LGBS10

Advanced model ● Motor-less Single Axis Actuator
● Timing Belt Drive type

Ordering method

LGBS10 - [ ] [ ] [ ] - [ ]

Model	Lead	Shape	Motor specification	Stroke
	50: 50 mm 30: 30 mm	R: Motor rightward, horizontal position L: Motor leftward, horizontal position RU: Motor rightward, upper position LU: Motor leftward, upper position RD: Motor rightward, lower position LD: Motor leftward, lower position	Y: Y specification(Only lead 30) (see below) T: T specification (see below) P: P specification (see below)	150 to 3000 (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.

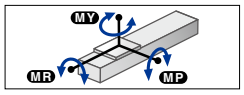
LGBS10 (100W)

Specifications

Applicable motor		100 W
Repeatability Note 1		±0.04 mm
Stroke		150 mm to 3000 mm (50 mm pitch)
Maximum Speed Note 2		2250 mm/sec
Belt		Equivalent to 30-mm Lead
Maximum payload Note 3	Horizontal	12 kg
Maximum dimensions of cross section of main unit		W 100 mm × H 81 mm
Overall length	L/R Specifications	ST + 402.2 mm
	Other than the above	ST + 332.7 mm
Degree of Cleanliness Note 4		Equivalent to ISO Class 3 (ISO 14644-1)
Intake air Note 5		60Nℓ/min to 70Nℓ/min
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)

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

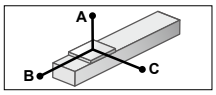
Static loading moment

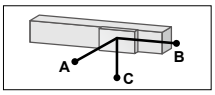


(Unit: N·m)

MY	MP	MR
186	186	164

Allowable overhang Note





LGBS10-30(100W)

Horizontal installation (Unit: mm)

	A	B	C
6kg	1284	621	522
9kg	1027	408	376
12kg	954	305	308

Wall installation (Unit: mm)

	A	B	C
6kg	570	408	859
9kg	387	257	661
12kg	301	184	594

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 1000 mm stroke models.
Note. When using it suspended from the ceiling, the overhang will be the same as when used horizontally.

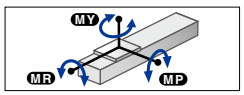
LGBS10 (200W)

Specifications

Applicable motor		200 W	
Repeatability Note 1		±0.04 mm	
Stroke		150 mm to 3000 mm (50 mm pitch)	
Maximum Speed Note 2		3750 mm/sec	2250 mm/sec
Belt		Equivalent to 50-mm Lead	Equivalent to 30-mm Lead
Maximum payload Note 3	Horizontal	18 kg	35 kg
Maximum dimensions of cross section of main unit		W 100 mm × H 81 mm	
Overall length	L/R Specifications	ST + 402.2 mm	
	Other than the above	ST + 332.7 mm	
Degree of Cleanliness Note 4		Equivalent to ISO Class 3 (ISO 14644-1)	
Intake air Note 5		60Nℓ/min to 70Nℓ/min	
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)	

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

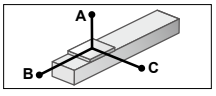
Static loading moment

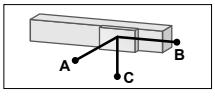


(Unit: N·m)

MY	MP	MR
186	186	164

Allowable overhang Note





LGBS10-50(200W)

Horizontal installation (Unit: mm)

	A	B	C
6kg	943	621	429
12kg	768	302	279
18kg	746	208	220

Wall installation (Unit: mm)

	A	B	C
6kg	479	408	627
12kg	276	182	477
18kg	198	115	434

LGBS10-30(200W)

Horizontal installation (Unit: mm)

	A	B	C
15kg	630	238	223
25kg	626	152	168
35kg	648	115	139

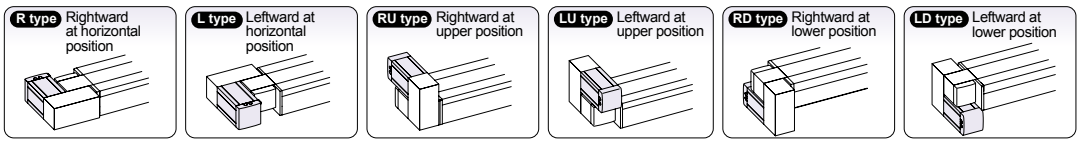
Wall installation (Unit: mm)

	A	B	C
15kg	211	137	376
25kg	135	76	336
35kg	94	50	313

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 1000 mm stroke models.
Note. When using it suspended from the ceiling, the overhang will be the same as when used horizontally.

Motor installation

The line-up consisting of six models of deferent motor installation position as follows.



▶ The cycle time simulation and service life calculation can be performed easily from our member site.

Applicable motor

• Applicable servo motor

Motor specification	Flange size	Wattage	Manufacturer	Model
Y Note 1	□ 40	100W	Tamagawa Seiki	TSM4154N □ □ 00E200
			Yaskawa Electric Corp.	SGM7J-01
				SGMXJ-01
			Keyence Corp.	SV- □ 010
				SV2- □ 010
				SV3- □ 010
			Mitsubishi Electric Corp.	HG-KR13 Note 2
				HK-KT13 Note 2
				HK-MT13 Note 2
			Omron Electronics	R88M-K10030
				R88M-1M10030 Note 2
			Panasonic Corp.	MHMF012
				MHMG012
T	□ 60	200W	Tamagawa Seiki	TSM4252N □ □ 00E200
			Yaskawa Electric Corp.	SGM7J-02
				SGMXJ-02
			Keyence Corp.	SV- □ 020
				SV2- □ 020
				SV3- □ 020
			Mitsubishi Electric Corp.	HG-KR23 Note 3
				HK-KT23 Note 3
				HK-MT23 Note 3
P	□ 60	200W	Omron Electronics	R88M-K20030
				R88M-1M20030
			Panasonic Corp.	MSMF022
				MHMF022
				MHMG022

Note 1. For the Y specification, only lead 30 is available.

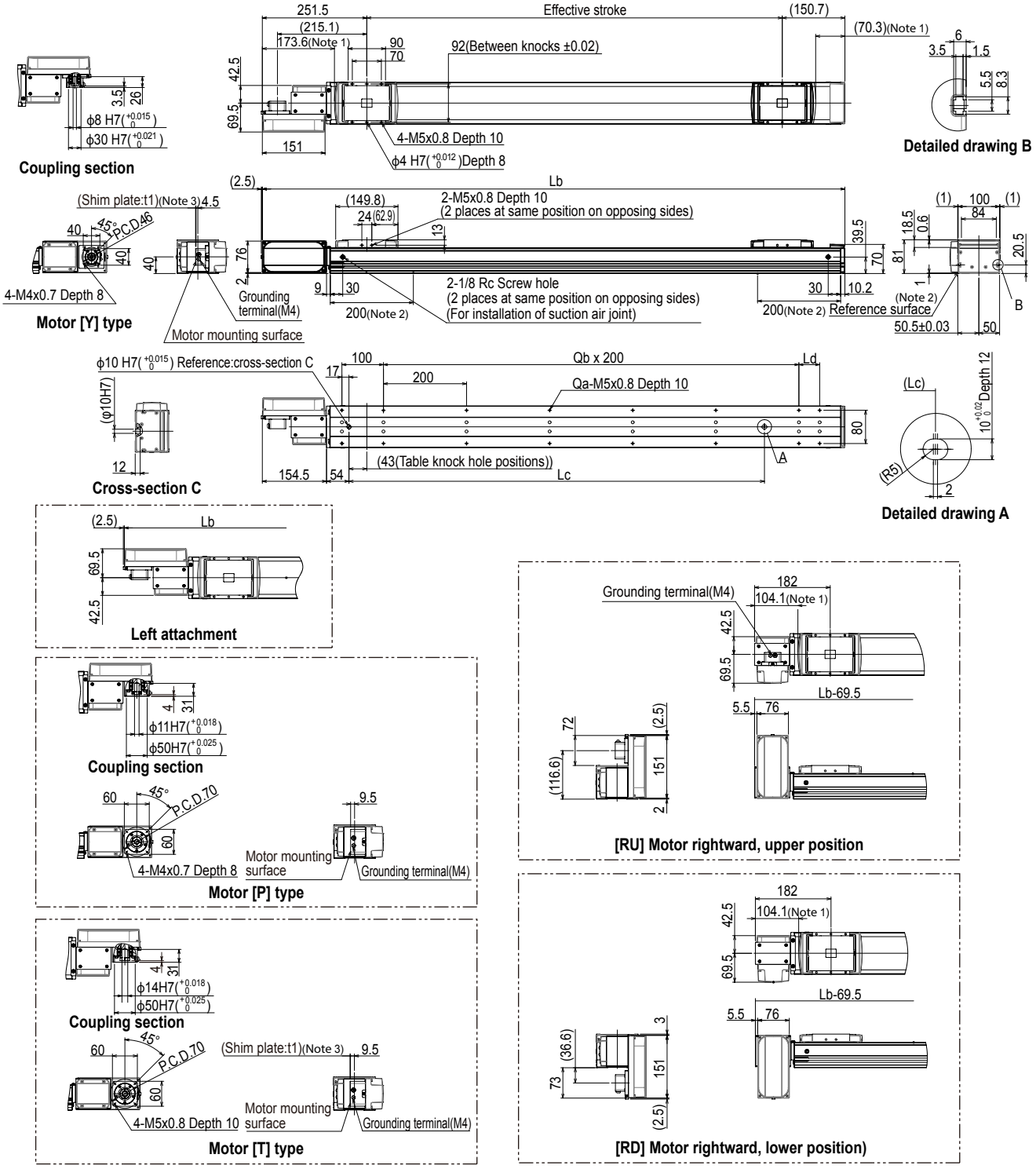
Note 2. A special shim plate is required.

Part number of shim plate
KES-M2295-00

Note 3. A special shim plate is required.

Part number of shim plate
KEV-M2295-00

LGBS10



Note 1.Stop positions are determined by the mechanical stoppers at both ends.
Note 2.When the effective stroke is 2050 mm or more, the reference plane is within 200 mm of the frame end face.
Note 3.Depending on the motor you install, a shim plate may be required. For details, please refer to the Servo Motor Compatibility Table (p.217).
Note. In the installation tap hole, the length under head <<thickness of stand +10mm or less>> is recommended for the hex socket head bolts <M5×0.8> used to install the main unit.

Effective stroke	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	1500	1550
Lb	552.2	602.2	652.2	702.2	752.2	802.2	852.2	902.2	952.2	1002.2	1052.2	1102.2	1152.2	1202.2	1252.2	1302.2	1352.2	1402.2	1452.2	1502.2	1552.2	1602.2	1652.2	1702.2	1752.2	1802.2	1852.2	1902.2	1952.2
Lc	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	1500	1550
Ld	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	50	100	150	200
Qa	6	8	8	8	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
Qb	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	7	7	7	7
Weight (kg)	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9	9.4	9.8	10.2	10.6	11	11.4	11.8	12.2	12.6	13	13.4	13.7	14.1	14.5	14.9	15.3	15.7	16.1	16.5	16.9
Stroke restriction: Horizontal · Vertical	No stroke restrictions																												
Stroke restriction: Wall hanging	To 2000st																												
Stroke restriction: Ceiling-mounted	To 1500st																												

Effective stroke	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000
Lb	2002.2	2052.2	2102.2	2152.2	2202.2	2252.2	2302.2	2352.2	2402.2	2452.2	2502.2	2552.2	2602.2	2652.2	2702.2	2752.2	2802.2	2852.2	2902.2	2952.2	3002.2	3052.2	3102.2	3152.2	3202.2	3252.2	3302.2	3352.2	3402.2
Lc	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000
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	50
Qa	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36
Qb	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15
Weight (kg)	17.3	17.7	18.1	18.4	18.8	19.2	19.6	20	20.4	20.8	21.2	21.6	22	22.4	22.8	23.1	23.5	23.9	24.3	24.7	25.1	25.5	25.9	26.3	26.7	27.1	27.5	27.9	28.2
Stroke restriction: Horizontal · Vertical	No stroke restrictions																												
Stroke restriction: Wall hanging	To 2000st																												
Stroke restriction: Ceiling-mounted																													