

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 adapters or electric components.

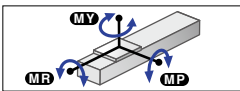
Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration or resonance from actuator will affect service life of actuator. The product performance may not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

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

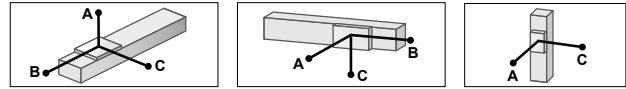


	(Unit: N·m)		
	MY	MP	MR
	1423	1423	1251

Adaptable Servo Motor

Specification	Flange size	<input type="checkbox"/> 80
	Wattage	750 W
Motor specification	Manufacturer	Model
	No entry	Yaskawa Electric Corp.
Keyence Corp.		SV- <input type="checkbox"/> 075
		SV2- <input type="checkbox"/> 075
Mitsubishi Electric Corp.		HF-KP73
	HG-KR73 ^{Note 1}	
	HK-KT7M3 ^{Note 1}	
P	Omron Electronics	R88M-K75030
		R88M-1M75030
	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.

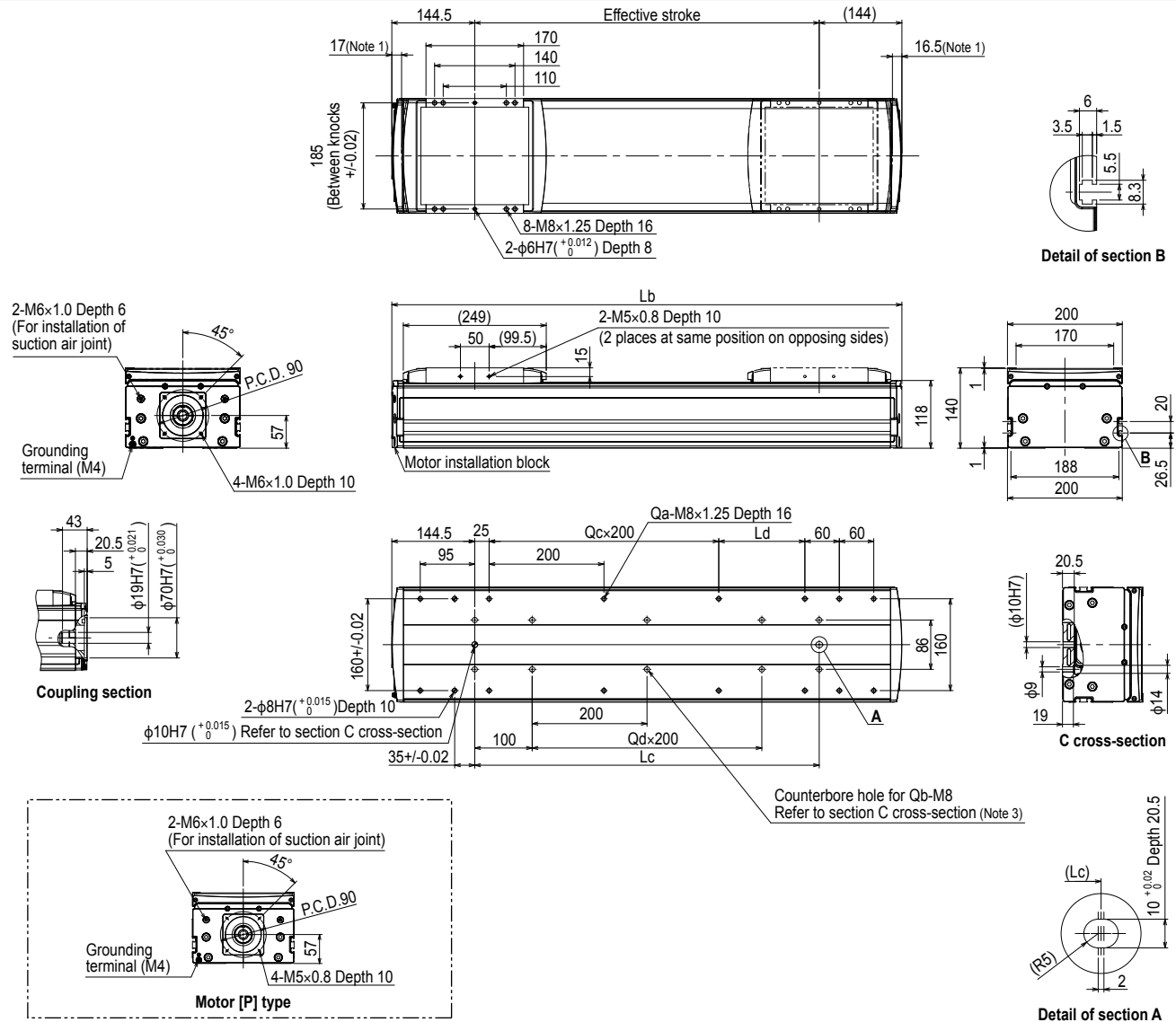
Note 2. For the specifications P, the bending unit cannot be used.

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.

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- 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