

LGFS17L

Advanced model

Motor-less Single Axis Actuator

Long-stroke type

Ordering method

LGFS17L				
Model	Lead	Motor specification	OP1	Stroke
	40: 40 mm 20: 20 mm 10: 10 mm 5: 5 mm	Y: Y specification (see below) P: P specification (see below) T: T specification (see below) K: K specification (see below)	No entry: Standard M: Centralized lubrication	850 to 3000 (50 mm pitch)

Caution

This system is provided as mechanical actuator unit and not including any adaptors 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.

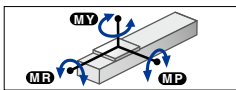
LGFS17L (400W)

Specifications

Applicable motor	400 W			
Repeatability <small>Note 1</small>	±0.01 mm			
Deceleration mechanism	Rolled ball screw ϕ 20 (C7 class)			
Stroke	850 mm to 3000 mm (50 mm pitch)			
Maximum speed <small>Note 2</small>	2400 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	40 mm	20 mm	10 mm	5 mm
Maximum payload <small>Note 3</small>	Horizontal	40 kg	90 kg	140 kg
	Vertical	6 kg	12 kg	35 kg
Rated Thrust <small>Note 3</small>	169 N	339 N	678 N	1356 N
Maximum dimensions of cross section of main unit	W 168 mm × H 105.5 mm			
Overall length Straight	ST + 570 mm			
Degree of Cleanliness <small>Note 4</small>	Equivalent to ISO Class 3 (ISO 14644-1)			
Intake air <small>Note 5</small>	115 N ℓ /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. If the effective stroke exceeds 2000 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 800 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	
1062	1063	934	

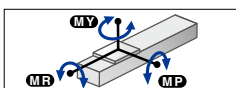
LGFS17L (750W)

Specifications

Applicable motor	750 W			
Repeatability <small>Note 1</small>	±0.01 mm			
Deceleration mechanism	Rolled ball screw ϕ 20 (C7 class)			
Stroke	850 mm to 3000 mm (50 mm pitch)			
Maximum speed <small>Note 2</small>	2400 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	40 mm	20 mm	10 mm	5 mm
Maximum payload <small>Note 3</small>	Horizontal	80 kg	150 kg	200 kg
	Vertical	12 kg	35 kg	70 kg
Rated Thrust <small>Note 3</small>	320 N	640 N	1280 N	2560 N
Maximum dimensions of cross section of main unit	W 168 mm × H 105.5 mm			
Overall length Straight	ST + 573.5 mm			
Degree of Cleanliness <small>Note 4</small>	Equivalent to ISO Class 3 (ISO 14644-1)			
Intake air <small>Note 5</small>	115 N ℓ /min			
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (no condensation)			

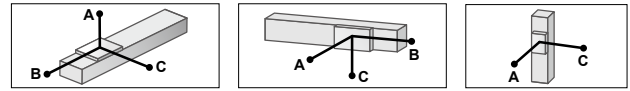
- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 2000 mm, the ball screw may resonate. (Critical speed) At this time, make the adjustment to decrease 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 800 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	
1062	1063	934	

Allowable overhang Note



LGFS17L-40(400W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C			
	10kg	4552	2660		2334	10kg	2364		2610	4491	2kg	10270	10270
	20kg	2637	1307	1198		20kg	1211	1257	2557		4kg	5285	5285
	40kg	1790	631	648		40kg	644	580	1676		6kg	3719	3719

LGFS17L-20(400W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C			
	30kg	4027	1182		1432	30kg	1412		1131	3942	4kg	8417	8417
	50kg	2687	691	849		50kg	817	641	2583		8kg	4231	4231
	90kg	1743	364	454		90kg	412	313	1600		12kg	2834	2834

LGFS17L-10(400W)

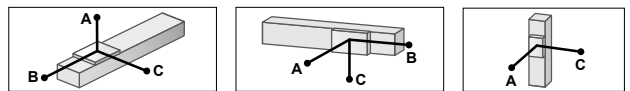
Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C			
	50kg	6851	966		1332	50kg	1280		916	6725	15kg	3284	3284
	100kg	3730	461	637		100kg	576	410	3577		25kg	1957	1957
	140kg	2817	316	438		140kg	374	266	2638		35kg	1388	1388

LGFS17L-5(400W)

No settings				No settings					A	C
								10kg	5357	5357
								30kg	1758	1758
								50kg	1038	1038

- 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.

Allowable overhang Note



LGFS17L-40(750W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C			
	20kg	2128	1307		1125	20kg	1117		1257	2070	4kg	4739	4739
	50kg	1250	495	488		50kg	473	445	1148		8kg	2414	2414
	80kg	1142	312	344		80kg	317	262	995		12kg	1633	1633

LGFS17L-20(750W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C			
	50kg	2930	691		856	50kg	828		641	2812	15kg	2314	2314
	100kg	2040	323	410		100kg	369	272	1826		25kg	1390	1390
	150kg	1619	200	257		150kg	207	150	1311		35kg	987	987

LGFS17L-10(750W)

Horizontal installation (Unit: mm)	A	B	C	Wall installation (Unit: mm)	A	B	C	Vertical installation (Unit: mm)	A	C			
	100kg	2456	461		627	100kg	565		410	2373	30kg	1604	1604
	150kg	1756	292	399		150kg	335	242	1654		50kg	949	949
	200kg	1395	208	285		200kg	219	157	1270		70kg	668	668

LGFS17L-5(750W)

No settings				No settings					A	C
								40kg	1305	1305
								70kg	728	728
								100kg	497	497

- 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.



► 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	□ 60	400W	Tamagawa Seiki	TSM4254N □ □ 00E200	
			Yaskawa Electric Corp.	SGM7J-04	
				SGMJX-04	
			Keyence Corp.	SV- □ 040	
				SV2- □ 040	
		SV3- □ 040			
		500W	Mitsubishi Electric Corp.	HG-KR43	
				HK-KT43	
				HK-MT43	
				Fanuc Corp.	βiS1/6000-B
P	□ 60			400W	Omron Electronics
		R88M-1M40030			
		Panasonic Corp.	MSMF042		
			MHMF042		
			MHMG042		
			T	□ 80	750W
Yaskawa Electric Corp.	SGM7J-08				
	SGMJX-08				
Keyence Corp.	SV □ 075 ^{Note1}				
	SV2 □ 075				
	SV3 □ 075				
Mitsubishi Electric Corp.	HG-KR73 ^{Note1}				
	HK-KT7M3 ^{Note1}				
	HK-MT7M3 ^{Note1}				
	K	□ 80			750W
			R88M-1M75030		
Panasonic Corp.			MSMF082		
	MHMF082				
			MHMG082		

Note 1. A special shim plate is required when combining with the bending unit.

Part number of shim plate
KEX-M2295-00

Note 2. The bending unit can only be installed on the T specification.

Part number of bending unit
KEX-M221M-01 ^{Note 2}

Linear conveyor modules

LCMR200

Single-axis robots

GX

Linear conveyor modules

LCM100

SCARA robots

YK-X

Single-axis robots

Robonity

Linear motor single-axis robots

PHASER

Single-axis robots

FLIP-X

Compact single-axis robots

TRANSERO

Cartesian robots

XY-X

Pick & place robots

YP-X

CLEAN

CONTROLLER

INFORMATION

LBAS

LBAR

LBFS

LGXS

LGBS

ABAS

ABAR

AGXS

AGBS

LGFS

Option

