

New product information

NEW

Rod type / Slider type [Slim type]

High agility mode

Maximum acceleration **2G!**

Intuitive

Durability

Economy

Motor-less single axis actuator



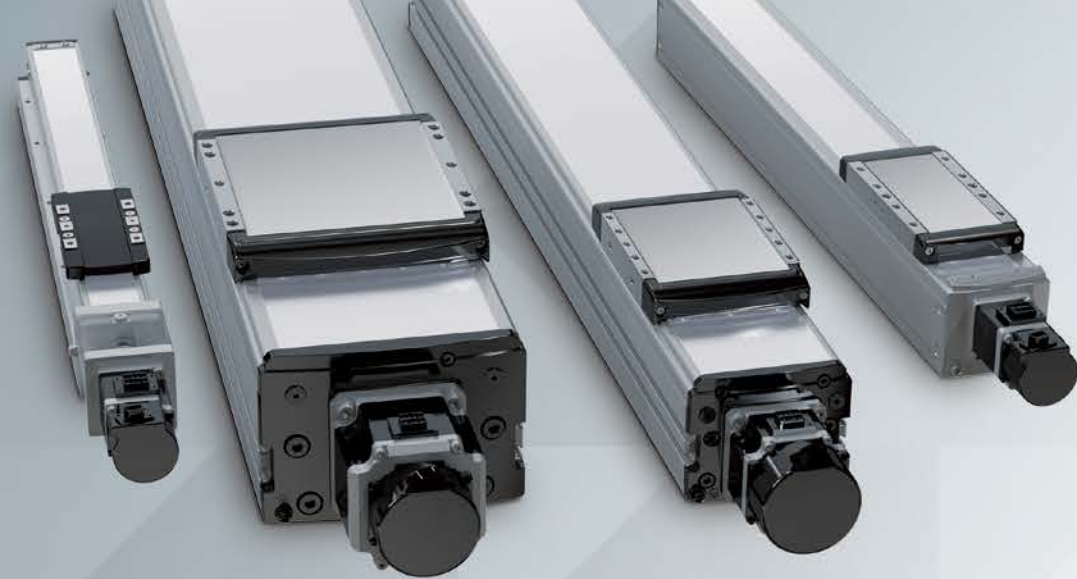
Single-axis robots

Robot positioner



Motor-less single axis actuator / Single-axis robots

Robonity series



Intuitive
Durability
Economy

Robonity



Rod type

NEW

NEW

Slider type / Slim type

Single-axis robots



ABAS

AGXS

ABAR

Both can

Usability is pursuit.

Robot positioner EP-01 series

- Same price as parallel I/O and industrial Ethernet
- Absolute battery function
- Support software is provided free of charge.
- Industry-leading compactness



EP-01-A10



EP-01-A30



Intuitively usable

Reliability unique to YAMAHA

Excellent cost performance

series

Motor-less single axis actuator

LBAS



LGXS



LBAR

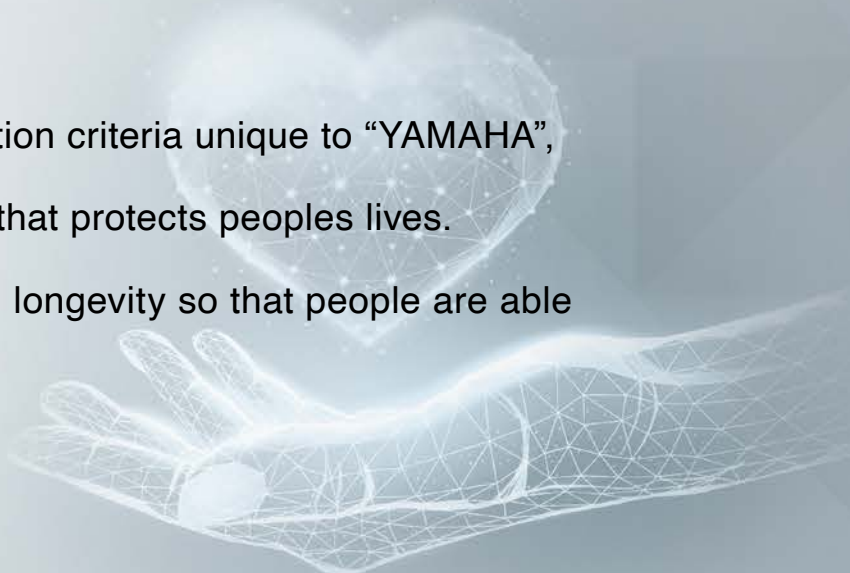


be selected.



Products have passed strict evaluation criteria unique to “YAMAHA”, a vehicle equipment manufacturer, that protects peoples lives.

Yamaha designs products with high longevity so that people are able to use them for a long time.



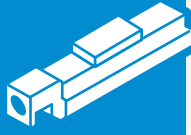
Slider type

Basic model

Integrated guide rail and frame design.
High moment rigidity in a compact design.

Motor-less single axis actuator

LBAS



Single-axis robots

ABAS



Maximum payload ~ 115kg
Maximum speed 300 ~ 1,800mm/sec
Stroke 50 ~ 1,250mm

High Rigidity

Compact

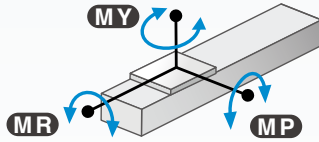
Low Cost

Compact and high rigidity

Even though the product is more compact than the conventional product, it achieves a higher rigidity.

	Conventional product T6L	LBAS05/ABAS05
MY	35	59
MP	40	63
MR	50	103
		(N · m)

	Conventional product T9H	LBAS08/ABAS08
MY	86	221
MP	133	309
MR	117	343
		(N · m)



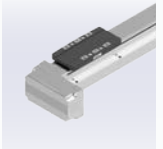
Overall length can be shortened by motor bending specifications.

Motor bending specifications can also be selected, expanding the range of design.

Straight type

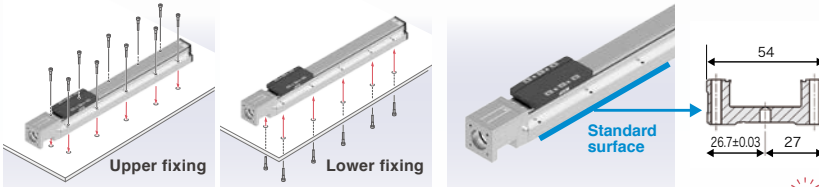


Bending type



First-class usability even at a low cost.

Reference surfaces are provided on the sides of the main body and knock holes are provided on the bottom to reduce design and assembly man-hours.

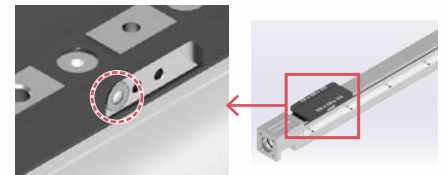


Installation is possible from either the top or bottom without removing any exterior parts.



Easy Maintenance

Greasing work that tends to be troublesome, such as opening the covers, can be performed easily.

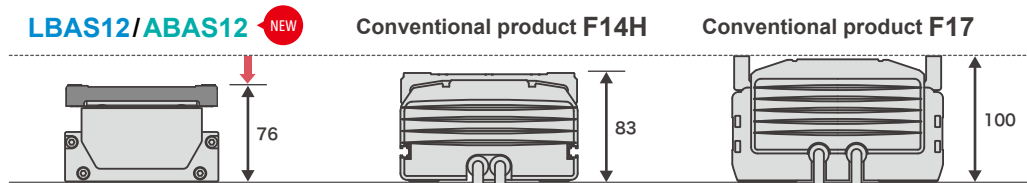


Grease nipple on the slider side surface

NEW

Suitable for the X-axis of Cartesian robots! Slim type "LBAS12/ABAS12" is added to the lineup.

The slim type structure achieves a low center of gravity, making it suitable for the X-axis of Cartesian robots. The overall height can be suppressed, contributing to equipment downsizing.



With the same frame width, the product can be used for both 200W and 400W motors, making it suitable for a wide range of situations.



Advanced model

Ground ball screw is standard.
High precision model with high reliability and durability.

Motor-less single axis actuator

LGXS



Single-axis robots

AGXS



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

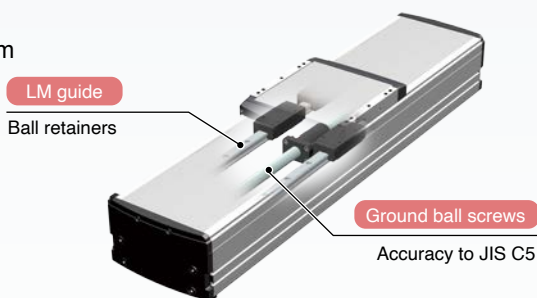
High Precision Accuracy
Class C5

High Durability

Clean room specification as
a standard feature

High quality model with high accuracy.

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

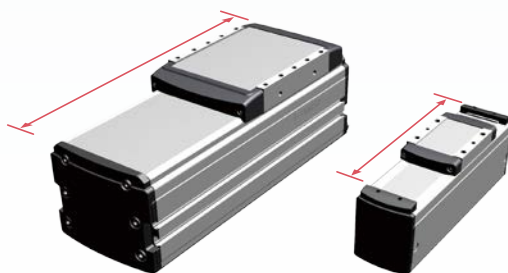


There are other advantages besides high accuracy. For details, see the next page!



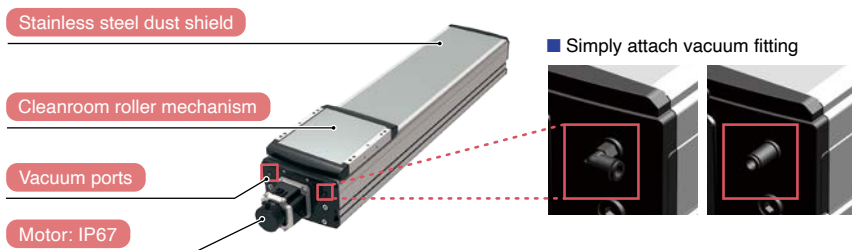
Overall length for effective stroke is the shortest class in the industry.

Overall length for the effective stroke is the shortest in class for the industry.



This product can be used in a wide range of situations.

Dust-proof stainless steel sheet is used on the top surface of the main body. Products can be used in a clean environment by attaching a pipe joint and suctioning. Air purging can also be used as anti-contamination measures. Of course, the product can be used as it is without attaching any joint.



One standard product can be used in a wide range of applications.



Slider type

LGXS AGXS
Motor-less With motor

Maximum acceleration **2G!**

YAMAHA quality makes it possible.

With the recent improvements in KAIZEN awareness, we have received many requests from manufacturing sites. **“We need a faster single-axis robot to further improve productivity! Of course, we want to use this robot for an extended period of time with confidence.”**

To respond to such a request, “High agility mode” has been added to the Advanced model lineup of the Robonity series.



Why does faster acceleration/deceleration benefit the customer?

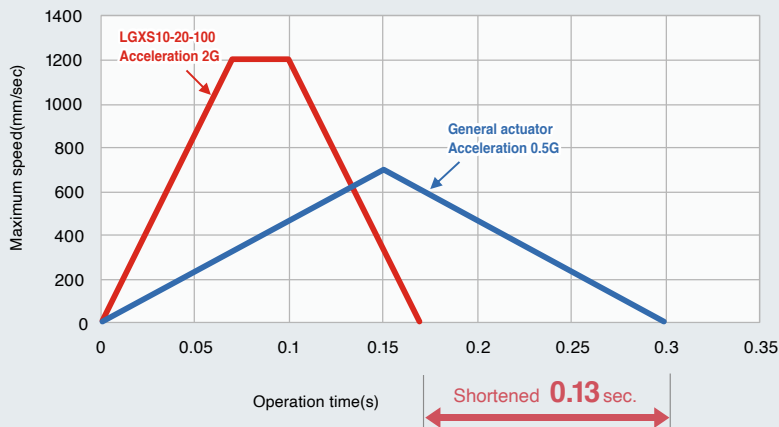
- 1 The robot operation time can be shortened.
- 2 Therefore, the product manufacturing time can be shortened.
- 3 That is, the daily production quantity can be increased and more production can be performed in the same time.

» Large difference! Effect of acceleration/deceleration!

Comparison of movement time when the payload is 1kg.

For LGXS10-20-100

Comparison of high acceleration/deceleration operation tact time



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



Improvement effect

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

	Work time	Robot operation time	Total time	Production volume per hour	Production volume per day	Production volume per month
0.5G	8 sec.	0.3 sec.	10.4 sec.	346 pcs.	2768 pcs.	55360 pcs.
2.0G	8 sec.	0.17 sec.	9.36 sec.	384 pcs.	3072 pcs.	61440 pcs.

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



Even with single-axis robots, Productivity is improved with confidence.



Why is this improvement achieved!? YAMAHA's Advanced model

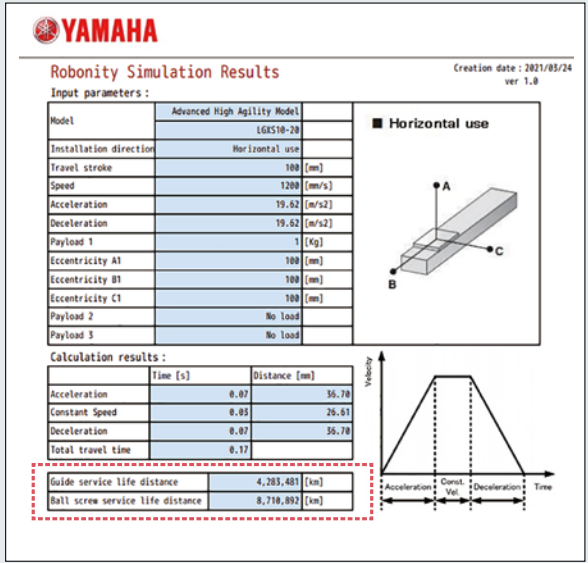
Advanced model uses a ground ball screw (C5 class) as standard. So, this model can be used at high acceleration/deceleration for an extended period of time with confidence.

Simulation results of 1 kg transfer

For LGXS10-20-100

< Example >

Overhang amount
 A:100mm B:100mm C:100mm



Safety and long service life even during high acceleration and deceleration!



Developer's voice



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

NEW

Rod type

Basic model

High rigidity structure that follows the slider type.
Compatible with a long stroke of up to 800 mm.

Motor-less single axis actuator

LBAR



Single-axis robots

ABAR



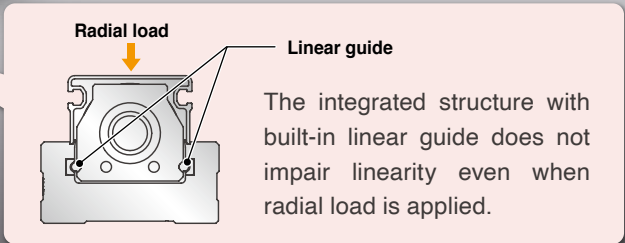
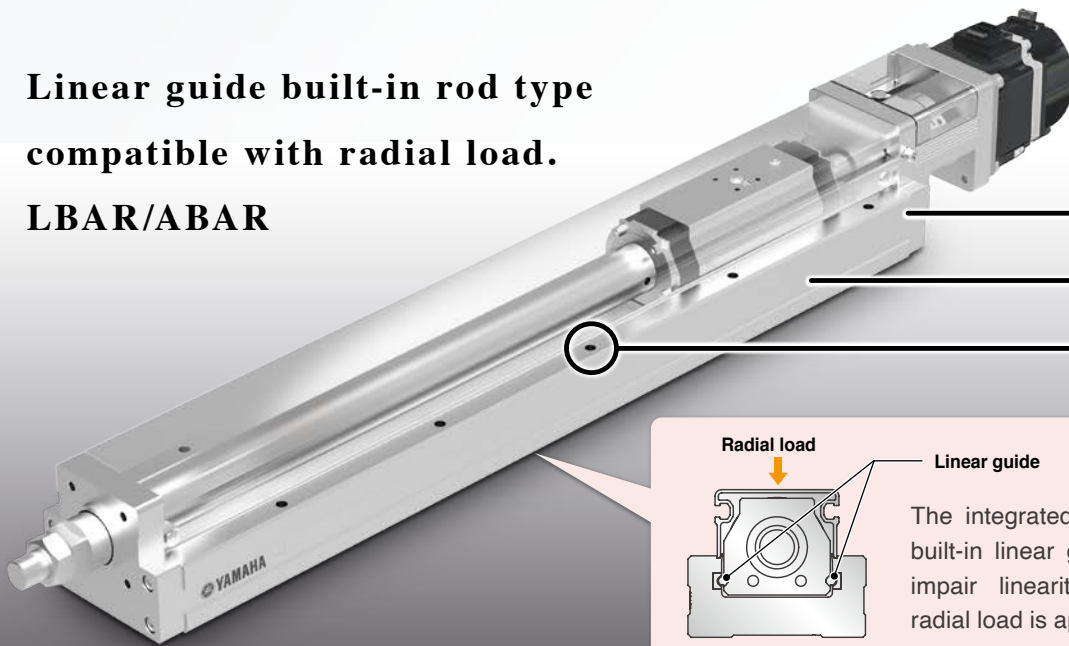
Maximum payload ~ 80kg
Maximum speed ~ 1200mm/sec
Stroke 50 ~ 800mm

High Rigidity

Compact

Long stroke

**Linear guide built-in rod type
compatible with radial load.
LBAR/ABAR**



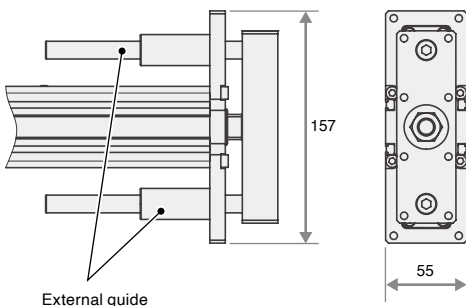
No external guide is needed.

External guide is not needed since the linear guide is built-in.

* An external guide may be recommended when a certain stroke is exceeded.

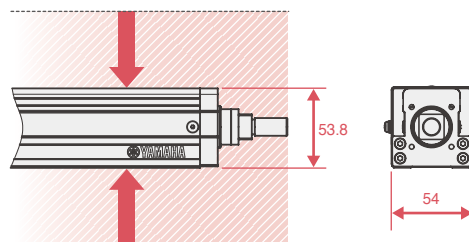
Conventional product
**TRANSERVO series
SRD05**

External guide is needed.



NEW
Robonity series
LBAR05/ABAR05

Linear guide is built-in.



Width size
Reduced approx.
65%
when compared to
conventional products.

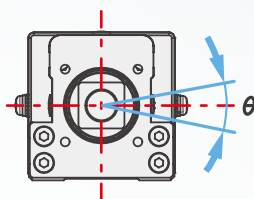
Contributes to equipment downsizing!



Rod non-rotation accuracy $\pm 0^\circ$

The built-in linear guide suppresses rattling in the rotation direction.
The working accuracy of the tool attached to the tip of the rod is maintained.

Conventional product SRD05	LBAR05/ABAR05
$\pm 0.05^\circ$	$\pm 0^\circ$



Compatible with a long stroke.

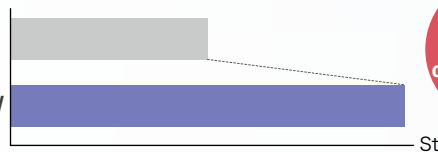
Compatible with a long stroke of up to 800 mm.
The corresponding stroke has doubled when compared to the conventional product with the same size.
This product can be used in a wide range of situations.

Conventional product SRD05	LBAR05/ABAR05
300st	600st

Conventional product **SRD05**

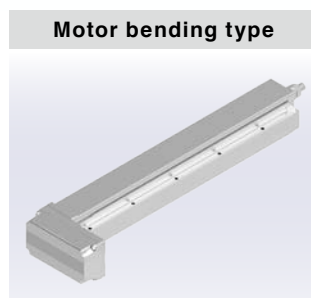
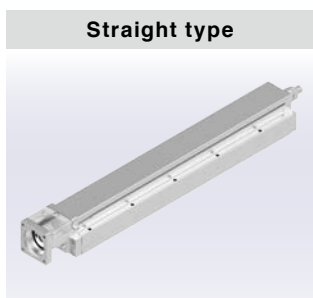
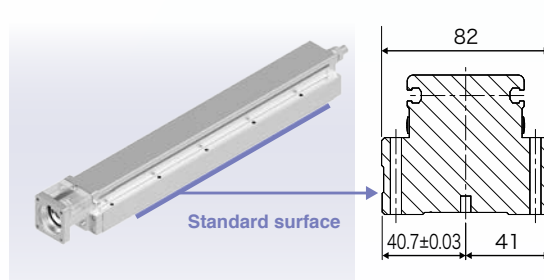
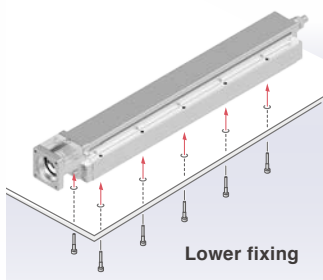
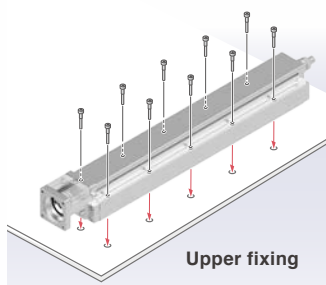


LBAR05/ABAR05



Twice as much as conventional

Easy installation and specification change



Ease of use is also inherited from the slider type!



Single-axis robots

Slider type

ABAS
With motor

AGXS
With motor

NEW

Rod type

ABAR
With motor

Robot positioner EP-01



EP-01-A10

EP-01-A30



ABAS04
▶P.58

ABAS05
▶P.61

ABAS08
▶P.64

ABAS12
▶P.67

LINEUP
NEW

YAMAHA single-axis robot featuring ease of use and long service life. New single-axis robots "Robonity series ABAS/AGXS" have been developed as more affordable single-axis robots by revising the controller design for more affordable system with reliability.



Low cost high performance line-up

Easy operation and affordable system with Industrial Ethernet

Robot positioner "EP-01" is a newly designed positioner for a better Ethernet platform and the cost performance. As a result the price of Ethernet is now offered at the same price level as parallel I/O (NPN). While achieving a lower cost design, "EP-01" positioner has expanded features such as standard Ethernet, feedback pulse output, direct value control function, and real-time output.

[Supported field networks]

EtherNet/IP™

PROFI[®]
NET

EtherCAT®

Parallel I/O and industrial Ethernet are the same price!



High reliability that YAMAHA is proud of.

For safe and long-term use

We design our products for long-term use even at a low price.

The customer can use the product safely for a long time since it is evaluated according to YAMAHA's own strict evaluation criteria.

Developer's
voice



As the single-axis controller is a "simple" function, we manufactured it with "persistence and care". To achieve both low price and easy-to-use, we have fundamentally reviewed the design and thoroughly evaluated the product until it is broken so that our customers can use the product safely for a long time. Additionally, the design has been redesigned to make it more compact, while the intuitive interface has been adopted to improve the workability for customers.

Intuitive Single-axis robot with controller in pursuit of ultimate ease of use

Durability YAMAHA quality cultivated with more than 40 years of experience

Economy Industrial Ethernet at the same price as the parallel I/O



POINT 3

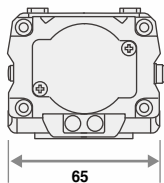
Space efficient compact design.

»» Industry-leading compact design

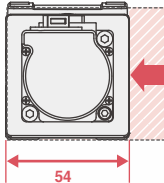
Compact design for machine size reduction.

Basic model (ABAS)

Conventional model T6L



ABAS05 **NEW**

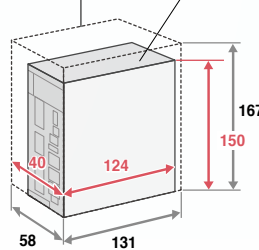


Width

Reduced approx. 17% compared to the conventional model.

Robot positioner EP-01

Conventional model TS-X



EP-01 **NEW**

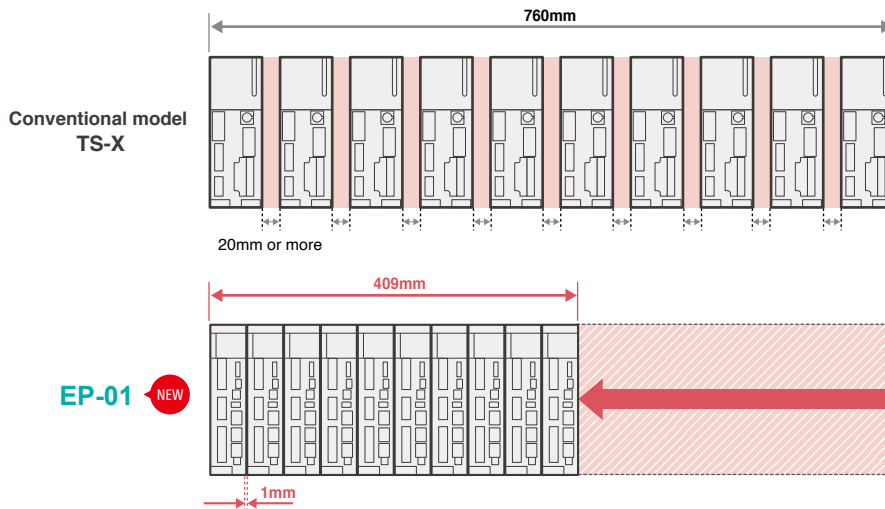
Capacity

Reduced approx. 37% compared to the conventional model.

Installation space comparison

Saves spaces inside a control panel

* For details about the installation conditions, see P.149.



Installation area

Reduced approx. 47% compared to the conventional model.

Significant downsizing is possible by shortening to the installation width!



Features

LBAS
Basic model

LBAS
Advanced model

LGXS
Basic model

LBAR
Basic model

LBAR
Advanced model

ABAS
Basic model

ABAS
Advanced model

AGXS
Basic model

AGXS
Advanced model

ABAR
Basic model

ABAR
Advanced model

Acceleration/Deceleration

Inertia Moment

Option

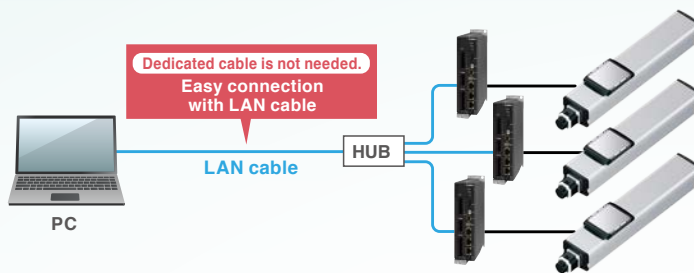
Single-axis robot positioner EP-01

POINT 4

User friendly setup

» The hassle of startup is reduced.

Ethernet port is standard on a controller and dedicated PC programming cable is no longer required. Startup procedure is reduced and simplified.



POINT 5

Easy model selection

» Simple cycle time and service life calculation.

The service life and cycle time can be calculated at the same time by simply entering the required information at the website.

The result can be conveniently saved as PDF file.



Entry screen

Results

PDF

POINT 6

For stable and constant operation

» Contribution to early recovery from line stop

Battery-less absolute method

Because the single-axis controller supports the battery-less absolute method, the battery replacement is not needed.

Calendar function

The controller has clock function internally and histories like alarm are recorded chronologically. Such information is retained for over one year without power and no need for resetting at system startup after long holidays.

Absolute battery is installed on the cable section.

Position data will be retained even when replacing a absolute controller.

The cause that took a long time to recover can be solved.

POINT
7

Industrial Ethernet achieves higher-grade equipment.

Robot status monitoring with real-time output function

It is useful to check the conditions of the robot and as a guide for maintenance timing.

- Current position
- Current speed
- Motor current
- Alarm code when an alarm occurs.
- Overload integration ratio (Overload occurs at 100%.)
- Movement distance (When the servo is ON.)
- Movement time (When the servo is ON.)
- Motor load factor

EtherNet/IP™

PROFINET®

EtherCAT®

POINT
8

To meet a wide range of needs

Used for a wider range of applications with expanded functions and new functions.

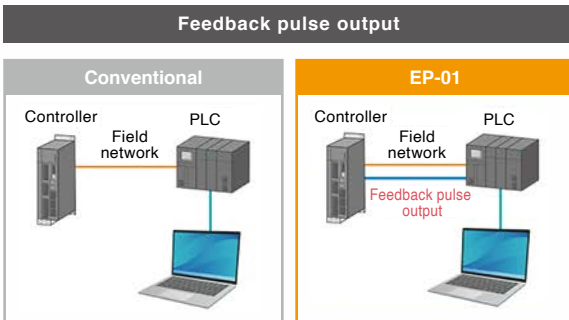
Acceleration and deceleration designation type was added to the positioning operation command from the PLC.

Direct value position designation	Position data	Speed	Acceleration	Deceleration
Data designation type 1	○			
Data designation type 2	○	○		
Data designation type 3	○	○	○	○

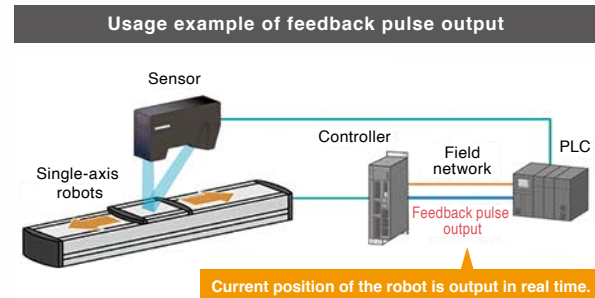
When the custom setting is selected, the speed and acceleration can be designated to (mm/s) and (m/s²) from the PLC!



Feedback pulse function has been added to enable use in conjunction with external devices.

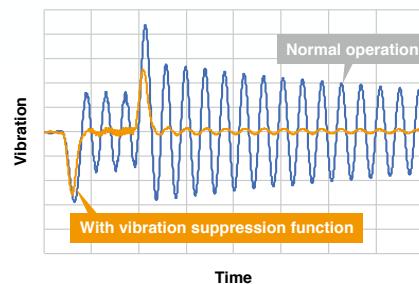
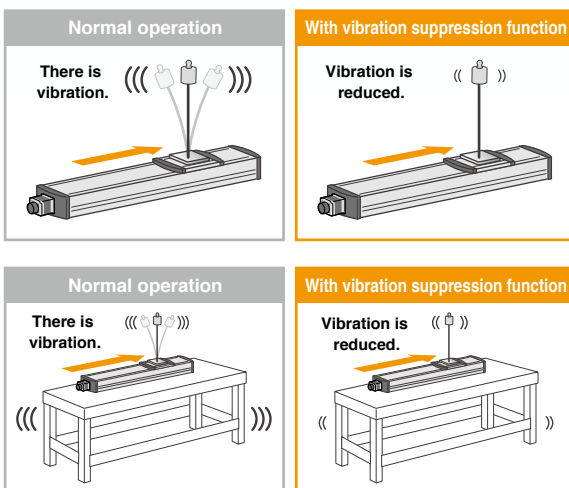


Exact current location is understood without communication delay



Speed ripple can be corrected.

New vibration suppression function has been added to achieve vibration suppression!



It can be adjusted according to the number of vibrations that need to be suppressed, such as tool vibrations and installation base vibrations!



PC Programming software "EP-Manager"

Support software "EP-Manager" that allows you to perform "Setting" → "Pre-check" → "Debug" → "Maintenance" in a single step is provided free of charge.
Easy edit for robot operation, positioning, timing, or monitoring motor load.



Download from website (member site)

Main window



What you can do with EP-Manager.

- Parameter setting**
- Point setting**
- Robot operation**
- Operation simulation**
- Debug (Real-time trace)**
- Maintenance (Alarm history check)**

Pre-check Operation simulator

Operation simulator function is included to enable offline simulation.

Controller: EP-01-A10
Model: ABA508
Robot: ABA508-205

Stroke (K43): 1100.000 mm
Max Speed (K44): 350.00 mm/s
Speed Override (K9): 100 %
In-position (K3): 0.100 mm
Payload1 (K76): 40 kg
Payload2 (K78): 40 kg
Acc. Limit 1 (K77): 1.02 m/s²
Acc. Limit 2 (K79): 1.02 m/s²

Point	Run Type	Pos. [mm]	Speed [%]	Accel. [%]	Decel. [%]	Flag
P1	ABS	0.000	70	30	100	0
P2	ABS	450.000	100	30	100	0
P3	ABS	600.000	50	30	100	0
P4	ABS					
P5	ABS					



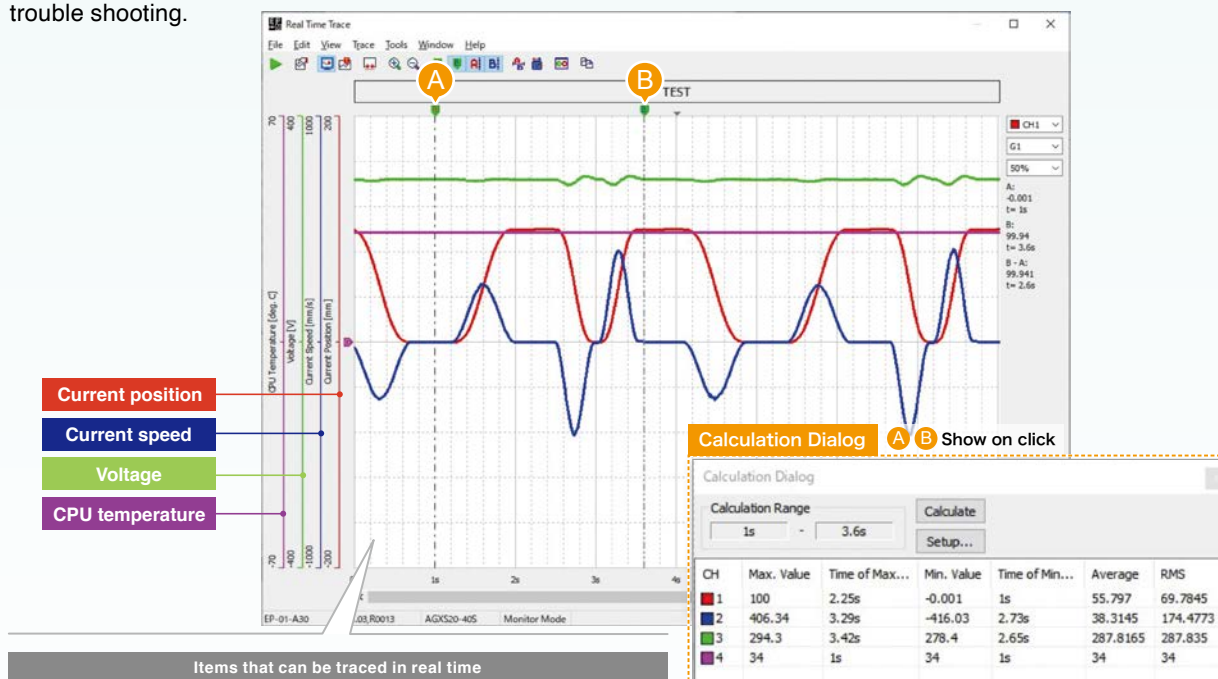
Offline pre-check and examination with actual teaching data is also possible!



Debug

Real-time trace

This function traces the current position, speed, load percentage, current, and voltage at real-time. Additionally, once trigger conditions are set, data can be automatically obtained when these conditions are met. Furthermore, by specifying a zone from the monitor results, the maximum value, minimum value, and average value can be calculated. These values are handy for trouble shooting.



Items that can be traced in real time

Instructed position	Current speed	load percentage	Input information	Word input information
Current position	Command current	Voltage	Output information	Word output information
Command speed	Present current	CPU temperature	Option information	Always output information

Information necessary for debugging can be checked!



Maintenance

Alarm history check

In addition to the position, speed, operation status, current value, and voltage value in case of an alarm, the I/O status of the input/output is displayed. This contributes to analysis of the status.

No.	Factor	Contents	Time	Position [mm]	Speed [mm/s]	Run Status	Input Source	Robot Status	Run Point	Current Val.	Voltage [V]	Input	Input Wor...	Input Wor...	Input Wor...	Input Wor...	Input Wor...	Input Wor...		
1	C1	EMERGENCY STOP	2021-12-22 12:33:18	0.031	0.07	Hold	8	1232392	0	0	286.5	00000000	0000	0000	0000	0000	0000	0000	0000	
2	C1	EMERGENCY STOP	2021-12-22 12:33:14	0.030	-0.07	Hold	8	1232392	0	0	286.0	00000000	0000	0000	0000	0000	0000	0000	0000	0000
3	C1	EMERGENCY STOP	2021-12-22 12:33:09	0.029	0.07	Hold	8	1232392	0	0	288.1	00000000	0000	0000	0000	0000	0000	0000	0000	0000
4	BE	ETHER LINK ERR.	2021-12-22 12:23:48	-0.001	0.07	Hold	6	1215496	0	0	287.7	00000000	0000	0000	0000	0000	0000	0000	0000	0000
5	44	SOFTLIMIT OVER	2021-12-22 12:23:40	-0.001	-0.07	Hold	7	1214728	0	0	287.2	00000000	0000	0000	0000	0000	0000	0000	0000	0000
6	BE	ETHER LINK ERR.	2021-12-22 12:23:14	115.550	0.00	Hold	6	1222152	2	0	287.7	00000000	0000	0000	0000	0000	0000	0000	0000	0000
7	BE	ETHER LINK ERR.	2021-12-22 12:23:14	115.550	0.00	Hold	6	1222152	2	0	287.7	00000000	0000	0000	0000	0000	0000	0000	0000	0000
8	86	OVER LOAD	2021-12-22 12:22:33	62.180	1293.33	Running (ABS)	7	1215756	2	87	266.4	00000000	0000	0000	0000	0000	0000	0000	0000	0000
9	86	OVER LOAD	2021-12-22 12:22:24	40.163	1019.05	Running (ABS)	7	1215756	2	-120	286.2	00000000	0000	0000	0000	0000	0000	0000	0000	0000
10	86	OVER LOAD	2021-12-22 12:22:13	8.019	385.66	Running (ABS)	7	1215756	2	53	318.2	00000000	0000	0000	0000	0000	0000	0000	0000	0000

Even if the alarm is the same, the cause may be different if the occurrence location, operating conditions, and operating status are different.

Details can be checked when an error occurs, which is useful for recovery and corrective action.



Motor-less single axis actuator

Slider type

NEW

Rod type

LBAS

Motor-less

LGXS

Motor-less

LBAR

Motor-less

Wide range of selection for transfer and positioning application

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



LBAS04	LBAS05	LBAS08	LBAS12	LGXS05	LGXS05L	LGXS07	LGXS10	LGXS12	LGXS16	LGXS20	LBAR04	LBAR05	LBAR08
▶P.18	▶P.21	▶P.24	▶P.27	▶P.32	▶P.34	▶P.36	▶P.38	▶P.40	▶P.42	▶P.44	▶P.46	▶P.50	▶P.54



Supports major brands and standards

Build a system with motor/driver of your choice

In addition to the conventional servomotors, stepping motors are also newly supported and actuators can be used in accordance with customers' needs. * For the compatible models and capacities, see the detailed page of each model in this catalog.

LBAS | Compatible motor manufacturers and standards

[Servo motor]

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

[Stepping motor]

Oriental Motor

[NEMA standards]

NEMA17
NEMA23

LGXS | Compatible motor manufacturers

[Servo motor]

Yasukawa Electric
Mitsubishi Electric
KEYENCE
OMRON
Panasonic



Easy selection

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

Simulator on web site will provide cycle time and service life of ball screw or guide.

Selection of most suitable model with confidence.

Just enter simple parameters ...

Easy Automatic calculation

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

Access the website below.



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

* These contents are not available on smartphones.

Features

Motorless
Slider type
Basic model
LBAS

Motorless
Slider type
Advanced model
LGXS

Motorless
Rod type
Basic model
LBAR

VITH motor
Slider type
Basic model
ABAS

VITH motor
Slider type
Advanced model
AGXS

VITH motor
Rod type
Basic model
ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner
EP-01

MEMO

LBAS04

Basic model

Motor-less Single Axis Actuator

Slider type



Ordering method

LBAS04

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

[Caution]

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

Specifications

Applicable motor	50 W	
Repeatability ^{Note 1}	±0.01 mm	
Deceleration mechanism	Shifting position ball screw φ 10 (C7 class)	
Stroke	50 mm to 800 mm (50 mm pitch)	
Maximum speed ^{Note 2} (or equivalent)	800 mm/sec	400 mm/sec
Ball screw lead	12 mm	6 mm
Maximum payload ^{Note 3} (or equivalent)	Horizontal	12 kg
	Vertical	2 kg
Rated thrust ^{Note 3} (or equivalent)	Horizontal	12 kg
	Vertical	2 kg
Maximum dimensions of cross section of main unit	W 44 mm × H 52 mm	
Overall length	Straight	ST + 214 mm
	Bending	ST + 196 mm
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)	

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

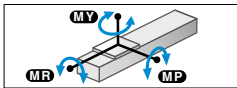
If the effective stroke exceeds 500 mm, the ball screw may resonate. (Critical speed)

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

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

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

Static loading moment



	MY	MP	MR
(Unit: N·m)	54	54	75

Applicable motor

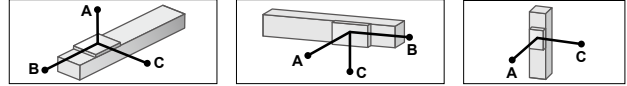
Applicable servo motor

Specification	Flange size	□ 40
	Wattage	50 W

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

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

Allowable overhang^{Note}



LBAS04-12

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

LBAS04-6

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

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

Note. Service life is calculated for 500 mm stroke models.

Applicable stepping motor

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

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

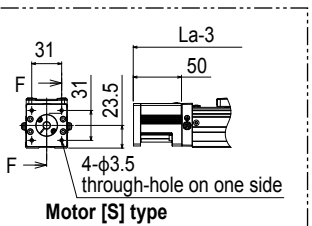
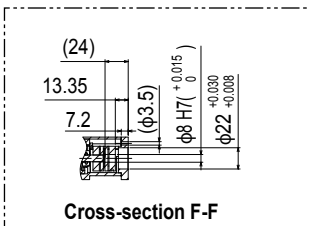
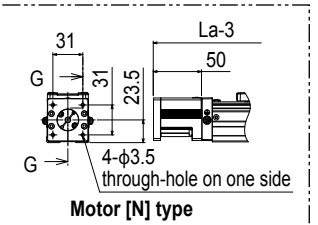
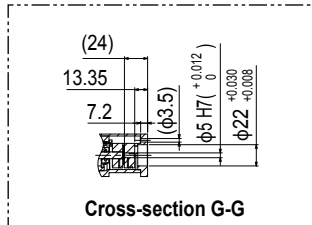
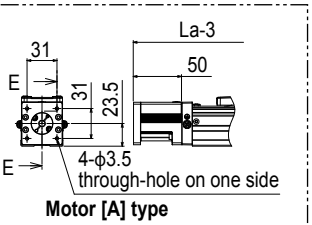
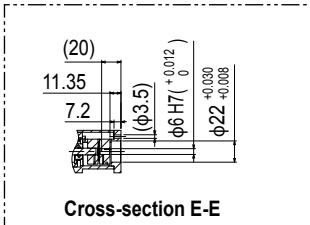
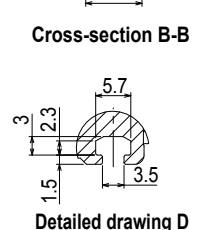
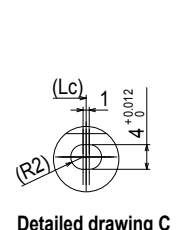
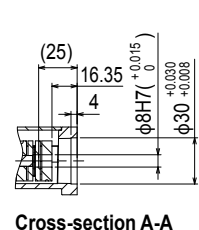
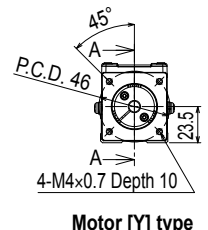
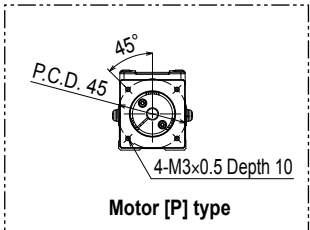
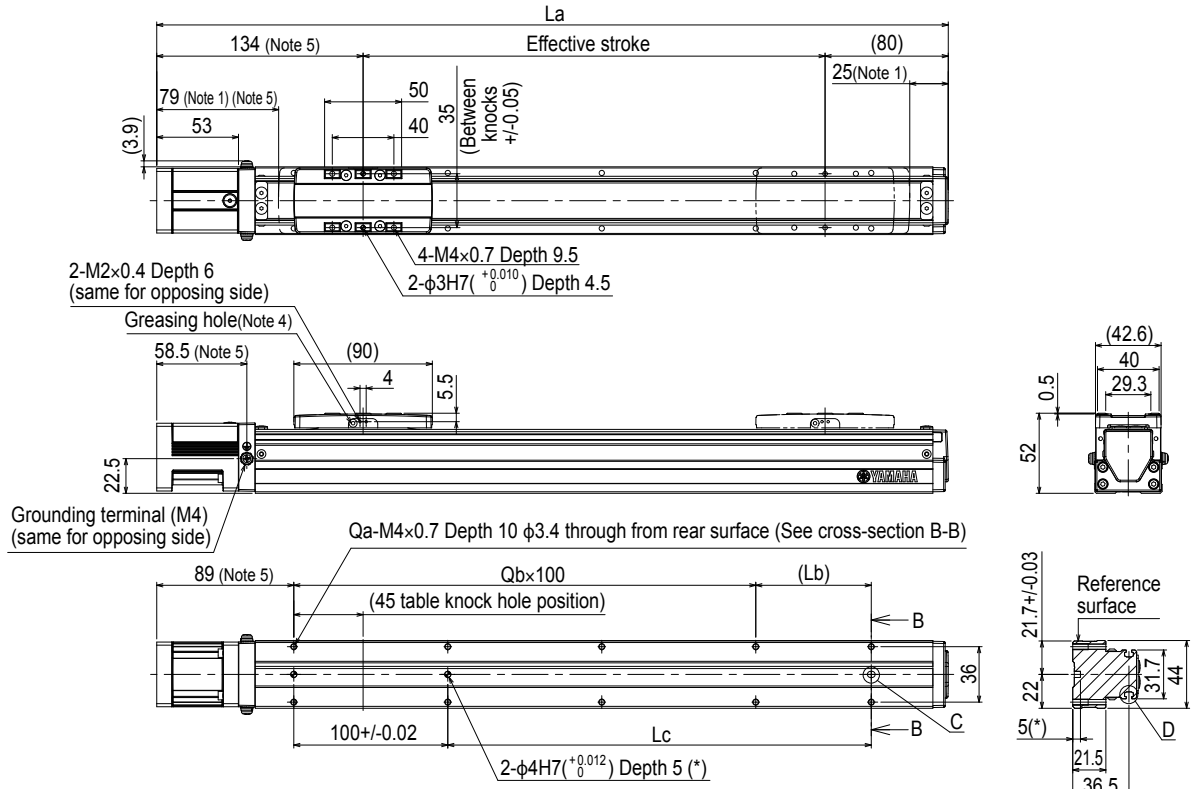
Note. For the motor specifications A, S, and N, the parts dedicated for bending cannot be used.

Access the website below.



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

LBAS04 Straight type (S)



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 x 0.5>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M4 x 0.7> used to install the main unit.
 Note 4. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00
 Note 5. For the motor specifications A, S, and N, the dimensions are that those stated in the table << 3 mm >>.

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

Features

Motorless

Sinter type

Basic model

LBAS

Advanced model

LGXS

Basic model

LBAR

Basic model

ABAS

Advanced model

AGXS

Basic model

ABAR

Acceleration/Deceleration

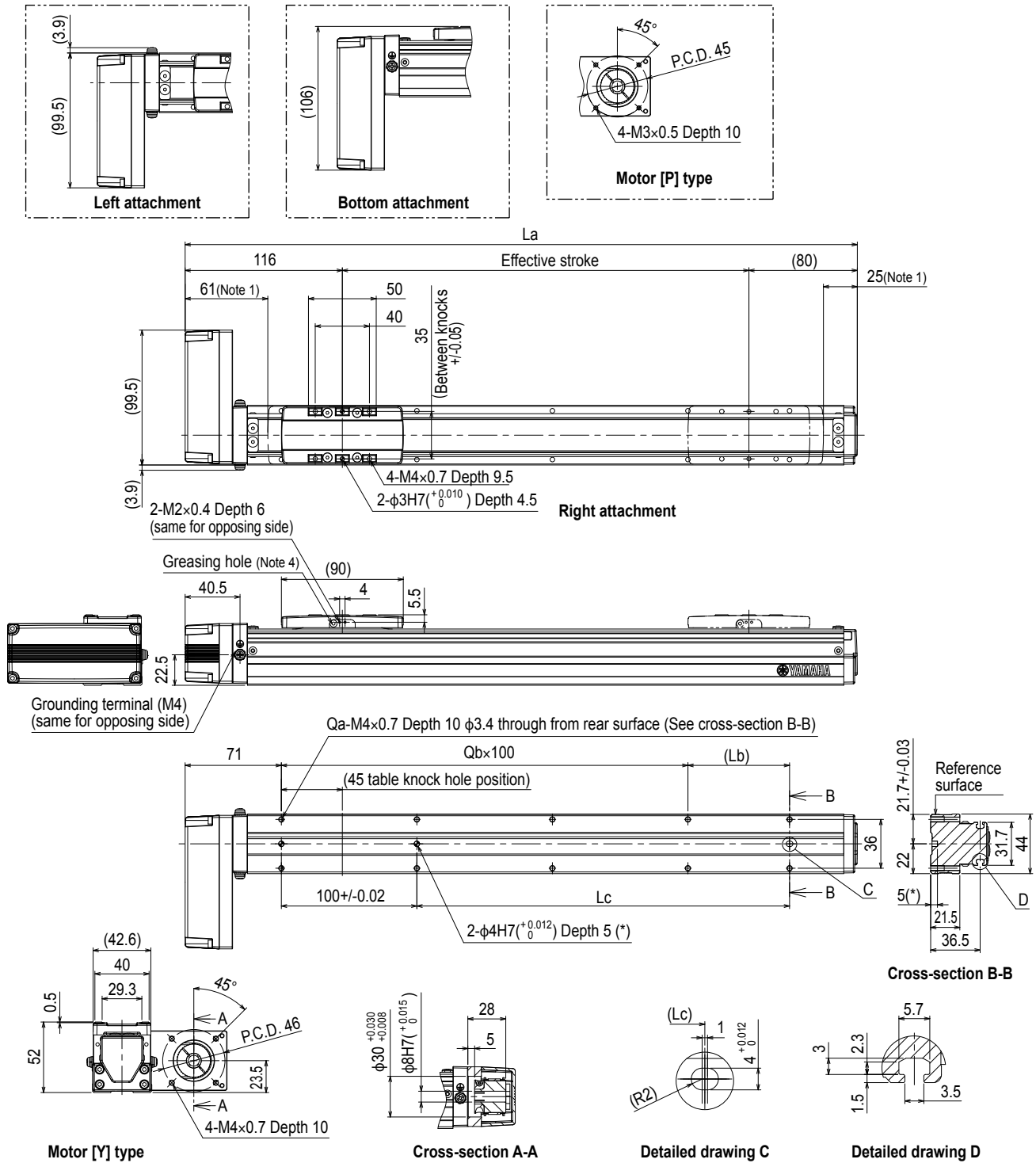
Inertia Moment

Option

Single axis motor positioner

EP-01

LBAS04 Bending type (A)



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 x 0.5>. In the installation tap hole, the length under head << thickness of stand +10 mm or less >> is recommended for the hex socket head bolts <M4 x 0.7> used to install the main unit.
 Note 4. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00

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

LBAS05

Basic model

Motor-less Single Axis Actuator

Slider type



Ordering method

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

[Caution]

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

Specifications

Applicable motor	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 (or equivalent) ^{Note 2}	1333 mm/sec	666 mm/sec	333 mm/sec
Ball screw lead	20 mm	10 mm	5 mm
Maximum payload (or equivalent) ^{Note 3}	Horizontal	12 kg	24 kg
	Vertical	3 kg	6 kg
Rated thrust (or equivalent) ^{Note 3}		84 N	169 N
Maximum dimensions of cross section of main unit	W 54 mm × H 60 mm		
Overall length	Straight	ST + 220.5 mm	
	Bending	ST + 200 mm	
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

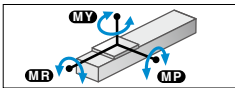
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 550 mm, the ball screw may resonate. (Critical speed)

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

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

Note. See P.107 for acceleration/deceleration and inertia moment.

Static loading moment



	(Unit: N·m)		
	MY	MP	MR
	59	63	103

Applicable motor

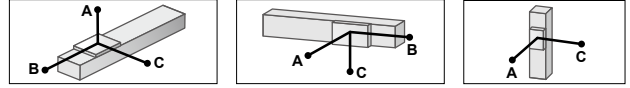
Applicable servo motor

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	Yaskawa Electric Corp.	SGMJV-01
		SGMJJ-01
	Keyence Corp.	SV-□ 010
		SV2-□ 010
	Mitsubishi Electric Corp.	HF-KP13
		HG-KR13
		HK-KT13
	Omron Electronics	R88M-K10030
		R88M-1M10030
	Panasonic Corp.	MHMF01
	Sanyo Denki	R2 □ A04010
	Tamagawa Seiki	TSM3104
	Delta Electronics	ECMA-C10401
	Fanuc Corp.	β iS0.3/5000
	Kingservo	KSMA01LI □ S
		KSMA01LG
	Siemens	1FK2102-1AG
1FL6024-2AF		
Schneider	BCH2MB013	
Beckhoff	AM3012C*	
Allen-Bradley	TLY-A130*	
P	Panasonic Corp.	MSMD01
		MSMF01

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	
8kg	155	73	65	65	73	155	2kg	276	
12kg	117	46	42	42	46	117	3kg	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	213	178	769	2kg	443	
15kg	314	53	64	64	53	314	4kg	218	
24kg	216	29	36	36	29	216	6kg	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	131	97	921	3kg	345	
25kg	459	33	45	45	33	459	8kg	124	
40kg	436	17	23	23	17	436	12kg	79	

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

Note. Service life is calculated for 500 mm stroke models.

Applicable stepping motor

Specification	Flange size	<input type="checkbox"/> 42
Motor specification	Manufacturer	Model
A	Oriental Motor	AZM46
		ARM46
		RKS54
S	Oriental Motor	AZM48
N	NEMA standard	NEMA17

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

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

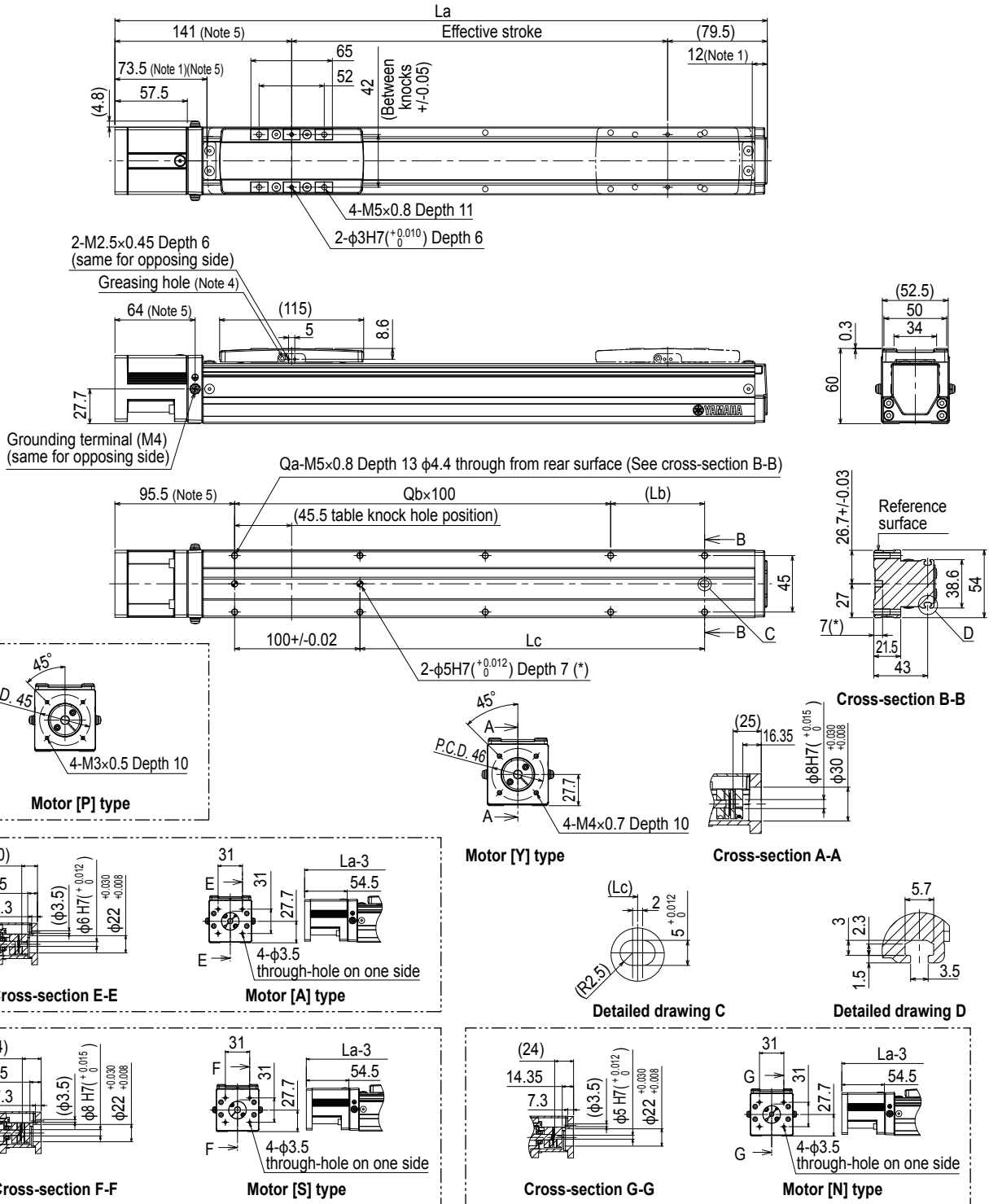
Access the website below.



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

Features
Motorless
Slider type
Basic model
LBAS
Advanced model
Slider type
Advanced model
LGXS
Basic model
Rod type
Basic model
LBAR
Basic model
Slider type
Basic model
ABAS
Advanced model
Slider type
Advanced model
AGXS
Basic model
Rod type
Basic model
ABAR
Acceleration/Deceleration
Inertia Moment
Option
Single axis positioner
EP-01

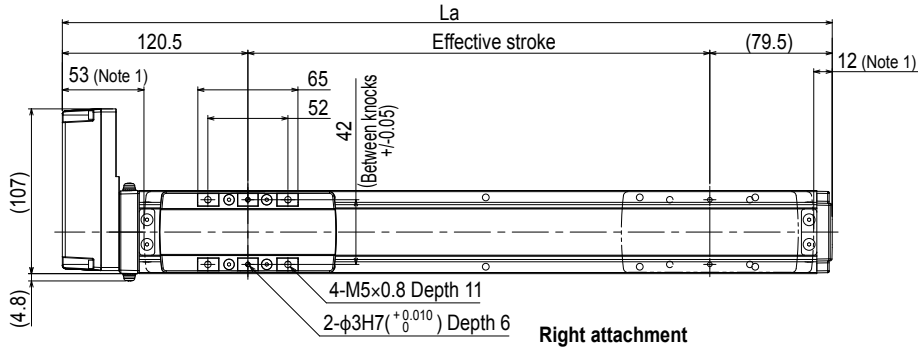
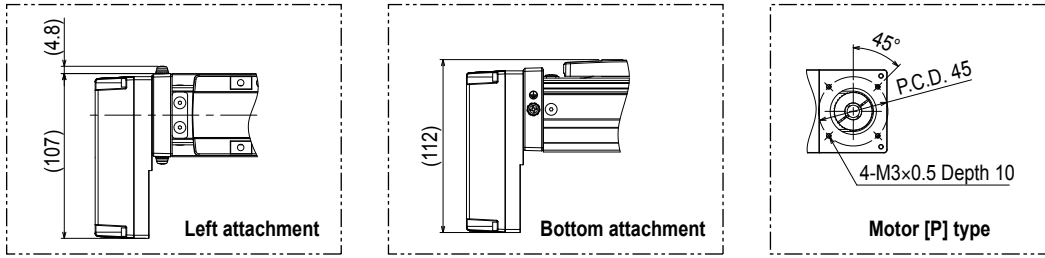
LBAS05 Straight type (S)



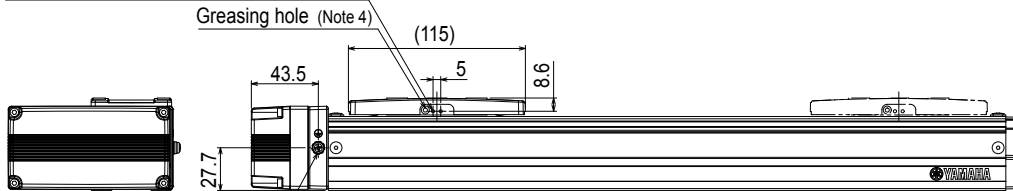
- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <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. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00
 Note 5. For the motor specifications A, S, and N, the dimensions are that those stated in the table <<-3 mm>>.

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	270.5	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg)	1.6	1.8	1.9	2.1	2.4	2.5	2.5	2.7	2.8	2.9	3.1	3.3	3.4	3.6	3.7	4.1
Maximum speed (mm/sec)	Lead 20	1333										1133	933	799	666	599
	Lead 10	666										566	466	399	333	299
	Lead 5	333										283	233	199	166	149
	Speed setting	-										85%	70%	60%	50%	45%

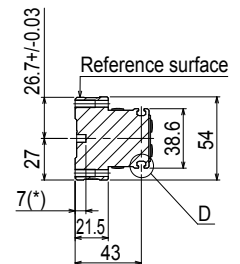
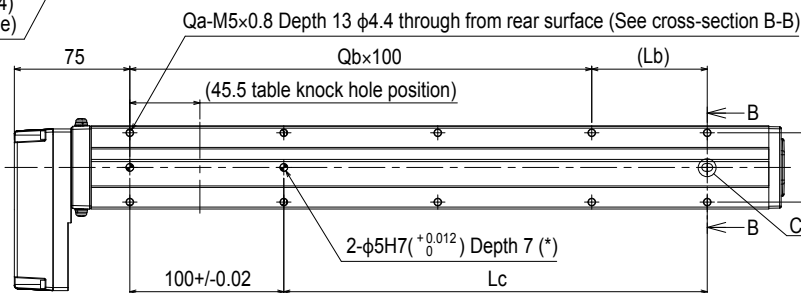
LBAS05 Bending type (A)



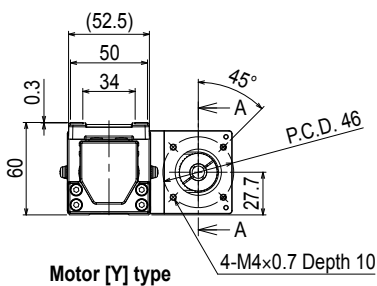
2-M2.5x0.45 Depth 6 (same for opposing side)



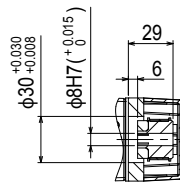
Grounding terminal (M4) (same for opposing side)



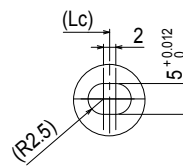
Cross-section B-B



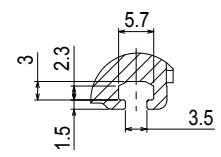
Motor [Y] type



Cross-section A-A



Detailed drawing C



Detailed drawing D

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

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
Weight (kg)	1.7	1.8	2	2.2	2.4	2.6	2.6	2.8	2.9	3	3.2	3.3	3.5	3.6	3.8	4.1	
Maximum speed (mm/sec)	Lead 20											1333	1133	933	799	666	599
	Lead 10											666	566	466	399	333	299
	Lead 5											333	283	233	199	166	149
	Speed setting											-	85%	70%	60%	50%	45%

Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

Motorless
Slider type
Basic model

ABAS

Motorless
Slider type
Advanced model

AGXS

Motorless
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single axis sensor push-inner

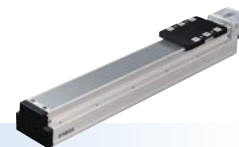
EP-01

LBAS08

Basic model

Motor-less Single Axis Actuator

Slider type



Ordering method

LBAS08

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

[Caution]

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

Specifications

Applicable motor	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
	Vertical	8 kg	20 kg
Rated thrust ^{Note 3} (or equivalent)		174 N	341 N
			683 N
Maximum dimensions of cross section of main unit	W 82 mm × H 78 mm		
Overall length	Straight	ST + 278 mm	
	Bending	ST + 264.5 mm	
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

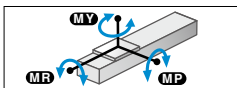
If the effective stroke exceeds 650 mm, the ball screw may resonate. (Critical speed)

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

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

Note. See P.109 for acceleration/deceleration and inertia moment.

Static loading moment



	MY	MP	MR
(Unit: N·m)	221	309	343

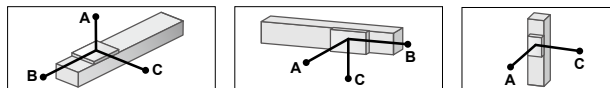
Applicable motor

• Applicable servo motor

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

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

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	634	634
25kg	278	73	86	25kg	86	73	278	6kg	321	321
40kg	517	54	76	40kg	76	54	517	8kg	240	240

LBAS08-10

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
30kg	465	83	120	30kg	120	83	465	5kg	551	551
50kg	341	44	65	50kg	65	44	341	10kg	270	270
80kg	228	22	34	80kg	34	22	228	20kg	129	129

LBAS08-5

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
30kg	1604	95	153	30kg	153	95	1604	10kg	312	312
50kg	1035	52	83	50kg	83	52	1035	20kg	149	149
80kg	719	27	44	80kg	44	27	719	30kg	95	95
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.

• Applicable stepping motor

Specification	Flange size	<input type="checkbox"/> 60
		<input type="checkbox"/> 56(NEMA)

Motor specification	Manufacturer	Model
A	Oriental Motor	AZM66
		AZM69
		ARM66
		ARM69
		RKS56
N	NEMA standard	NEMA23

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

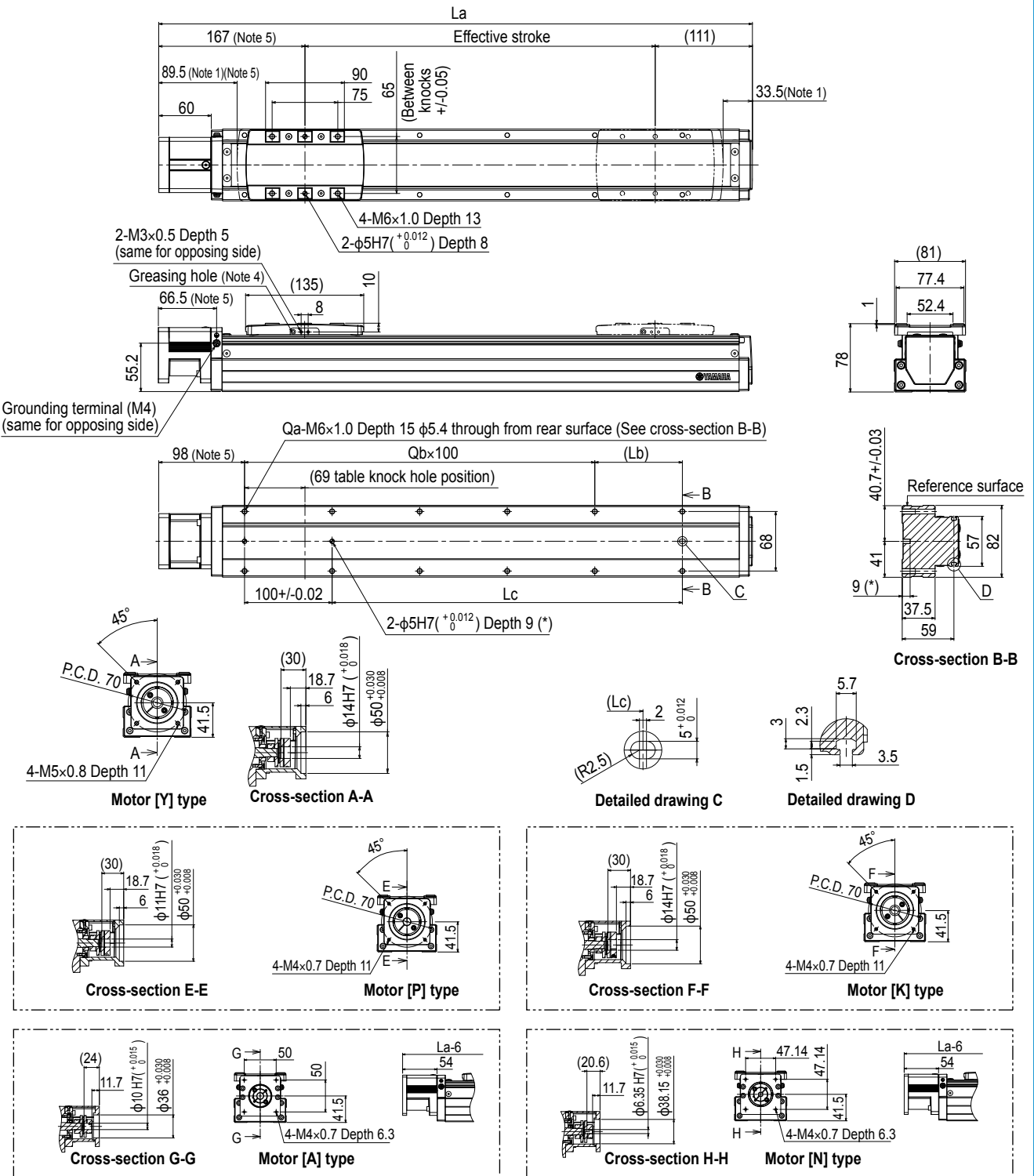
Note. For the motor specifications A and N, the parts dedicated for bending cannot be used.

Access the website below.



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

LBAS08 Straight type (S)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head << 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. Grease gun nozzle (recommended) (see P.143 for detail) Part number: KFU-M3861-00
- Note 5. For the motor specifications A and N the dimensions are that those stated in the table << -3 mm >>.
- Note 6. For 50 mm stroke models, a part of the installation through hole (Qa) used to secure the main body from the top is hidden by the slider. So, only four locations can be used. Therefore, it is recommended to secure the main body from the bottom.

Effective stroke	50 ^{Note 6}	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											-															
Speed setting														1020	900	780	660	600	540	480	420	360					
														510	450	390	330	300	270	240	210	180					
														255	225	195	165	150	135	120	105	90					
														85%	75%	65%	55%	50%	45%	40%	35%	30%					

Features

Motorless

Slider type

Basic model

LBAS

Advanced model

LGXS

Basic model

LBAR

Basic model

ABAS

Advanced model

AGXS

Basic model

ABAR

Acceleration/Deceleration

Inertia Moment

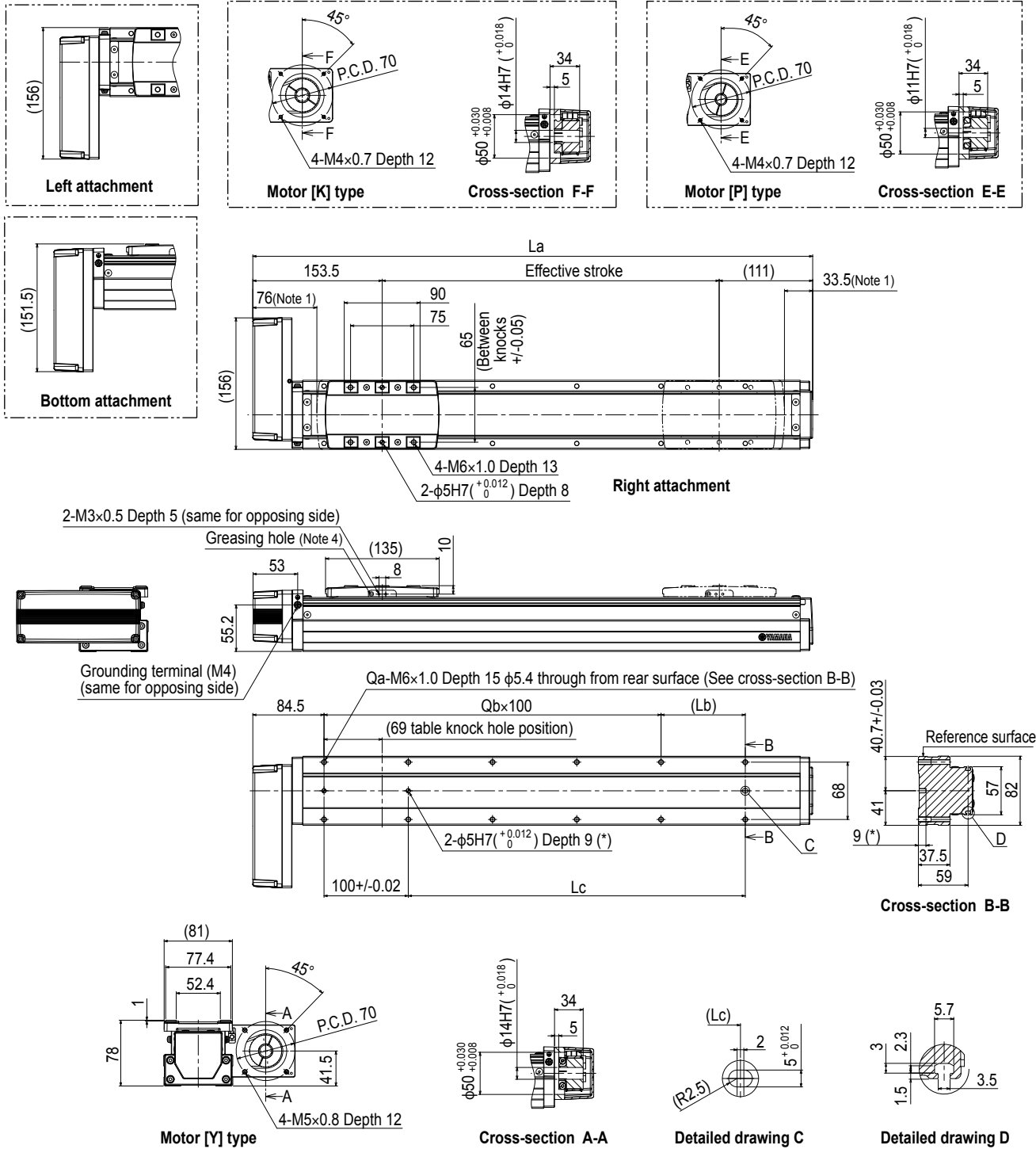
Option

Single axis operation

Part number

EP01

LBAS08 Bending type (A)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head <<45 mm or more>> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head <<thickness of stand +15 mm or less>> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
- Note 4. Grease gun nozzle (recommended) (see P.143 for detail) Part number: KFU-M3861-00
- Note 5. For 50 mm stroke models, a part of the installation through hole (Qa) used to secure the main body from the top is hidden by the slider. So, only four locations can be used. Therefore, it is recommended to secure the main body from the bottom.

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

LBAS12

Basic model

Motor-less Single Axis Actuator

Slider type

Slim type



Ordering method

LBAS12				
Model	Lead	Shape	Motor specification	Stroke
	32: 32 mm 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 1250 (50 mm pitch)

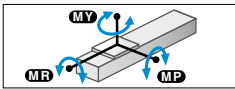
LBAS12 (200W)

Specifications

Applicable motor	200 W			
Repeatability <small>Note 1</small>	±0.01 mm			
Deceleration mechanism	Shifting position ball screw φ 16 (C7 class)			
Stroke	50 mm to 1250 mm (50 mm pitch)			
Maximum speed <small>Note 2</small> (or equivalent)	1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	32 mm	20 mm	10 mm	5 mm
Maximum payload <small>Note 3</small> (or equivalent)	Horizontal 20 kg	40 kg	80 kg	100 kg
	Vertical 3 kg	8 kg	20 kg	30 kg
Rated thrust <small>Note 3</small> (or equivalent)	105 N 170 N 341 N 683 N			
Maximum dimensions of cross section of main unit	W 120 mm × H 76 mm			
Overall length	Straight	ST + 294 mm		
	Bending	ST + 270.5 mm		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)			

Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
 If the effective stroke exceeds 600 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note. See P.111 for acceleration/deceleration and inertia moment.

Static loading moment



	(Unit: N·m)		
MY	MP	MR	
573	606	606	

LBAS12 (400W)

Specifications

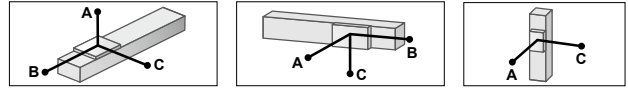
Applicable motor	400 W			
Ball screw lead	32 mm	20 mm	10 mm	5 mm
Maximum payload <small>Note 1</small> (or equivalent)	Horizontal 35 kg	50 kg	95 kg	115 kg
	Vertical 8 kg	15 kg	25 kg	40 kg
Rated thrust <small>Note 1</small> (or equivalent)	218 N	339 N	678 N	1360 N

Note 1. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note. See P.113 for acceleration/deceleration and inertia moment.
 Note. The specifications and static loading moment, etc. not described here are common to LBAS12 (200 W).

[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 the user's responsibility.
 Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration or resonance from actuator will affect service life of actuator.
 The product performance may not be satisfied depending on the compatible motor.
 For special parts for motor installation, install and adjust on your side.

Allowable overhang Note



LBAS12-32 (200W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
5kg	2079	1694	1224	5kg	1224	1694	2079	1kg	6201	6201
10kg	1134	834	627	10kg	627	834	1134	3kg	2057	2057
20kg	843	422	362	20kg	362	422	843			

LBAS12-20 (200W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
15kg	946	548	445	15kg	445	548	946	3kg	2174	2174
25kg	591	321	266	25kg	266	321	591	5kg	1315	1315
40kg	442	206	182	40kg	182	206	442	8kg	833	833

LBAS12-10 (200W)

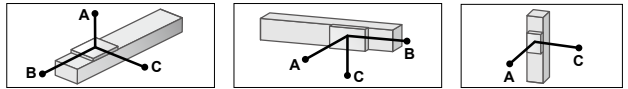
Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
30kg	729	299	278	30kg	278	299	729	5kg	1934	1934
50kg	788	207	223	50kg	223	207	788	10kg	978	978
80kg	1325	157	200	80kg	200	157	1325	20kg	503	503

LBAS12-5 (200W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
30kg	2478	430	513	30kg	513	430	2478	10kg	1317	1317
50kg	1820	258	320	50kg	320	258	1820	20kg	670	670
80kg	1522	160	208	80kg	208	160	1522	30kg	456	456
100kg	1443	127	168	100kg	168	127	1443			

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.

Allowable overhang Note



LBAS12-32 (400W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
10kg	1134	834	627	10kg	627	834	1134	3kg	2057	2057
20kg	843	422	362	20kg	362	422	843	5kg	1228	1228
35kg	926	286	294	35kg	294	286	926	8kg	762	762

LBAS12-20 (400W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
15kg	826	548	427	15kg	427	548	826	5kg	1315	1315
30kg	485	263	218	30kg	218	263	485	10kg	672	672
50kg	433	172	162	50kg	162	172	433	15kg	522	522

LBAS12-10 (400W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
30kg	528	270	230	30kg	230	270	528	5kg	1934	1934
60kg	667	171	185	60kg	185	171	667	15kg	660	660
95kg	1350	132	173	95kg	173	132	1350	25kg	409	409

LBAS12-5 (400W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C
30kg	2478	430	513	30kg	513	430	2478	15kg	885	885
60kg	1668	215	270	60kg	270	215	1668	25kg	541	541
90kg	1475	142	186	90kg	186	142	1475	40kg	350	350
115kg	1384	109	146	115kg	146	109	1384			

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.

Access the website below.



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

Features
 Motorless
 Slider type
 Basic model
 LBAS
 Advanced model
 Slider type
 LGXS
 Basic model
 Rod type
 LBAR
 Basic model
 Slider type
 ABAS
 Advanced model
 Slider type
 AGXS
 Basic model
 Rod type
 ABAR
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single axis motion
 Ep.01

Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Ind type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Ind type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner

EP-01

■ Applicable motor (200W)

● Applicable servo motor

Specification	Flange size	<input type="checkbox"/> 60
	Wattage	200 W
Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-02
		SGM7J-02
	Keyence Corp.	SV- <input type="checkbox"/> 020
		SV2- <input type="checkbox"/> 020
	Mitsubishi Electric Corp.	HF-KP23
		HG-KR23
		HK-KT23
	Sanyo Denki	R2 <input type="checkbox"/> A06020
	Tamagawa Seiki	TSM3202
Delta Electronics	ECMA-C10602	
Siemens	1FL6032-2AF	
Schneider	BCH2LD023	
P	Omron Electronics	R88M-K20030
		R88M-1M20030
	Panasonic Corp.	MSMD02
		MSMF02
Kingservo	MHMF02	
K	Kingservo	KSMA02LI
		KSMA02LG

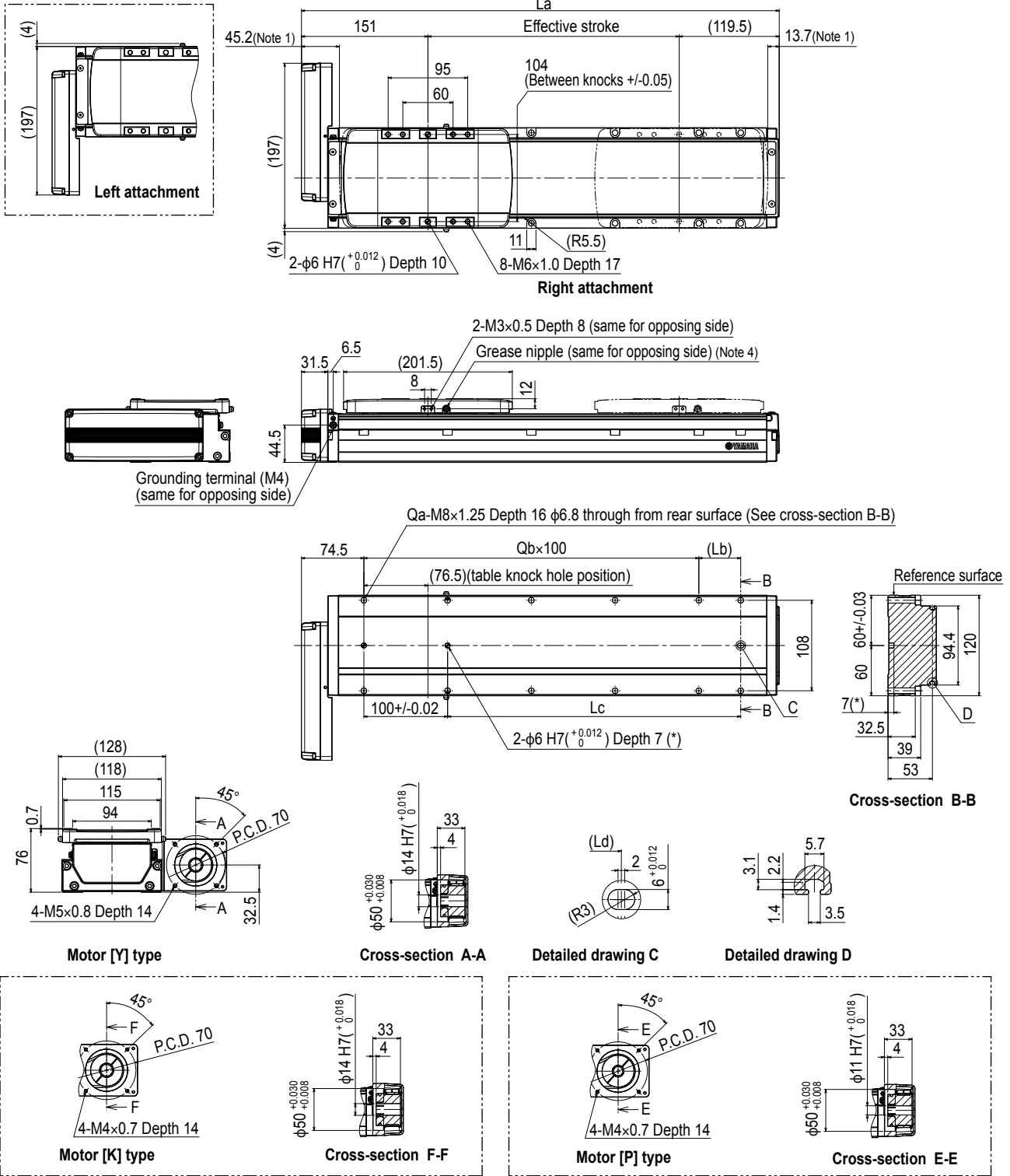
■ Applicable motor (400W)

● Applicable servo motor

Specification	Flange size	<input type="checkbox"/> 60
	Wattage	400 W
Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-04
		SGM7J-04
	Keyence Corp.	SV- <input type="checkbox"/> 040
		SV2- <input type="checkbox"/> 040
	Mitsubishi Electric Corp.	HF-KP43
		HG-KR43
		HK-KT43
	Sanyo Denki	R2 <input type="checkbox"/> A06040
	Tamagawa Seiki	TSM3204
Delta Electronics	ECMA-C10604	
Siemens	1FL6034-2AF	
Schneider	BCH2LD043	
K	Omron Electronics	R88M-K40030
		R88M-1M40030
	Panasonic Corp.	MSMD04
		MSMF04
Kingservo	Kingservo	MHMF04
		KSMA04LI
		KSMA04LG

LBAS12 Bending type (A)

Note. The external views of LBAS12 (200 W) and LBAS12 (400 W) are the same.



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 <M6 × 1.0>. In the installation tap hole, the length under head << thickness of stand + 16 mm or less >> is recommended for the hex socket head bolts <M8 × 1.25> used to install the main unit.

Note 4. Grease gun nozzle (recommended) (see P.143 for detail)

Note 5. For 50 mm stroke models, a part of the installation through hole (Qa) is used to secure the main body from the top is hidden by the slider. So, only four locations can be used. Therefore, it is recommended to secure the main body from the bottom.

Effective stroke	50 ^{Note 5}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La	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	1070.5	1120.5	1170.5	1220.5	1270.5	1320.5	1370.5	1420.5	1470.5	1520.5
Lb	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
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
Qa	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
Qb	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13
Weight (kg)	4.5	4.9	5.3	5.7	6.1	6.5	6.9	7.3	7.7	8.2	8.6	9.1	9.5	9.9	10.4	10.8	11.2	11.7	12.1	12.6	13	13.4	13.9	14.3	14.8
Maximum speed (mm/sec)	Lead 32	1800											1620	1440	1260	1080	990	810	720	630	630	540	450	360	360
	Lead 20	1200											1080	960	840	720	660	540	480	420	420	360	300	240	240
	Lead 10	600											540	480	420	360	330	270	240	210	210	180	150	120	120
	Lead 5	300											270	240	210	180	165	135	120	105	105	90	75	60	60
Speed setting	-											90%	80%	70%	60%	55%	45%	40%	35%	35%	30%	25%	20%	20%	

Features	Motorless Slider type Basic model	LBAS	Motorless Slider type Advanced model	LGXS	Motorless Rod type Basic model	LBAR	VITH motor Slider type Basic model	ABAS	VITH motor Slider type Advanced model	AGXS	VITH motor Rod type Basic model	ABAR	Acceleration/Deceleration Inertia Moment	Option	Single axis robot positioner EP-01
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LGXS05

Advanced model

Motor-less Single Axis Actuator

Slider type



Ordering method

LGXS05

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

[Caution]

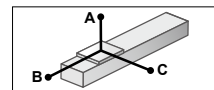
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

Specifications

Applicable motor	50 W		
Repeatability ^{Note 1}	+/- 0.005 mm		
Deceleration mechanism	Ground ball screw ϕ 12 (C5 class)		
Stroke	50 mm to 800 mm (50 mm pitch)		
Maximum speed (or equivalent)	1333 mm/sec	666 mm/sec	333 mm/sec
	20 mm	10 mm	5 mm
	Ball screw lead		
Maximum payload (or equivalent)	Horizontal	5 kg	8 kg
	Vertical	2 kg	4 kg
Rated thrust (or equivalent)	41 N	69 N	138 N
	Maximum dimensions of cross section of main unit	W 48 mm x 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)		

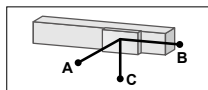
- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 600 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.115 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}



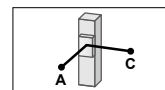
LGXS05-20

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



Wall installation (Unit: mm)

2kg	323	234	809
5kg	119	76	427



Vertical installation (Unit: mm)

1kg	452	452
2kg	217	217

LGXS05-10

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

Wall installation (Unit: mm)

2kg	585	346	2386
5kg	195	113	1164
8kg	95	54	745

Vertical installation (Unit: mm)

1kg	732	732
2kg	351	351
4kg	160	160

LGXS05-5

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

Wall installation (Unit: mm)

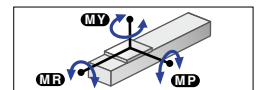
3kg	439	245	4371
8kg	117	65	1812
13kg	42	24	1000

Vertical installation (Unit: mm)

4kg	183	183
6kg	111	111
8kg	75	75

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

Static loading moment



(Unit: N·m)		
MY	MP	MR
24	27	23

Adaptable Servo Motor

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

Manufacturer	Model
Yaskawa 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} HK-KT053 ^{Note}
Omron Electronics	R88M-K05030 R88M-1M05030 ^{Note}
Panasonic Corp.	MHMF5A

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

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

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

Specifications

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

Allowable overhang ^{Note}

LGXS05-20

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

Wall installation (Unit: mm)

1kg	297	288	468
2kg	123	120	199

Vertical installation (Unit: mm)

1kg	223	223
-----	-----	-----

LGXS05-10

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

Wall installation (Unit: mm)

1kg	606	424	1129
3kg	163	112	346

Vertical installation (Unit: mm)

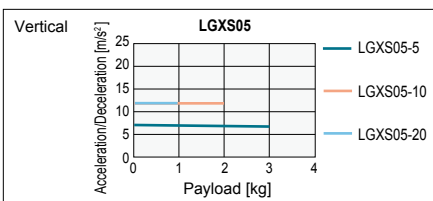
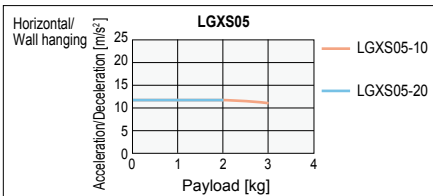
1kg	396	396
2kg	182	182

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
 Note. Service life is calculated for 550 mm stroke models.

LGXS05-5

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

Payload - Acceleration / Deceleration Graph (Estimate)



Effective stroke and maximum speed during high acceleration or deceleration

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

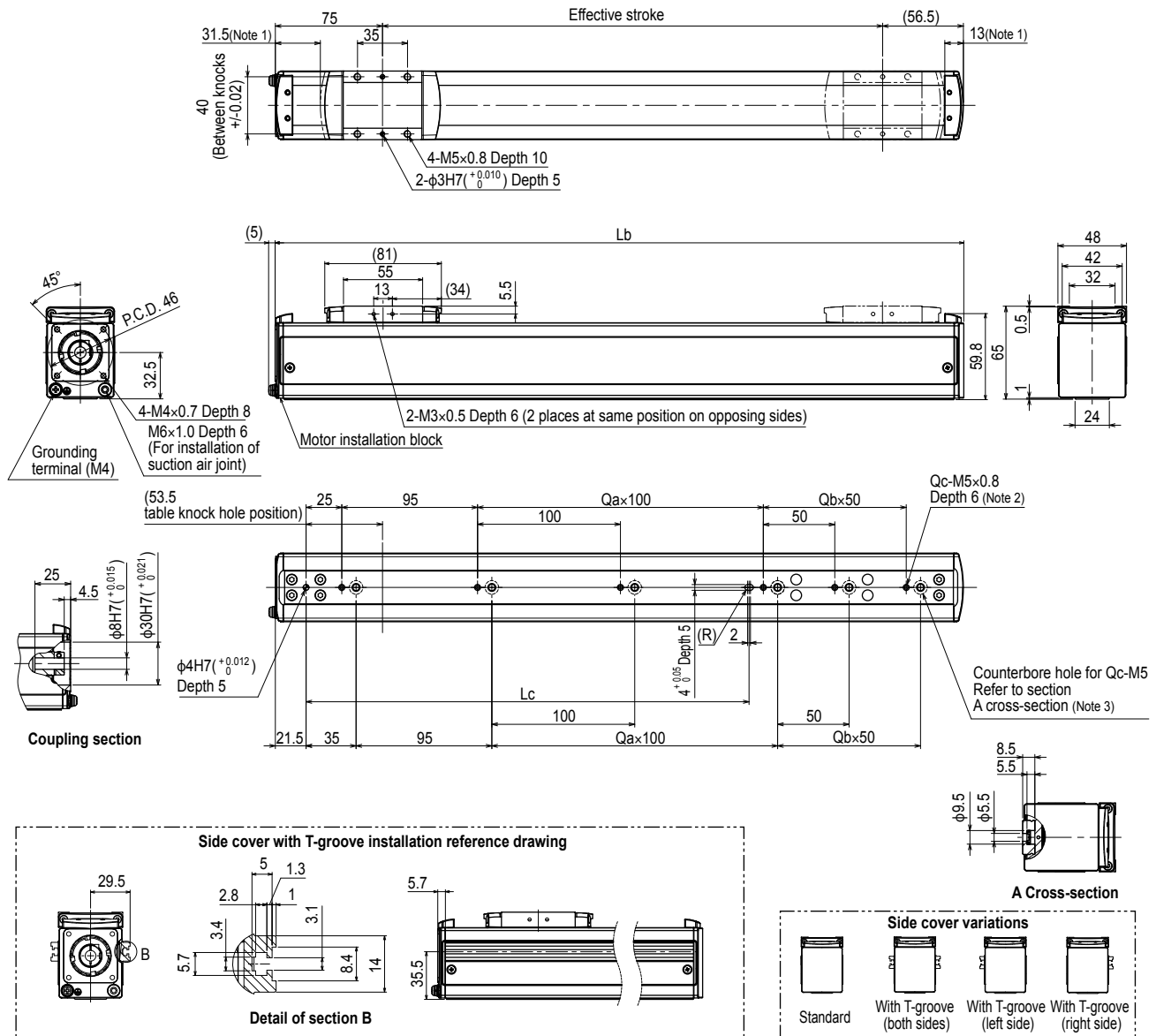
Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 50 to 550 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. See P.116 for acceleration/deceleration and inertia moment.

Access the website below.



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

LGXS05



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. When using the tap holes to mount the body, remove the set screws first.
- Note 3. When using the counterbore holes (section A cross section) to mount the body, remove the cap from the inner side and then fix. The length under head of the hex socket head bolts (M5 × 0.8) used must be 15 mm or less.
- Note 4. Side cover with T-groove is used to install the sensor.
- Note 5. Grease gun nozzle (recommended) (see P.143 for detail)

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800		
Lb	181.5	231.5	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5		
Lc	110	110	110	110	310	310	310	310	310	310	610	610	610	610	610	610		
Qa	0	0	0	0	2	2	2	2	2	2	5	5	5	5	5	5		
Qb	0	1	2	3	0	1	2	3	4	5	0	1	2	3	4	5		
Qc	2	3	4	5	4	5	6	7	8	9	7	8	9	10	11	12		
Weight (kg)	1.2	1.4	1.5	1.7	1.9	2.0	2.2	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.4	3.5		
Maximum speed (mm/sec)	Lead 20												1333	1066	933	800	666	
	Lead 10												666	532	466	400	333	
	Lead 5												333	266	233	200	166	
Speed setting												-	80%	70%	60%	50%		

Features

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration

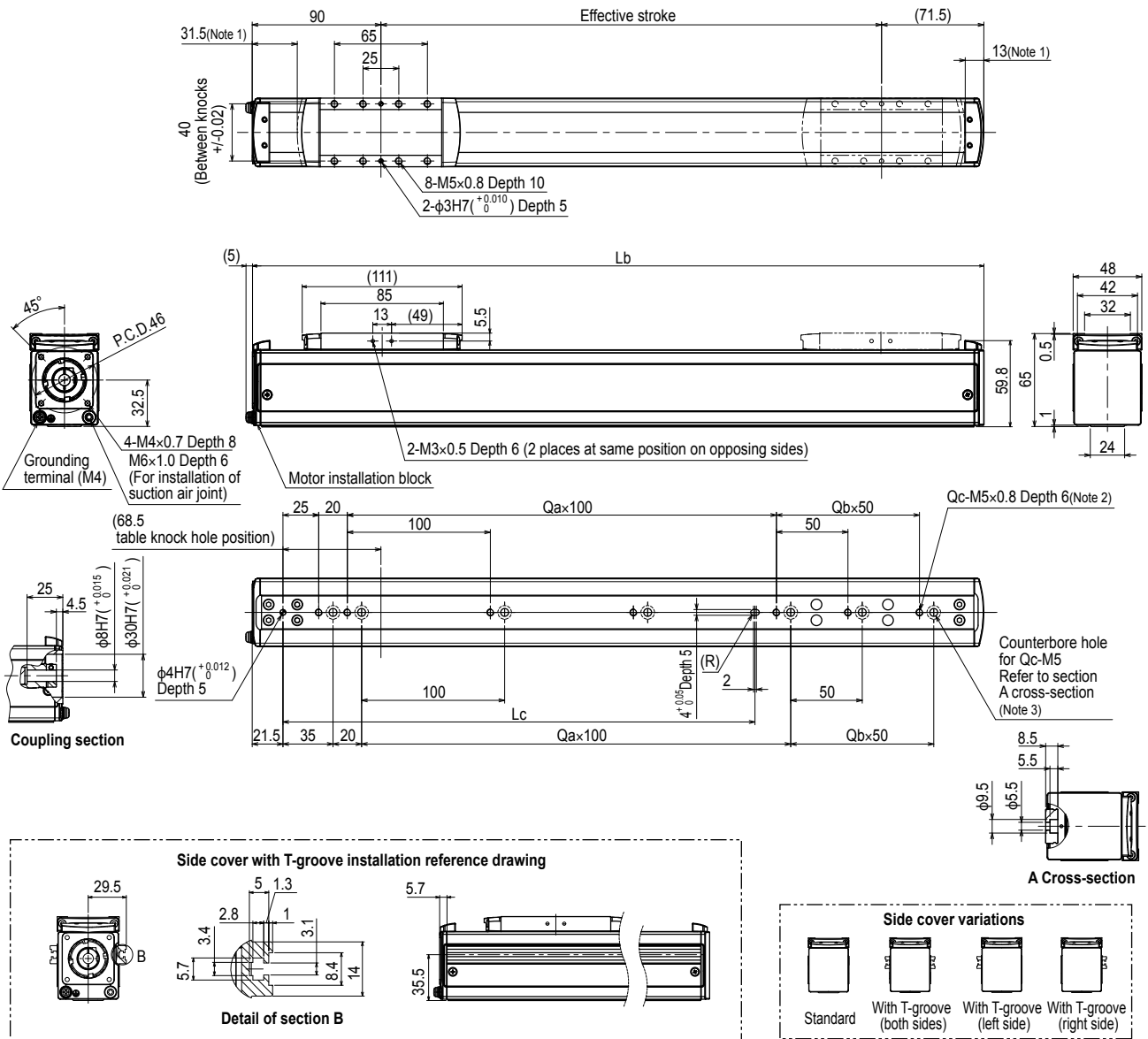
Inertia Moment

Option

Single axis force positioner

EP-01

LGXS05L



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. When using the tap holes to mount the body, remove the set screws first.
- Note 3. When using the counterbore 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.
- Note 4. Side cover with T-groove is used to install the sensor.
- Note 5. Grease gun nozzle (recommended) (see P.143 for detail)

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

Features

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration Inertia Moment

Option

Single axis force positioner EP-01

LGXS07

Advanced model

Motor-less Single Axis Actuator

Slider type



Ordering method

LGXS07

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

[Caution]

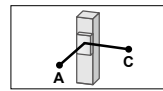
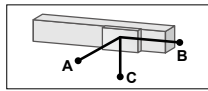
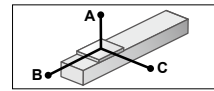
This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

Specifications

Applicable 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 × H 76.5 mm
Overall length	ST + 202 mm
Degree of cleanliness ^{Note 4}	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air ^{Note 5}	30 Nℓ/min to 115 Nℓ/min
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

- Note 1. Positioning repeatability in one direction.
 - Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed) At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 - Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 - Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 - Note 5. The required suction amount will vary according to the operating conditions and operating environment.
- Note. See P.119 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}



LGXS07-30

Horizontal installation (Unit: mm)	A B C		
	2kg	3078	1509
6kg	1191	501	418
10kg	957	317	282

Wall installation (Unit: mm)	A B C		
	2kg	1237	1442
6kg	393	435	1062
10kg	244	251	793

Vertical installation (Unit: mm)	A C	
	1kg	2335
2kg	1158	1158

LGXS07-20

Horizontal installation (Unit: mm)	A B C		
	10kg	1327	370
20kg	1136	186	188
25kg	1509	163	173

Wall installation (Unit: mm)	A B C		
	10kg	313	304
20kg	131	119	804
25kg	109	97	1010

Vertical installation (Unit: mm)	A C	
	1kg	3416
2kg	1701	1701
4kg	841	841

LGXS07-10

Horizontal installation (Unit: mm)	A B C		
	15kg	2420	338
30kg	1531	160	176
45kg	1181	101	111

Wall installation (Unit: mm)	A B C		
	15kg	306	271
30kg	106	94	1155
45kg	39	34	623

Vertical installation (Unit: mm)	A C	
	3kg	1688
6kg	827	827
8kg	612	612

LGXS07-5

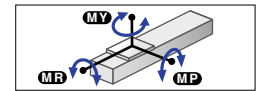
Horizontal installation (Unit: mm)	A B C		
	30kg	2915	172
50kg	2535	96	110
85kg	2024	49	56

Wall installation (Unit: mm)	A B C		
	30kg	122	106
50kg	34	30	1476
85kg	0	0	0

Vertical installation (Unit: mm)	A C	
	6kg	907
9kg	591	591
16kg	314	314

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

Static loading moment



(Unit: N·m)		
MY	MP	MR
138	121	121

Adaptable Servo Motor

Specification	Flange size □ 40	
	Wattage 100 W	
Manufacturer	Model	
Yaskawa Electric Corp.	SGMJV-01 SGM7J-01	
Keyence Corp.	SV-□010 SV2-□010	
Mitsubishi Electric Corp.	HF-KP13 ^{Note} HG-KR13 ^{Note} HK-KT13 ^{Note}	
Omron Electronics	R88M-K10030 R88M-1M10030 ^{Note}	
Panasonic Corp.	MHMF01	
Conversion adapter product model	Shim plate part number	
GX-BEND-40	KES-M2295-00	

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

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

Specifications

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

Allowable overhang ^{Note}

LGXS07-30

Horizontal installation (Unit: mm)	A B C		
	2kg	1020	897
5kg	461	346	245

Wall installation (Unit: mm)	A B C		
	2kg	579	830
5kg	208	279	401

Vertical installation (Unit: mm)	A C	
	1kg	1165

LGXS07-20

Horizontal installation (Unit: mm)	A B C		
	3kg	1224	758
6kg	684	369	321
10kg	459	214	190

Wall installation (Unit: mm)	A B C		
	3kg	600	692
6kg	274	303	621
10kg	138	147	376

Vertical installation (Unit: mm)	A C	
	1kg	1793
2kg	891	891

LGXS07-10

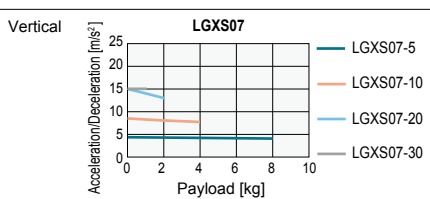
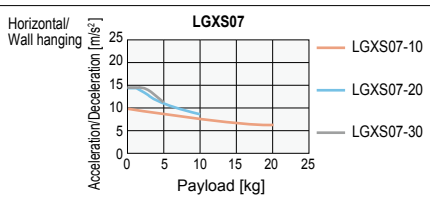
Horizontal installation (Unit: mm)	A B C		
	5kg	2208	622
12kg	991	249	266
20kg	637	142	152

Wall installation (Unit: mm)	A B C		
	5kg	603	556
12kg	200	182	890
20kg	83	75	497

Vertical installation (Unit: mm)	A C	
	1kg	3012
2kg	1487	1487
4kg	725	725

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

Payload - Acceleration / Deceleration Graph (Estimate)



Effective stroke and maximum speed during high acceleration or deceleration

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

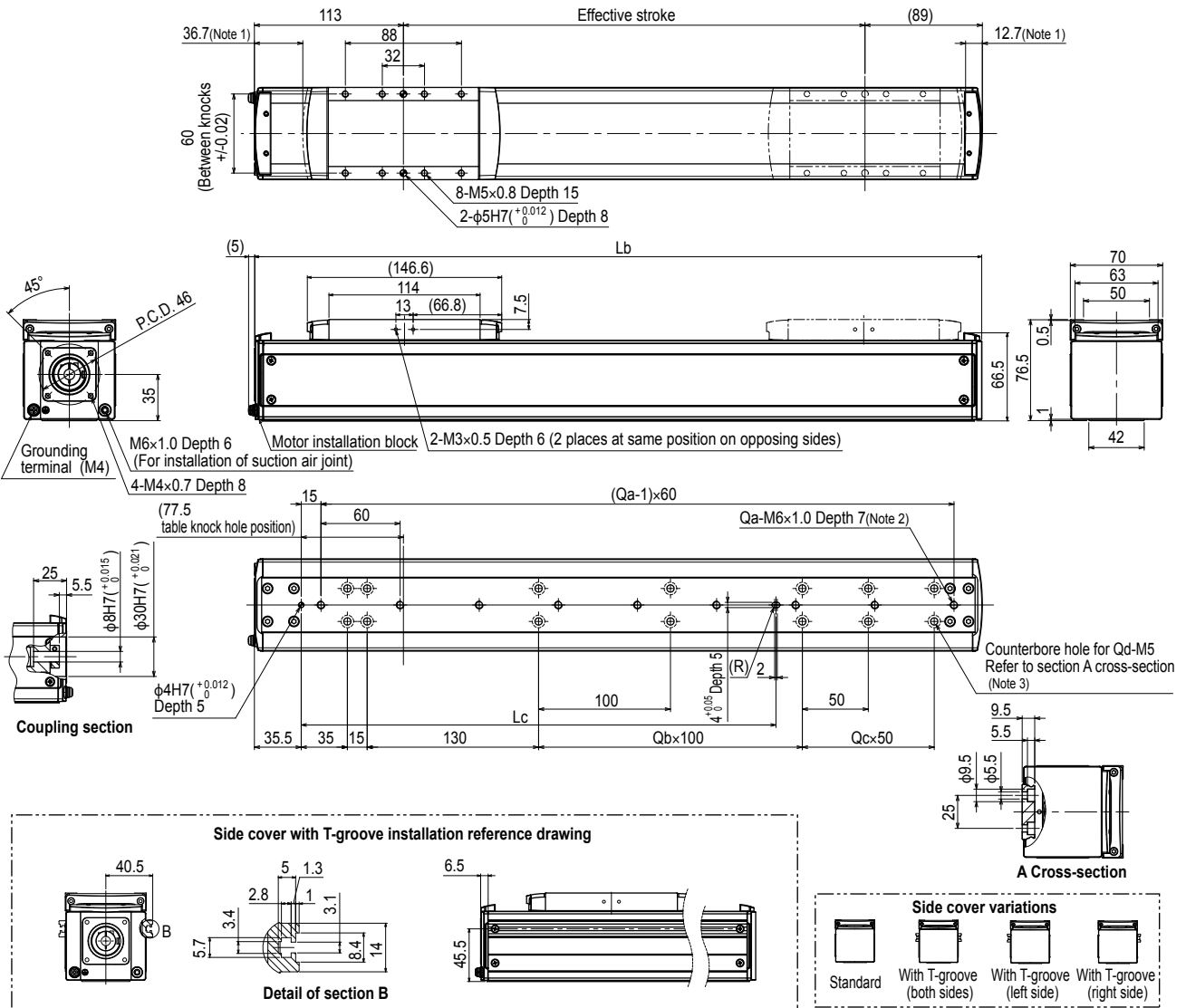
Note. The bending unit cannot be used for the high agility mode.
Note. The high agility mode is used in an effective stroke range of 50 to 650 (50 mm pitch).
Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
Note. See P.121 for acceleration/deceleration and inertia moment.

Access the website below.



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

LGXS07



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. When using the tap holes to mount the body, remove the set screws first.
- Note 3. When using the counterbore holes (section A cross section) to mount the body, remove the cap from the inner side and then fix.
- Note 4. Side cover with T-groove is used to install the sensor.
- Note 5. Grease gun nozzle (recommended) (see P.143 for detail)

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100					
Lb	252	302	352	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202	1252	1302					
Lc	160	160	160	160	360	360	360	360	360	360	360	360	760	760	760	760	760	760	760	760	760	760					
Qa	4	5	5	6	7	8	9	10	10	11	12	13	14	15	15	16	17	18	19	20	20	21					
Qb	0	0	0	0	2	2	2	2	2	2	2	2	6	6	6	6	6	6	6	6	6	6					
Qc	0	1	2	3	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9					
Qd	6	8	10	12	10	12	14	16	18	20	22	24	18	20	22	24	26	28	30	32	34	36					
Weight (kg)	3.2	3.4	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6	5.9	6.2	6.4	6.7	7.0	7.2	7.5	7.8	8.1	8.3	8.6	8.9					
Maximum speed (mm/sec)	Lead 30														1530	1350	1170	990	900	810	720	630					
	Lead 20														1020	900	780	660	600	540	480	420					
	Lead 10														510	450	390	330	300	270	240	210					
	Lead 5														255	225	195	165	150	135	120	105					
Speed setting														85%	75%	65%	55%	50%	45%	40%	35%						

Features

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration Inertia Moment

Option

Single axis sensor positioner EP-01

LGXS10

Advanced model

Motor-less Single Axis Actuator

Slider type



Ordering method

LGXS10			
Model	Lead	Motor specification	Stroke
	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	No entry: Standard P: P specification (see below)	100 to 1250 (50 mm pitch)

[Caution]

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

Specifications

Applicable 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
	30 mm	20 mm	10 mm	5 mm
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.
 If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.122 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}

LGXS10-30			
Horizontal installation (Unit: mm)			
	A	B	C
10kg	878	537	292
20kg	609	256	146
25kg	608	211	124
Wall installation (Unit: mm)			
	A	B	C
10kg	271	473	803
20kg	118	192	481
25kg	93	147	454
Vertical installation (Unit: mm)			
	A	C	
1kg	4135	4135	
4kg	985	985	
LGXS10-20			
Horizontal installation (Unit: mm)			
	A	B	C
15kg	1269	451	282
25kg	754	253	158
40kg	466	142	88
Wall installation (Unit: mm)			
	A	B	C
15kg	252	387	1159
25kg	123	189	629
40kg	51	78	311
Vertical installation (Unit: mm)			
	A	C	
3kg	2062	2062	
6kg	1012	1012	
8kg	750	750	
LGXS10-10			
Horizontal installation (Unit: mm)			
	A	B	C
30kg	1794	298	203
50kg	1358	162	111
80kg	1266	86	59
Wall installation (Unit: mm)			
	A	B	C
30kg	162	234	1623
50kg	68	98	1060
80kg	16	22	552
Vertical installation (Unit: mm)			
	A	C	
5kg	1926	1926	
10kg	931	931	
20kg	434	434	
LGXS10-5			
Horizontal installation (Unit: mm)			
	A	B	C
30kg	5605	321	225
50kg	3694	177	124
80kg	2619	95	67
100kg	2224	68	48
Wall installation (Unit: mm)			
	A	B	C
30kg	181	258	5195
50kg	79	113	3111
80kg	22	31	1557
100kg	0	0	0
Vertical installation (Unit: mm)			
	A	C	
10kg	1018	1018	
20kg	477	477	
30kg	296	296	

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

Static loading moment

(Unit: N·m)		
MY	MP	MR
274	274	241

Adaptable Servo Motor

Specification	Flange size	□60
	Wattage	200 W
Motor specification	Manufacturer	Model
No entry	Yaskawa Electric Corp.	SGMJV-02 SGMJ-02
	Keyence Corp.	SV-□020 SV2-□020
	Mitsubishi Electric Corp.	HF-KP23 HG-KR23 ^{Note 1} HK-KT23 ^{Note 1}
	Omron Electronics	R88M-K20030 R88M-1M20030
	Panasonic Corp.	MSMD02 MSMF02 MHMF02
Conversion adapter product model	Shim plate part number	
GX-BEND-60 ^{Note 2}	KEV-M2295-00	

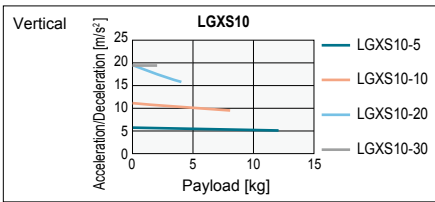
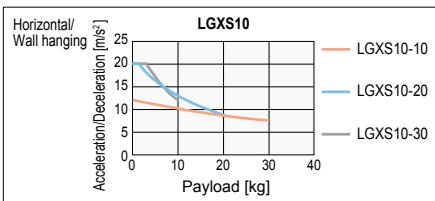
Note 1. To combine with the conversion adapter <GX-BEND-60>, the shim plate (t1) is necessary.
 Note 2. For the specifications P, the bending unit cannot be used.

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

Specifications

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

Payload - Acceleration / Deceleration Graph (Estimate)



Allowable overhang ^{Note}

LGXS10-30			
Horizontal installation (Unit: mm)			
	A	B	C
3kg	1041	1117	541
6kg	581	534	266
10kg	384	300	153
Wall installation (Unit: mm)			
	A	B	C
3kg	521	1046	1009
6kg	241	466	539
10kg	125	235	327
Vertical installation (Unit: mm)			
	A	C	
1kg	2054	2054	
2kg	994	994	
LGXS10-20			
Horizontal installation (Unit: mm)			
	A	B	C
5kg	1218	844	493
12kg	575	326	193
20kg	375	177	106
Wall installation (Unit: mm)			
	A	B	C
5kg	464	778	1177
12kg	159	261	516
20kg	70	113	290
Vertical installation (Unit: mm)			
	A	C	
2kg	1602	1602	
4kg	788	788	
LGXS10-10			
Horizontal installation (Unit: mm)			
	A	B	C
10kg	1851	568	383
20kg	973	263	177
30kg	671	162	109
Wall installation (Unit: mm)			
	A	B	C
10kg	343	504	1784
20kg	136	199	885
30kg	67	98	552
Vertical installation (Unit: mm)			
	A	C	
3kg	1849	1849	
5kg	1086	1086	
8kg	656	656	

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

Effective stroke and maximum speed during high acceleration or deceleration

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

Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 100 to 650 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. See P.124 for acceleration/deceleration and inertia moment.

Access the website below.



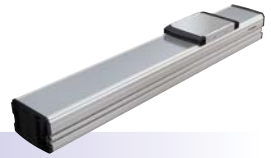
▶ The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.16.

LGXS12

Advanced model

Motor-less Single Axis Actuator

Slider type



Ordering method

LGXS12

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

[Caution]

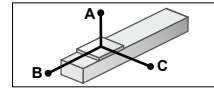
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

Specifications

Applicable motor	400 W
Repeatability ^{Note 1}	+/-0.005 mm
Deceleration mechanism	Ground ball screw ϕ 15 (C5 class)
Stroke	100 mm to 1250 mm (50 mm pitch)
Maximum speed ^{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 35 kg 50 kg 95 kg 115 kg Vertical 8 kg 15 kg 25 kg 45 kg
Rated thrust ^{Note 3} (or equivalent)	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)

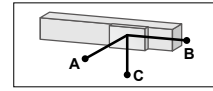
- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
 If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.126 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}



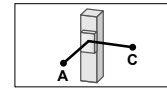
LGXS12-30
Horizontal installation (Unit: mm)

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



Wall installation (Unit: mm)

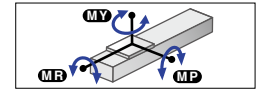
	A	B	C
10kg	631	1009	1720
20kg	316	466	1171
35kg	197	269	1130



Vertical installation (Unit: mm)

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

Static loading moment



(Unit: N·m)

	MY	MP	MR
	334	334	294

Adaptable Servo Motor

Specification	Flange size <input type="checkbox"/> 60	
	Wattage 400 W	
Motor specification	Manufacturer	Model
	Yaskawa Electric Corp.	SGMJV-04 SGMJJ-04
	Keyence Corp.	SV- <input type="checkbox"/> 040 SV2- <input type="checkbox"/> 040
	Mitsubishi Electric Corp.	HF-KP43 HG-KR43 ^{Note 1} HK-KT43 ^{Note 1}
No entry	Omron Electronics	R88M-K40030 R88M-1M40030
	Panasonic Corp.	MSMD04 MSMS04 MHMF04
	Conversion adapter product model	Shim plate part number
GX-BEND-60 ^{Note 2}	KEV-M2295-00	

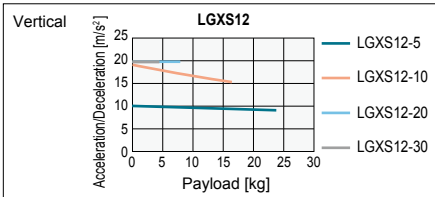
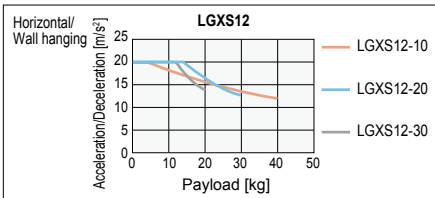
- Note 1. To combine with the conversion adapter <GX-BEND-60>, the shim plate (t1) is necessary.
 Note 2. For the specifications P, the bending unit cannot be used.

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

Specifications

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

Payload - Acceleration / Deceleration Graph (Estimate)



Allowable overhang ^{Note}

LGXS12-30
Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

	A	C
2kg	1984	1984
4kg	960	960

LGXS12-5
Vertical installation (Unit: mm)

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

LGXS12-20
Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

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

LGXS12-10
Horizontal installation (Unit: mm)

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

Wall installation (Unit: mm)

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

Vertical installation (Unit: mm)

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

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

Effective stroke and maximum speed during high acceleration or deceleration

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

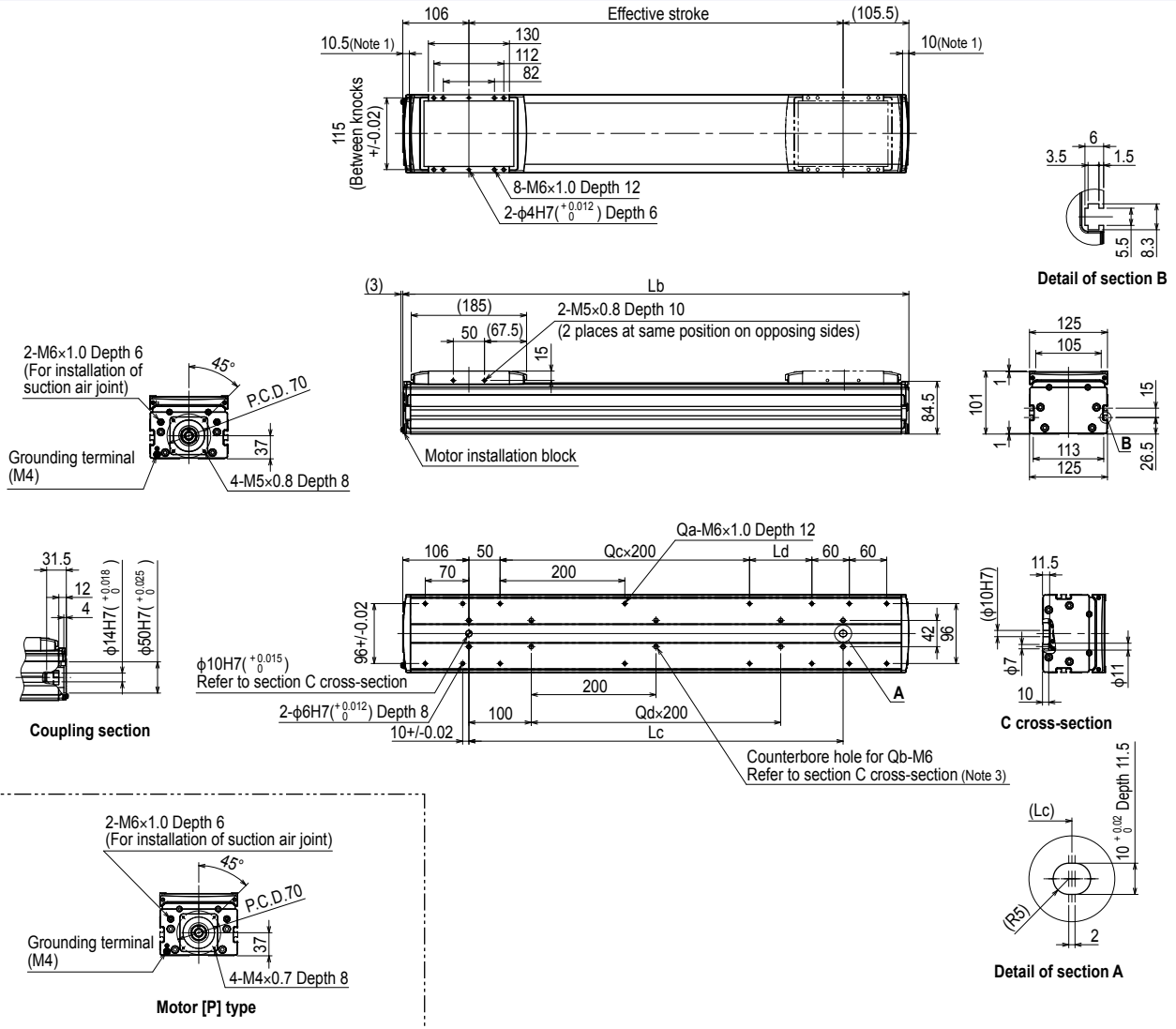
- Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 100 to 650 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. See P.128 for acceleration/deceleration and inertia moment.

Access the website below.



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

LGXS12



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting counterbore 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 counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 4. Grease gun nozzle (recommended) (see P.143 for detail)

Effective stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250		
Lb	311.5	361.5	411.5	461.5	511.5	561.5	611.5	661.5	711.5	761.5	811.5	861.5	911.5	961.5	1011.5	1061.5	1111.5	1161.5	1211.5	1261.5	1311.5	1361.5	1411.5	1461.5		
Lc	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250		
Ld	0	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150		
Qa	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20		
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16		
Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5		
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5		
Weight (kg)	6.5	7.1	7.8	8.5	9.1	9.8	10.5	11.2	11.8	12.5	13.2	13.9	14.5	15.2	15.9	16.5	17.2	17.9	18.6	19.2	19.9	20.6	21.3	21.9		
Maximum speed (mm/sec)	Lead 30	1800											1530	1350	1170	990	900	810	720	630	540	450				
	Lead 20	1200											1020	900	780	660	600	540	480	420	360	300				
	Lead 10	600											510	450	390	330	300	270	240	210	180	150				
	Lead 5	300											255	225	195	165	150	135	120	105	90	75				
Speed setting	-											85%	75%	65%	55%	50%	45%	40%	35%	30%	25%					

Features

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration

Inertia Moment

Option

Single axis robot positioner

EP-01

LGXS16

Advanced model

Motor-less Single Axis Actuator

Slider type



Ordering method

LGXS16

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

[Caution]

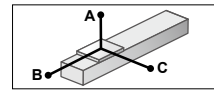
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment.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

Specifications

Applicable motor	750 W		
Repeatability ^{Note 1}	+/-0.005 mm		
Deceleration mechanism	Ground ball screw ϕ 20 (C5 class)		
Stroke	100 mm to 1450 mm (50 mm pitch)		
Maximum speed (or equivalent) ^{Note 2}	2400 mm/sec	1200 mm/sec	600 mm/sec
Ball screw lead	40 mm	20 mm	10 mm
Maximum payload (or equivalent) ^{Note 3}	Horizontal	45 kg	95 kg
	Vertical	12 kg	28 kg
Rated thrust (or equivalent) ^{Note 3}		320 N	640 N
		640 N	1280 N
		1280 N	
Maximum dimensions of cross section of main unit	W 160 mm x H 130 mm		
Overall length	ST + 242.5 mm		
Degree of cleanliness ^{Note 4}	ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air ^{Note 5}	30 Nℓ/min to 90 Nℓ/min		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

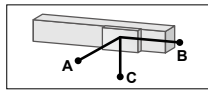
- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 800 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.130 for acceleration/deceleration and inertia moment.

Allowable overhang ^{Note}

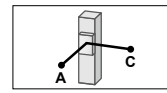


LGXS16-40

Horizontal installation (Unit: mm)	A	B	C
15kg	2876	1866	1253
30kg	2385	997	776
45kg	2339	720	604

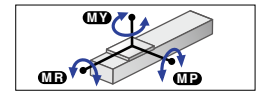


Wall installation (Unit: mm)	A	B	C
15kg	1273	1802	2797
30kg	782	935	2263
45kg	598	658	2174



Vertical installation (Unit: mm)	A	C
3kg	6605	6605
6kg	3699	3699
12kg	2827	2827

Static loading moment



	MY	MP	MR
(Unit: N·m)	706	706	620

Adaptable Servo Motor

Specification	Flange size	<input type="checkbox"/> 80
	Wattage	750 W
Motor specification	Manufacturer	Model
	Yaskawa Electric Corp.	SGMJV-08 SGMJJ-08
	Keyence Corp.	SV-□075 SV2-□075
	Mitsubishi Electric Corp.	SF-KP73 HG-KR73 ^{Note 1} HK-KT7M3 ^{Note 1}
No entry	Omron Electronics	R88M-K75030 R88M-1M75030
	Panasonic Corp.	M5MD08 M5MF08 MHMF08
		Conversion adapter product model
GX-BEND-80 ^{Note 2}	KEX-M2295-00	

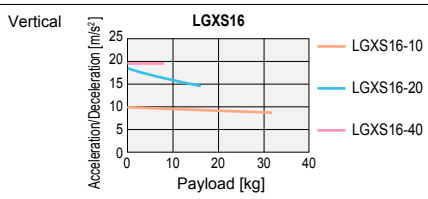
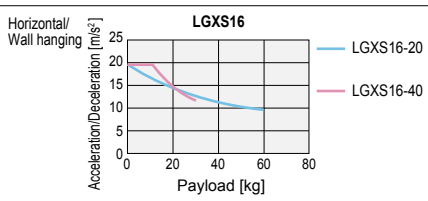
- Note 1. To combine with the conversion adapter <GX-BEND-80>, the shim plate (t1) is necessary.
 Note 2. For the specifications P, the bending unit cannot be used.

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

Specifications

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

Payload - Acceleration / Deceleration Graph (Estimate)



Allowable overhang ^{Note}

LGXS16-40

Horizontal installation (Unit: mm)	A	B	C
10kg	1271	1669	836
20kg	725	803	429
30kg	534	514	287

Wall installation (Unit: mm)	A	B	C
10kg	816	1585	1240
20kg	404	725	683
30kg	259	441	480

Vertical installation (Unit: mm)	A	C
3kg	2904	2904
5kg	1710	1710
8kg	1038	1038

LGXS16-10

Vertical installation (Unit: mm)	A	C
10kg	2951	2951
20kg	1438	1438
32kg	870	870

LGXS16-20

Horizontal installation (Unit: mm)	A	B	C
20kg	1722	1123	875
40kg	952	535	428
60kg	682	339	276

Wall installation (Unit: mm)	A	B	C
20kg	842	1056	1679
40kg	388	470	895
60kg	232	275	611

Vertical installation (Unit: mm)	A	C
5kg	3473	3473
10kg	1723	1723
16kg	1064	1064

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

Effective stroke and maximum speed during high acceleration or deceleration

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

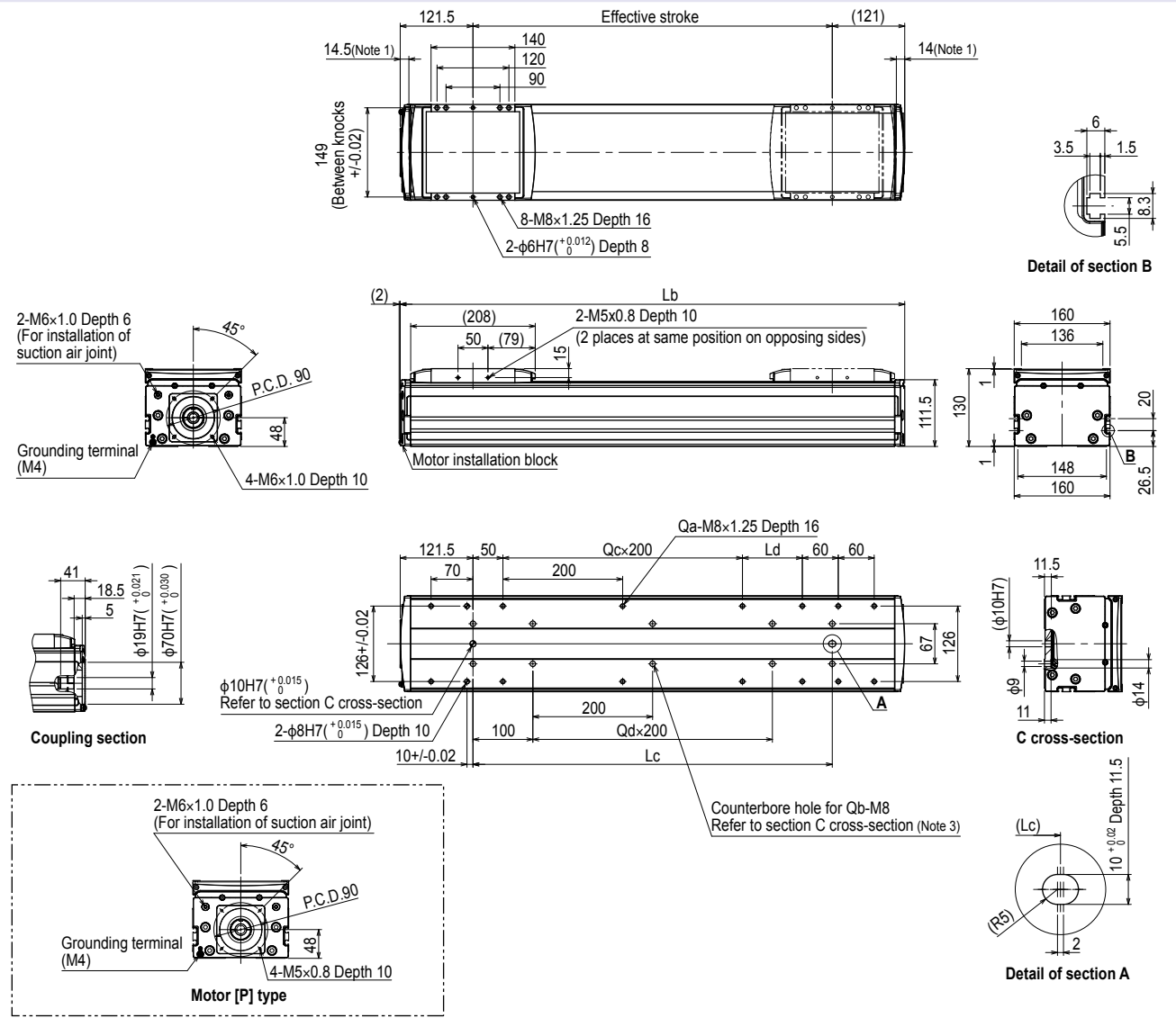
- Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 100 to 800 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. See P.132 for acceleration/deceleration and inertia moment.

Access the website below.



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

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 <math>M8 \times 1.25>> used to mount the body with the mounting counterbore holes (section C cross-section) must be <<25 mm or more>>.
 The recommended length under head of the hex socket head bolts <math>M8 \times 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 counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
 Note 4. Grease gun nozzle (recommended) (see P.143 for detail)

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

Features

Basic model

Advanced model

Basic model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration Inertia Moment

Option

Single axis force positioner

EP-01

LGXS20

Advanced model

Motor-less Single Axis Actuator

Slider type



Ordering method

LGXS20

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

[Caution]

This system is provided as mechanical actuator unit and not including any adopters or electric components.

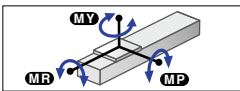
Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration or resonance from actuator will affect service life of actuator. The product performance may not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

Specifications

Applicable motor	750 W		
Repeatability ^{Note 1}	±0.005 mm		
Deceleration mechanism	Ground ball screw φ 20 (C5 class)		
Stroke	100 mm to 1450 mm (50 mm pitch)		
Maximum speed ^{Note 2} (or equivalent)	2400 mm/sec	1200 mm/sec	600 mm/sec
	40 mm	20 mm	10 mm
	Ball screw lead		
Maximum payload ^{Note 3} (or equivalent)	Horizontal	65 kg	130 kg
	Vertical	15 kg	35 kg
Rated thrust ^{Note 3} (or equivalent)	320 N	640 N	1280 N
	Maximum dimensions of cross section of main unit		
	W 200 mm × H 140 mm		
Overall length	ST + 288.5 mm		
Degree of cleanliness ^{Note 4}	ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air ^{Note 5}	30 Nℓ/min to 90 Nℓ/min		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
 If the effective stroke exceeds 800 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.133 for acceleration/deceleration and inertia moment.

Static loading moment

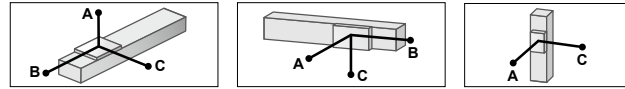


			(Unit: N·m)
MY	MP	MR	
1423	1423	1251	

Adaptable Servo Motor

Specification	Flange size	<input type="checkbox"/> 80
	Wattage	750 W
Motor specification	Manufacturer	Model
	No entry	Yaskawa Electric Corp.
P		Keyence Corp.
	Mitsubishi Electric Corp.	HF-KP73 HG-KR73 ^{Note 1} HK-KT7M3 ^{Note 1}
		Omron Electronics
P	Panasonic Corp.	MSMD08 MSMF08 MHMF08

Allowable overhang ^{Note}



LGXS20-40	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
		A	B	C		A	B	C		A	C
	20kg	5318	2821	2096	20kg	2171	2751	5211	5kg	8187	8187
	40kg	4836	1609	1369	40kg	1417	1539	4667	10kg	5203	5203
65kg	4824	1088	1001	65kg	1013	1018	4575	15kg	4810	4810	

LGXS20-20	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
		A	B	C		A	B	C		A	C
	50kg	5436	1493	1377	50kg	1390	1423	5265	20kg	3436	3436
	80kg	4417	911	854	80kg	849	841	4153	30kg	2600	2600
	100kg	4592	756	727	100kg	708	686	4253	35kg	3073	3073
130kg	4338	596	584	130kg	550	526	3933				

LGXS20-10	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
		A	B	C		A	B	C		A	C
	40kg	22519	2607	2713	40kg	2704	2537	22210	20kg	5157	5157
	80kg	16716	1274	1331	80kg	1293	1204	16141	40kg	2553	2553
	120kg	14066	830	868	120kg	818	760	13223	65kg	1600	1600
160kg	12284	608	637	160kg	580	538	11190				

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.

Conversion adapter product model	Shim plate part number
GX-BEND-80 ^{Note 2}	KEX-M2295-00

Note 1. To combine with the conversion adapter <GX-BEND-80>, the shim plate (t1) is necessary.

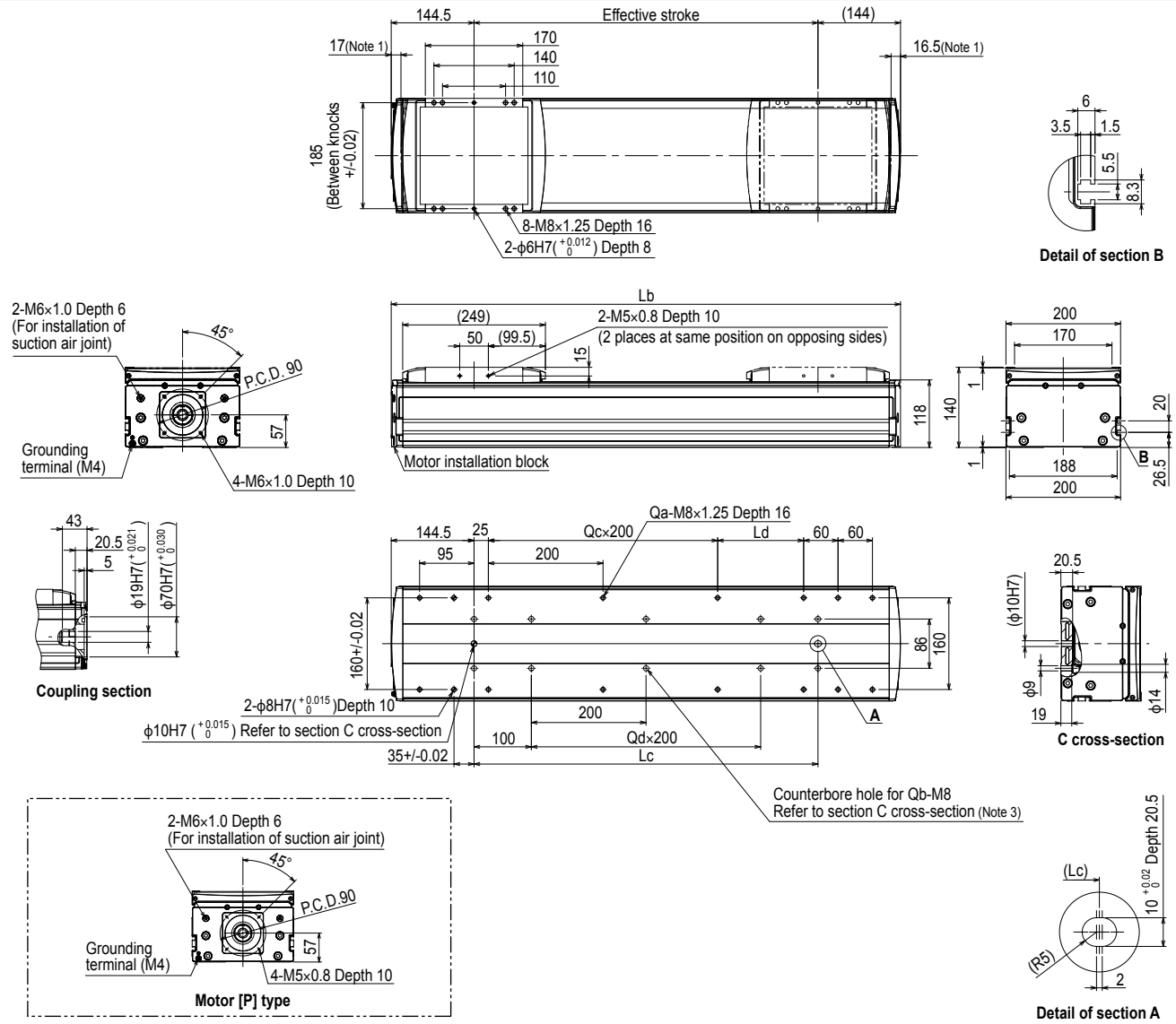
Note 2. For the specifications P, the bending unit cannot be used.

Access the website below.



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

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 counterbore 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 counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 4. Grease gun nozzle (recommended) (see P.143 for detail)

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	18	18	18	18	20	20	20	20	20	22	22	22	22
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18
Qc	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
Weight (kg)	17.2	18.5	19.8	21.1	22.4	23.7	25.0	26.3	27.6	28.8	30.1	31.4	32.7	34.0	35.3	36.6	37.9	39.2	40.4	41.7	43.0	44.3	45.6	46.9	48.2	49.5	50.8	52.0
Maximum speed (mm/sec)	Lead 40																2160	1920	1680	1440	1320	1200	1080	960	840	720	600	
	Lead 20																1080	960	840	720	660	600	540	480	420	360	300	
	Lead 10																540	480	420	360	330	300	270	240	210	180	150	
	Speed setting																90%	80%	70%	60%	55%	50%	45%	40%	35%	30%	25%	

Features

Basic model

Advanced model

Basic model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration

Inertia Moment

Option

Single axis positioner

EP-01

LBAR04

Basic model

Motor-less Single Axis Actuator

Rod type



Ordering method

LBAR04

Model	Lead	Shape	Motor specification	Stroke
	12: 12 mm 6: 6 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below) A: A specification (see below) S: S specification (see below) N: N specification (see below)	50 to 500 (50 mm pitch)

[Caution]

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

Specifications

Applicable motor	50 W	
Repeatability ^{Note 1}	±0.01 mm	
Deceleration mechanism	Shifting position ball screw φ 10 (C7 class)	
Stroke	50 mm to 500 mm (50 mm pitch)	
Maximum speed ^{Note 2 Note 3}	720 mm/sec	360 mm/sec
Ball screw lead	12 mm	6 mm
Maximum payload ^{Note 3}	Horizontal	15 kg
	Vertical	3 kg
Max. pressing force ^{Note 3}		83 N
		167 N
Rotating backlash	±0°	
Maximum dimensions of cross section of main unit	W 44 mm × H 46 mm	
Overall length	Straight	ST + 263 mm
	Bending	ST + 245 mm
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)	

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 300 mm, the ball screw may resonate. (Critical speed)

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

Note 3. The described specifications may not be satisfied depending on the installed motor.

Note. See P.135 for acceleration/deceleration and inertia moment.

Applicable motor

Applicable servo motor

Specification	Flange size	□ 40
	Wattage	50 W

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

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

Applicable stepping motor

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

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

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

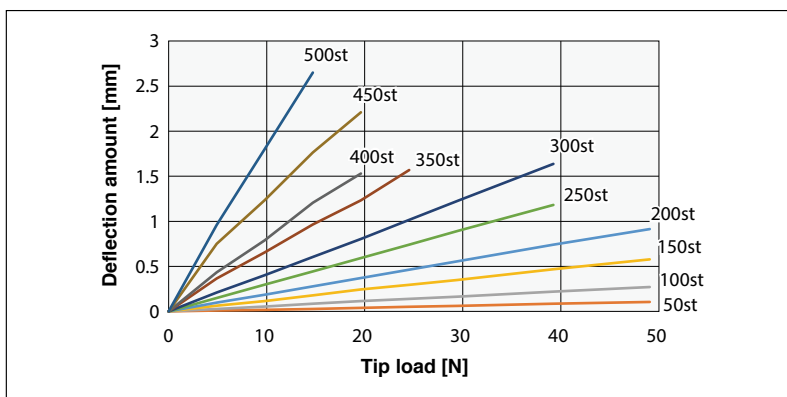
Access the website below.



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

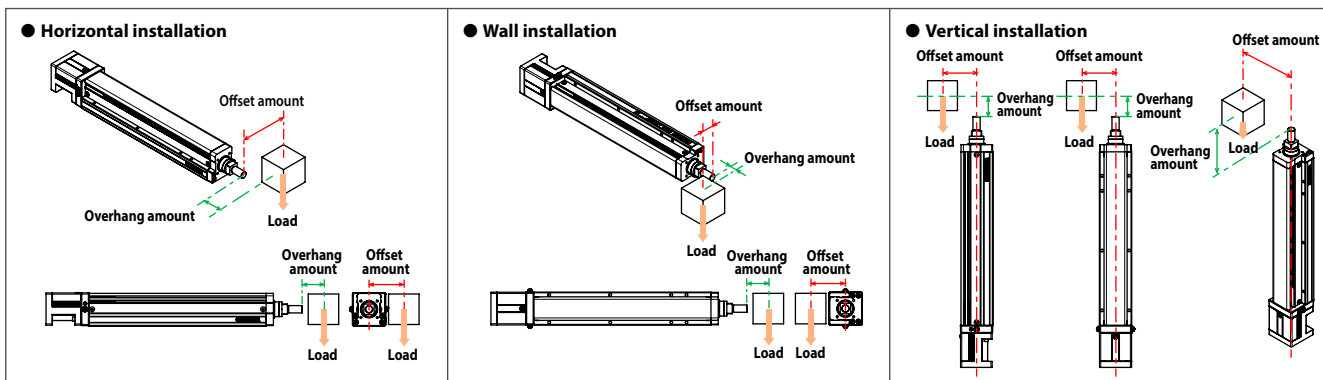
■ Rod deflection amount (reference value)

For the deflection amount per stroke, see the graph below.

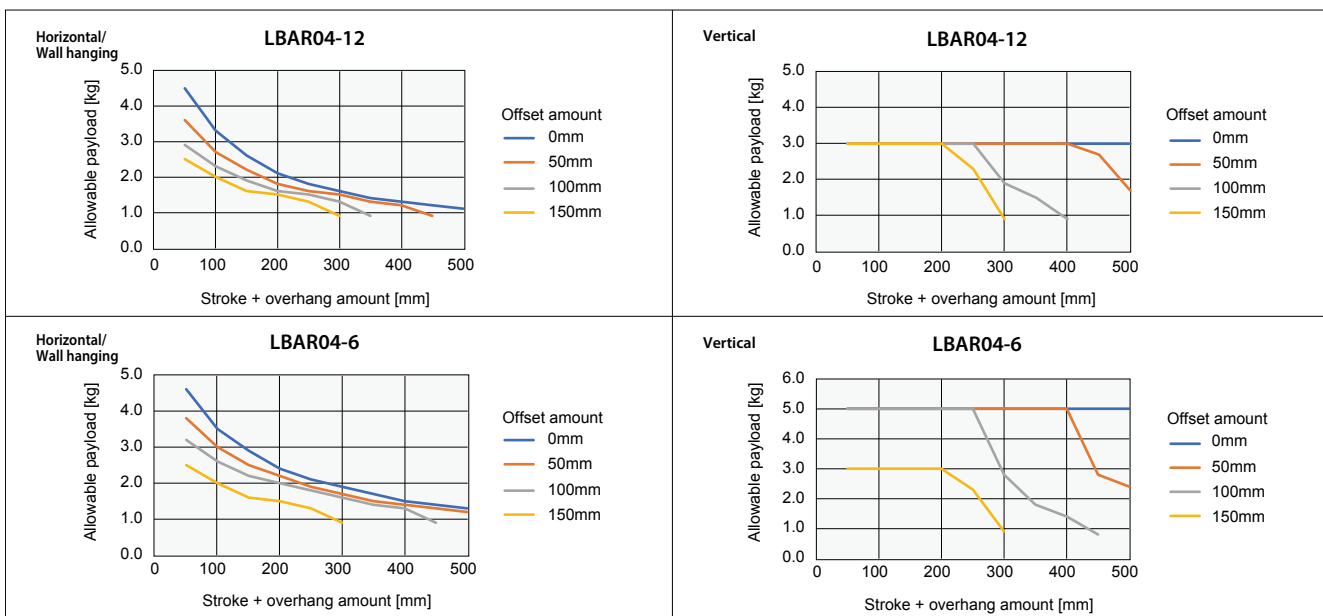


■ Allowable payload

For the allowable payload per offset amount, see the graph below.

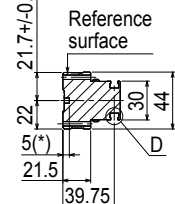
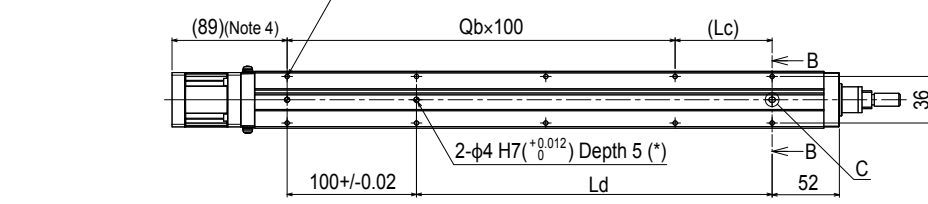
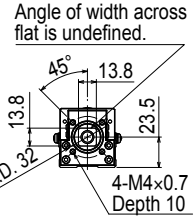
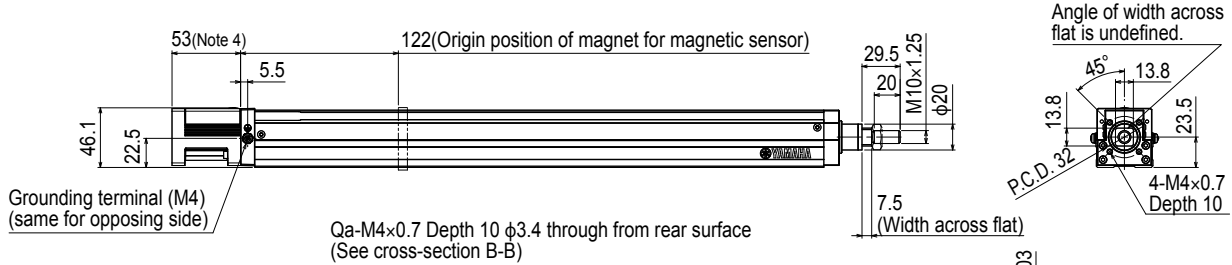
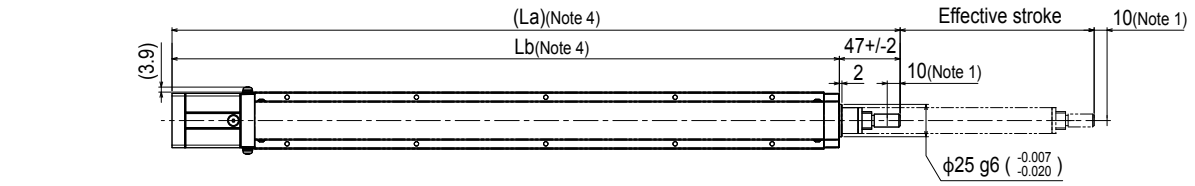


Note 1. When transferring an object with a weight exceeding the following, use an external support guide. Install the support guide flexibly so that no unnecessary load is applied to the rod.
 Note 2. The values are when the service life of the guide is 5000 km.

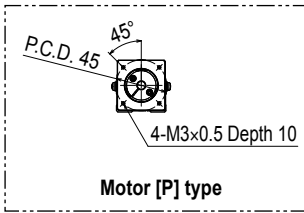


Features
 Motorless
 Side type
 Basic model
 LBAS
 Motorless
 Side type
 Advanced model
 LGXS
 Motorless
 Rod type
 Basic model
 LBAR
 With motor
 Side type
 Basic model
 ABAS
 With motor
 Side type
 Advanced model
 AGXS
 With motor
 Rod type
 Basic model
 ABAR
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single
 axis
 positioner
 EP-01

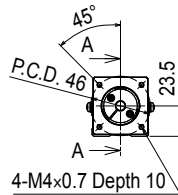
LBAR04 Straight type (S)



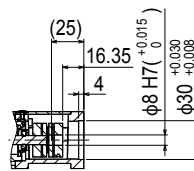
Cross-section B-B



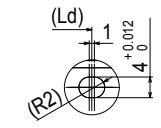
Motor [P] type



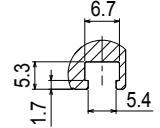
Motor [Y] type



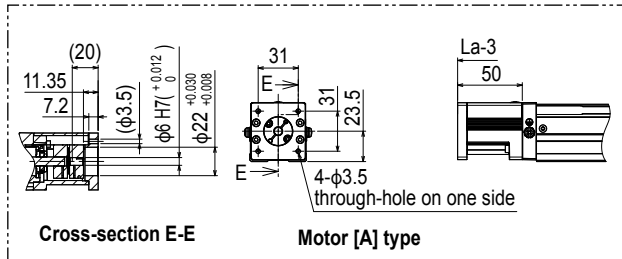
Cross-section A-A



Detailed drawing C

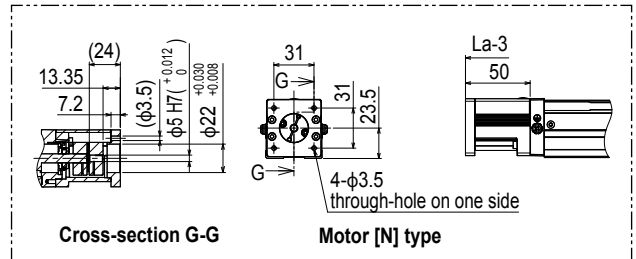


Detailed drawing D



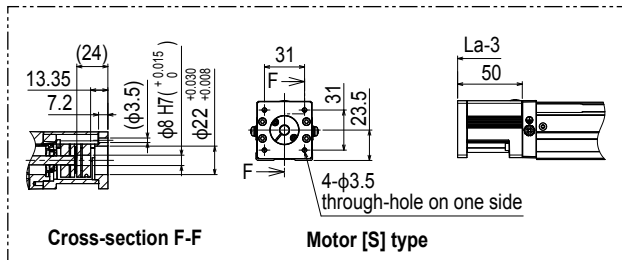
Cross-section E-E

Motor [A] type



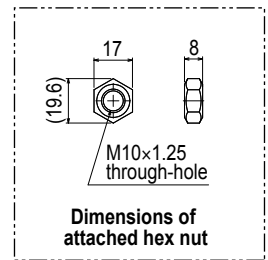
Cross-section G-G

Motor [N] type



Cross-section F-F

Motor [S] type



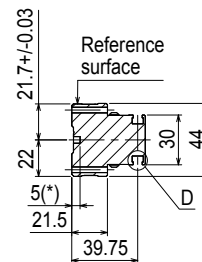
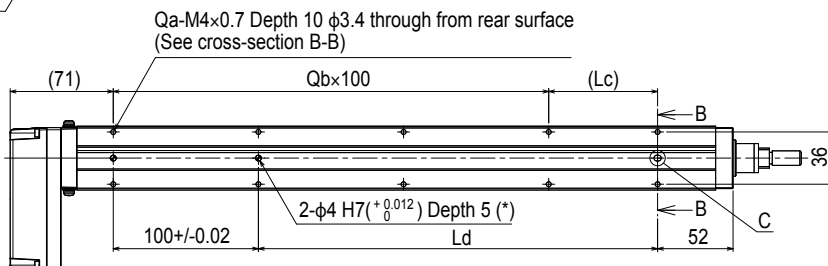
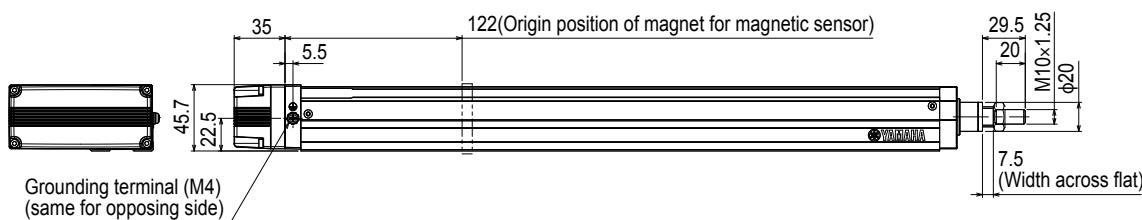
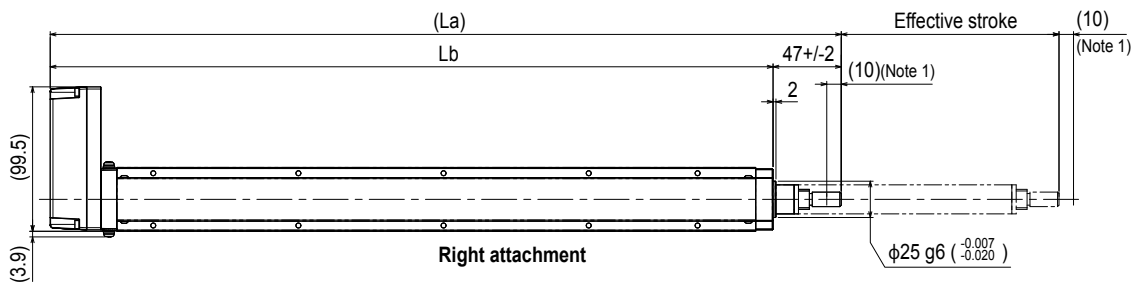
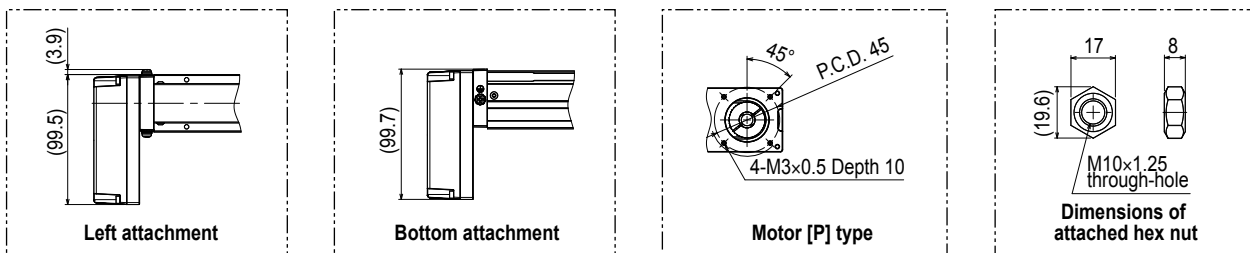
Dimensions of attached hex nut

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

Part number: KFU-M3861-00

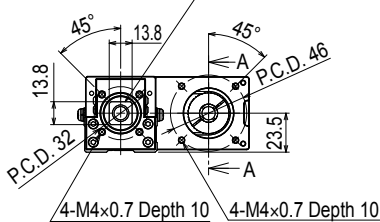
Effective stroke	50	100	150	200	250	300	350	400	450	500	
La	313	363	413	463	513	563	613	663	713	763	
Lb	266	316	366	416	466	516	566	616	666	716	
Lc	25	75	25	75	25	75	25	75	25	75	
Ld	25	75	125	175	225	275	325	375	425	475	
Qa	6	6	8	8	10	10	12	12	14	14	
Qb	1	1	2	2	3	3	4	4	5	5	
Weight (kg)	0.9	1	1.2	1.4	1.6	1.7	1.9	2.1	2.3	2.5	
Maximum speed (mm/sec)	Lead 12						720	648	504	396	324
	Lead 6						360	324	252	198	162
Speed setting						-	90%	70%	55%	45%	

LBAR04 Bending type (A)

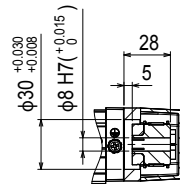


Cross-section B-B

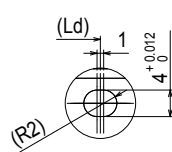
Angle of width across flat is undefined.



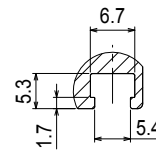
Motor [Y] type



Cross-section A-A



Detailed drawing C



Detailed drawing D

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 x 0.5>. In the installation tap hole, the length under head << thickness of stand +10 mm or less >> is recommended for the hex socket head bolts <M4 x 0.7> used to install the main unit.
- Note 4. Grease gun nozzle (recommended) (see P.143 for detail)

Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	
La	295	345	395	445	495	545	595	645	695	745	
Lb	248	298	348	398	448	498	548	598	648	698	
Lc	25	75	25	75	25	75	25	75	25	75	
Ld	25	75	125	175	225	275	325	375	425	475	
Qa	6	6	8	8	10	10	12	12	14	14	
Qb	1	1	2	2	3	3	4	4	5	5	
Weight (kg)	1	1.1	1.3	1.5	1.7	1.9	2	2.2	2.4	2.6	
Maximum speed (mm/sec)	Lead 12	720					648				
	Lead 6	360					324				
	Speed setting	-					90%				

Features

LBAS

LGXS

LBAR

ABAS

AGXS

ABAR

Acceleration/Deceleration

Inertia Moment

Option

Single axis sensor positioner

EP-01

LBAR05

Basic model

Motor-less Single Axis Actuator

Rod type



Ordering method

LBAR05

Model	Lead	Shape	Motor specification	Stroke
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below) A: A specification (see below) S: S specification (see below) N: N specification (see below)	50 to 600 (50 mm pitch)

[Caution]

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

Specifications

Applicable motor	100 W		
Repeatability ^{Note 1}	+/-0.01 mm		
Deceleration mechanism	Shifting position ball screw ϕ 12 (C7 class)		
Stroke	50 mm to 600 mm (50 mm pitch)		
Maximum speed ^{Note 2 Note 3}	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	20 mm	10 mm	5 mm
Maximum payload ^{Note 3}	Horizontal	15 kg	25 kg
	Vertical	4 kg	8 kg
Max. pressing force ^{Note 3}	100 N	200 N	400 N
Rotating backlash	+/-0 °		
Maximum dimensions of cross section of main unit	W 54 mm x H 54.7 mm		
Overall length	Straight	ST + 269.5 mm	
	Bending	ST + 249 mm	
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 350 mm, the ball screw may resonate. (Critical speed)

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

Note 3. The described specifications may not be satisfied depending on the installed motor.

Note. See P.136 for acceleration/deceleration and inertia moment.

Applicable motor

Applicable servo motor

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

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

Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-01
		SGMJ7-01
	Keyence Corp.	SV- <input type="checkbox"/> 010
		SV2- <input type="checkbox"/> 010
	Mitsubishi Electric Corp.	HF-KP13
		HG-KR13
		HK-KT13
	Omron Electronics	R88M-K10030
		R88M-1M10030
	Panasonic Corp.	MHMF01
	Sanyo Denki	R2 <input type="checkbox"/> A04010
	Tamagawa Seiki	TSM3104
	Delta Electronics	ECMA-C10401
	Fanuc Corp.	β IS.3/5000
Kingservo	KSMA01LI <input type="checkbox"/> S	
	KSMA01LG	
Siemens	1FK2102-1AG 1FL6024-2AF	
Schneider	BCH2MB013	
Beckhoff	AM3012C*	
Allen-Bradley	TLY-A130*	
P	Panasonic Corp.	MSMD01
		MSMF01

Applicable stepping motor

Specification	Flange size	<input type="checkbox"/> 42
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Motor specification	Manufacturer	Model
A	Oriental Motor	AZM46
		ARM46
		RKS54
S	Oriental Motor	AZM48
N	NEMA standard	NEMA17

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

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

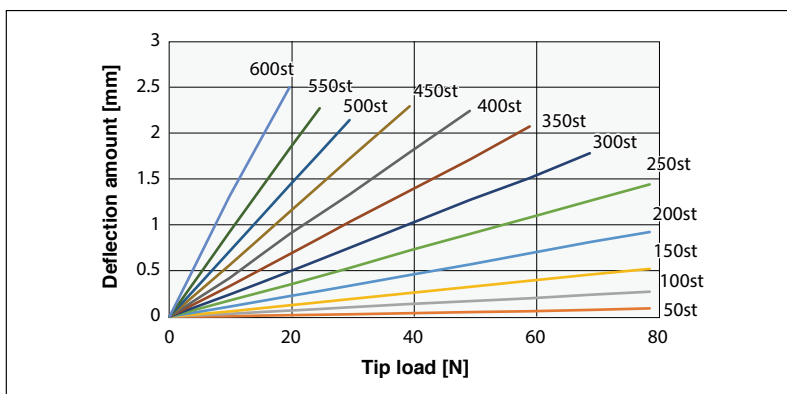
Access the website below.



► The cycle time simulation can be performed easily from our member site. For details, see P.16.

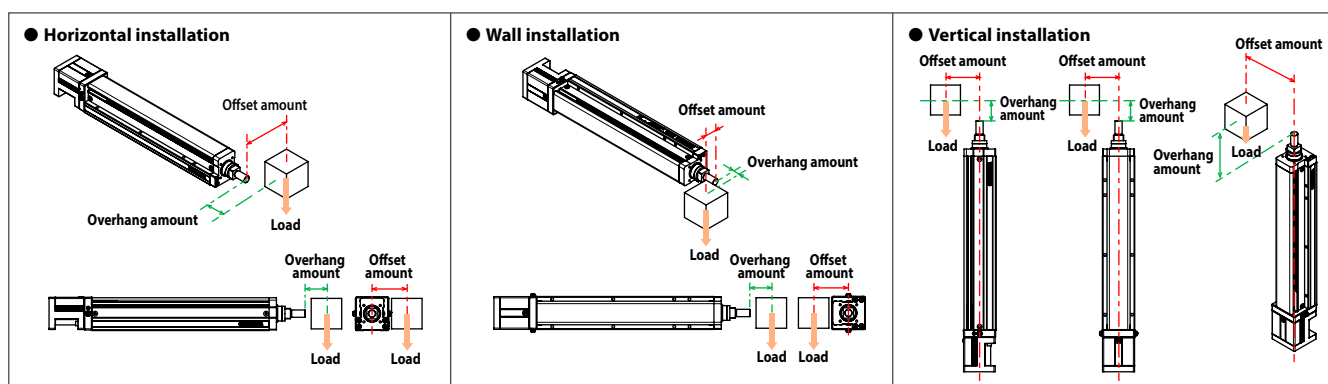
■ Rod deflection amount (reference value)

For the deflection amount per stroke, see the graph below.

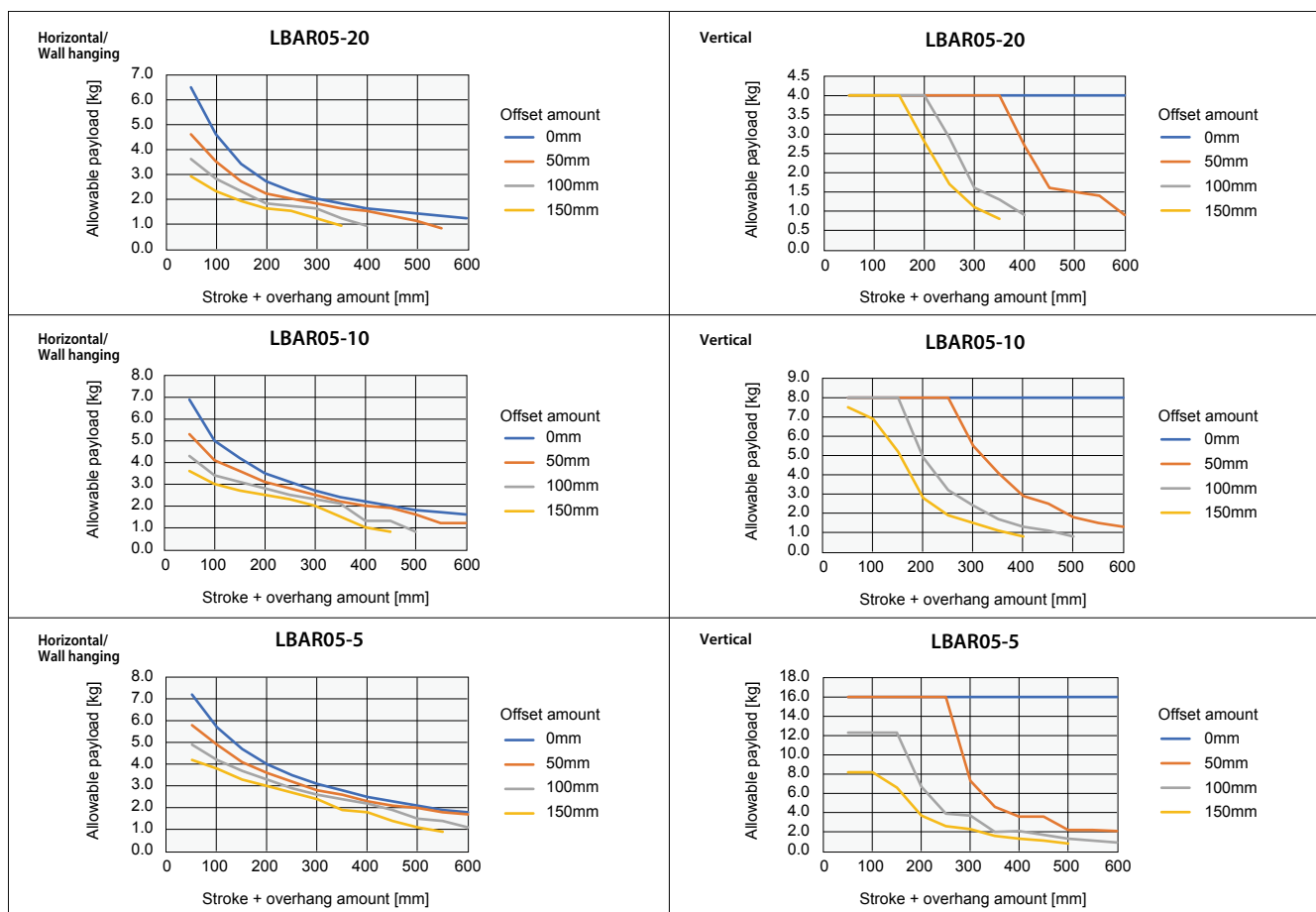


■ Allowable payload

For the allowable payload per offset amount, see the graph below.

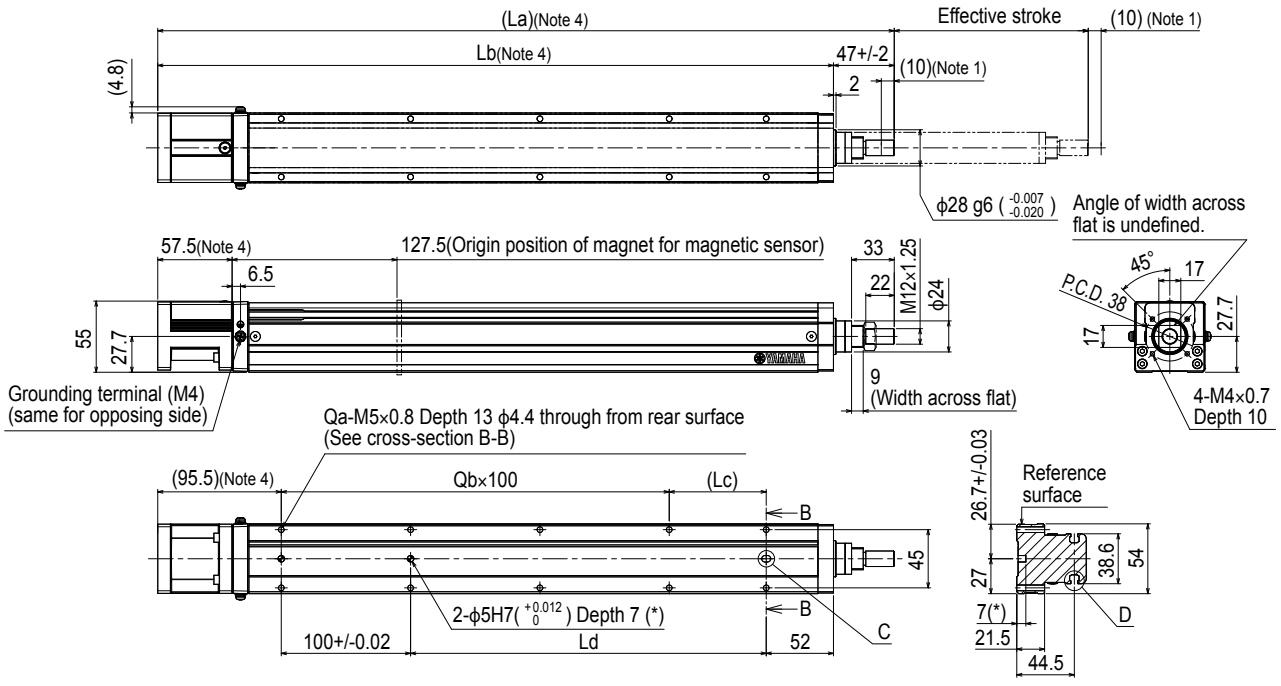


Note 1. When transferring an object with a weight exceeding the following, use an external support guide. Install the support guide flexibly so that no unnecessary load is applied to the rod.
 Note 2. The values are when the service life of the guide is 5000 km.

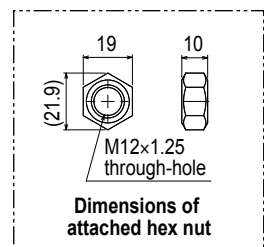
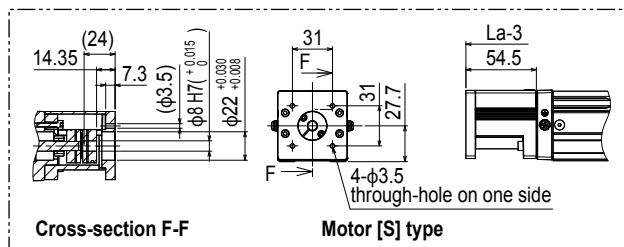
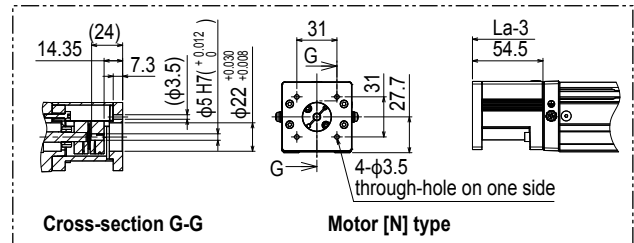
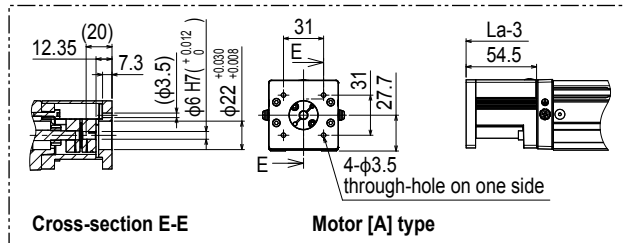
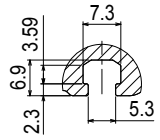
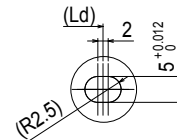
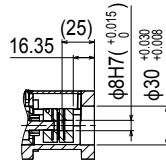
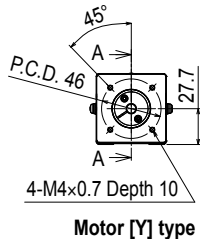
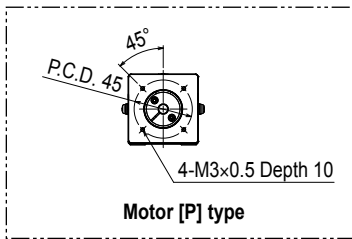


Features
 Motorless
 Silver type
 Basic model
 LBAS
 Motorless
 Silver type
 Advanced model
 LGXS
 Motorless
 Rod type
 Basic model
 LBAR
 Motorless
 Silver type
 Basic model
 ABAS
 Motorless
 Silver type
 Advanced model
 AGXS
 Motorless
 Rod type
 Basic model
 ABAR
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single
 axis
 positioner
 EP01

LBAR05 Straight type (S)



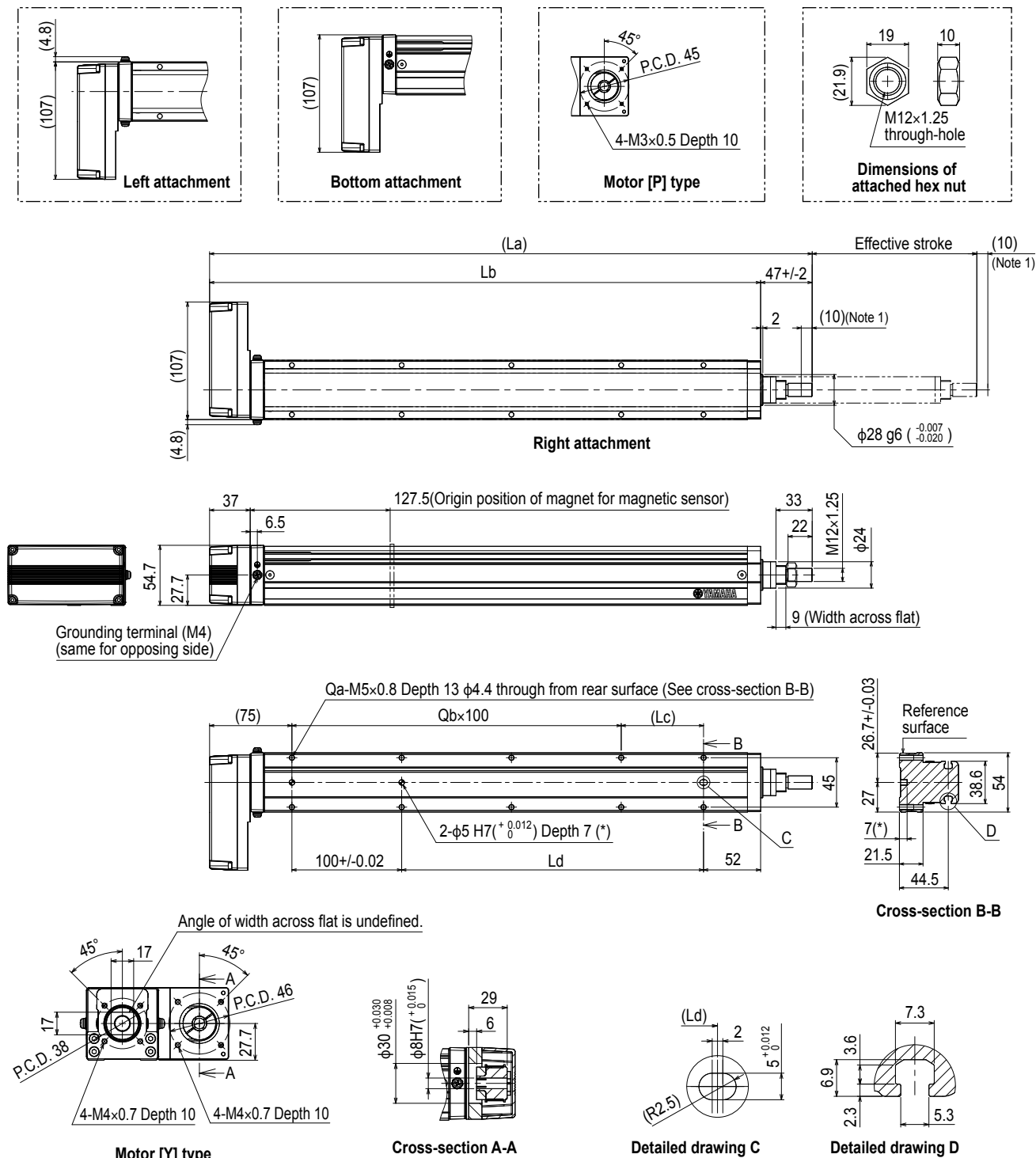
Cross-section B-B



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M4 × 0.7>. In the installation tap hole, the length under head << thickness of stand +10 mm or less >> is recommended for the hex socket head bolts <M5 × 0.8> used to install the main unit.
- Note 4. For the motor specifications A, S, and N, the dimensions are that those stated in the table << 3 mm >>.
- Note 5. Grease gun nozzle (recommended) (see P.143 for detail)
Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600
La	319.5	369.5	419.5	469.5	519.5	569.5	619.5	669.5	719.5	769.5	819.5	869.5
Lb	272.5	322.5	372.5	422.5	472.5	522.5	572.5	622.5	672.5	722.5	772.5	822.5
Lc	25	75	25	75	25	75	25	75	25	75	25	75
Ld	25	75	125	175	225	275	325	375	425	475	525	575
Qa	6	6	8	8	10	10	12	12	14	14	16	16
Qb	1	1	2	2	3	3	4	4	5	5	6	6
Weight (kg)	1.7	1.9	2	2.2	2.4	2.6	2.7	2.8	2.9	3	3.2	3.4
Maximum speed (mm/sec)	Lead 20	1200						960	780	600	480	420
	Lead 10	600						480	390	300	240	210
	Lead 5	300						240	195	150	120	105
Speed setting	-						80%	65%	50%	40%	35%	

LBAR05 Bending type (A)



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M4 × 0.7>. In the installation tap hole, the length under head << thickness of stand + 10 mm or less >> is recommended for the hex socket head bolts <M5 × 0.8> used to install the main unit.
 Note 4. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	
La	299	349	399	449	499	549	599	649	699	749	799	849	
Lb	252	302	352	402	452	502	552	602	652	702	752	802	
Lc	25	75	25	75	25	75	25	75	25	75	25	75	
Ld	25	75	125	175	225	275	325	375	425	475	525	575	
Qa	6	6	8	8	10	10	12	12	14	14	16	16	
Qb	1	1	2	2	3	3	4	4	5	5	6	6	
Weight (kg)	1.8	1.9	2.1	2.3	2.5	2.7	2.8	2.9	3	3.1	3.3	3.4	
Maximum speed (mm/sec)	Lead 20	1200						960	780	600	480	420	
	Lead 10	600						480	390	300	240	210	
	Lead 5	300						240	195	150	120	105	
	Speed setting	-						80%	65%	50%	40%	35%	

Features

- Motorless
- Basic model
- LBAS
- Advanced model
- LGXS
- Motorless
- Basic model
- LBAR
- Basic model
- ABAS
- Advanced model
- AGXS
- Basic model
- ABAR
- Acceleration/Deceleration
- Inertia Moment
- Option
- Single axis motion
- push/torque
- EP-01

LBAR08

Basic model

Motor-less Single Axis Actuator

Rod type



Ordering method

LBAR08

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

[Caution]

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

Specifications

Applicable motor	200 W		
Repeatability ^{Note 1}	±0.01 mm		
Deceleration mechanism	Shifting position ball screw φ 16 (C7 class)		
Stroke	50 mm to 800 mm (50 mm pitch)		
Maximum speed ^{Note 2 Note 3}	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	20 mm	10 mm	5 mm
Maximum payload ^{Note 3}	Horizontal	30 kg	60 kg
	Vertical	8 kg	20 kg
Max. pressing force ^{Note 3}	201 N	402 N	804 N
Rotating backlash	±0°		
Maximum dimensions of cross section of main unit	W 82 mm × H 73.5 mm		
Overall length	Straight	ST + 326 mm	
	Bending	ST + 312.5 mm	
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 400 mm, the ball screw may resonate. (Critical speed)

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

Note 3. The described specifications may not be satisfied depending on the installed motor.

Note. See P.138 for acceleration/deceleration and inertia moment.

Applicable motor

Applicable servo motor

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

Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-02
		SGM7J-02
	Keyence Corp.	SV- □ 020
		SV2- □ 020
	Mitsubishi Electric Corp.	HF-KP23
		HG-KR23
		HK-KT23
	Sanyo Denki	R2 □ A06020
	Tamagawa Seiki	TSM3202
	Delta Electronics	ECMA-C10602
Siemens	1FL6032-2AF	
Schneider	BCH2LD023	
P	Omron Electronics	R88M-K20030
		R88M-1M20030
	Panasonic Corp.	MSMD02
MMSF02		
MHMF02		
K	Kingservo	KSMA02LI
		KSMA02LG

Applicable stepping motor

Specification	Flange size	<input type="checkbox"/> 60 <input type="checkbox"/> 56 (NEMA)
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Motor specification	Manufacturer	Model
A	Oriental Motor	AZM66
		AZM69
		ARM66
		ARM69
		RKS56
N	NEMA standard	NEMA23

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

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

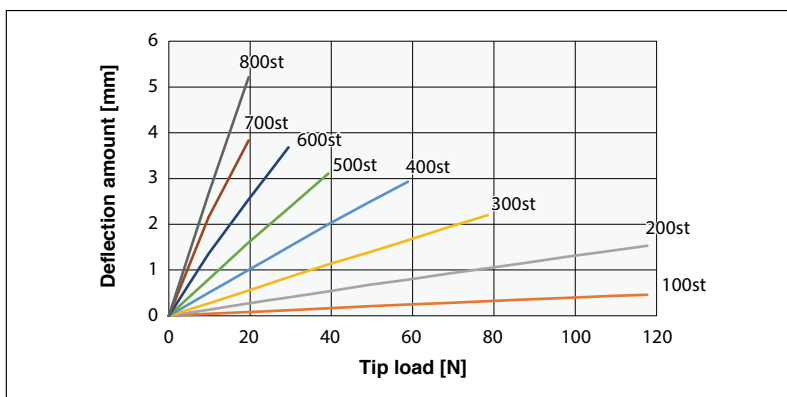
Access the website below.



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

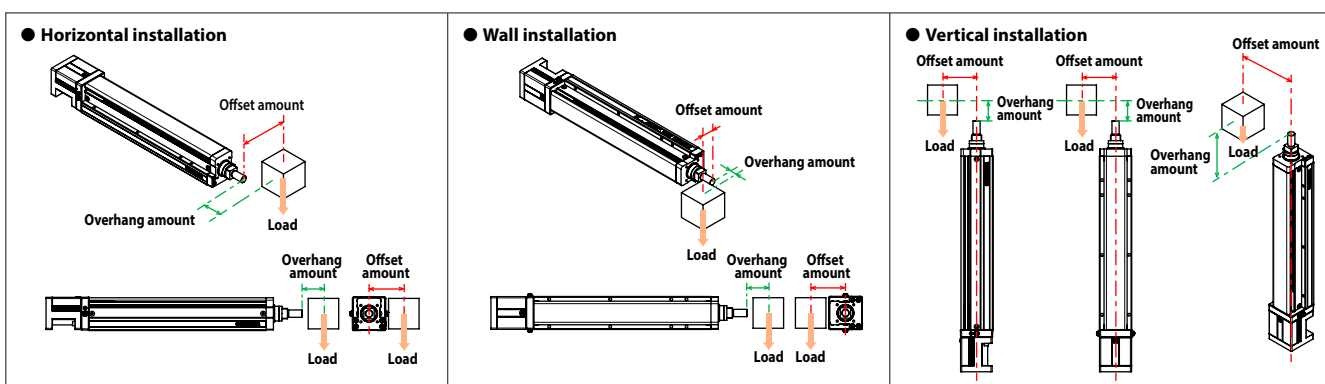
■ Rod deflection amount (reference value)

For the deflection amount per stroke, see the graph below.

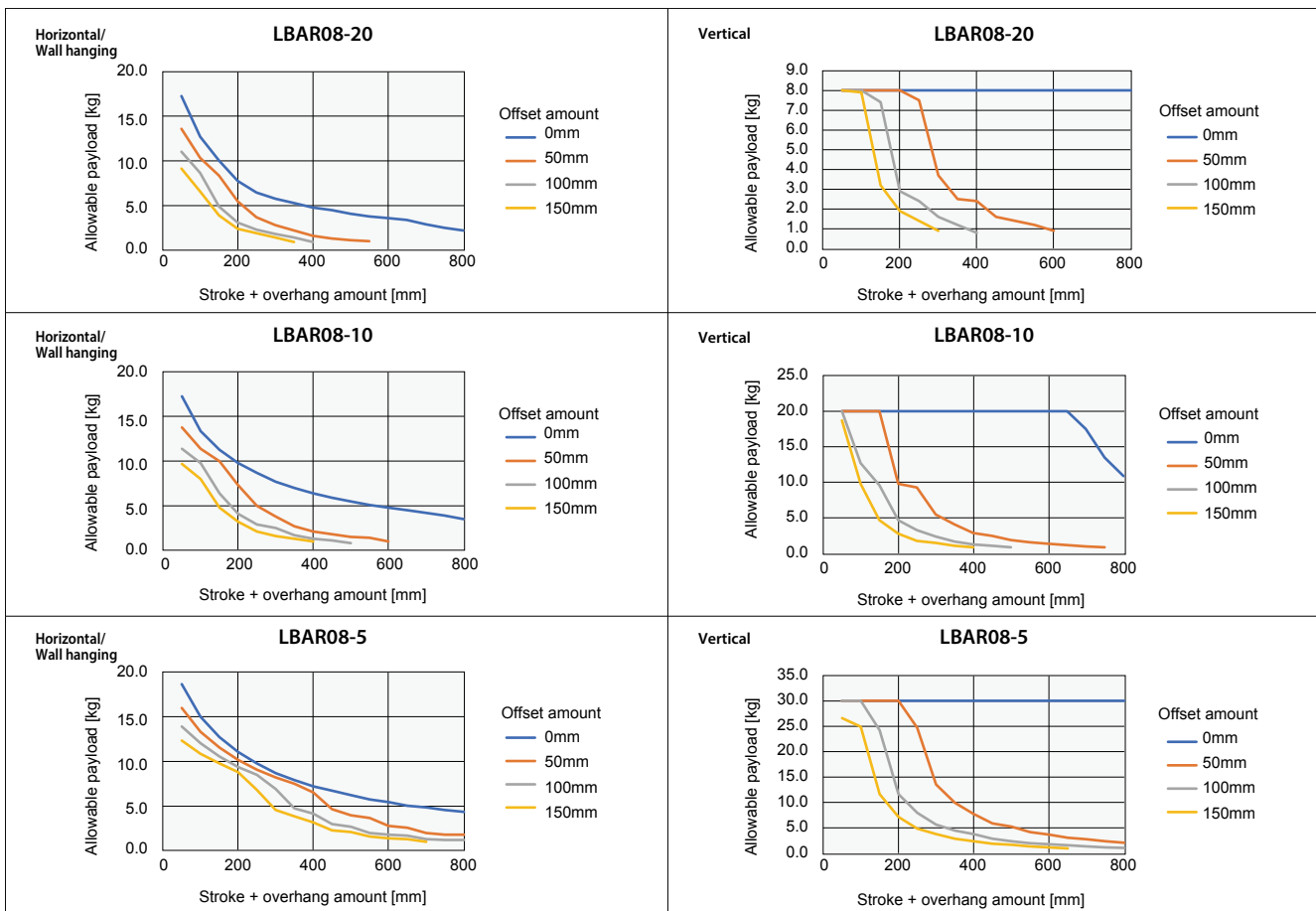


■ Allowable payload

For the allowable payload per offset amount, see the graph below.

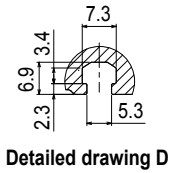
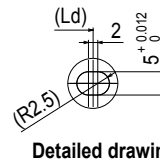
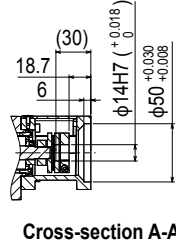
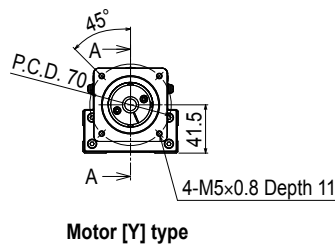
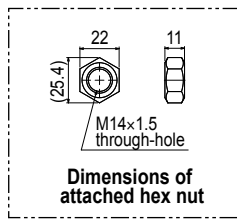
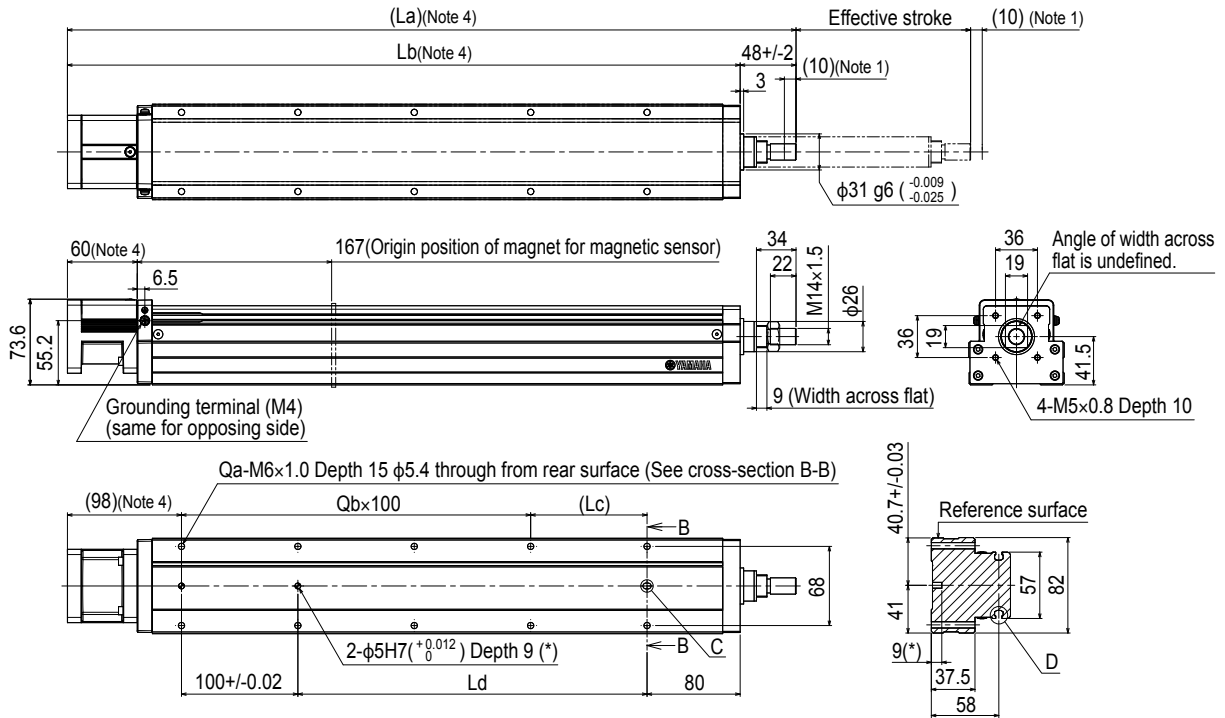


Note 1. When transferring an object with a weight exceeding the following, use an external support guide. Install the support guide flexibly so that no unnecessary load is applied to the rod.
 Note 2. The values are when the service life of the guide is 5000 km.

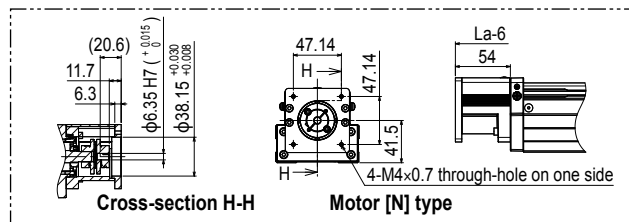
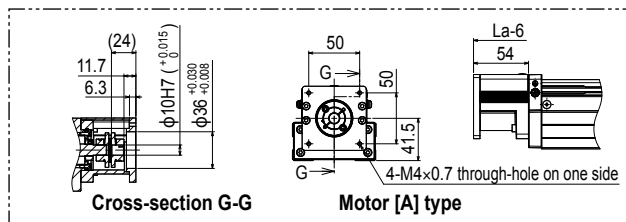
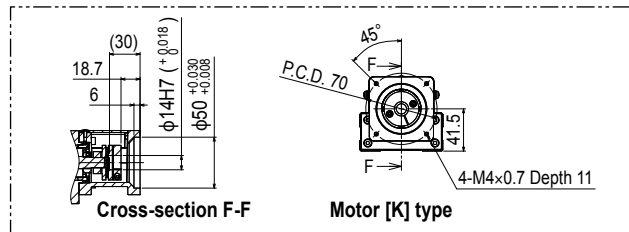
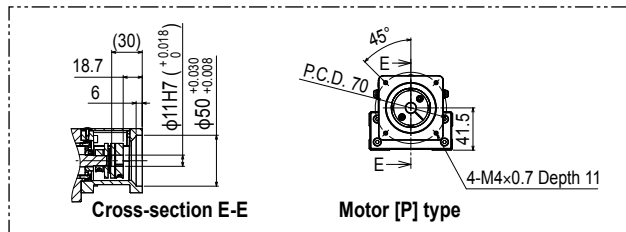


Features
 Motorless
 Basic model
 LBAS
 Motorless
 Advanced model
 LGXS
 Motorless
 Rod type
 Basic model
 LBAR
 Motorless
 Slider type
 Basic model
 ABAS
 Motorless
 Slider type
 Advanced model
 AGXS
 Motorless
 Rod type
 Basic model
 ABAR
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single axis robot pusher
 EP01

LBAR08 Straight type (S)



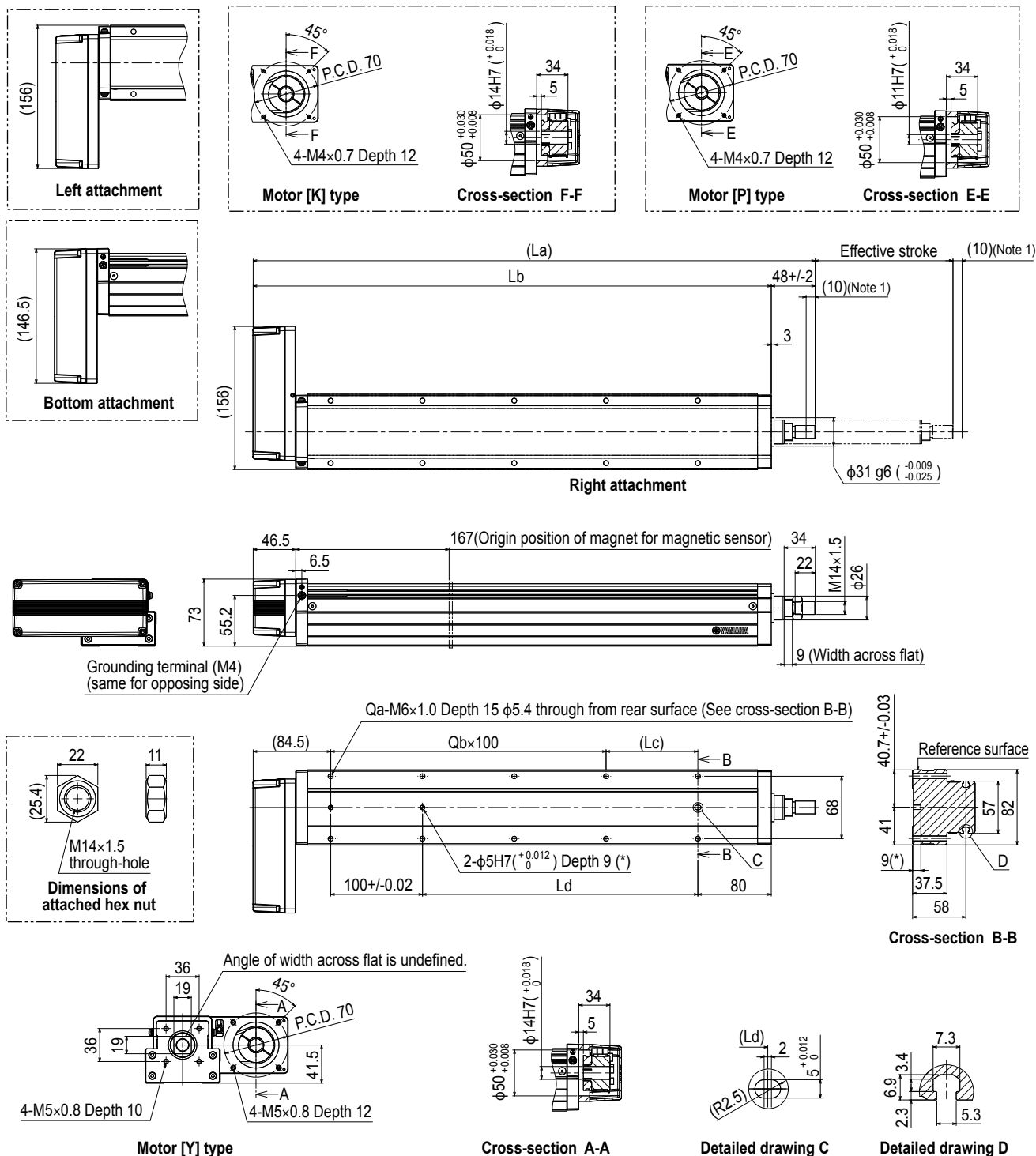
Cross-section B-B



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head <<thickness of stand +15 mm or less>> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head <<thickness of stand +15 mm or less>> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
- Note 4. For the motor specifications A and N the dimensions are that those stated in the table <<-6 mm>>.
- Note 5. Grease gun nozzle (recommended) (see P.143 for detail)
Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	376	426	476	526	576	626	676	726	776	826	876	926	976	1026	1076	1126	
Lb	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	
Lc	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
Ld	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
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)	3.9	4.3	4.7	5	5.3	5.7	6	6.3	6.6	7	7.4	7.7	8.1	8.4	8.6	8.9	
Maximum speed (mm/sec)	Lead 20	1200						900	720	600	480	420	360	300	240	240	240
	Lead 10	600						450	360	300	240	210	180	150	120	120	120
	Lead 5	300						225	180	150	120	105	90	75	60	60	60
Speed setting	-								75%	60%	50%	40%	35%	30%	25%	20%	

LBAR08 Bending type (A)



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head << thickness of stand + 15 mm or less >> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
 Note 4. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	362.5	412.5	462.5	512.5	562.5	612.5	662.5	712.5	762.5	812.5	862.5	912.5	962.5	1012.5	1062.5	1112.5	
Lb	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	
Lc	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
Ld	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
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)	4.3	4.7	5.1	5.4	5.7	6.1	6.4	6.7	7	7.4	7.8	8.1	8.5	8.8	9	9.3	
Maximum speed (mm/sec)	Lead 20	1200								900	720	600	480	420	360	300	240
	Lead 10	600								450	360	300	240	210	180	150	120
	Lead 5	300								225	180	150	120	105	90	75	60
	Speed setting	-								75%	60%	50%	40%	35%	30%	25%	20%

Features

Basic model

Advanced model

Motorless Basic model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration Inertia Moment

Option

Single axis positioner

Ep01

ABAS04

Basic model

Single-axis robots

Slider type



Ordering method

ABAS04							EP-01			
Model	Lead	Shape	Motor specification	Stroke	Cable length	Cable entry location	Robot positioner	Driver: Power capacity	I/O	Battery
	12: 12 mm 6: 6 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	50 to 800 (50mm pitch)	Note 1 R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	Note 2 B: With battery N: None

Note 1. The robot cable is flexible and resists bending.

Note 2. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	50 W	
Repeatability Note 1	±0.01 mm	
Deceleration mechanism	Shifting position ball screw φ 10 (C7 class)	
Stroke	50 mm to 800 mm (50mm pitch)	
Maximum speed Note 2	800 mm/sec	400 mm/sec
Ball screw lead	12 mm	6 mm
Maximum payload	Horizontal	12 kg
	Vertical	2 kg
Rated thrust	71 N	141 N
Maximum dimensions of cross section of main unit	W 44 mm × H 52 mm	
Overall length	Straight	ST + 277.5 mm
	Bending	ST + 196 mm
Position detector	Absolute encoder Battery-less absolute encoder	
Resolution	23 bits	
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)	

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
If the effective stroke exceeds 500 mm, the ball screw may resonate. (Critical speed)

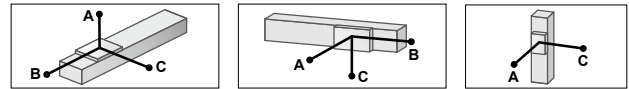
At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.

Note. See P.106 for acceleration/deceleration.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Allowable overhang Note



ABAS04-12

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

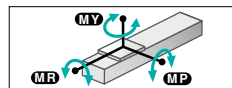
ABAS04-6

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

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000 km.

Note. Service life is calculated for 500mm stroke models.

Static loading moment



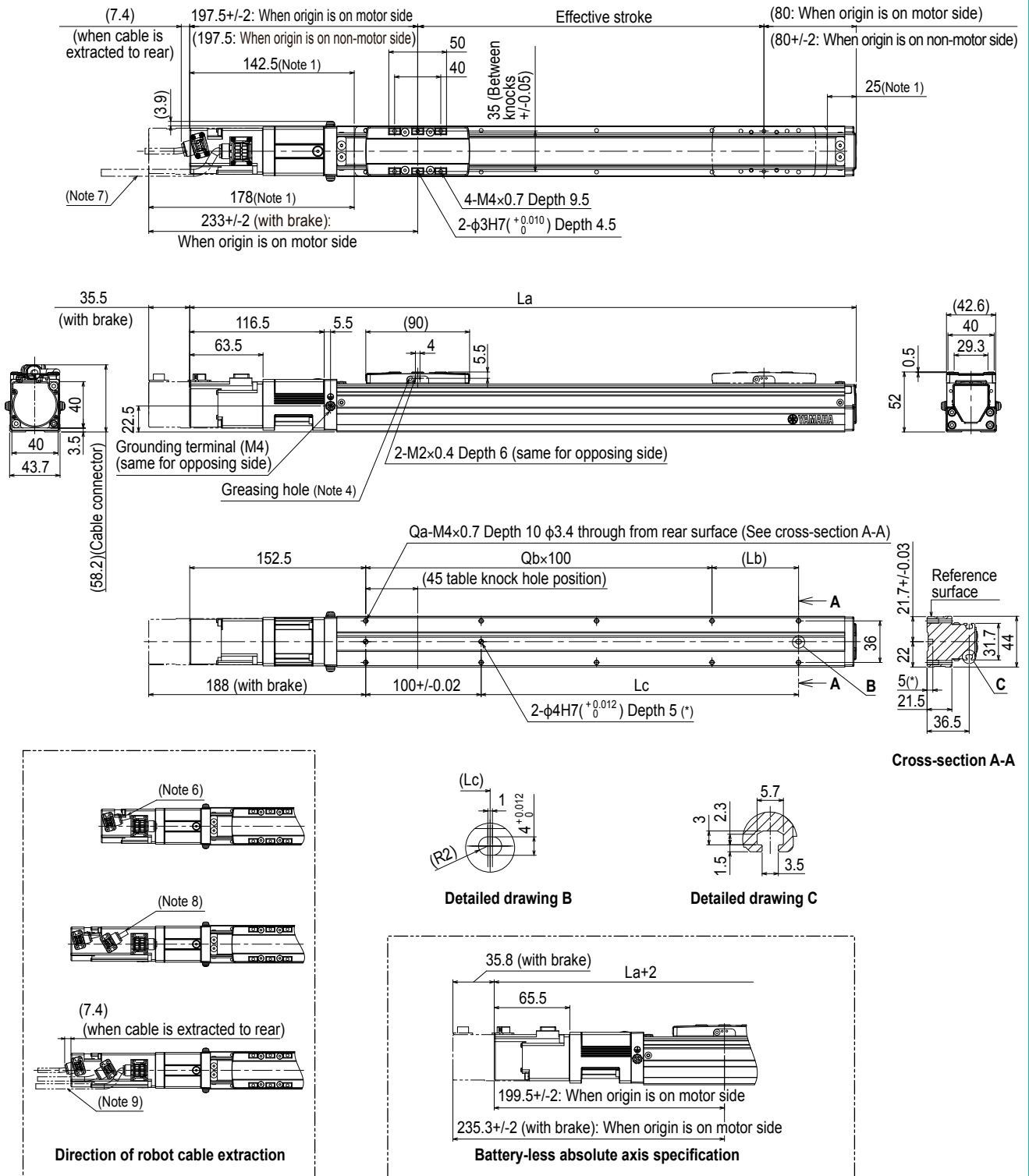
(Unit: N·m)		
MY	MP	MR
54	54	75

Access the website below.



▶ The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

ABAS04 Straight type (S)



Cross-section A-A

Detailed drawing B

Detailed drawing C

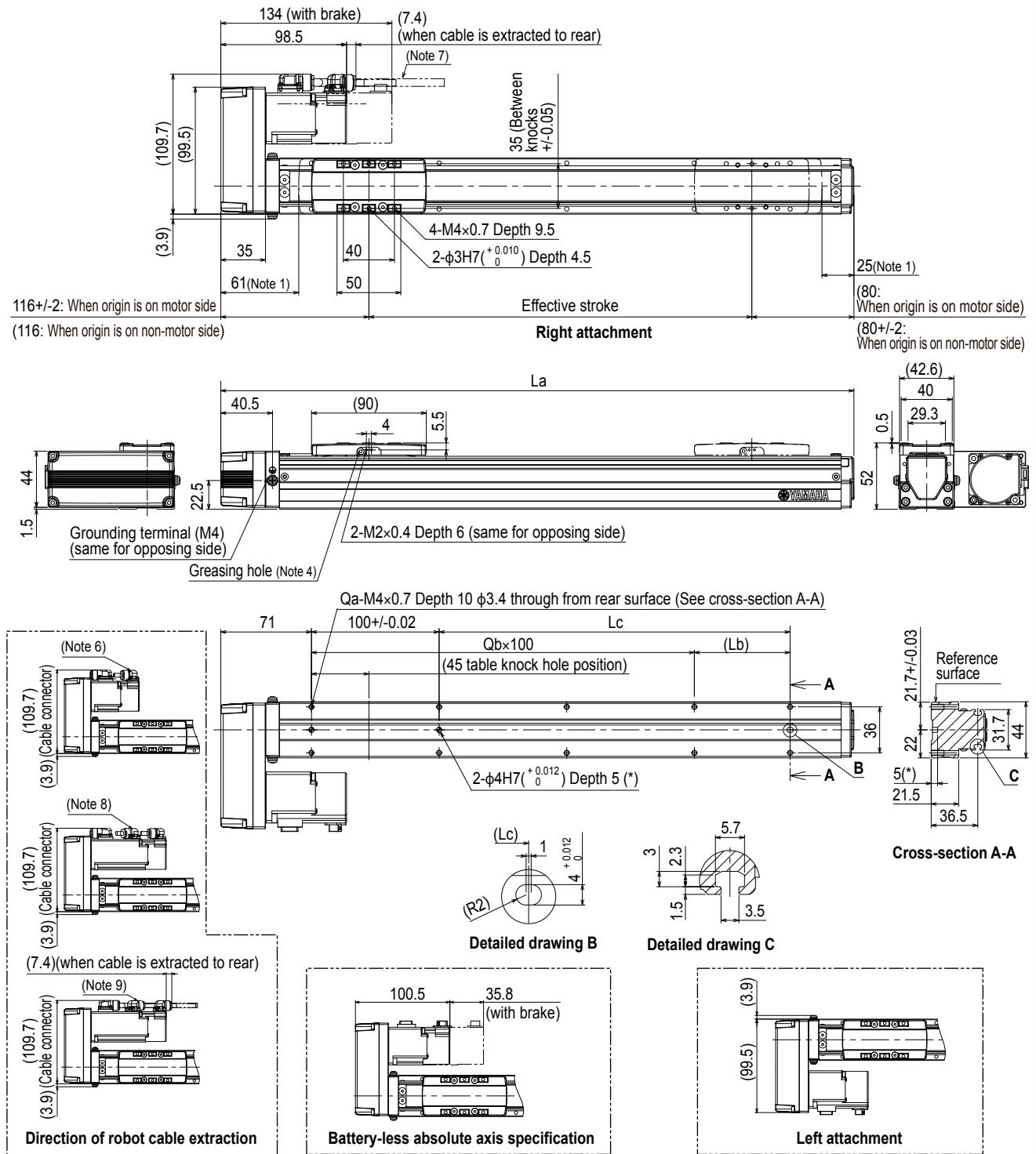
Direction of robot cable extraction

Battery-less absolute axis specification

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter.
(The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- 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. Grease gun nozzle (recommended) (see P.143 for detail)
Part number: KFU-M3861-00
- Note 5. Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30.
When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	327.5	377.5	427.5	477.5	527.5	577.5	627.5	677.5	727.5	777.5	827.5	877.5	927.5	977.5	1027.5	1077.5
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) Note 5	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	3.9
Maximum speed (mm/sec)	Lead 12															
	Lead 6															
	Speed setting															
											720	600	480	400	360	320
											360	300	240	200	180	160
											90%	75%	60%	50%	45%	40%

ABAS04 Bending type (R/L)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. For the installation through hole, the length under head << 30 mm or more >> is recommended for the hex socket head bolts <M3 x 0.5>. In the installation tap hole, the length under head << thickness of stand +10 mm or less >> is recommended for the hex socket head bolts <M4 x 0.7> used to install the main unit.
- Note 4. Grease gun nozzle (recommended) (see P.143 for detail)
Part number: KFU-M3861-00

- Note 5. Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.

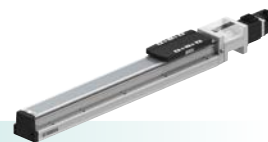
Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	246	296	346	396	446	496	546	596	646	696	746	796	846	896	946	996	
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
Weight (kg) Note 5	1.4	1.5	1.7	1.9	2.1	2.2	2.4	2.6	2.8	3	3.1	3.3	3.5	3.7	3.9	4	
Maximum speed (mm/sec)	Lead 12	800															
	Lead 6	400															
	Speed setting	-															
												90%	75%	60%	50%	45%	40%

ABAS05

Basic model

Single-axis robots

Slider type



Ordering method

ABAS05							EP-01				
Model	Lead	Shape	Motor specification	Stroke	Cable length	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit	I/O	Battery
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	50 to 800 (50mm pitch)	Note 1 R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	Note 2 No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	Note 3 B: With battery N: None

Note 1. The robot cable is flexible and resists bending.

Note 2. When the actuator is used vertically, lead 5 or 10 is selected, and the stroke is 650 mm or more, the regenerative unit is needed.

Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	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	1333 mm/sec 666 mm/sec 333 mm/sec
Ball screw lead	20 mm 10 mm 5 mm
Maximum payload	Horizontal Vertical
	12 kg 3 kg 24 kg 6 kg 40 kg 12 kg
Rated thrust	84 N 169 N 339 N
Maximum dimensions of cross section of main unit	W 54 mm × H 60 mm
Overall length	Straight Bending
	ST + 295 mm ST + 200 mm
Position detector	Absolute encoder Battery-less absolute encoder
Resolution	23 bits
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 550 mm, the ball screw may resonate. (Critical speed)

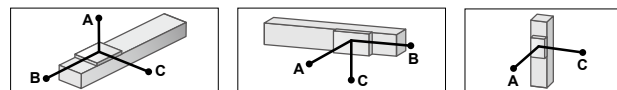
At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.

Note. See P.107 for acceleration/deceleration.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Allowable overhang



ABAS05-20

	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
8kg	155	73	65	65	73	155	2kg	276
12kg	117	46	42	42	46	117	3kg	195

ABAS05-10

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

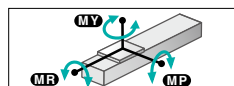
ABAS05-5

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

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000 km.

Note. Service life is calculated for 500mm stroke models.

Static loading moment



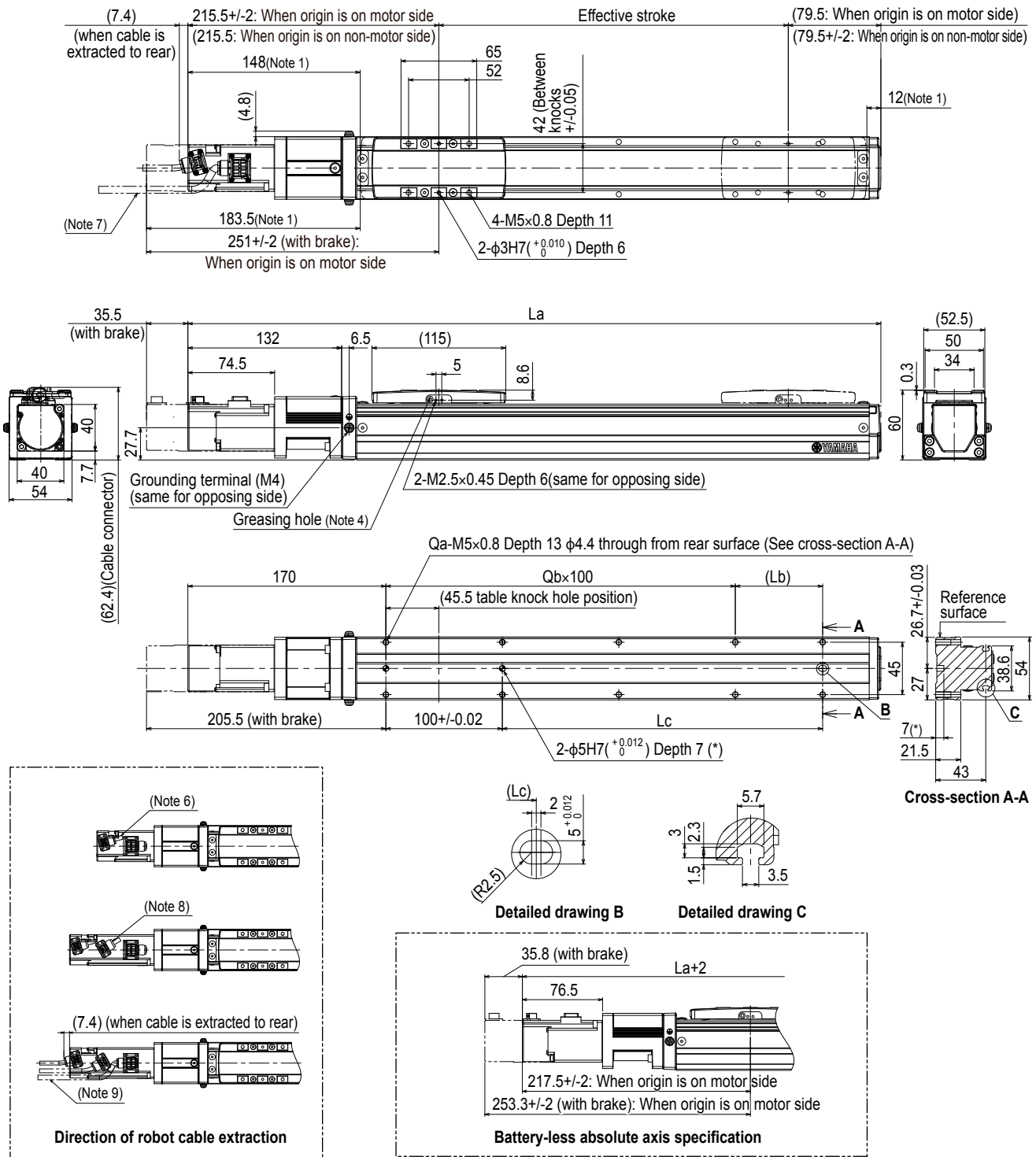
(Unit: N·m)		
MY	MP	MR
59	63	103

Access the website below.



▶ The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

ABAS05 Straight type (S)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- 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. Grease gun nozzle (recommended) (see P.143 for detail) Part number: KFU-M3861-00
- Note 5. Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.

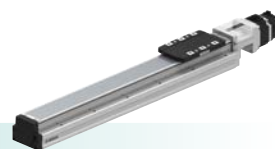
Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	345	395	445	495	545	595	645	695	745	795	845	895	945	995	1045	1095
Lb	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
Lc	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg) Note 5	2	2.2	2.3	2.5	2.8	2.9	2.9	3.1	3.2	3.3	3.5	3.7	3.8	4	4.1	4.5
Maximum speed (mm/sec)	Lead 20	1333														
	Lead 10	666														
	Lead 5	333														
Speed setting	-															
												85%	70%	60%	50%	45%

ABAS08

Basic model

Single-axis robots

Slider type



Ordering method

ABAS08								EP-01				
Model	Lead	Shape	Motor specification	Stroke	Cable length <small>Note 1</small>	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit <small>Note 2</small>	I/O	Battery <small>Note 3</small>	
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	50 to 1100 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None	

Note 1. The robot cable is flexible and resists bending.

Note 2. When the actuator is used vertically and the stroke of lead 5 or 20 is 450 mm or more or the stroke of lead 10 is 150 mm or more, the regenerative unit is needed.

When the actuator is used horizontally and the stroke of lead 20 is 250 to 750 mm, the regenerative unit is needed.

Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	200 W		
Repeatability <small>Note 1</small>	+/-0.01 mm		
Deceleration mechanism	Shifting position ball screw φ 16 (C7 class)		
Stroke	50 mm to 1100 mm (50 mm pitch)		
Maximum speed <small>Note 2</small>	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	20 mm	10 mm	5 mm
Maximum payload	Horizontal	40 kg	80 kg
	Vertical	8 kg	20 kg
Rated thrust	174 N	341 N	683 N
Maximum dimensions of cross section of main unit	W 82 mm × H 78 mm		
Overall length	Straight	ST + 353 mm	
	Bending	ST + 264.5 mm	
Position detector	Absolute encoder Battery-less absolute encoder		
Resolution	23 bits		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 650 mm, the ball screw may resonate. (Critical speed)

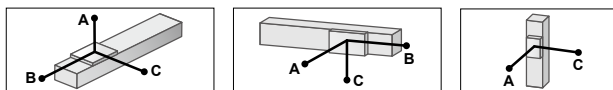
At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.

Note. See P.109 for acceleration/deceleration.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Allowable overhang



ABAS08-20

	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	634	634
25kg	278	73	86	25kg	86	73	278	6kg	321	321
40kg	517	54	76	40kg	76	54	517	8kg	240	240

ABAS08-10

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
30kg	465	83	120	30kg	120	83	465	5kg	551	551
50kg	341	44	65	50kg	65	44	341	10kg	270	270
80kg	228	22	34	80kg	34	22	228	20kg	129	129

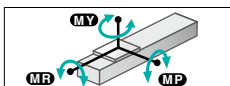
ABAS08-5

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
30kg	1604	95	153	30kg	153	95	1604	10kg	312	312
50kg	1035	52	83	50kg	83	52	1035	20kg	149	149
80kg	719	27	44	80kg	44	27	719	30kg	95	95
100kg	608	19	31	100kg	31	19	608			

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000 km.

Note. Service life is calculated for 600mm stroke models.

Static loading moment



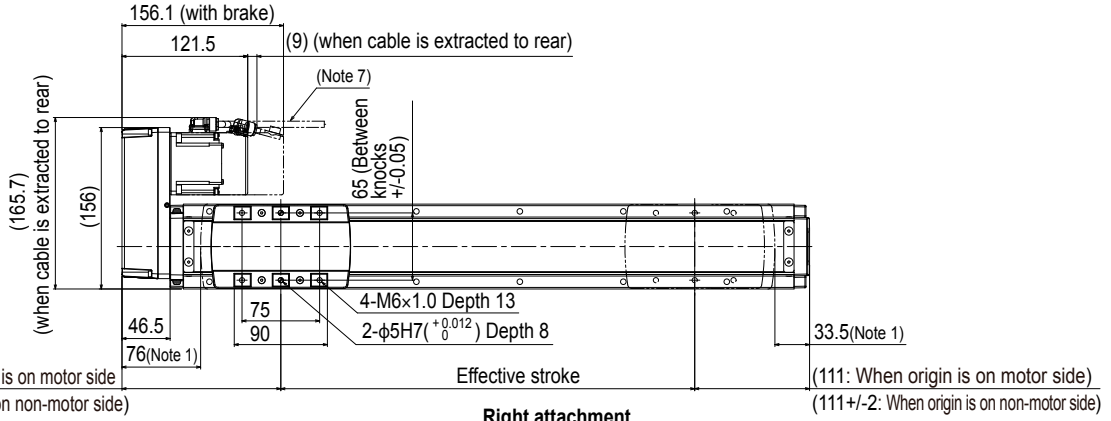
(Unit: N-m)		
MY	MP	MR
221	309	343

Access the website below.

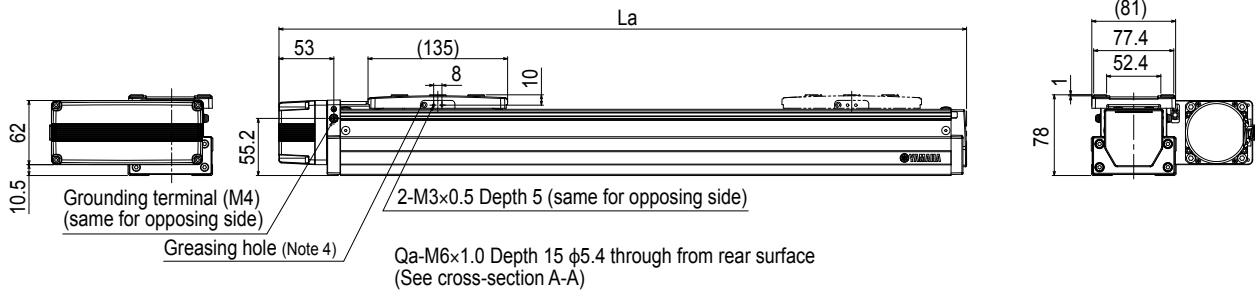


▶ The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

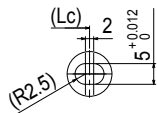
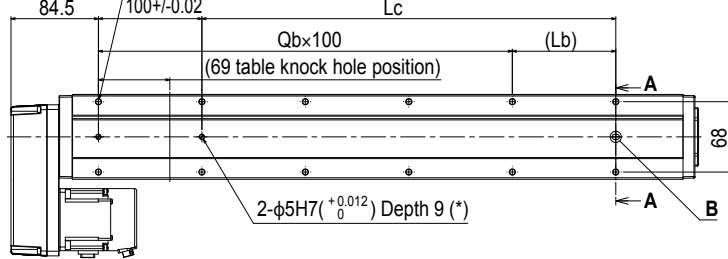
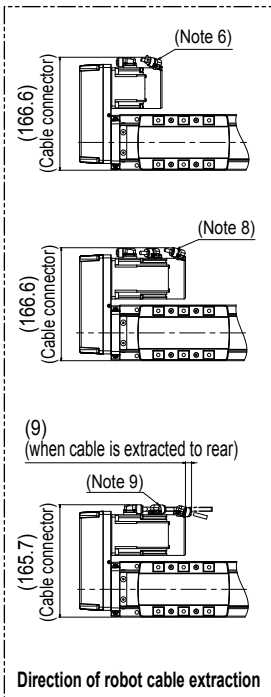
ABAS08 Bending type (R/L)



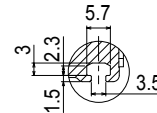
Right attachment



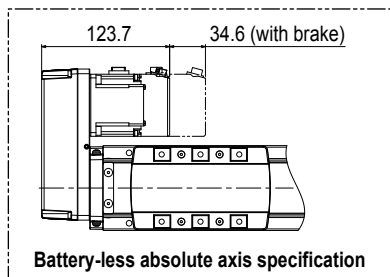
Cross-section A-A



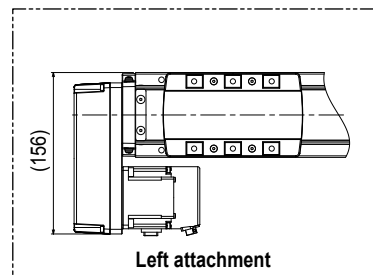
Detailed drawing B



Detailed drawing C



Battery-less absolute axis specification



Left attachment

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head << thickness of stand + 15 mm or less >> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
- Note 4. Grease gun nozzle (recommended) (see P.143 for detail) Part number: KFU-M3861-00
- Note 5. Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. For 50 mm stroke models, a part of the installation through hole (Qa) used to secure the main body from the top is hidden by the slider. So, only four locations can be used. Therefore, it is recommended to secure the main body from the bottom.

Effective stroke	50 ^{Note 11)}	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) ^{Note 5}	4.9	5.3	5.7	6	6.4	6.7	7	7.4	7.7	8	8.4	8.7	9.1	9.4	9.7	10	10.4	10.8	11	11.3	11.7	12.1		
Maximum speed (mm/sec)	Lead 20											1020	900	780	660	600	540	480	420	360				
	Lead 10													510	450	390	330	300	270	240	210	180		
	Lead 5													255	225	195	165	150	135	120	105	90		
Speed setting													85%	75%	65%	55%	50%	45%	40%	35%	30%			

ABAS12/ABAS12H

Basic model **Single-axis robots**

Slider type **Slim type**



Ordering method

Model	Lead	Shape	Motor specification	Stroke	Cable length	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit	I/O	Battery
ABAS12-200W	32: 32 mm	S: Straight	S: Standard/With no brake BK: Standard/With brake	50 to 1250 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less A30: 400W/750W	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

Note 1. The robot cable is flexible and resists bending.

Note 2. [For ABAS12]

When the actuator is used vertically and the stroke of lead 5, 10, or 20 is 150 mm or more or the stroke of lead 32 is 300 to 750 mm, the regenerative unit is needed. When the actuator is used horizontally and the stroke of lead 10 or 20 is 250 to 750 mm or the stroke of lead 32 is 400 to 750 mm, the regenerative unit is needed.

[For ABAS12H]

When the actuator is used vertically and the stroke of lead 5, 10, or 20 is 300 mm or more or the stroke of lead 32 is 300 to 750 mm, the regenerative unit is needed.

Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

ABAS12 (200W)

Specifications

AC servo motor output	200 W			
Repeatability ^{Note 1}	±0.01 mm			
Deceleration mechanism	Shifting position ball screw φ 16 (C7 class)			
Stroke	50 mm to 1250 mm (50 mm pitch)			
Maximum speed ^{Note 2}	1800 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	32 mm	20 mm	10 mm	5 mm
Maximum payload	Horizontal	20 kg	40 kg	80 kg
	Vertical	3 kg	8 kg	20 kg
Rated thrust	105 N	170 N	341 N	683 N
Maximum dimensions of cross section of main unit	W 120 mm × H 76 mm			
Overall length	Straight	ST + 369 mm		
	Bending	ST + 270.5 mm		
Position detector	Absolute encoder Battery-less absolute encoder			
Resolution	23 bits			
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)			

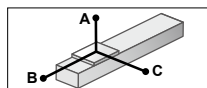
Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

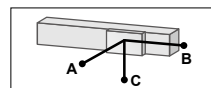
If the effective stroke exceeds 600 mm, the ball screw may resonate. (Critical speed)
At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.

Note. See P.111 for acceleration/deceleration.

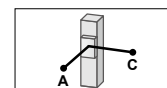
Allowable overhang^{Note}



ABAS12-32			
Horizontal installation (Unit: mm)	A	B	C
5kg	2079	1694	1224
10kg	1135	834	627
20kg	842	422	362

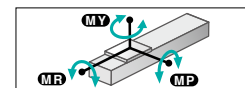


Wall installation (Unit: mm)			
A	B	C	
5kg	1224	1694	2079
10kg	627	834	1135
20kg	362	422	842



Vertical installation (Unit: mm)		
A	C	
1kg	6201	6201
3kg	2057	2057

Static loading moment



(Unit: N·m)		
MY	MP	MR
573	606	606

Controller

Controller	Operation method
EP-01	I/O point trace/ Remote command

ABAS12H (400W)

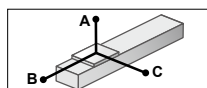
Specifications

AC servo motor output	400 W			
Ball screw lead	32 mm	20 mm	10 mm	5 mm
Maximum payload	Horizontal	35 kg	50 kg	95 kg
	Vertical	8 kg	15 kg	25 kg
Rated thrust	218 N	339 N	678 N	1360 N
Overall length	Straight	ST + 385 mm		
	Bending	ST + 270.5 mm		

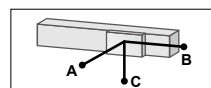
Note. See P.113 for acceleration/deceleration.

Note. The specifications and static loading moment, etc. not described here are common to ABAS12.

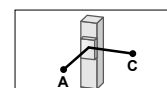
Allowable overhang^{Note}



ABAS12H-32			
Horizontal installation (Unit: mm)	A	B	C
10kg	1135	834	627
20kg	842	422	362
35kg	925	286	294



Wall installation (Unit: mm)			
A	B	C	
10kg	627	834	1135
20kg	362	422	842
35kg	294	286	925



Vertical installation (Unit: mm)		
A	C	
3kg	2057	2057
5kg	1228	1228
8kg	762	833

ABAS12H-20			
Horizontal installation (Unit: mm)	A	B	C
15kg	826	548	427
30kg	485	263	218
50kg	433	172	162

Wall installation (Unit: mm)			
A	B	C	
15kg	427	548	826
30kg	218	263	485
50kg	162	172	433

Vertical installation (Unit: mm)		
A	C	
5kg	1315	1315
10kg	672	672
15kg	522	660

ABAS12H-10			
Horizontal installation (Unit: mm)	A	B	C
30kg	528	270	230
60kg	665	171	185
95kg	1347	132	173

Wall installation (Unit: mm)			
A	B	C	
30kg	230	270	528
60kg	185	171	665
95kg	173	132	1347

Vertical installation (Unit: mm)		
A	C	
5kg	1933	1933
15kg	660	660
25kg	409	541

ABAS12H-5			
Horizontal installation (Unit: mm)	A	B	C
30kg	2476	430	513
60kg	1672	215	270
90kg	1474	141	186
115kg	1378	109	146

Wall installation (Unit: mm)			
A	B	C	
30kg	513	430	2476
60kg	270	215	1672
90kg	186	141	1474
115kg	146	109	1378

Vertical installation (Unit: mm)		
A	C	
15kg	885	885
25kg	541	541
40kg	350	350

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000 km.

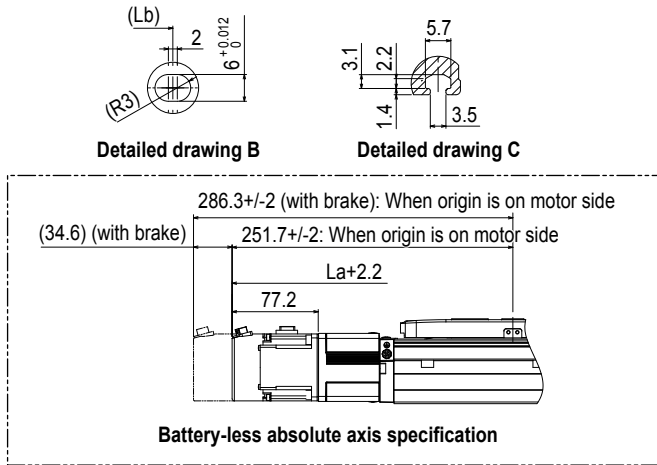
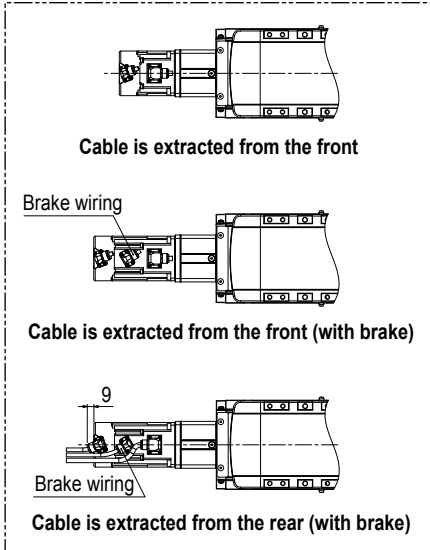
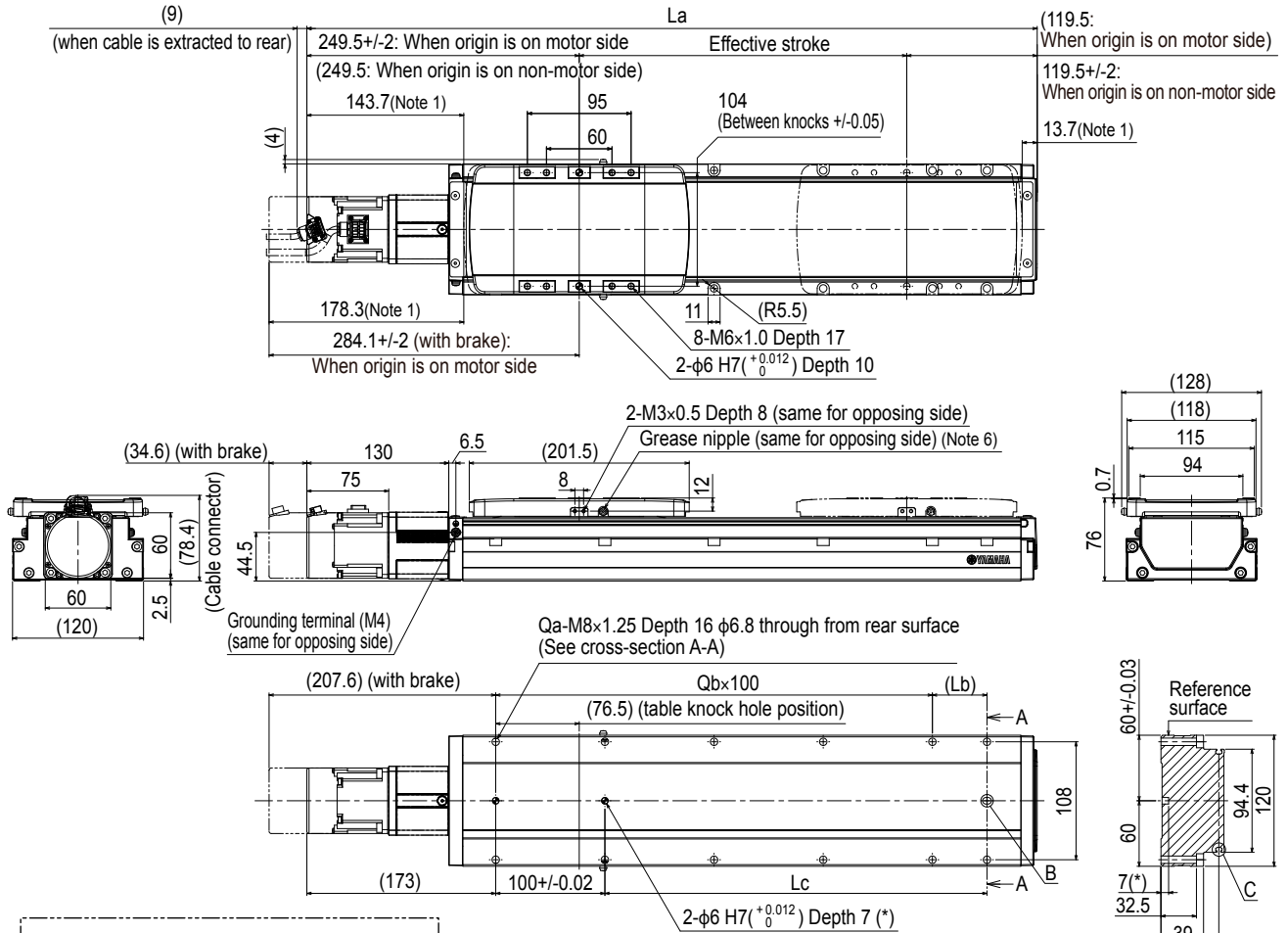
Note. Service life is calculated for 600mm stroke models.

Access the website below.



► The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

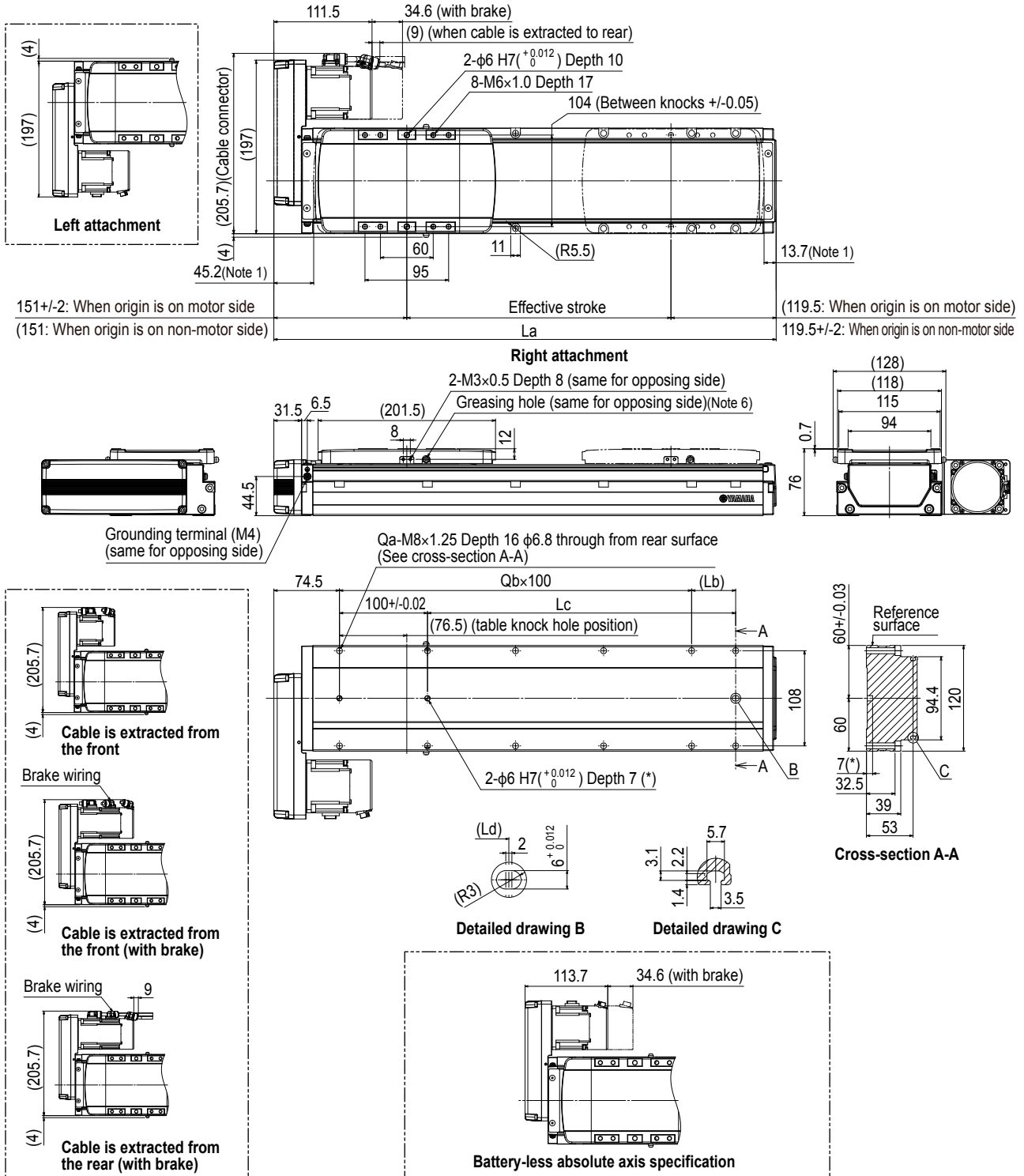
ABAS12 Straight type (S)



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
 Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M6 × 1.0>. In the installation tap hole, the length under head << thickness of stand +16 mm or less >> is recommended for the hex socket head bolts <M8 × 1.25> used to install the main unit.
 Note 4. The weight with the brake is 0.4 kg heavier than the value in the weight column.
 Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
 Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
 Note 7. For 50 mm stroke models, a part of the installation through hole (Qa) used to secure the main body from the top is hidden by the slider. So, only four locations can be used. Therefore, it is recommended to secure the main body from the bottom.

Effective stroke	50 ^{Note 7)}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	
La	419	469	519	569	619	669	719	769	819	869	919	969	1019	1069	1119	1169	1219	1269	1319	1369	1419	1469	1519	1569	1619	
Lb	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
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	
Qa	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	
Qb	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	
Weight (kg) ^{Note 4}	5.3	5.7	6.1	6.5	6.9	7.3	7.7	8.1	8.5	8.9	9.4	9.8	10.2	10.7	11.1	11.5	12	12.4	12.9	13.3	13.7	14.2	14.6	15.1	15.5	
Maximum speed (mm/sec)	Lead 32	1800																								
	Lead 20	1200																								
	Lead 10	600																								
	Lead 5	300																								
Speed setting	-																									
Weight (kg) ^{Note 4}	Lead 32	1620	1440	1260	1080	990	810	720	630	630	540	450	420	420	360	300	240	210	210	180	150	120	120	120	120	
	Lead 20	1080	960	840	720	660	540	480	420	420	360	300	240	210	210	180	150	120	120	105	90	75	60	60	60	
	Lead 10	540	480	420	360	330	270	240	210	210	180	150	120	105	105	90	75	60	60	55	45	35	35	30	25	
	Speed setting	90%	80%	70%	60%	55%	45%	40%	35%	35%	30%	25%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	

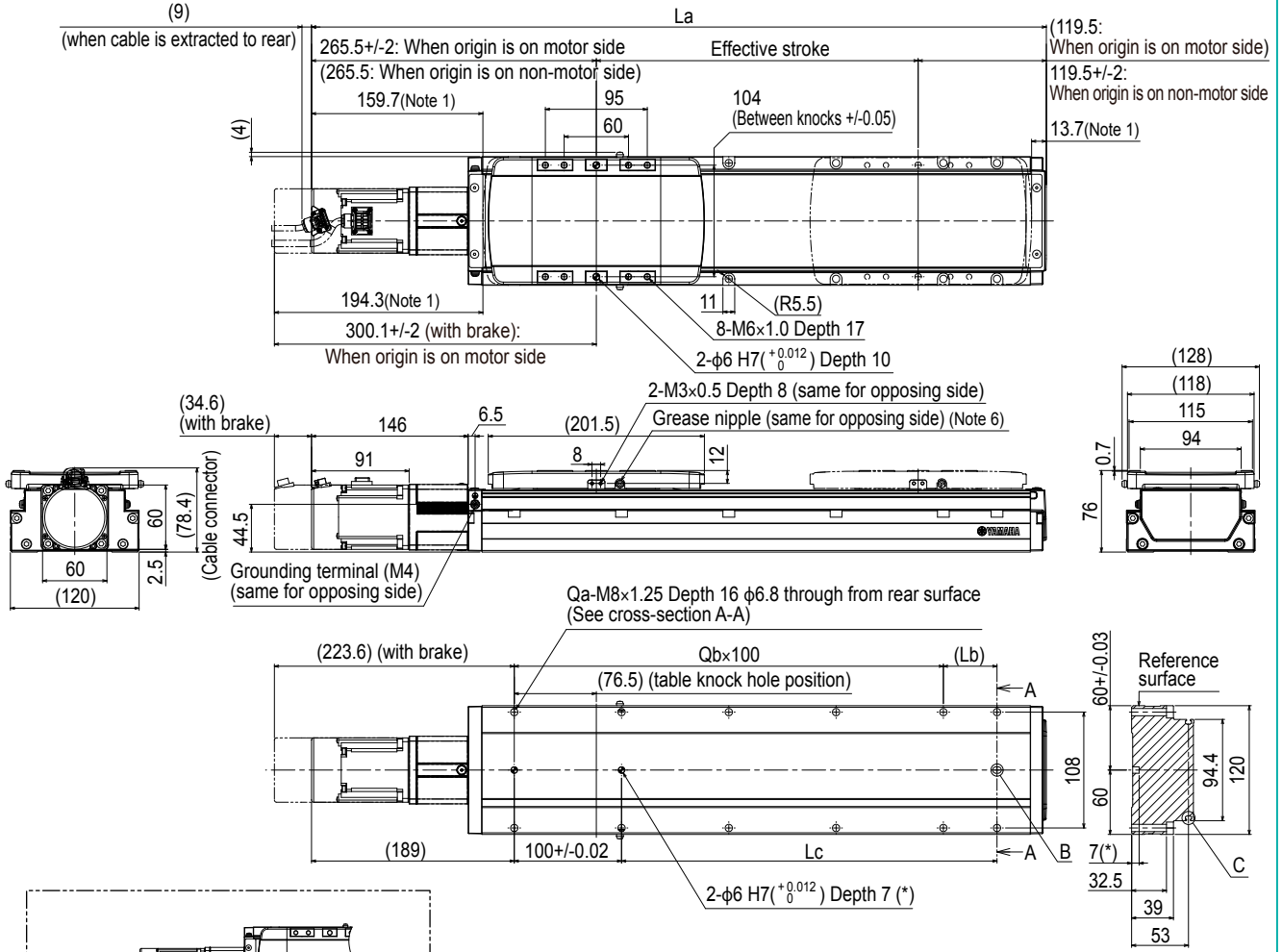
ABAS12 Bending type (R/L)



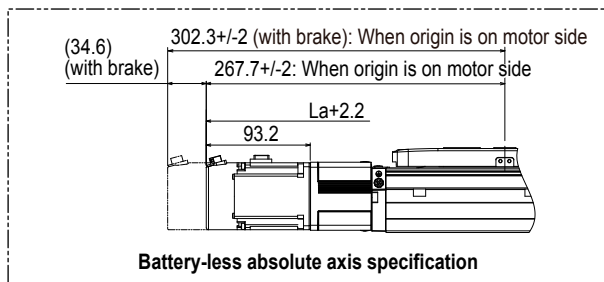
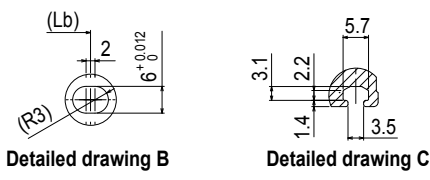
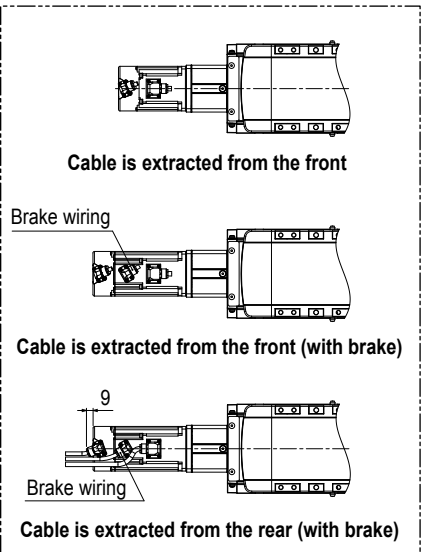
- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M6 × 1.0>. In the installation tap hole, the length under head << thickness of stand + 16 mm or less >> is recommended for the hex socket head bolts <M8 × 1.25> used to install the main unit.
- Note 4. The weight with the brake is 0.4 kg heavier than the value in the weight column.
- Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
- Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
- Note 7. For 50 mm stroke models, a part of the installation through hole (Qa) used to secure the main body from the top is hidden by the slider. So, only four locations can be used. Therefore, it is recommended to secure the main body from the bottom.

Effective stroke	50 ^{Note 7}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	
La	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	1070.5	1120.5	1170.5	1220.5	1270.5	1320.5	1370.5	1420.5	1470.5	1520.5	
Lb	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
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	
Qa	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	
Qb	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	
Weight (kg) ^{Note 4}	5.3	5.7	6.1	6.5	6.9	7.3	7.7	8.1	8.5	9	9.4	9.9	10.3	10.7	11.2	11.6	12	12.5	12.9	13.4	13.8	14.2	14.7	15.1	15.6	
Maximum speed (mm/sec)	Lead 32												1800	1620	1440	1260	1080	990	810	720	630	630	540	450	360	360
	Lead 20												1200	1080	960	840	720	660	540	480	420	420	360	300	240	240
	Lead 10												600	540	480	420	360	330	270	240	210	210	180	150	120	120
	Lead 5												300	270	240	210	180	165	135	120	105	105	90	75	60	60
Speed setting												-	90%	80%	70%	60%	55%	45%	40%	35%	35%	30%	25%	20%	20%	

ABAS12H Straight type (S)



Cross-section A-A



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M6 × 1.0>. In the installation tap hole, the length under head << thickness of stand +16 mm or less >> is recommended for the hex socket head bolts <M8 × 1.25> used to install the main unit.
- Note 4. The weight with the brake is 0.4 kg heavier than the value in the weight column.
- Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
- Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
- Note 7. For 50 mm stroke models, a part of the installation through hole (Qa) used to secure the main body from the top is hidden by the slider. So, only four locations can be used. Therefore, it is recommended to secure the main body from the bottom.

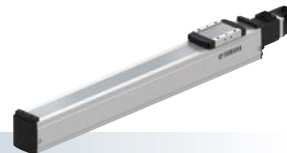
Effective stroke	50 ^{Note 7}	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	
La	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	
Lb	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
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	
Qa	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	
Qb	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	
Weight (kg) ^{Note 4}	5.6	6	6.4	6.8	7.2	7.6	8	8.4	8.8	9.2	9.7	10.1	10.5	11	11.4	11.8	12.3	12.7	13.2	13.6	14	14.5	14.9	15.4	15.8	
Maximum speed (mm/sec)	Lead 32	1800																								
	Lead 20	1200																								
	Lead 10	600																								
	Lead 5	300																								
Speed setting	-																									

AGXS05

Advanced model

Single-axis robots

Slider type



Ordering method

AGXS05										EP-01			
Model	Acceleration/deceleration specifications	Lead	Shape ^{Note 1}	Motor specification	Side cover	Stroke ^{Note 2}	Cable length ^{Note 3}	Cable entry location	Robot positioner	Driver: Power capacity	I/O	Battery ^{Note 4}	
	No entry: Standard H: High agility	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	No entry: Standard W: With T-groove (both sides) R: With T-groove (right side) L: With T-groove (left side)	50 to 800 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None	

Note 1. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.

Note 2. For the high acceleration/deceleration specifications, the stroke is 50 to 550 mm (50 mm pitch).

Note 3. The robot cable is flexible and resists bending.

Note 4. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	50 W
Repeatability ^{Note 1}	+/-0.005 mm
Deceleration mechanism	Ground ball screw ϕ 12 (C5 class)
Stroke	50 mm to 800 mm(50 mm pitch)
Maximum speed ^{Note 2}	1333 mm/sec 666 mm/sec 333 mm/sec
Ball screw lead	20 mm 10 mm 5 mm
Maximum payload	Horizontal: 5 kg, 8 kg, 13 kg Vertical: 2 kg, 4 kg, 8 kg
Rated thrust	41 N, 69 N, 138 N
Maximum dimensions of cross section of main unit	W 48 mm x H 65 mm
Overall length	Straight: ST + 195 mm Bending: ST + 161.5 mm
Degree of cleanliness ^{Note 3}	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air ^{Note 4}	30 N ℓ /min to 100 N ℓ /min
Position detector	Absolute encoder Battery-less absolute encoder
Resolution	23 bits
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

Note 1. Positioning repeatability in one direction.

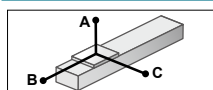
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 600 mm, the ball screw may resonate. (Critical speed)

Note 3. 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 4. The required suction amount will vary according to the operating conditions and operating environment.

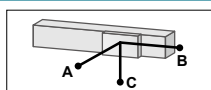
Note. See P.115 for acceleration/deceleration.

Allowable overhang ^{Note}



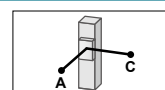
AGXS05-20

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C
2kg	898	269	350	323	234	809
5kg	583	112	159	119	76	427



AGXS05-10

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C
2kg	2505	382	625	585	346	2386
5kg	1366	149	246	195	113	1164
8kg	1036	90	150	95	54	745



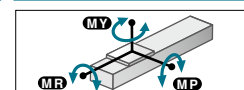
AGXS05-5

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C
3kg	4604	281	497	439	245	4371
8kg	2197	101	179	117	65	1812
13kg	1593	59	105	42	24	1000

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

Controller

Controller	Operation method
EP-01	I/O point trace/ Remote command

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

Specifications

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

Allowable overhang ^{Note}

AGXS05-H20

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C
1kg	498	324	323	297	288	468
2kg	230	157	150	123	120	199

AGXS05-H5

Vertical installation (Unit: mm)	A	C
1kg	223	223
3kg	138	138

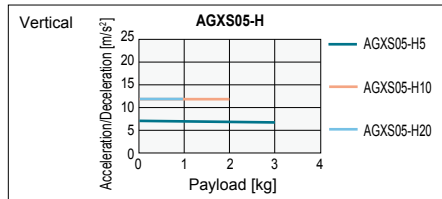
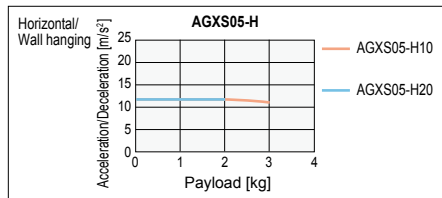
AGXS05-H10

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C
1kg	1159	460	645	606	424	1129
3kg	381	148	206	163	112	346

AGXS05-H20

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

Payload - Acceleration / Deceleration Graph (Estimate)



Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

Note. Service life is calculated for 550 mm stroke models.

Effective stroke and maximum speed during high acceleration or deceleration

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

Note. The bending unit cannot be used for the high agility mode.

Note. The high agility mode is used in an effective stroke range of 50 to 550 (50 mm pitch).

Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.

The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.

Note. When the actuator is used with the high acceleration/deceleration specifications, the operation duty and motor load factor need to be considered. (See P.93.)

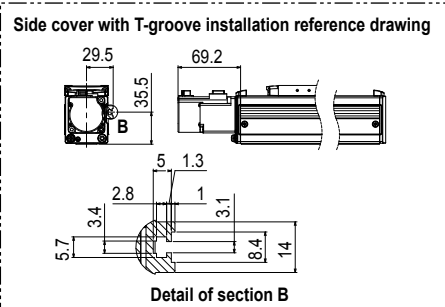
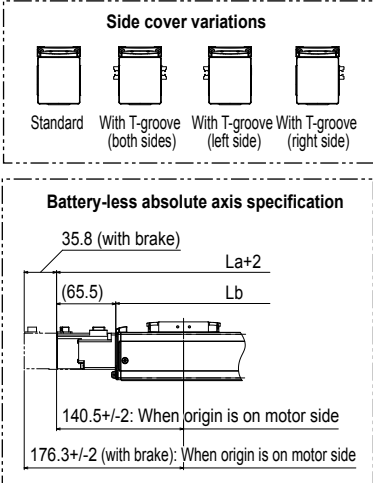
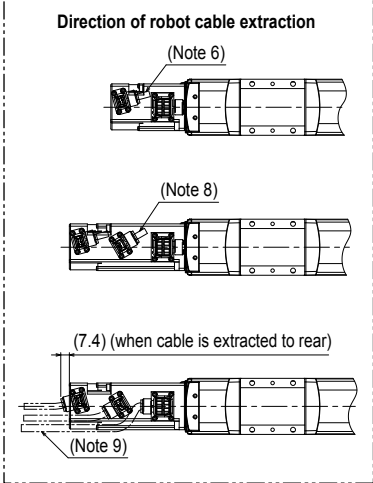
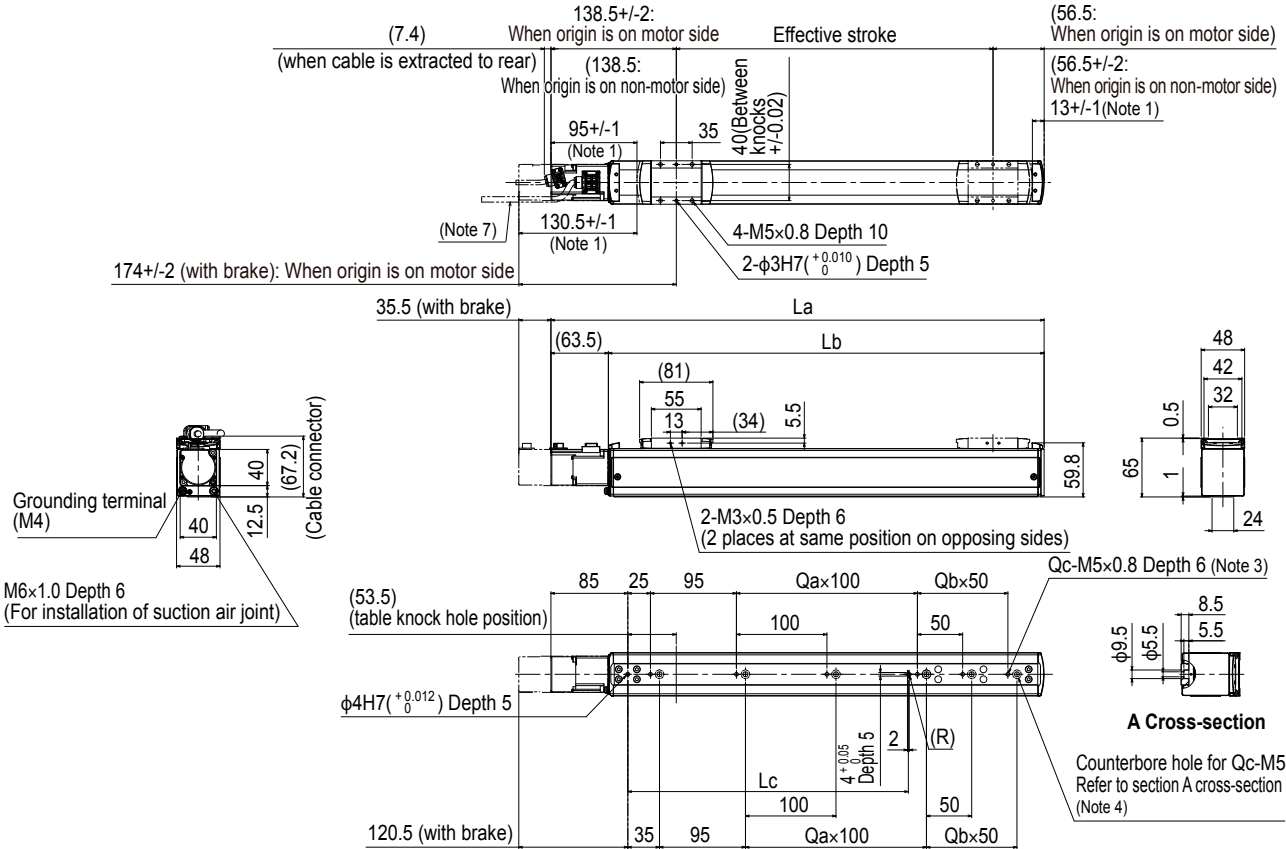
Note. See P.116 for acceleration/deceleration.

Access the website below.



► The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

AGXS05 Straight type (S)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. When using the tap holes to mount the body, remove the set screws first.
- Note 4. When using the counterbore holes (section A cross section) to mount the body, remove the cap from the inner side and then fix. The length under head of the hex socket head bolts (M5 × 0.8) used must be 15 mm or less.
- Note 5. Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Side cover with T-groove is used to install the sensor.
- Note 12. Grease gun nozzle (recommended) (see P.143 for detail)

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	245	295	345	395	445	495	545	595	645	695	745	795	845	895	945	995
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) Note 5	1.5	1.7	1.8	2.0	2.1	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.4	3.5	3.7	3.8
Maximum speed (mm/sec)	Lead 20	1333														
	Lead 10	666														
	Lead 5	333														
	Speed setting	-														
Acceleration/Deceleration (mm/sec²)	Lead 20	1066														
	Lead 10	933														
	Lead 5	532														
	Speed setting	266														
Inertia Moment (kg·m²)	Lead 20	800														
	Lead 10	400														
	Lead 5	200														
	Speed setting	166														
Option	Lead 20	80%														
	Lead 10	70%														
	Lead 5	60%														
	Speed setting	50%														

Features

- Basic model: LBAS
- Advanced model: LGXS
- Basic model: LBAR
- Basic model: ABAS
- Advanced model: AGXS
- Basic model: ABAR

Acceleration/Deceleration Inertia Moment

Option

Single axis sensor: EP-01

AGXS05L

Advanced model

Single-axis robots

Slider type



Ordering method

AGXS05L									EP-01					
Model	Acceleration/deceleration specifications	Lead	Shape Note 1	Motor specification	Side cover	Stroke Note 2	Cable length Note 3	Cable entry location	Robot positioner	Driver Power capacity	Regenerative unit Note 4	I/O	Battery Note 5	
	No entry: Standard H: High agility	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	No entry: Standard W: With T-groove (both sides) R: With T-groove (right side) L: With T-groove (left side)	50 to 800 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None	

- Note 1. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.
 Note 2. For the high acceleration/deceleration specifications, the stroke is 50 to 550 mm (50 mm pitch).
 Note 3. The robot cable is flexible and resists bending.
 Note 4. When the actuator is used vertically and the stroke is 500 mm or more, the regenerative unit is needed.
 Note 5. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
 Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	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	1333 mm/sec 666 mm/sec 333 mm/sec
Ball screw lead	20 mm 10 mm 5 mm
Maximum payload	Horizontal: 20 kg 24 kg 32 kg Vertical: 3 kg 6 kg 12 kg
Rated thrust	84 N 169 N 339 N
Maximum dimensions of cross section of main unit	W 48 mm × H 65 mm
Overall length	Straight ST + 236 mm Bending ST + 191.5 mm
Degree of cleanliness Note 3	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air Note 4	30 Nℓ/min to 100 Nℓ/min
Position detector	Absolute encoder Battery-less absolute encoder 23 bits
Resolution	23 bits
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 600 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. 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 4. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.117 for acceleration/deceleration.

Allowable overhang

AGXS05L-20	AGXS05L-10	AGXS05L-5
Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)
A B C	A B C	A B C
3kg 1755 559 426	6kg 2416 389 333	10kg 3127 254 225
8kg 737 200 153	12kg 1397 187 161	20kg 1841 120 106
12kg 608 133 104	24kg 875 87 74	32kg 1554 70 62
Wall installation (Unit: mm)	Wall installation (Unit: mm)	Wall installation (Unit: mm)
A B C	A B C	A B C
3kg 396 486 1594	6kg 277 316 2192	10kg 162 181 2800
8kg 106 128 525	12kg 101 115 1084	20kg 42 47 1273
12kg 52 61 329	24kg 12 14 276	32kg 0 0 0
Vertical installation (Unit: mm)	Vertical installation (Unit: mm)	Vertical installation (Unit: mm)
A C	A C	A C
1kg 1486 1486	4kg 555 555	5kg 501 501
2kg 730 730	6kg 360 360	10kg 235 235
3kg 478 478		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

	MY	MP	MR
(Unit: N·m)	72	72	64

Controller

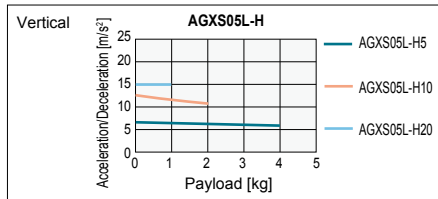
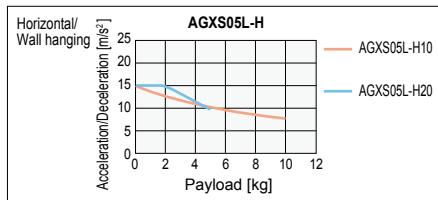
Controller	Operation method
EP-01	I/O point trace/ Remote command

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

Specifications

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

Payload - Acceleration / Deceleration Graph (Estimate)



Allowable overhang

AGXS05L-H20	AGXS05L-H10	AGXS05L-H5
Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)	Vertical installation (Unit: mm)
A B C	A B C	A C
2kg 675 501 332	3kg 1208 469 385	1kg 728 728
5kg 330 191 131	6kg 665 227 188	1kg 1555 1555
	10kg 441 130 108	2kg 762 762
		4kg 365 365
Wall installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
A B C	A B C	A C
2kg 294 428 626	3kg 331 396 1144	1kg 1298 1298
5kg 87 118 251	6kg 131 155 580	2kg 636 636
	10kg 49 58 315	

- 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 550 mm stroke models.

Effective stroke and maximum speed during high acceleration or deceleration

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

- Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 50 to 550 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. When the actuator is used with the high acceleration/deceleration specifications, the operation duty and motor load factor need to be considered. (See P.93.)
 Note. See P.118 for acceleration/deceleration.

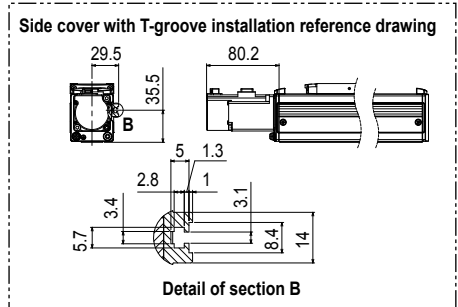
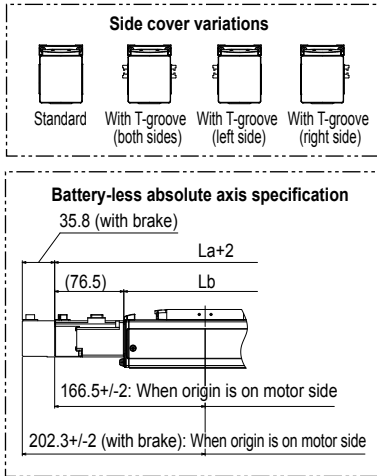
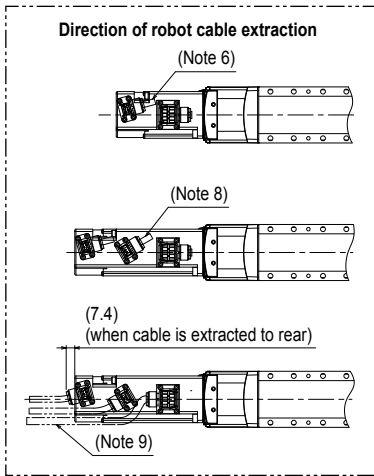
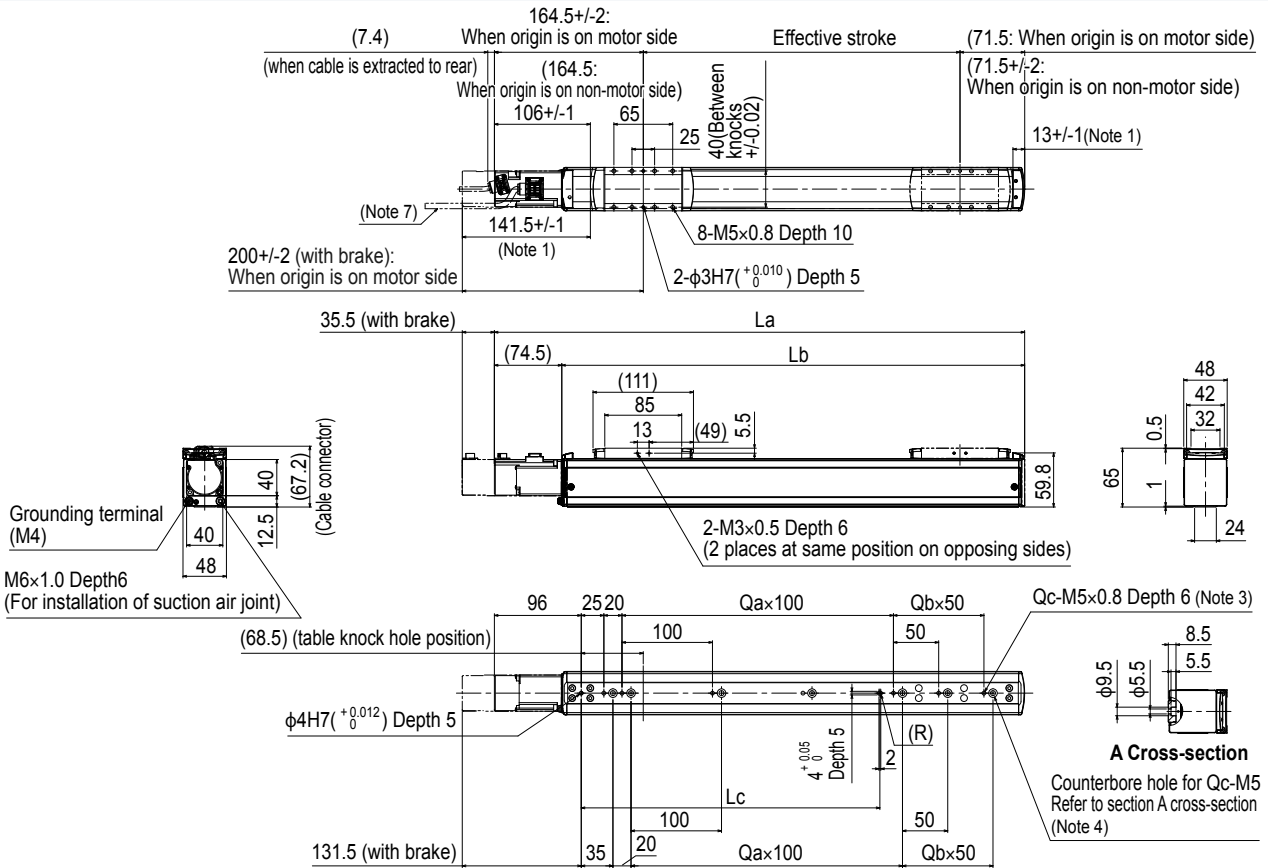
Access the website below.



► The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

Features
 Basic model
 LBAS
 Advanced model
 LGXS
 Basic model
 LBAR
 Basic model
 ABAS
 Advanced model
 AGXS
 Basic model
 ABAR
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single axis robot positioner
 Ep-01

AGXS05L Straight type (S)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. When using the tap holes to mount the body, remove the set screws first.
- Note 4. When using the counterbore holes (section A cross section) to mount the body, remove the cap from the inner side and then fix. The length under head of the hex socket head bolts ($M5 \times 0.8$) used must be 15 mm or less.
- Note 5. Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Side cover with T-groove is used to install the sensor.
- Note 12. Grease gun nozzle (recommended) (see P.143 for detail)

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	286	336	386	436	486	536	586	636	686	736	786	836	886	936	986	1036	
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) Note 5	1.8	1.9	2.1	2.2	2.4	2.6	2.7	2.9	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	
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%

AGXS07

Advanced model

Single-axis robots

Slider type



Ordering method

AGXS07

Model	Acceleration/deceleration specifications	Lead	Shape <small>Note 1</small>	Motor specification	Side cover	Stroke <small>Note 2</small>	Cable length <small>Note 3</small>	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit <small>Note 4</small>	I/O	Battery <small>Note 5</small>
	No entry: Standard H: High agility	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	No entry: Standard W: With T-groove (both sides) R: With T-groove (right side) L: With T-groove (left side)	50 to 1100 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

Note 1. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.
 Note 2. For the high acceleration/deceleration specifications, the stroke is 50 to 650 mm (50 mm pitch).
 Note 3. The robot cable is flexible and resists bending.
 Note 4. When the actuator is used vertically and the stroke is 500 mm or more, the regenerative unit is needed.

Note 5. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
 Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	100 W
Repeatability <small>Note 1</small>	+/-0.005 mm
Deceleration mechanism	Ground ball screw φ 15 (C5 class)
Stroke	50 mm to 1100 mm (50 mm pitch)
Maximum speed <small>Note 2</small>	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	Horizontal 2 kg 4 kg 8 kg 16 kg
Rated thrust	56 N 84 N 169 N 339 N
Maximum dimensions of cross section of main unit	W 70 mm × H 76.5 mm
Overall length	Straight ST + 276.5 mm
	Bending ST + 232 mm
Degree of cleanliness <small>Note 3</small>	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air <small>Note 4</small>	30 Nℓ/min to 115 Nℓ/min
Position detector	Absolute encoder Battery-less absolute encoder
Resolution	23 bits
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. 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 4. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.119 for acceleration/deceleration.

Allowable overhang

AGXS07-30	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
2kg	3078 1509 1221	1237 1442 2975	2335 2335
6kg	1191 501 418	393 435 1062	1158 1158
10kg	957 317 282	244 251 793	

AGXS07-20	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
10kg	1327 370 358	313 304 1164	3416 3416
20kg	1136 186 188	131 119 804	1701 1701
25kg	1509 163 173	109 97 1010	841 841

AGXS07-10	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
15kg	2420 338 372	306 271 2192	1688 1688
30kg	1531 160 176	106 94 1155	827 827
45kg	1181 101 111	39 34 623	612 612

AGXS07-5	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
30kg	2915 172 197	122 106 2458	907 907
50kg	2535 96 110	34 30 1476	591 591
85kg	2024 49 56	0 0 0	314 314

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

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

Specifications

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

Allowable overhang

AGXS07-H30	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
2kg	1020 897 608	579 830 976	1165 1165
5kg	461 346 245	208 279 401	

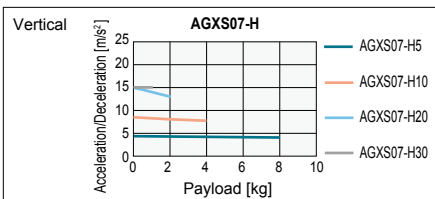
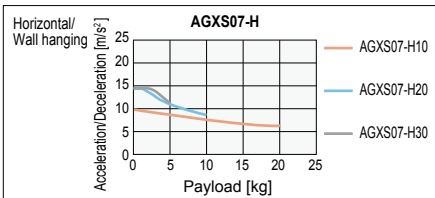
AGXS07-H5	Vertical installation (Unit: mm)
	A C
3kg	1093 1093
5kg	639 639
8kg	384 384

AGXS07-H20	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
3kg	1224 758 640	600 692 1175	1793 1793
6kg	684 369 321	274 303 621	891 891
10kg	459 214 190	138 147 376	

AGXS07-H10	Horizontal installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
	A B C	A B C	A C
5kg	2208 622 665	603 556 2129	3012 3012
12kg	991 249 266	200 182 890	1487 1487
20kg	637 142 152	83 75 497	725 725

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

Payload - Acceleration / Deceleration Graph (Estimate)



Effective stroke and maximum speed during high acceleration or deceleration

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

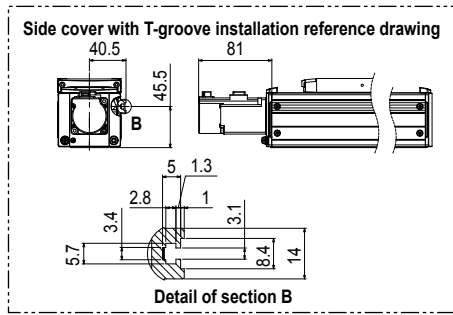
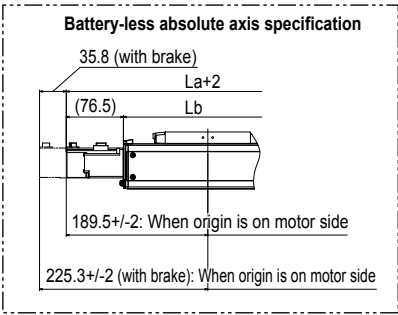
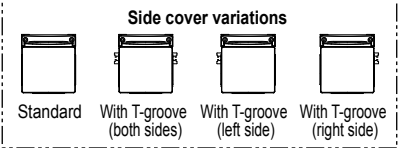
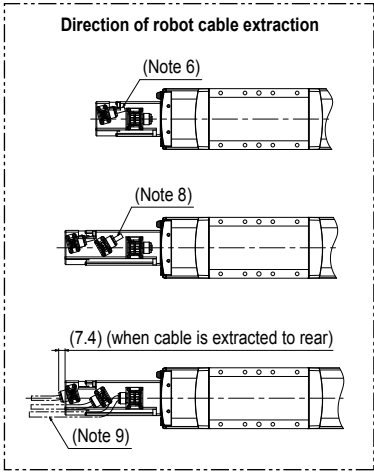
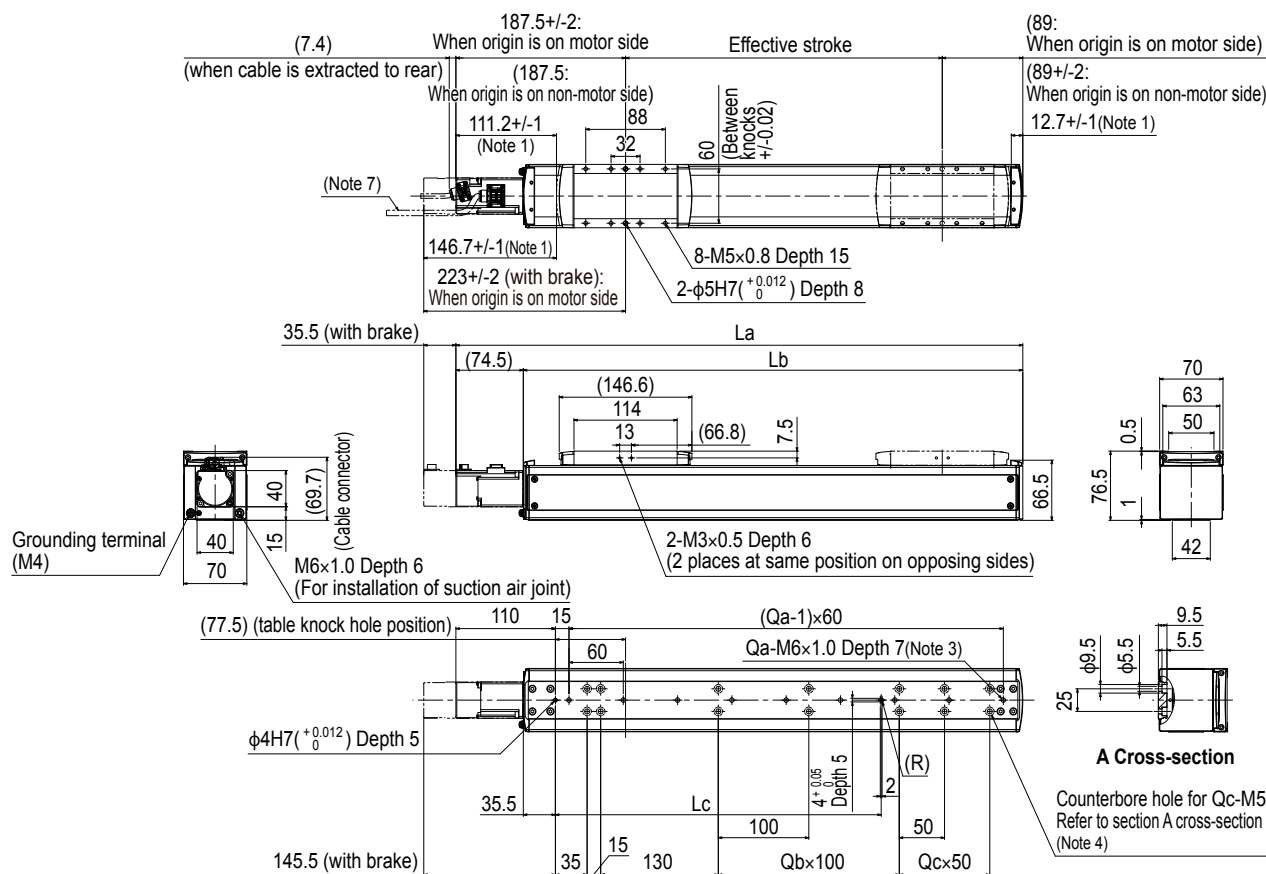
Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 50 to 650 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. When the actuator is used with the high acceleration/deceleration specifications, the operation duty and motor load factor need to be considered. (See P.93.)
 Note. See P.121 for acceleration/deceleration.

Access the website below.



► The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

AGXS07 Straight type (S)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. When using the tap holes to mount the body, remove the set screws first.
- Note 4. When using the counterbore holes (section A cross section) to mount the body, remove the cap from the inner side and then fix. The length under head of the hex socket head bolts (M5 × 0.8) used must be 15 mm or less.
- Note 5. Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Side cover with T-groove is used to install the sensor.
- Note 12. Grease gun nozzle (recommended) (see P.143 for detail)

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	326.5	376.5	426.5	476.5	526.5	576.5	626.5	676.5	726.5	776.5	826.5	876.5	926.5	976.5	1026.5	1076.5	1126.5	1176.5	1226.5	1276.5	1326.5	1376.5
Lb	252	302	352	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202	1252	1302
Lc	160	160	160	160	360	360	360	360	360	360	360	360	360	760	760	760	760	760	760	760	760	760
Qa	4	5	5	6	7	8	9	10	10	11	12	13	14	15	15	16	17	18	19	20	20	21
Qb	0	0	0	0	2	2	2	2	2	2	2	2	6	6	6	6	6	6	6	6	6	6
Qc	0	1	2	3	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9
Qd	6	8	10	12	10	12	14	16	18	20	22	24	18	20	22	24	26	28	30	32	34	36
Weight (kg) Note 5	3.6	3.8	4.1	4.4	4.7	4.9	5.2	5.5	5.7	6.0	6.3	6.6	6.8	7.1	7.4	7.6	7.9	8.2	8.5	8.7	9.0	9.3
Maximum speed (mm/sec)	Lead 30	1800										1530										
	Lead 20	1200										1020										
	Lead 10	600										510										
	Lead 5	300										255										
Speed setting	-										85%											

Features

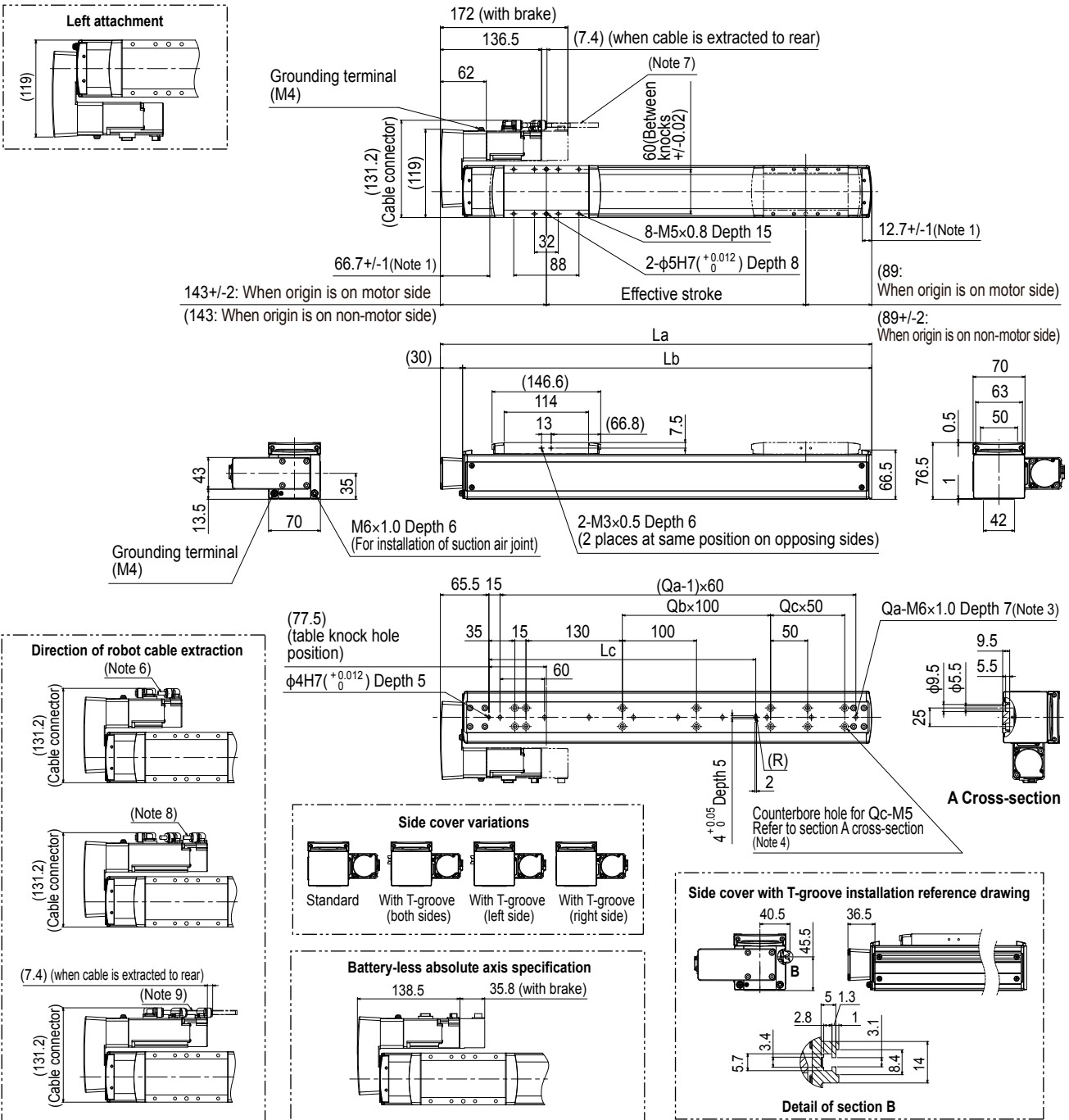
- Basic model: LBAS
- Advanced model: LGXS
- Basic model: LBAR
- Basic model: ABAS
- Advanced model: AGXS
- Basic model: ABAR

Acceleration/Deceleration Inertia Moment

Option

Single axis sensor EP-01

AGXS07 Bending type (R/L)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. When using the tap holes to mount the body, remove the set screws first.
- Note 4. When using the counterbore holes (section A cross section) to mount the body, remove the cap from the inner side and then fix. The length under head of the hex socket head bolts (M5 \times 0.8) used must be 15 mm or less.
- Note 5. Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.

- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Side cover with T-groove is used to install the sensor.
- Note 12. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.
- Note 13. Grease gun nozzle (recommended) (see P.143 for detail)

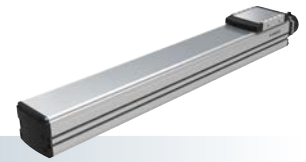
Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
La	282	332	382	432	482	532	582	632	682	732	782	832	882	932	982	1032	1082	1132	1182	1232	1282	3321	
Lb	252	302	352	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202	1252	1302	
Lc	160	160	160	160	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
Qa	4	5	5	6	7	8	9	10	10	11	12	13	14	15	15	16	17	18	19	20	20	21	
Qb	0	0	0	0	2	2	2	2	2	2	2	2	2	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) Note 5	4.0	4.2	4.5	4.8	5.1	5.3	5.6	5.9	6.1	6.4	6.7	7.0	7.2	7.5	7.8	8.0	8.3	8.6	8.9	9.1	9.4	9.7	
Maximum speed (mm/sec)	Lead 30							1800								1530	1350	1170	990	900	810	720	630
	Lead 20							1200								1020	900	780	660	600	540	480	420
	Lead 10							600								510	450	390	330	300	270	240	210
	Lead 5							300								255	225	195	165	150	135	120	105
Speed setting																85%	75%	65%	55%	50%	45%	40%	35%

AGXS10

Advanced model

Single-axis robots

Slider type



Ordering method

Model	Acceleration/deceleration specifications	Lead	Shape <small>Note 1</small>	Motor specification	Stroke <small>Note 2</small>	Cable length <small>Note 3</small>	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit <small>Note 4</small>	I/O	Battery <small>Note 5</small>
AGXS10	No entry: Standard H: High agility	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	100 to 1250 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200 W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

Note 1. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.
 Note 2. For the high acceleration/deceleration specifications, the stroke is 100 to 650 mm (50 mm pitch).
 Note 3. The robot cable is flexible and resists bending.
 Note 4. When the actuator is used vertically, the regenerative unit is needed.
 When the actuator is used horizontally and the stroke of lead 10, 20, or 30 is 300 to 800 mm, the regenerative unit is needed.
 Note 5. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
 Note. The return-to-origin direction can be changed by changing the parameter.
 (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	200 W
Repeatability <small>Note 1</small>	+/-0.005 mm
Deceleration mechanism	Ground ball screw ϕ 15 (C5 class)
Stroke	100 mm to 1250 mm (50 mm pitch)
Maximum speed <small>Note 2</small>	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	Horizontal 25 kg 40 kg 80 kg 100 kg Vertical 4 kg 8 kg 20 kg 30 kg
Rated thrust	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	Straight ST + 250.5 mm Bending ST + 220.5 mm
Degree of cleanliness <small>Note 3</small>	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air <small>Note 4</small>	30 N ℓ /min to 90 N ℓ /min
Position detector	Absolute encoder Battery-less absolute encoder
Resolution	23 bits
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. 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 4. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.122 for acceleration/deceleration.

Allowable overhang

AGXS10-30	AGXS10-20	AGXS10-10	AGXS10-5
Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)
A B C	A B C	A B C	A B C
10kg 878 537 292	15kg 1269 451 282	30kg 1794 298 203	30kg 5605 321 225
20kg 609 256 146	25kg 754 253 158	50kg 1358 162 111	50kg 3694 177 124
25kg 608 211 124	40kg 466 142 88	80kg 1266 86 59	80kg 2619 95 67
Wall installation (Unit: mm)	Wall installation (Unit: mm)	Wall installation (Unit: mm)	Wall installation (Unit: mm)
A B C	A B C	A B C	A B C
10kg 271 473 803	15kg 252 387 1159	30kg 162 234 1623	30kg 181 258 5195
20kg 118 192 481	25kg 123 189 629	50kg 68 98 1060	50kg 79 113 3111
25kg 93 147 454	40kg 51 78 311	80kg 16 22 552	80kg 22 31 1557
Vertical installation (Unit: mm)	Vertical installation (Unit: mm)	Vertical installation (Unit: mm)	Vertical installation (Unit: mm)
A C	A C	A C	A C
1kg 4135 4135	3kg 2062 2062	5kg 1926 1926	10kg 1018 1018
4kg 985 985	6kg 1012 1012	10kg 931 931	20kg 477 477
	8kg 750 750	20kg 434 434	30kg 296 296

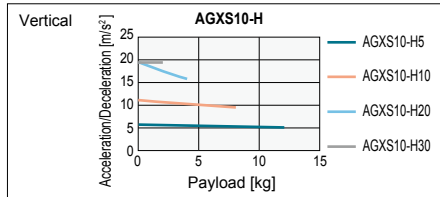
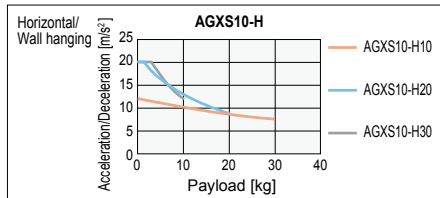
Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
 Note. Service life is calculated for 600 mm stroke models.

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

Specifications

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

Payload - Acceleration / Deceleration Graph (Estimate)



Allowable overhang

AGXS10-H30	AGXS10-H20	AGXS10-H10	AGXS10-H5
Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)	Vertical installation (Unit: mm)
A B C	A B C	A B C	A C
3kg 1041 1117 541	5kg 1218 844 493	10kg 1851 568 383	4kg 1550 1550
6kg 581 534 266	12kg 575 326 193	20kg 973 263 177	8kg 743 743
10kg 384 300 153	20kg 375 177 106	30kg 671 162 109	12kg 474 474
Wall installation (Unit: mm)	Wall installation (Unit: mm)	Wall installation (Unit: mm)	Vertical installation (Unit: mm)
A B C	A B C	A B C	A C
3kg 521 1046 1009	5kg 464 778 1177	10kg 343 504 1784	2kg 1602 1602
6kg 241 466 539	12kg 159 261 516	20kg 136 199 885	4kg 788 788
10kg 125 235 327	20kg 70 113 290	30kg 67 98 552	
Vertical installation (Unit: mm)	Vertical installation (Unit: mm)	Vertical installation (Unit: mm)	Vertical installation (Unit: mm)
A C	A C	A C	A C
1kg 2054 2054	2kg 1602 1602	3kg 1849 1849	5kg 1086 1086
2kg 994 994	4kg 788 788	8kg 656 656	

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

Effective stroke and maximum speed during high acceleration or deceleration

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

Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 100 to 650 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. When the actuator is used with the high acceleration/deceleration specifications, the operation duty and motor load factor need to be considered. (See P.93.)
 Note. See P.124 for acceleration/deceleration.

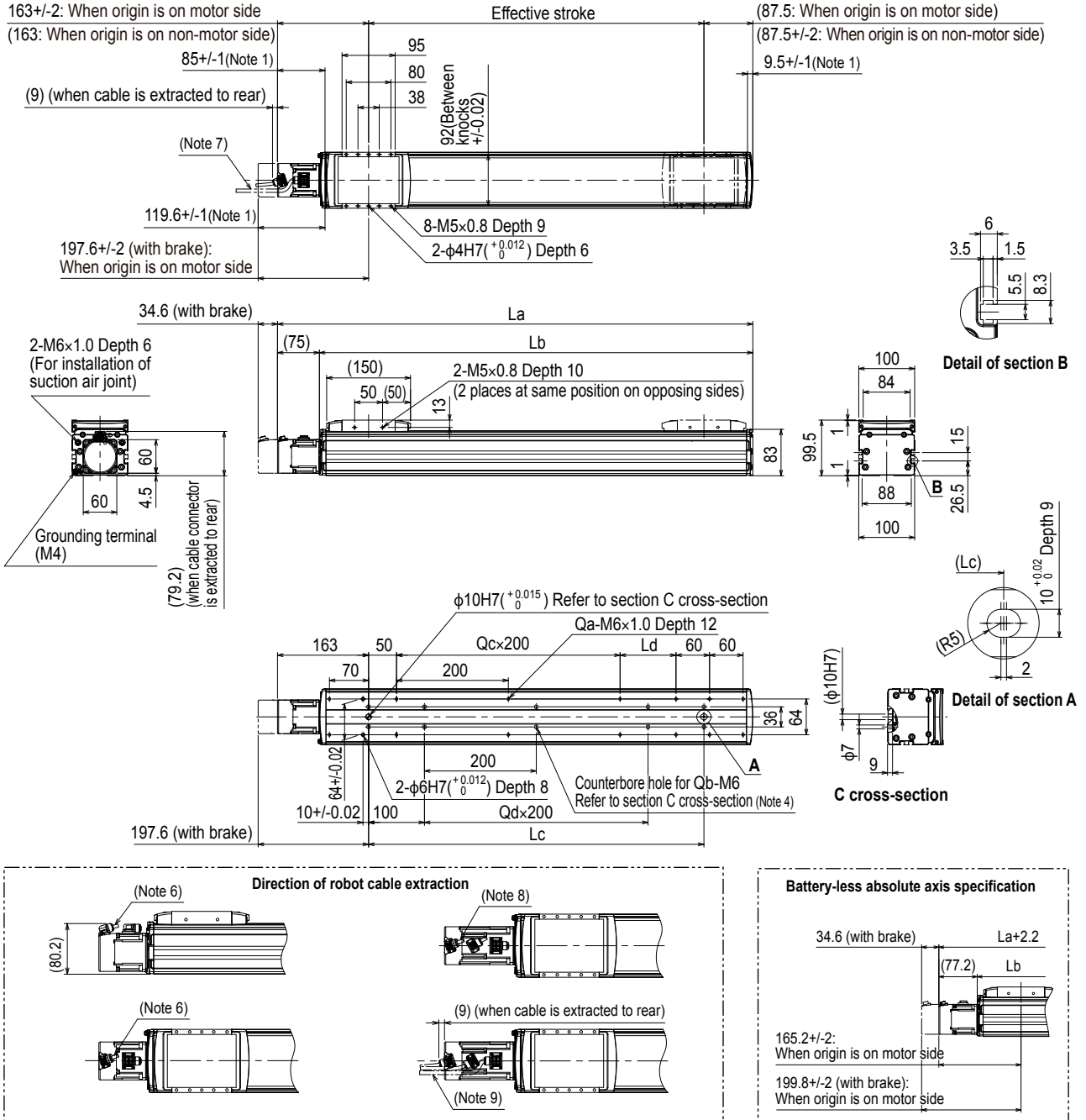
Access the website below.



► The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

Features
 Basic model
 LBAS
 Advanced model
 LGXS
 Basic model
 LBAR
 Basic model
 ABAS
 Advanced model
 AGXS
 Basic model
 ABAR
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single axis robot positioner
 EP-01

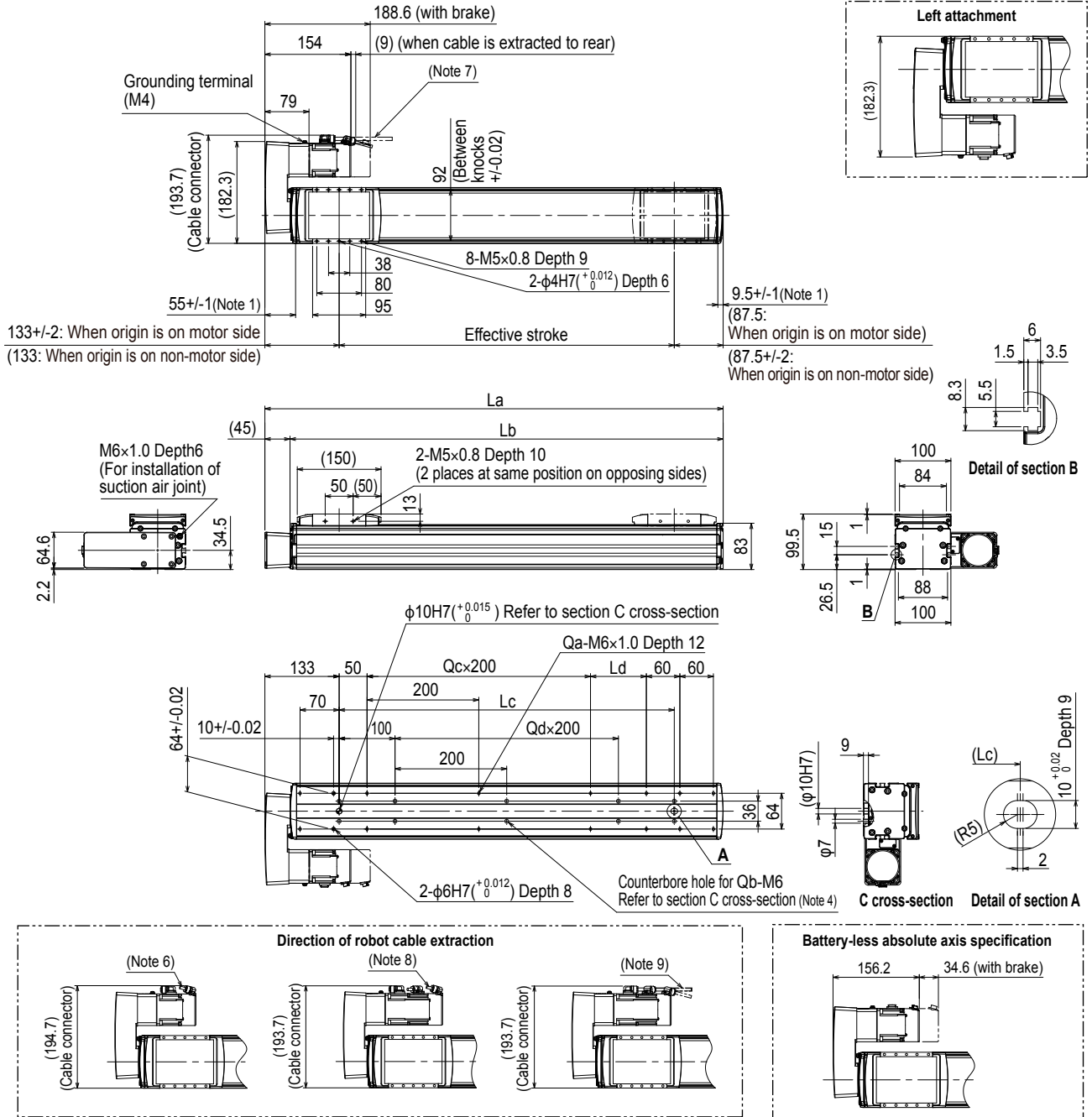
AGXS10 Straight type (S)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter.
(The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. The length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting counterbore 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 4. When using the mounting counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 5. Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30.
When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Grease gun nozzle (recommended) (see P.143 for detail)

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	
La	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5	1050.5	1100.5	1150.5	1200.5	1250.5	1300.5	1350.5	1400.5	1450.5	1500.5	
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	20	20	20	
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	
Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	
Weight (kg) Note 5	5.4	5.9	6.4	6.9	7.4	7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	
Maximum speed (mm/sec)	Lead 30	1800											1530	1350	1170	990	900	810	720	630	540	450	360	300	
	Lead 20	1200											1020	900	780	660	600	540	480	420	360	300	240	180	150
	Lead 10	600											510	450	390	330	300	270	240	210	180	150	120	90	75
	Lead 5	300											255	225	195	165	150	135	120	105	90	75	60	45	30
Speed setting	-											85%	75%	65%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%	

AGXS10 Bending type (R/L)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. The length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting counterbore 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 4. When using the mounting counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 5. Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.
- Note 12. Grease gun nozzle (recommended) (see P.143 for detail)

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		
La	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	1070.5	1120.5	1170.5	1220.5	1270.5	1320.5	1370.5	1420.5	1470.5		
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	20	20	20		
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16		
Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5		
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5		
Weight (kg) Note 5	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	16.6	17.1	17.6	18.1		
Maximum speed (mm/sec)	Lead 30												1530	1350	1170	990	900	810	720	630	540	450	360	300	250	
	Lead 20												1020	900	780	660	600	540	480	420	360	300	240	210	180	150
	Lead 10												510	450	390	330	300	270	240	210	180	150	120	105	90	75
	Lead 5												255	225	195	165	150	135	120	105	90	75	60	52.5	45	37.5
Speed setting												85%	75%	65%	55%	50%	45%	40%	35%	30%	25%					

Features

- Basic model: LBAS
- Advanced model: LGXS
- Basic model: LBAR
- Basic model: ABAS
- Advanced model: AGXS
- Basic model: ABAR

Acceleration/Deceleration Inertia Moment

Option

Single axis option EP-01

AGXS12

Advanced model

Single-axis robots

Slider type



Ordering method

AGXS12										EP-01				
Model	Acceleration/Deceleration specifications	Lead	Shape ^{Note 1}	Motor specification	Stroke ^{Note 2}	Cable length ^{Note 3}	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit ^{Note 4}	I/O	Battery ^{Note 5}		
	No entry: Standard H: High agility	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	100 to 1250 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A30: 400W/750W	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None		

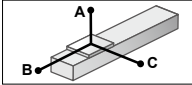
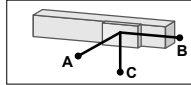
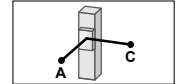
Note 1. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.
 Note 2. For the high acceleration/deceleration specifications, the stroke is 100 to 650 mm (50 mm pitch).
 Note 3. The robot cable is flexible and resists bending.
 Note 4. When the actuator is used vertically or horizontally and the stroke is 400 mm or more, the regenerative unit is needed.
 Note 5. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	400 W
Repeatability ^{Note 1}	+/-0.005 mm
Deceleration mechanism	Ground ball screw φ 15 (C5 class)
Stroke	100 mm to 1250 mm (50 mm pitch)
Maximum speed ^{Note 2}	1800 mm/sec 1200 mm/sec 600 mm/sec 300 mm/sec
Ball screw lead	30 mm 20 mm 10 mm 5 mm
Maximum payload	Horizontal: 35 kg, 50 kg, 95 kg, 115 kg Vertical: 8 kg, 15 kg, 25 kg, 45 kg
Rated thrust	225 N, 339 N, 678 N, 1360 N
Maximum dimensions of cross section of main unit	W 125 mm × H 101 mm
Overall length	Straight: ST + 302.5 mm Bending: ST + 256.5 mm
Degree of cleanliness ^{Note 3}	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air ^{Note 4}	30 Nl/min to 90 Nl/min
Position detector	Absolute encoder Battery-less absolute encoder
Resolution	23 bits
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed)
 At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 Note 3. 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 4. The required suction amount will vary according to the operating conditions and operating environment.
 Note. See P.126 for acceleration/deceleration.

Allowable overhang ^{Note}

AGXS12-30	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
10kg	1796	1074	637	10kg	631	1009	1720	3kg	2642	2642
20kg	1300	531	332	20kg	316	466	1171	6kg	1289	1289
35kg	1341	334	227	35kg	197	269	1130	8kg	951	951

AGXS12-20	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
15kg	2231	904	613	15kg	591	839	2141	5kg	2424	2424
30kg	1290	428	293	30kg	260	363	1167	10kg	1207	1207
50kg	882	237	164	50kg	126	172	710	15kg	803	803

AGXS12-10	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
30kg	3109	607	456	30kg	413	542	2978	10kg	1862	1862
50kg	2421	345	260	50kg	215	280	2208	15kg	1221	1221
80kg	2417	198	150	80kg	103	133	1927	25kg	708	708
95kg	2559	159	121	95kg	73	95	1830			

AGXS12-5	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
30kg	11079	653	504	30kg	456	588	10692	15kg	1332	1332
50kg	7434	373	288	50kg	239	308	6935	30kg	634	634
80kg	5458	215	166	80kg	117	150	4713	45kg	402	402
115kg	4364	136	105	115kg	55	71	3221			

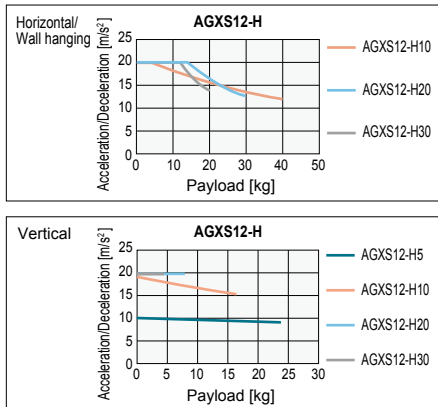
Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
 Note. Service life is calculated for 600 mm stroke models.

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

Specifications

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

Payload - Acceleration / Deceleration Graph (Estimate)



Allowable overhang ^{Note}

AGXS12-H30	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
5kg	1216	1297	669	5kg	648	1224	1183	2kg	1984	1984
12kg	461	506	252	12kg	226	436	427	4kg	960	960
20kg	316	280	147	20kg	117	213	266			

AGXS12-H20	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
10kg	999	807	489	10kg	458	740	966	3kg	2031	2031
20kg	521	378	231	20kg	196	311	479	5kg	1193	1193
30kg	382	234	146	30kg	109	168	325	8kg	722	722

AGXS12-H10	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
15kg	1668	737	535	15kg	491	672	1628	5kg	2071	2071
25kg	1060	423	308	25kg	263	358	1012	10kg	1011	1011
40kg	709	246	180	40kg	134	181	644	16kg	612	612

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

Effective stroke and maximum speed during high acceleration or deceleration

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

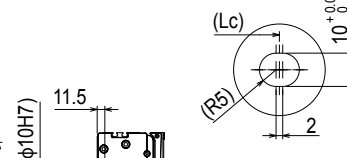
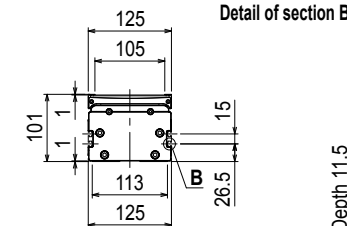
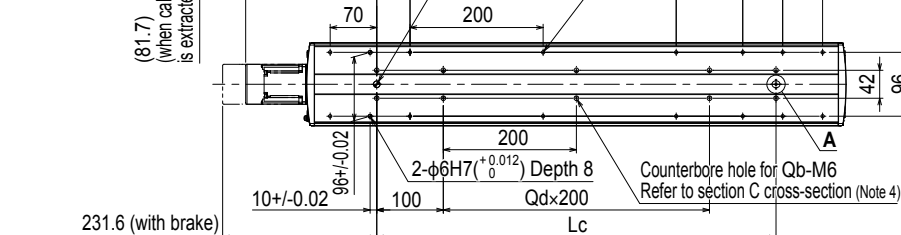
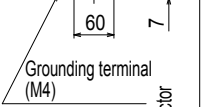
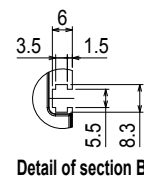
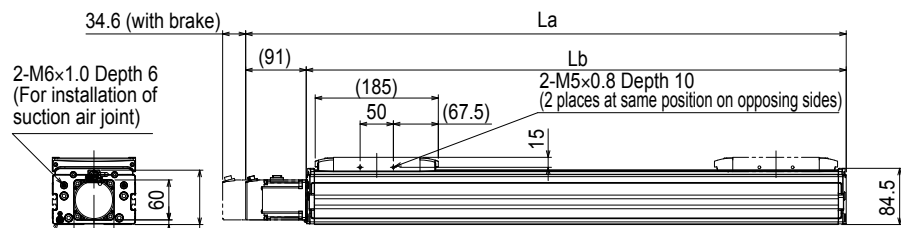
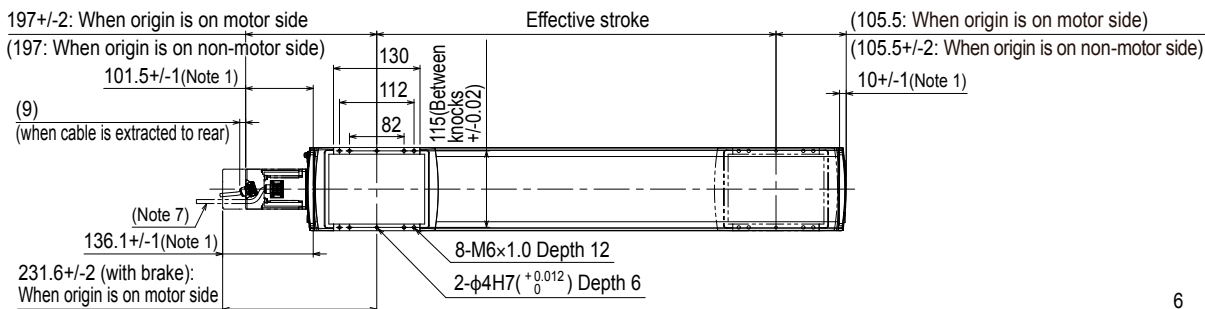
Note. The bending unit cannot be used for the high agility mode.
 Note. The high agility mode is used in an effective stroke range of 100 to 650 (50 mm pitch).
 Note. There is no critical speed setting. The maximum speed can be set for a selectable stroke.
 The speed may not reach the maximum speed if the movement distance is short or depending on the operating conditions.
 Note. When the actuator is used with the high acceleration/deceleration specifications, the operation duty and motor load factor need to be considered. (See P.93.)
 Note. See P.128 for acceleration/deceleration.

Access the website below.

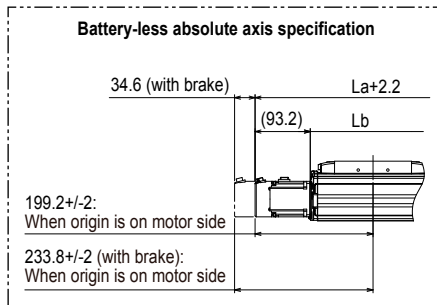
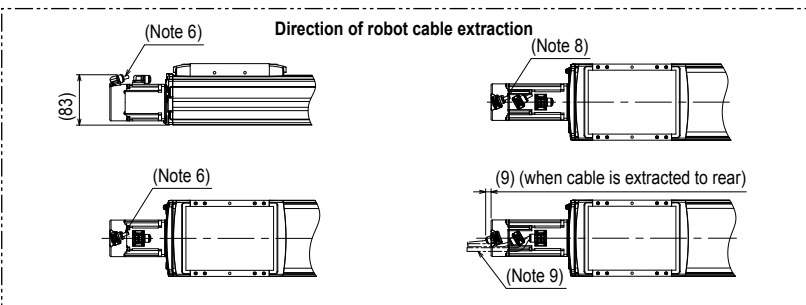


► The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

AGXS12 Straight type (S)



C cross-section



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. The length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting counterbore 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 4. When using the mounting counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 5. Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Grease gun nozzle (recommended) (see P.143 for detail)

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	
La	402.5	452.5	502.5	552.5	602.5	652.5	702.5	752.5	802.5	852.5	902.5	952.5	1002.5	1052.5	1102.5	1152.5	1202.5	1252.5	1302.5	1352.5	1402.5	1452.5	1502.5	1552.5	
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	
Qa	8	10	10	10	10	12	12	12	12	14	14	14	14	14	16	16	16	16	18	18	18	20	20	20	
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	10	12	12	12	12	14	14	14	16	16	16	
Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3	3	3	3	4	4	4	5	5	5	
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3	3	3	3	4	4	4	5	5	5	
Weight (kg) Note 5	7.6	8.2	8.9	9.6	10.2	10.9	11.6	12.3	12.9	13.6	14.3	15.0	15.6	16.3	17.0	17.6	18.3	19.0	19.7	20.3	21.0	21.7	22.4	23.0	
Maximum speed (mm/sec)	Lead 30	1800																							
	Lead 20	1200																							
	Lead 10	600																							
	Lead 5	300																							
Speed setting	-																								
	85% 75% 65% 55% 50% 45% 40% 35% 30% 25%																								

Features

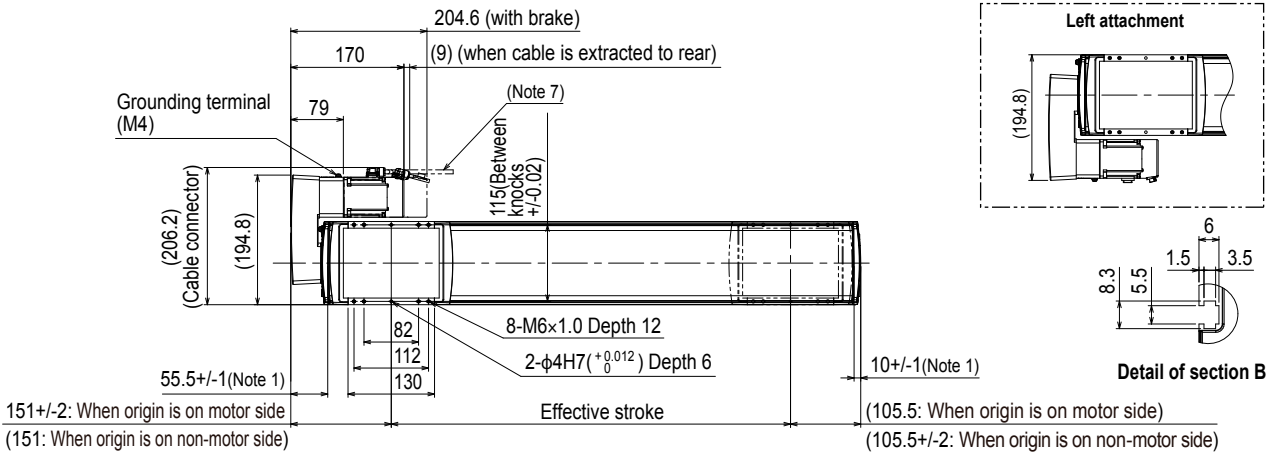
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- Advanced model: LGXS
- Basic model: LBAR
- Basic model: ABAS
- Advanced model: AGXS
- Basic model: ABAR

Acceleration/Deceleration
Inertia Moment

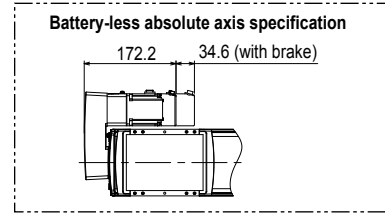
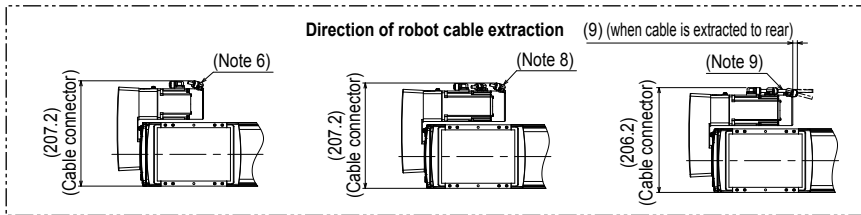
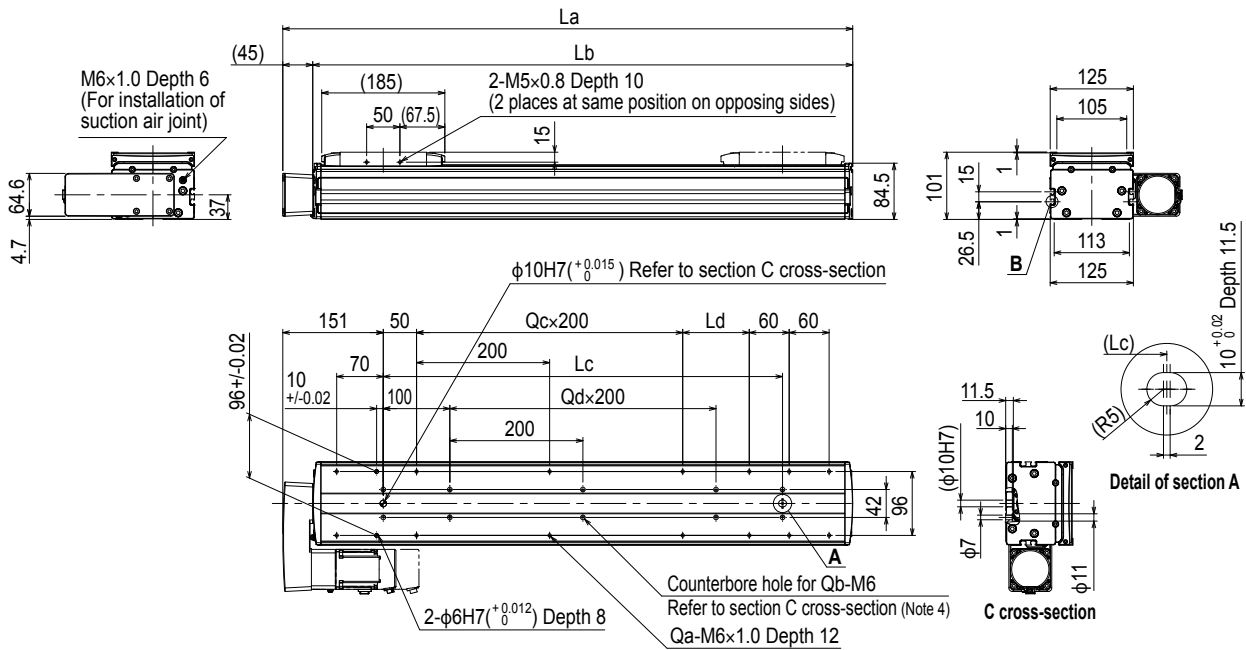
Option

Single axis sensor
EP-01

AGXS12 Bending type (R/L)



151+/-2: When origin is on motor side (151: When origin is on non-motor side)
 Effective stroke (105.5: When origin is on motor side) (105.5+/-2: When origin is on non-motor side)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. The length under head of the hex socket head bolts $\phi M6 \times 1.0$ used to mount the body with the mounting counterbore holes (section C cross-section) must be $\ll 20 \text{ mm or more} \gg$. The recommended length under head of the hex socket head bolts $\phi M6 \times 1.0$ used to mount the body with the mounting tap hole specifications is $\ll \text{frame thickness} + 10 \text{ mm or less} \gg$.
- Note 4. When using the mounting counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 5. Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.
- Note 12. Grease gun nozzle (recommended) (see P.143 for detail)

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
La	356.5	406.5	456.5	506.5	556.5	605.5	656.5	706.5	756.5	806.5	856.5	906.5	956.5	1006.5	1056.5	1106.5	1156.5	1206.5	1256.5	1306.5	1356.5	1406.5	1456.5	1506.5
Lb	311.5	361.5	411.5	461.5	511.5	561.5	611.5	661.5	711.5	761.5	811.5	861.5	911.5	961.5	1011.5	1061.5	1111.5	1161.5	1211.5	1261.5	1311.5	1361.5	1411.5	1461.5
Lc	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Ld	0	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
Qa	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
Weight (kg) Note 5	8.8	9.4	10.1	10.8	11.4	12.1	12.8	13.5	14.1	14.8	15.5	16.2	16.8	17.5	18.2	18.8	19.5	20.2	20.9	21.5	22.2	22.9	23.6	24.2
Maximum speed (mm/sec)	Lead 30	-																						
	Lead 20	-																						
	Lead 10	-																						
	Lead 5	-																						
Speed setting	-																							

AGXS20

Advanced model

Single-axis robots

Slider type



Ordering method

AGXS20							EP-01				
Model	Lead	Shape	Motor specification	Stroke	Cable length	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit	I/O	Battery
	40: 40 mm 20: 20 mm 10: 10 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	100 to 1450 (50mm pitch)	Note 1 R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A30: 400W/750W	Note 2 No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	Note 3 B: With battery N: None

Note 1. The robot cable is flexible and resists bending.

Note 2. When the actuator is used vertically, the regenerative unit is needed.

When the actuator is used horizontally and the stroke of lead 20 is 400 to 850 mm or the stroke of lead 40 is 600 to 950 mm, the regenerative unit is needed.

Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	750 W		
Repeatability Note 1	+/- 0.005 mm		
Deceleration mechanism	Ground ball screw φ 20 (C5 class)		
Stroke	100 mm to 1450 mm(50 mm pitch)		
Maximum speed Note 2	2400 mm/sec	1200 mm/sec	600 mm/sec
Ball screw lead	40 mm	20 mm	10 mm
Maximum payload	Horizontal	65 kg	130 kg
	Vertical	15 kg	35 kg
Rated thrust	320 N	640 N	1280 N
Maximum dimensions of cross section of main unit	W 200 mm × H 140 mm		
Overall length	Straight	ST + 390.8 mm	
	Bending	ST + 340.5 mm	
Degree of cleanliness Note 3	ISO CLASS 3 (ISO14644-1) or equivalent		
Intake air Note 4	30 Nℓ/min to 90 Nℓ/min		
Position detector	Absolute encoder Battery-less absolute encoder		
Resolution	23 bits		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 800 mm, the ball screw may resonate. (Critical speed)

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

Note 3. 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.

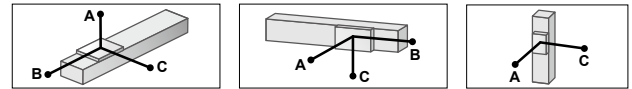
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Note. See P.133 for acceleration/deceleration.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Allowable overhang



AGXS20-40

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
20kg	5318	2821	2096	20kg	2171	2751	5211	5kg	8187	8187
40kg	4836	1609	1369	40kg	1417	1539	4667	10kg	5203	5203
65kg	4824	1088	1001	65kg	1013	1018	4575	15kg	4810	4810

AGXS20-20

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
50kg	5436	1493	1377	50kg	1390	1423	5265	20kg	3436	3436
80kg	4417	911	854	80kg	849	841	4153	30kg	2600	2600
100kg	4592	756	727	100kg	708	686	4253	35kg	3073	3073
130kg	4338	596	584	130kg	550	526	3933			

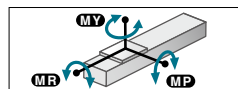
AGXS20-10

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	C		
40kg	22519	2607	2713	40kg	2704	2537	22210	20kg	5157	5157
80kg	16716	1274	1331	80kg	1293	1204	16141	40kg	2553	2553
120kg	14066	830	868	120kg	818	760	13223	65kg	1600	1600
160kg	12284	608	637	160kg	580	538	11190			

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

Note. Service life is calculated for 600 mm stroke models.

Static loading moment



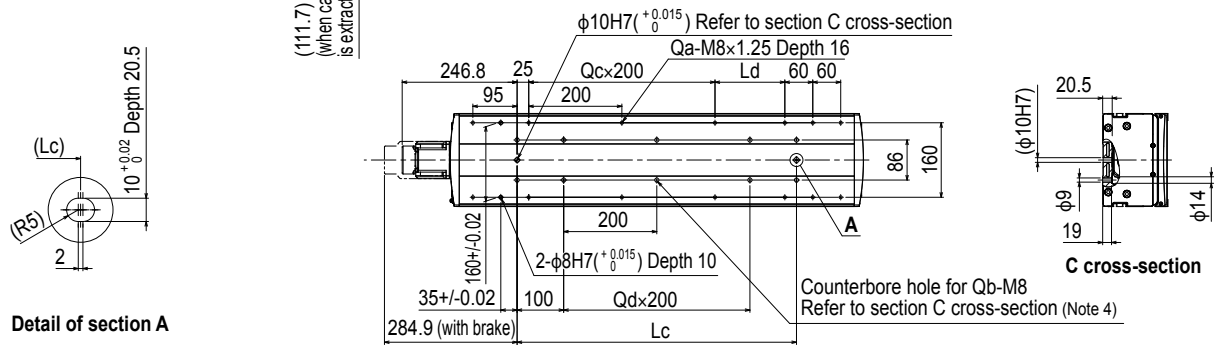
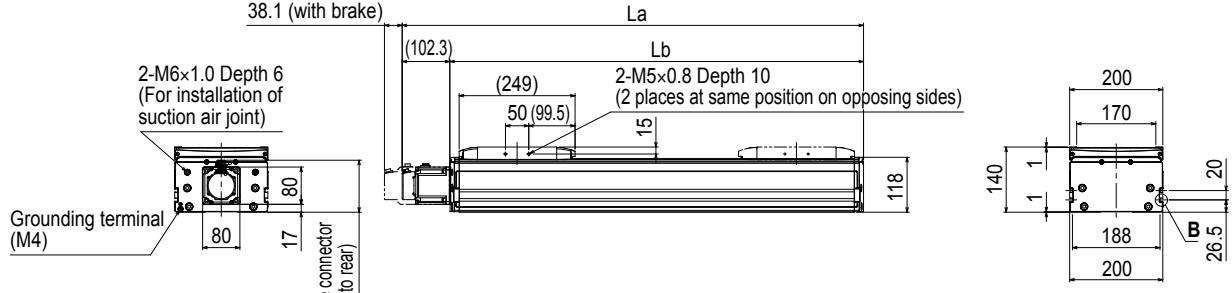
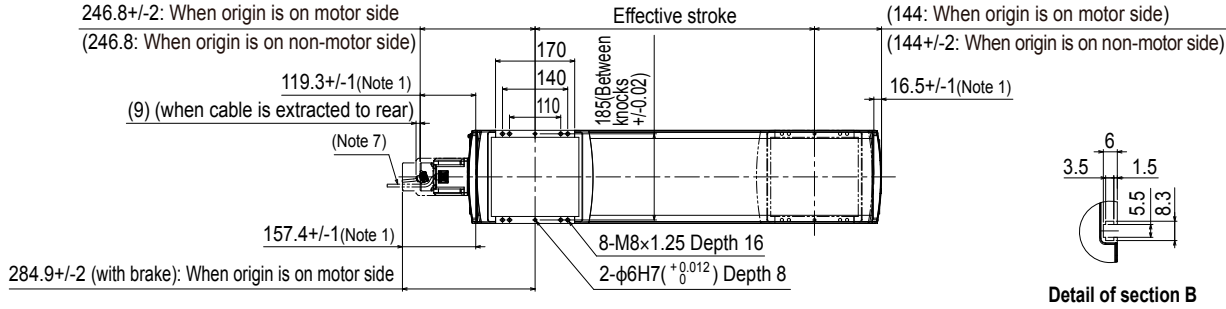
(Unit: N·m)		
MY	MP	MR
1423	1423	1251

Access the website below.



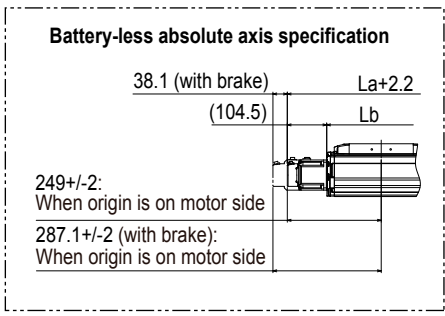
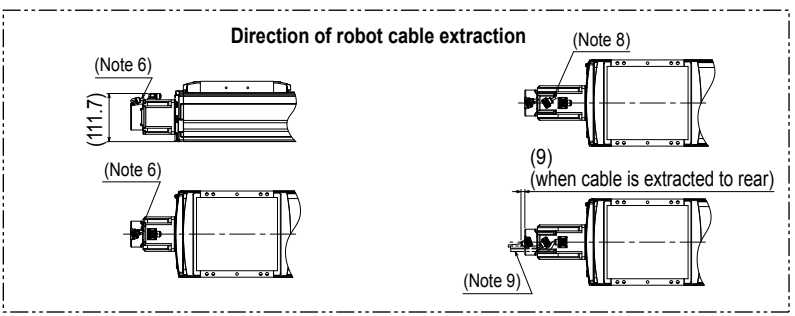
► The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.

AGXS20 Straight type (S)



Detail of section A

C cross-section



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. The length under head of the hex socket head bolts <M8 x 1.25> used to mount the body with the mounting counterbore holes (section C cross-section) must be <<25 mm or more>>. The recommended length under head of the hex socket head bolts <M8 x 1.25> used to mount the body with the mounting tap hole specifications is <<frame thickness + 15 mm or less>>.
- Note 4. When using the mounting counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 5. Weight without brake. The weight with the brake is 1.1 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Grease gun nozzle (recommended) (see P.143 for detail)

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				
La	490.8	540.8	590.8	640.8	690.8	740.8	790.8	840.8	890.8	940.8	990.8	1040.8	1090.8	1140.8	1190.8	1240.8	1290.8	1340.8	1390.8	1440.8	1490.8	1540.8	1590.8	1640.8	1690.8	1740.8	1790.8	1840.8				
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	20	20	20	20	22	22	22	22	22				
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18				
Qc	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6				
Qd	0	0	0	0	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) Note 5	19.1	20.4	21.7	23.0	24.3	25.6	26.9	28.2	29.5	30.7	32.0	33.3	34.6	35.9	37.2	38.5	39.8	41.1	42.3	43.6	44.9	46.2	47.5	48.8	50.1	51.4	52.7	53.9				
Maximum speed (mm/sec)	Lead 40																2160	1920	1680	1440	1320	1200	1080	960	840	720	600	540	480	420	360	300
	Lead 20																1080	960	840	720	660	600	540	480	420	360	300	270	240	210	180	150
	Lead 10																540	480	420	360	330	300	270	240	210	180	150	120	100	90	80	70
	Speed setting																90%	80%	70%	60%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%	5%	

Features

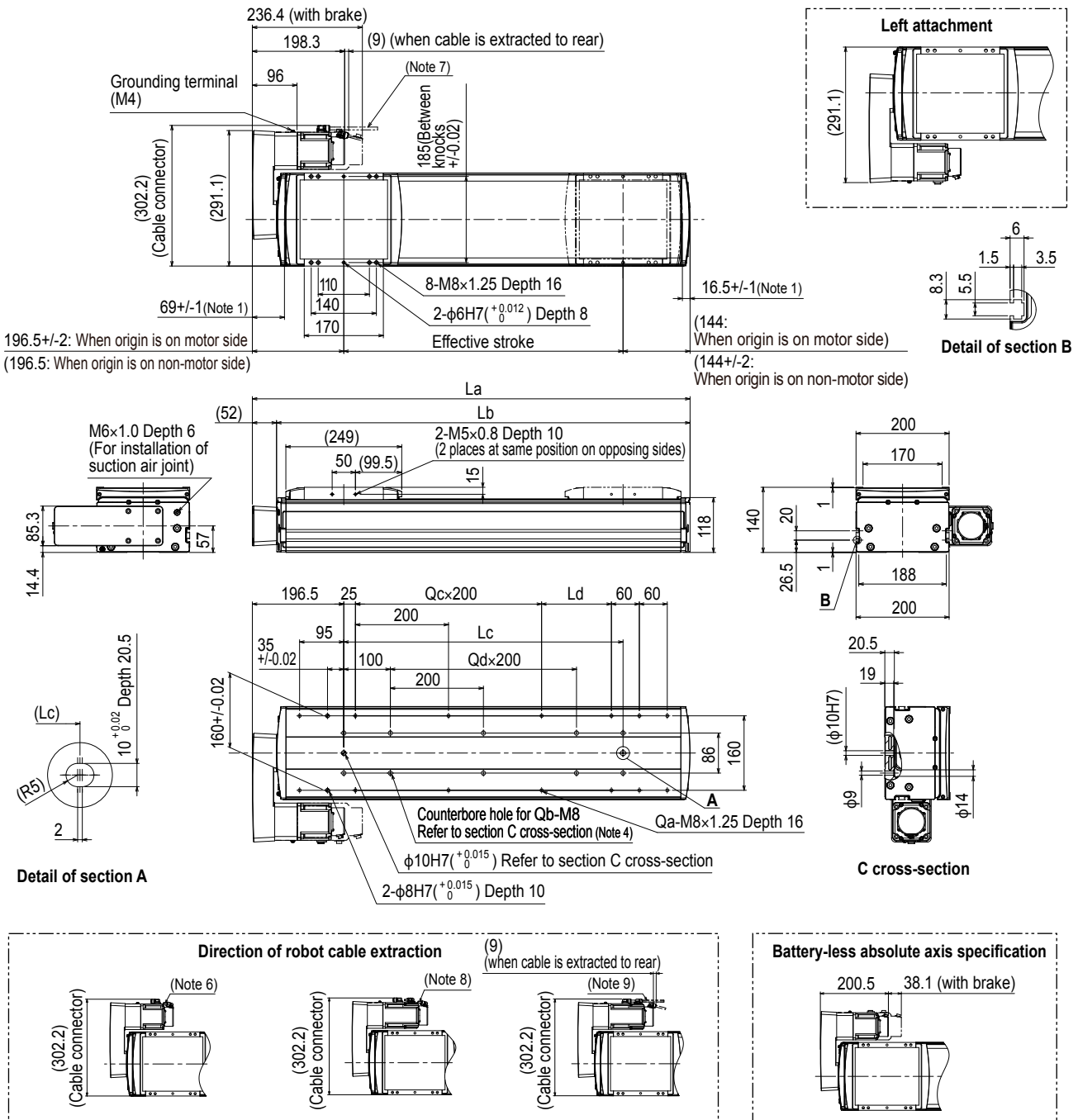
- Basic model: LBAS
- Advanced model: LGXS
- Basic model: LBAR
- Basic model: ABAS
- Advanced model: AGXS
- Basic model: ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single axis operation
EP-01

AGXS20 Bending type (R/L)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- Note 3. The length under head of the hex socket head bolts <M8 x 1.25> used to mount the body with the mounting counterbore holes (section C cross-section) must be <<25 mm or more>>. The recommended length under head of the hex socket head bolts <M8 x 1.25> used to mount the body with the mounting tap hole specifications is <<frame thickness + 15 mm or less>>.
- Note 4. When using the mounting counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 5. Weight without brake. The weight with the brake is 1.1 kg heavier than the value in the weight column.
- Note 6. The robot cable is extracted from the front.
- Note 7. The robot cable is extracted from the rear.
- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear.
- Note 10. The fixed minimum bending radius of the robot cable is R30. When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11. Grease gun nozzle (recommended) (see P.143 for detail)

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					
La	440.5	490.5	540.5	590.5	640.5	690.5	740.5	790.5	840.5	890.5	940.5	990.5	1040.5	1090.5	1140.5	1190.5	1240.5	1290.5	1340.5	1390.5	1440.5	1490.5	1540.5	1590.5	1640.5	1690.5	1740.5	1790.5					
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	20	20	20	20	22	22	22	22	22					
Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18					
Qc	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6					
Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6					
Weight (kg) Note 5	21.8	23.1	24.4	25.7	27.0	28.3	29.6	30.9	32.2	33.4	34.7	36.0	37.3	38.6	39.9	41.2	42.5	43.8	45.0	46.3	47.6	48.9	50.2	51.5	52.8	54.1	55.4	56.6					
Maximum speed (mm/sec)	Lead 40																2160	1920	1680	1440	1320	1200	1080	960	840	720	600	540	480	420	360	300	
	Lead 20																1080	960	840	720	660	600	540	480	420	360	330	300	270	240	210	180	150
	Lead 10																540	480	420	360	330	300	270	240	210	180	150	120	90	60	30	15	7.5
	Speed setting																90%	80%	70%	60%	55%	50%	45%	40%	35%	30%	25%	20%	15%	10%	7.5%	5%	

Operating duty and motor load factor

■ For high agility mode specifications

As the usable operating duty may vary depending on the payload or acceleration operating conditions, use the operating duty after checking the conditions.

Use the graph of the relationship between the operating duty ratio and continuous operable time as a reference.

For models not described in the graph, investigate an operating duty of 50% or less in the same manner as the standard model.

The actual operation may vary.

Adjust the operating conditions while checking the motor load factor of the controller.

When the operating duty of the robot is high, an error such as “overload” may occur.

In this case, decrease the acceleration/deceleration or increase the stop time to lower the motor load factor.

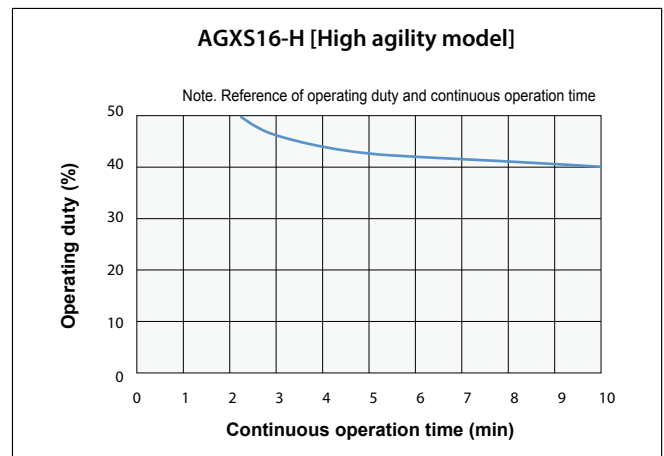
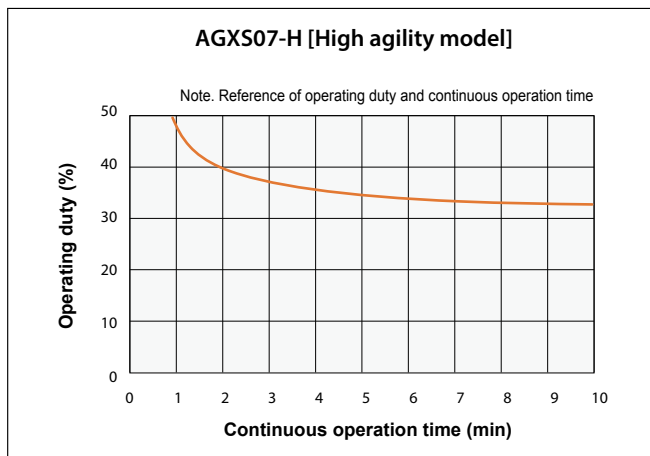
For details about how to check the motor load factor, see the controller manual.

In addition, use the information monitor screen of EP-Manager.

Note. Operating duty

$$\text{Operating duty} = \{ \text{Single-axis operation time} / (\text{Single-axis operation time} + \text{Single-axis stop time}) \} * 100 [\%]$$

■ Operating duty and continuous operation time (reference)



ABAR04

Basic model

Single-axis robots

Rod type



Ordering method

ABAR04							EP-01				
Model	Lead	Shape	Motor specification	Stroke	Cable length <small>Note 1</small>	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit <small>Note 2</small>	I/O	Battery <small>Note 3</small>
	12: 12 mm 6: 6 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/ With no brake BKBL: Battery-less absolute/ With brake	50 to 500 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

Note 1. The robot cable is flexible and resists bending.

Note 2. When the actuator is used vertically and the stroke is 250 mm or more, the regenerative unit is needed.

Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	50 W	
Repeatability <small>Note 1</small>	+/- 0.01 mm	
Deceleration mechanism	Shifting position ball screw ϕ 10 (C7 class)	
Stroke	50 mm to 500 mm (50mm pitch)	
Maximum speed <small>Note 2</small>	720 mm/sec	360 mm/sec
Ball screw lead	12 mm	6 mm
Maximum payload	Horizontal	15 kg
	Vertical	25 kg
Max. pressing force	Horizontal	3 kg
	Vertical	5 kg
Rotating backlash	83 N	
Rotating backlash	+/- 0 °	
Maximum dimensions of cross section of main unit	W 44 mm x H 46 mm	
Overall length	Straight	ST + 326.5 mm
	Bending	ST + 245 mm
Position detector	Absolute encoder Battery-less absolute encoder	
Resolution	23 bits	
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)	

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 300 mm, the ball screw may resonate. (Critical speed)

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

Note. See P.135 for acceleration/deceleration.

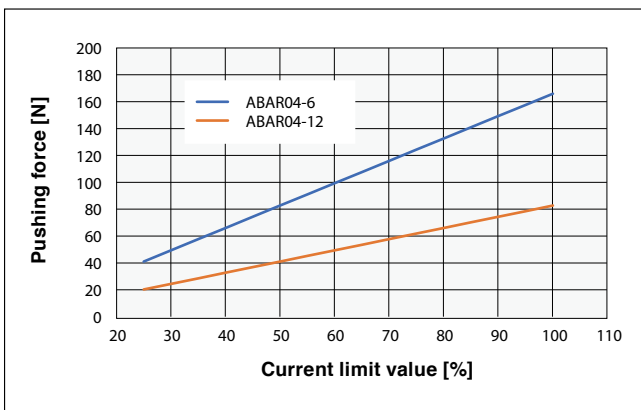
Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Pushing force (reference value)

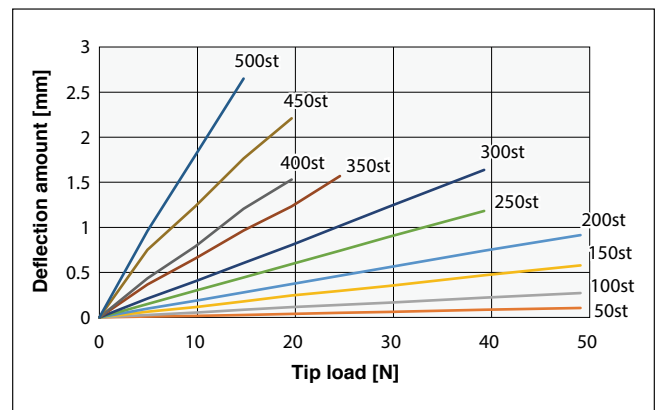
For the pushing force during pushing operation, see the graph below.

Note. The operable time (pushing judgement time) depends on the current limit value. Use the pushing force under the conditions that no overload error occurs.



Rod deflection amount (reference value)

For the deflection amount per stroke, see the graph below.



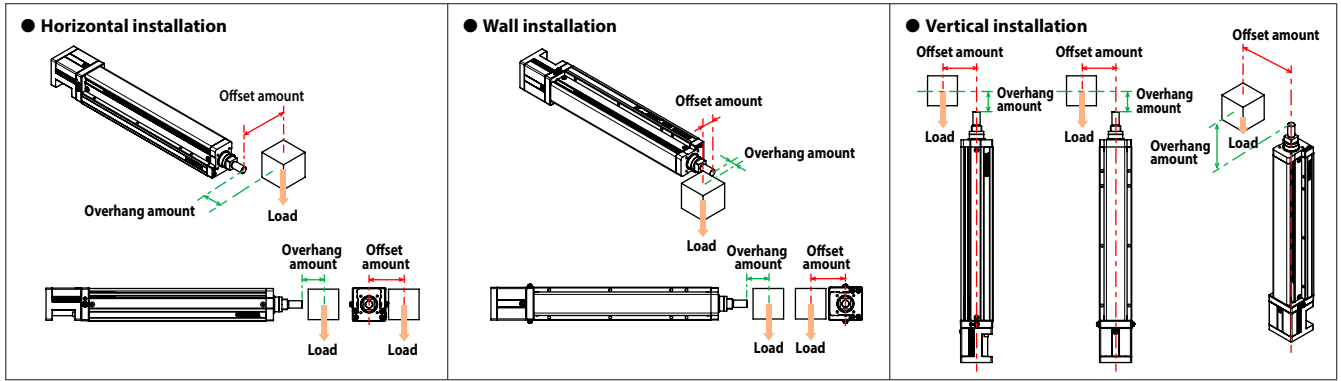
Access the website below.



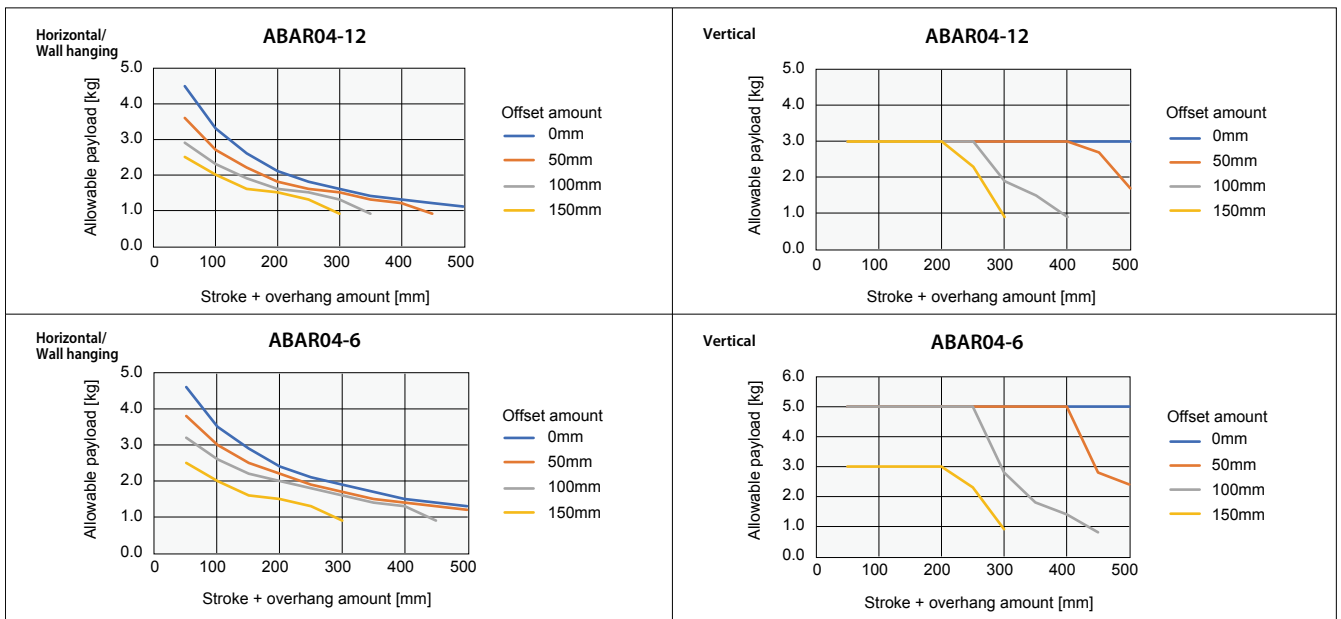
▶ The cycle time simulation can be performed easily from our member site. For details, see P.12.

■ Allowable payload

For the allowable payload per offset amount, see the graph below.

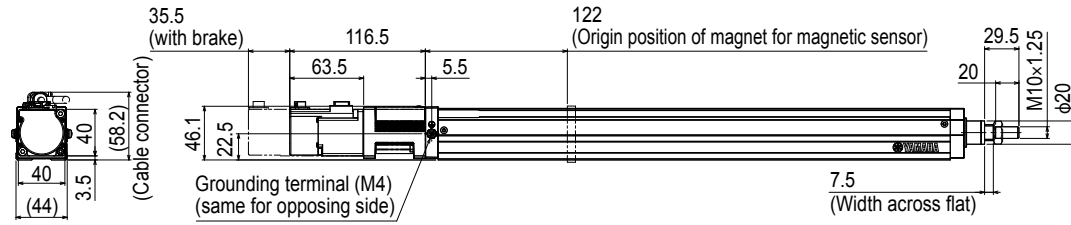
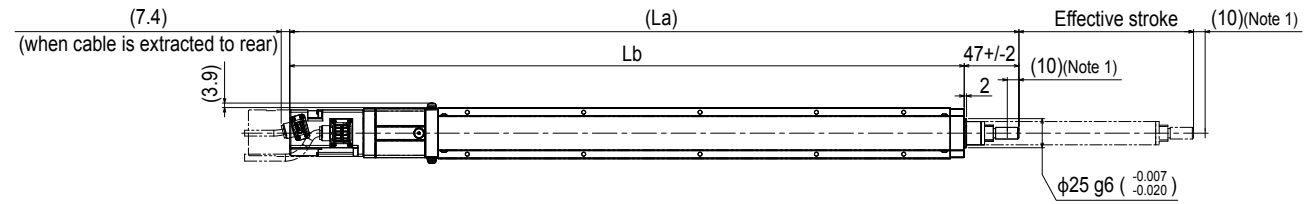


Note 1. When transferring an object with a weight exceeding the following, use an external support guide. Install the support guide flexibly so that no unnecessary load is applied to the rod.
 Note 2. The values are when the service life of the guide is 5000 km.

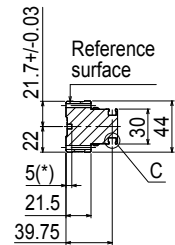
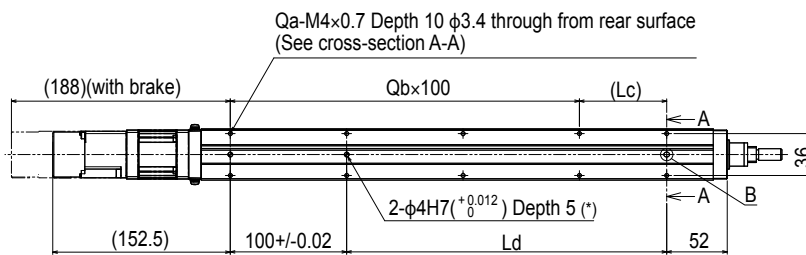
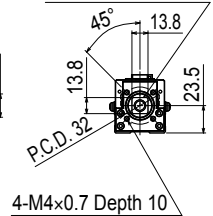


Features
 Basic model
 LBAS
 Advanced model
 LGXS
 Basic model
 LBAR
 Basic model
 ABAS
 Advanced model
 AGXS
 Basic model
 ABAR
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single axis robot positioner
 EP-01

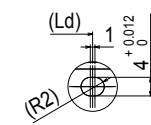
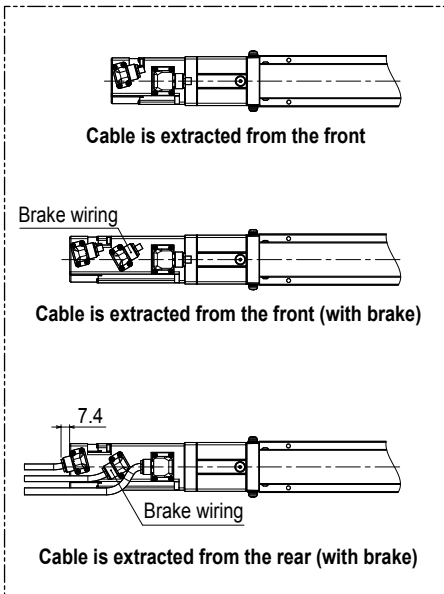
ABAR04 Straight type (S)



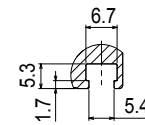
Angle of width across flat is undefined.



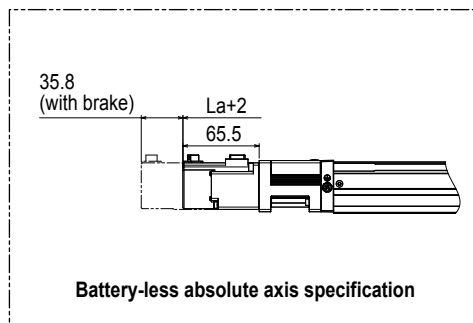
Cross-section A-A



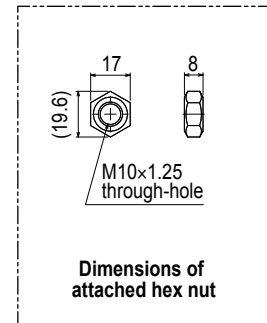
Detailed drawing B



Detailed drawing C



Battery-less absolute axis specification

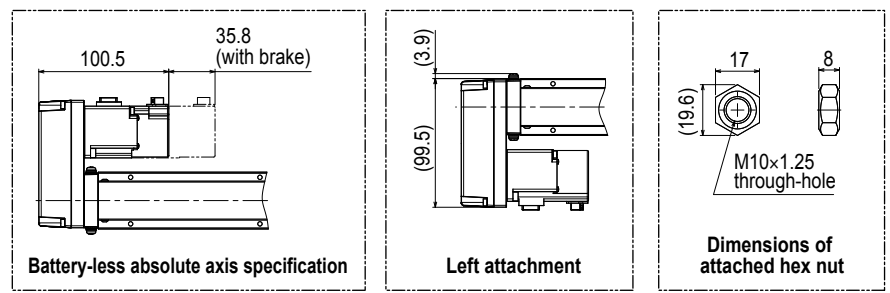
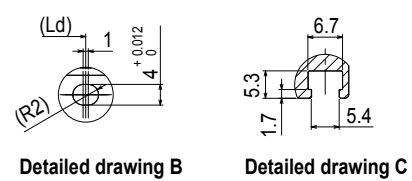
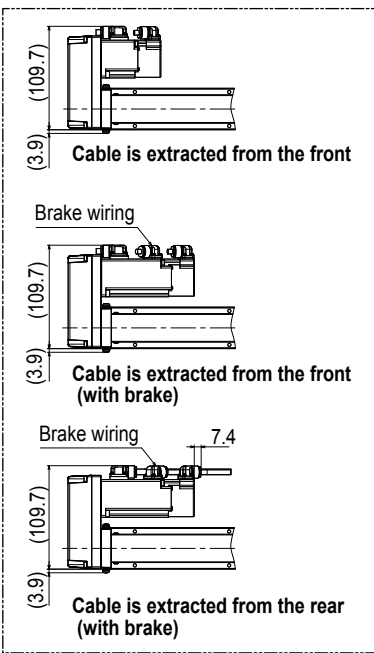
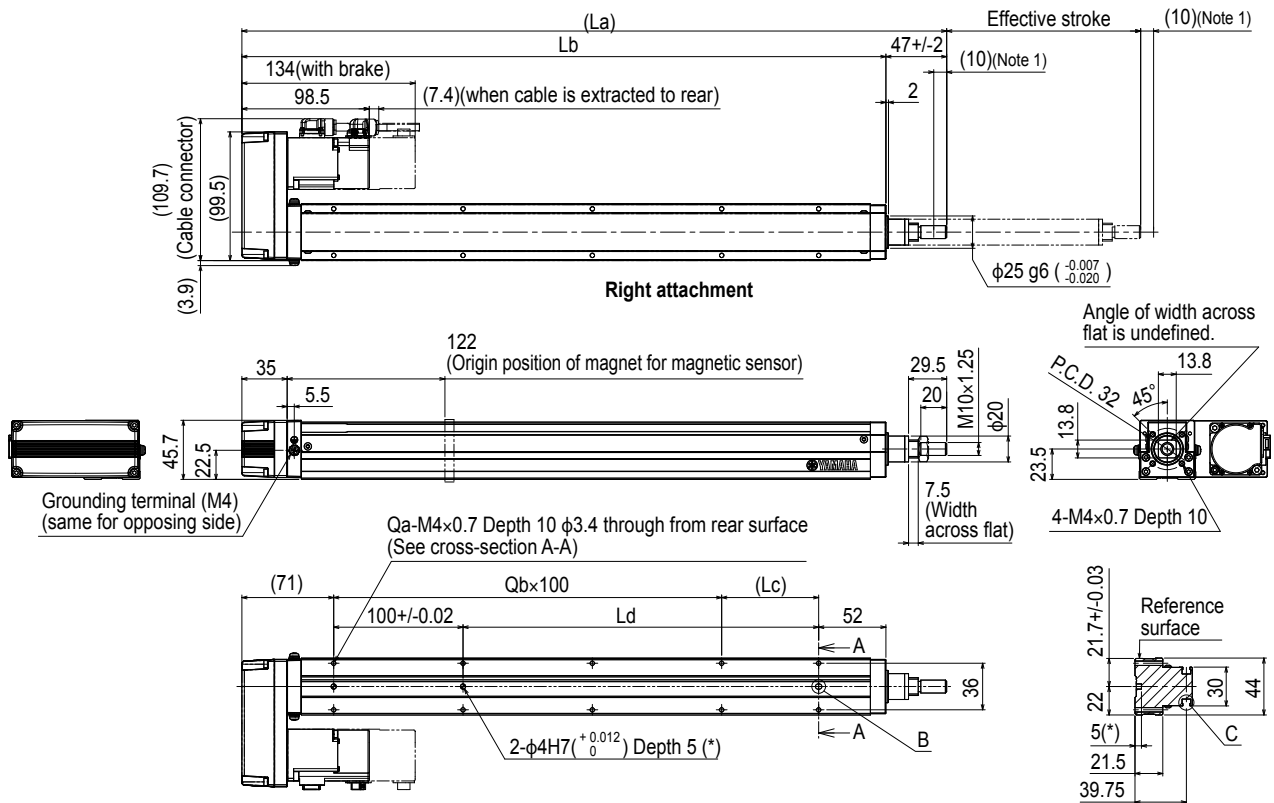


Dimensions of attached hex nut

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 - Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
 - 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. The weight with the brake is 0.2 kg heavier than the value in the weight column.
 - Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
 - Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
- Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500		
La	376.5	426.5	476.5	526.5	576.5	626.5	676.5	726.5	776.5	826.5		
Lb	329.5	379.5	429.5	479.5	529.5	579.5	629.5	679.5	729.5	779.5		
Lc	25	75	25	75	25	75	25	75	25	75		
Ld	25	75	125	175	225	275	325	375	425	475		
Qa	6	6	8	8	10	10	12	12	14	14		
Qb	1	1	2	2	3	3	4	4	5	5		
Weight (kg) Note 4	1.2	1.3	1.5	1.7	1.9	2	2.2	2.4	2.6	2.8		
Maximum speed (mm/sec)	Lead 12	720				648				504	396	324
	Lead 6	360				324				252	198	162
Speed setting	-						90%	70%	55%	45%		

ABAR04 Bending type (R/L)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 - Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
 - 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. The weight with the brake is 0.2 kg heavier than the value in the weight column.
 - Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
 - Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
- Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	
La	295	345	395	445	495	545	595	645	695	745	
Lb	248	298	348	398	448	498	548	598	648	698	
Lc	25	75	25	75	25	75	25	75	25	75	
Ld	25	75	125	175	225	275	325	375	425	475	
Qa	6	6	8	8	10	10	12	12	14	14	
Qb	1	1	2	2	3	3	4	4	5	5	
Weight (kg) Note 4	1.3	1.4	1.6	1.8	2	2.2	2.3	2.5	2.7	2.9	
Maximum speed (mm/sec)	Lead 12	720					648				
	Lead 6	360					324				
	Speed setting	-					90%				

Features

- Basic model: LBAS
- Advanced model: LGXS
- Basic model: LBAR
- Basic model: ABAS
- Advanced model: AGXS
- Basic model: ABAR

Acceleration/Deceleration: Inertia Moment

Option: Single axis sensor positioner EP-01

ABAR05

Basic model

Single-axis robots

Rod type



Ordering method

ABAR05							EP-01				
Model	Lead	Shape	Motor specification	Stroke	Cable length <small>Note 1</small>	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit <small>Note 2</small>	I/O	Battery <small>Note 3</small>
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	50 to 600 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

Note 1. The robot cable is flexible and resists bending.

Note 2. When the actuator is used vertically and the stroke is 150 mm or more, the regenerative unit is needed.

When the actuator is used horizontally and the stroke of lead 20 is 300 to 400 mm, the regenerative unit is needed.

Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	100 W		
Repeatability <small>Note 1</small>	+/-0.01 mm		
Deceleration mechanism	Shifting position ball screw ϕ 12 (C7 class)		
Stroke	50 mm to 600 mm (50mm pitch)		
Maximum speed <small>Note 2</small>	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	20 mm	10 mm	5 mm
Maximum payload	Horizontal	15 kg	25 kg
	Vertical	4 kg	8 kg
Max. pressing force	100 N	200 N	400 N
Rotating backlash	+/-0 °		
Maximum dimensions of cross section of main unit	W 54 mm x H 54.7 mm		
Overall length	Straight	ST + 344 mm	
	Bending	ST + 249 mm	
Position detector	Absolute encoder Battery-less absolute encoder		
Resolution	23 bits		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 350 mm, the ball screw may resonate. (Critical speed)

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

Note. See P.136 for acceleration/deceleration.

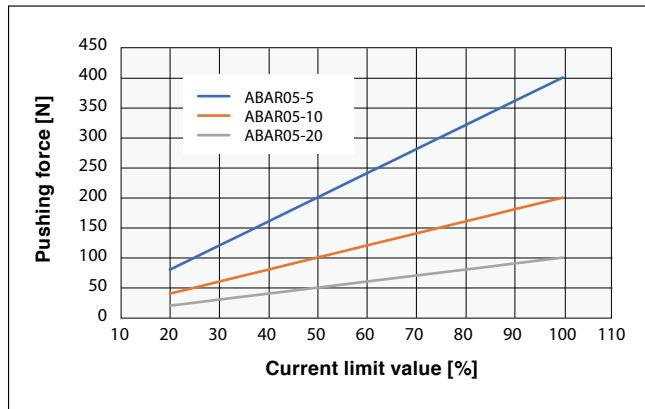
Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Pushing force (reference value)

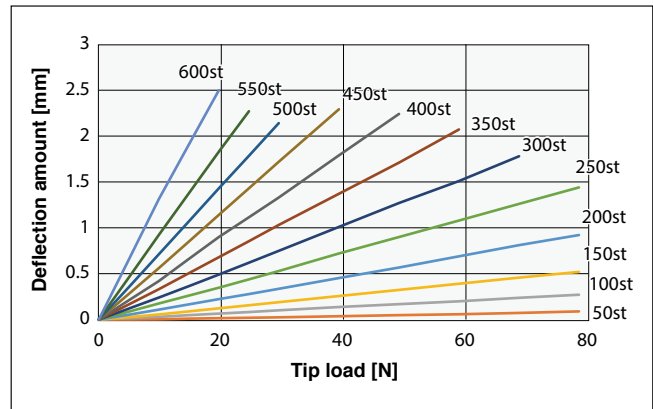
For the pushing force during pushing operation, see the graph below.

Note. The operable time (pushing judgement time) depends on the current limit value. Use the pushing force under the conditions that no overload error occurs.



Rod deflection amount (reference value)

For the deflection amount per stroke, see the graph below.



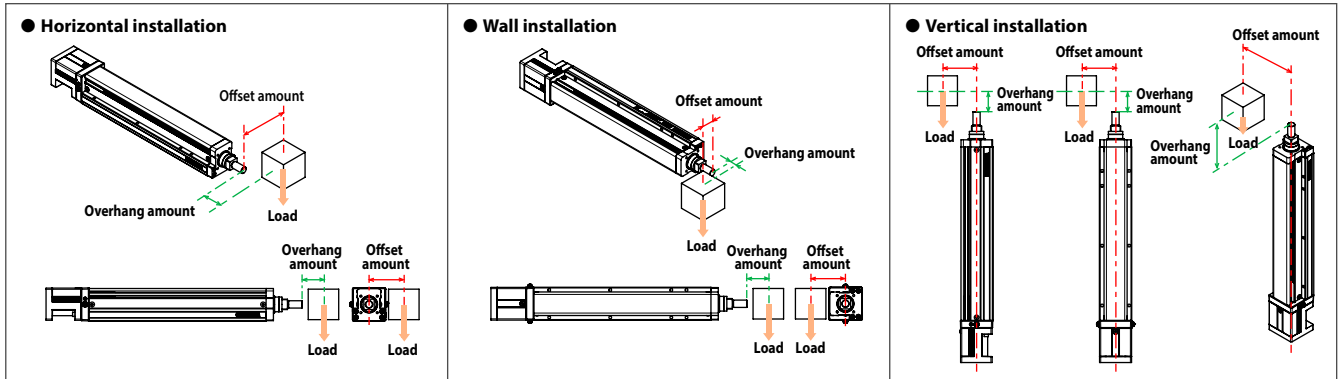
Access the website below.



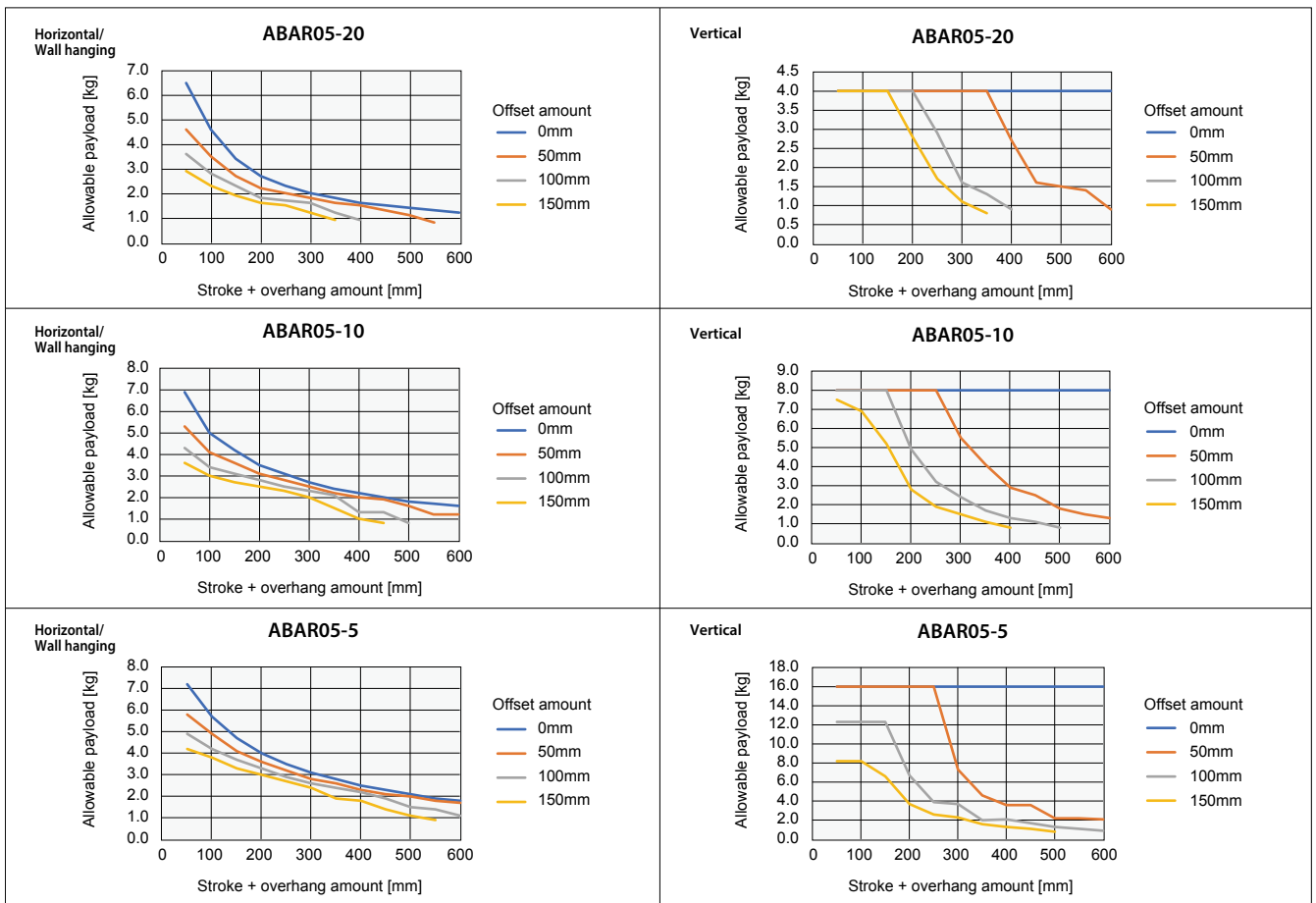
▶ The cycle time simulation can be performed easily from our member site. For details, see P.12.

Allowable payload

For the allowable payload per offset amount, see the graph below.



Note 1. When transferring an object with a weight exceeding the following, use an external support guide. Install the support guide flexibly so that no unnecessary load is applied to the rod.
 Note 2. The values are when the service life of the guide is 5000 km.

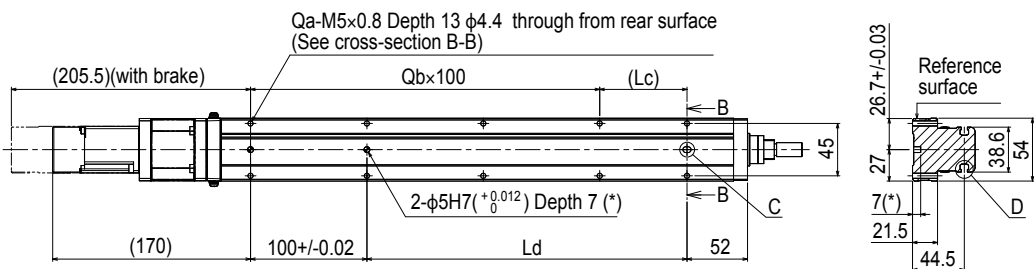
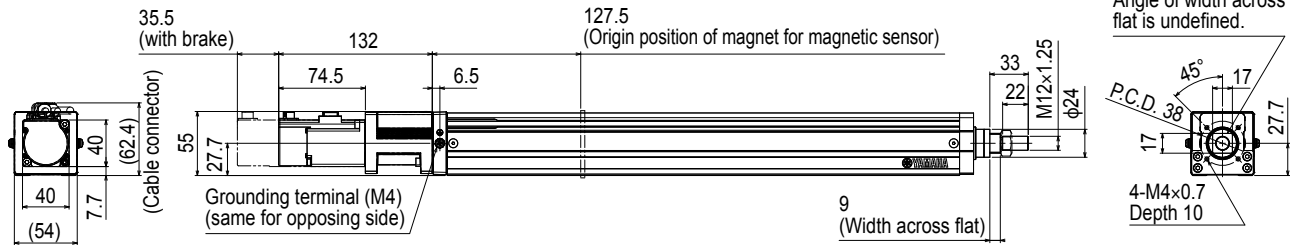
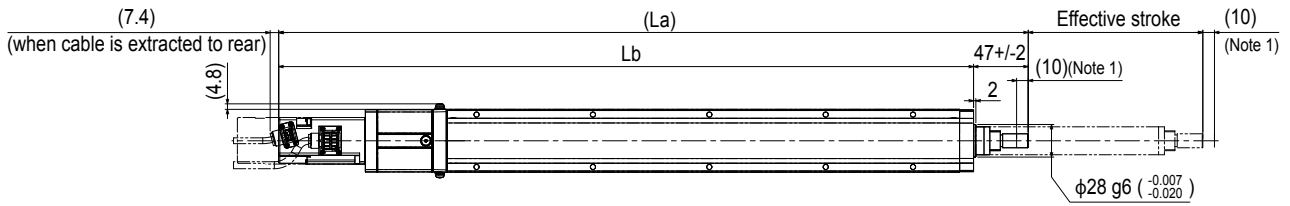


Features

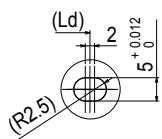
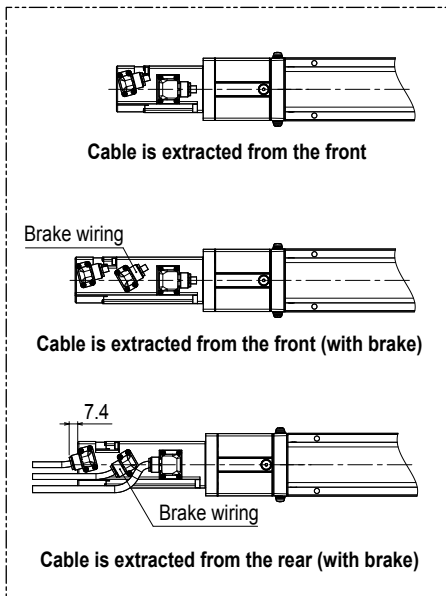
- Basic model: LBAS
- Advanced model: LGXS
- Basic model: LBAR
- Advanced model: ABAS
- Basic model: ABAR

Acceleration/Deceleration
Inertia Moment
Option
Single axis robot positioner EP-01

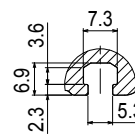
ABAR05 Straight type (S)



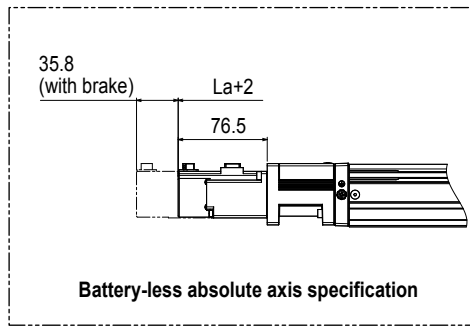
Cross-section B-B



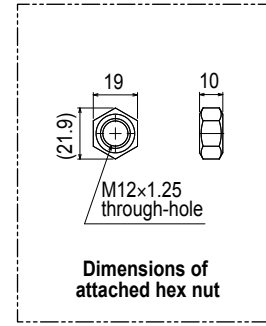
Detailed drawing C



Detailed drawing D



Battery-less absolute axis specification



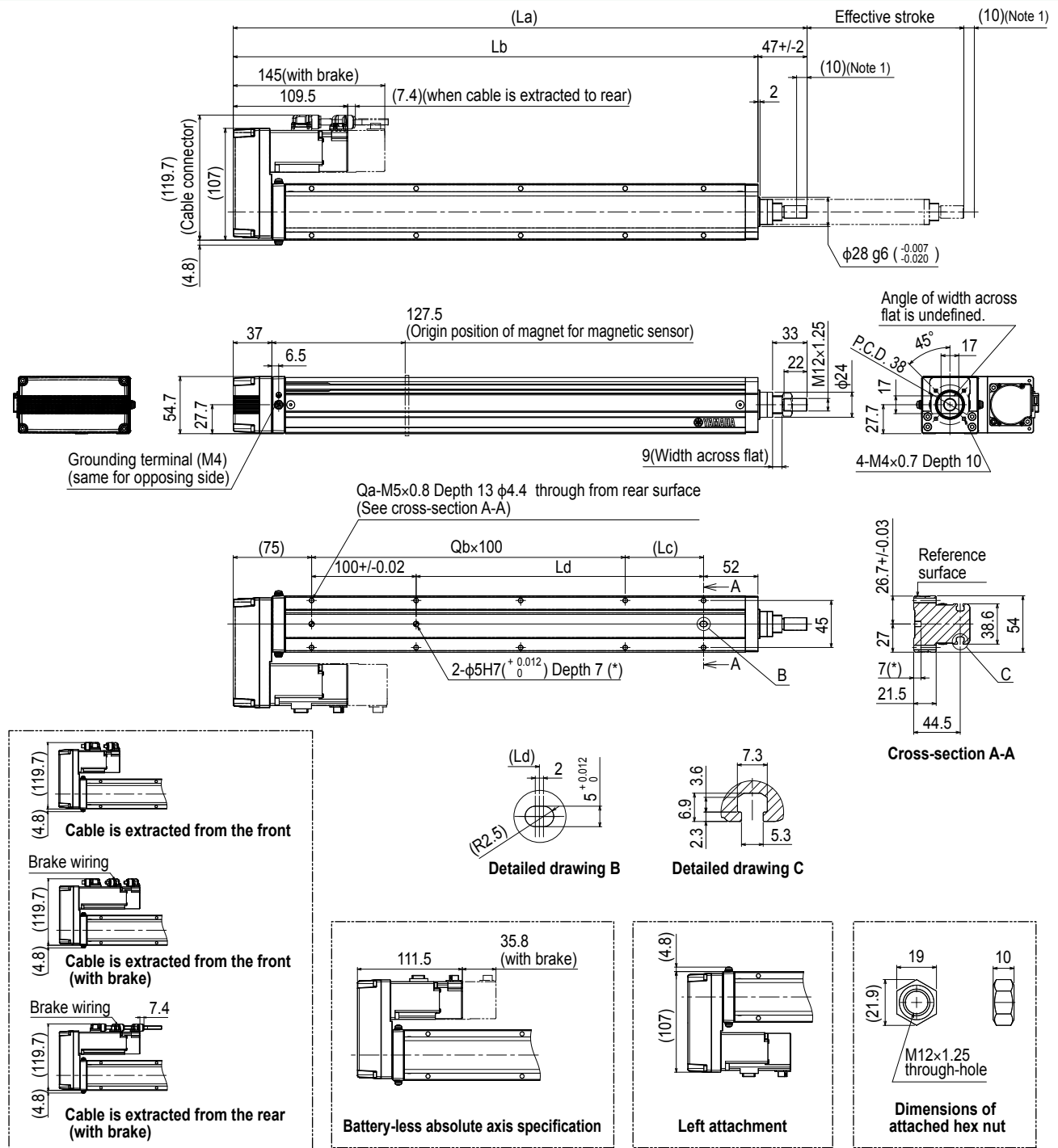
Dimensions of attached hex nut

- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
- 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. The weight with the brake is 0.2 kg heavier than the value in the weight column.
- Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
- Note 6. Grease gun nozzle (recommended) (see P.143 for detail)

Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	
La	394	444	494	544	594	644	694	744	794	844	894	944	
Lb	347	397	447	497	547	597	647	697	747	797	847	897	
Lc	25	75	25	75	25	75	25	75	25	75	25	75	
Ld	25	75	125	175	225	275	325	375	425	475	525	575	
Qa	6	6	8	8	10	10	12	12	14	14	16	16	
Qb	1	1	2	2	3	3	4	4	5	5	6	6	
Weight (kg) ^{Note 4}	2.1	2.3	2.4	2.6	2.8	3	3.1	3.2	3.3	3.4	3.6	3.8	
Maximum speed (mm/sec)	Lead 20							1200	960	780	600	480	420
	Lead 10							600	480	390	300	240	210
	Lead 5							300	240	195	150	120	105
Speed setting							-	80%	65%	50%	40%	35%	

ABAR05 Bending type (R/L)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
 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. The weight with the brake is 0.2 kg heavier than the value in the weight column.
 Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
 Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
 Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	
La	299	349	399	449	499	549	599	649	699	749	799	849	
Lb	252	302	352	402	452	502	552	602	652	702	752	802	
Lc	25	75	25	75	25	75	25	75	25	75	25	75	
Ld	25	75	125	175	225	275	325	375	425	475	525	575	
Qa	6	6	8	8	10	10	12	12	14	14	16	16	
Qb	1	1	2	2	3	3	4	4	5	5	6	6	
Weight (kg) ^{Note 4}	2.2	2.3	2.5	2.7	2.9	3.1	3.2	3.3	3.4	3.5	3.7	3.8	
Maximum speed (mm/sec)	Lead 20	1200						960	780	600	480	420	
	Lead 10	600						480	390	300	240	210	
	Lead 5	300						240	195	150	120	105	
	Speed setting	-						80%	65%	50%	40%	35%	

ABAR08

Basic model

Single-axis robots

Rod type



Ordering method

ABAR08							EP-01				
Model	Lead	Shape	Motor specification	Stroke	Cable length <small>Note 1</small>	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit <small>Note 2</small>	I/O <small>Note 3</small>	Battery <small>Note 3</small>
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/ With no brake BKBL: Battery-less absolute/ With brake	50 to 800 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

Note 1. The robot cable is flexible and resists bending.

Note 2. When the actuator is used vertically, the regenerative unit is needed.

When the actuator is used horizontally and the stroke of lead 10 or 20 is 150 to 500 mm, the regenerative unit is needed.

Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output	200 W		
Repeatability <small>Note 1</small>	±0.01 mm		
Deceleration mechanism	Shifting position ball screw φ 16 (C7 class)		
Stroke	50 mm to 800 mm (50mm pitch)		
Maximum speed <small>Note 2</small>	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	20 mm	10 mm	5 mm
Maximum payload	Horizontal	30 kg	60 kg
	Vertical	8 kg	20 kg
Max. pressing force	201 N	402 N	804 N
Rotating backlash	±0°		
Maximum dimensions of cross section of main unit	W 82 mm × H 73.5 mm		
Overall length	Straight	ST + 401 mm	
	Bending	ST + 312.5 mm	
Position detector	Absolute encoder Battery-less absolute encoder		
Resolution	23 bits		
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.

If the effective stroke exceeds 400 mm, the ball screw may resonate. (Critical speed)

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

Note. See P.138 for acceleration/deceleration.

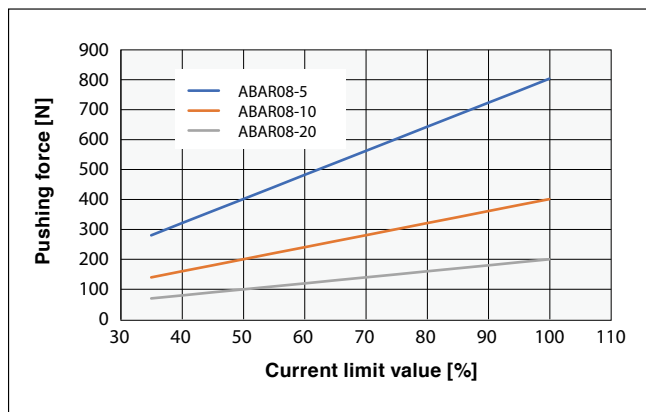
Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Pushing force (reference value)

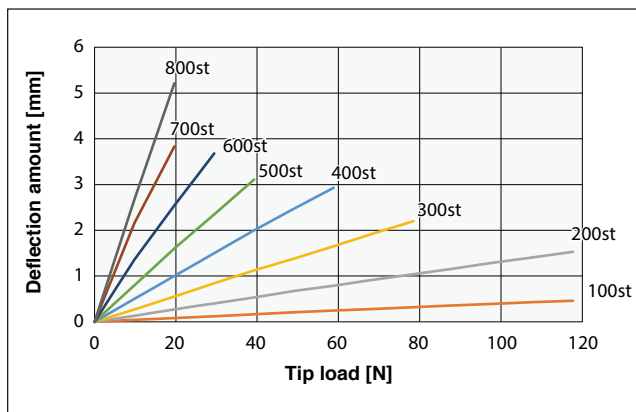
For the pushing force during pushing operation, see the graph below.

Note. The operable time (pushing judgement time) depends on the current limit value. Use the pushing force under the conditions that no overload error occurs.



Rod deflection amount (reference value)

For the deflection amount per stroke, see the graph below.



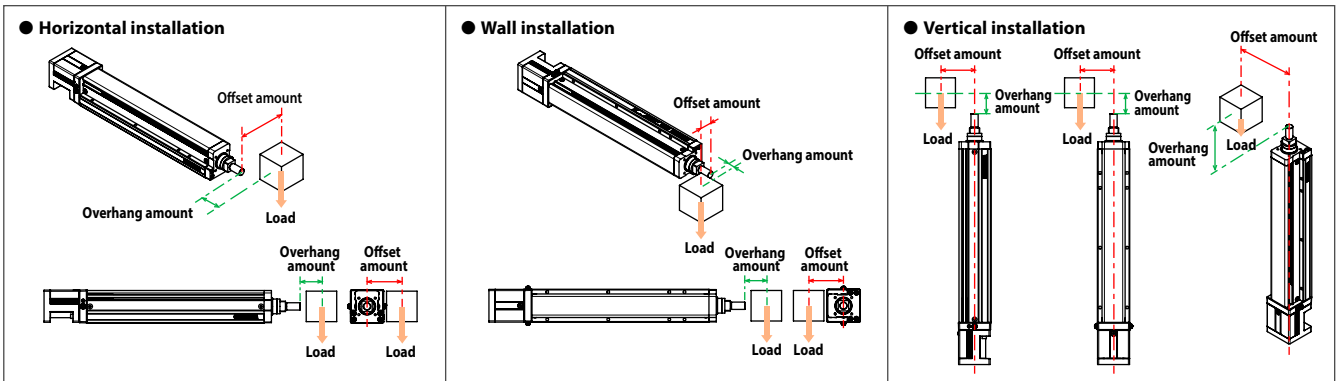
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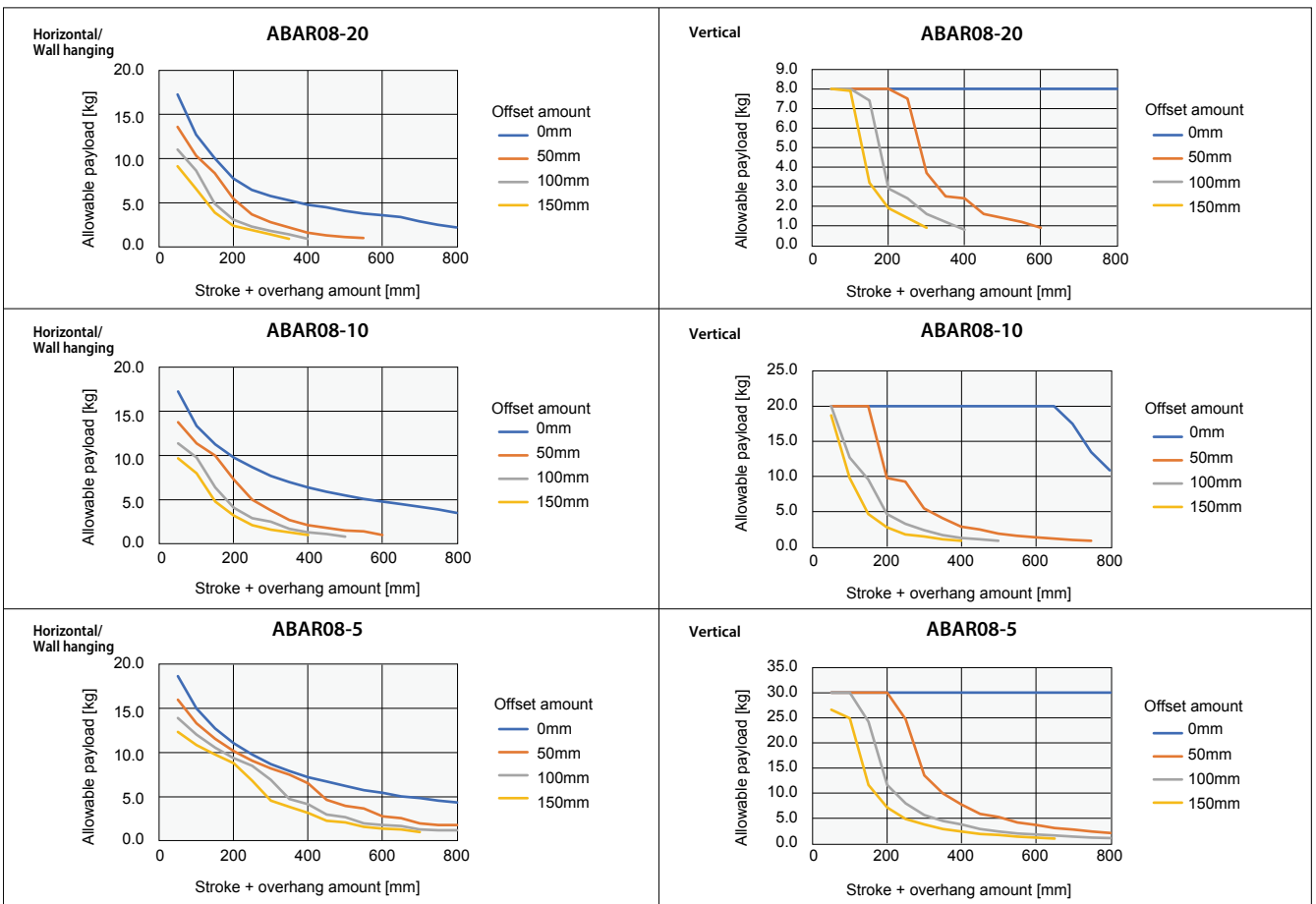
▶ The cycle time simulation can be performed easily from our member site. For details, see P.12.

Allowable payload

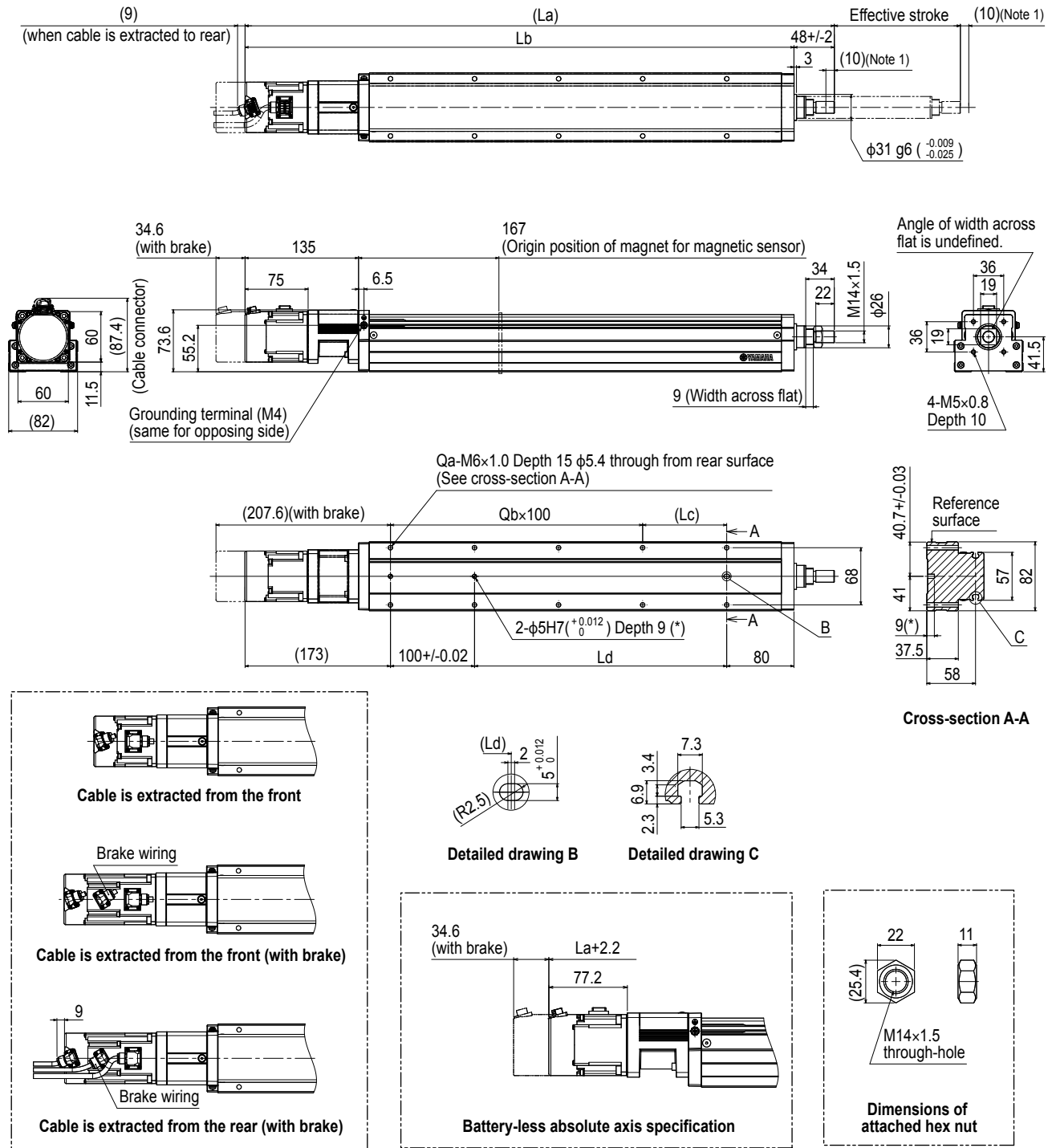
For the allowable payload per offset amount, see the graph below.



Note 1. When transferring an object with a weight exceeding the following, use an external support guide. Install the support guide flexibly so that no unnecessary load is applied to the rod.
 Note 2. The values are when the service life of the guide is 5000 km.



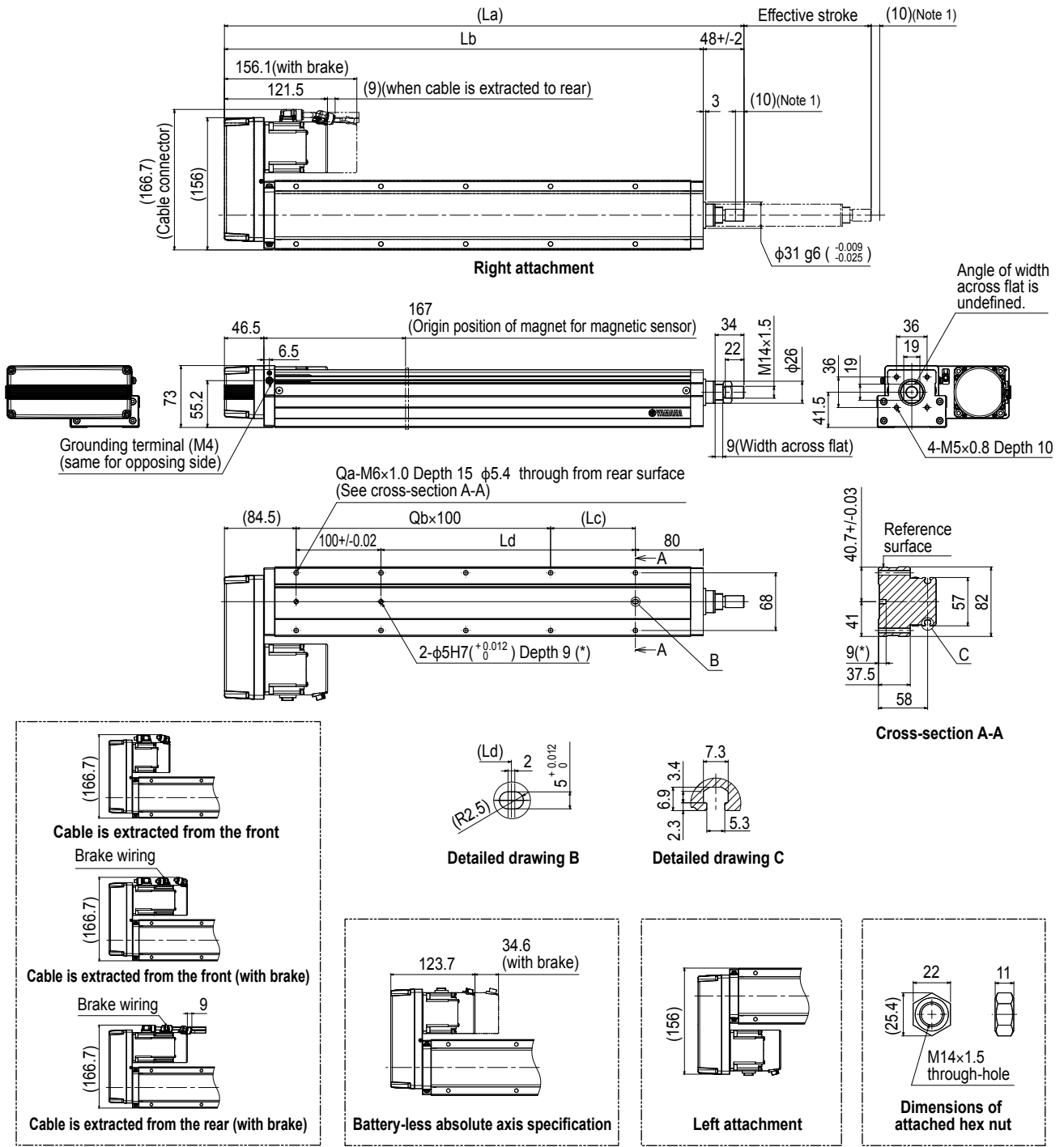
ABAR08 Straight type (S)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 - Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
 - Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head << thickness of stand + 15 mm or less >> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
 - Note 4. The weight with the brake is 0.4 kg heavier than the value in the weight column.
 - Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
 - Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
- Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	451	501	551	601	651	701	751	801	851	901	951	1001	1051	1101	1151	1201	
Lb	403	453	503	553	603	653	703	753	803	853	903	953	1003	1053	1103	1153	
Lc	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
Ld	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
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) ^{Note 4}	4.7	5.1	5.5	5.8	6.1	6.5	6.8	7.1	7.4	7.8	8.2	8.5	8.9	9.2	9.4	9.7	
Maximum speed (mm/sec)	Lead 20	1200								900	720	600	480	420	360	300	240
	Lead 10	600								450	360	300	240	210	180	150	120
	Lead 5	300								225	180	150	120	105	90	75	60
Speed setting	-								75%	60%	50%	40%	35%	30%	25%	20%	

ABAR08 Bending type (R/L)



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 - Note 2. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
 - Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head << thickness of stand + 15 mm or less >> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
 - Note 4. The weight with the brake is 0.4 kg heavier than the value in the weight column.
 - Note 5. The minimum bending radius of the robot cable is R30 on the fixed side or R50 on the movable side. The cable extraction direction may vary depending on the specifications.
 - Note 6. Grease gun nozzle (recommended) (see P.143 for detail)
- Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
La	362.5	412.5	462.5	512.5	562.5	612.5	662.5	712.5	762.5	812.5	862.5	912.5	962.5	1012.5	1062.5	1112.5	
Lb	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	
Lc	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
Ld	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
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) <small>Note 4</small>	5.1	5.5	5.9	6.2	6.5	6.9	7.2	7.5	7.8	8.2	8.6	8.9	9.3	9.6	9.8	10.1	
Maximum speed (mm/sec)	Lead 20	1200															
	Lead 10	600															
	Lead 5	300															
	Speed setting	-															
										75%	60%	50%	40%	35%	30%	25%	20%

LBAS04

Inertia Moment

[kg·m ² ·10 ⁻⁴]	Effective stroke [mm]															
	Model	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750
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

LBAS04 **ABAS04**

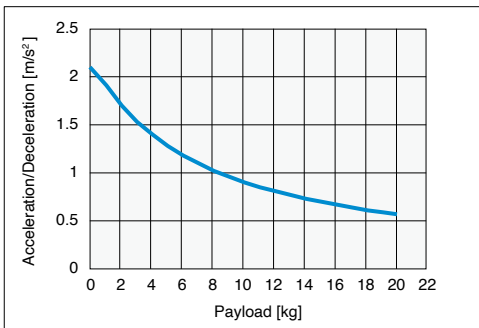
Acceleration/Deceleration

Model	LBAS04-6/ABAS04-6		LBAS04-12/ABAS04-12	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	2.1	2.1	4.2	3.6
1	1.91	2.1	3.84	2.4
2	1.7	1.64	2.99	1.8
3	1.53	1.34	2.45	
4	1.4	1.14	2.07	
5	1.28	0.99	1.8	
6	1.18		1.58	
7	1.1		1.42	
8	1.02		1.28	
9	0.96		1.17	
10	0.9		1.08	
11	0.85		1	
12	0.81		0.93	
13	0.77			
14	0.73			
15	0.7			
16	0.67			
17	0.64			
18	0.61			
19	0.59			
20	0.57			

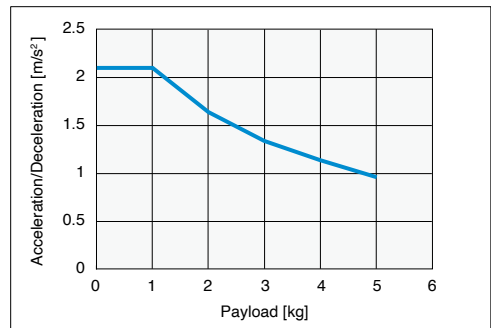
● **Payload – Acceleration/Deceleration Graph (Estimate)**

LBAS04-6 / ABAS04-6

Horizontal/
Wall hanging

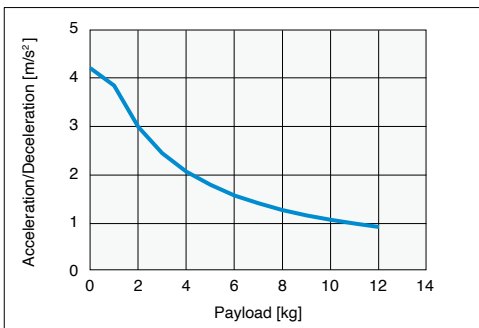


Vertical

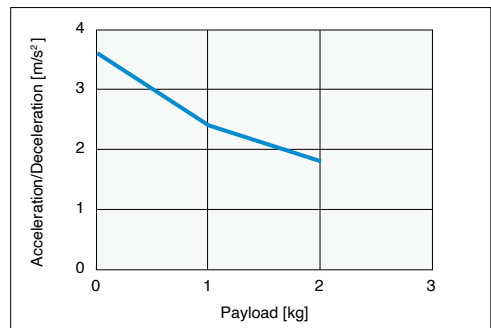


LBAS04-12 / ABAS04-12

Horizontal/
Wall hanging



Vertical



LBAS05

Inertia Moment

Model	Effective stroke [mm]															
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
LBAS05-5	0.085	0.093	0.101	0.109	0.117	0.125	0.133	0.141	0.149	0.157	0.165	0.173	0.181	0.189	0.197	0.205
LBAS05-10	0.097	0.105	0.113	0.121	0.129	0.137	0.145	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.209	0.217
LBAS05-20	0.145	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.209	0.217	0.224	0.232	0.240	0.248	0.256	0.264

LBAS05 ABAS05

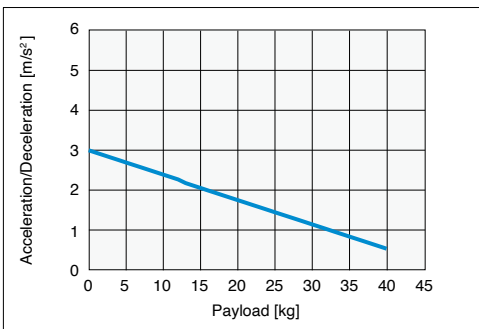
Acceleration/Deceleration

Model	LBAS05-5/ABAS05-5		LBAS05-10/ABAS05-10		LBAS05-20/ABAS05-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	3.04	3.34	4.64	4.86	7.44	7.44
1	2.97	3.18	4.44	4.56	7.44	6.99
2	2.91	3.03	4.25	4.3	7.44	5.65
3	2.85	2.88	4.07	4.06	7.44	3.42
4	2.79	2.73	3.9	3.85	7.44	
5	2.73	2.58	3.73	3.66	7.44	
6	2.67	2.43	3.57	3.49	6.64	
7	2.61	2.28	3.41		6	
8	2.55	2.13	3.27		5.47	
9	2.49	1.98	3.12		5.02	
10	2.43	1.83	2.99		4.65	
11	2.37	1.68	2.86		4.32	
12	2.31	1.53	2.74		4.04	
13	2.24		2.62			
14	2.18		2.51			
15	2.12		2.41			
16	2.06		2.31			
17	2		2.22			
18	1.94		2.14			
19	1.88		2.06			
20	1.82		1.99			
21	1.76		1.93			
22	1.7		1.87			
23	1.64		1.82			
24	1.58		1.77			
25	1.52					
26	1.45					
27	1.39					
28	1.33					
29	1.27					
30	1.21					
31	1.15					
32	1.09					
33	1.03					
34	0.97					
35	0.91					
36	0.85					
37	0.79					
38	0.72					
39	0.66					
40	0.6					

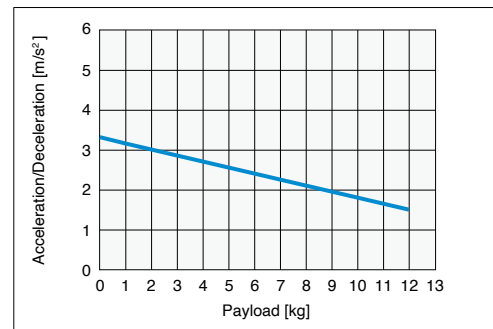
● **Payload – Acceleration/Deceleration Graph (Estimate)**

LBAS05-5 / ABAS05-5

Horizontal/
Wall hanging



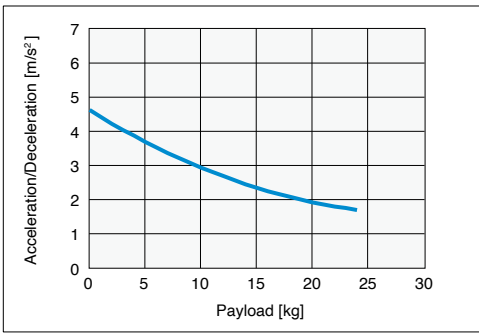
Vertical



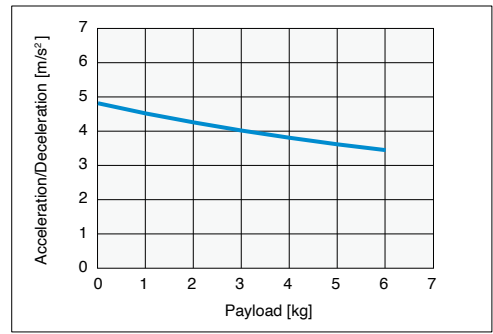
● Payload – Acceleration/Deceleration Graph (Estimate)

LBAS05-10 / ABAS05-10

Horizontal/
Wall hanging



Vertical

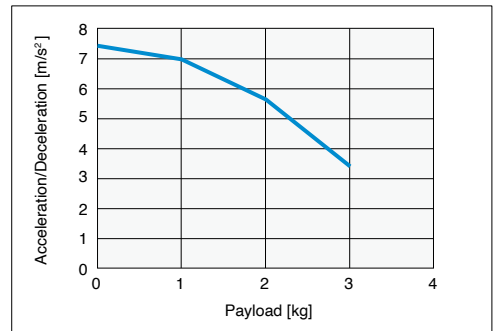


LBAS05-20 / ABAS05-20

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single-axis robot positioner

EP-01

LBAS08

Inertia Moment

Model	Effective stroke [mm]																					
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
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

LBAS08 ABAS08

Acceleration/Deceleration

Model	LBAS08-5/ABAS08-5		LBAS08-10/ABAS08-10		LBAS08-20/ABAS08-20	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	1.65	1.65	6.09	4.79	8.51	8.5
1	1.63	1.62	5.97	4.54	8.2	7.39
2	1.62	1.59	5.86	4.31	7.9	6.42
3	1.6	1.57	5.74	4.09	7.61	5.59
4	1.59	1.54	5.63	3.88	7.33	4.89
5	1.58	1.51	5.52	3.68	7.05	4.33
6	1.56	1.49	5.42	3.5	6.77	3.91
7	1.55	1.46	5.31	3.32	6.51	3.62
8	1.54	1.44	5.21	3.16	6.24	3.46
9	1.52	1.41	5.1	3.01	5.99	
10	1.51	1.38	5	2.87	5.74	
11	1.5	1.36	4.9	2.74	5.5	
12	1.49	1.33	4.8	2.62	5.26	
13	1.47	1.3	4.7	2.52	5.03	
14	1.46	1.28	4.61	2.42	4.8	
15	1.45	1.25	4.51	2.34	4.58	
16	1.43	1.23	4.42	2.27	4.37	
17	1.42	1.2	4.33	2.21	4.16	
18	1.41	1.17	4.24	2.16	3.96	
19	1.4	1.15	4.15	2.13	3.76	
20	1.38	1.12	4.06	2.1	3.57	
21	1.37	1.09	3.98		3.38	
22	1.36	1.07	3.89		3.21	
23	1.35	1.04	3.81		3.03	
24	1.34	1.02	3.73		2.87	
25	1.32	0.99	3.65		2.71	
26	1.31	0.96	3.57		2.55	
27	1.3	0.94	3.49		2.4	
28	1.29	0.91	3.42		2.26	
29	1.28	0.88	3.34		2.13	
30	1.26	0.86	3.27		1.99	
31	1.25		3.2		1.87	
32	1.24		3.13		1.75	
33	1.23		3.06		1.64	
34	1.22		2.99		1.53	
35	1.21		2.93		1.43	
36	1.19		2.86		1.34	
37	1.18		2.8		1.25	
38	1.17		2.74		1.16	
39	1.16		2.68		1.09	
40	1.15		2.62		1.02	
41	1.14		2.57			
42	1.13		2.51			
43	1.12		2.46			
44	1.11		2.41			
45	1.09		2.36			
46	1.08		2.31			
47	1.07		2.26			
48	1.06		2.21			
49	1.05		2.17			
50	1.04		2.12			
51	1.03		2.08			
52	1.02		2.04			
53	1.01		2			
54	1		1.96			
55	0.99		1.93			
56	0.98		1.89			
57	0.97		1.86			
58	0.96		1.83			
59	0.95		1.8			
60	0.94		1.77			
61	0.93		1.74			
62	0.92		1.72			
63	0.91		1.69			
64	0.9		1.67			
65	0.89		1.65			
66	0.88		1.63			
67	0.87		1.61			
68	0.86		1.59			
69	0.85		1.57			
70	0.84		1.56			
71	0.84		1.55			
72	0.83		1.54			
73	0.82		1.53			
74	0.81		1.52			
75	0.8		1.51			
76	0.79		1.51			
77	0.78		1.5			

Model	LBAS08-5/ABAS08-5		LBAS08-10/ABAS08-10		LBAS08-20/ABAS08-20	
	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]	
78	0.77		1.5			
79	0.76		1.5			
80	0.76		1.5			
81	0.75					
82	0.74					
83	0.73					
84	0.72					
85	0.71					
86	0.71					
87	0.7					
88	0.69					
89	0.68					
90	0.67					
91	0.67					
92	0.66					
93	0.65					
94	0.64					
95	0.63					
96	0.63					
97	0.62					
98	0.61					
99	0.6					
100	0.6					

Features

Basic model

Advanced model

Basic model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration Inertia Moment

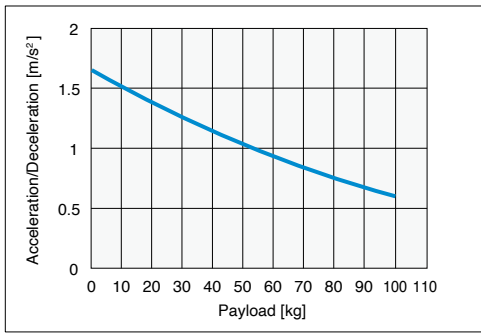
Option

Single axis robot positioner EP-01

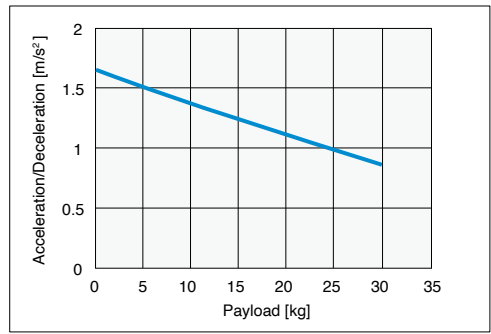
● Payload – Acceleration/Deceleration Graph (Estimate)

LBAS08-5 / ABAS08-5

Horizontal/
Wall hanging

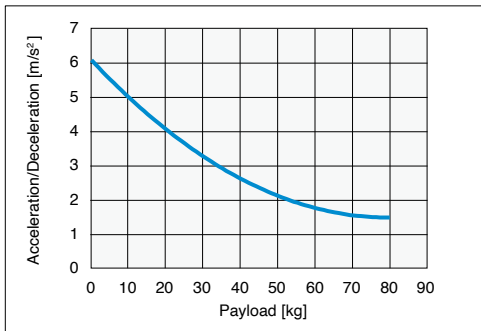


Vertical

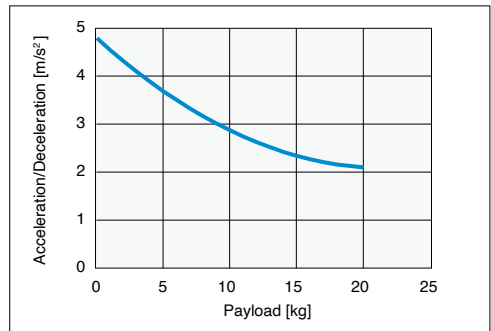


LBAS08-10 / ABAS08-10

Horizontal/
Wall hanging

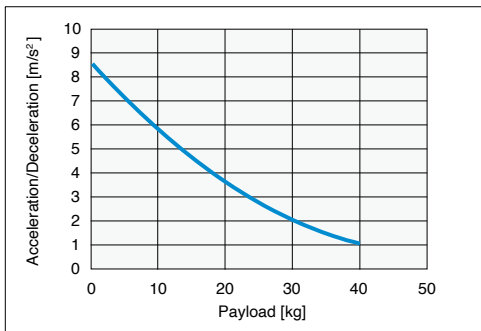


Vertical

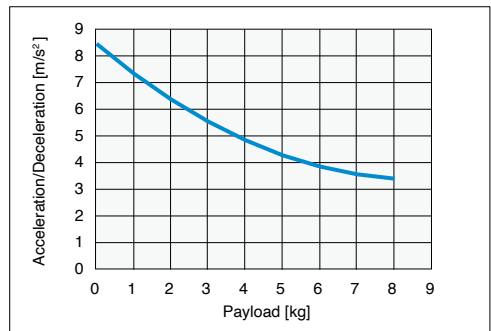


LBAS08-20 / ABAS08-20

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type

LBAS

Motorless
Slider type

LGXS

Motorless
Rod type

LBAR

With motor
Slider type

ABAS

With motor
Slider type

AGXS

With motor
Rod type

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner

EP-01

LBAS12

Inertia Moment

[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
LBAS12-5	0.396	0.422	0.447	0.472	0.497	0.523	0.548	0.573	0.598	0.624	0.649	0.674	0.699	0.725	0.750	0.775	0.800	0.826	0.851	0.876	0.901	0.927	0.952	0.977	1.002
LBAS12-10	0.426	0.451	0.477	0.502	0.527	0.552	0.578	0.603	0.628	0.653	0.679	0.704	0.729	0.754	0.780	0.805	0.830	0.855	0.881	0.906	0.931	0.956	0.982	1.007	1.032
LBAS12-20	0.548	0.573	0.598	0.623	0.649	0.674	0.699	0.724	0.750	0.775	0.800	0.826	0.851	0.876	0.901	0.927	0.952	0.977	1.002	1.028	1.053	1.078	1.103	1.129	1.154
LBAS12-32	0.799	0.824	0.849	0.875	0.900	0.925	0.951	0.976	1.001	1.026	1.052	1.077	1.102	1.127	1.153	1.178	1.203	1.228	1.254	1.279	1.304	1.329	1.355	1.380	1.405

LBAS12 (200W) ABAS12

Acceleration/Deceleration

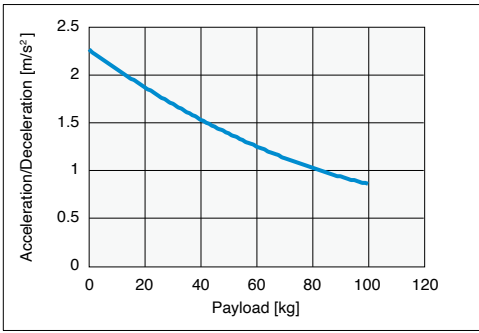
Model	LBAS12-5/ ABAS12-5		LBAS12-10/ ABAS12-10		LBAS12-20/ ABAS12-20		LBAS12-32/ ABAS12-32	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s ²]		Acceleration/ Deceleration [m/s ²]		Acceleration/ Deceleration [m/s ²]		Acceleration/ Deceleration [m/s ²]	
0	2.27	1.9	6.89	3.29	6.59	8.11	9.75	9.75
1	2.24	1.87	6.78	3.26	6.53	7.85	9.75	9.75
2	2.22	1.84	6.67	3.24	6.48	7.6	9.75	9.75
3	2.2	1.82	6.56	3.22	6.43	7.34	9.75	9.75
4	2.18	1.79	6.45	3.19	6.38	7.09	9.75	
5	2.16	1.77	6.35	3.17	6.33	6.84	9.75	
6	2.14	1.74	6.24	3.15	6.28	6.58	9.75	
7	2.12	1.72	6.14	3.12	6.23	6.33	9.75	
8	2.1	1.69	6.03	3.1	6.18	6.07	9.75	
9	2.08	1.67	5.93	3.07	6.13		9.01	
10	2.06	1.64	5.83	3.05	6.08		8.37	
11	2.04	1.62	5.73	3.02	6.03		7.82	
12	2.02	1.59	5.63	3	5.98		7.34	
13	2	1.57	5.53	2.97	5.93		6.91	
14	1.98	1.54	5.44	2.94	5.88		6.53	
15	1.96	1.52	5.34	2.92	5.82		6.19	
16	1.95	1.49	5.24	2.89	5.77		5.88	
17	1.93	1.47	5.15	2.86	5.72		5.6	
18	1.91	1.44	5.06	2.83	5.67		5.35	
19	1.89	1.41	4.96	2.81	5.62		5.12	
20	1.87	1.39	4.87	2.78	5.57		4.91	
21	1.85	1.36	4.78		5.52			
22	1.84	1.34	4.69		5.47			
23	1.82	1.31	4.6		5.42			
24	1.8	1.29	4.52		5.37			
25	1.78	1.26	4.43		5.32			
26	1.76	1.24	4.34		5.27			
27	1.75	1.21	4.26		5.22			
28	1.73	1.19	4.18		5.17			
29	1.71	1.16	4.09		5.12			
30	1.7	1.14	4.01		5.06			
31	1.68		3.93		5.01			
32	1.66		3.85		4.96			
33	1.65		3.77		4.91			
34	1.63		3.69		4.86			
35	1.61		3.62		4.81			
36	1.6		3.54		4.76			
37	1.58		3.47		4.71			
38	1.57		3.39		4.66			
39	1.55		3.32		4.61			
40	1.53		3.25		4.56			
41	1.52		3.18					
42	1.5		3.11					
43	1.49		3.04					
44	1.47		2.97					
45	1.46		2.9					
46	1.44		2.83					
47	1.43		2.77					
48	1.42		2.7					
49	1.4		2.64					
50	1.39		2.58					
51	1.37		2.52					
52	1.36		2.46					
53	1.35		2.4					
54	1.33		2.34					
55	1.32		2.28					
56	1.3		2.22					
57	1.29		2.17					
58	1.28		2.11					
59	1.27		2.06					
60	1.25		2.01					
61	1.24		1.95					
62	1.23		1.9					
63	1.22		1.85					
64	1.2		1.81					
65	1.19		1.76					
66	1.18		1.71					
67	1.17		1.66					
68	1.16		1.62					
69	1.14		1.57					
70	1.13		1.53					
71	1.12		1.49					
72	1.11		1.45					
73	1.1		1.41					

Model	LBAS12-5/ ABAS12-5		LBAS12-10/ ABAS12-10		LBAS12-20/ ABAS12-20		LBAS12-32/ ABAS12-32	
	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]	
74	1.09				1.37			
75	1.08				1.33			
76	1.07				1.29			
77	1.06				1.26			
78	1.05				1.22			
79	1.04				1.19			
80	1.03				1.15			
81	1.02							
82	1.01							
83	1							
84	0.99							
85	0.98							
86	0.97							
87	0.96							
88	0.95							
89	0.94							
90	0.94							
91	0.93							
92	0.92							
93	0.91							
94	0.9							
95	0.9							
96	0.89							
97	0.88							
98	0.87							
99	0.87							
100	0.86							

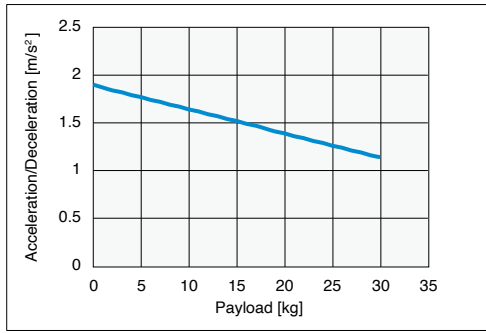
● Payload – Acceleration/Deceleration Graph (Estimate)

LBAS12-5 (200W) / ABAS12-5

Horizontal/
Wall hanging

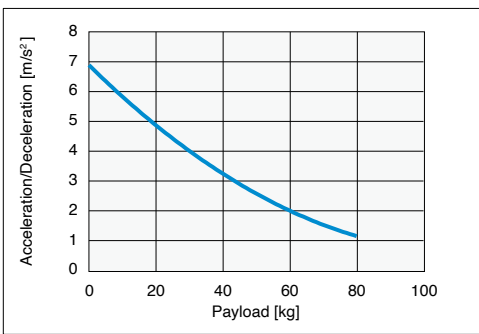


Vertical

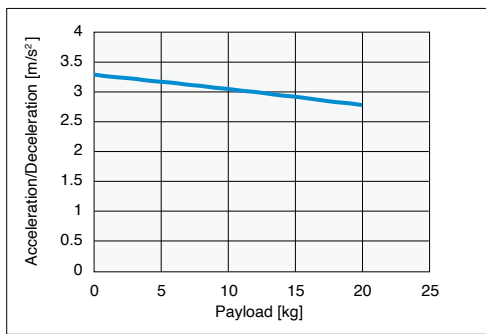


LBAS12-10 (200W) / ABAS12-10

Horizontal/
Wall hanging

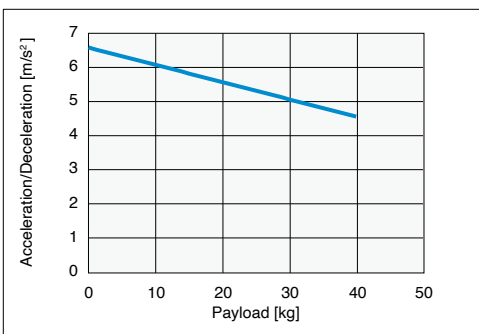


Vertical

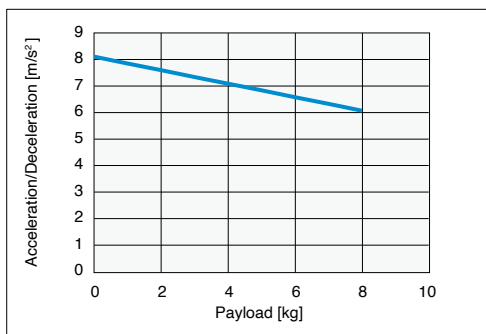


LBAS12-20 (200W) / ABAS12-20

Horizontal/
Wall hanging

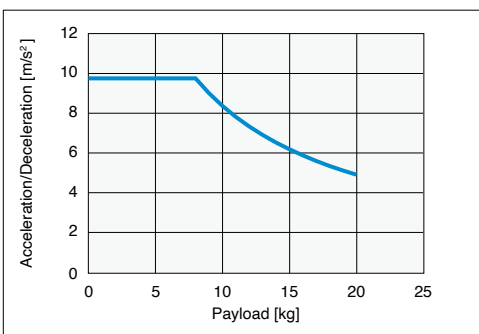


Vertical

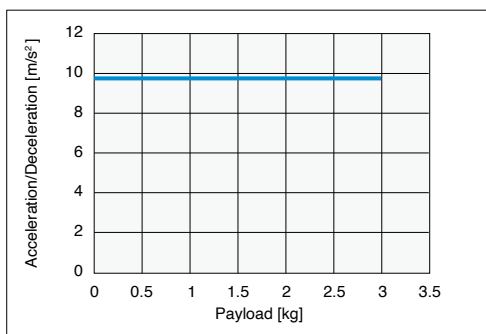


LBAS12-32 (200W) / ABAS12-32

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner
EP-01

LBAS12 (400W) ABAS12H

Acceleration/Deceleration

Model	LBAS12-5/ ABAS12H-5		LBAS12-10/ ABAS12H-10		LBAS12-20/ ABAS12H-20		LBAS12-32/ ABAS12H-32	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s ²]		Acceleration/ Deceleration [m/s ²]		Acceleration/ Deceleration [m/s ²]		Acceleration/ Deceleration [m/s ²]	
0	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		3.97		4.38			
42	1.5		3.88		4.31			
43	1.49		3.8		4.25			
44	1.47		3.71		4.19			
45	1.46		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	LBAS12-5/ ABAS12H-5		LBAS12-10/ ABAS12H-10		LBAS12-20/ ABAS12H-20		LBAS12-32/ ABAS12H-32	
	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]	
90	0.94		1.09					
91	0.93		1.06					
92	0.92		1.03					
93	0.91		1.01					
94	0.9		0.98					
95	0.9		0.96					
96	0.89							
97	0.88							
98	0.87							
99	0.87							
100	0.86							
101	0.85							
102	0.84							
103	0.84							
104	0.83							
105	0.82							
106	0.82							
107	0.81							
108	0.81							
109	0.8							
110	0.79							
111	0.79							
112	0.78							
113	0.78							
114	0.77							
115	0.77							

Features

Basic model

Advanced model

Basic model

Basic model

Advanced model

Basic model

Basic model

Advanced model

Basic model

Basic model

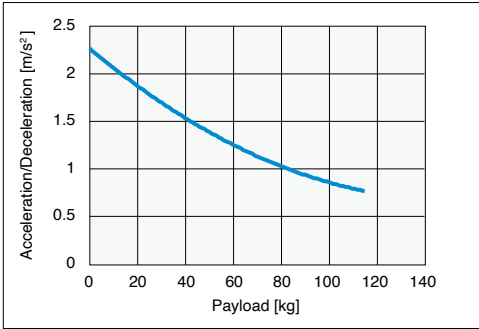
Option

Single axis robot positioner EP-01

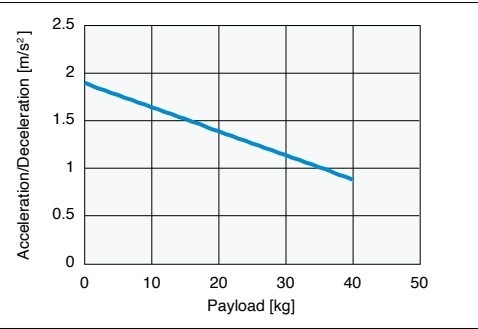
● Payload – Acceleration/Deceleration Graph (Estimate)

LBAS12-5 (400W) / ABAS12H-5

Horizontal/
Wall hanging

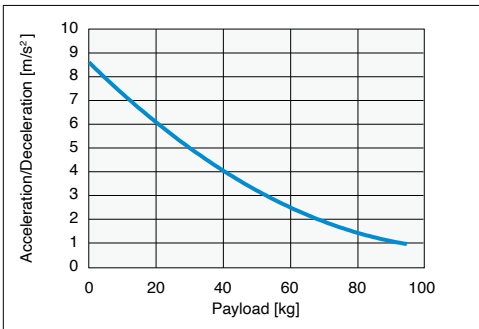


Vertical

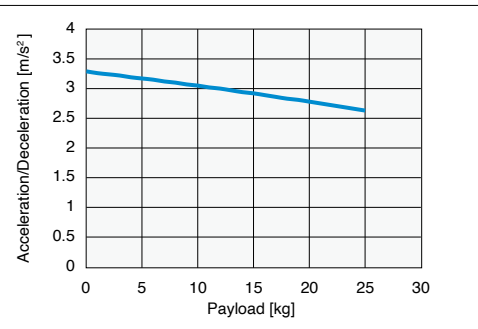


LBAS12-10 (400W) / ABAS12H-10

Horizontal/
Wall hanging

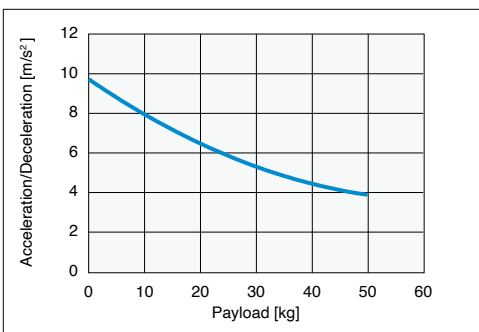


Vertical

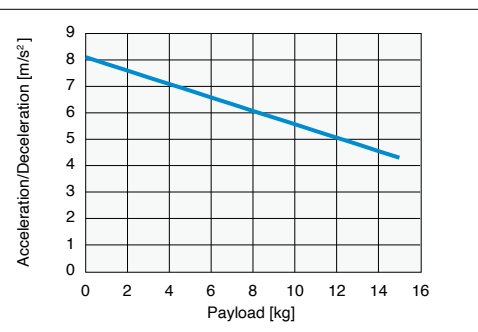


LBAS12-20 (400W) / ABAS12H-20

Horizontal/
Wall hanging

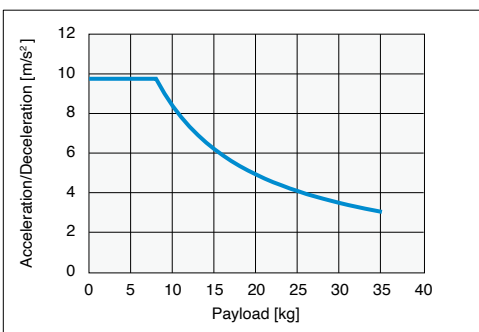


Vertical

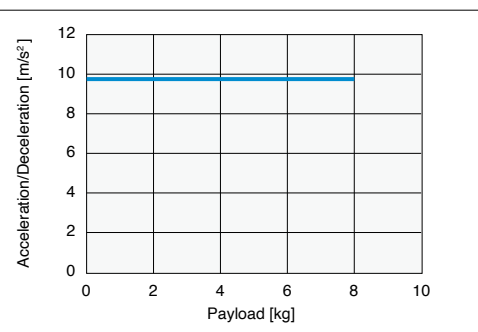


LBAS12-32 (400W) / ABAS12H-32

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type

LBAS

Motorless
Slider type

LGXS

Motorless
Rod type

LBAR

With motor
Slider type

ABAS

With motor
Slider type

AGXS

With motor
Rod type

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner
EP-01

LGXS05

Inertia Moment

[kg·m ² ·10 ⁻⁴]	Effective stroke [mm]															
	Model	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750
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

LGXS05 AGXS05

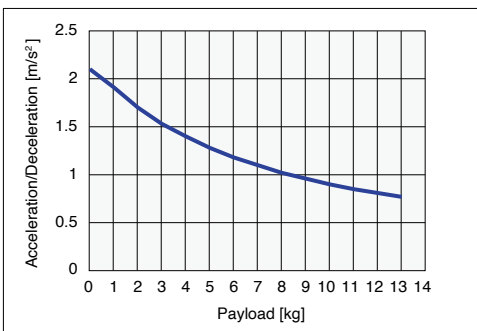
Acceleration/Deceleration

Model	LGXS05-5/AGXS05-5		LGXS05-10/AGXS05-10		LGXS05-20/AGXS05-20	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	2.1	2.1	4.2	3.6	5.3	5.3
1	1.91	2.1	3.84	2.4	5.3	5.3
2	1.7	1.64	2.99	1.8	3.98	3.98
3	1.53	1.34	2.45	1.44	3.19	
4	1.4	1.14	2.07	1.2	2.66	
5	1.28	0.99			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 / AGXS05-5

Horizontal/Wall hanging

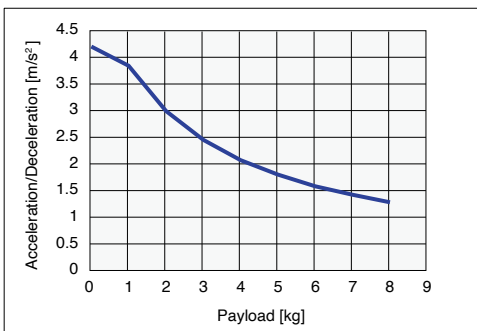


Vertical

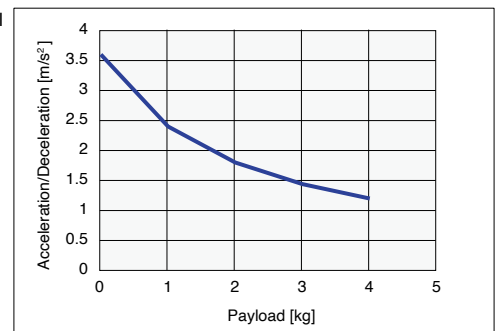


LGXS05-10 / AGXS05-10

Horizontal/Wall hanging

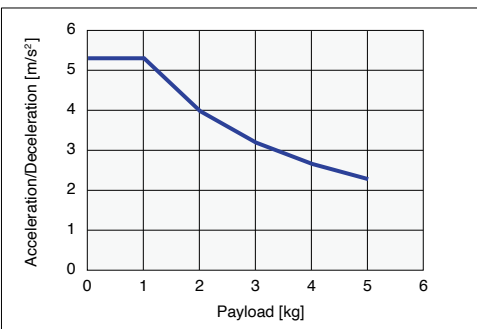


Vertical

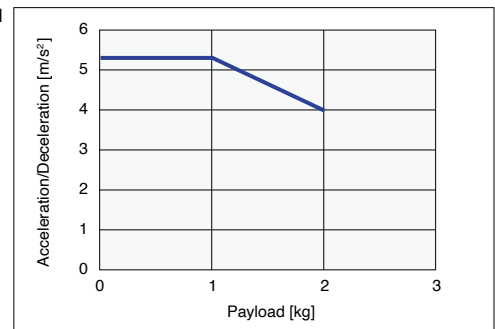


LGXS05-20 / AGXS05-20

Horizontal/Wall hanging



Vertical



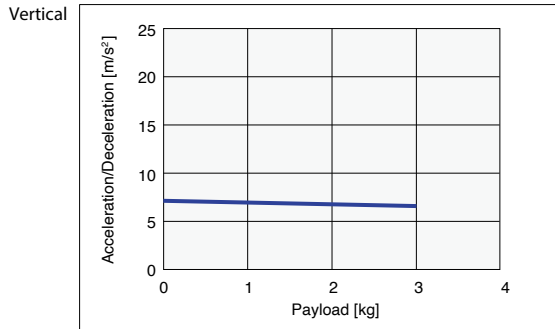
LGXS05 **AGXS05-H** High agility mode

Acceleration/Deceleration

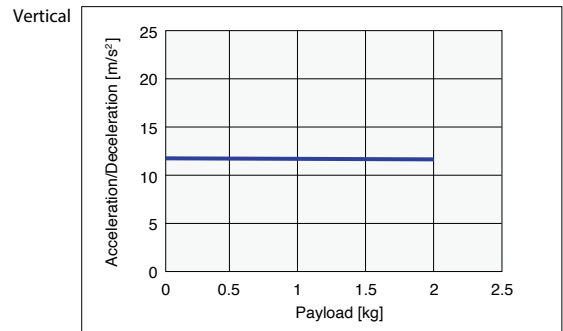
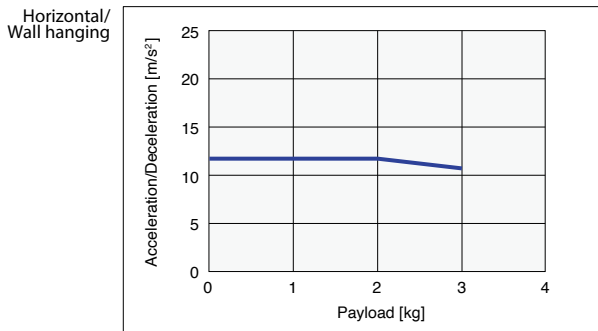
Model	LGXS05-5/ AGXS05-H5		LGXS05-10/ AGXS05-H10		LGXS05-20/ AGXS05-H20	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging
Payload [kg]	Acceleration/ Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]
0	7.17	11.77	11.77	11.77	11.77	11.77
1	6.99	11.77	11.77	11.77	11.77	11.77
2	6.82	11.77	11.58	11.77	11.77	11.77
3	6.66	10.91				

● **Payload – Acceleration/Deceleration Graph (Estimate)**

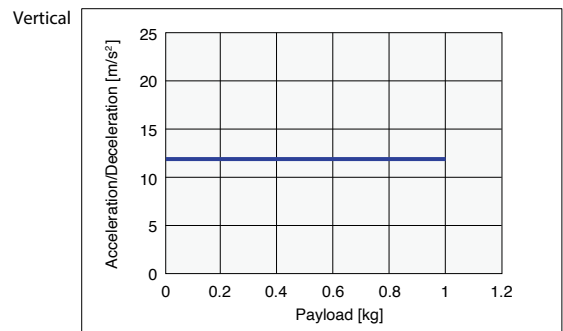
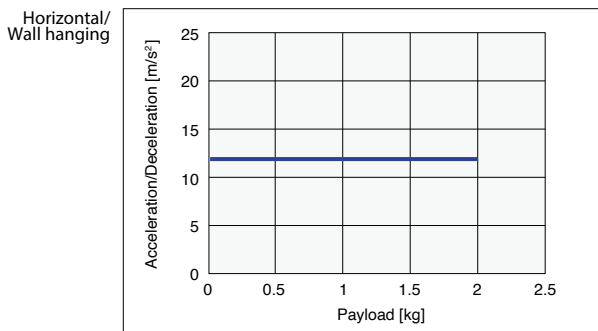
LGXS05-5 / AGXS05-H5



LGXS05-10 / AGXS05-H10



LGXS05-20 / AGXS05-H20



Features

Motorless
Slider type

Basic model

Motorless
Slider type

Advanced model

Motorless
Rod type

Basic model

With motor
Slider type

Basic model

With motor
Slider type

Advanced model

With motor
Rod type

Basic model

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner

EP-01

LGXS05L

Inertia Moment

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

LGXS05L AGXS05L

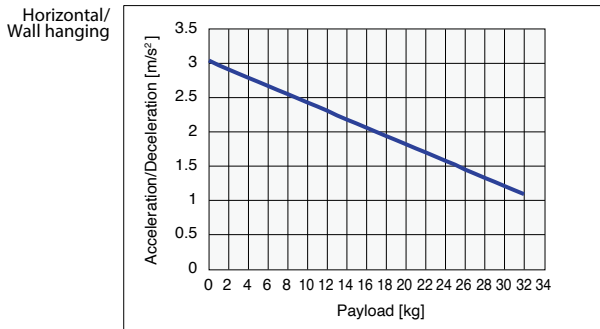
Acceleration/Deceleration

Model	LGXS05L-5/ AGXS05L-5		LGXS05L-10/ AGXS05L-10		LGXS05L-20/ AGXS05L-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	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			

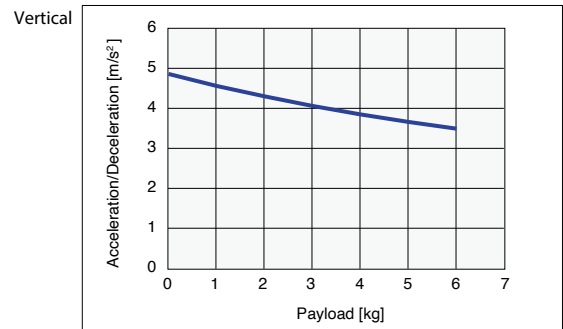
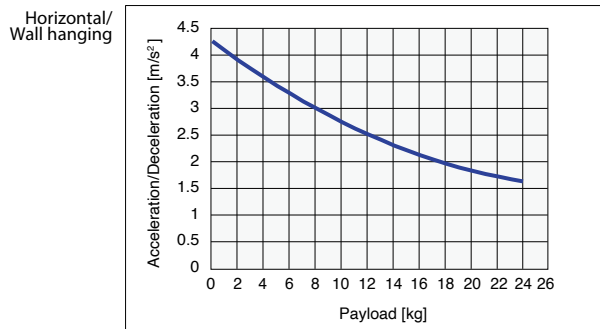
Model	LGXS05L-5/ AGXS05L-5		LGXS05L-10/ AGXS05L-10		LGXS05L-20/ AGXS05L-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
18	1.94			1.96		
19	1.88			1.89		
20	1.82			1.83		
21	1.77			1.77		
22	1.7			1.72		
23	1.64			1.67		
24	1.58			1.63		
25	1.52					
26	1.45					
27	1.39					
28	1.33					
29	1.27					
30	1.21					
31	1.15					
32	1.09					

● **Payload – Acceleration/Deceleration Graph (Estimate)**

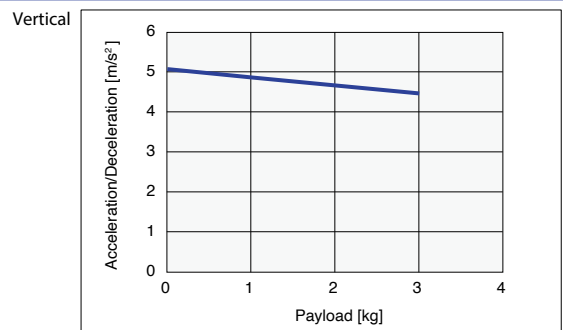
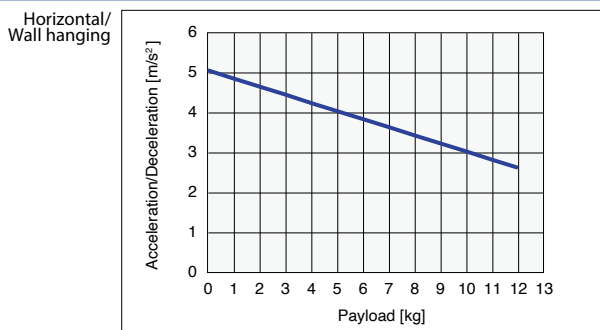
LGXS05L-5 / AGXS05L-5



LGXS05L-10 / AGXS05L-10



LGXS05L-20 / AGXS05L-20



Features
 Basic model
 Advanced model
 Basic model
 Basic model
 Advanced model
 Basic model
 Basic model
 Advanced model
 Basic model
 Basic model
 Advanced model
 Basic model
 Advanced model
 Inertia Moment
 Option
 Single axis positioner
 EP01

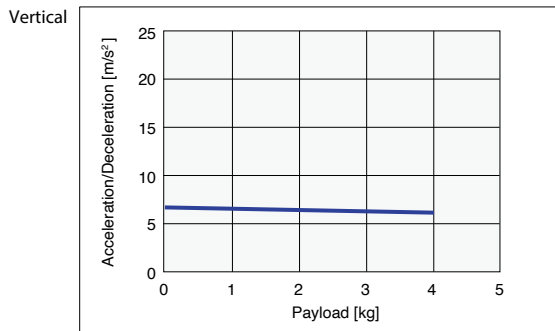
LGXS05L AGXS05L-H High agility mode

Acceleration/Deceleration

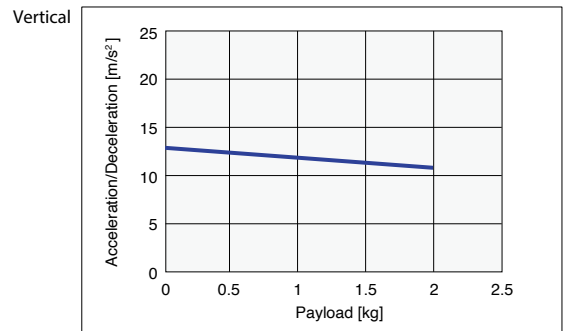
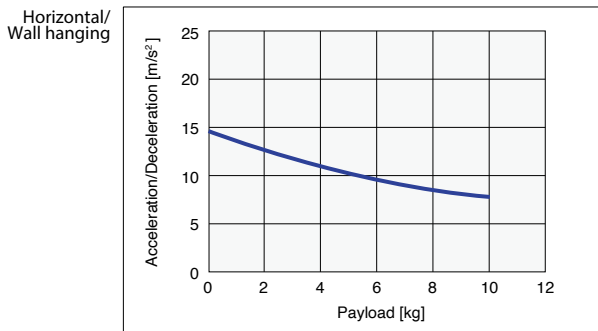
Model	LGXS05L-5/ AGXS05L-H5	LGXS05L-10/ AGXS05L-H10		LGXS05L-20/ AGXS05L-H20	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	6.65	14.72	12.68	14.72	14.72
1	6.50	13.50	11.65	14.72	14.72
2	6.35	12.46	10.78	14.72	
3	6.22	11.58		12.93	
4	6.08	10.81		11.16	
5		10.13		9.81	
6		9.54			
7		9.01			
8		8.54			
9		8.11			
10		7.73			

● Payload – Acceleration/Deceleration Graph (Estimate)

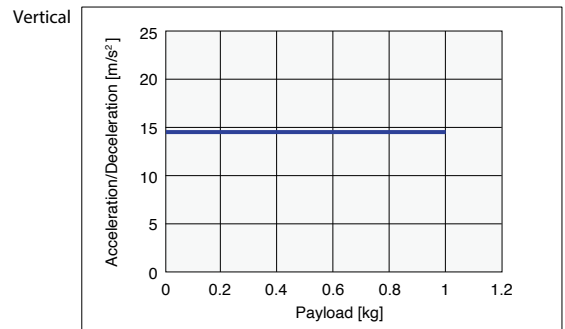
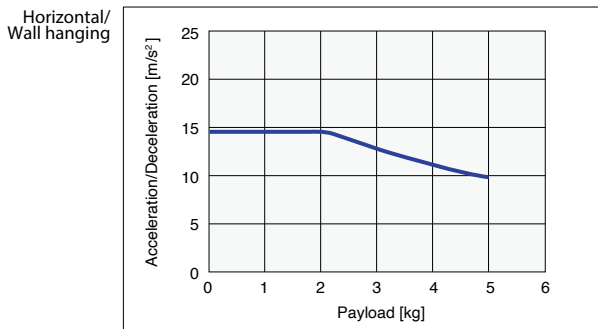
LGXS05L-5 / AGXS05L-H5



LGXS05L-10 / AGXS05L-H10



LGXS05L-20 / AGXS05L-H20



LGXS07

Inertia Moment

Model	Effective stroke [mm]																					
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
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

LGXS07 AGXS07

Acceleration/Deceleration

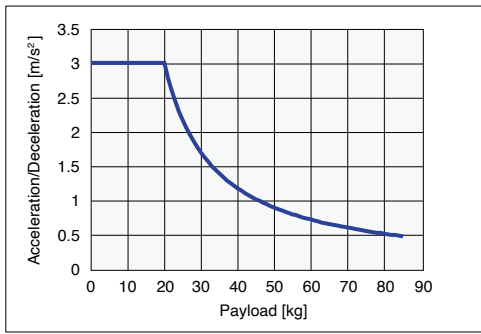
Model	LGXS07-5/ AGXS07-5		LGXS07-10/ AGXS07-10		LGXS07-20/ AGXS07-20		LGXS07-30/ AGXS07-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
0	3.04	2.53	6.08	5.57	7.09	6.08	6.99	6.99
1	3.04	2.47	5.68	5.29	6.74	5.57	6.64	6.64
2	3.04	2.42	5.33	5.02	6.4	5.15	6.31	6.31
3	3.04	2.37	5.02	4.75	6.07	4.78	5.98	
4	3.04	2.32	4.75	4.5	5.75	4.47	5.67	
5	3.04	2.27	4.5	4.24	5.44		5.36	
6	3.04	2.22	4.28	3.99	5.14		5.06	
7	3.04	2.17	4.08	3.75	4.85		4.78	
8	3.04	2.12	3.89	3.52	4.57		4.5	
9	3.04	2.07	3.73		4.3		4.24	
10	3.04	2.02	3.57		4.04		3.98	
11	3.04	1.97	3.43		3.79			
12	3.04	1.92	3.3		3.55			
13	3.04	1.87	3.18		3.32			
14	3.04	1.82	3.07		3.09			
15	3.04	1.77	2.96		2.88			
16	3.04	1.72	2.86		2.68			
17	3.04		2.77		2.49			
18	3.04		2.69		2.31			
19	3.04		2.6		2.14			
20	3.04		2.53		1.98			
21	2.82		2.46		1.83			
22	2.64		2.39		1.69			
23	2.48		2.32		1.56			
24	2.33		2.26		1.44			
25	2.21		2.21		1.32			
26	2.09		2.15					
27	1.99		2.1					
28	1.9		2.05					
29	1.81		2					
30	1.73		1.96					
31	1.66		1.91					
32	1.6		1.87					
33	1.53		1.83					
34	1.48		1.79					
35	1.43		1.76					
36	1.38		1.72					
37	1.33		1.69					
38	1.29		1.66					
39	1.25		1.63					
40	1.21		1.6					
41	1.18		1.57					
42	1.14		1.54					
43	1.11		1.51					
44	1.08		1.49					
45	1.05		1.46					
46	1.03							
47	1							
48	0.98							
49	0.95							
50	0.93							
51	0.91							
52	0.89							
53	0.87							
54	0.85							
55	0.83							
56	0.82							
57	0.8							
58	0.78							
59	0.77							
60	0.76							
61	0.74							
62	0.73							
63	0.71							
64	0.7							
65	0.69							
66	0.68							
67	0.67							
68	0.66							
69	0.65							
70	0.64							
71	0.63							
72	0.62							
73	0.61							
74	0.6							
75	0.59							

Model	LGXS07-5/ AGXS07-5		LGXS07-10/ AGXS07-10		LGXS07-20/ AGXS07-20		LGXS07-30/ AGXS07-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
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							

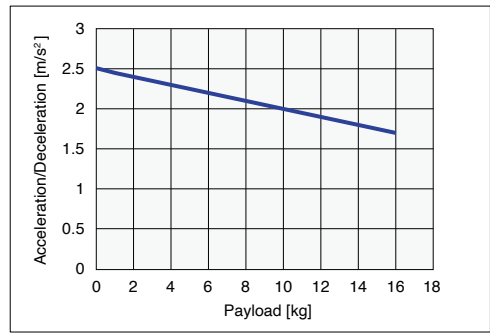
● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS07-5 / AGXS07-5

Horizontal/
Wall hanging

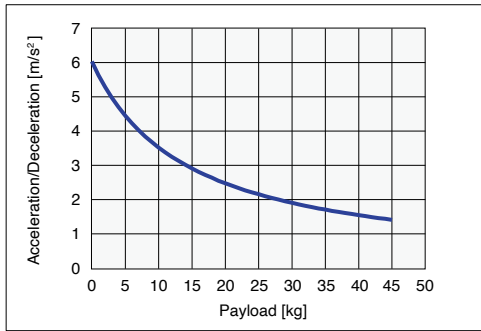


Vertical

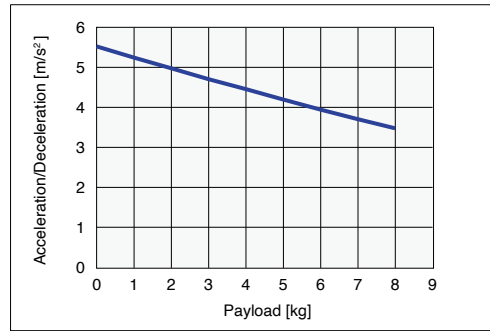


LGXS07-10 / AGXS07-10

Horizontal/
Wall hanging

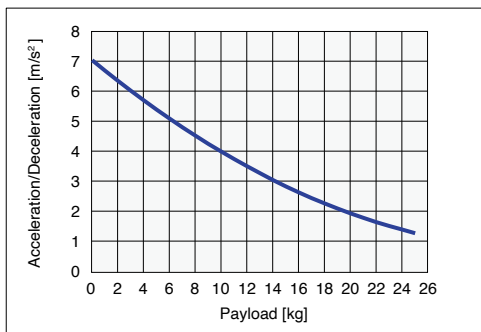


Vertical

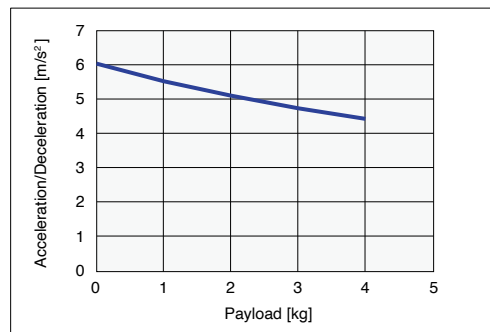


LGXS07-20 / AGXS07-20

Horizontal/
Wall hanging

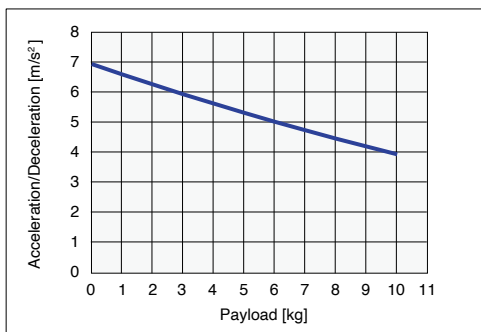


Vertical

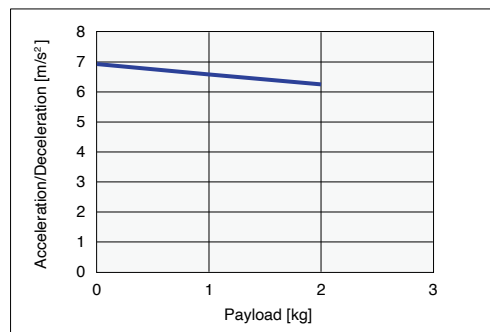


LGXS07-30 / AGXS07-30

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner

EP-01

LGXS07 AGXS07-H High agility mode

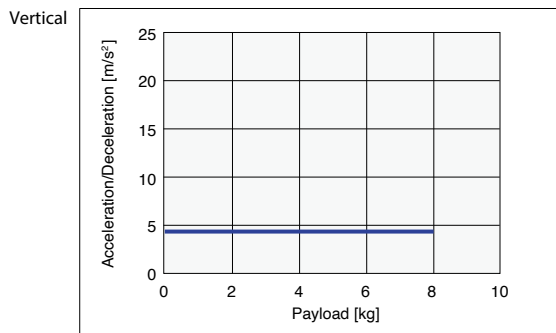
Acceleration/Deceleration

Model	LGXS07-5/ AGXS07-H5		LGXS07-10/ AGXS07-H10		LGXS07-20/ AGXS07-H20		LGXS07-30/ AGXS07-H30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging
Payload [kg]	Acceleration/ Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		
0	4.32	9.64	8.44	14.72	14.72	14.72	14.72	
1	4.29	9.36	8.20	14.72	13.96	14.72	14.72	
2	4.26	9.10	7.97	14.47	12.71	14.72		
3	4.23	8.85	7.75	13.26		14.03		
4	4.20	8.61	7.54	12.23		12.39		
5	4.17	8.39		11.36		11.09		
6	4.14	8.17		10.59				
7	4.11	7.97		9.93				
8	4.08	7.78		9.34				
9		7.59		8.82				
10		7.42		8.36				

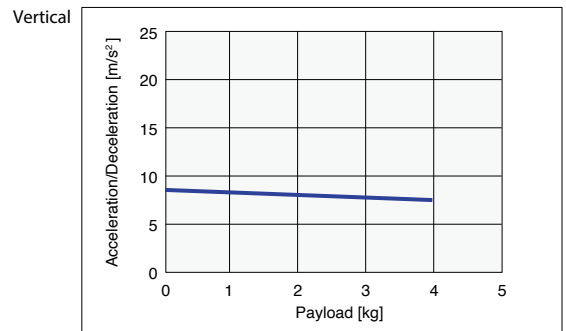
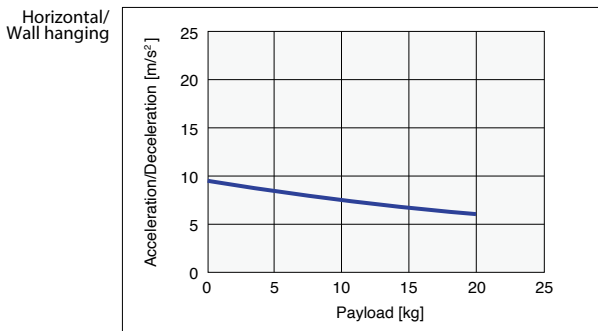
Model	LGXS07-5/ AGXS07-H5		LGXS07-10/ AGXS07-H10		LGXS07-20/ AGXS07-H20		LGXS07-30/ AGXS07-H30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging
Payload [kg]	Acceleration/ Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		
11		7.25						
12		7.09						
13		6.94						
14		6.79						
15		6.65						
16		6.52						
17		6.39						
18		6.26						
19		6.14						
20		6.03						

● **Payload – Acceleration/Deceleration Graph (Estimate)**

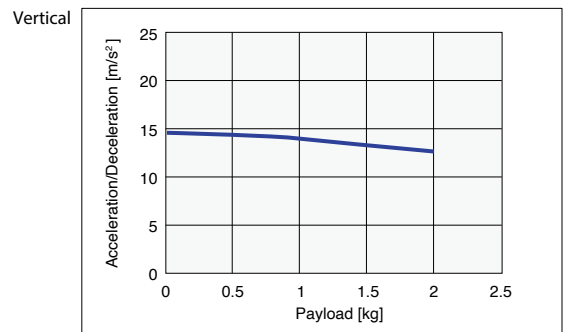
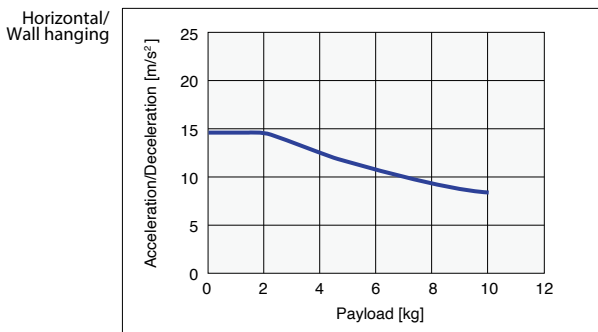
LGXS07-5 / AGXS07-H5



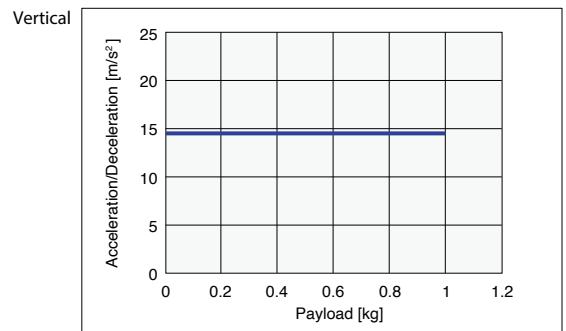
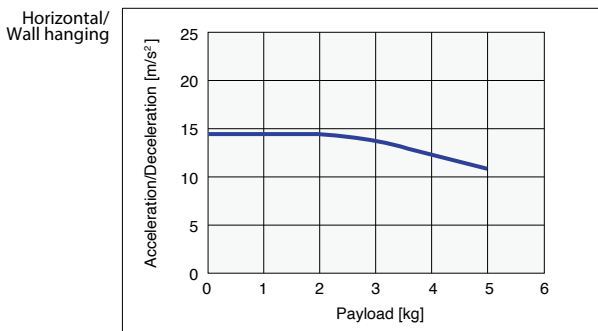
LGXS07-10 / AGXS07-H10



LGXS07-20 / AGXS07-H20



LGXS07-30 / AGXS07-H30



Features

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Basic model

Advanced model

Acceleration/Deceleration Inertia Moment

Option

Single axis positioner EP-01

LGXS10

Inertia Moment

[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
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

LGXS10 AGXS10

Acceleration/Deceleration

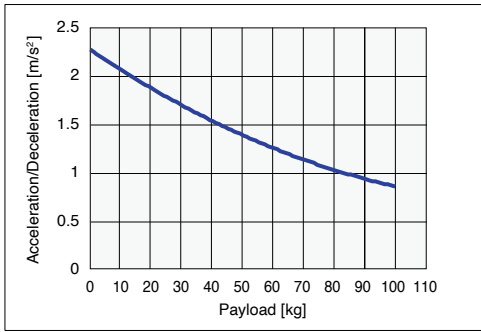
Model	LGXS10-5/AGXS10-5		LGXS10-10/AGXS10-10		LGXS10-20/AGXS10-20		LGXS10-30/AGXS10-30	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	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					

Model	LGXS10-5/AGXS10-5		LGXS10-10/AGXS10-10		LGXS10-20/AGXS10-20		LGXS10-30/AGXS10-30	
	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical	Horizontal/Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
76	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							
90	0.94							
91	0.93							
92	0.92							
93	0.92							
94	0.91							
95	0.9							
96	0.89							
97	0.89							
98	0.88							
99	0.87							
100	0.86							

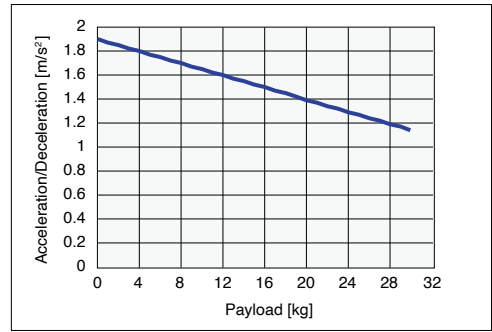
● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS10-5 / AGXS10-5

Horizontal/
Wall hanging

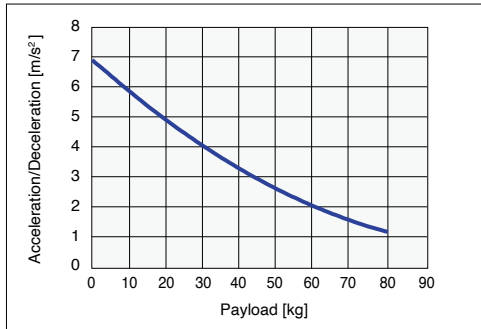


Vertical



LGXS10-10 / AGXS10-10

Horizontal/
Wall hanging

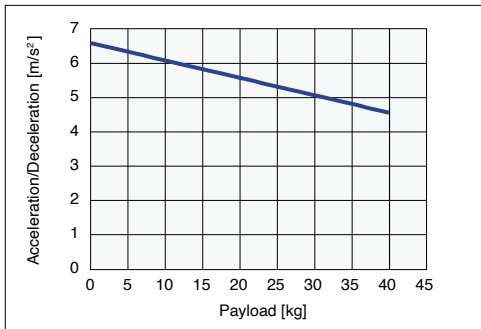


Vertical

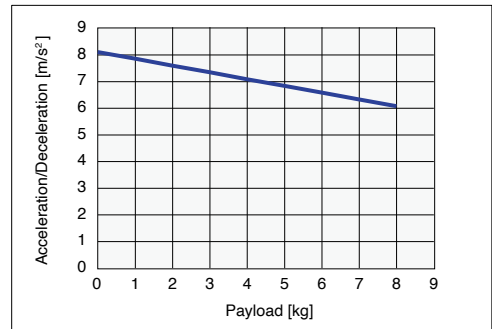


LGXS10-20 / AGXS10-20

Horizontal/
Wall hanging



Vertical

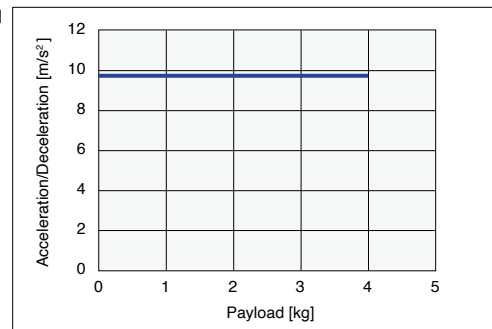


LGXS10-30 / AGXS10-30

Horizontal/
Wall hanging



Vertical



Features

Motorless
 Silver type
 Red type
LBAS
 Advanced model

Motorless
 Silver type
 Red type
LGXS
 Basic model

With motor
 Silver type
 Red type
LBAR
 Basic model

With motor
 Silver type
 Red type
ABAS
 Advanced model

With motor
 Silver type
 Red type
AGXS
 Basic model

With motor
 Silver type
 Red type
ABAR
 Basic model

Acceleration/Deceleration
 Inertia Moment

Option

Single
 axis
 positioner
EP-01

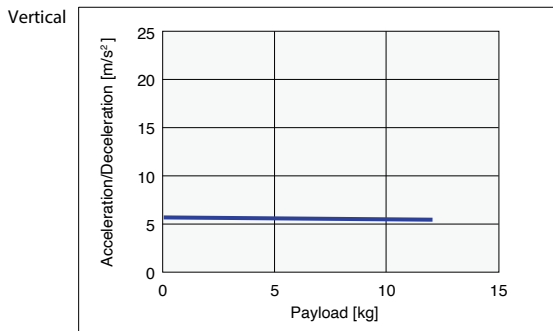
LGXS10 AGXS10-H High agility mode

Acceleration/Deceleration

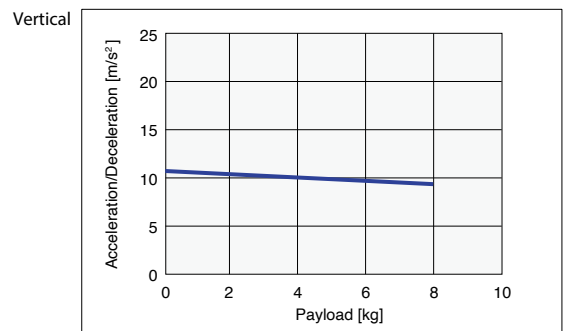
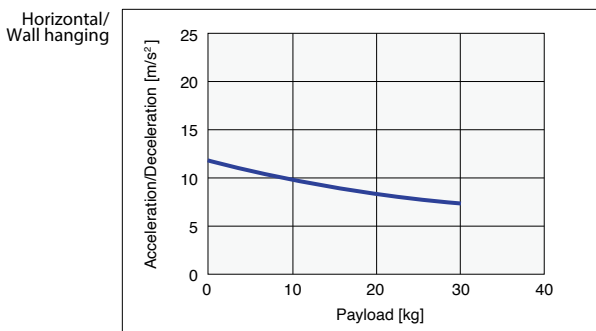
Model	LGXS10-5/ AGXS10-H5		LGXS10-10/ AGXS10-H10		LGXS10-20/ AGXS10-H20		LGXS10-30/ AGXS10-H30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]
0	5.53	11.71	10.84	19.62	19.62	19.62	19.62	19.62
1	5.51	11.47	10.63	19.62	18.69	19.62	19.62	19.62
2	5.48	11.25	10.44	18.66	17.55	19.62	19.62	19.62
3	5.46	11.03	10.26	17.52	16.54	19.55		
4	5.43	10.82	10.08	16.52	15.65	17.74		
5	5.41	10.62	9.90	15.62		16.24		
6	5.38	10.43	9.74	14.81		14.96		
7	5.36	10.24	9.57	14.09		13.88		
8	5.33	10.06	9.42	13.43		12.94		
9	5.31	9.89		12.83		12.12		
10	5.28	9.72		12.28		11.40		
11	5.26	9.56		11.78				
12	5.23	9.40		11.32				
13		9.25		10.89				
14		9.10		10.49				
15		8.96		10.12				
16		8.82		9.78				
17		8.69		9.45				
18		8.56		9.15				
19		8.43		8.87				
20		8.31		8.60				
21		8.19						
22		8.07						
23		7.96						
24		7.85						
25		7.75						
26		7.64						
27		7.54						
28		7.44						
29		7.35						
30		7.26						

● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS10-5 / AGXS10-H5



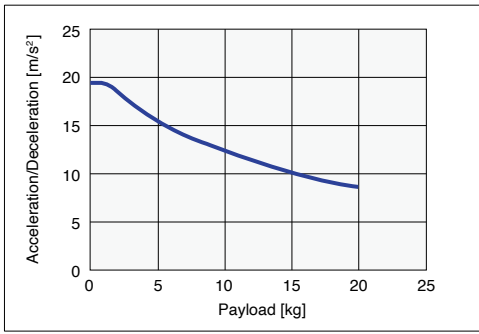
LGXS10-10 / AGXS10-H10



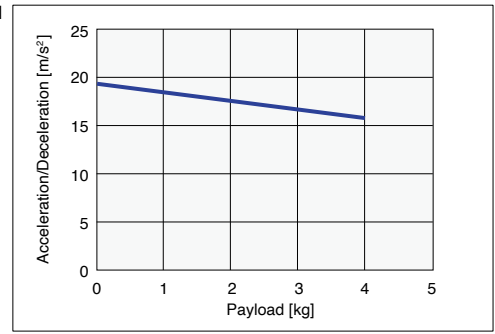
● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS10-20 / AGXS10-H20

Horizontal/
Wall hanging

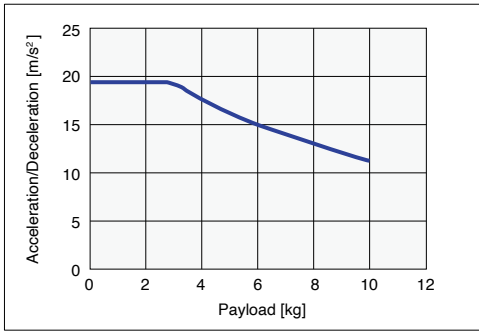


Vertical

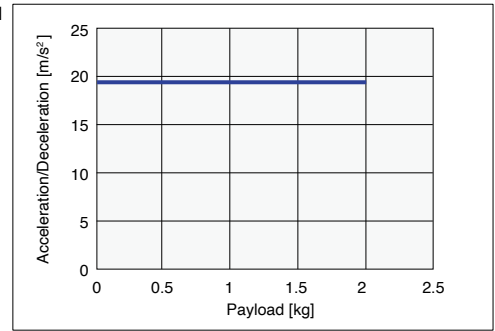


LGXS10-30 / AGXS10-H30

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner
EP-01

Acceleration/Deceleration and Inertia Moment (Advanced model)

LGXS12

Inertia Moment

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

LGXS12 AGXS12

Acceleration/Deceleration

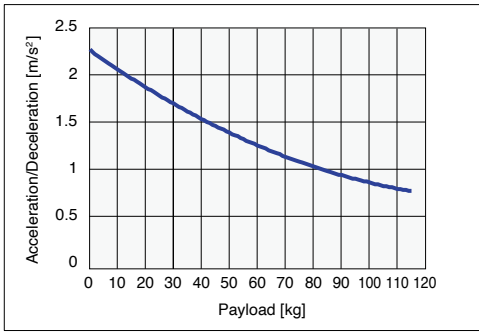
Model	LGXS12-5/ AGXS12-5		LGXS12-10/ AGXS12-10		LGXS12-20/ AGXS12-20		LGXS12-30/ AGXS12-30	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	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					

Model	LGXS12-5/ AGXS12-5		LGXS12-10/ AGXS12-10		LGXS12-20/ AGXS12-20		LGXS12-30/ AGXS12-30	
	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]	
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
90	0.94							1.09
91	0.93							1.06
92	0.92							1.03
93	0.91							1.01
94	0.9							0.98
95	0.9							0.96
96	0.89							
97	0.88							
98	0.87							
99	0.87							
100	0.86							
101	0.85							
102	0.84							
103	0.84							
104	0.83							
105	0.82							
106	0.82							
107	0.81							
108	0.81							
109	0.8							
110	0.79							
111	0.79							
112	0.78							
113	0.78							
114	0.77							
115	0.77							

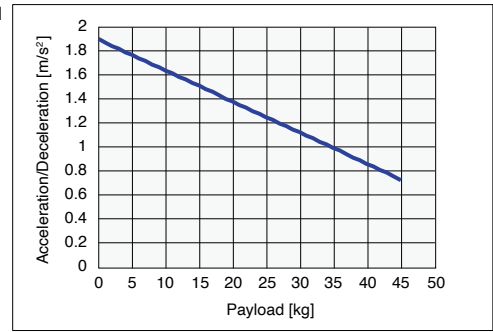
● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS12-5 / AGXS12-5

Horizontal/
Wall hanging

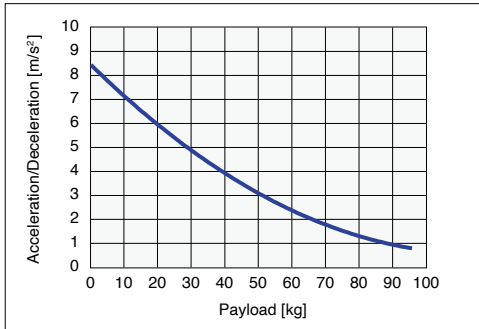


Vertical

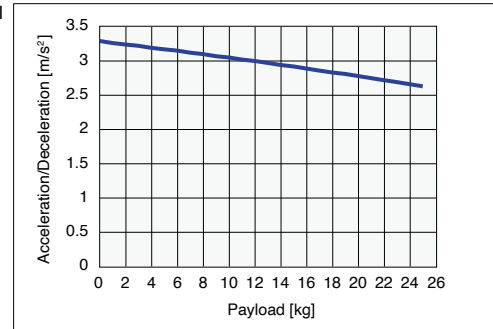


LGXS12-10 / AGXS12-10

Horizontal/
Wall hanging

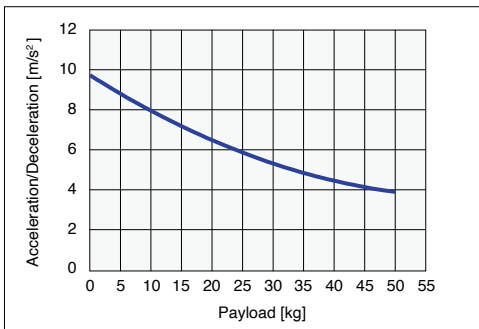


Vertical

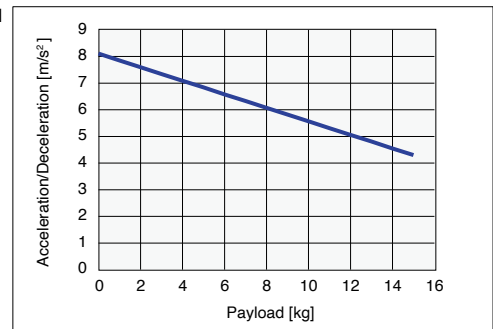


LGXS12-20 / AGXS12-20

Horizontal/
Wall hanging

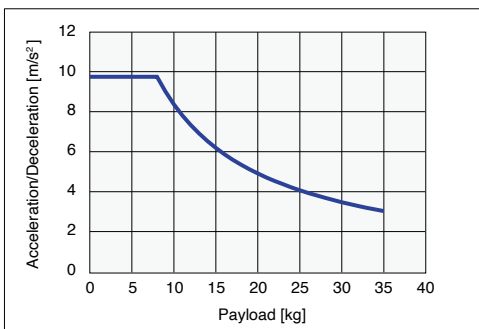


Vertical

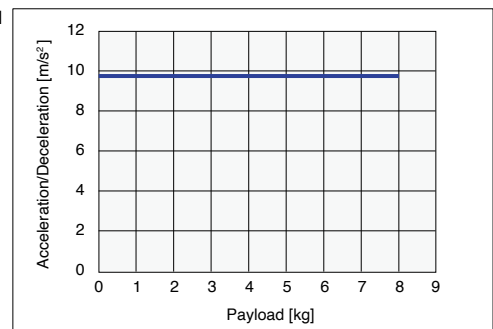


LGXS12-30 / AGXS12-30

Horizontal/
Wall hanging



Vertical



Features

Motorless
Silver type
Basic model

LBAS

Motorless
Silver type
Advanced model

LGXS

Motorless
Red type
Basic model

LBAR

With motor
Silver type
Basic model

ABAS

With motor
Silver type
Advanced model

AGXS

With motor
Red type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis
positioner
EP-01

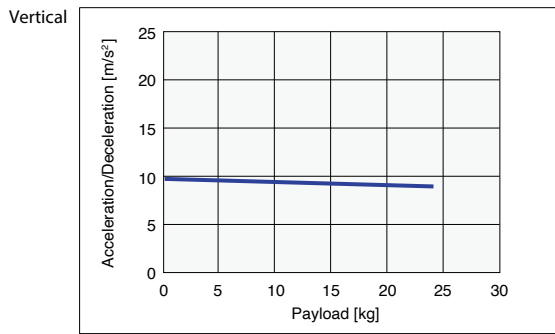
LGXS12 AGXS12-H High agility mode

Acceleration/Deceleration

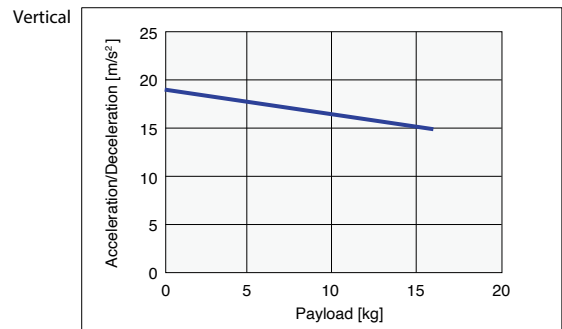
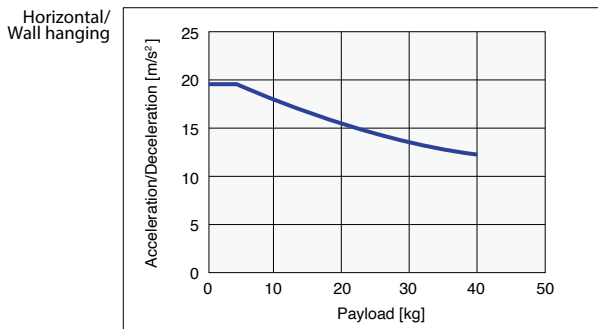
Model	LGXS12-5/ AGXS12-H5		LGXS12-10/ AGXS12-H10		LGXS12-20/ AGXS12-H20		LGXS12-30/ AGXS12-H30	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	9.85	19.62	19.21	19.62	19.62	19.62	19.62	19.62
1	9.81	19.62	18.90	19.62	19.62	19.62	19.62	19.62
2	9.77	19.62	18.59	19.62	19.62	19.62	19.62	19.62
3	9.73	19.62	18.29	19.62	19.62	19.62	19.62	19.62
4	9.69	19.62	18.00	19.62	19.62	19.62	19.62	19.62
5	9.65	19.53	17.72	19.62	19.62	19.62	19.62	19.62
6	9.61	19.20	17.45	19.62	19.62	19.62	19.62	19.62
7	9.57	18.89	17.19	19.62	19.62	19.62	19.62	19.62
8	9.53	18.58	16.94	19.62	19.62	19.62	19.62	19.62
9	9.49	18.28	16.69	19.62	19.62	19.62	19.62	19.62
10	9.45	17.99	16.45	19.62	19.62	19.62	19.62	19.62
11	9.41	17.71	16.21	19.62	19.62	19.62	19.62	19.62
12	9.37	17.44	15.99	19.62	19.62	19.62	19.62	19.62
13	9.34	17.18	15.77	19.62	19.62	19.62	19.62	19.62
14	9.30	16.93	15.55	19.62	19.62	19.62	19.62	19.62
15	9.26	16.68	15.34	19.06	19.06	19.06	19.06	19.06
16	9.22	16.44	15.14	18.45	18.45	18.45	18.45	18.45
17	9.19	16.21		17.87	17.87	17.87	17.87	17.87
18	9.15	15.98		17.33	17.33	17.33	17.33	17.33
19	9.11	15.76		16.83	16.83	16.83	16.83	16.83
20	9.08	15.54		16.35	16.35	16.35	16.35	16.35
21	9.04	15.33		15.89	15.89	15.89	15.89	15.89
22	9.01	15.13		15.47	15.47	15.47	15.47	15.47
23	8.97	14.93		15.06	15.06	15.06	15.06	15.06
24	8.94	14.74		14.67	14.67	14.67	14.67	14.67
25		14.55		14.31	14.31	14.31	14.31	14.31
26		14.37		13.96	13.96	13.96	13.96	13.96
27		14.19		13.63	13.63	13.63	13.63	13.63
28		14.02		13.31	13.31	13.31	13.31	13.31
29		13.85		13.01	13.01	13.01	13.01	13.01
30		13.68		12.72	12.72	12.72	12.72	12.72
31		13.52						
32		13.36						
33		13.21						
34		13.06						
35		12.91						
36		12.76						
37		12.62						
38		12.48						
39		12.35						
40		12.22						

● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS12-5 / AGXS12-H5



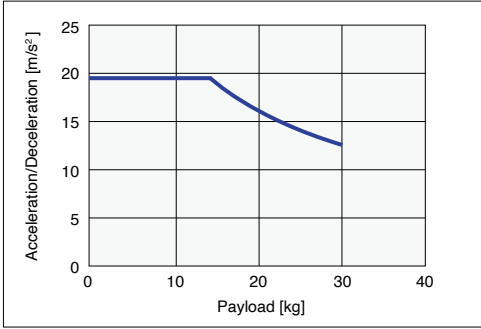
LGXS12-10 / AGXS12-H10



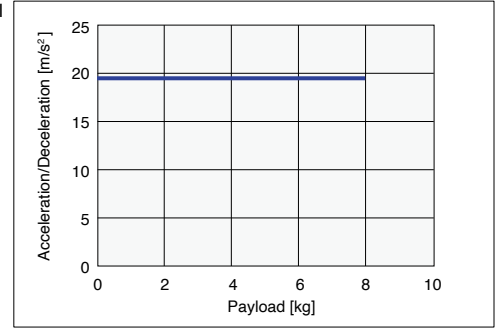
● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS12-20 / AGXS12-H20

Horizontal/
Wall hanging

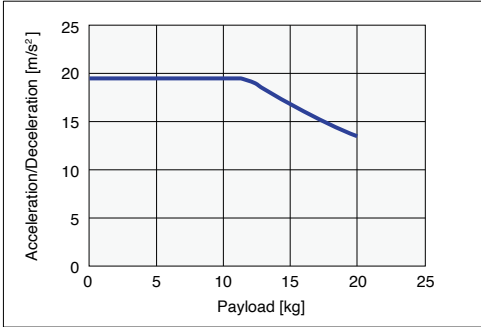


Vertical

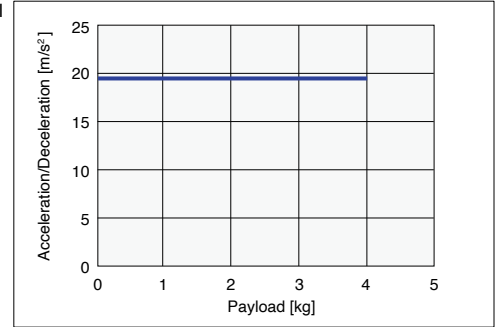


LGXS12-30 / AGXS12-H30

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner
EP-01

Acceleration/Deceleration and Inertia Moment (Advanced model)

LGXS16

Inertia Moment

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

LGXS16 AGXS16

Acceleration/Deceleration

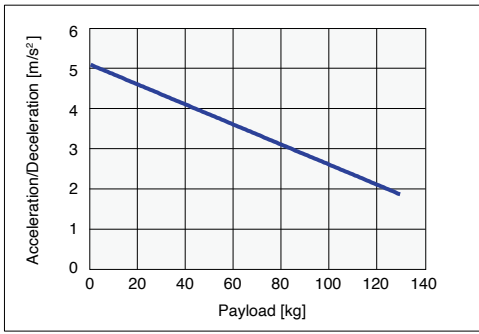
Model	LGXS16-10/ AGXS16-10		LGXS16-20/ AGXS16-20		LGXS16-40/ AGXS16-40	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	5.07	3.8	7.6	7.99	9.6	9.6
1	5.04	3.74	7.48	7.73	9.6	9.02
2	5.01	3.69	7.36	7.47	9.6	8.45
3	4.99	3.64	7.25	7.22	9.6	7.87
4	4.96	3.59	7.14	6.97	9.6	7.3
5	4.94	3.54	7.03	6.72	9.6	6.74
6	4.91	3.49	6.93	6.47	9.6	6.17
7	4.89	3.44	6.83	6.22	9.6	5.61
8	4.86	3.39	6.73	5.97	9.6	5.04
9	4.84	3.34	6.64	5.73	9.6	4.48
10	4.81	3.29	6.55	5.48	9.6	3.92
11	4.79	3.24	6.46	5.24	9.18	3.36
12	4.76	3.19	6.37	5	8.8	2.81
13	4.74	3.14	6.29	4.76	8.45	
14	4.71	3.09	6.2	4.53	8.13	
15	4.68	3.04	6.12	4.29	7.83	
16	4.66	2.99	6.05	4.05	7.55	
17	4.63	2.94	5.97	3.82	7.3	
18	4.61	2.89	5.9	3.59	7.05	
19	4.58	2.83	5.82	3.36	6.83	
20	4.56	2.78	5.75	3.13	6.62	
21	4.53	2.73	5.68	2.9	6.42	
22	4.51	2.68	5.62	2.68	6.23	
23	4.48	2.63	5.55	2.45	6.05	
24	4.46	2.58	5.49	2.23	5.88	
25	4.43	2.53	5.42	2.01	5.73	
26	4.41	2.48	5.36	1.79	5.58	
27	4.38	2.43	5.3	1.57	5.43	
28	4.36	2.38	5.24	1.35	5.3	
29	4.33	2.33	5.19		5.17	
30	4.3	2.28	5.13		5.05	
31	4.28	2.23	5.08		4.93	
32	4.25	2.18	5.02		4.82	
33	4.23	2.13	4.97		4.71	
34	4.2	2.08	4.92		4.61	
35	4.18	2.03	4.87		4.51	
36	4.15	1.98	4.82		4.42	
37	4.13	1.93	4.77		4.33	
38	4.1	1.87	4.72		4.24	
39	4.08	1.82	4.67		4.16	
40	4.05	1.77	4.63		4.08	
41	4.03	1.72	4.58		4	
42	4	1.67	4.54		3.93	
43	3.97	1.62	4.5		3.86	
44	3.95	1.57	4.46		3.79	
45	3.92	1.52	4.41		3.72	
46	3.9	1.47	4.37			
47	3.87	1.42	4.33			
48	3.85	1.37	4.29			
49	3.82	1.32	4.26			
50	3.8	1.27	4.22			
51	3.77	1.22	4.18			
52	3.75	1.17	4.14			
53	3.72	1.12	4.11			
54	3.7	1.07	4.07			
55	3.67	1.02	4.04			
56	3.65		4			
57	3.62		3.97			
58	3.59		3.94			
59	3.57		3.9			
60	3.54		3.87			
61	3.52		3.84			
62	3.49		3.81			
63	3.47		3.78			
64	3.44		3.75			
65	3.42		3.72			
66	3.39		3.69			
67	3.37		3.66			
68	3.34		3.63			
69	3.32		3.61			
70	3.29		3.58			
71	3.27		3.55			
72	3.24		3.53			
73	3.21		3.5			
74	3.19		3.47			
75	3.16		3.45			
76	3.14		3.42			
77	3.11		3.4			

Model	LGXS16-10/ AGXS16-10		LGXS16-20/ AGXS16-20		LGXS16-40/ AGXS16-40	
	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]	
78	3.09			3.38		
79	3.06			3.35		
80	3.04			3.33		
81	3.01			3.31		
82	2.99			3.28		
83	2.96			3.26		
84	2.94			3.24		
85	2.91			3.22		
86	2.88			3.19		
87	2.86			3.17		
88	2.83			3.15		
89	2.81			3.13		
90	2.78			3.11		
91	2.76			3.09		
92	2.73			3.07		
93	2.71			3.05		
94	2.68			3.03		
95	2.66			3.01		
96	2.63					
97	2.61					
98	2.58					
99	2.56					
100	2.53					
101	2.5					
102	2.48					
103	2.45					
104	2.43					
105	2.4					
106	2.38					
107	2.35					
108	2.33					
109	2.3					
110	2.28					
111	2.25					
112	2.23					
113	2.2					
114	2.18					
115	2.15					
116	2.12					
117	2.1					
118	2.07					
119	2.05					
120	2.02					
121	2					
122	1.97					
123	1.95					
124	1.92					
125	1.9					
126	1.87					
127	1.85					
128	1.82					
129	1.79					
130	1.77					

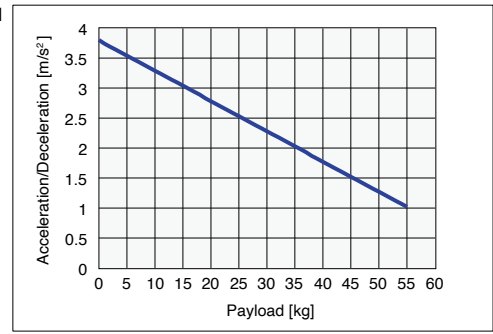
● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS16-10 / AGXS16-10

Horizontal/
Wall hanging

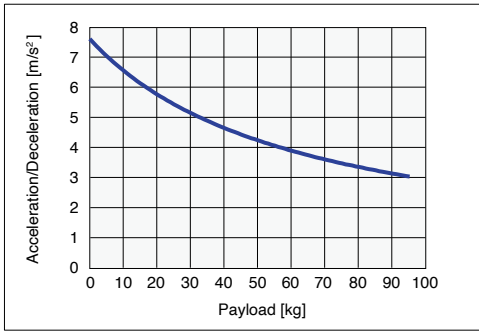


Vertical

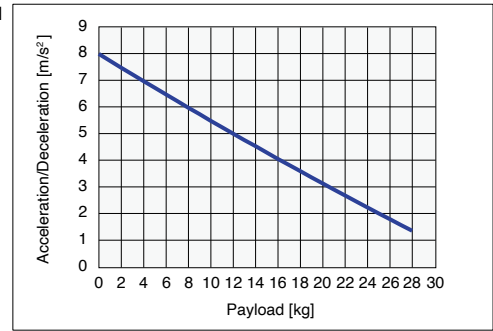


LGXS16-20 / AGXS16-20

Horizontal/
Wall hanging

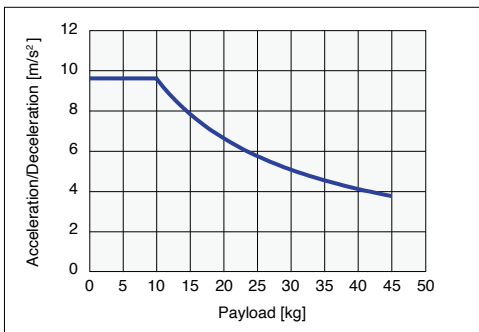


Vertical



LGXS16-40 / AGXS16-40

Horizontal/
Wall hanging



Vertical



Features

Without motor
Silver type
Basic model

LBAS

Without motor
Silver type
Advanced model

LGXS

Without motor
Red type
Basic model

LBAR

With motor
Silver type
Basic model

ABAS

With motor
Silver type
Advanced model

AGXS

With motor
Red type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis positioner
EP-01

LGXS16 AGXS16-H High agility mode

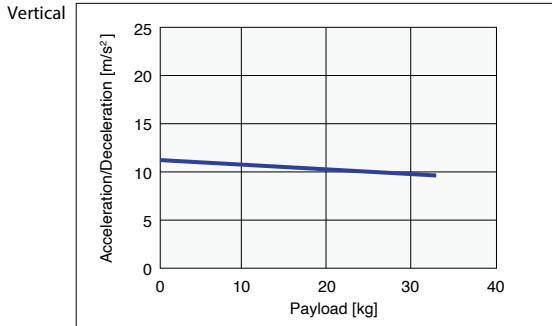
Acceleration/Deceleration

Model	LGXS16-10/ AGXS16-H10		LGXS16-20/ AGXS16-H20		LGXS16-40/ AGXS16-H40	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging
Payload [kg]	Acceleration/ Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		
0	11.17	19.48	18.43	19.62	19.62	
1	11.11	19.14	18.11	19.62	19.62	
2	11.07	18.80	17.81	19.62	19.62	
3	11.02	18.48	17.52	19.62	19.62	
4	10.97	18.16	17.24	19.62	19.62	
5	10.92	17.86	16.97	19.62	19.62	
6	10.87	17.57	16.70	19.62	19.62	
7	10.82	17.28	16.45	19.62	19.62	
8	10.78	17.01	16.20	19.62	19.62	
9	10.73	16.74	15.96	19.62	19.62	
10	10.68	16.49	15.72	19.62	19.62	
11	10.64	16.24	15.50	19.30		
12	10.59	15.99	15.27	18.63		
13	10.55	15.76	15.06	18.00		
14	10.50	15.53	14.85	17.42		
15	10.46	15.31	14.65	16.87		
16	10.41	15.09	14.45	16.35		
17	10.37	14.88		15.87		
18	10.33	14.68		15.41		
19	10.28	14.48		14.98		
20	10.24	14.29		14.57		
21	10.20	14.10		14.19		
22	10.16	13.91		13.82		
23	10.12	13.74		13.47		
24	10.07	13.56		13.14		
25	10.03	13.39		12.83		
26	9.99	13.23		12.53		
27	9.95	13.07		12.24		
28	9.91	12.91		11.97		
29	9.87	12.75		11.71		
30	9.83	12.60		11.46		
31	9.79	12.46				

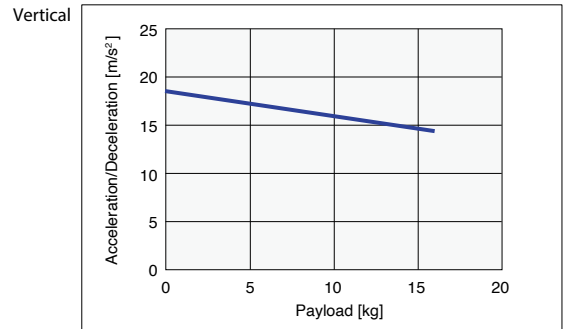
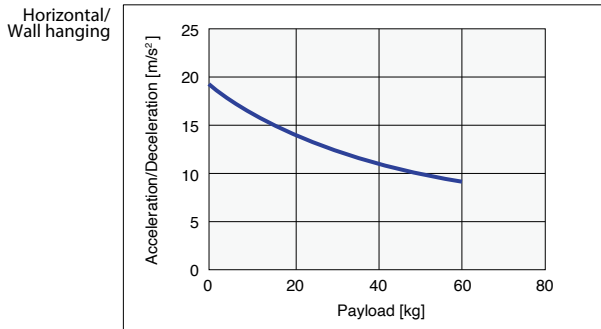
Model	LGXS16-10/ AGXS16-H10		LGXS16-20/ AGXS16-H20		LGXS16-40/ AGXS16-H40	
	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/ Deceleration [m/s ²]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		
32	9.76		12.31			
33			12.17			
34			12.04			
35			11.90			
36			11.77			
37			11.64			
38			11.52			
39			11.40			
40			11.28			
41			11.16			
42			11.04			
43			10.93			
44			10.82			
45			10.71			
46			10.61			
47			10.50			
48			10.40			
49			10.30			
50			10.20			
51			10.11			
52			10.01			
53			9.92			
54			9.83			
55			9.74			
56			9.65			
57			9.56			
58			9.48			
59			9.40			
60			9.31			

● **Payload – Acceleration/Deceleration Graph (Estimate)**

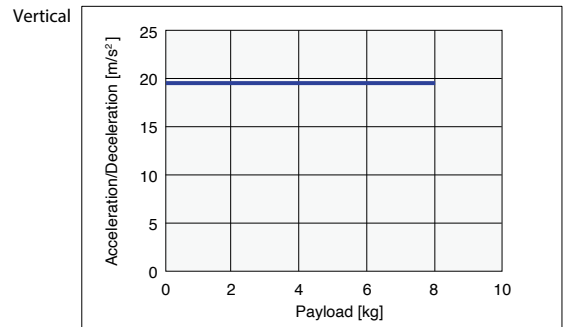
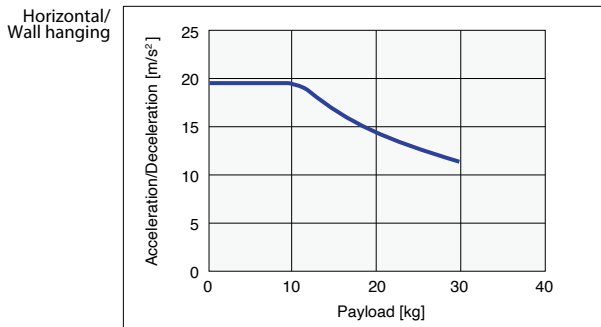
LGXS16-10 / AGXS16-H10



LGXS16-20 / AGXS16-H20



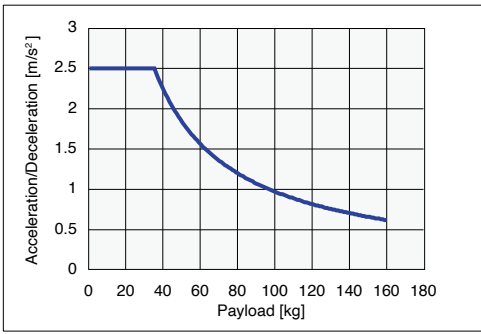
LGXS16-40 / AGXS16-H40



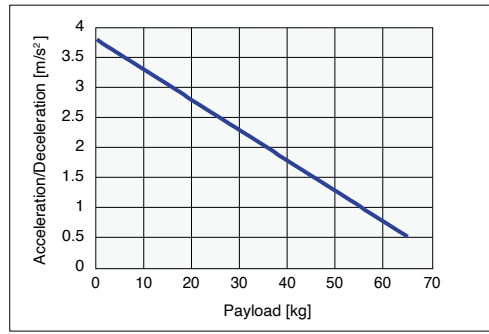
● Payload – Acceleration/Deceleration Graph (Estimate)

LGXS20-10 / AGXS20-10

Horizontal/
Wall hanging

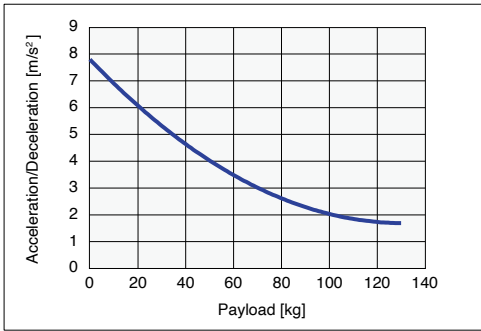


Vertical

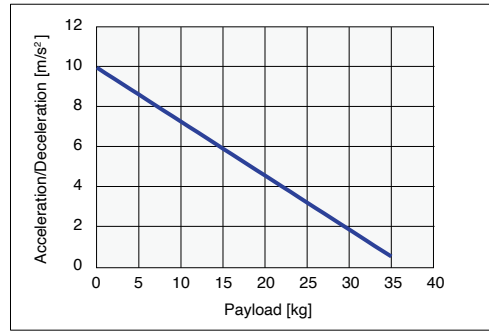


LGXS20-20 / AGXS20-20

Horizontal/
Wall hanging

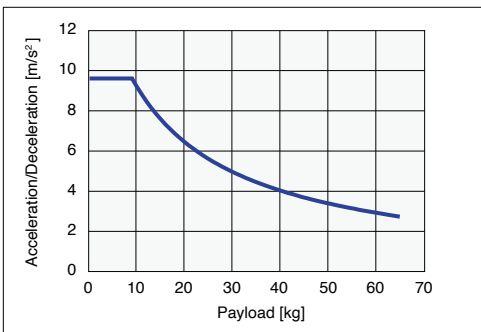


Vertical



LGXS20-40 / AGXS20-40

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single-axis robot positioner

EP-01

LBAR04

Inertia Moment

[kg·m ² ·10 ⁻⁴]	Effective stroke [mm]									
	Model	50	100	150	200	250	300	350	400	450
LBAR04-6	0.063	0.067	0.071	0.075	0.079	0.083	0.087	0.091	0.096	0.100
LBAR04-12	0.068	0.072	0.077	0.082	0.087	0.092	0.097	0.101	0.106	0.111

LBAR04 ABAR04

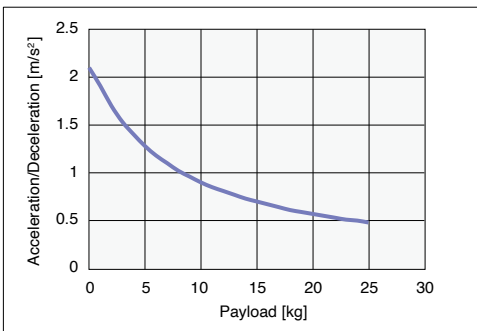
Acceleration/Deceleration

Model	LBAR04-6/ABAR04-6		LBAR04-12/ABAR04-12	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	2.1	2.1	4.2	3.6
1	1.91	2.1	3.84	2.4
2	1.7	1.64	2.99	1.8
3	1.53	1.34	2.45	1.44
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		0.87	
14	0.73		0.81	
15	0.7		0.77	
16	0.67			
17	0.64			
18	0.61			
19	0.59			
20	0.57			
21	0.55			
22	0.53			
23	0.51			
24	0.5			
25	0.48			

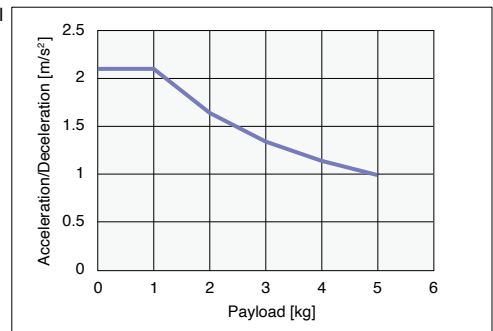
● **Payload – Acceleration/Deceleration Graph (Estimate)**

LBAR04-6 / ABAR04-6

Horizontal/
Wall hanging

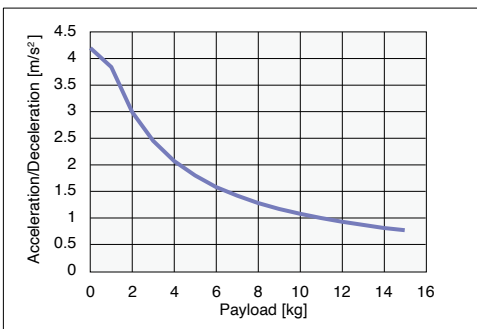


Vertical

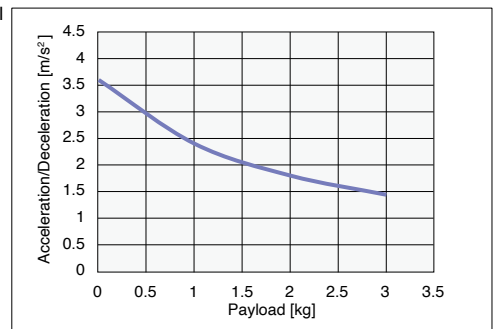


LBAR04-12 / ABAR04-12

Horizontal/
Wall hanging



Vertical



LBAR05

Inertia Moment

[kg·m ² ×10 ⁻⁴]	Effective stroke [mm]											
	Model	50	100	150	200	250	300	350	400	450	500	550
LBAR05-5	0.081	0.090	0.098	0.106	0.114	0.122	0.131	0.139	0.147	0.155	0.163	0.172
LBAR05-10	0.107	0.115	0.124	0.133	0.142	0.151	0.160	0.169	0.177	0.186	0.195	0.204
LBAR05-20	0.208	0.219	0.230	0.242	0.253	0.265	0.276	0.288	0.299	0.310	0.322	0.333

LBAR05 **ABAR05**

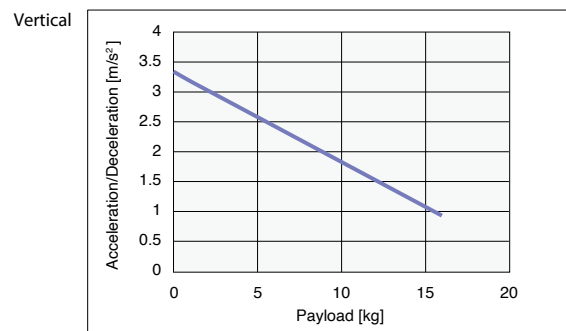
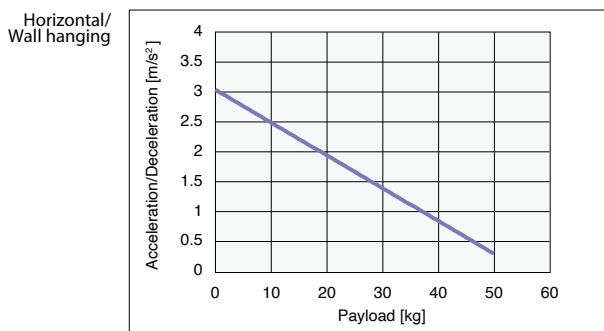
Acceleration/Deceleration

Model	LBAR05-5/ABAR05-5		LBAR05-10/ABAR05-10		LBAR05-20/ABAR05-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	3.04	3.34	4.64	4.86	7.44	7.44
1	2.98	3.18	4.44	4.56	7.44	6.42
2	2.93	3.03	4.25	4.3	7.44	5.41
3	2.87	2.88	4.07	4.06	7.44	4.4
4	2.82	2.73	3.9	3.85	7.44	3.39
5	2.76	2.58	3.73	3.66	7.44	
6	2.71	2.43	3.57	3.49	6.64	
7	2.65	2.28	3.41	3.34	6	
8	2.6	2.13	3.27	3.19	5.47	
9	2.54	1.98	3.12		5.02	
10	2.49	1.83	2.99		4.65	
11	2.43	1.68	2.86		4.32	
12	2.38	1.53	2.74		4.04	
13	2.32	1.38	2.62		3.79	
14	2.27	1.23	2.51		3.57	
15	2.21	1.08	2.41		3.38	
16	2.16	0.93	2.31			
17	2.1		2.22			
18	2.05		2.14			
19	2		2.06			
20	1.94		1.99			
21	1.89		1.93			
22	1.83		1.87			
23	1.78		1.82			
24	1.72		1.77			
25	1.67		1.74			
26	1.61					
27	1.56					
28	1.5					
29	1.45					
30	1.39					
31	1.34					
32	1.28					
33	1.23					
34	1.17					
35	1.12					
36	1.07					
37	1.01					
38	0.96					
39	0.9					
40	0.85					
41	0.79					

Model	LBAR05-5/ABAR05-5		LBAR05-10/ABAR05-10		LBAR05-20/ABAR05-20	
	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]	
42	0.74					
43	0.68					
44	0.63					
45	0.57					
46	0.52					
47	0.46					
48	0.41					
49	0.35					
50	0.3					

● **Payload – Acceleration/Deceleration Graph (Estimate)**

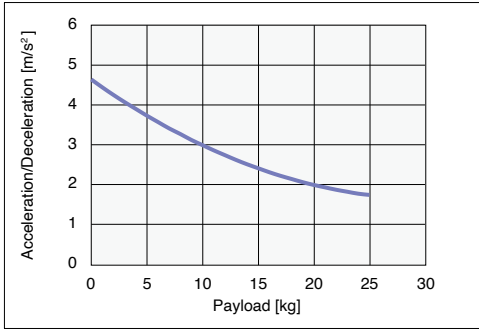
LBAR05-5 / ABAR05-5



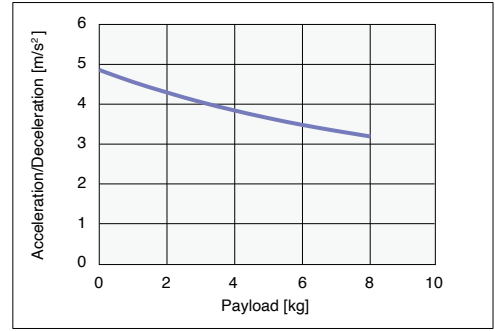
● Payload – Acceleration/Deceleration Graph (Estimate)

LBAR05-10 / ABAR05-10

Horizontal/
Wall hanging

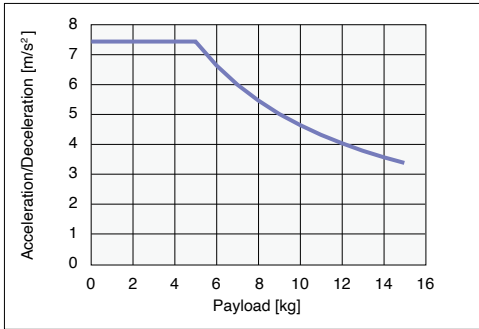


Vertical

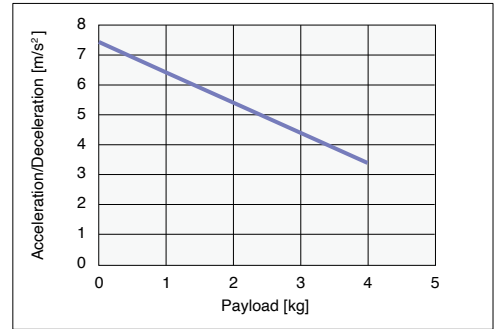


LBAR05-20 / ABAR05-20

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

LGXS

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner
EP-01

LBAR08

Inertia Moment

[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
LBAR08-5	0.252	0.278	0.303	0.329	0.354	0.379	0.405	0.430	0.456	0.481	0.507	0.532	0.558	0.583	0.608	0.634	
LBAR08-10	0.288	0.314	0.340	0.366	0.392	0.418	0.444	0.470	0.496	0.522	0.548	0.574	0.600	0.626	0.652	0.678	
LBAR08-20	0.436	0.464	0.492	0.520	0.549	0.577	0.605	0.633	0.661	0.690	0.718	0.746	0.774	0.802	0.831	0.859	

LBAR08 ABAR08

Acceleration/Deceleration

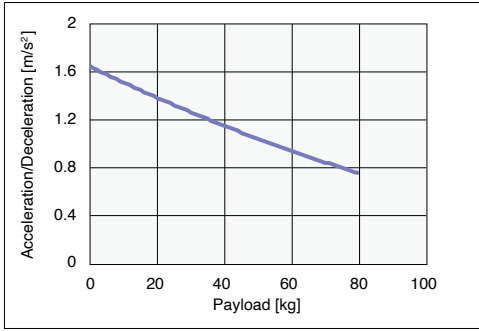
Model	LBAR08-5/ABAR08-5		LBAR08-10/ABAR08-10		LBAR08-20/ABAR08-20	
	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical	Horizontal/ Wall hanging	Vertical
Payload [kg]	Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]		Acceleration/Deceleration [m/s ²]	
0	1.65	1.65	6.09	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			
32	1.24		3.13			
33	1.23		3.06			
34	1.22		2.99			
35	1.21		2.93			
36	1.19		2.86			
37	1.18		2.8			
38	1.17		2.74			
39	1.16		2.68			
40	1.15		2.62			
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					
62	0.92					
63	0.91					
64	0.9					
65	0.89					
66	0.88					
67	0.87					
68	0.86					
69	0.85					
70	0.84					
71	0.84					
72	0.83					
73	0.82					
74	0.81					
75	0.8					
76	0.79					
77	0.78					

Model	LBAR08-5/ABAR08-5		LBAR08-10/ABAR08-10		LBAR08-20/ABAR08-20	
	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]	
78	0.77					
79	0.76					
80	0.76					

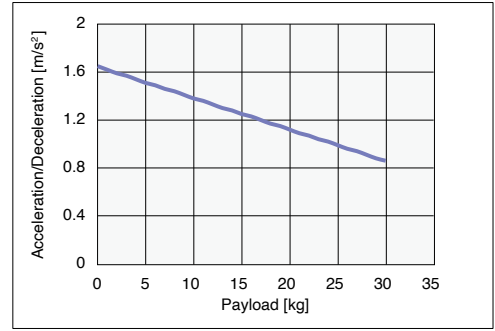
● Payload – Acceleration/Deceleration Graph (Estimate)

LBAR08-5 / ABAR08-5

Horizontal/
Wall hanging

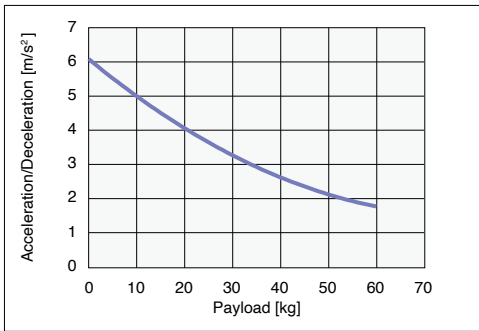


Vertical

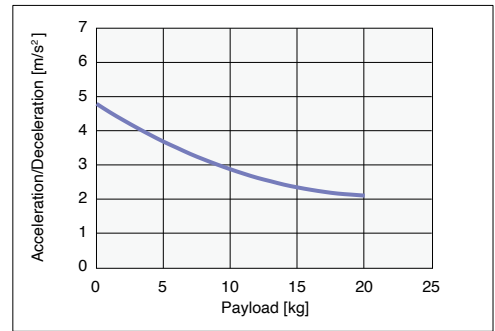


LBAR08-10 / ABAR08-10

Horizontal/
Wall hanging

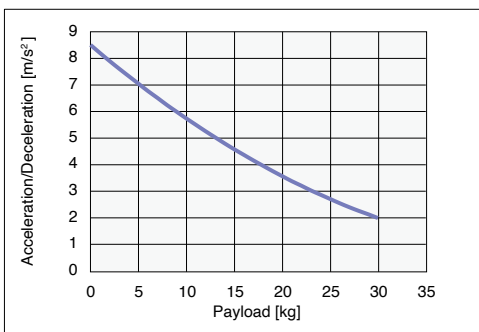


Vertical

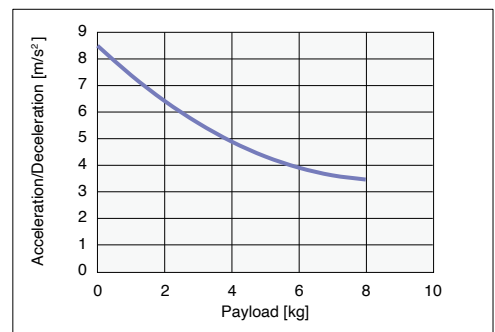


LBAR08-20 / ABAR08-20

Horizontal/
Wall hanging



Vertical



Features

Motorless
Slider type
Basic model

LBAS

Motorless
Slider type
Advanced model

Motorless
Rod type
Basic model

LBAR

With motor
Slider type
Basic model

ABAS

With motor
Slider type
Advanced model

AGXS

With motor
Rod type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single
axis robot
positioner

EP-01

■ Sensor Spec

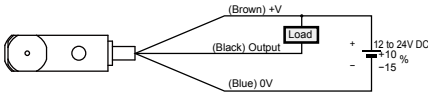
Item	Specification
Manufacturer	Panasonic Industrial Device SUNX, Co., Ltd.
Model	GX-F8A GX-F8B
Output method	NPN type
Output action	ON when approaching ON when leaving
Power voltage	DC12 to 24V
Load current	100 mA or less
Consumption current	15 mA or less

Item	Specification
Display lamp	Orange LED (ON when output ON)
Ambient environment and humidity protection structure	-25 to +75 °C, 35 to 85 %RH
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.
- When connecting this product to our controller as an origin sensor, contact us.

■ Proximity sensor connection diagram

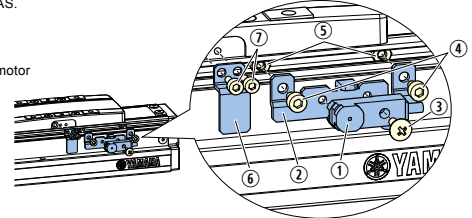


Note. No short-circuit protection circuit is provided on "(black) output". Do not connect any power supply or capacity load to this output directly.

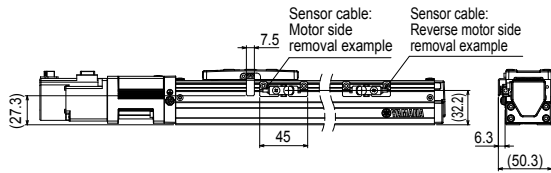
■ Example of proximity sensor attachment (Example of LBAS/ABAS left attachment)

- Note 1. The sensor option is common to the LBAS and ABAS.
 Note 2. Installation is users' responsibility.
 Note 3. Mounting hardware included.
 Note 4. Sensor cable is 5 m. Adjust as needed.
 Note 5. Sensor cable outlet can be either motor end or no motor end of actuator.

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



LBAS04 ABAS04



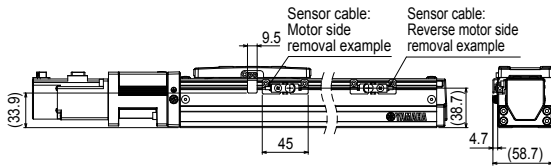
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KFU-M2205-10	KFU-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KFU-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-03005		2	M3 × 0.5 Length 5
	⑤ Bracket nut	95302-03700		2	M3

Target plate option

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

LBAS05 ABAS05



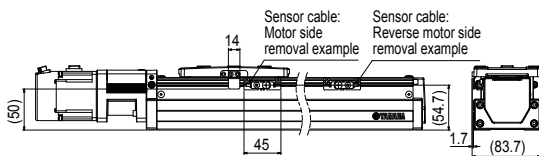
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KFU-M2205-10	KFU-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KFU-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-03005		2	M3 × 0.5 Length 5
	⑤ Bracket nut	95302-03700		2	M3

Target plate option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Target plate option	KFU-M2206-00			
Component	⑥ Switch target plate	KFU-M22G5-00		1	
	⑦ Target plate bolt	90112-2AJ005		2	M2.5 × 0.4 Length 5

LBAS08 ABAS08



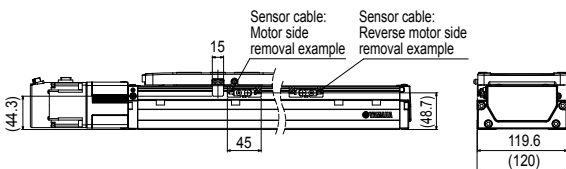
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KFU-M2205-10	KFU-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KFU-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-03005		2	M3 × 0.5 Length 5
	⑤ Bracket nut	95302-03700		2	M3

Target plate option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Target plate option	KFV-M2206-00			
Component	⑥ Switch target plate	KFV-M22G5-00		1	
	⑦ Target plate bolt	91312-03005		2	M3 × 0.5 Length 5

LBAS12 ABAS12



Proximity sensor option

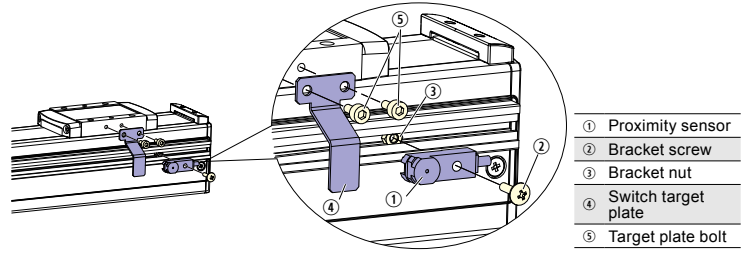
Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KFU-M2205-10	KFU-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KFU-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-03005		2	M3 × 0.5 Length 5
	⑤ Bracket nut	95302-03700		2	M3

Target plate option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Target plate option	KFY-M2206-00			
Component	⑥ Switch target plate	KFY-M22G5-00		1	
	⑦ Target plate bolt	91312-03006		2	M3 × 0.5 Length 6

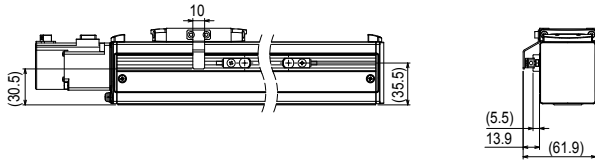
■ Example of proximity sensor attachment (Example of compact LGXS/AGXS left attachment)

- Note 1. The sensor option is common to the LGXS and AGXS.
- Note 2. Installation is users' responsibility.
- Note 3. Mounting hardware included.
- Note 4. Sensor cable is 5 m. Adjust as needed.
- Note 5. To install the sensor option, side cover with T groove is needed.
- Note 6. Sensor cable outlet can be either motor end or no motor end of actuator.



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

LGXS05 **AGXS05**



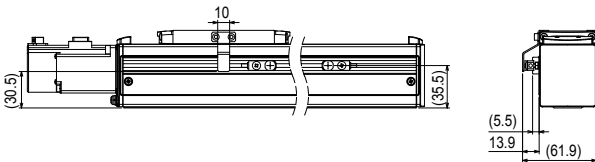
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KES-M2205-10	KES-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Bracket screw	90990-66J025		1	M3 × 0.5 Length 10
	③ Bracket nut	95302-03600		2	M3

Target plate option

Class	Name	Number	Qty	Remarks
Assy	Target plate option	KES-M2206-00		
Component	④ Switch target plate	KES-M22G5-00	1	
	⑤ Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

LGXS05L **AGXS05L**



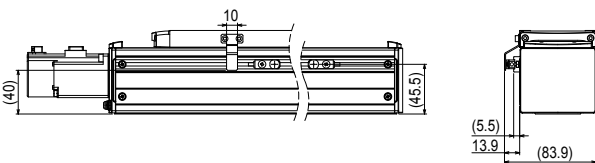
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KES-M2205-10	KES-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Bracket screw	90990-66J025		1	M3 × 0.5 Length 10
	③ Bracket nut	95302-03600		2	M3

Target plate option

Class	Name	Number	Qty	Remarks
Assy	Target plate option	KES-M2206-00		
Component	④ Switch target plate	KES-M22G5-00	1	
	⑤ Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

LGXS07 **AGXS07**



Proximity sensor option

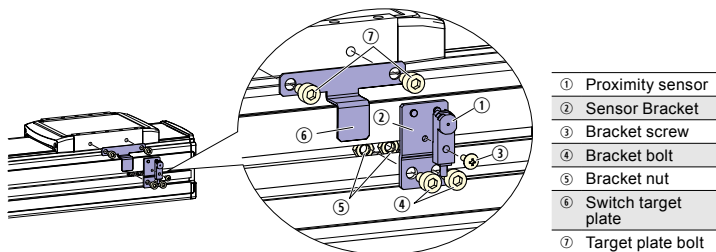
Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KES-M2205-10	KES-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Bracket screw	90990-66J025		1	M3 × 0.5 Length 10
	③ Bracket nut	95302-03600		2	M3

Target plate option

Class	Name	Number	Qty	Remarks
Assy	Target plate option	KES-M2206-00		
Component	④ Switch target plate	KES-M22G5-00	1	
	⑤ Target plate bolt	91312-03006	2	M3 × 0.5 Length 6

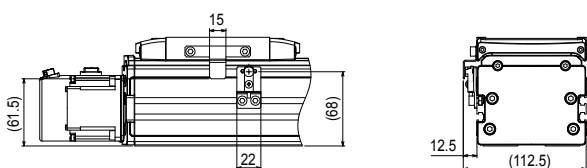
Example of proximity sensor attachment (Example of medium or large LGXS/AGXS left attachment)

Note 1. The sensor option is common to the LGXS and AGXS.
 Note 2. Installation is users' responsibility.
 Note 3. Mounting hardware included.
 Note 4. Sensor cable is 5 m. Adjust as needed.



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

LGXS10 AGXS10



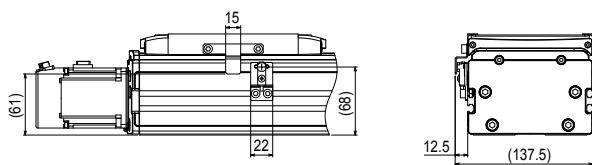
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KEV-M2205-10	KEV-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEV-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

Target plate option

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

LGXS12 AGXS12



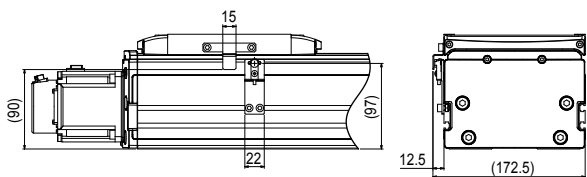
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KEV-M2205-10	KEV-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEV-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

Target plate option

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

LGXS16 AGXS16



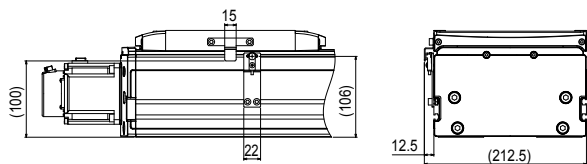
Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KEX-M2205-10	KEV-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEX-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

Target plate option

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

LGXS20 AGXS20



Proximity sensor option

Class	Name	Number		Qty	Remarks
		ON when approaching (NO, Normally Open)	ON when leaving (NC, Normally Closed)		
Assy	Proximity sensor option	KEY-M2205-10	KEY-M2205-00		
Component	① Proximity sensor	KES-M4855-00	KP6-M4855-01	1	
	② Sensor Bracket	KEY-M22FF-00		1	
	③ Bracket screw	90990-66J004		1	M3 × 0.5 Length 8
	④ Bracket bolt	91312-05008		2	M5 × 0.8 Length 8
	⑤ Bracket nut	95302-05700		2	M5

Target plate option

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

■ Sensor Spec

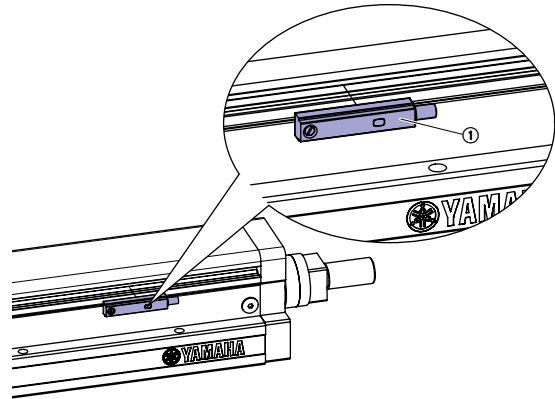
Item	Specification	Item	Specification
Manufacturer	KITA	Consumption current	17 mA or less (at DC24V)
Model	KT-32N	Display lamp	Red LED (Lit when the output is ON.)
Output method	NPN type	Ambient environment	-10 to +70 °C
Output action	ON when approaching	Protection structure	IP67
Power voltage	DC10 to 30V	Cable length	2 m
Load current	100 mA or less		

[Caution]

- For details about the sensor detection range, see the manual.
- For details about the sensor specifications, contact the manufacturer.
- When connecting this product to our controller as an origin sensor, contact us.

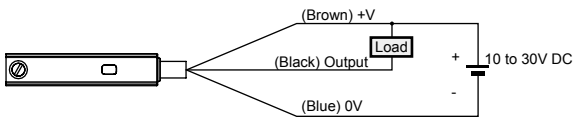
■ Example of magnetic sensor attachment (Example of LBAR/ABAR left attachment)

- Note 1. The sensor option is common to the LBAR and ABAR.
 Note 2. Installation is users' responsibility.
 Refer to the manual for detail.
 Note 3. The sensor can be secured with the screws supplied with the sensor.
 Note 4. Sensor cable is 2 m. Adjust as needed.
 Note 5. Sensor cable outlet can be either motor end or no motor end of actuator.



	Name	Number	Q'ty
①	Magnetic sensor option	KNB-M2205-00	1

■ Magnetic sensor connection diagram



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

■ Grease Gun Nozzle (for LBAS/ABAS/LBAR/ABAR)

Dedicated grease gun nozzles that supply the grease to the ball screws and linear guides of the Basic models LBAS/ABAS/LBAR/ABAR except for LBAS12/ABAS12(H).

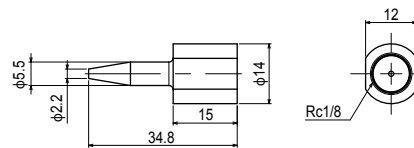
* It can be used by attaching to a commercially available general grease gun.

● Lubrication Kit

Grease nozzle and nozzle tip

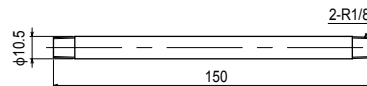
Part number	KFU-M3861-00
-------------	--------------

● Nozzle tip



Part number	KFU-M2941-00
-------------	--------------

● Grease nozzle



Part number	KFU-M2942-00
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■ Grease Gun Nozzle (for LBAS12/ABAS12(H)/LGXS/AGXS)

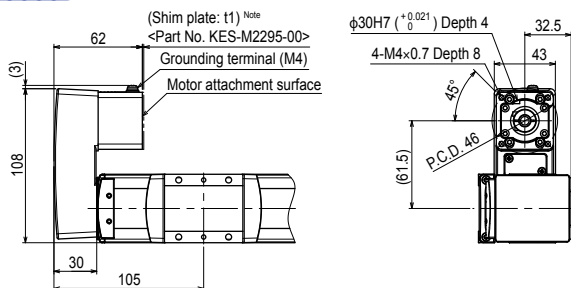
The following shows the recommended grease gun nozzles that supply the grease to the ball screws and linear guides of the Basic models LBAS12/ABAS12(H) and Advanced models LGXS/AGXS.

● Recommended grease gun nozzles

LBAS12/ABAS12(H)	Yamada Corporation CNP-2 or its equivalent
LGXS05/LGXS05L/LGXS07/LGXS10/LGXS12/AGXS05/AGXS05L/AGXS07/AGXS10/AGXS12	NSK HGP NZ4 tip nozzle or its equivalent
LGXS16/LGXS20/AGXS16/AGXS20	Tip nozzle, outside diameter φ10, inside diameter φ6.5 to φ7

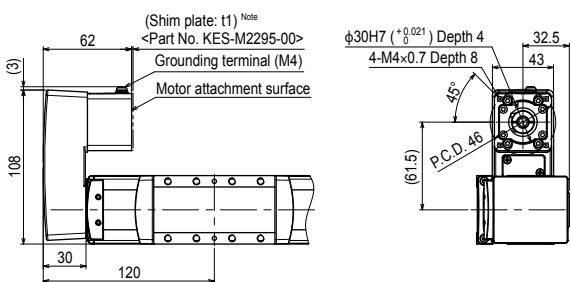
Robonity series Reference guide for right angle motor mount (right side shown) (Advanced LGXS Model)

LGXS05



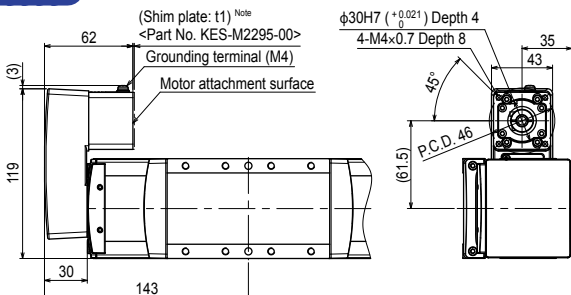
Note. For the availability of shim plate, see the adaptable servo motor table (P.32).

LGXS05L



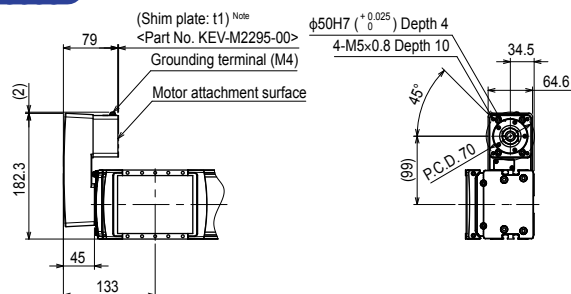
Note. For the availability of shim plate, see the adaptable servo motor table (P.34).

LGXS07



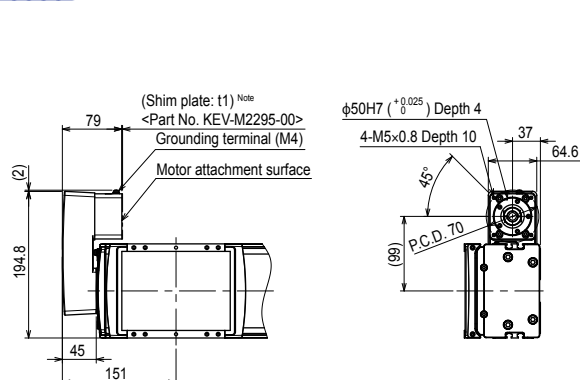
Note. For the availability of shim plate, see the adaptable servo motor table (P.36).

LGXS10



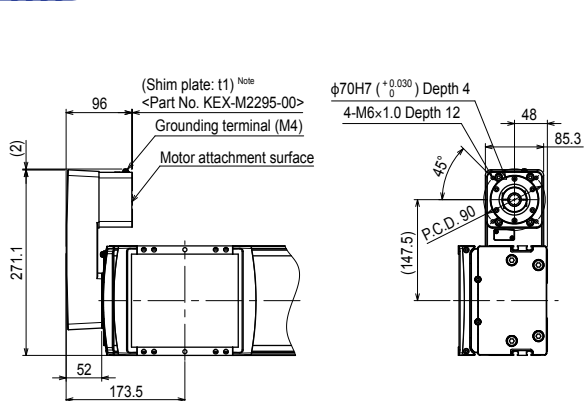
Note. For the availability of shim plate, see the adaptable servo motor table (P.38).

LGXS12



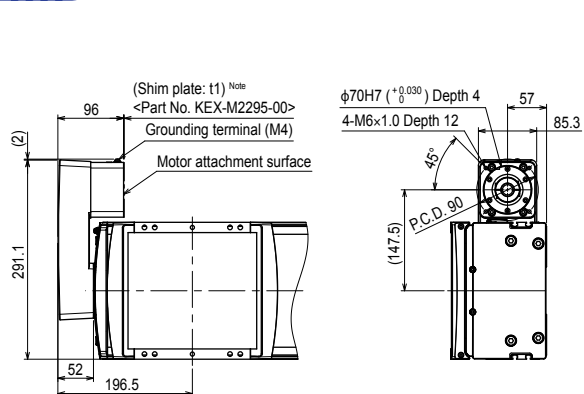
Note. For the availability of shim plate, see the adaptable servo motor table (P.40).

LGXS16



Note. For the availability of shim plate, see the adaptable servo motor table (P.42).

LGXS20



Note. For the availability of shim plate, see the adaptable servo motor table (P.44).

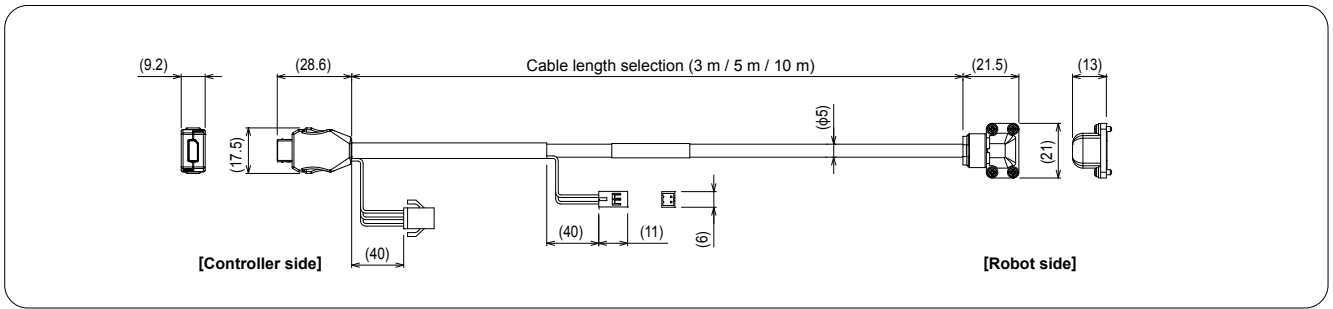
Note 1. Use by attaching the conversion adapter to the main unit. Refer to the manual for the attachment method.

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

Encoder cable



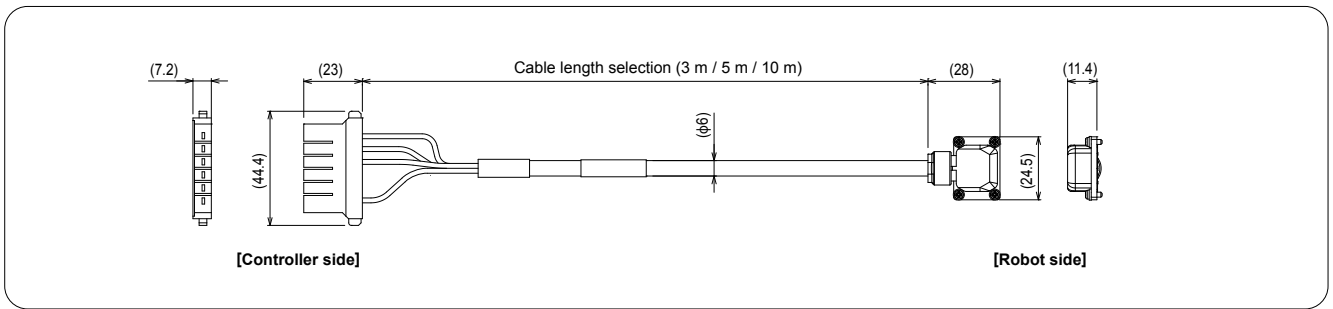
Rear Extraction specifications

Cable length	Part No.	Name
3m	KFT-M4751-30	CABLE ENC
5m	KFT-M4751-50	CABLE ENC
10m	KFT-M4751-A0	CABLE ENC

Front Extraction specifications

Cable length	Part No.	Name
3m	KFT-M4754-30	CABLE ENC
5m	KFT-M4754-50	CABLE ENC
10m	KFT-M4754-A0	CABLE ENC

Power cable



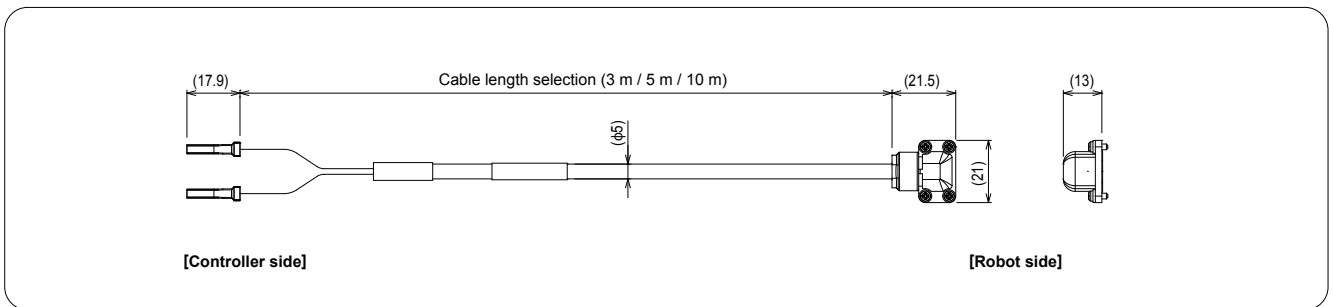
Rear Extraction specifications

Cable length	Part No.	Name
3m	KFT-M4752-30	CABLE UVW
5m	KFT-M4752-50	CABLE UVW
10m	KFT-M4752-A0	CABLE UVW

Front Extraction specifications

Cable length	Part No.	Name
3m	KFT-M4755-30	CABLE UVW
5m	KFT-M4755-50	CABLE UVW
10m	KFT-M4755-A0	CABLE UVW

Brake wiring



Rear Extraction specifications

Cable length	Part No.	Name
3m	KFT-M4753-30	CABLE BK
5m	KFT-M4753-50	CABLE BK
10m	KFT-M4753-A0	CABLE BK

Front Extraction specifications

Cable length	Part No.	Name
3m	KFT-M4756-30	CABLE BK
5m	KFT-M4756-50	CABLE BK
10m	KFT-M4756-A0	CABLE BK

EP-01

CE compliance

Single-axis robot positioner for single-axis robot Robonity series “ABAS”, “AGXS”, and “ABAR”.
This robot positioner supports Ethernet, is equipped with an Ethernet port as standard, and achieves 37 % size reduction when compared to the conventional robot positioner.
Following the TS series, usability is greatly improved.



EP-01



Handy terminal
 ▶ HT2 / HT2-D



Support software for PC
 ▶ EP-Manager
 * Free download is available at the member site.

Basic specifications

Item		EP-01	
Basic specifications	Driver model	EP-01-A10	EP-01-A30
	Number of controllable axes	Single-axis	
	Controllable robots	Single-axis robot Robonity series ABAS / AGXS / ABAR	
	Power capacity	420 VA	1600 VA
Dimensions		W 40 × H 150 × D 130 mm	W 55 × H 150 × D 130 mm
Weight		Approx. 0.6 kg	Approx. 1 kg
Input power supply	Control power supply	Single phase AC200 to 230V +/-10% 50/60Hz	
	Motor power supply	Single phase AC200 to 230V +/-10% 50/60Hz	
Control method		Closed loop vector control method	
Operating method		I/O point tracing (Positioning operation by specifying point number) / Remote command	
Operation types		Positioning, merge-positioning, push, and jog operations	
Position detection method		Optical encoder, battery absolute encoder, or battery-less absolute encoder is selected.	
Resolution		8,388,608 pulses/rev.	
Origin search method		Absolute	
Points	Number of points	255 points	
	Point type setting	(1) Standard setting: Set speed and acceleration in percent of the respective maximum settings. (2) Custom setting: Set speed and acceleration in SI units.	
Point teaching method		Manual data input (coordinates input), Teaching, Direct teaching	
I/O interface		Selectable from the following: EtherNet/IP™, PROFINET, EtherCAT, NPN, CC-Link	
External input/output	Input	Servo ON (SERVO), reset (RESET), start (START), interlock (/LOCK) origin search (ORG), teaching mode (TMODE), jog motion - (JOG-), jog motion + (JOG+), point number selection (PIN0 to PIN7)	
	Output	Servo status (SRV-S), alarm (/ALM), operation end (END), operation in-progress (BUSY), control outputs (OUT0 to 3), point number output 0 to 7 (POUT0 to POUT7), feedback pulse output (A/B/Z) (option)	
External communications		Ethernet (In conformity with IEEE802.3 100BASE-TX, Applicable to Auto Negotiation)	
Power supply for brake		DC24V +/-10% 300mA (prepared by the customer)	
Safety circuit		Emergency stop input, main power input ready output, emergency stop contact output (1 system: When the HT2 is used.)	
Options	Handy terminal	HT2, HT2-D (with enable switch)	
	Support software for PC	EP-Manager	
General specifications	Operating temperature / Operating humidity	0°C to 40°C, 35% to 85%RH (non-condensing)	
	Storage temperature / Storage humidity	-10°C to 65°C, 10% to 85%RH (non-condensing)	
	Atmosphere	Indoor location not exposed to direct sunlight. No corrosive, flammable gases, oil mist, or dust particles	
	Anti-vibration	All XYZ directions 10 to 57Hz unidirectional amplitude 0.075mm 57 to 150Hz 9.8m/s ²	
	Protective functions	Position detection error, power module error, temperature error, overload, overvoltage, low voltage, excessive position deviation, overcurrent, motor current error	
Protective structure		IP20	


Controllable robot **EP-01 ▶ Robonity (ABAS, AGXS, ABAR)**

CE marking  Field networks **EtherNet/IP**  **EtherCAT** 

■ **Model Overview**

Name		EP-01
Controllable robot		Single-axis robot Robonity (ABAS / AGXS / ABAR)
Input power	Main power supply	Single phase AC200 to 230V +/-10% 50/60Hz
	Control power supply	Single phase AC200 to 230V +/-10% 50/60Hz
Operating method		I/O point tracing (Positioning operation by specifying point number) / Remote command
Maximum number of controllable axes		Single-axis
Origin search method		Absolute

■ **Ordering method**

EP-01 

Controller	Driver: Power capacity	Regenerative	I/O
	A10: 200W or less A30: 400W/750W	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link

Note. Whether the battery is provided with the robot positioner is selected by the robot order model.

■ **Specification selection table**

Note. Conditions required for regenerative unit are only for reference and may vary depending on the actual operating conditions.

<Standard acceleration/deceleration specifications>

		Basic							Advanced							
		ABAS04	ABAS05	ABAS08	ABAS12	ABAS12H	ABAR04	ABAR05	ABAR08	AGXS05	AGXS05L	AGXS07	AGXS10	AGXS12	AGXS16	AGXS20
Driver	EP-01-A10	●	●	●	●		●	●	●	●	●	●	●	●	●	●
	EP-01-A30					●							●	●	●	
Regenerative unit EP-RU	Vertical		(1)	(2)	(4)	(6)	(7)	(8)	(10)		(12)	(12)	(10)	(14)	(10)	(10)
	Horizontal			(3)	(5)			(9)	(11)				(13)	(14)	(15)	(15)

Conditions required for regenerative unit

- | | |
|---|---|
| (1) Stroke of lead 5 or 10 is 650 mm or more. | (9) Stroke of lead 20 is 300 to 400 mm. |
| (2) Stroke of lead 5 or 20 is 450 mm or more and stroke of lead 10 is 150 mm or more. | (10) All strokes of all leads |
| (3) Stroke of lead 20 is 250 to 750 mm. | (11) Stroke of lead 10 or 20 is 150 to 500 mm. |
| (4) Stroke of lead 5, 10, or 20 is 150 mm or more and stroke of lead 32 is 300 to 750 mm. | (12) Stroke of all leads is 500 mm or more. |
| (5) Stroke of lead 10 or 20 is 250 to 750 mm and stroke of lead 32 is 400 to 750 mm. | (13) Stroke of lead 10, 20, or 30 is 300 to 800 mm. |
| (6) Stroke of lead 5, 10, or 20 is 300 mm or more and stroke of lead 32 is 300 to 750 mm. | (14) Stroke of all leads is 400 mm or more. |
| (7) Stroke of all leads is 250 mm or more. | (15) Stroke of lead 20 is 400 to 850 mm and stroke of lead 40 is 600 to 950 mm. |
| (8) Stroke of all leads is 150 mm or more. | |

<High acceleration/deceleration specifications>

		Advanced					
		AGXS05-H	AGXS05L-H	AGXS07-H	AGXS10-H	AGXS12-H	AGXS16-H
Driver	EP-01-A10	●	●	●	●		
	EP-01-A30					●	●
Regenerative unit EP-RU	Vertical				(1)	(3)	(4)
	Horizontal				(2)		(5)

Conditions required for regenerative unit

- Stroke of lead 10 is 400 mm or more and stroke of lead 20 is 450 mm or more.
- Stroke of lead 20 is 250 mm or more and stroke of lead 30 is 450 mm or more.
- Stroke of lead 5 or 20 is 650 mm or more and stroke of lead 10 is 450 mm or more.
- All strokes of leads 10 and 20 and stroke of lead 40 is 300 mm or more.
- Stroke of lead 20 is 150 mm or more and stroke of lead 40 is 450 mm or more.

Features

Basic model  LBAS

Advanced model  LGXS

Basic model  LBAR

Basic model  ABAS

Advanced model  AGXS

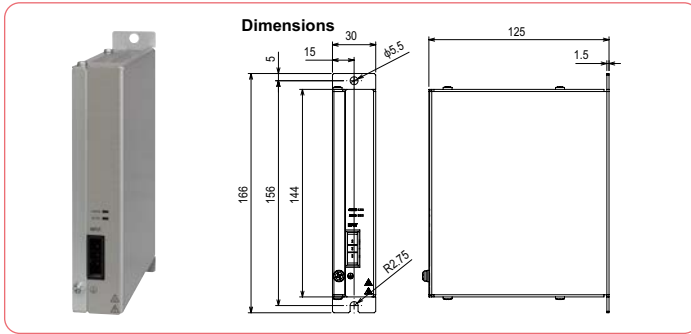
Basic model  ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single-axis robot positioner EP-01

Regenerative unit EP-RU



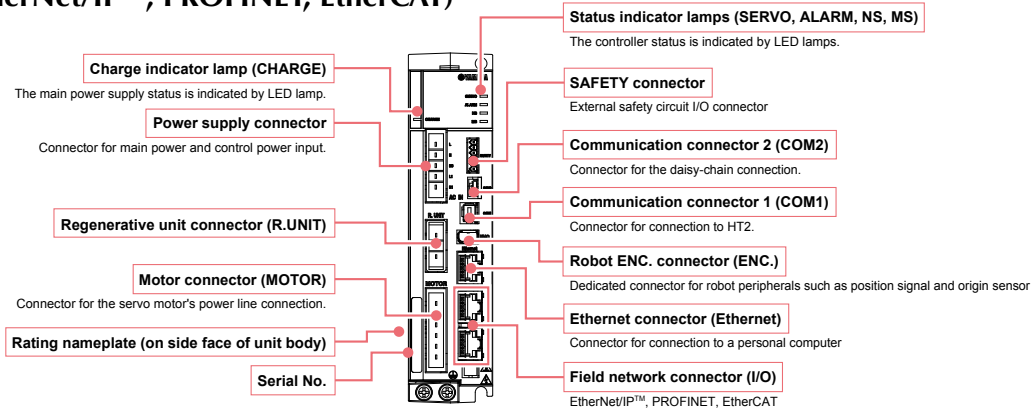
Basic specifications

Item	EP-RU
Model	KFX-M5850-00
Dimensions	W30 × H144 (Not including installation stay) × D125 mm
Weight	650 g
Regenerative voltage	Approx. 380V or more
Regenerative stop voltage	Approx. 360V or less
Absorbable electric power	40W
Accessory	Cable for connection with controller (300 mm)

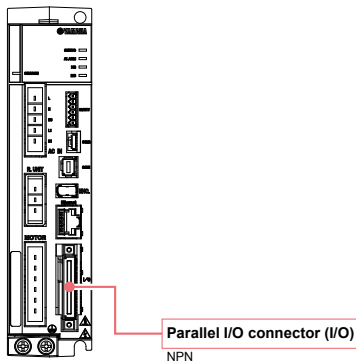
Note. Always leave an empty space (gap of about 20 mm) between this unit and the adjacent controller.
Also, always use the dedicated cable when connecting the controller.

Part names

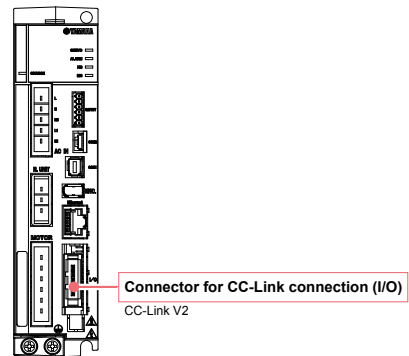
EP-01 (EtherNet/IP™, PROFINET, EtherCAT)



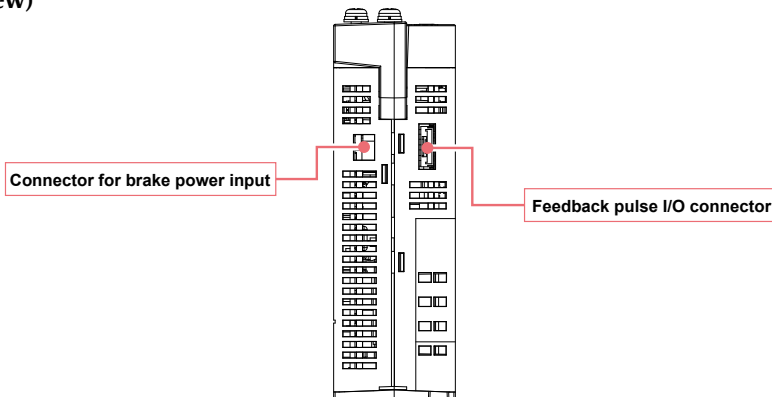
EP-01 (NPN)



EP-01 (CC-Link)

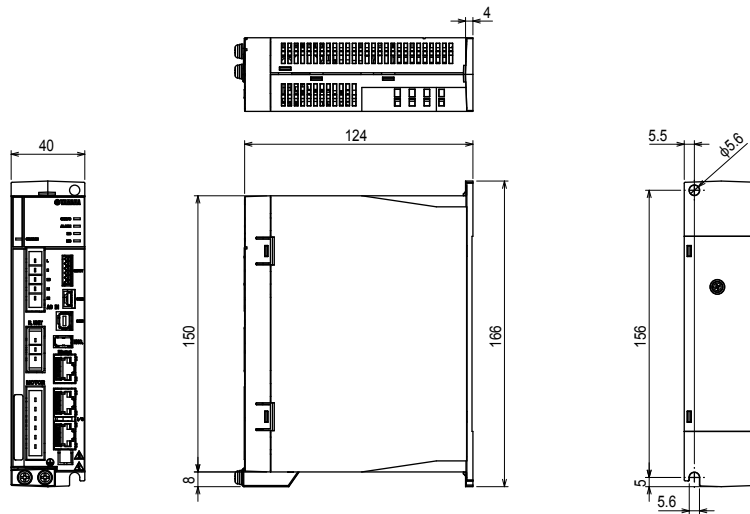


EP-01 (Bottom view)

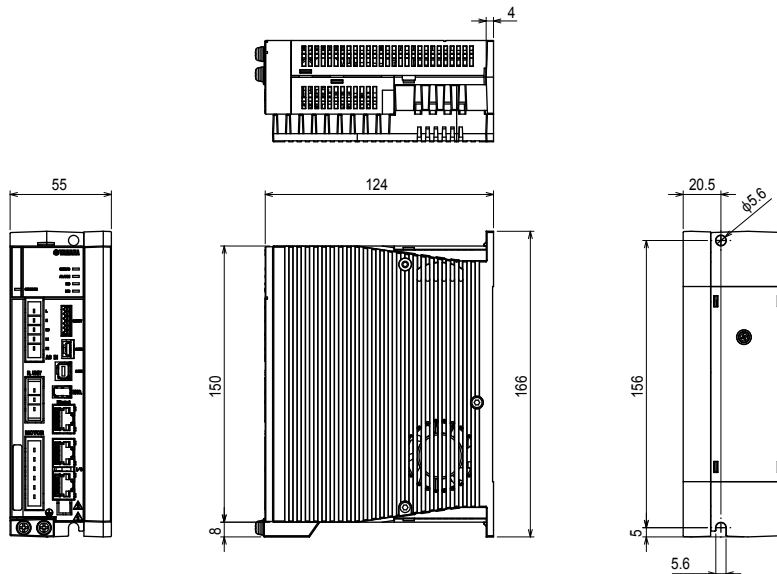


■ Dimensions

■ EP-01-A10



■ EP-01-A30



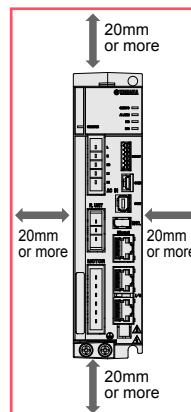
■ Installation conditions

- Install the EP-01 inside the control panel.
- Install the EP-01 on a metal wall vertically.
- Install the EP-01 in a well ventilated location, with space on all sides of the EP-01 (See fig. at right.).
- Ambient temperature : 0 to 40°C
- Ambient humidity : 35 to 85% RH (no condensation)

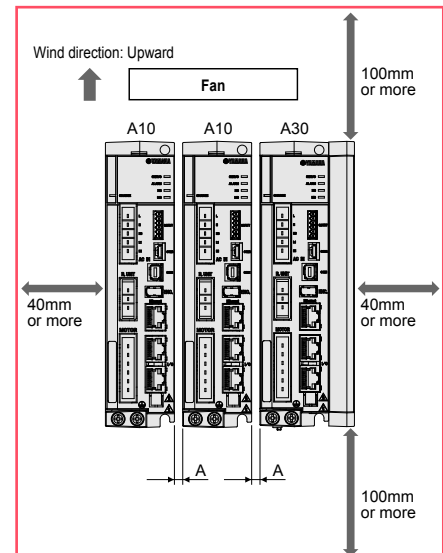
[When multiple EP-01 robot positioners are used]

- Install a fan to cool the controller main body sufficiently.
- When installing multiple controllers, keep at least 1 mm between the controllers.
- Install the controllers in a well-ventilated area with sufficient space around them. (See figure 2.)
- If the distance to the adjacent EP-01 is 20 mm or less (A in figure 2), set the effective load factor to 75% or less.

(Fig. 1)



(Fig. 2)



Features

Motorless
Sinter type

Basic model
LBAS

Motorless
Sinter type

Advanced model
LGXS

Motorless
Rod type

Basic model
LBAR

With motor
Sinter type

Basic model
ABAS

With motor
Sinter type

Advanced model
AGXS

With motor
Rod type

Basic model
ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single-axis robot positioner
EP-01

Data overview

Point data and parameter data settings must be specified in order to operate a robot from a EP series controller.

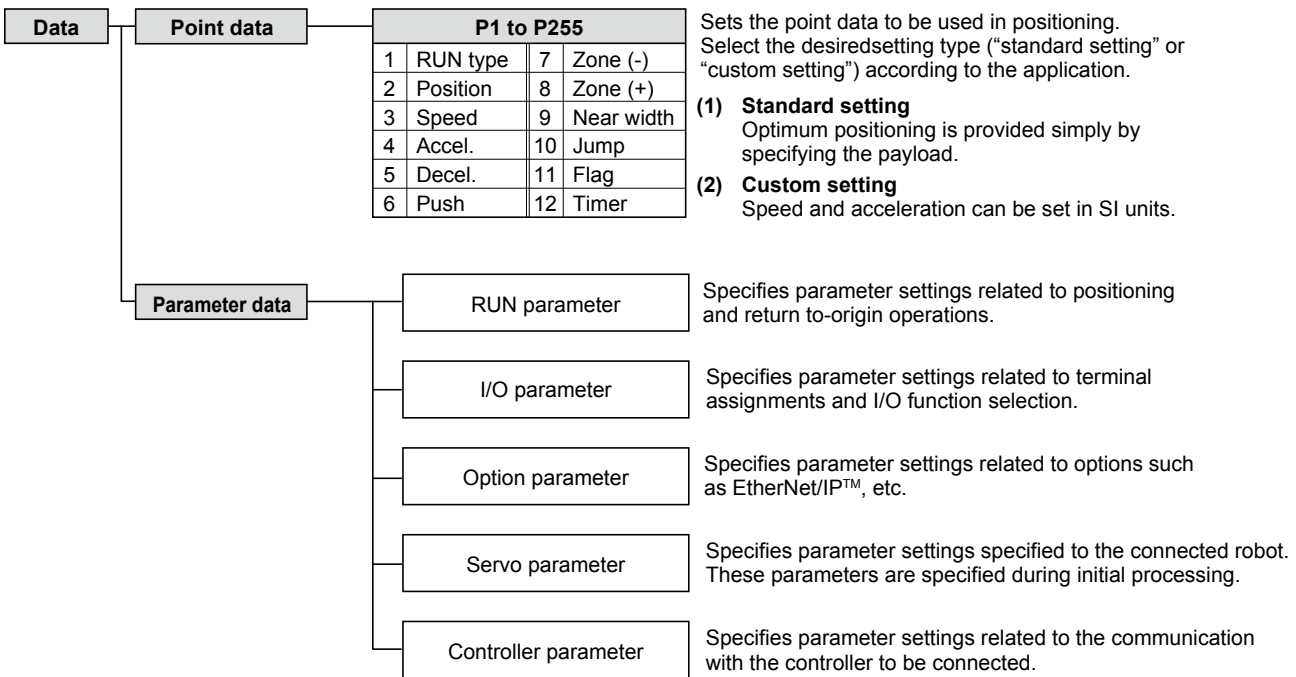
Point data

The point data used in positioning operations includes items such as the “RUN type”, “Position”, and “Speed”, etc. Up to 255 points (P1 to P255) can be registered. There are two point data setting types: “Standard setting” type that automatically defines optimal positioning simply by specifying the payload and “Custom setting” type that allows setting the speed (mm/s) and acceleration (m/s²) in SI units. Select the desired setting type according to the application.

Parameter data

The parameter data is classified into “RUN parameter”, “I/O parameter”, “Option parameter”, “Servo parameter”, and “Controller parameter”.

Data structure



Point data

Point data item list

P1 to P255		
Item		Description
1	RUN type	Specifies the positioning operation pattern.
2	Position	Specifies the positioning target position or movement amount.
3	Speed	Specifies the positioning speed.
4	Accel.	Specifies the positioning acceleration.
5	Decel.	Specifies the positioning deceleration (as a percentage of the acceleration).
6	Push	Specifies the electrical current limit value for “Push” operations.
7	Zone (-)	Specifies the “personal zone” output range.
8	Zone (+)	
9	Near width	Specifies the “near width” zone (distance tolerance relative to target position).
10	Jump	Specifies the next movement destination, or the next merge operation merge destination point No. following positioning completion.
11	Flag	Specifies other information related to the positioning operation.
12	Timer	Specifies the waiting time (delay) after positioning completion.

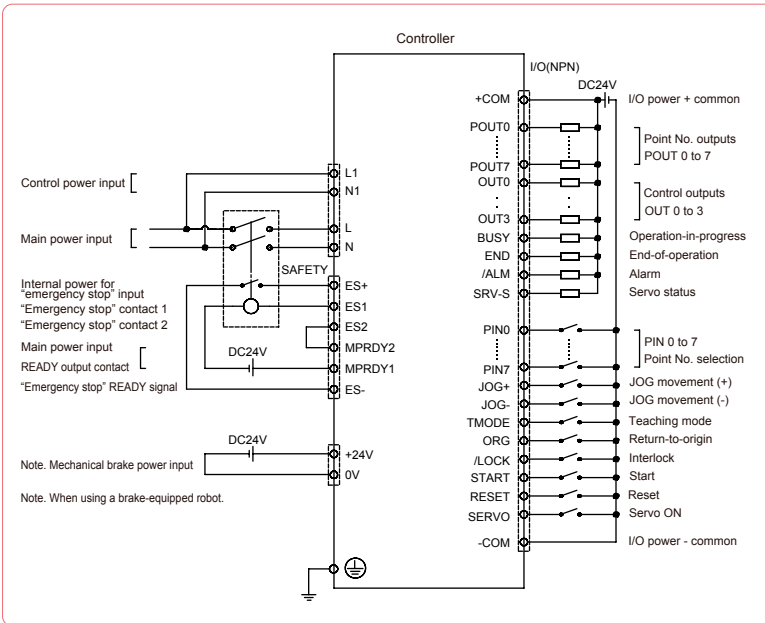
“Standard setting” and “custom setting”

There are 2 setting types for point data (“standard setting” or “custom setting”). Select the desired setting type according to the application.

The maximum number of setting points for both setting types is 255 points (P1 to P255).

Setting Type	Description
Standard setting	Optimum positioning is provided simply by specifying the payload. This setting type is well-suited to assembly and transport applications.
Custom setting	Since the speed and acceleration can be changed arbitrarily in SI units, the positioning can be set freely. This setting type is suited for machining and inspection systems.

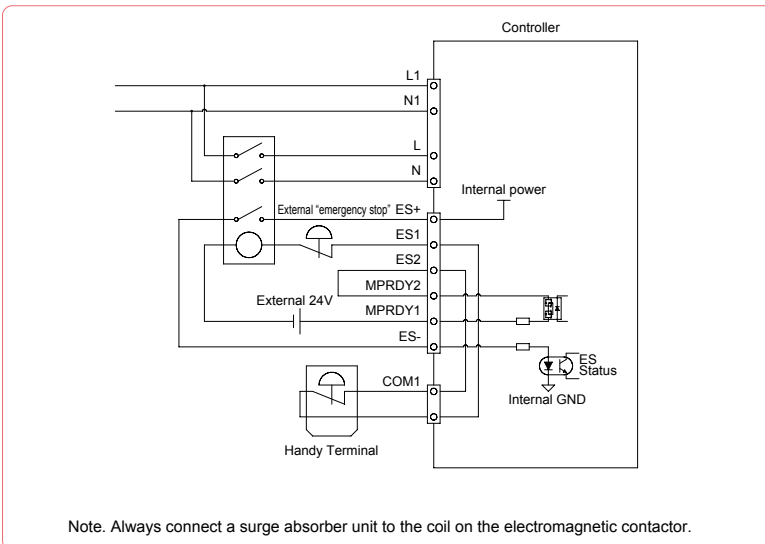
NPN type input / output wiring diagram



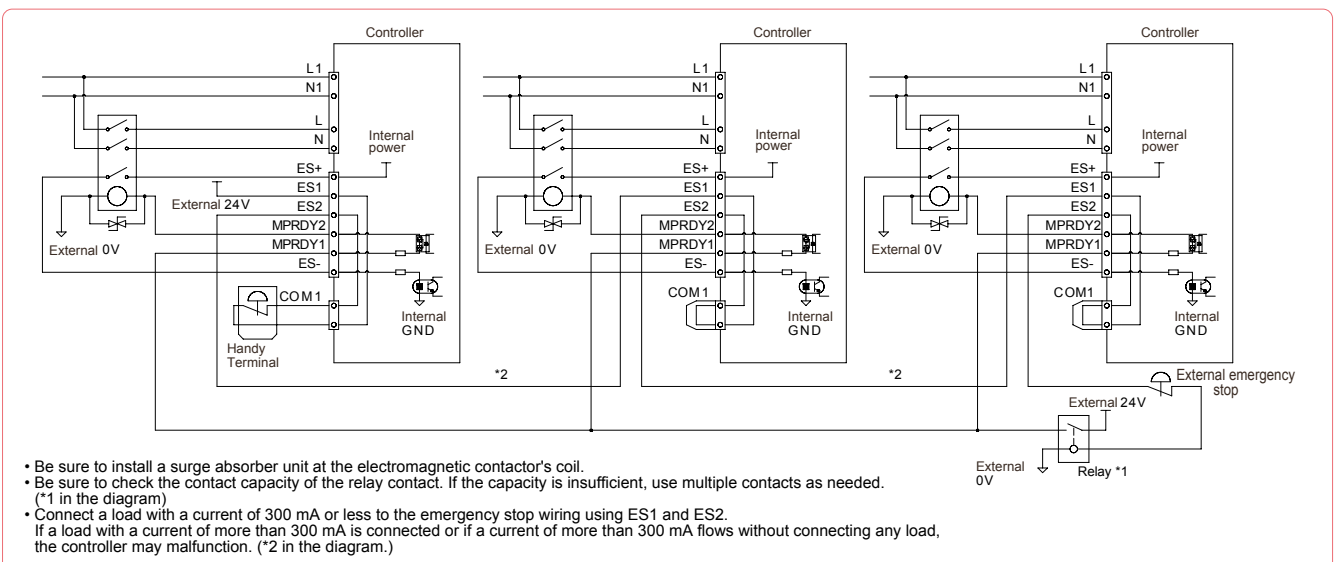
I/O Specifications

Item	Description
EtherNet/IP™	EtherNet/IP™ adapter (2 ports)
PROFINET	PROFINET Slave 1 node
EtherCAT	EtherCAT Slave 1 node
NPN	Input 16 points, 24VDC +/-10%, 5.1mA/point, positive common Output 16 points, 24VDC +/-10%, 50mA/point, sink type
CC-Link	CC-Link Ver.2.00 compatible, Remote station device (1 station double setting)

Emergency stop circuit example



Emergency stop circuit example (Daisy chain)



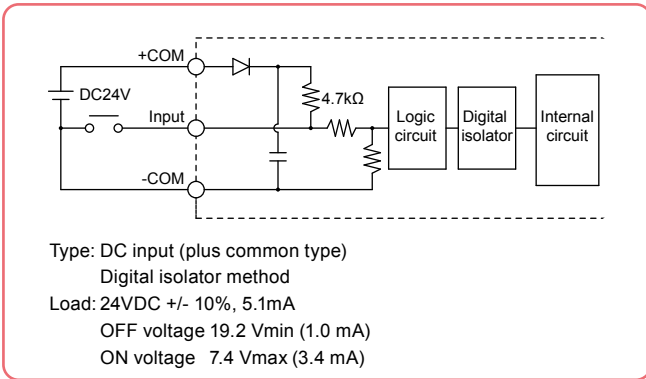
Features
 Basic model
 Advanced model
 Basic model
 Basic model
 Advanced model
 Basic model
 Basic model
 Basic model
 Basic model
 Acceleration/Deceleration
 Inertia Moment
 Option
 Single-axis robot positioner EP-01

I/O signals (NPN)

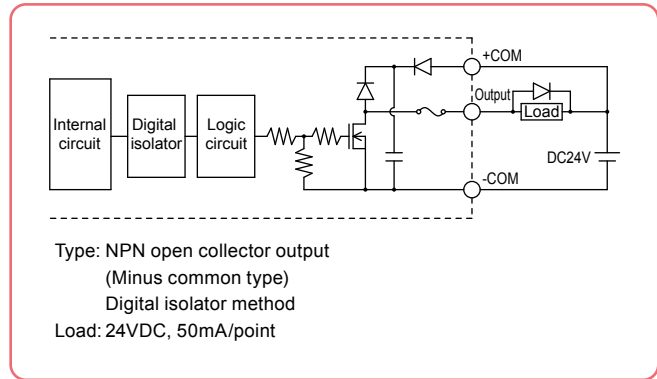
No.	Signal Name	Description	No.	Signal Name	Description	
A1	+COM	I/O power input, positive common	B1	POUT0	Point No. outputs	
A2			B2	POUT1		
A3	NC	No connection	B3	POUT2		
A4			B4	POUT3		
A5			PIN0	B5		POUT4
A6			PIN1	B6		POUT5
A7			PIN2	B7		POUT6
A8			PIN3	B8		POUT7
A9			PIN4	B9		OUT0
A10			PIN5	B10		OUT1
A11			PIN6	B11		OUT2
A12			PIN7	B12		OUT3
A13	JOG+ (A15: ON) SPD (A15: OFF)	JOG movement (+ direction)	Speed switching	B13	BUSY	Operation-in-progress
A14	JOG-	JOG movement (- direction)		B14	END	Operation-end
A15	TMODE	Teaching mode (ON: I/O teaching mode OFF: I/O positioning mode)		B15	/ALM	Alarm
A16	ORG	Return-to-origin		B16	SRV-S	Servo status
A17	/LOCK	Interlock		B17	NC	No connection
A18	TEACH (A15: ON) START (A15: OFF)	Current position teaching	Start	B18	NC	
A19	RESET	Reset		B19	-COM	I/O power input, negative common
A20	SERVO	Servo ON		B20		

NPN type I/O circuit details

Input circuit



Output circuit



Feedback pulse I/O signal table

Basic specifications

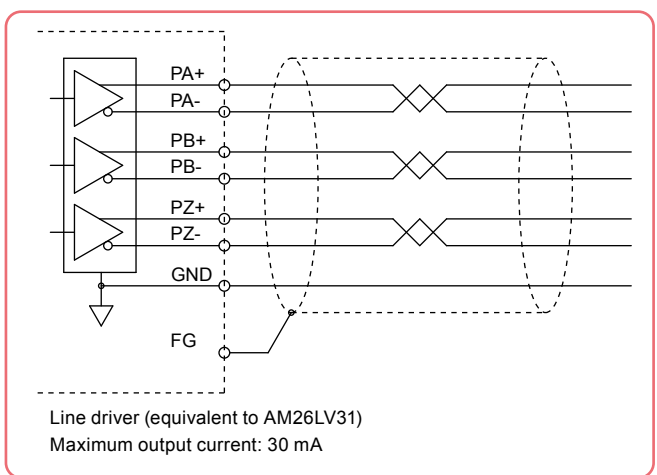
Item	Specification
Output signal	ABZ-phase pulse
Number of pulses per rotation	Variably changed in a range of 4 to 16384
Maximum rotation speed	6000 rpm
Maximum operating frequency	2 Mbps

Signal table

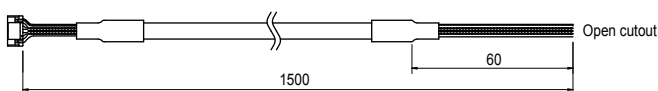
Signal name	Description	Wire color	Remarks
GND	Signal ground	White	
PA+	A-phase plus signal	Yellow	Twist pair (1)
PA-	A-phase minus signal	White	
PB+	B-phase plus signal	Green	Twist pair (2)
PB-	B-phase minus signal	White	
PZ+	Z-phase plus signal	Red	Twist pair (3)
PZ-	Z-phase minus signal	White	
FG	Frame ground	(Shield)	

Details of feedback pulse output circuit

Output circuit



Feedback pulse output cable



Model KFX-M532M-00

Accessories and part options

EP-01

Standard accessories

The icons indicated at the right end show the controllers that each component can use.

● **Power connector + Operation lever**



Model	Power connector	KFX-M5382-00
	Operation lever	KEF-M657M-00

EP-01

● **Regeneration unit short-circuit connector**



Model	KEK-M4431-00
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EP-01

YHX

RCX320

● **HT2 dummy connector**



Model	KEK-M5869-00
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EP-01

YHX

● **SAFETY connector**



Model	KEK-M4432-10
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EP-01

YHX

● **Brake power cable (1 m) ^{Note}**

^{Note}. Included in the robot with brake.



Model	KFX-M532K-10
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EP-01

● **I/O cables (2 m/20-core×2) ^{Note}**

^{Note}. Included in the robot with NPN specifications.



Model	KCA-M4421-20
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EP-01

TS-S2

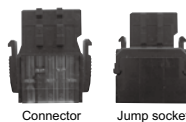
TS-SH

TS-X

TS-P

● **CC-Link connector ^{Note}**

^{Note}. Included in the robot with CC-Link specifications.



Model	Connector ^{Note}	KCA-M4872-00
	Jump socket	KCA-M4873-00

EP-01

TS-S2

TS-SH

TS-X

TS-P

^{Note}. This is a single connector type. (Insert two connectors into a branching socket.)

● **Ferrite core ^{Note}**

^{Note}. Shipped with the ferrite core attached to the robot cable.



Model	KK1-M6563-200
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EP-01

See next page for optional parts

Features

MicroBAS
Silver type
Basic model

LBAS

MicroBAS
Silver type
Advanced model

LGXS

MicroBAS
Red type
Basic model

LBAR

YH1 motor
Silver type
Basic model

ABAS

YH1 motor
Silver type
Advanced model

AGXS

YH1 motor
Red type
Basic model

ABAR

Acceleration/Deceleration
Inertia Moment

Option

Single-axis robot positioner

EP-01

Options The icons indicated at the right end show the controllers that each component can use.

● **Handy terminal HT2/HT2-D**



		HT2	HT2-D
Model	3.5m	KFX-M5110-0E	KFX-M5110-1E
	10m	KFX-M5110-2E	KFX-M5110-3E
Enable switch		–	Available
CE marking		Not supported	Applicable

EP-01

● **Support software EP-Manager**



Download from website (member site)

Model	KFX-M4990-00
-------	--------------

● **EP-Manager environment**

OS	Microsoft Windows 10 (32bit/64bit)
CPU	Exceeding the environment recommended by the OS being used
Memory	Exceeding the environment recommended by the OS being used
Communication port	Ethernet port (100BASE-TX) Ethernet cable (category 5 or higher)
Display	1024×768 or higher resolution, 256 colors or higher
Applicable controllers	EP-01

EP-01

Note. Windows is the registered trademark of US Microsoft Corporation in U.S.A. and other countries.

Note. Ethernet is a registered trademark of the XEROX Corporation, USA.

● **Absolute battery**

● **Absolute battery basic specifications**

Item	Absolute battery
Battery type	Lithium metallic battery
Battery capacity	3.6V/2700 mAh
Data holding time	About 10 years
Dimensions	φ17 × L47 mm
Weight	20.3 g



Model	KFX-M53G0-00
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Note. The absolute battery is subject to wear and requires replacement.

EP-01

● **Battery holder kit**



Model	KFX-M53G7-00
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Note. Set number containing the battery holder and two tie-up bands.

EP-01

● **CC-Link termination connector**



Model	KCA-M4874-00
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EP-01

TS-S2

TS-SH

TS-X

TS-P

● **Feedback pulse output cable**



Model	KFX-M532M-00
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EP-01

● **Daisy chain and gateway connection cable**



Model	KFX-M532L-00
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EP-01



Safety Precautions

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



YAMAHA

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