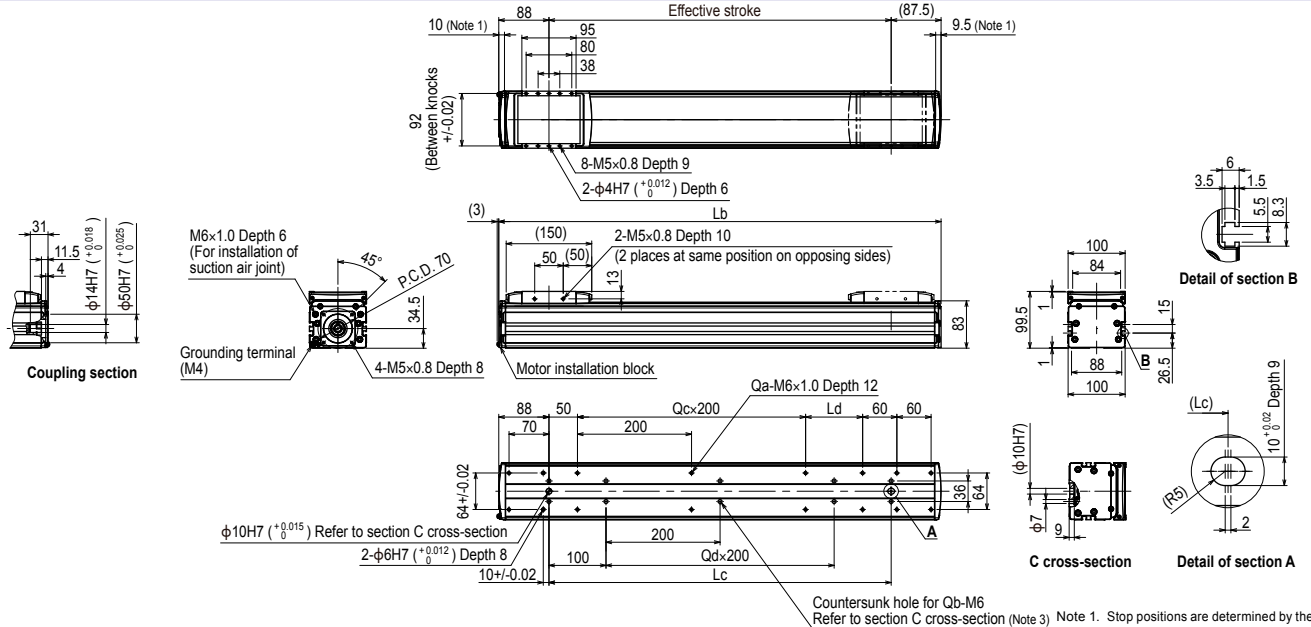
Adaptable Servo Motor

Specification	Flange size	<input type="checkbox"/> 60
	Wattage	200 W
Manufacturer	Model	
Yasukawa Electric Corp.	SGMJV-02 SGM7J-02	
Keyence Corp.	SV- <input type="checkbox"/> 020	
	HF- <input type="checkbox"/> 020	
Mitsubishi Electric Corp.	HV-KP23 HG-KR23 ^{Note}	

Note. To combine with the conversion adapter <GX-BEND-60>, the shim plate (t1) is necessary.

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

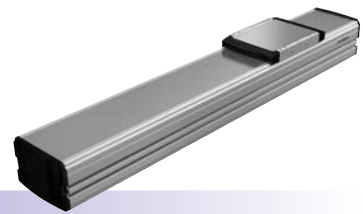
LGXS10



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	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Qa	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	18	20	20
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	14	16	16
Qc	0	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	4	5	5
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	4	5	5	5
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																						
	Lead 20	1200																						
	Lead 10	600																						
	Lead 5	300																						
Speed setting	Lead 30	1530																						
	Lead 20	1020																						
	Lead 10	510																						
	Lead 5	255																						
Speed setting	85%	75%	65%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

- 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.

LGXS12 Advanced model



Motor-less Single Axis Actuator

Ordering method

LGXS12

Model	Lead designation	Stroke
	30: 30 mm	100 to 1250
	20: 20 mm	(50 mm pitch)
	10: 10 mm	
	5: 5 mm	

[Caution]

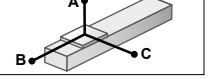
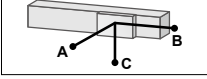
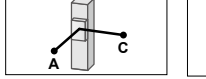
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration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

Specifications

Adaptable motor	400 W
Repeatability ^{Note 1}	+/-0.005 mm
Deceleration mechanism	Ground ball screw $\phi 15$ (C5 class)
Stroke	100 mm to 1250 mm (50 mm pitch)
Maximum speed ^{Note 2} (or equivalent)	1800 mm/sec, 1200 mm/sec, 600 mm/sec, 300 mm/sec
Ball screw lead	30 mm, 20 mm, 10 mm, 5 mm
Maximum payload (or equivalent)	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 x 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 N ℓ /min to 90 N ℓ /min
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See PA-26 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}

LGXS12-30	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C	A	B	C
10kg	1800	1076	638	632	1011	1724	3kg	2646	2646
20kg	1298	531	332	315	466	1169	6kg	1291	1291
35kg	1343	335	228	198	270	1133	8kg	952	952

LGXS12-20	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C	A	B	C
15kg	2236	906	614	592	841	2146	5kg	2429	2429
30kg	1293	429	293	261	364	1171	10kg	1210	1210
50kg	884	238	164	126	173	713	15kg	805	805

LGXS12-10	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C	A	B	C
30kg	3119	609	457	415	544	2988	10kg	1868	1868
50kg	2430	346	261	216	281	2217	15kg	1225	1225
80kg	2430	199	151	104	134	1939	25kg	711	711
95kg	2565	160	121	74	95	1838			

LGXS12-5	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C	A	B	C
30kg	11075	653	504	456	588	10687	15kg	1332	1332
50kg	7428	373	288	239	308	6930	30kg	634	634
80kg	5449	215	166	117	150	4706	45kg	460	460
115kg	4354	136	105	55	71	3214			

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.

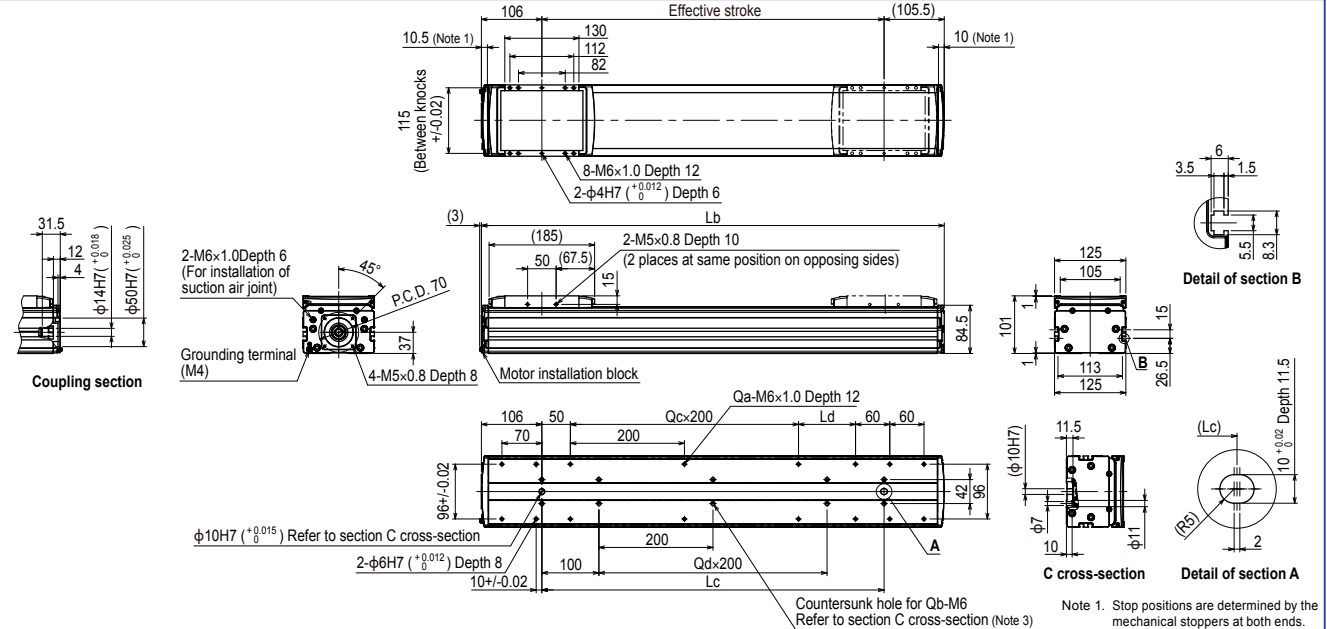
Static loading moment

(Unit: N·m)		
MY	MP	MR
334	334	294

Adaptable Servo Motor

Specification	Flange size	□60
	Wattage	400 W
Manufacturer	Model	
Yasukawa Electric Corp.	SGMJV-04 SGM7J-04	
Keyence Corp.	SV-□040 SV2-□040	
Mitsubishi Electric Corp.	HF-KP43 HG-KR43 ^{Note}	
Note. To combine with the conversion adapter <GX-BEND-60>, the shim plate (t1) is necessary.		
Conversion adapter product model	Shim plate part number	
GX-BEND-60	KEV-M2295-00	

LGXS12



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	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
Qa	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Qb	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Qc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Qd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1530/1350/1170/990/900/810/720/630/540/450																								
Lead 30	1800																								
Lead 20	1200																								
Lead 10	600																								
Lead 5	300																								
Speed setting	85%/75%/65%/55%/50%/45%/40%/35%/30%/25%																								

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

LGXS16

Advanced model



Motor-less Single Axis Actuator

Ordering method

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

[Caution]

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

Specifications

Adaptable motor	750 W		
Repeatability ^{Note 1}	±0.005 mm		
Deceleration mechanism	Ground ball screw φ20 (C5 class)		
Stroke	100 mm to 1450 mm (50 mm pitch)		
Maximum speed ^{Note 2} (or equivalent)	2400 mm/sec	1200 mm/sec	600 mm/sec
Ball screw lead	40 mm	20 mm	10 mm
Maximum payload (or equivalent)	Horizontal	45 kg	95 kg
	Vertical	12 kg	28 kg
Rated thrust (or equivalent)	Horizontal	320 N	640 N
	Vertical	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.
 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.A-28 for acceleration/deceleration and inertia moment.

Allowable overhang^{Note}

Model	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
LGXS16-40	15kg	2876	1866	1273	1801	2798	3kg	6604	6604	
	30kg	3071	1062	884	999	2925	6kg	3834	3834	
	45kg	3920	810	728	747	3677	12kg	3466	3466	
LGXS16-20	30kg	3873	1258	1109	1105	1195	3753	10kg	3411	3411
	50kg	2573	735	653	632	672	2427	20kg	1744	1744
	80kg	1801	441	395	361	378	1615	28kg	1566	1566
95kg	1584	363	326	289	301	1378				
LGXS16-10	50kg	6270	1030	1028	984	967	6106	15kg	3444	3444
	80kg	4459	625	626	575	563	4252	30kg	1689	1689
	100kg	3975	491	492	439	428	3723	55kg	891	891
130kg	3792	366	368	313	304	3429				

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

Static loading moment

Direction	Value (Unit: N·m)
MY	706
MP	706
MR	620

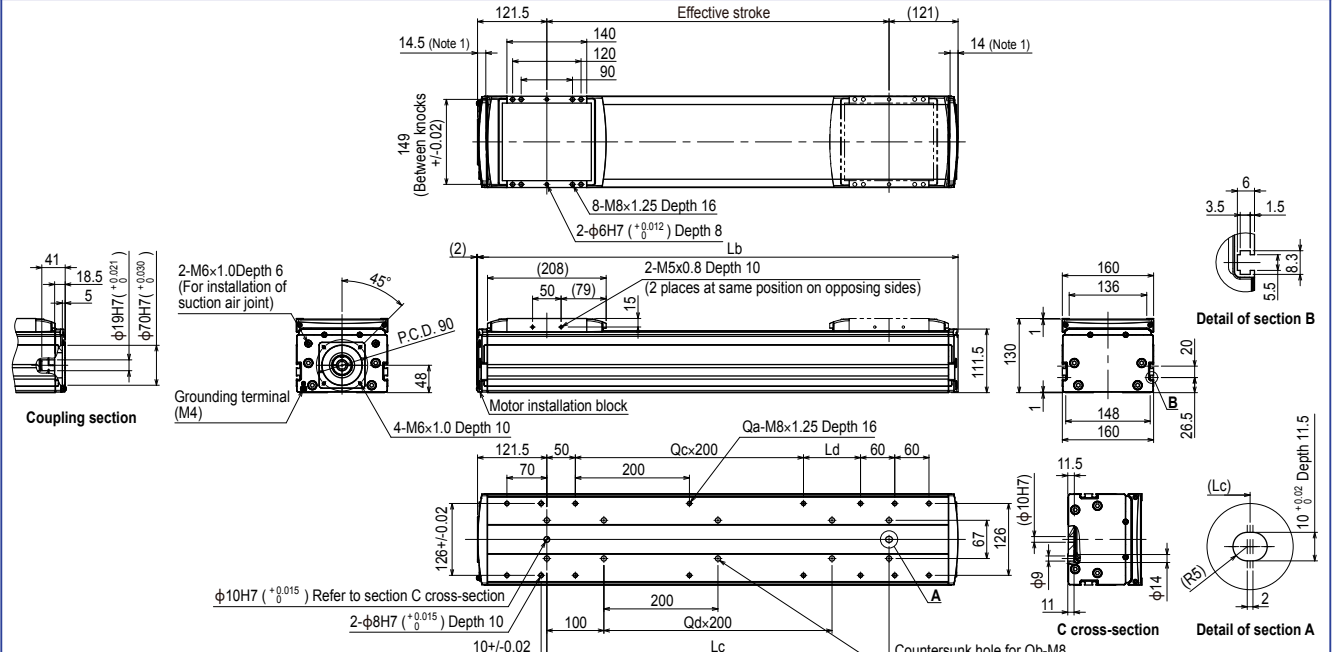
Adaptable Servo Motor

Specification	Flange size □80
	Wattage 750 W
Manufacturer	Model
Yasukawa Electric Corp.	SGMJV-08
	SGM7J-08
	SV-□075
Keyence Corp.	SV2-□075
Mitsubishi Electric Corp.	HF-KP73
	HG-KR73 ^{Note}

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

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

LGXS16



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

Effective stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450					
Lb	342.5	392.5	442.5	492.5	542.5	592.5	642.5	692.5	742.5	792.5	842.5	892.5	942.5	992.5	1042.5	1092.5	1142.5	1192.5	1242.5	1292.5	1342.5	1392.5	1442.5	1492.5	1542.5	1592.5	1642.5	1692.5					
Lc	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450					
Ld	0	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150					
Qa	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	18	18	18	18	18	20	20	20	20	22	22	22					
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18					
Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6					
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6					
Weight (kg)	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	540	480	420	360	300
	Lead 20	1200																1080	960	840	720	660	600	540	480	420	360	300	270	240	210	180	150
	Lead 10	600																540	480	420	360	330	300	270	240	210	180	150	150	150	150	150	150
	Speed setting	-																90%	80%	70%	60%	55%	50%	45%	40%	35%	30%	30%	30%	30%	30%	30%	30%

Specifications

LGXS20 Advanced model



Motor-less Single Axis Actuator

Ordering method

LGXS20		
Model	Lead designation	Stroke
40: 40 mm	100 to 1450	100 to 1450
20: 20 mm	(50 mm pitch)	(50 mm pitch)
10: 10 mm		

[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 <small>Note 1</small>	±0.005 mm		
Deceleration mechanism	Ground ball screw φ20 (C5 class)		
Stroke	100 mm to 1450 mm (50 mm pitch)		
Maximum speed <small>Note 2</small> (or equivalent)	2400 mm/sec	1200 mm/sec	600 mm/sec
Ball screw lead	40 mm	20 mm	10 mm
Maximum payload <small>Note 3</small> (or equivalent)	Horizontal	65 kg	130 kg
	Vertical	15 kg	35 kg
Rated thrust <small>Note 3</small> (or equivalent)		320 N	640 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 <small>Note 4</small>	ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air <small>Note 5</small>	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.
 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.A-30 for acceleration/deceleration and inertia moment.

Allowable overhang Note

Weight	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C	A	B	C
20kg	5460	2838	2124	2203	1426	5351	5kg	8187	8187
40kg	7494	1781	1626	1690	1711	7259	10kg	5885	5885
65kg	10253	1282	1270	1276	1212	9808	15kg	5971	5971

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

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

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

Static loading moment

MY	MP	MR
1423	1423	1251

(Unit: N·m)

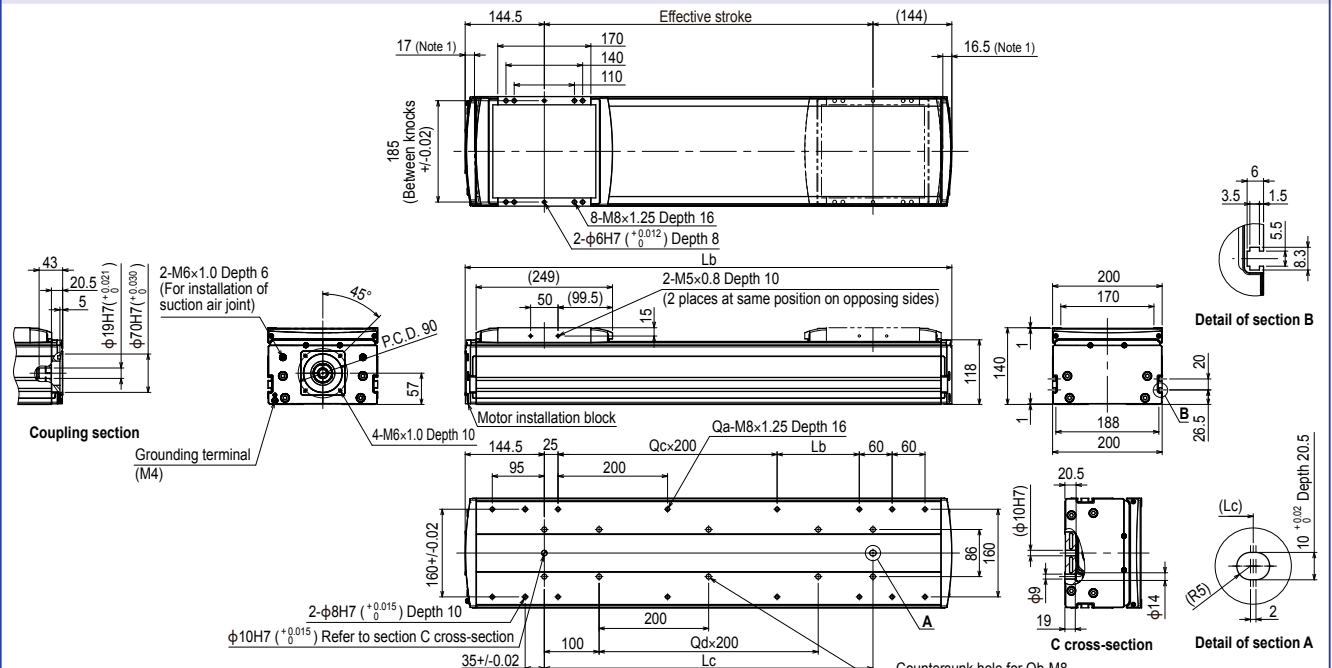
Adaptable Servo Motor

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

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

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

LGXS20



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

Effective stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450					
Lb	388.5	438.5	488.5	538.5	588.5	638.5	688.5	738.5	788.5	838.5	888.5	938.5	988.5	1038.5	1088.5	1138.5	1188.5	1238.5	1288.5	1338.5	1388.5	1438.5	1488.5	1538.5	1588.5	1638.5	1688.5	1738.5					
Lc	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450					
Ld	50	100	150	200	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	14	14	14	14	16	16	16	16	16	18	18	18					
Qc	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6					
Qd	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6					
Weight (kg)	17.2	18.5	19.8	21.1	22.4	23.7	25.0	26.3	27.6	28.8	30.1	31.4	32.7	34.0	35.3	36.6	37.9	39.2	40.4	41.7	43.0	44.3	45.6	46.9	48.2	49.5	50.8	52.0					
Maximum speed (mm/sec)	Lead 20	2400																2160	1920	1680	1440	1320	1200	1080	960	840	720	600	540	480	420	360	300
	Lead 40	1200																1080	960	840	720	660	600	540	480	420	360	300	270	240	210	180	150
	Lead 10	600																540	480	420	360	330	300	270	240	210	180	150	135	120	105	90	75
	Speed setting	-																90%	80%	70%	60%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%	5%	5%

A

Specifications

Acceleration/Deceleration

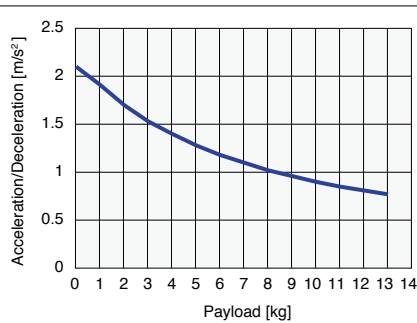
LGXS05

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

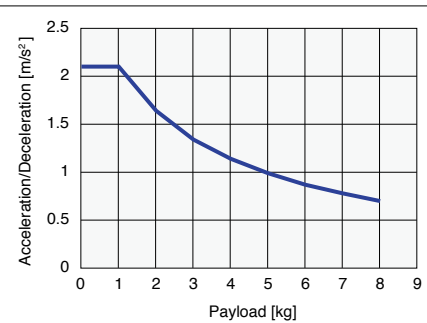
Payload – Acceleration/Deceleration Graph (Estimate)

LGXS05-5

Horizontal/
Wall hanging

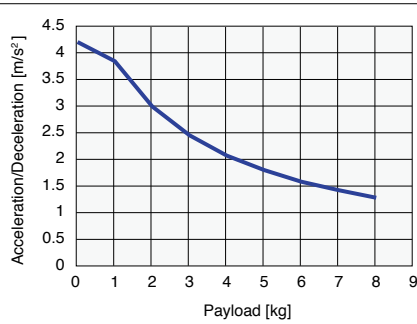


Vertical

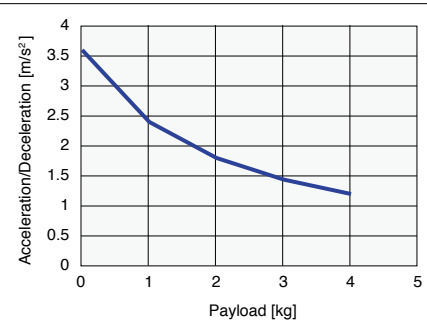


LGXS05-10

Horizontal/
Wall hanging

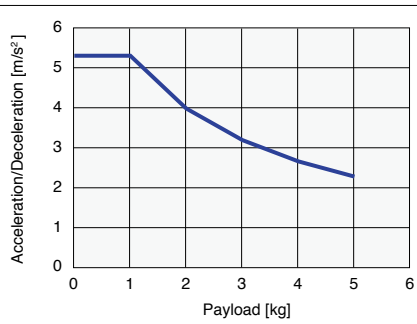


Vertical

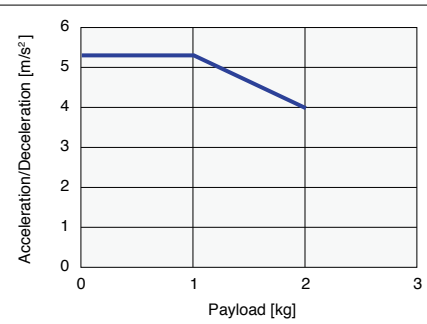


LGXS05-20

Horizontal/
Wall hanging



Vertical



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

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

Model	LGXS05L -5		LGXS05L -10		LGXS05L -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]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]
18	1.94			1.96		
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					

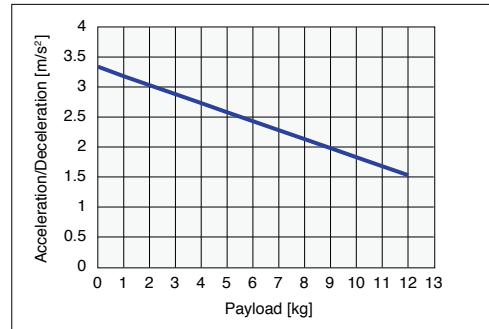
Payload – Acceleration/Deceleration Graph (Estimate)

LGXS05L-5

Horizontal/Wall hanging

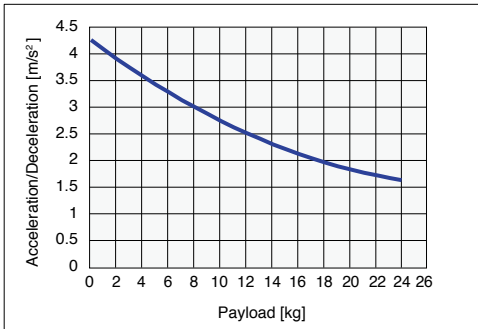


Vertical

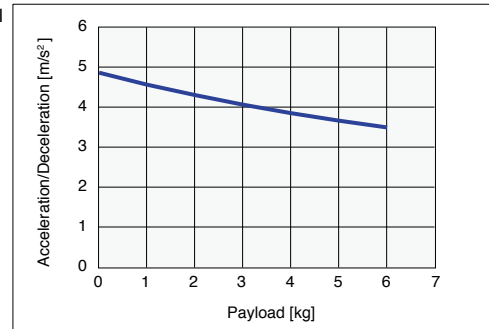


LGXS05L-10

Horizontal/Wall hanging

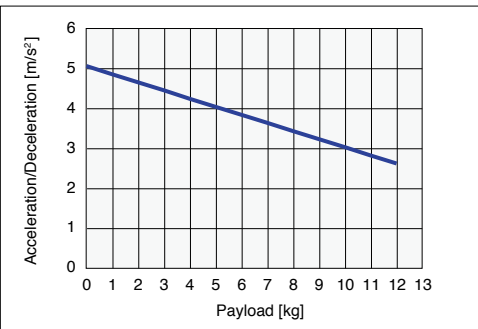


Vertical

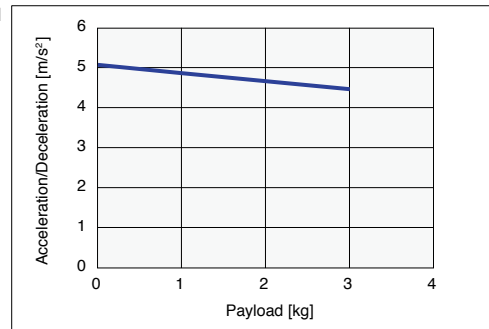


LGXS05L-20

Horizontal/Wall hanging



Vertical



Inertia Moment

LGXS05L

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

Acceleration/Deceleration

LGXS07

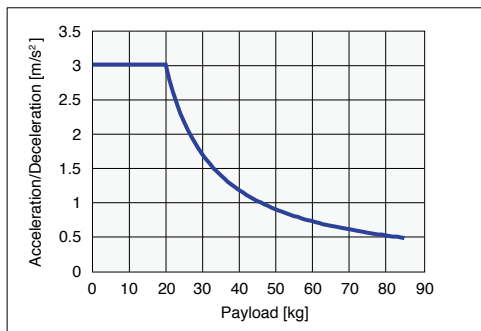
Model	LGXS07-5	LGXS07-5	LGXS07-10	LGXS07-10	LGXS07-20	LGXS07-20	LGXS07-30	LGXS07-30
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration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

Model	LGXS07-5	LGXS07-5	LGXS07-10	LGXS07-10	LGXS07-20	LGXS07-20	LGXS07-30	LGXS07-30
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]
46	1.03							
47	1							
48	0.98							
49	0.95							
50	0.93							
51	0.91							
52	0.89							
53	0.87							
54	0.85							
55	0.83							
56	0.82							
57	0.8							
58	0.78							
59	0.77							
60	0.76							
61	0.74							
62	0.73							
63	0.71							
64	0.7							
65	0.69							
66	0.68							
67	0.67							
68	0.66							
69	0.65							
70	0.64							
71	0.63							
72	0.62							
73	0.61							
74	0.6							
75	0.59							
76	0.58							
77	0.57							
78	0.56							
79	0.56							
80	0.55							
81	0.54							
82	0.53							
83	0.53							
84	0.52							
85	0.51							

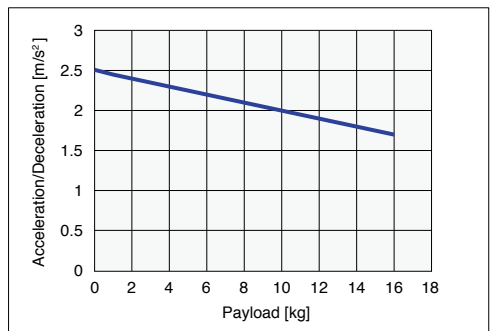
Payload – Acceleration/Deceleration Graph (Estimate)

LGXS07-5

Horizontal/Wall hanging

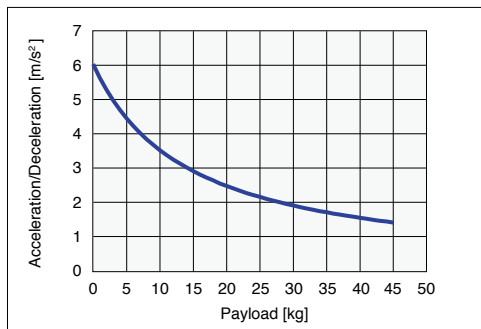


Vertical

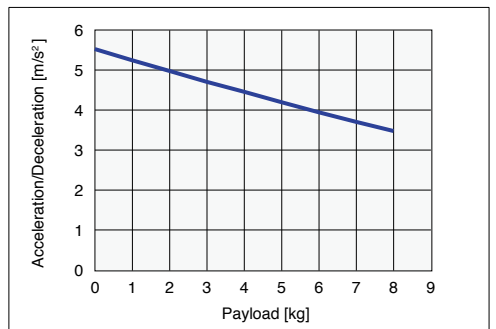


LGXS07-10

Horizontal/Wall hanging



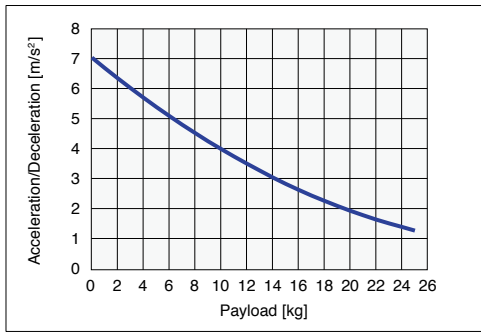
Vertical



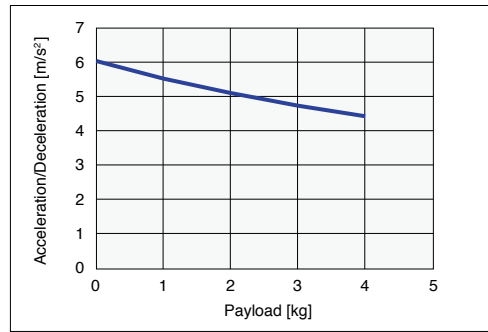
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS07-20

Horizontal/
Wall hanging

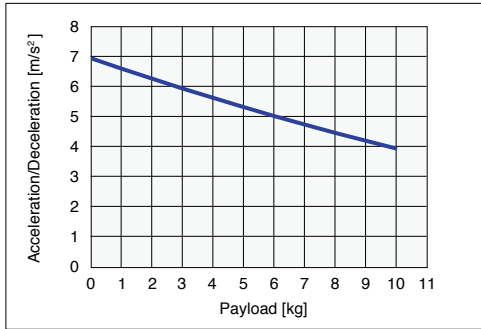


Vertical

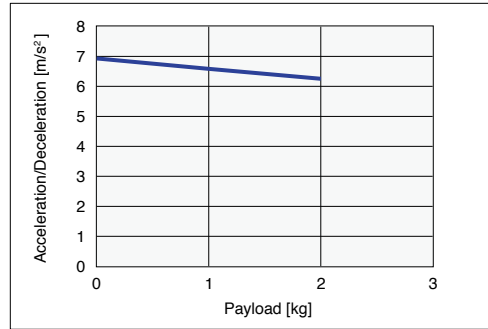


LGXS07-30

Horizontal/
Wall hanging



Vertical



■ Inertia Moment

LGXS07

[kg·m ² ·10 ⁻⁴]	Effective stroke [mm]																					
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
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

LGXS10

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

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

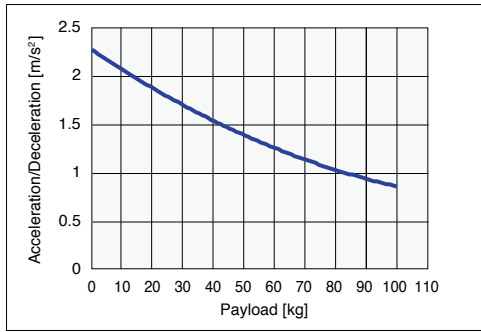
A

Specifications

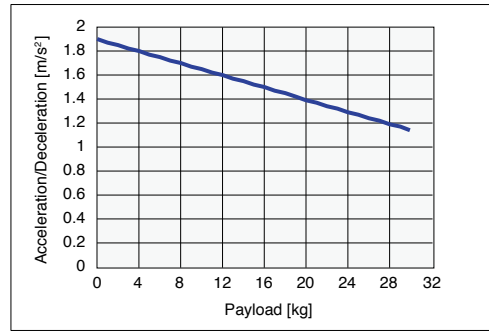
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS10-5

Horizontal/
Wall hanging

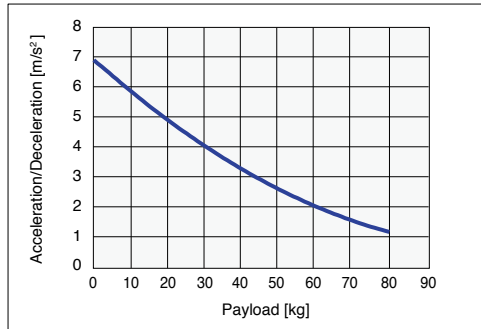


Vertical

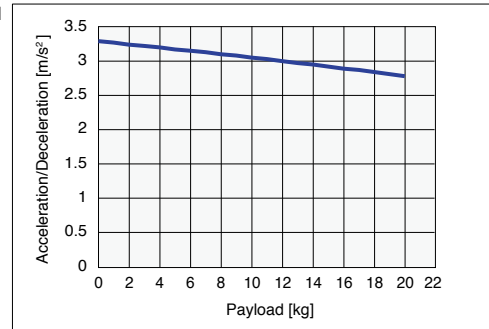


LGXS10-10

Horizontal/
Wall hanging

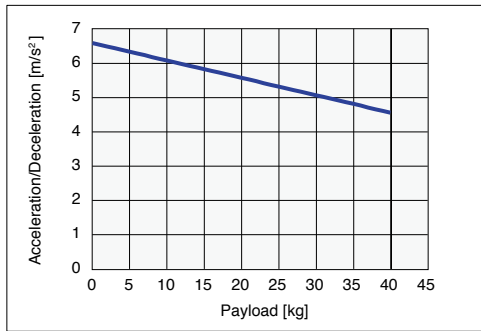


Vertical

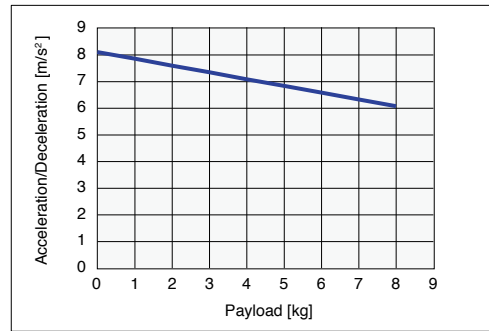


LGXS10-20

Horizontal/
Wall hanging



Vertical

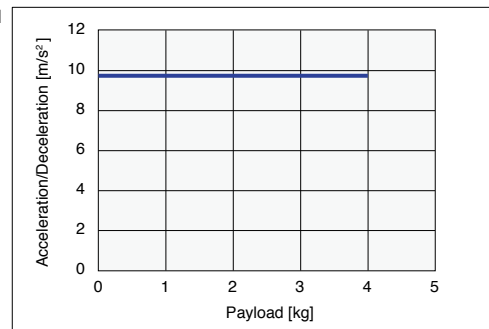


LGXS10-30

Horizontal/
Wall hanging



Vertical



■ Inertia Moment

LGXS10

[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	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

A

Specifications

Acceleration/Deceleration and Inertia Moment (Advanced model)

Acceleration/Deceleration

LGXS12

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

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

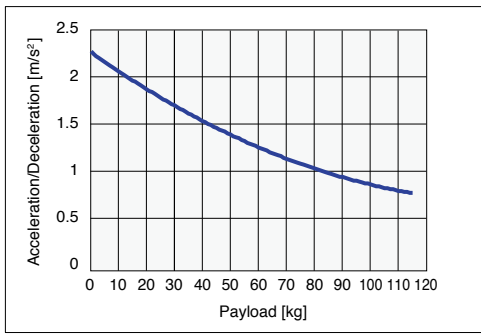
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Specifications

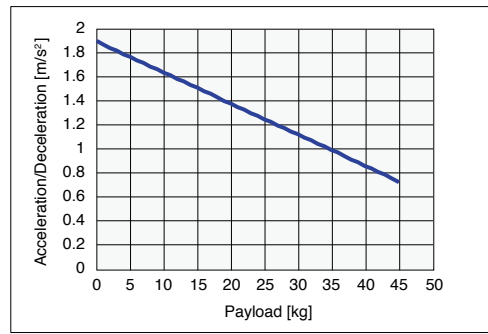
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS12-5

Horizontal/
Wall hanging

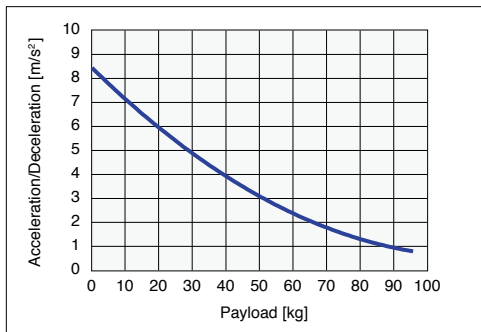


Vertical

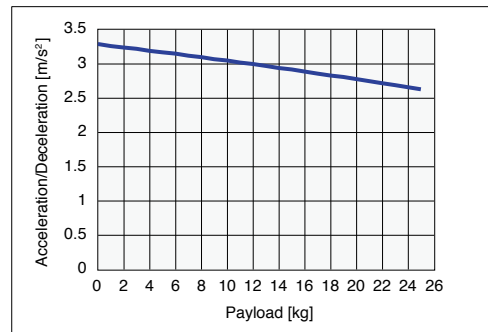


LGXS12-10

Horizontal/
Wall hanging

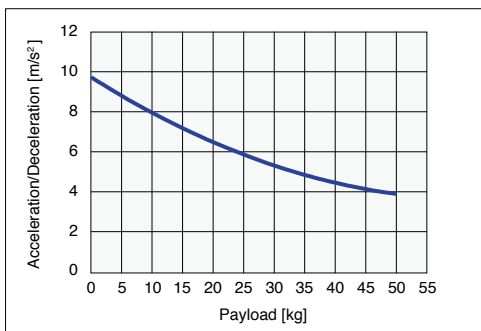


Vertical

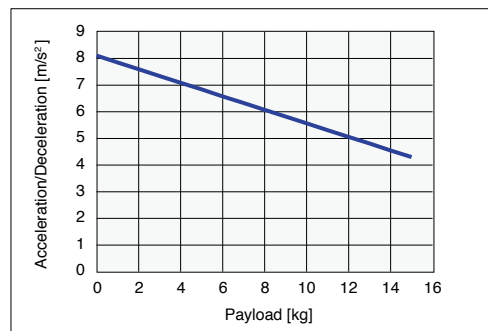


LGXS12-20

Horizontal/
Wall hanging

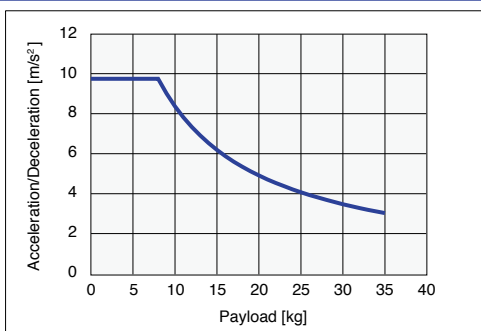


Vertical

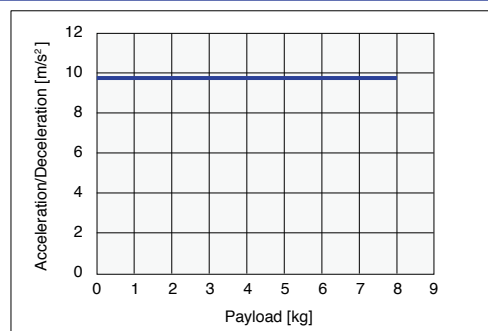


LGXS12-30

Horizontal/
Wall hanging



Vertical



■ Inertia Moment

LGXS12

[kg·m 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	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	1.171	1.191
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	1.202	1.221
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	1.330	1.350
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	1.560	1.580

A

Specifications

Acceleration/Deceleration

LGXS16

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

Model	LGXS16 -10	LGXS16 -10	LGXS16 -20	LGXS16 -20	LGXS16 -40	LGXS16 -40
	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]	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]
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					

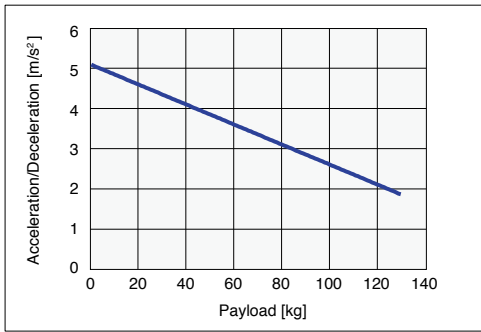
A

Specifications

■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS16-10

Horizontal/
Wall hanging

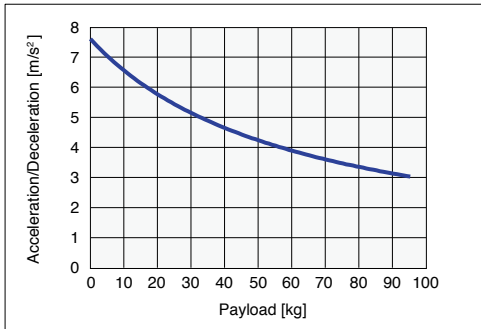


Vertical



LGXS16-20

Horizontal/
Wall hanging

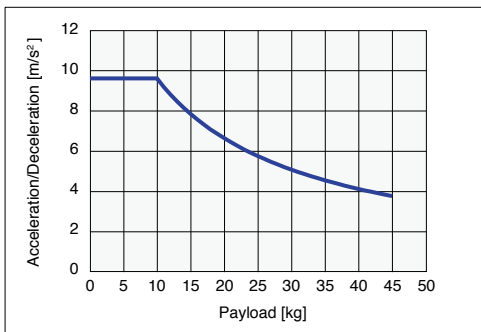


Vertical



LGXS16-40

Horizontal/
Wall hanging



Vertical



■ Inertia Moment

LGXS16

[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	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

A

Specifications

Acceleration/Deceleration and Inertia Moment (Advanced model)

Acceleration/Deceleration

LGXS20

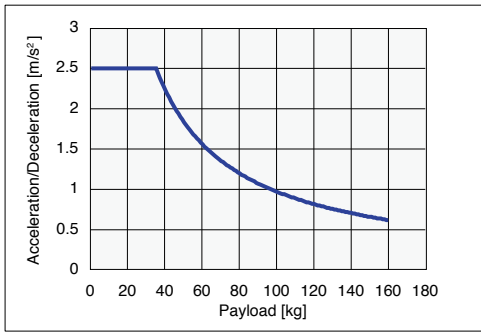
Model	LGXS20 -10 Horizontal/ Wall hanging	LGXS20 -10 Vertical	LGXS20 -20 Horizontal/ Wall hanging	LGXS20 -20 Vertical	LGXS20 -40 Horizontal/ Wall hanging	LGXS20 -40 Vertical
	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration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

Model	LGXS20 -10 Horizontal/ Wall hanging	LGXS20 -10 Vertical	LGXS20 -20 Horizontal/ Wall hanging	LGXS20 -20 Vertical	LGXS20 -40 Horizontal/ Wall hanging	LGXS20 -40 Vertical
	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]	Acceleration/ Deceleration [m/s ²]
Payload [kg]						
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					
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156	0.64					
157	0.63					
158	0.63					
159	0.62					
160	0.62					

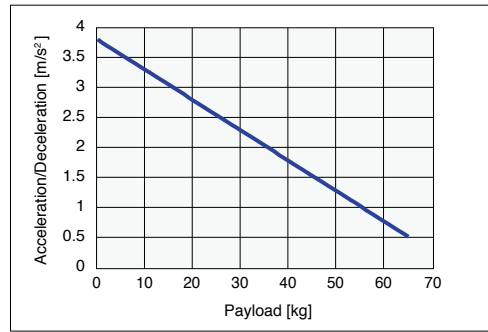
■ Payload – Acceleration/Deceleration Graph (Estimate)

LGXS20-10

Horizontal/
Wall hanging

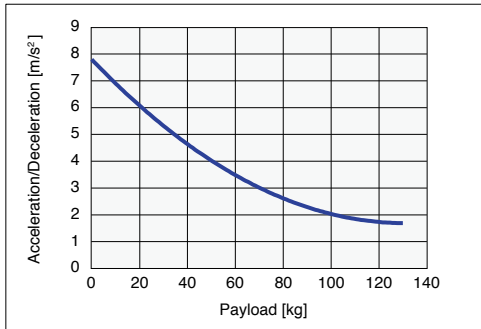


Vertical

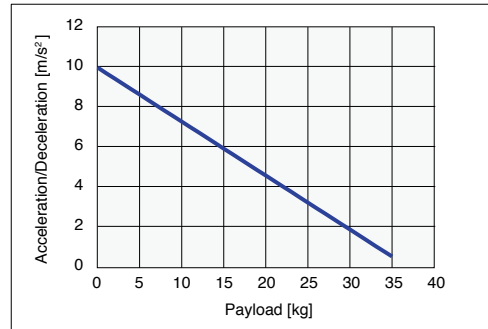


LGXS20-20

Horizontal/
Wall hanging

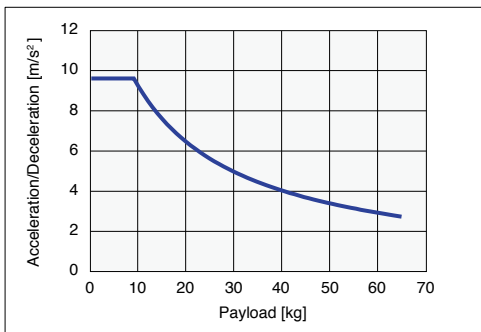


Vertical

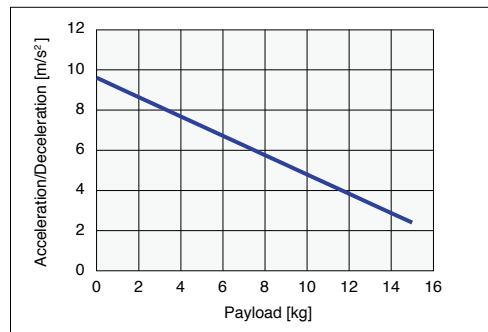


LGXS20-40

Horizontal/
Wall hanging



Vertical



■ Inertia Moment

LGXS20

[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	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

Robonity series

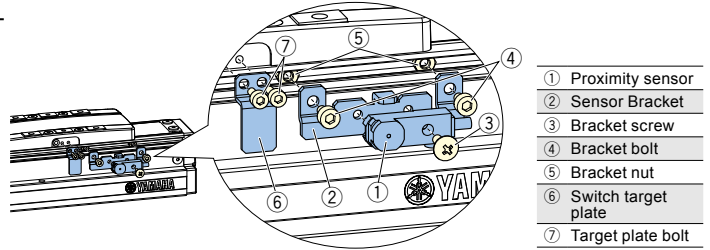
External Sensor Installation Guide (Left side shown)

■ Sensor Spec

Item	Specification	Item	Specification
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.	Display lamp	Orange LED (ON when output ON)
Model	GX-F8B	Ambient environment and humidity	-25 to +75 °C, 35 to 85 %RH
Output method	NPN type	Protection structure	IP68
Output action	ON released	Cable length	5 m
Power voltage	DC12 to 24V		
Load current	100 mA or less		
Consumption current	15 mA or less		

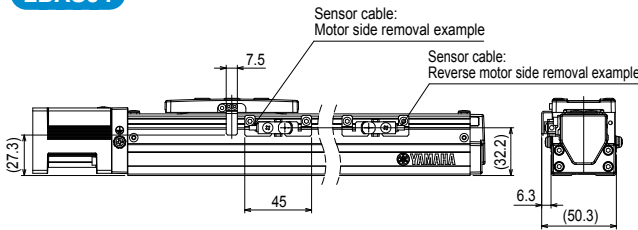
[Caution]

- 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

LBAS04



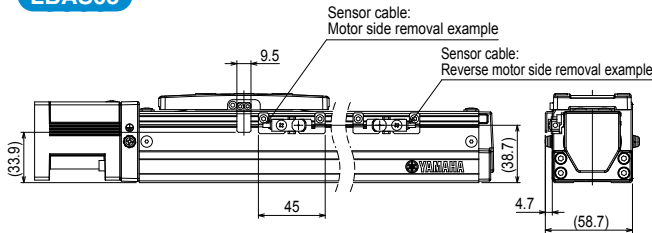
Proximity sensor option (No. KFU-M2205-00)

No.	Name	Number	Qty	Remarks
①	Proximity sensor	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 (No. KFT-M2206-00)

No.	Name	Number	Qty	Remarks
⑥	Switch target plate	KFT-M22G5-00	1	
⑦	Target plate bolt	90112-02J005	2	M2 × 0.4 Length 5

LBAS05



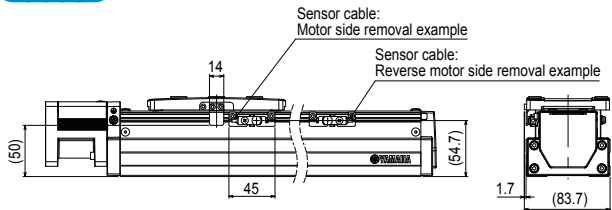
Proximity sensor option (No. KFU-M2205-00)

No.	Name	Number	Qty	Remarks
①	Proximity sensor	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 (No. KFV-M2206-00)

No.	Name	Number	Qty	Remarks
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 (No. KFV-M2205-00)

No.	Name	Number	Qty	Remarks
①	Proximity sensor	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 (No. KFV-M2206-00)

No.	Name	Number	Qty	Remarks
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.

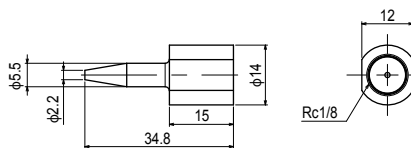
* It can be used by attaching to a commercially available general grease gun.

● Lubrication Kit

Grease nozzle and nozzle tip

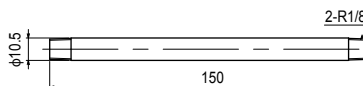
Part number | KFU-M3861-00

● Nozzle tip



Part number | KFU-M2941-00

● Grease nozzle



Part number | KFU-M2942-00

Robonity series

External Sensor Installation Guide (Left side shown)

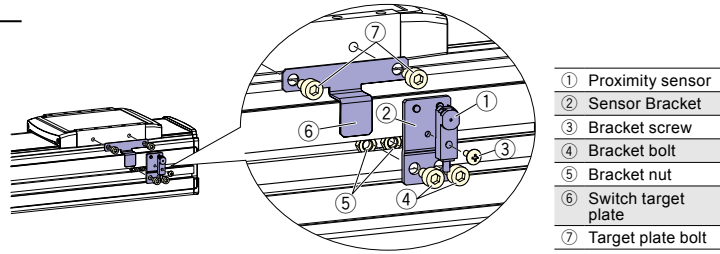
■ Sensor Spec

Item	Specification
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.
Model	GX-F8B
Output method	NPN type
Output action	ON released
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

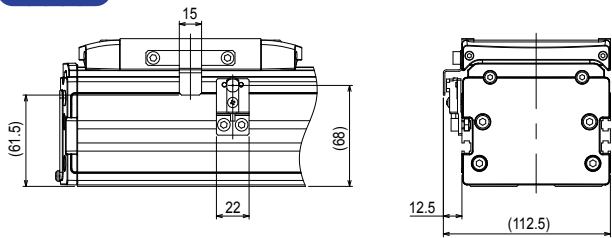
[Caution]

- 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



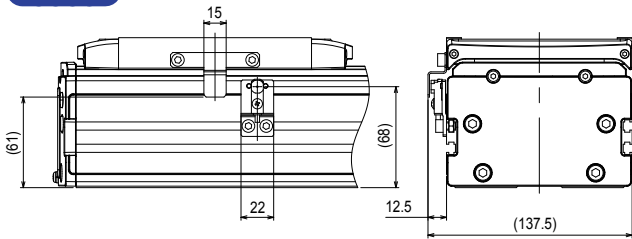
Proximity sensor option (No. KEV-M2205-00)

No.	Name	Number	Qty	Remarks
①	Proximity sensor	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 (No. KEV-M2206-00)

No.	Name	Number	Qty	Remarks
⑥	Switch target plate	KEV-M22G5-00	1	
⑦	Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

LGXS12



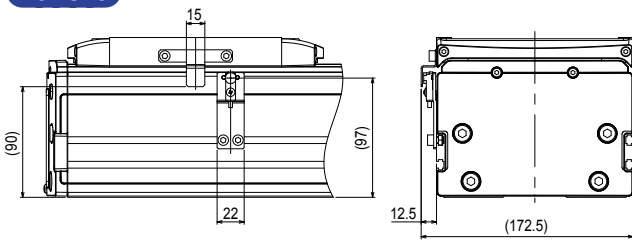
Proximity sensor option (No. KEV-M2205-00)

No.	Name	Number	Qty	Remarks
①	Proximity sensor	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 (No. KEV-M2206-00)

No.	Name	Number	Qty	Remarks
⑥	Switch target plate	KEV-M22G5-00	1	
⑦	Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

LGXS16



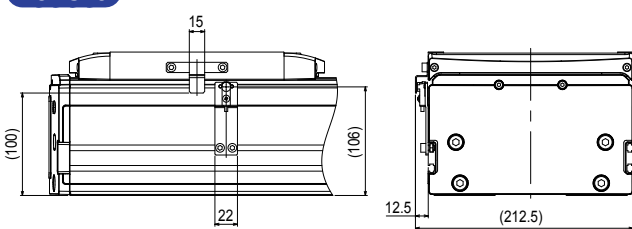
Proximity sensor option (No. KEX-M2205-00)

No.	Name	Number	Qty	Remarks
①	Proximity sensor	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 (No. KEV-M2206-00)

No.	Name	Number	Qty	Remarks
⑥	Switch target plate	KEV-M22G5-00	1	
⑦	Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

LGXS20



Proximity sensor option (No. KEY-M2205-00)

No.	Name	Number	Qty	Remarks
①	Proximity sensor	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 (No. KEV-M2206-00)

No.	Name	Number	Qty	Remarks
⑥	Switch target plate	KEV-M22G5-00	1	
⑦	Target plate bolt	91312-05008	2	M5 × 0.8 Length 8

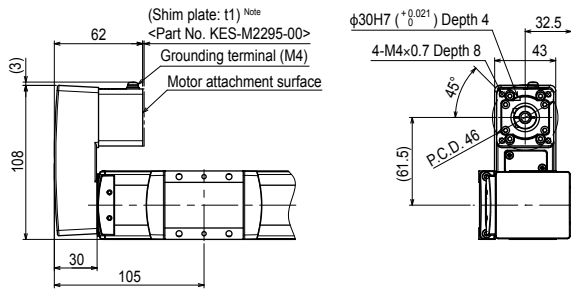
A

Specifications

Robonity series

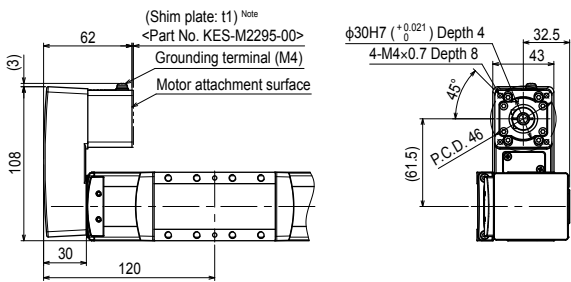
Reference guide for right angle motor mount (right side shown)

LGXS05



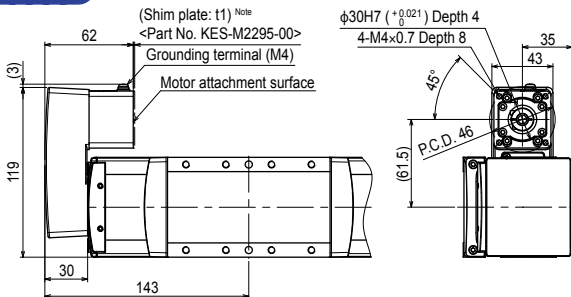
Note. For the availability of shim plate, see the adaptable servo motor table (P.A-13).

LGXS05L



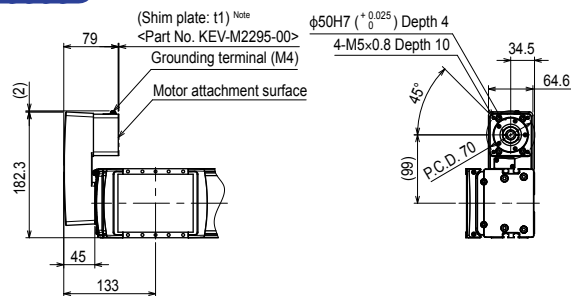
Note. For the availability of shim plate, see the adaptable servo motor table (P.A-14).

LGXS07



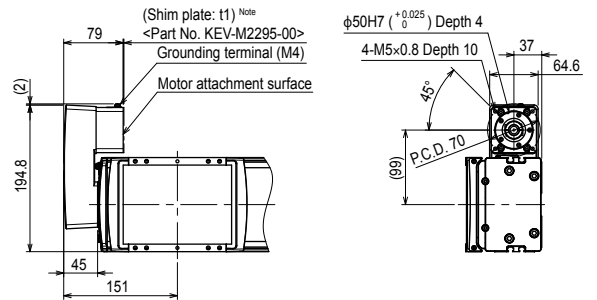
Note. For the availability of shim plate, see the adaptable servo motor table (P.A-15).

LGXS10



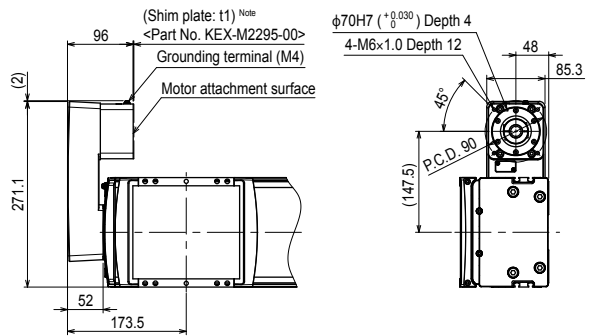
Note. For the availability of shim plate, see the adaptable servo motor table (P.A-16).

LGXS12



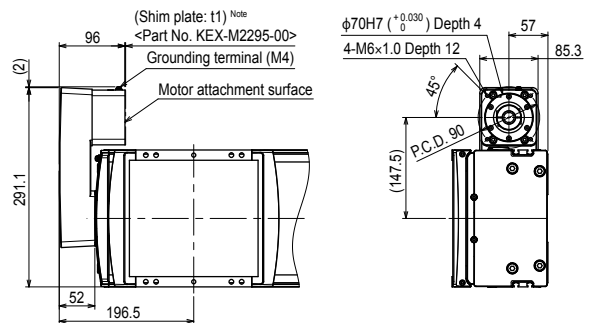
Note. For the availability of shim plate, see the adaptable servo motor table (P.A-17).

LGXS16



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

LGXS20



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

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

Revision Record

Manual Version	Issue Date	Description
Ver. 1.04	Dec. 2019	First edition

User's Manual

Motor-less Single Axis Actuator

Robonity Series

Dec. 2019

Ver. 1.04

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