

Series LXF

Series LXP

Series LXS

Short Stroke Electric Actuator

Series LX

Direct Acting Guide/Ball Bushing

Series	Motor type	Brake	Guide type	Model	Lead screw lead mm		Page
					Ball screw	Slide screw	
LXF	5 phase stepper	Without brake	Direct acting guide	LXFH5	2	5	210
LXP	2 phase stepper	Without brake	Ball bushing	LXPB2	2	5	218
		With brake			2	5	226
	5 phase stepper	Without brake		LXPB5	2	5	234
		With brake			2	5	242
LXS	2 phase stepper	Without brake	High rigidity direct acting guide	LXSH2	2	5	250
		With brake			2	5	258
	5 phase stepper	Without brake		LXSH5	2	5	266
		With brake			2	5	274
		Without brake			2	5	
		With brake			2	5	

■ CE Marking _____ Page 282

■ Made to Order

• AC servomotor specification _____ 288

• Low particulate generation specification _____ 294

■ Construction _____ 296

■ Mounting _____ 299

■ Acceleration Time Guide _____ 302

■ Table Deflection _____ 304

Part Number Designations

LX S H 5 B C 100 S B F9N 1

Actuator configuration

- F Flat table type
- P Guide rod type
- S Slide table type

Guide type

- H Direct acting guide
- B Ball bushing

Motor type

- 2 2 phase stepper motor
- 5 5 phase stepper motor

Lead screw type

- B Ball screw
- S Slide screw

Lead screw lead

- A 6mm
- B 12mm
- C 2mm
- D 5mm

Stroke

- 100

Home position switch

- Nil None
- S With solid state switch (cable length 0.3m)

Brake

- Nil None
- B With brake

Number of auto switches/proximity switches

- 1 1 pc.
- 2 2 pcs.
- 6 6 pcs.

Auto switch/Proximity switch type

- Nil Without auto switch/proximity switch
- F9N D-F9N (lead wire length 0.5m)
- F9P D-F9P (lead wire length 0.5m)
- F9G D-F9G (lead wire length 0.5m)
- F9H D-F9H (lead wire length 0.5m)
- F9GL D-F9GL (lead wire length 3m)
- F9HL D-F9HL (lead wire length 3m)
- F9B D-F9B (lead wire length 0.5m)
- F9NL D-F9NL (lead wire length 3m)
- F9PL D-F9PL (lead wire length 3m)
- F9BL D-F9BL (lead wire length 3m)

Proximity switches

- GN With sensor plate, without proximity switch
- G GXL-8F (lead wire length 1m)
- GD GXL-8FI (lead wire length 1m)
- GB GXL-8FB (lead wire length 1m)
- GDB GXL-8FIB (lead wire length 1m)
- GU GXL-8FU (lead wire length 1m)
- GUB GXL-8FUB (lead wire length 1m)

The tables above show the definition for each symbol only and cannot be used for actual model selection.

5 Phase Stepper Motor**Low Profile Slide Table Type****Without Motor Brake****Series LXF****Direct
Acting
Guide****Ball Screw****ø8mm/2mm lead****How to Order****LXFH5 BC** — **Stroke** **S** — **GD** **1****Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Proximity switch type

Nil	None
-----	------

Refer to the table on the right for proximity switch part numbers.

Number of proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Proximity switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
GN	With sensor rail and sensor plate without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

	Standard stroke	mm	25	50	75	100
Performance	Body weight	kg	0.8	1.0	1.1	1.2
	Operating temperature range	°C	5 to 40 (with no condensation)			
	Work load	kg	3 (2) horizontal Note 1)			
	Speed	mm/s	to 30 Note 2)			
	Positioning repeatability	mm	±0.03			
Main parts	Motor		5 phase stepper motor (without brake)			
	Lead screw		Ball screw ø8mm, 2mm lead			
	Guide		Direct acting guide			
Home position switch	Model		Photo micro sensor EE-SX672			
Driver	Model		LC6D-507AD (Refer to page 306 for details.)			

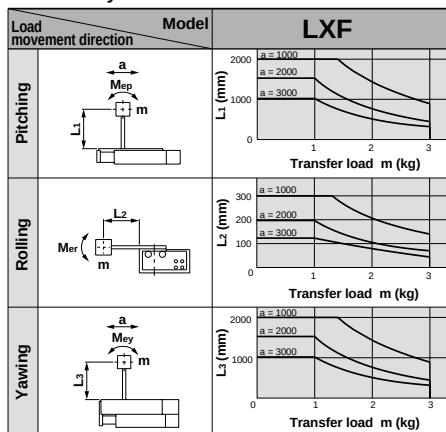
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

Pitching	4
Rolling	3
Yawing	4

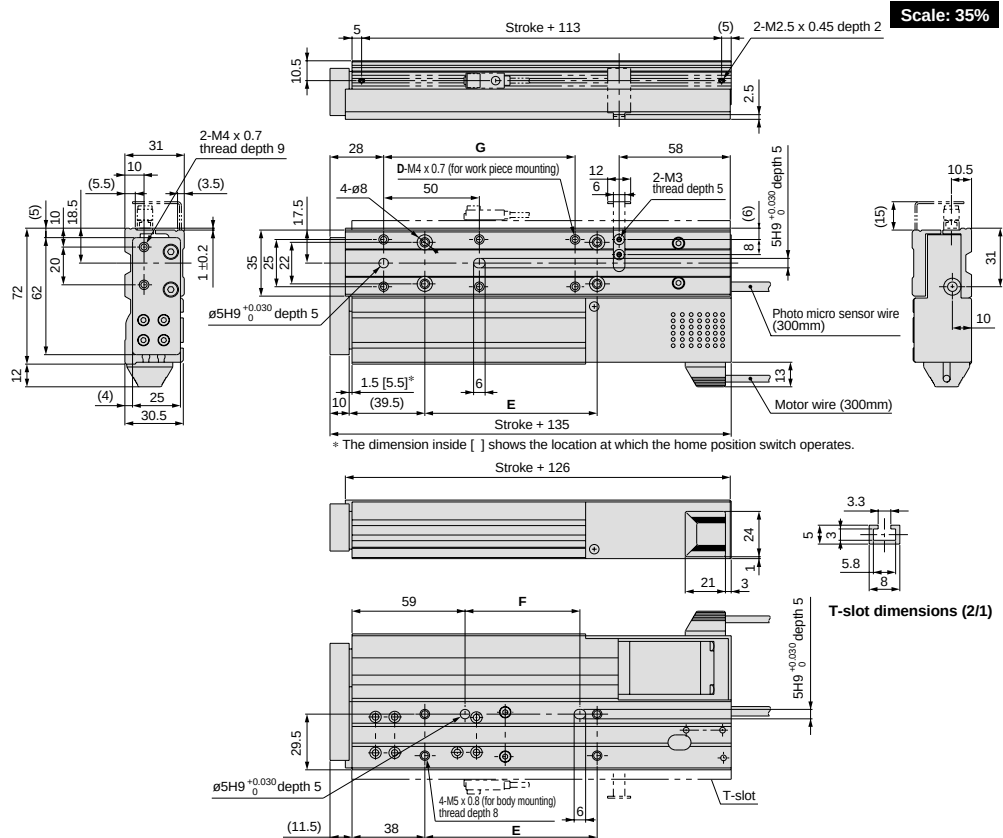
m : Transfer load (kg)
 L : Overhang to work piece center of gravity (mm)
 a : Work piece acceleration (mm/sec²)
 Me : Dynamic moment

Allowable dynamic moment

Refer to page 304 for deflection data.

5 Phase Stepper Motor/Without Motor Brake *Series LXF*

Dimensions/LXFH5BC



Model	D	E	F	G
LXFH5BC-25	4	60	30	(50)
LXFH5BC-50	4	90	60	(50)
LXFH5BC-75	6	90	60	100
LXFH5BC-100	6	90	60	100

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	
	10	0.2	1.1	5.1	10.1	
	20	0.1	0.6	2.6	5.1	
	30	0.1	0.4	1.7	3.4	

For transfer load of 1kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	
	10	0.2	1.1	5.1	10.1	
	20	0.1	0.6	2.6	5.1	
	30	0.1	0.4	1.7	3.4	

Refer to page 303 for acceleration time.

For transfer load of 2kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	
	10	0.2	1.1	5.1	10.1	
	20	0.1	0.6	2.6	5.1	
	30	0.1	0.4	1.7	3.4	

For transfer load of 3kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	
	10	0.2	1.1	5.1	10.1	
	20	0.1	0.6	2.6	5.1	
	30	0.1	0.4	1.7	3.4	

5 Phase Stepper Motor**Low Profile Slide Table Type****Without Motor Brake****Series LXF****Direct
Acting
Guide****Ball Screw****ø8mm/5mm lead****How to Order****LXFH5 BD** — **Stroke** **S** — **GD** **1****Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Proximity switch type

Nil	None
-----	------

Refer to the table on the right for proximity switch part numbers.

Number of proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Proximity switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
GN	With sensor rail and sensor plate without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

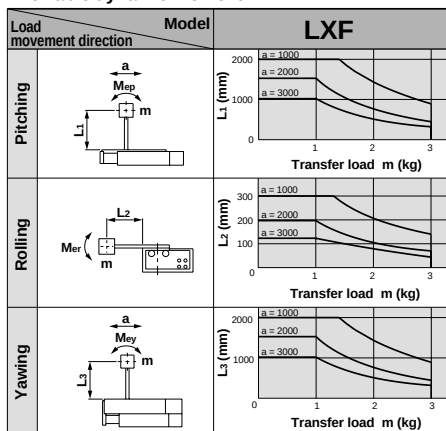
Specifications

	Standard stroke	mm	25	50	75	100
Performance	Body weight	kg	0.8	1.0	1.1	1.2
	Operating temperature range	°C	5 to 40 (with no condensation)			
	Work load	kg	3 (2) horizontal ^{Note 1)}			
	Speed	mm/s	to 80 ^{Note 2)}			
	Positioning repeatability	mm	±0.03			
Main parts	Motor		5 phase stepper motor (without brake)			
	Lead screw		Ball screw ø8mm, 5mm lead			
	Guide		Direct acting guide			
Home position switch	Model		Photo micro sensor EE-SX672			
Driver	Model		LC6D-507AD (Refer to page 306 for details.)			

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.**Allowable Moment (N·m)****Allowable static moment**

Pitching	4
Rolling	3
Yawing	4

m : Transfer load (kg)
 L : Overhang to work piece center of gravity (mm)
 a : Work piece acceleration (mm/sec²)
 Me : Dynamic moment

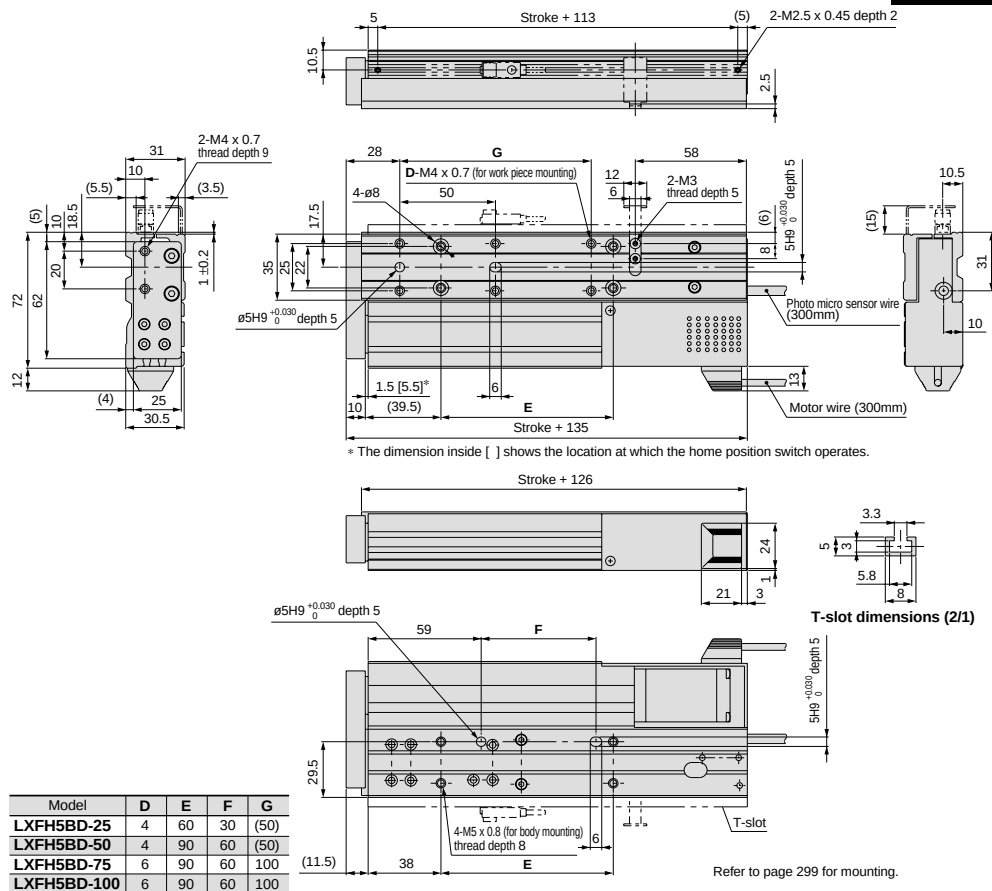
Allowable dynamic moment

Refer to page 304 for deflection data.

5 Phase Stepper Motor/Without Motor Brake *Series LXF*

Dimensions/LXFH5BD

Scale: 35%



Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1
	40	0.1	0.3	1.3	2.6
	80	0.1	0.2	0.7	1.3

For transfer load of 1kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1
	40	0.1	0.3	1.3	2.6
	80	0.1	0.2	0.7	1.3

Refer to page 303 for acceleration time.

For transfer load of 2kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1
	40	0.1	0.3	1.3	2.6
	80	0.1	0.2	0.7	1.3

For transfer load of 3kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10
	40	0.1	0.3	1.3	2.6
	80	0.1	0.2	0.7	1.3

5 Phase Stepper Motor**Low Profile Slide Table Type****Without Motor Brake****Series LXF****Direct
Acting
Guide****Ball Screw****ø8mm/6mm lead****How to Order**

LXFH5 SA Stroke S F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail and sensor plate without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

	Standard stroke	mm	25	50	75	100
Performance	Body weight	kg	0.8	1.0	1.1	1.2
	Operating temperature range	°C	5 to 40 (with no condensation)			
	Work load	kg	3 (2) horizontal Note 1)			
	Speed	mm/s	to 100 Note 2)			
	Positioning repeatability	mm	±0.05			
Main parts	Motor	5 phase stepper motor (without brake)				
	Lead screw	Ball screw ø8mm, 6mm lead				
	Guide	Direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX672				
Driver	Model	LC6D-507AD (Refer to page 306 for details.)				

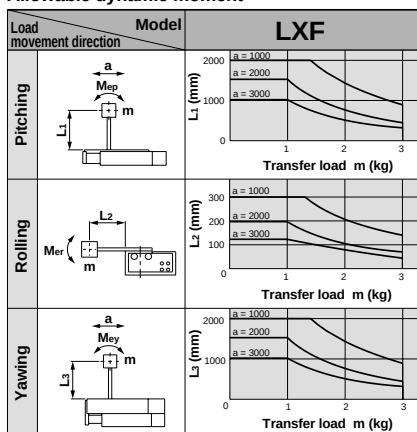
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

Pitching	4
Rolling	3
Yawing	4

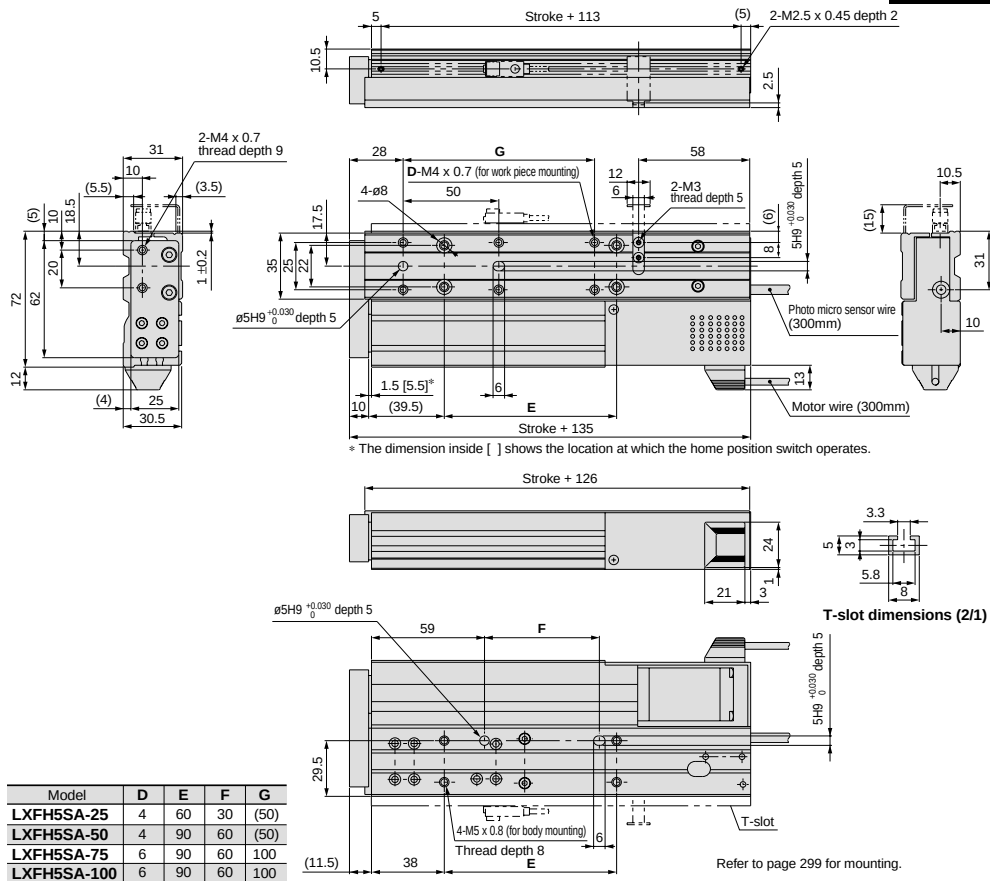
m : Transfer load (kg)
 L : Overhang to work piece center of gravity (mm)
 a : Work piece acceleration (mm/sec²)
 Me : Dynamic moment

Allowable dynamic moment

Refer to page 304 for deflection data.

Dimensions/LXFH5SA

Scale: 35%



Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1
	50	0.1	0.3	1.1	2.1
	100	0.1	0.2	0.6	1.1

For transfer load of 1kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1
	50	0.1	0.3	1.1	2.1
	100	0.1	0.2	0.6	1.1

Refer to page 302 for acceleration time.

For transfer load of 2kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1
	50	0.1	0.3	1.1	2.1
	100	0.1	0.3	0.7	1.2

For transfer load of 3kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1
	50	0.1	0.3	1.1	2.1
	100	0.1	0.3	0.7	1.2

לכ

LGT

LC1



LC6D/LC6C

Switches

5 Phase Stepper Motor

Without Motor Brake

Low Profile Slide Table Type

Series **LXF**Direct
Acting
GuideSlide Screw
Ø8mm/12mm lead

How to Order

LXFH5 **SB** — **Stroke** **S** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
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Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Specifications

	Standard stroke	mm	25	50	75	100
Performance	Body weight	kg	0.8	1.0	1.1	1.2
	Operating temperature range	°C	5 to 40 (with no condensation)			
	Work load	kg	2 (2) horizontal ^(Note 1)			
	Speed	mm/s	to 200 ^(Note 2)			
	Positioning repeatability	mm	±0.05			
Main parts	Motor	5 phase stepper motor (without brake)				
	Lead screw	Slide screw ø8mm, 12mm lead				
	Guide	Direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX672				
Driver	Model	LC6D-507AD (Refer to page 306 for details.)				

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail and sensor plate without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

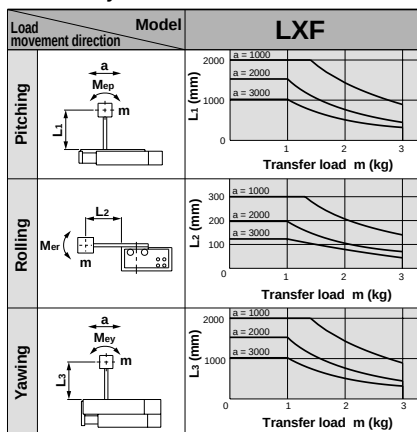
Allowable Moment (N·m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment

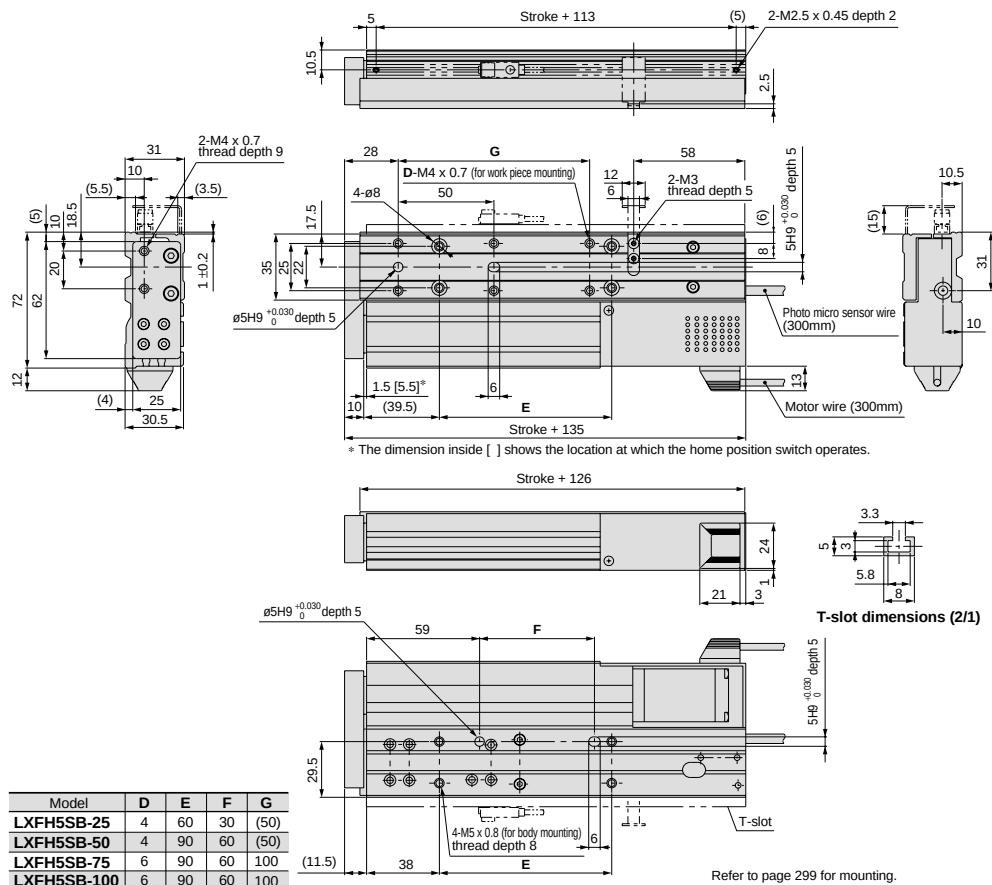


Refer to page 304 for deflection data.

5 Phase Stepper Motor/Without Motor Brake *Series LXF*

Dimensions/LXFH5SB

Scale: 35%



Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	50	0.1	0.3	1.1	2.1
	100	0.1	0.2	0.6	1.1
	200	0.1	0.2	0.4	0.6

For transfer load of 2kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	50	0.1	0.3	1.1	2.1
	100	0.1	0.2	0.6	1.1
	200	0.1	0.2	0.5	0.7

For transfer load of 1kg

		Positioning time (sec)			
Positioning distance (mm)		1	10	50	100
Speed (mm/s)	50	0.1	0.3	1.1	2.1
	100	0.1	0.2	0.6	1.1
	200	0.1	0.2	0.4	0.7

Refer to page 302 for acceleration time.

2 Phase Stepper Motor

Without Motor Brake

Guide Rod Type

Series LXP

Ball
Bushing

Ball Screw
ø8mm/2mm lead

How to Order

LXPB2 BC — **Stroke** **S** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 30 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts	Motor	2 phase stepper motor (without brake)							
	Lead screw	Ball screw ø8mm, 2mm lead							
	Guide	Ball bushing							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-220AD (Refer to page 306 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

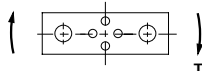
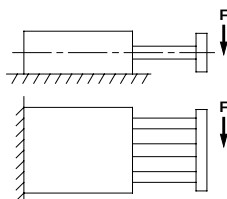
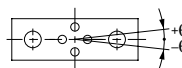
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

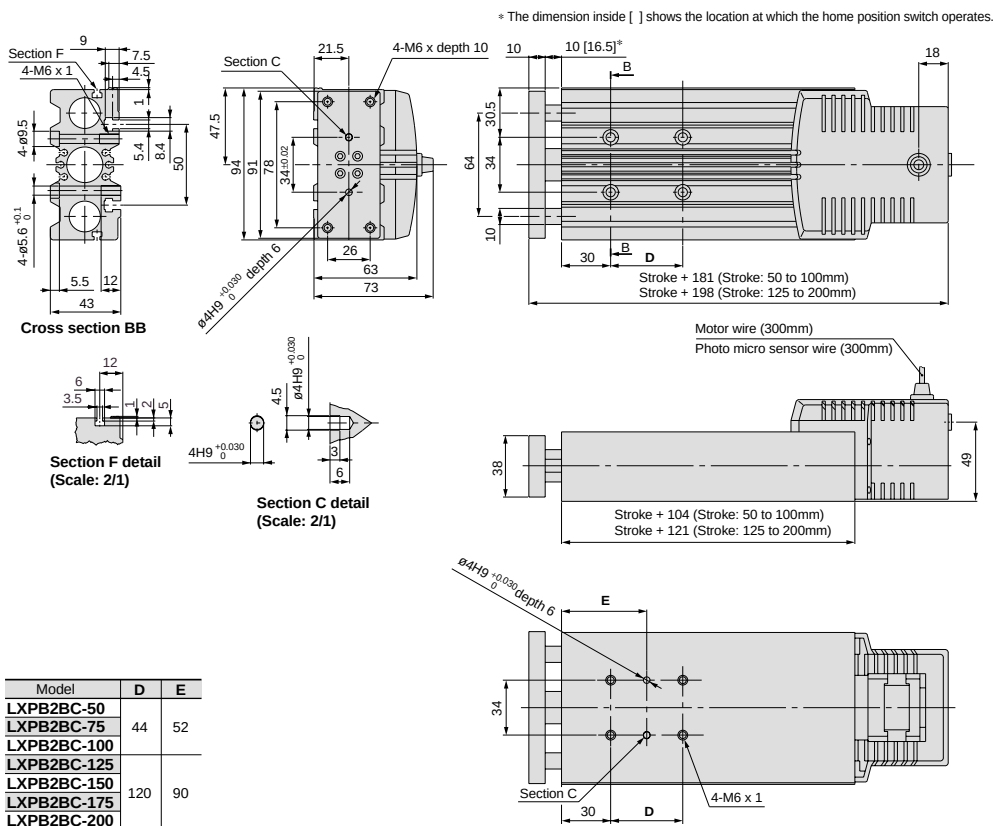
Non-rotating accuracy (θ)
±0.09°



Refer to page 304 for deflection data.

Dimensions/LXPB2BC

Scale: 30%



Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.7	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

Refer to page 303 for acceleration time.

For transfer load of 6kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

LCI

LGT

LC1



LC6D/LC6C

Switches

2 Phase Stepper Motor

Without Motor Brake

Guide Rod Type

Series LXP

Ball
Bushing

Ball Screw
ø8mm/5mm lead

How to Order

LXPB2 **BD** — Stroke **S** — F9N **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 80 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts	Motor	2 phase stepper motor (without brake)							
	Lead screw	Ball screw ø8mm, 5mm lead							
	Guide	Ball bushing							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-220AD (Refer to page 306 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

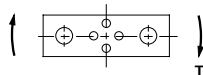
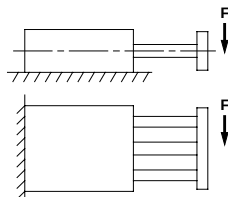
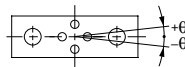
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°



Refer to page 304 for deflection data.

Scale: 30%



2 Phase Stepper Motor**Low Profile Slide Table Type****Without Motor Brake****Series LXP****Ball
Bushing****Slide Screw**
ø8mm/6mm lead**How to Order****LXPB2 SA Stroke S F9N 1****Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

Standard stroke			mm	50	75	100	125	150	175	200	
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1		
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	6 horizontal/5 vertical ^{Note 1)}								
	Speed	mm/s	to 100 ^{Note 2)}								
	Positioning repeatability	mm	±0.05								
Main parts	Motor	2 phase stepper motor (without brake)									
	Lead screw	Slide screw ø8mm, 6mm lead									
	Guide	Ball bushing									
Home position switch	Model	Photo micro sensor EE-SX673									
Driver	Model	LC6D-220AD (Refer to page 306 for details.)									
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)									

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Operating Conditions**Allowable lateral load (F)**

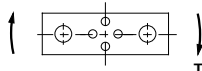
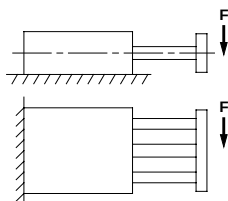
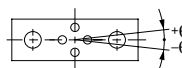
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°



Refer to page 304 for deflection data.

2 Phase Stepper Motor/Without Motor Brake *Series LXP*

Dimensions/LXPB2SA

Scale: 30%

LJ1

LG1

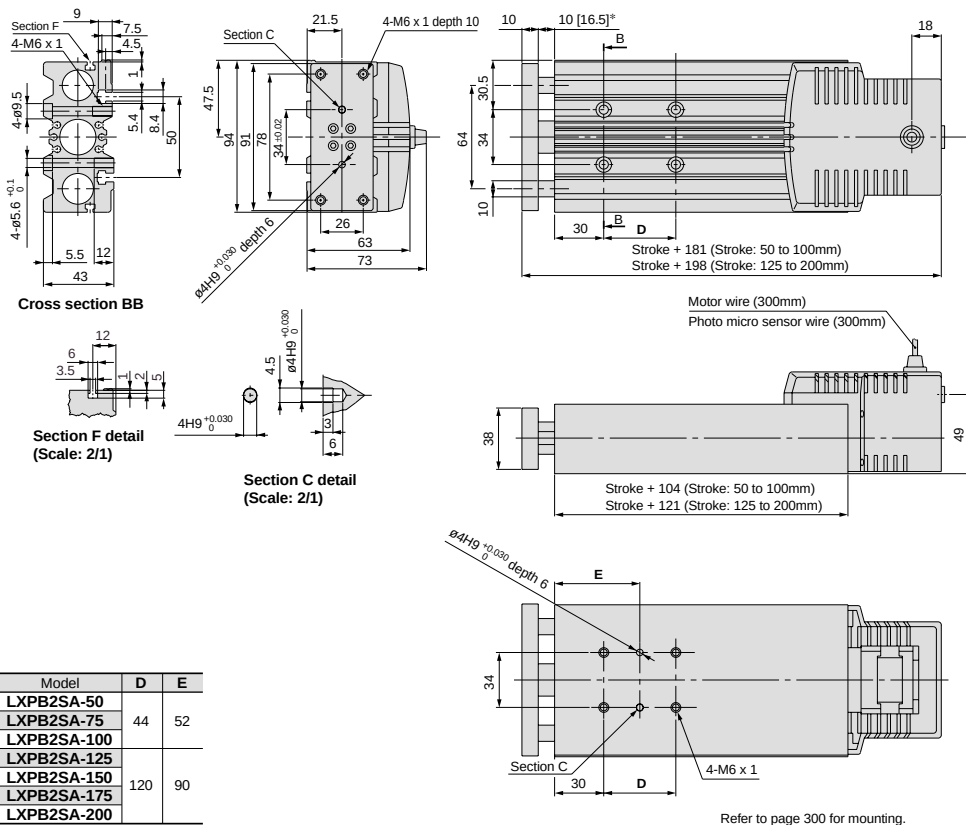
LC1

LX

LC6D/LC6C

Switches

* The dimension inside [] shows the location at which the home position switch operates.



Model	D	E
LXPB2SA-50	44	52
LXPB2SA-75		
LXPB2SA-100		
LXPB2SA-125	120	90
LXPB2SA-150		
LXPB2SA-175		
LXPB2SA-200		

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

Refer to page 302 for acceleration time.

For transfer load of 6kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.1	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

2 Phase Stepper Motor

Without Motor Brake

Guide Rod Type

Series LXP

Ball
Bushing

Slide Screw
ø8mm/12mm lead

How to Order

LXPB2 **SB** — Stroke **S** — F9N **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	3 horizontal/3 vertical Note 1)						
	Speed	mm/s	to 200 Note 2)						
	Positioning repeatability	mm	±0.05						
Main parts	Motor	2 phase stepper motor (without brake)							
	Lead screw	Slide screw ø8mm, 12mm lead							
	Guide	Ball bushing							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-220AD (Refer to page 306 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

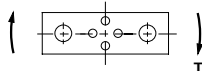
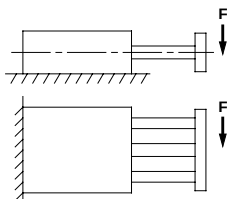
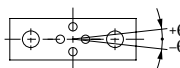
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°



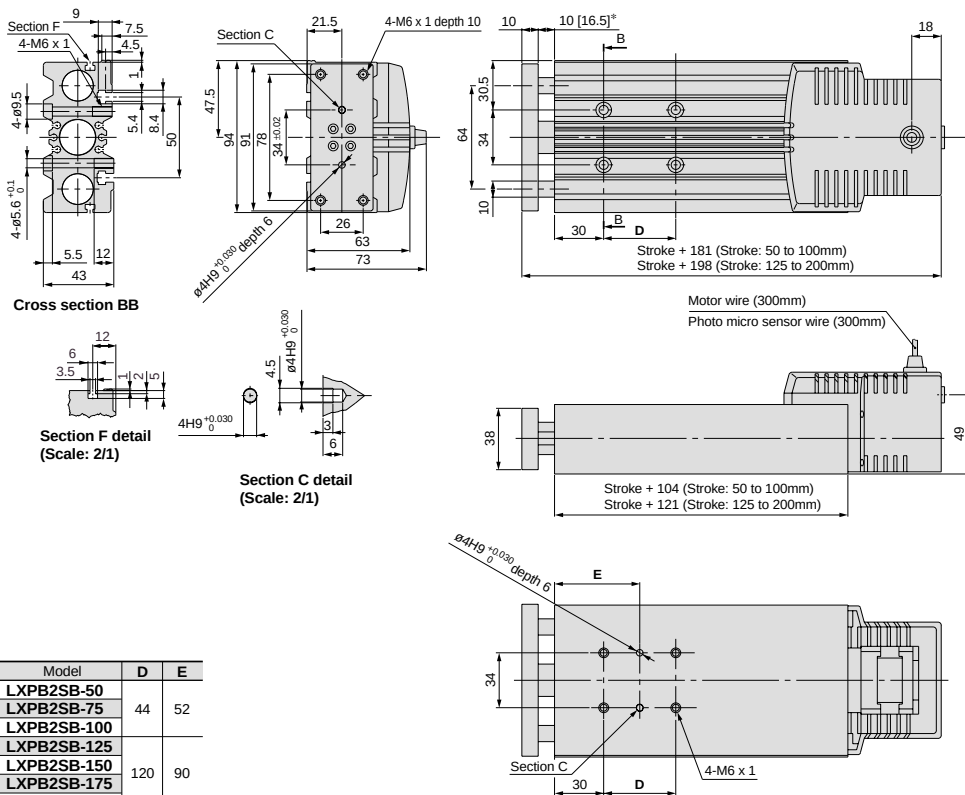
Refer to page 304 for deflection data.

2 Phase Stepper Motor/Without Motor Brake *Series LXP*

Dimensions/LXPB2SB

Scale: 30%

* The dimension inside [] shows the location at which the home position switch operates.



Model	D	E
LXPB2SB-50	44	52
LXPB2SB-75		
LXPB2SB-100		
LXPB2SB-125	120	90
LXPB2SB-150		
LXPB2SB-175		
LXPB2SB-200		

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.2
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

For transfer load of 1.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

Refer to page 302 for acceleration time.

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

2 Phase Stepper Motor

With Motor Brake

Guide Rod Type

Series LXP

Ball
Bushing

Ball Screw
ø8mm/2mm lead

How to Order

LXPB2 BC — **Stroke** **S** **B** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

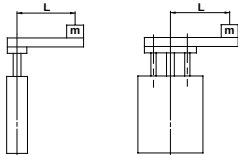
Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 30 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts	Motor		2 phase stepper motor (with brake)						
	Lead screw		Ball screw ø8mm, 2mm lead						
	Guide		Ball bushing						
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
Power consumption		5W							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-220AD (Refer to page 306 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

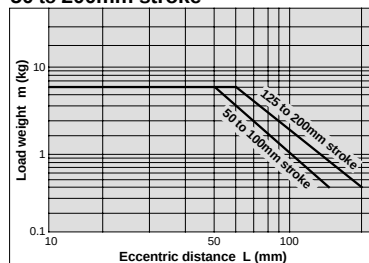
Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

Lifter Operation Range

This is the operating range for ball bushings.
Use within the allowable thrust range.



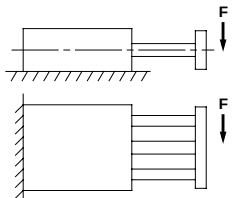
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17



Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

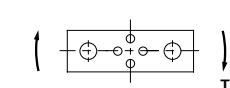
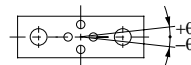


Plate non-rotating accuracy (θ)

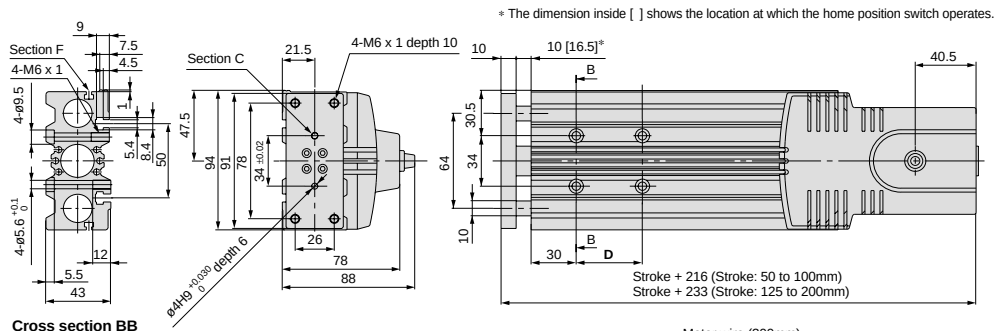
Non-rotating accuracy (θ)
±0.09°



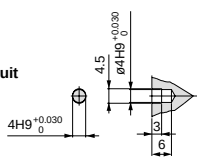
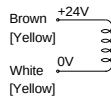
Refer to page 304 for deflection data.

2 Phase Stepper Motor/With Motor Brake *Series LXP*

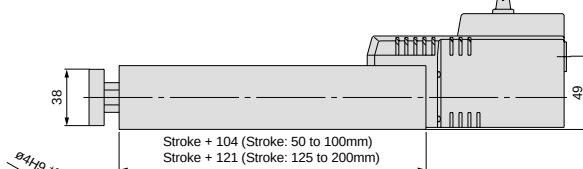
Dimensions/LXPB2BC

Scale: 30%


Brake electrical circuit

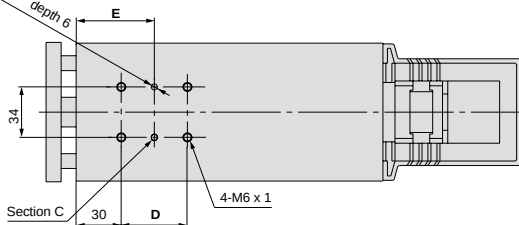
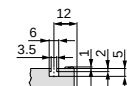


Motor wire (300mm)
Brake wire (300mm)
Photo micro sensor wire (300mm)



Note) A contact protection circuit is required when connecting a brake.

Model	D	E
LXPB2BC-50	44	52
LXPB2BC-75		
LXPB2BC-100		
LXPB2BC-125	120	90
LXPB2BC-150		
LXPB2BC-175		
LXPB2BC-200		



Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

For transfer load of 2.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

2 Phase Stepper Motor

With Motor Brake

Guide Rod Type

Series LXP

**Ball
Bushing**
Ball Screw
 ø8mm/5mm lead

How to Order

LXPB2 BD — **Stroke** **S** **B** — **F9N** **1**
Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

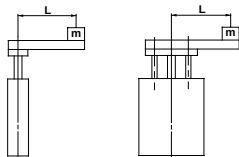
Specifications

Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical ^{Note 1)}						
	Speed	mm/s	to 80 ^{Note 2)}						
	Positioning repeatability	mm	±0.03						
Main parts	Motor		2 phase stepper motor (with brake)						
	Lead screw		Ball screw ø8mm, 5mm lead						
	Guide		Ball bushing						
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
		Power consumption	5W						
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-220AD (Refer to page 306 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)							

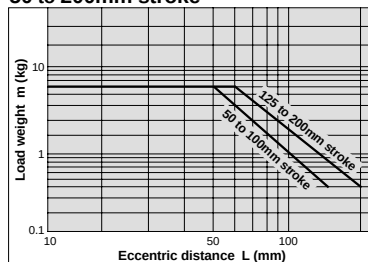
Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Lifter Operation Range

 This is the operating range for ball bushings.
 Use within the allowable thrust range.


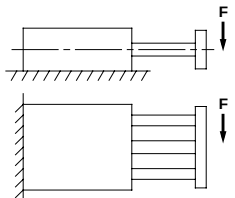
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17



Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

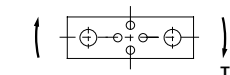
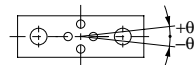


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

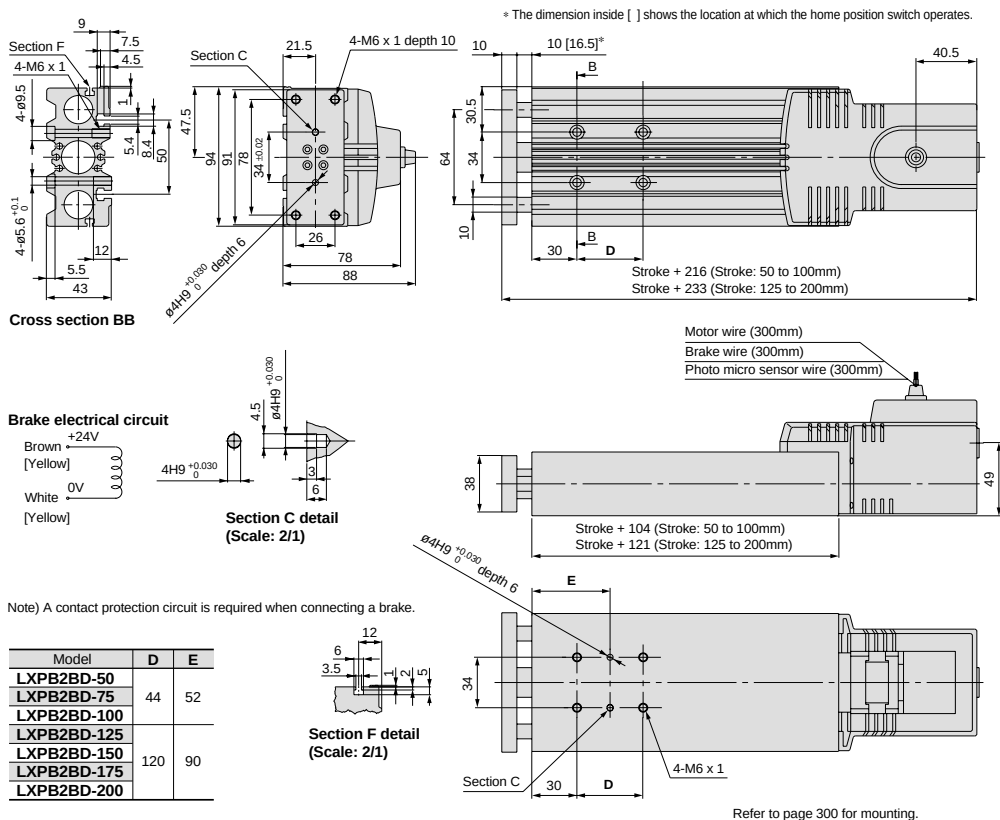


Refer to page 304 for deflection data.

2 Phase Stepper Motor/With Motor Brake *Series LXP*

Dimensions/LXPB2BD

Scale: 30%



Note) A contact protection circuit is required when connecting a brake.

Model	D	E
LXPB2BD-50	44	52
LXPB2BD-75		
LXPB2BD-100		
LXPB2BD-125	120	90
LXPB2BD-150		
LXPB2BD-175		
LXPB2BD-200		

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	200	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1	
	40	0.1	0.3	1.3	2.6	5.1	
	80	0.1	0.2	0.7	1.3	2.6	

For transfer load of 2.5kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	200	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1	
	40	0.1	0.3	1.3	2.6	5.1	
	80	0.1	0.2	0.7	1.3	2.6	

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	200	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1	
	40	0.1	0.3	1.3	2.6	5.1	
	80	0.1	0.2	0.7	1.3	2.6	

2 Phase Stepper Motor

With Motor Brake

Guide Rod Type

Series **LXP**

Ball
Bushing

Slide Screw
ø8mm/6mm lead

How to Order

LXPB2 SA — **Stroke** **S** **B** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

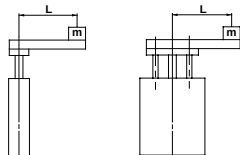
Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical ^{Note 1)}						
	Speed	mm/s	to 100 ^{Note 2)}						
	Positioning repeatability	mm	±0.05						
Main parts	Motor		2 phase stepper motor (with brake)						
	Lead screw		Slide screw ø8mm, 6mm lead						
	Guide		Ball bushing						
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
Power consumption		5W							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-220AD (Refer to page 306 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

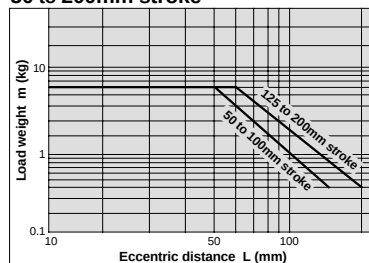
Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Lifter Operation Range

This is the operating range for ball bushings. Use within the allowable thrust range.



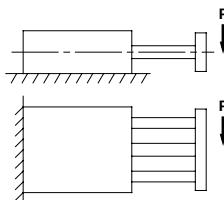
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17



Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

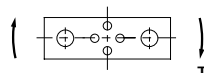
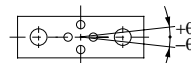


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

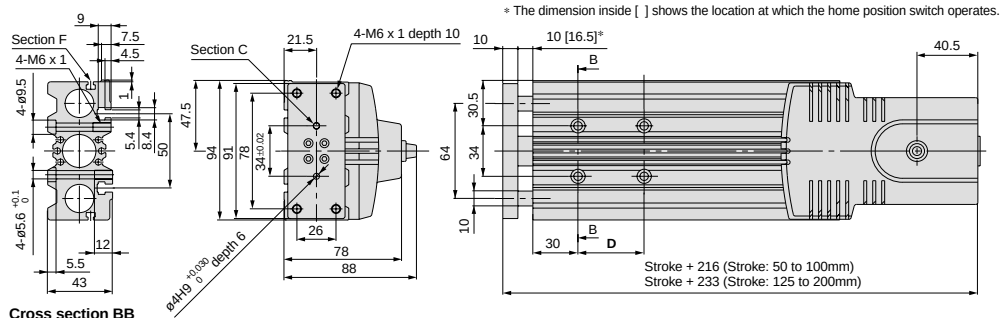


Refer to page 304 for deflection data.

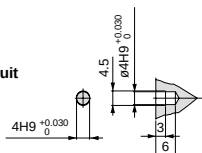
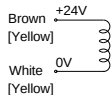
2 Phase Stepper Motor/With Motor Brake *Series LXP*

Dimensions/LXPB2SA

Scale: 30%

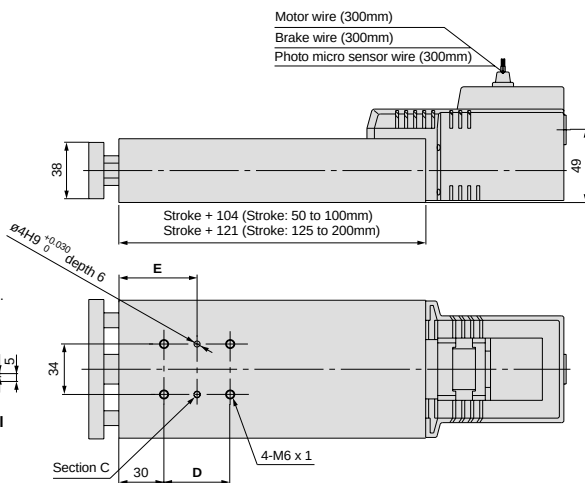
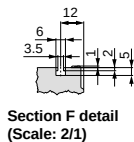


Brake electrical circuit



Note A) contact protection circuit is required when connecting a brake.

Model	D	E
LXPB2SA-50	44	52
LXPB2SA-75		
LXPB2SA-100		
LXPB2SA-125	120	90
LXPB2SA-150		
LXPB2SA-175		
LXPB2SA-200		



Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

For transfer load of 2.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

Refer to page 302 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

2 Phase Stepper Motor

With Motor Brake

Guide Rod Type

Series **LXP**

Ball
Bushing

Slide Screw

Ø8mm/12mm lead

How to Order

LXPB2 SB — Stroke **S B** — **F9N 1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

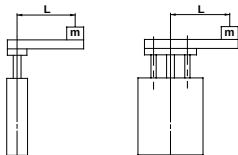
Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	3 horizontal/3 vertical ^{Note 1)}						
	Speed	mm/s	to 200 ^{Note 2)}						
	Positioning repeatability	mm	±0.05						
Main parts	Motor		2 phase stepper motor (with brake)						
	Lead screw		Slide screw ø8mm, 12mm lead						
	Guide		Ball bushing						
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
Power consumption		5 W							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-220AD (Refer to page 306 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

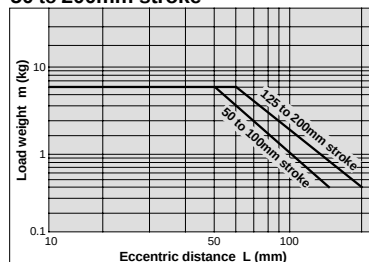
Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

Lifter Operation Range

This is the operating range for ball bushings.
Use within the allowable thrust range.



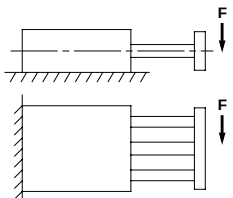
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17



Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

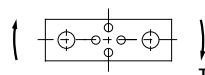
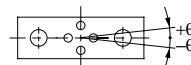


Plate non-rotating accuracy (θ)

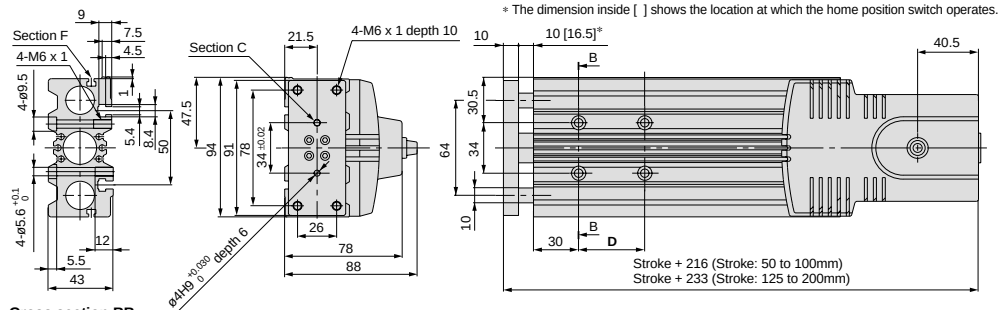
Non-rotating accuracy (θ)
±0.09°



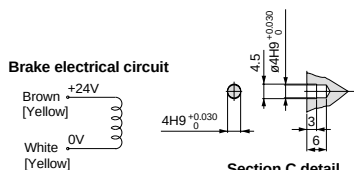
Refer to page 304 for deflection data.

Dimensions/LXPB2SB

Scale: 30%



Cross section BB

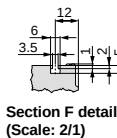


Brake electrical circuit

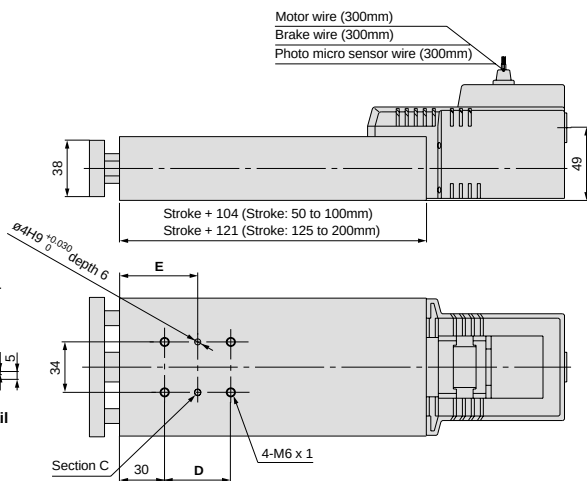
Section C detail
(Scale: 2/1)

Note) A contact protection circuit is required when connecting a brake.

Model	D	E
LXPB2SB-50	44	52
LXPB2SB-75		
LXPB2SB-100		
LXPB2SB-125	120	90
LXPB2SB-150		
LXPB2SB-175		
LXPB2SB-200		



Section F detail
(Scale: 2/1)



Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

For transfer load of 1.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

Refer to page 302 for acceleration time.

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.2	0.5	0.7	1.2

5 Phase Stepper Motor

Without Motor Brake

Guide Rod Type

Series LXP

Ball
Bushing

Ball Screw
ø8mm/2mm lead

How to Order

LXPB5 **BC** — Stroke **S** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 30 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts	Motor	5 phase stepper motor (without brake)							
	Lead screw	Ball screw ø8mm, 2mm lead							
	Guide	Ball bushing							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-507AD (Refer to page 306 details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

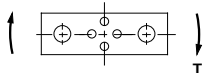
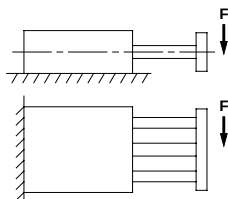
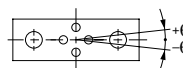
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

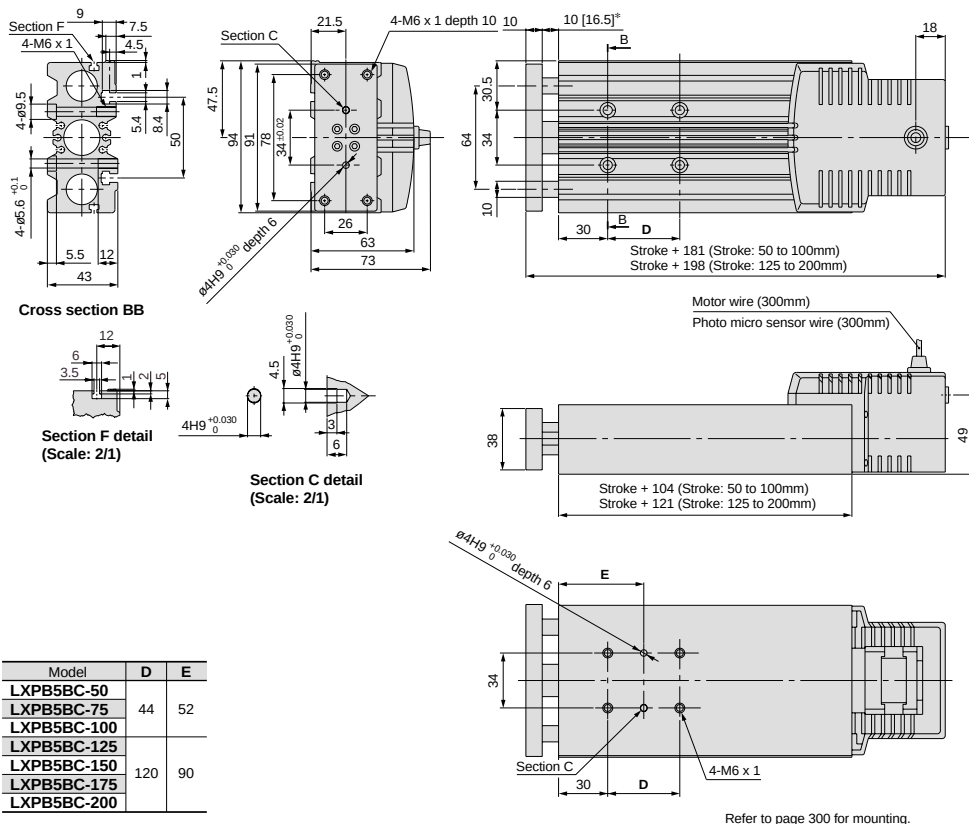


Refer to page 304 for deflection data.

Dimensions/LXPB5BC

Scale: 30%

* The dimension inside [] shows the location at which the home position switch operates.



Model	D	E
LXPB5BC-50	44	52
LXPB5BC-75		
LXPB5BC-100		
LXPB5BC-125	120	90
LXPB5BC-150		
LXPB5BC-175		
LXPB5BC-200		

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

Refer to page 303 for acceleration time.

For transfer load of 6kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

5 Phase Stepper Motor**Without Motor Brake****Guide Rod Type****Series LXP****Ball
Bushing****Ball Screw****ø8mm/5mm lead****How to Order****LXPB5 BD Stroke S F9N 1****Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical ^{Note 1)}						
	Speed	mm/s	to 80 ^{Note 2)}						
	Positioning repeatability	mm	±0.03						
Main parts	Motor	5 phase stepper motor (without brake)							
	Lead screw	Ball screw ø8mm, 5mm lead							
	Guide	Ball bushing							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-507AD (Refer to page 306 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Operating Conditions**Allowable lateral load (F)**

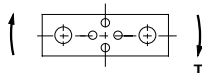
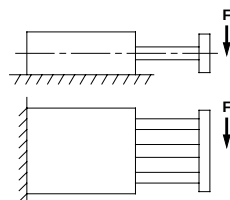
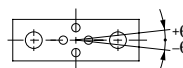
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°



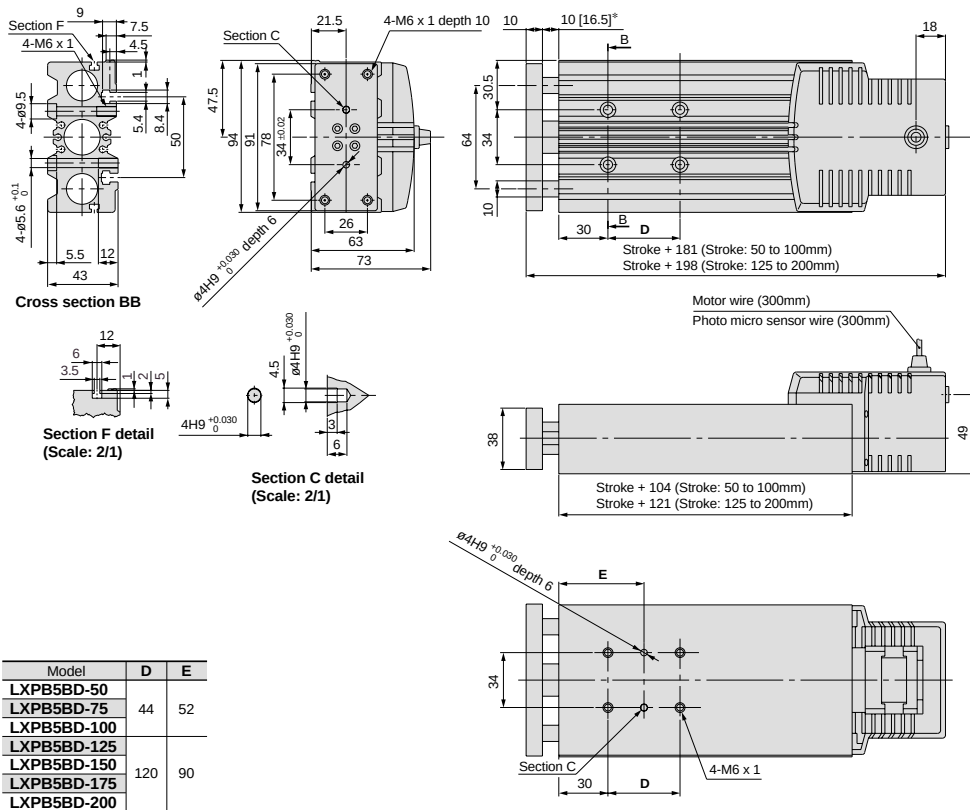
Refer to page 304 for deflection data.

5 Phase Stepper Motor/Without Motor Brake *Series LXP*

Dimensions/LXPB5BD

Scale: 30%

* The dimension inside [] shows the location at which the home position switch operates.



Model	D	E
LXPB5BD-50	44	52
LXPB5BD-75		
LXPB5BD-100		
LXPB5BD-125		
LXPB5BD-150	120	90
LXPB5BD-175		
LXPB5BD-200		

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

Refer to page 303 for acceleration time.

For transfer load of 6kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

5 Phase Stepper Motor

Without Motor Brake

Guide Rod Type

Series **LXP**Ball
Bushing

Slide Screw

Ø8mm/6mm lead

How to Order

LXPB5 SA Stroke S F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil		Without auto switch		
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	4 horizontal/4 vertical ^{Note 1)}						
	Speed	mm/s	to 100 ^{Note 2)}						
	Positioning repeatability	mm	±0.05						
Main parts	Motor	5 phase stepper motor (without brake)							
	Lead screw	Slide screw ø8mm, 6mm lead							
	Guide	Ball bushing							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-507AD (Refer to page 306 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

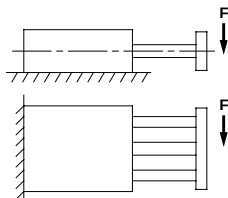
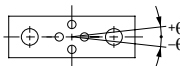
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°



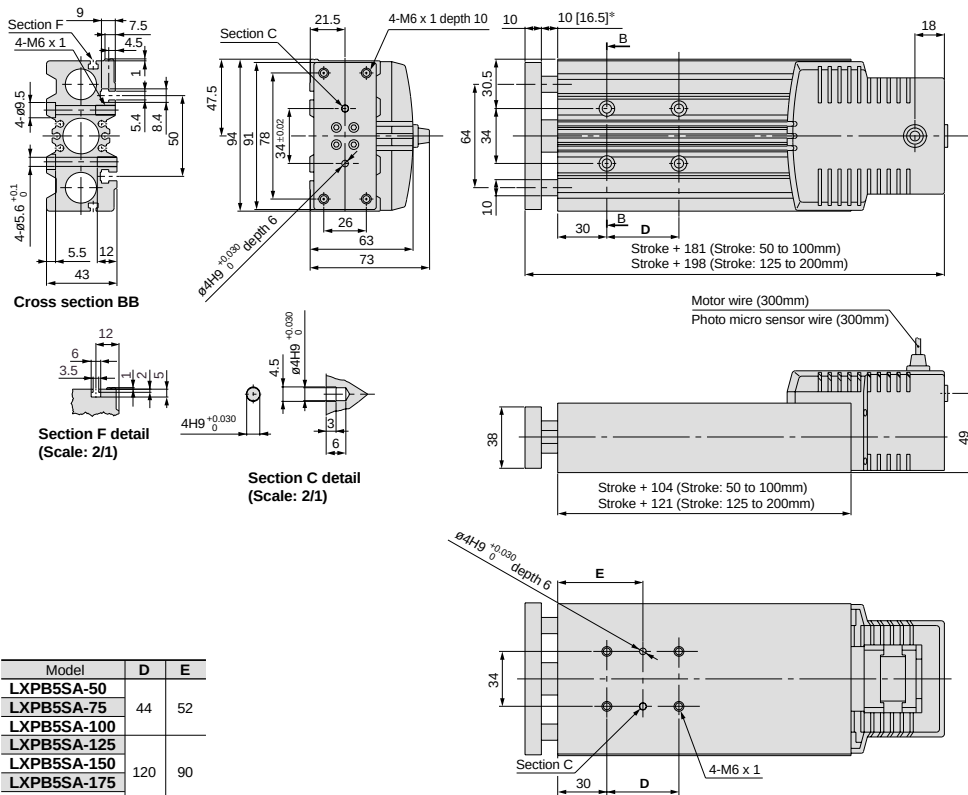
Refer to page 304 for deflection data.

5 Phase Stepper Motor/Without Motor Brake *Series LXP*

Dimensions/LXPB5SA

Scale: 30%

* The dimension inside [] shows the location at which the home position switch operates.



Model	D	E
LXPB5SA-50	44	52
LXPB5SA-75		
LXPB5SA-100		
LXPB5SA-125	120	90
LXPB5SA-150		
LXPB5SA-175		
LXPB5SA-200		

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

Positioning distance (mm)	Positioning time (sec)					
	1	10	50	100	200	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

For transfer load of 2kg

Positioning distance (mm)	Positioning time (sec)					
	1	10	50	100	200	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

Refer to page 302 for acceleration time.

For transfer load of 4kg

Positioning distance (mm)	Positioning time (sec)					
	1	10	50	100	200	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

5 Phase Stepper Motor

Without Motor Brake

Guide Rod Type

Series LXP

Ball
Bushing

Slide Screw
ø8mm/12mm lead

How to Order

LXPB5 **SB** — Stroke **S** — F9N **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	2 horizontal/2 vertical ^{Note 1)}						
	Speed	mm/s	to 200 ^{Note 2)}						
	Positioning repeatability	mm	±0.05						
Main parts	Motor	5 phase stepper motor (without brake)							
	Lead screw	Slide screw ø8mm, 12mm lead							
	Guide	Ball bushing							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-507AD (Refer to page 306 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

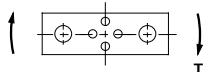
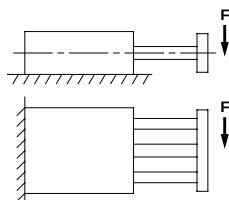
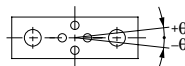
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°



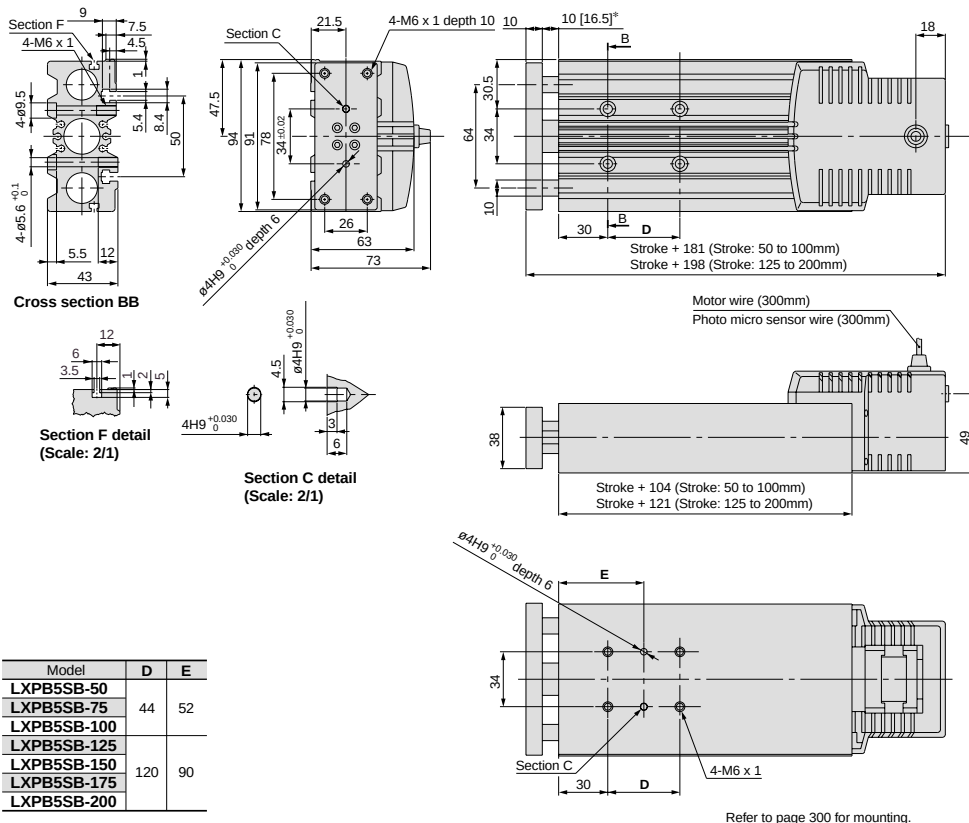
Refer to page 304 for deflection data.

5 Phase Stepper Motor/Without Motor Brake *Series LXP*

Dimensions/LXPB5SB

Scale: 30%

* The dimension inside [] shows the location at which the home position switch operates.



Model	D	E
LXPB5SB-50	44	52
LXPB5SB-75		
LXPB5SB-100		
LXPB5SB-125		
LXPB5SB-150	120	90
LXPB5SB-175		
LXPB5SB-200		

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	200	
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1	
	100	0.1	0.2	0.6	1.1	2.1	
	200	0.1	0.1	0.3	0.6	1.1	

For transfer load of 1kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	200	
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1	
	100	0.1	0.2	0.6	1.1	2.1	
	200	0.1	0.1	0.3	0.6	1.1	

Refer to page 302 for acceleration time.

For transfer load of 2kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	200	
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1	
	100	0.1	0.2	0.6	1.1	2.1	
	200	0.1	0.1	0.3	0.6	1.1	

5 Phase Stepper Motor**With Motor Brake****Guide Rod Type****Series LXP****Ball
Bushing****Ball Screw**
Ø8mm/2mm lead**How to Order**

LXPB5 BC — **Stroke** **S** **B** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

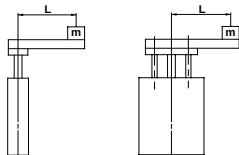
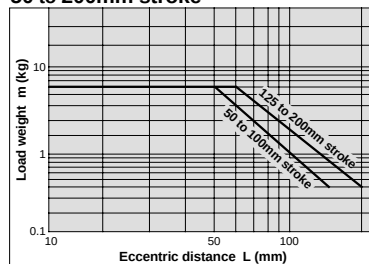
Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 30 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts	Motor		5 phase stepper motor (with brake)						
	Lead screw		Ball screw ø8mm, 2mm lead						
	Guide		Ball bushing						
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
Power consumption		5W							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-507AD (Details on page 306)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Lifter Operation Range

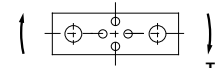
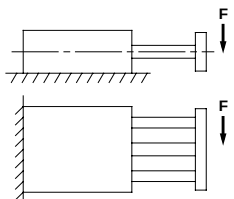
This is the operating range for ball bushings.
Use within the allowable thrust range.

**50 to 200mm stroke****Operating Conditions****Allowable lateral load (F)**

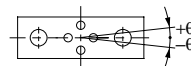
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

Allowable plate rotation torque (T)

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

**Plate non-rotating accuracy (θ)**

Non-rotating accuracy (θ)
±0.09°

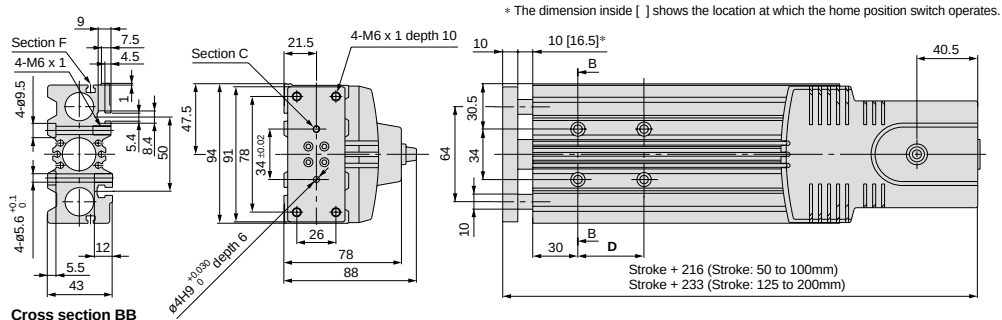


Refer to page 304 for deflection data.

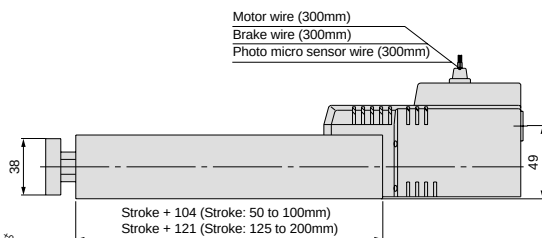
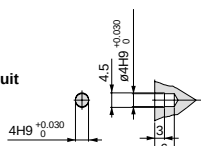
5 Phase Stepper Motor/With Motor Brake *Series LXP*

Dimensions/LXPB5BC

Scale: 30%

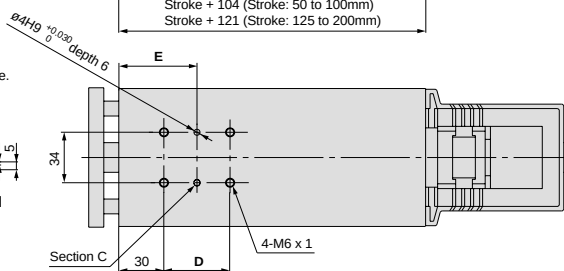
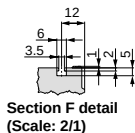


Brake electrical circuit



Note) A contact protection circuit is required when connecting a brake.

Model	D	E
LXPB5BC-50□B	44	52
LXPB5BC-75□B		
LXPB5BC-100□B		
LXPB5BC-125□B		
LXPB5BC-150□B	120	90
LXPB5BC-175□B		
LXPB5BC-200□B		



Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

For transfer load of 2.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

5 Phase Stepper Motor**With Motor Brake****Guide Rod Type****Series LXP****Ball
Bushing****Ball Screw**
ø8mm/5mm lead**How to Order****LXPB5 BD—Stroke S B—F9N 1**

Home position switch	
Nil	None
S	Yes (cable length 0.3m)

Auto switch type	
Nil	None

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

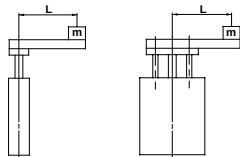
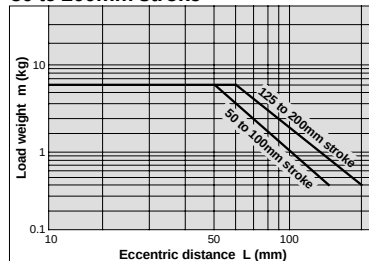
Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

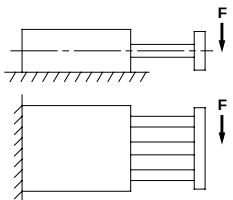
Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 80 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts	Motor		5 phase stepper motor (with brake)						
	Lead screw		Ball screw ø8mm, 5mm lead						
	Guide		Ball bushing						
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
	Power consumption		5W						
Home position switch	Model		Photo micro sensor EE-SX673						
Driver	Model		LC6D-507AD (Refer to page 306 for details.)						

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

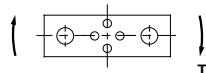
Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Lifter Operation RangeThis is the operating range for ball bushings.
Use within the allowable thrust range.**50 to 200mm stroke****Operating Conditions****Allowable lateral load (F)**

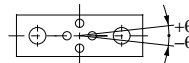
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

**Allowable plate rotation torque (T)**

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

**Plate non-rotating accuracy (θ)**

Non-rotating accuracy (θ)
±0.09°

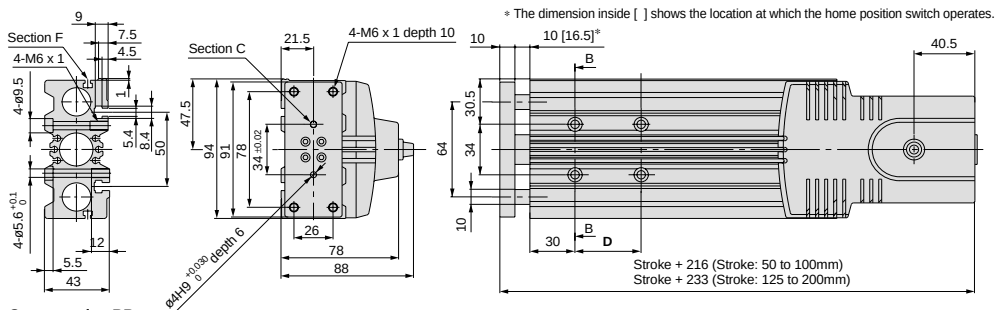


Refer to page 304 for deflection data.

5 Phase Stepper Motor/With Motor Brake *Series LXP*

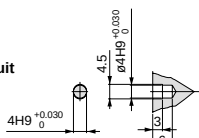
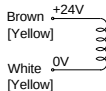
Dimensions/LXPB5BD

Scale: 30%



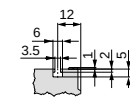
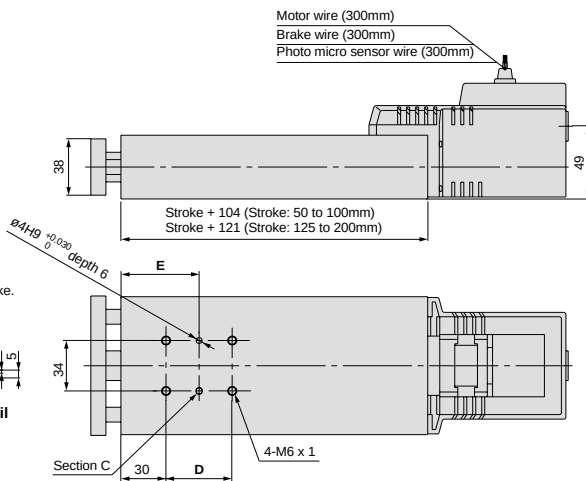
Cross section BB

Brake electrical circuit

Section C detail
(Scale: 2/1)

Note) A contact protection circuit is required when connecting a brake.

Model	D	E
LXPB5BD-50□B	44	52
LXPB5BD-75□B		
LXPB5BD-100□B		
LXPB5BD-125□B	120	90
LXPB5BD-150□B		
LXPB5BD-175□B		
LXPB5BD-200□B		

Section F detail
(Scale: 2/1)

Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

For transfer load of 2.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

5 Phase Stepper Motor**With Motor Brake****Guide Rod Type****Series LXP****Ball
Bushing****Slide Screw**
ø8mm/6mm lead**How to Order**

LXPB5 SA — **Stroke** **S** **B** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

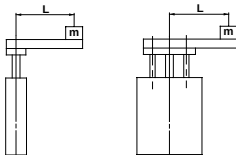
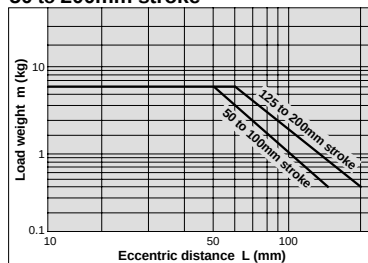
Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	4 horizontal/4 vertical Note 1)						
	Speed	mm/s	to 100 Note 2)						
	Positioning repeatability	mm	±0.05						
Main parts	Motor		5 phase stepper motor (with brake)						
	Lead screw		Slide screw ø8mm, 6mm lead						
	Guide		Ball bushing						
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
Power consumption		5W							
Home position switch	Model		Photo micro sensor EE-SX673						
Driver	Model		LC6D-507AD (Refer to page 306 for details.)						

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

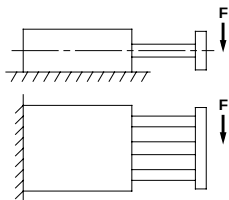
Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Lifter Operation Range

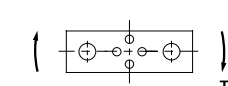
This is the operating range for ball bushings. Use within the allowable thrust range.

**50 to 200mm stroke****Operating Conditions****Allowable lateral load (F)**

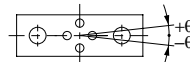
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

**Allowable plate rotation torque (T)**

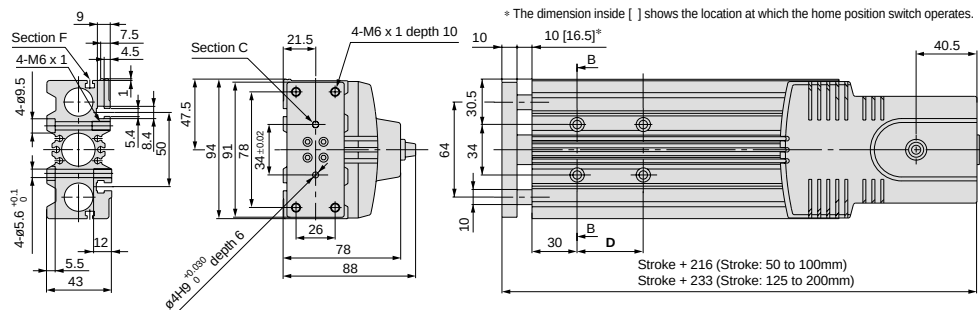
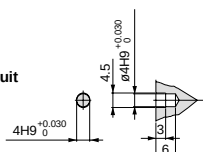
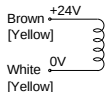
Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

**Plate non-rotating accuracy (θ)**

Non-rotating accuracy (θ)
±0.09°

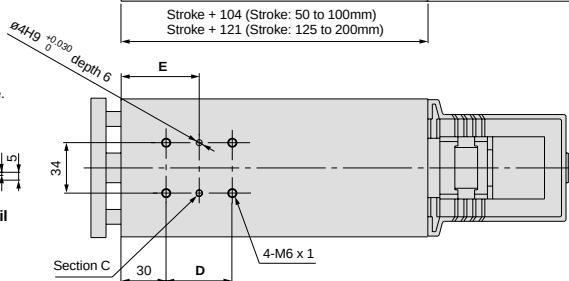
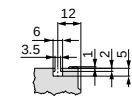


Refer to page 304 for deflection data.

Dimensions/LXPB5SA**Scale: 30%****Cross section BB****Brake electrical circuit**

Note) A contact protection circuit is required when connecting a brake.

Model	D	E
LXPB5SA-50□B	44	52
LXPB5SA-75□B		
LXPB5SA-100□B		
LXPB5SA-125□B	120	90
LXPB5SA-150□B		
LXPB5SA-175□B		
LXPB5SA-200□B		



Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)**For transfer load of 0kg**

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

For transfer load of 2kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1

Refer to page 302 for acceleration time.

For transfer load of 4kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.3	0.7	1.2	2.2

5 Phase Stepper Motor**With Motor Brake****Guide Rod Type****Series LXP****Ball
Bushing****Slide Screw****ø8mm/12mm lead****How to Order**

LXPB5 SB—Stroke S B—F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None
-----	------

Refer to the table on the right for auto switch part numbers.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Specifications

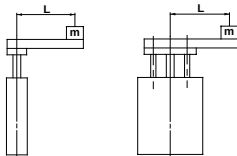
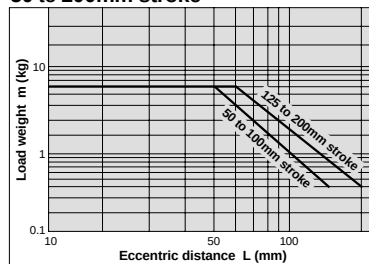
Standard stroke		mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	2 horizontal/2 vertical Note 1)						
	Speed	mm/s	to 200 Note 2)						
	Positioning repeatability	mm	±0.05						
Main parts	Motor	5 phase stepper motor (with brake)							
	Lead screw	Slide screw ø8mm, 12mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque	0.1N·m or more						
		Rated voltage	24VDC ±5%						
Power consumption		5W							
Home position switch	Model	Photo micro sensor EE-SX673							
Driver	Model	LC6D-507AD (Refer to page 306 for details.)							

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

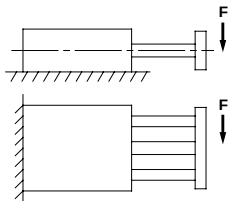
Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

Lifter Operation Range

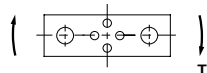
This is the operating range for ball bushings. Use within the allowable thrust range.

**50 to 200mm stroke****Operating Conditions****Allowable lateral load (F)**

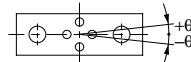
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

**Allowable plate rotation torque (T)**

Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

**Plate non-rotating accuracy (θ)**

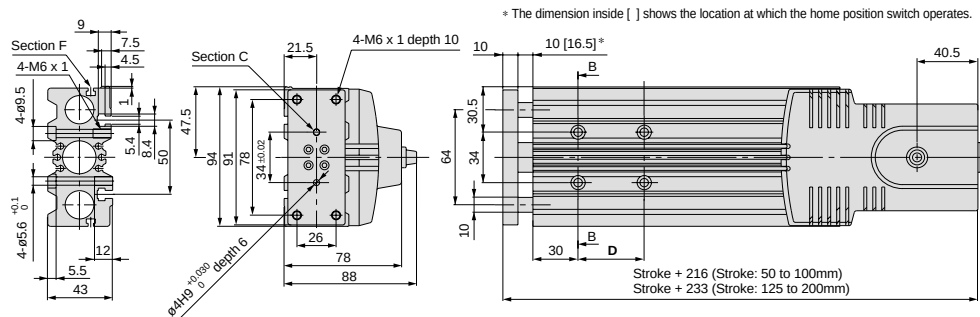
Non-rotating accuracy (θ)
±0.09°



Refer to page 304 for deflection data.

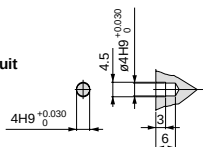
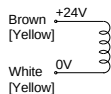
Dimensions/LXPB5SB

Scale: 30%



Cross section BB

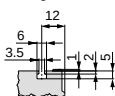
Brake electrical circuit



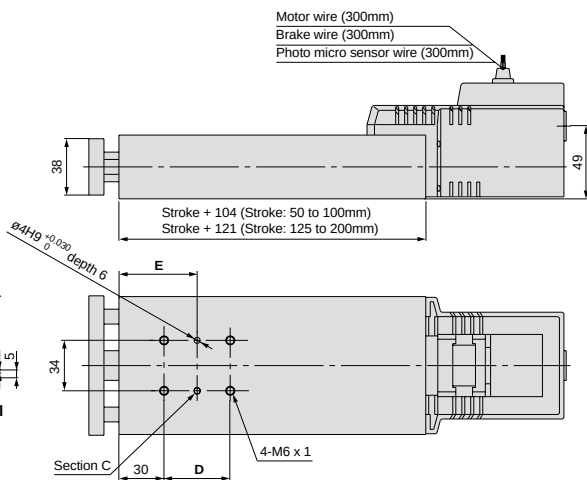
Section C detail
(Scale: 2/1)

Note) A contact protection circuit is required when connecting a brake.

Model	D	E
LXPB5SB-50□B	44	52
LXPB5SB-75□B		
LXPB5SB-100□B		
LXPB5SB-125□B	120	90
LXPB5SB-150□B		
LXPB5SB-175□B		
LXPB5SB-200□B		



Section F detail
(Scale: 2/1)



Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

For transfer load of 1kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

Refer to page 302 for acceleration time.

For transfer load of 2kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	50	0.1	0.2	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.2	0.4	0.6	1.1

2 Phase Stepper Motor**High Rigidity Slide Table Type****Without Motor Brake****Series LXS**High Rigidity
Direct Acting
Guide**Ball Screw****ø8mm/2mm lead****How to Order****LXSH2 BC Stroke S F9N 1****Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2**Specifications**

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10 (4) horizontal/5 (4) vertical ^{Note 1)}				
	Speed	mm/s	to 30 ^{Note 2)}				
	Positioning repeatability	mm	±0.03				
Main parts	Motor	2 phase stepper motor (without brake)					
	Lead screw	Ball screw ø8mm, 2mm lead					
	Guide	High rigidity direct acting guide					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-220AD (Refer to page 306 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

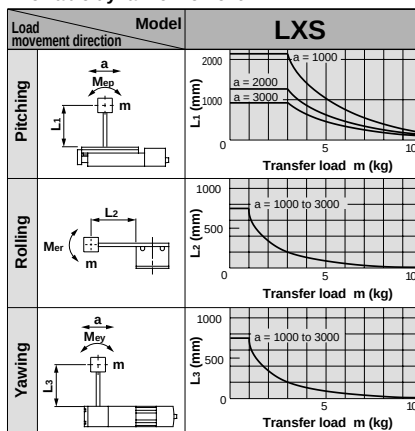
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
 L : Overhang to work piece center of gravity (mm)
 a : Work piece acceleration (mm/sec²)
 Me : Dynamic moment

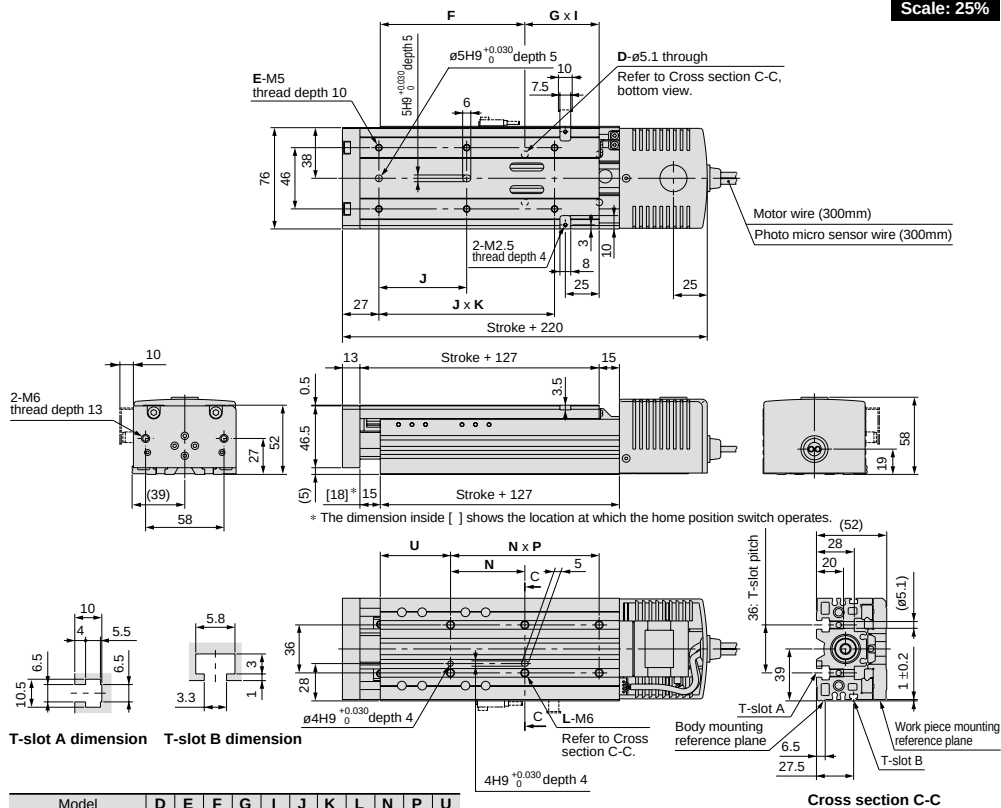
Allowable dynamic moment

Refer to page 304 for deflection data.

2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2BC

Scale: 25%



T-slot A dimension T-slot B dimension

Cross section C-C

Model	D	E	F	G	I	J	K	L	N	P	U
LXSH2BC-50	4	6	107	55	1	65	2	6	55	2	52
LXSH2BC-75	4	6	112	65	1	75	2	6	65	2	47
LXSH2BC-100	4	8	122	75	1	65	3	6	75	2	47
LXSH2BC-125	4	8	132	85	1	70	3	6	85	2	47
LXSH2BC-150	6	8	112	65	2	75	3	8	65	3	47

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)					
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150	
	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

For transfer load of 5kg

		Positioning time (sec)					
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150	
	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

Refer to page 303 for acceleration time.

For transfer load of 10kg

		Positioning time (sec)					
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150	
	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

2 Phase Stepper Motor

High Rigidity Slide Table Type

Without Motor Brake

Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw

ø8mm/5mm lead

How to Order

LXSH2 **BD** — **Stroke** **S** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10 (4) horizontal/5 (4) vertical ^{Note 1)}				
	Speed	mm/s	to 80 ^{Note 2)}				
	Positioning repeatability	mm	±0.03				
Main parts	Motor	2 phase stepper motor (without brake)					
	Lead screw	Ball screw ø8mm, 5mm lead					
	Guide	High rigidity direct acting guide					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-220AD (Refer to page 306 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 309 details.)					

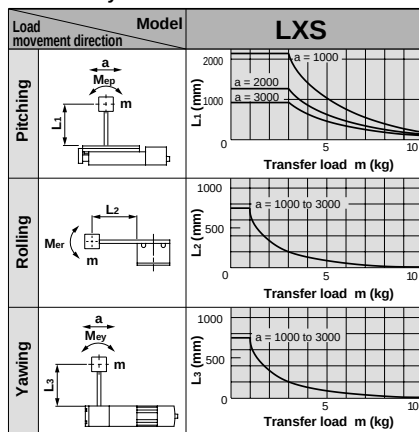
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment

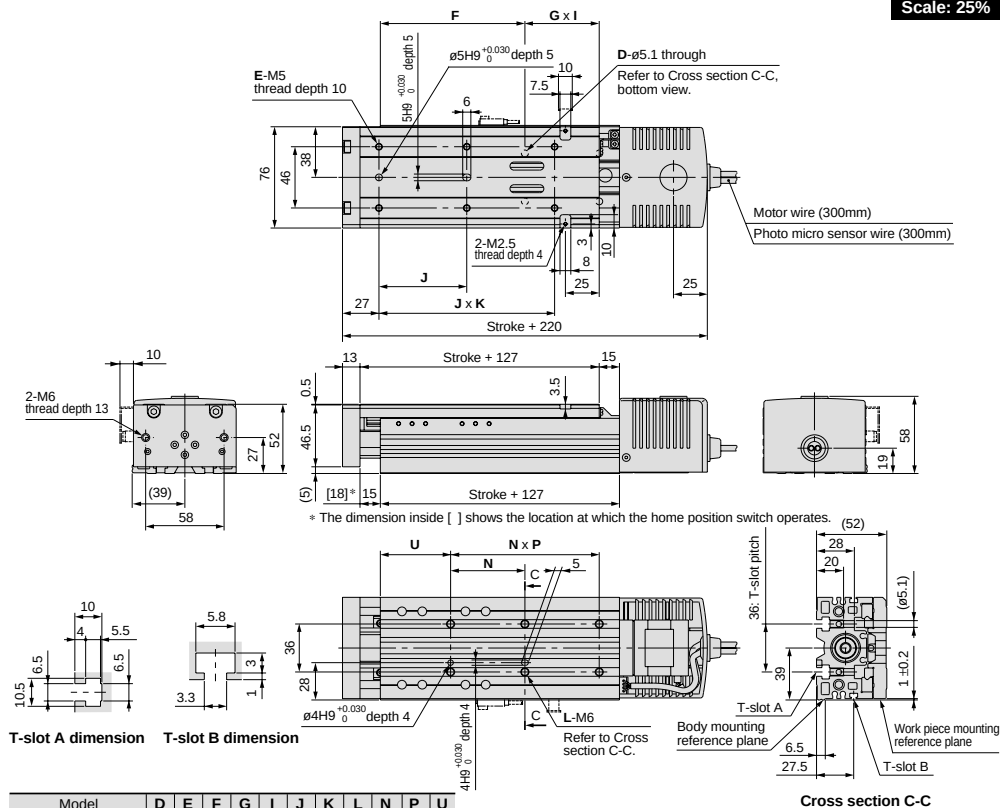


Refer to page 304 for deflection data.

2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2BD

Scale: 25%



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH2BD-50	4	6	107	55	1	65	2	6	55	2	52
LXSH2BD-75	4	6	112	65	1	75	2	6	65	2	47
LXSH2BD-100	4	8	122	75	1	65	3	6	75	2	47
LXSH2BD-125	4	8	132	85	1	70	3	6	85	2	47
LXSH2BD-150	6	8	112	65	2	75	3	8	65	3	47

Cross section C-C

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.4	0.2	0.7	1.3	1.9

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	1.9

Refer to page 303 for acceleration time.

For transfer load of 10kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	1.9

2 Phase Stepper Motor

Without Motor Brake

High Rigidity Slide Table Type

Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
ø8mm/6mm lead

How to Order

LXSH2 SA — **Stroke** **S** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.

Example) F9N1G2

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	9 (4) horizontal/4 (4) vertical ^{Note 1)}				
	Speed	mm/s	to 100 ^{Note 2)}				
	Positioning repeatability	mm	±0.05				
Main parts	Motor	2 phase stepper motor (without brake)					
	Lead screw	Slide screw ø8mm, 6mm lead					
	Guide	High rigidity direct acting guide					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-220AD (Refer to page 306 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

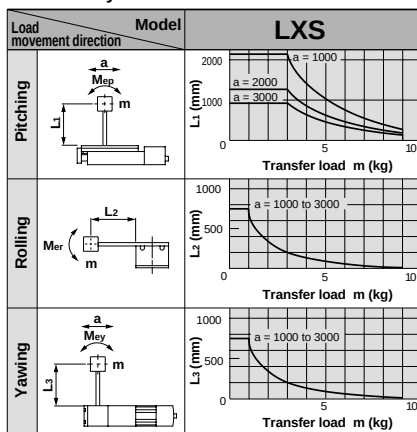
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment

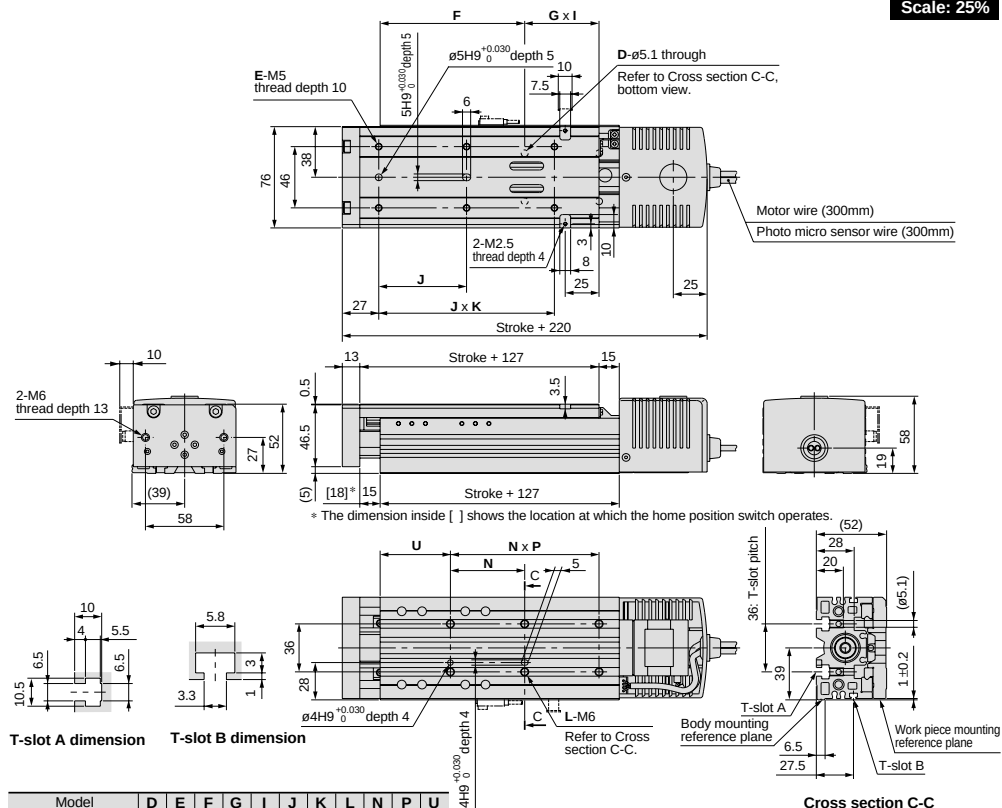


Refer to page 304 for deflection data.

2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2SA

Scale: 25%



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH2SA-50	4	6	107	55	1	65	2	6	55	2	52
LXSH2SA-75	4	6	112	65	1	75	2	6	65	2	47
LXSH2SA-100	4	8	122	75	1	65	3	6	75	2	47
LXSH2SA-125	4	8	132	85	1	70	3	6	85	2	47
LXSH2SA-150	6	8	112	65	2	75	3	8	65	3	47

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

Positioning distance (mm)		Positioning time (sec)					
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	50	0.1	0.3	1.1	2.1	3.1	
	100	0.1	0.2	0.6	1.1	1.6	

For transfer load of 4.5kg

Positioning distance (mm)		Positioning time (sec)					
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	50	0.1	0.3	1.1	2.1	3.1	
	100	0.1	0.2	0.6	1.1	1.6	

Refer to page 302 for acceleration time.

For transfer load of 9kg

Positioning distance (mm)		Positioning time (sec)					
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	50	0.1	0.3	1.1	2.1	3.1	
	100	0.1	0.2	0.6	1.1	1.6	

2 Phase Stepper Motor

Without Motor Brake

High Rigidity Slide Table Type

Series **LXS**High Rigidity
Direct Acting
GuideSlide Screw
Ø8mm/12mm lead

How to Order

LXSH2 SB — **Stroke** **S** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	4.5 (4) horizontal/2 (2) vertical ^{Note 1)}				
	Speed	mm/s	to 200 ^{Note 2)}				
	Positioning repeatability	mm	±0.05				
Main parts	Motor	2 phase stepper motor (without brake)					
	Lead screw	Slide screw ø8mm, 12mm lead					
	Guide	High rigidity direct acting guide					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-220AD (Refer to page 306 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)					

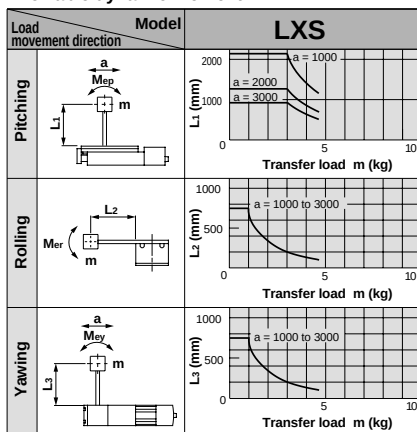
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
 L : Overhang to work piece center of gravity (mm)
 a : Work piece acceleration (mm/sec²)
 Me : Dynamic moment

Allowable dynamic moment

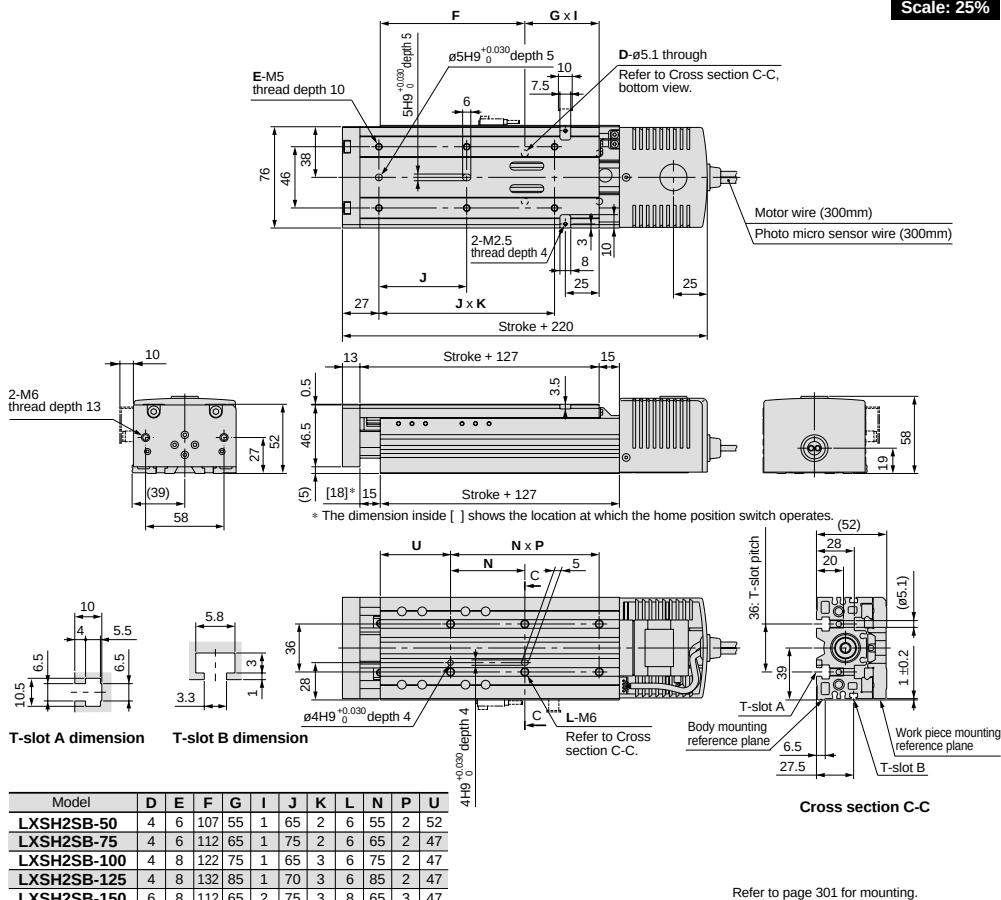


Refer to page 304 for deflection data.

2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2SB

Scale: 25%



Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.1	0.3	0.6	0.8

For transfer load of 2.5kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.1	0.3	0.6	0.8

Refer to page 302 for acceleration time.

For transfer load of 4.5kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.2	0.4	0.6	0.9

2 Phase Stepper Motor

High Rigidity Slide Table Type

With Motor Brake

Series **LXS**

High Rigidity
Direct Acting
Guide

Ball Screw
ø8mm/2mm lead

How to Order

LXSH2 BC — **Stroke** **S** **B** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	2.1	2.3	2.5	2.7	2.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10 (4) horizontal/5 (4) vertical ^{Note 1)}				
	Speed	mm/s	to 30 ^{Note 2)}				
	Positioning repeatability	mm	±0.03				
Main parts	Motor		2 phase stepper motor (with brake)				
	Lead screw		Ball screw ø8mm, 2mm lead				
	Guide		High rigidity direct acting guide				
	Electromagnetic brake	Model	De-energized operating type				
		Static torque	0.1N·m or more				
		Rated voltage	24VDC ±5%				
		Power consumption	5W				
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-220AD (Refer to page 306 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)					

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

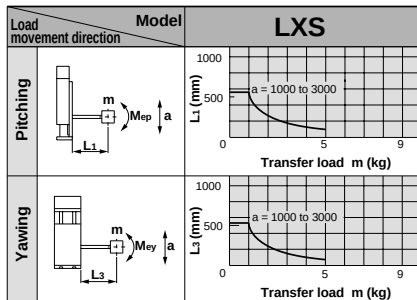
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment

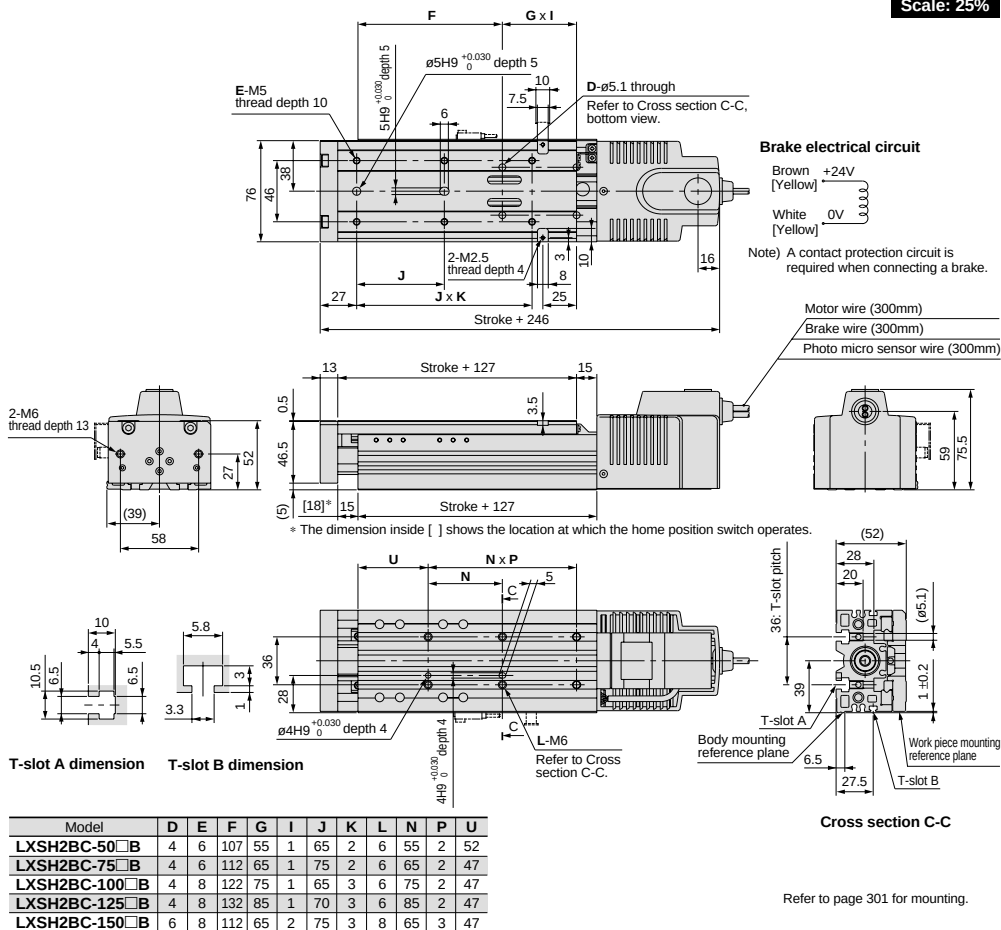


Refer to page 304 for deflection data.

2 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH2BC

Scale: 25%



Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

For transfer load of 2.5kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	200	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

2 Phase Stepper Motor

With Motor Brake

High Rigidity Slide Table Type

Series LX_S

High Rigidity
Direct Acting
Guide

Ball Screw

ø8mm/5mm lead

How to Order

LXSH2 **BD** — Stroke **S** B — F9N **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	2.1	2.3	2.5	2.7	2.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10 (4) horizontal/5 (4) vertical Note 1)				
	Speed	mm/s	to 80 Note 2)				
	Positioning repeatability	mm	±0.03				
Main parts	Motor		2 phase stepper motor (with brake)				
	Lead screw		Ball screw ø8mm, 5mm lead				
	Guide		High rigidity direct acting guide				
	Electromagnetic brake	Model	De-energized operating type				
		Static torque	0.1N·m or more				
		Rated voltage	24VDC ±5%				
	Power consumption	5 W					
Home position switch	Model		Photo micro sensor EE-SX673				
Driver	Model		LC6D-220AD (Refer to page 306 for details.)				
Positioning driver	Model		LC6C-220AD (Refer to page 309 for details.)				

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/PNP	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/PNP	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

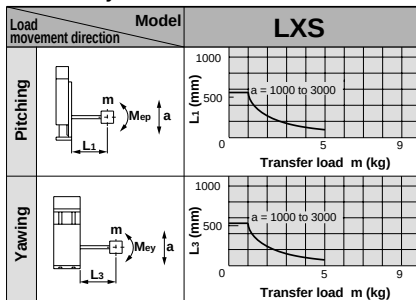
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me: Dynamic moment

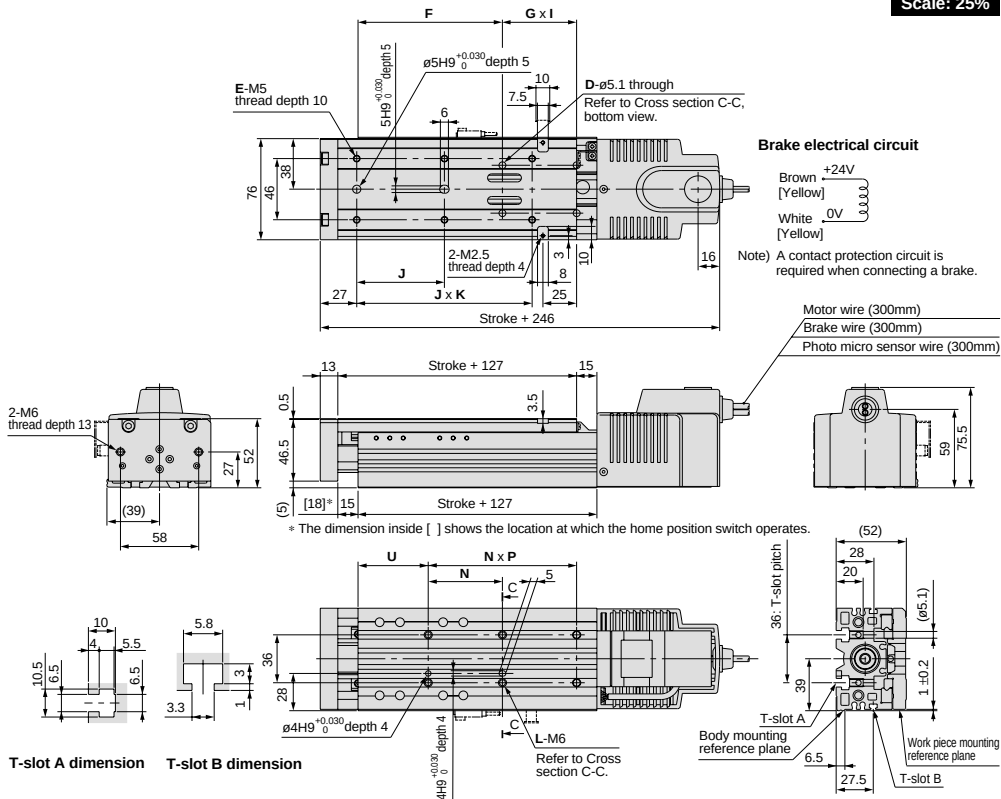
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2BD

Scale: 25%



Cross section C-C

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	1.9

For transfer load of 2.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	100
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	2.0

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.1	1	5	10	20
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

2 Phase Stepper Motor**High Rigidity Slide Table Type****With Motor Brake****Series LXS**High Rigidity
Direct Acting
GuideSlide Screw
ø8mm/6mm lead**How to Order****LXSH2 SA—Stroke S B—F9N 1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.

Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.O. (A contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	2.1	2.3	2.5	2.7	2.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	9 (4) horizontal/4 (4) vertical ^{Note 1)}				
	Speed	mm/s	to 100 ^{Note 2)}				
	Positioning repeatability	mm	±0.05				
Main parts	Motor		2 phase stepper motor (with brake)				
	Lead screw		Slide screw ø8mm, 6mm lead				
	Guide		High rigidity direct acting guide				
	Electromagnetic brake	Model	De-energized operating type				
		Static torque	0.1N·m or more				
		Rated voltage	24VDC ±5%				
Power consumption		5W					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-220AD (Refer to page 306 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)					

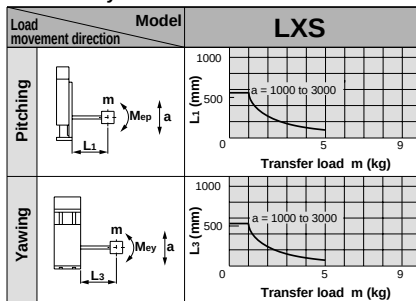
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
 L : Overhang to work piece center of gravity (mm)
 a : Work piece acceleration (mm/sec²)
 Me : Dynamic moment

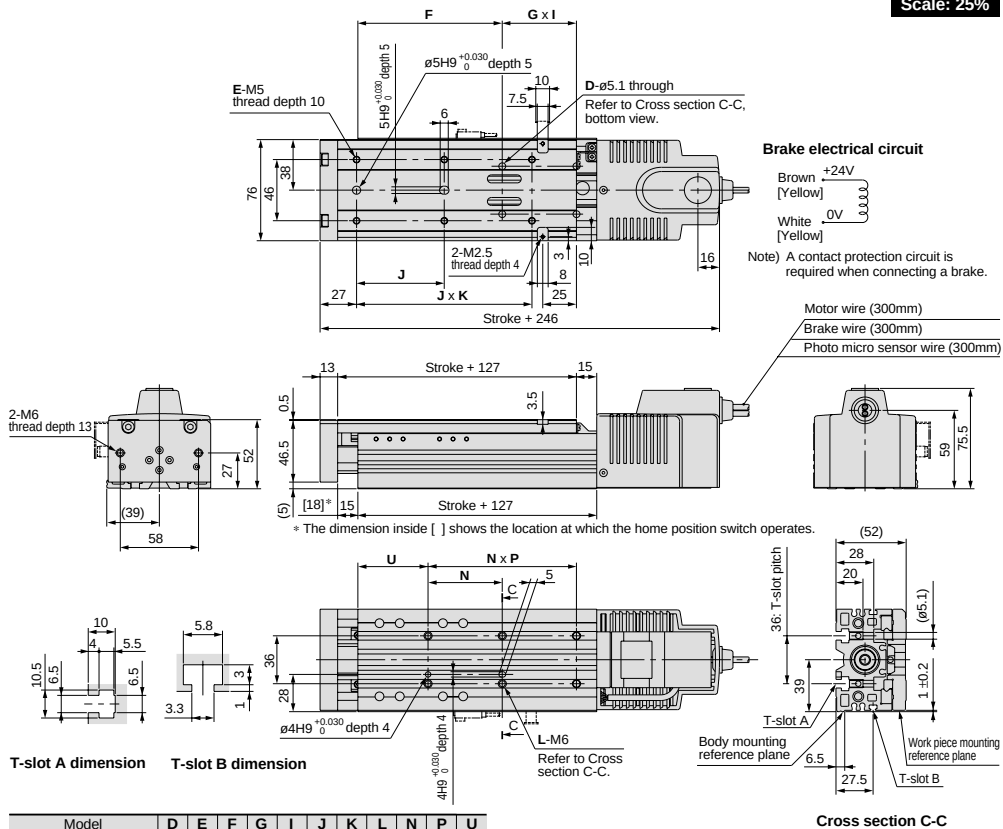
Allowable dynamic moment

Refer to page 304 for deflection data.

2 Phase Stepper Motor/With Motor Brake *Series LX*

Dimensions/LXSH2SA

Scale: 25%



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH2SA-50□B	4	6	107	55	1	65	2	6	55	2	52
LXSH2SA-75□B	4	6	112	65	1	75	2	6	65	2	47
LXSH2SA-100□B	4	8	122	75	1	65	3	6	75	2	47
LXSH2SA-125□B	4	8	132	85	1	70	3	6	85	2	47
LXSH2SA-150□B	6	8	112	65	2	75	3	8	65	3	47

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6

For transfer load of 2kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6

Refer to page 302 for acceleration time.

For transfer load of 4kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6

2 Phase Stepper Motor

With Motor Brake

High Rigidity Slide Table Type

Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw

ø8mm/12mm lead

How to Order

LXSH2 **SB** — Stroke **S** **B** — F9N **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	2.1	2.3	2.5	2.7	2.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	4.5 (4) horizontal/2 (2) vertical ^{Note 1)}				
	Speed	mm/s	to 200 ^{Note 2)}				
	Positioning repeatability	mm	±0.05				
Main parts	Motor		2 phase stepper motor (with brake)				
	Lead screw		Slide screw ø8mm, 12mm lead				
	Guide		High rigidity direct acting guide				
	Electromagnetic brake	Model	De-energized operating type				
		Static torque	0.1N·m or more				
		Rated voltage	24VDC ±5%				
Power consumption		5W					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-220AD (Refer to page 306 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 309 for details.)					

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

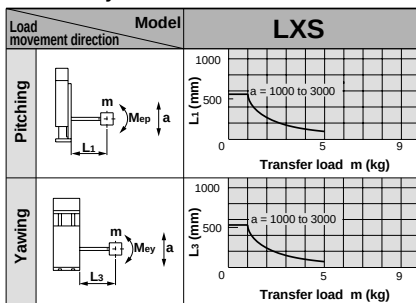
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

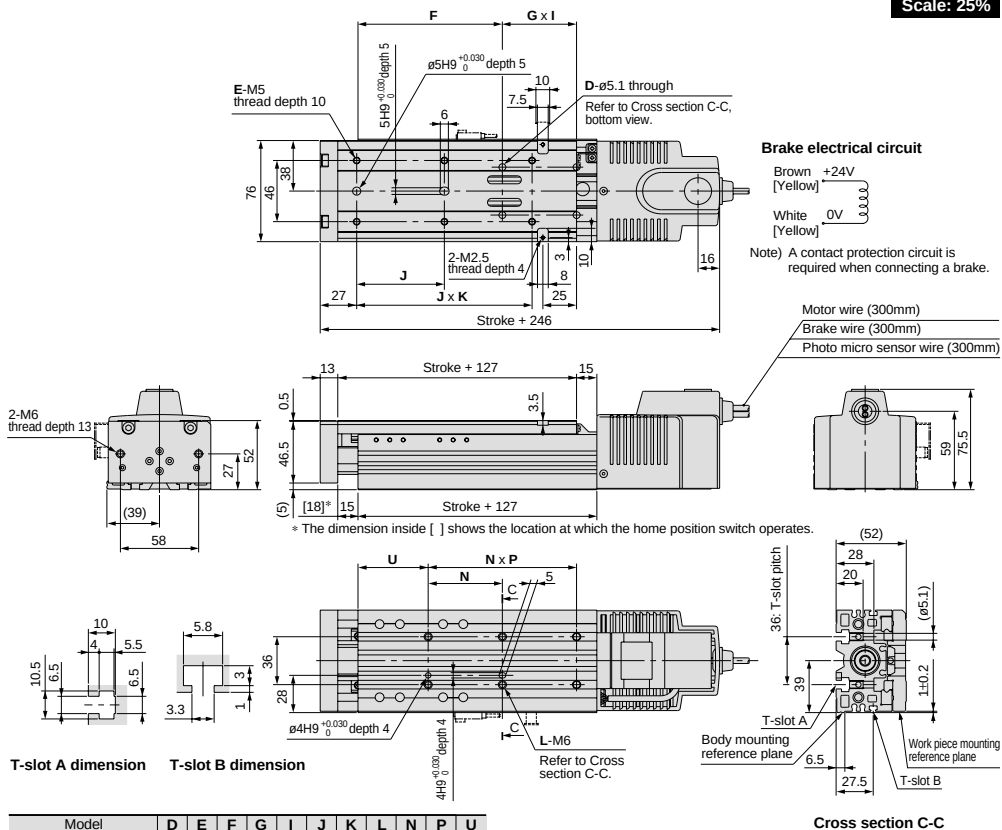
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2SB

Scale: 25%



Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

For transfer load of 1kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.1	0.3	0.6	1.1

Refer to page 302 for acceleration time.

For transfer load of 2kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	50	0.1	0.3	1.1	2.1	4.1
	100	0.1	0.2	0.6	1.1	2.1
	200	0.1	0.2	0.4	0.6	1.1

5 Phase Stepper Motor**High Rigidity Slide Table Type**High Rigidity
Direct Acting
Guide**Ball Screw****ø8mm/2mm lead****Without Motor Brake****Series LXS****How to Order****LXSH5 BC Stroke S F9N 1**

Home position switch	
Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2**Auto switch types**

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range °C		5 to 40 (with no condensation)				
	Work load	kg	10 (4) horizontal/5 (4) vertical Note 1)				
	Speed	mm/s	to 30 Note 2)				
	Positioning repeatability	mm	±0.03				
Main parts	Motor		5 phase stepper motor (without brake)				
	Lead screw		Ball screw ø8mm, 2mm lead				
	Guide		High rigidity direct acting guide				
Home position switch	Model		Photo micro sensor EE-SX673				
Driver	Model		LC6D-507AD (Refer to page 306 for details.)				

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

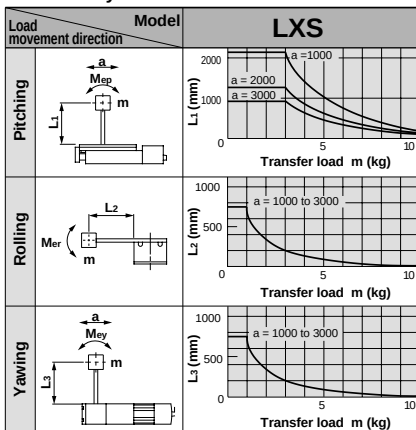
Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)

L : Overhang to work piece center of gravity (mm)

a : Work piece acceleration (mm/sec²)

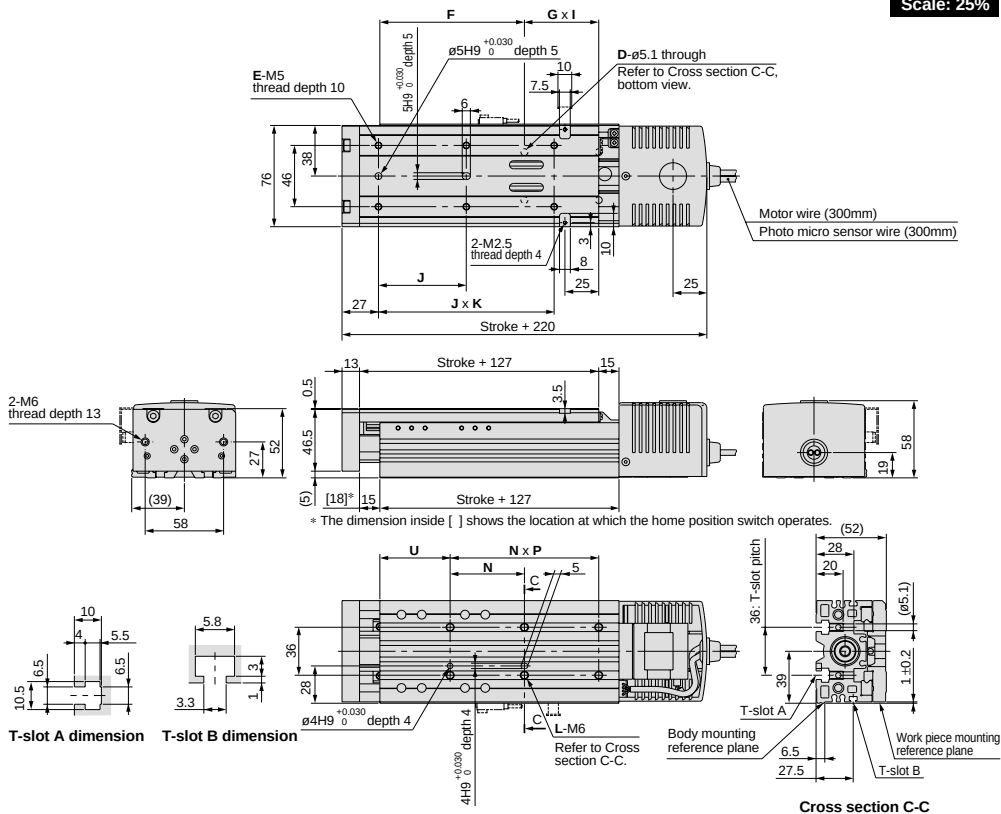
Me: Dynamic moment

Allowable dynamic moment

Refer to page 304 for deflection data.

Dimensions/LXSH5BC

Scale: 25%



Cross section C-C

Model	D	E	F	G	I	J	K	L	N	P	U
LXSH5BC-50	4	6	107	55	1	65	2	6	55	2	52
LXSH5BC-75	4	6	112	65	1	75	2	6	65	2	47
LXSH5BC-100	4	8	122	75	1	65	3	6	75	2	47
LXSH5BC-125	4	8	132	85	1	70	3	6	85	2	47
LXSH5BC-150	6	8	112	65	2	75	3	8	65	3	47

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	20	0.1	0.6	2.6	5.1	7.6
	30	0.1	0.4	1.7	3.4	5.1

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	20	0.1	0.6	2.6	5.1	7.6
	30	0.1	0.4	1.7	3.4	5.1

Refer to page 303 for acceleration time

For transfer load of 10kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	20	0.1	0.6	2.6	5.1	7.6
	30	0.1	0.4	1.7	3.4	5.1

5 Phase Stepper Motor**High Rigidity Slide Table Type**High Rigidity
Direct Acting
Guide**Ball Screw****ø8mm/5mm lead****Without Motor Brake****Series LXS****How to Order****LXSH5 BD Stroke S F9N 1****Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2**Auto switch types**

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10 (4) horizontal/5 (4) vertical ^{Note 1)}				
	Speed	mm/s	to 80 ^{Note 2)}				
	Positioning repeatability	mm	±0.03				
Main parts	Motor	5 phase stepper motor (without brake)					
	Lead screw	Ball screw ø8mm, 5mm lead					
	Guide	High rigidity direct acting guide					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-507AD (Refer to page 306 for details.)					

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

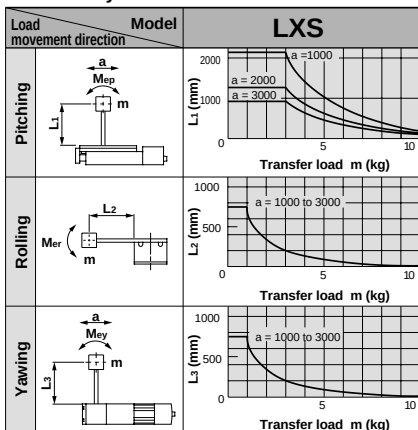
Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)

L : Overhang to work piece center of gravity (mm)

a : Work piece acceleration (mm/sec²)

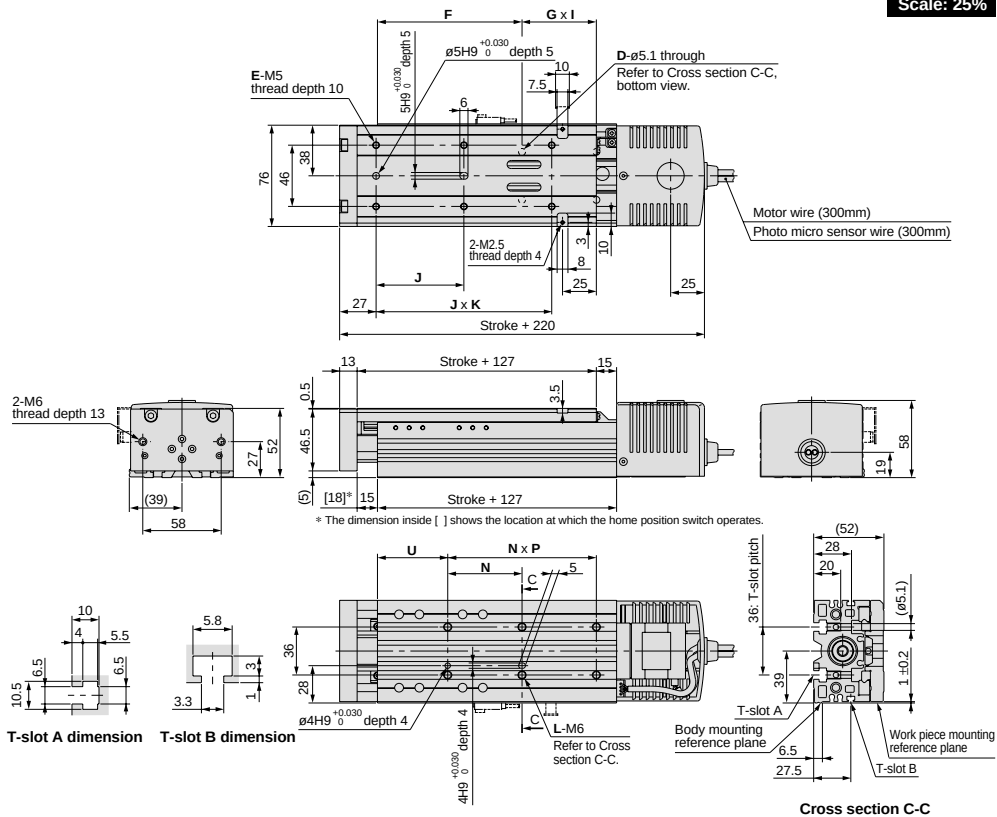
Me: Dynamic moment

Allowable dynamic moment

Refer to page 304 for deflection data.

Dimensions/LXSH5BD

Scale: 25%



Cross section C-C

Model	D	E	F	G	I	J	K	L	N	P	U
LXSH5BD-50	4	6	107	55	1	65	2	6	55	2	52
LXSH5BD-75	4	6	112	65	1	75	2	6	65	2	47
LXSH5BD-100	4	8	122	75	1	65	3	6	75	2	47
LXSH5BD-125	4	8	132	85	1	70	3	6	85	2	47
LXSH5BD-150	6	8	112	65	2	75	3	8	65	3	47

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	1.9

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	2.0

Refer to page 303 for acceleration time.

For transfer load of 10kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	2.0

5 Phase Stepper Motor**High Rigidity Slide Table Type**High Rigidity
Direct Acting
GuideSlide Screw
ø8mm/6mm lead**Without Motor Brake****Series LXS****How to Order****LXSH5 SA Stroke S F9N 1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2**Auto switch types**

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FUB	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

	Standard stroke	mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	6 (4) horizontal/2 (2) vertical Note 1)				
	Speed	mm/s	to 100 Note 2)				
	Positioning repeatability	mm	±0.05				
Main parts	Motor	5 phase stepper motor (without brake)					
	Lead screw	Slide screw ø8mm, 6mm lead					
	Guide	High rigidity direct acting guide					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-507AD (Refer to page 306 for details.)					

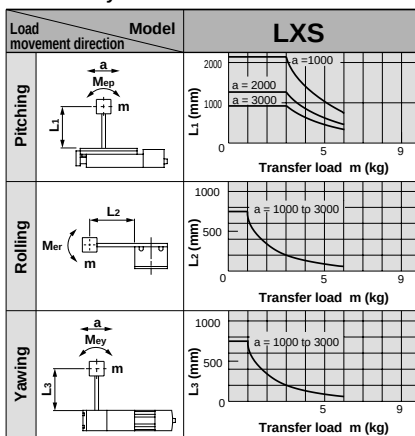
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

Pitching	15.7
Rolling	15.7
Yawing	7.84

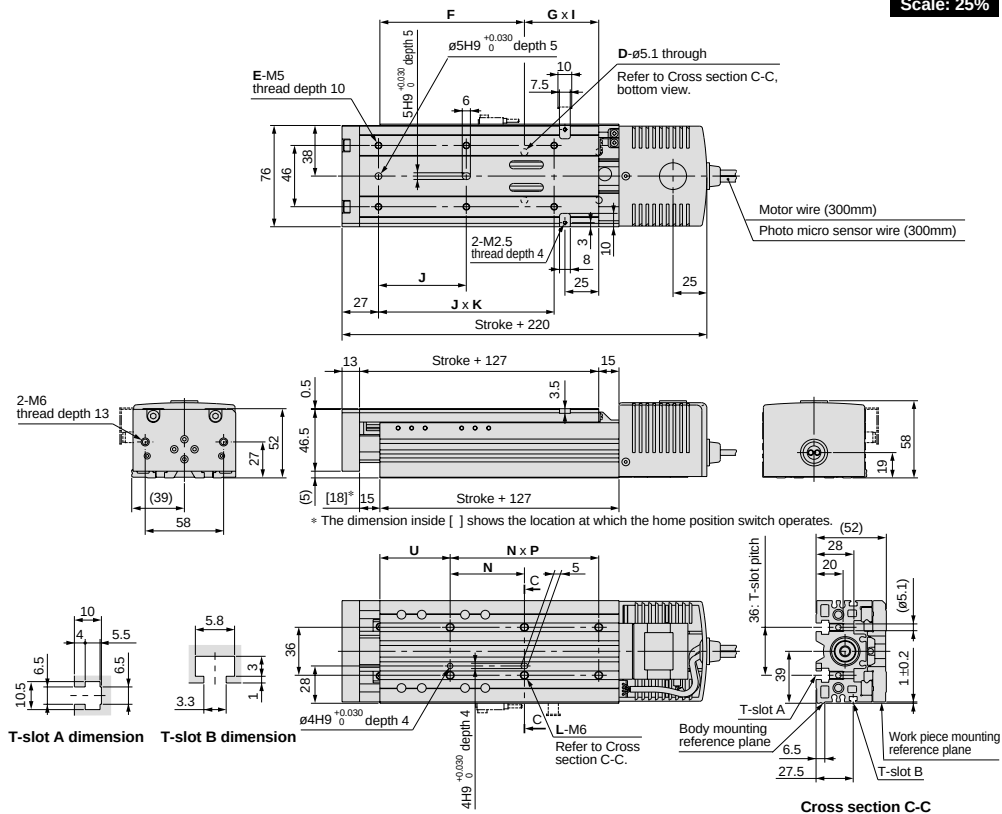
m : Transfer load (kg)
 L : Overhang to work piece center of gravity (mm)
 a : Work piece acceleration (mm/sec²)
 Me : Dynamic moment

Allowable dynamic moment

Refer to page 304 for deflection data.

Dimensions/LXSH5SA

Scale: 25%



Cross section C-C

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6

Refer to page 302 for acceleration time.

For transfer load of 6kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6

17

LGT

LC1

✕

LC6D/LC6

Switches

5 Phase Stepper Motor

Without Motor Brake

High Rigidity Slide Table Type

Series **LXS**High Rigidity
Direct Acting
Guide

Slide Screw

Ø8mm/12mm lead

How to Order

LXSH5 **SB** — Stroke **S** — F9N **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

	Standard stroke	mm	50	75	100	125	150
Performance	Body weight	kg	1.9	2.1	2.3	2.5	2.7
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	3 (3) horizontal/1 (1) vertical (Note 1)				
	Speed	mm/s	to 200 (Note 2)				
	Positioning repeatability	mm	±0.05				
Main parts	Motor	5 phase stepper motor (without brake)					
	Lead screw	Slide screw ø8mm, 12mm lead					
	Guide	High rigidity direct acting guide					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-507AD (Refer to page 306 for details.)					

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

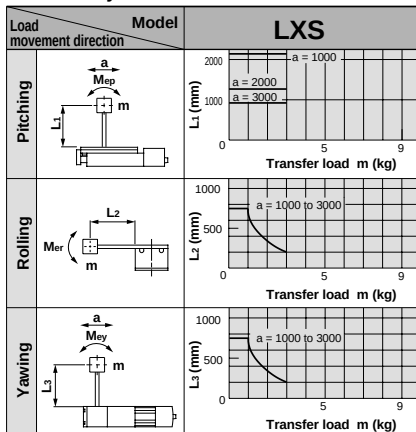
m : Transfer load (kg)

L : Overhang to work piece center of gravity (mm)

a : Work piece acceleration (mm/sec²)

Me: Dynamic moment

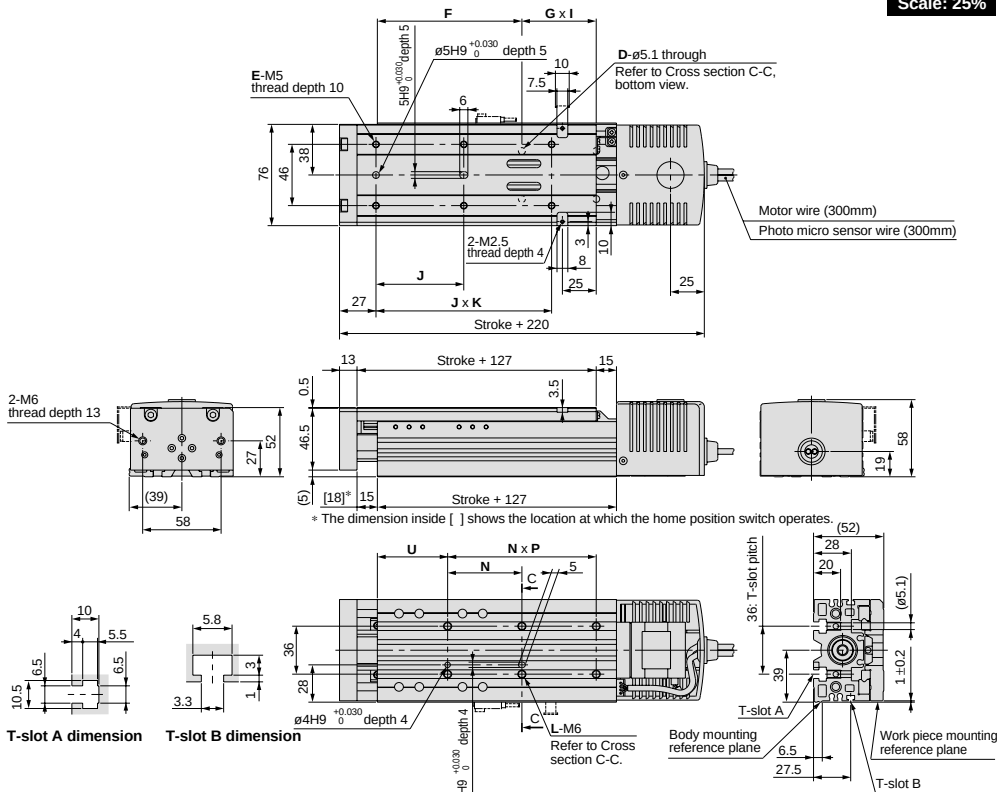
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5SB

Scale: 25%



Cross section C-C

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.1	0.3	0.6	0.8

For transfer load of 1.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.1	0.3	0.6	0.8

Refer to page 302 for acceleration time.

For transfer load of 3kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.2	0.4	0.6	0.9

5 Phase Stepper Motor

High Rigidity Slide Table Type

With Motor Brake

Series **LXS**

High Rigidity
Direct Acting
Guide

Ball Screw

ø8mm/2mm lead

How to Order

LXSH5 BC—Stroke S B—F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

	Standard stroke		mm	50	75	100	125	150	
Performance	Body weight		kg	2.1	2.3	2.5	2.7	2.9	
	Operating temperature range		°C	5 to 40 (with no condensation)					
	Work load		kg	10 (4) horizontal/5 (4) vertical Note 1)					
	Speed		mm/s	to 30 Note 2)					
	Positioning repeatability		mm	±0.03					
Main parts	Motor		5 phase stepper motor (with brake)						
	Lead screw		Ball screw ø8mm, 2mm lead						
	Guide		High rigidity direct acting guide						
	Electromagnetic brake	Model		De-energized operating type					
		Static torque		0.1N·m or more					
		Rated voltage		24VDC ±5%					
Power consumption		5 W							
Home position switch	Model		Photo micro sensor EE-SX673						
Driver	Model		LC6D-507AD (Refer to page 306 for details.)						

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

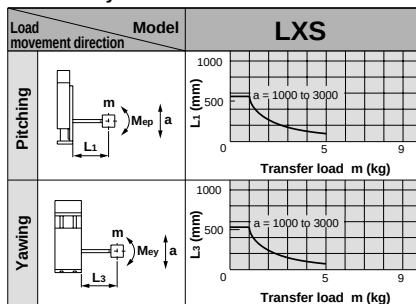
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment

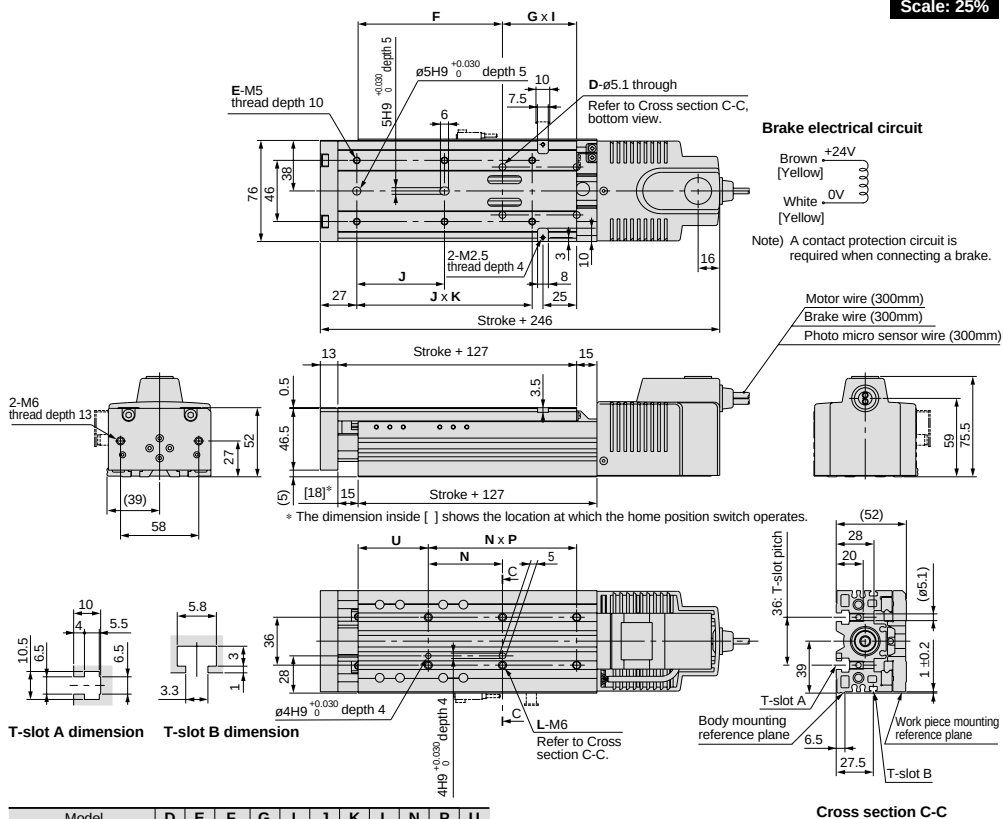


Refer to page 304 for deflection data.

5 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH5BC

Scale: 25%



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH5BC-50□B	4	6	107	55	1	65	2	6	55	2	52
LXSH5BC-75□B	4	6	112	65	1	75	2	6	65	2	47
LXSH5BC-100□B	4	8	122	75	1	65	3	6	75	2	47
LXSH5BC-125□B	4	8	132	85	1	70	3	6	85	2	47
LXSH5BC-150□B	6	8	112	65	2	75	3	8	65	3	47

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

For transfer load of 2.5kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	20	0.1	0.6	2.6	5.1	7.6	
	30	0.1	0.4	1.7	3.4	5.1	

5 Phase Stepper Motor

With Motor Brake

High Rigidity Slide Table Type

Series **LXS**High Rigidity
Direct Acting
Guide

Ball Screw

ø8mm/5mm lead

How to Order

LXSH5 **BD** — **Stroke** **S** **B** — **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	2.1	2.3	2.5	2.7	2.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10 (4) horizontal/5 (4) vertical ^{Note 1)}				
	Speed	mm/s	to 80 ^{Note 2)}				
	Positioning repeatability	mm	±0.03				
Main parts	Motor	5 phase stepper motor (with brake)					
	Lead screw	Ball screw ø8mm, 5mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque	0.1N·m or more				
		Rated voltage	24VDC ±5%				
Power consumption		5W					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-507AD (Refer to page 306 for details.)					

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

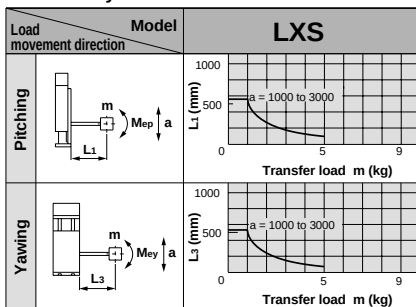
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

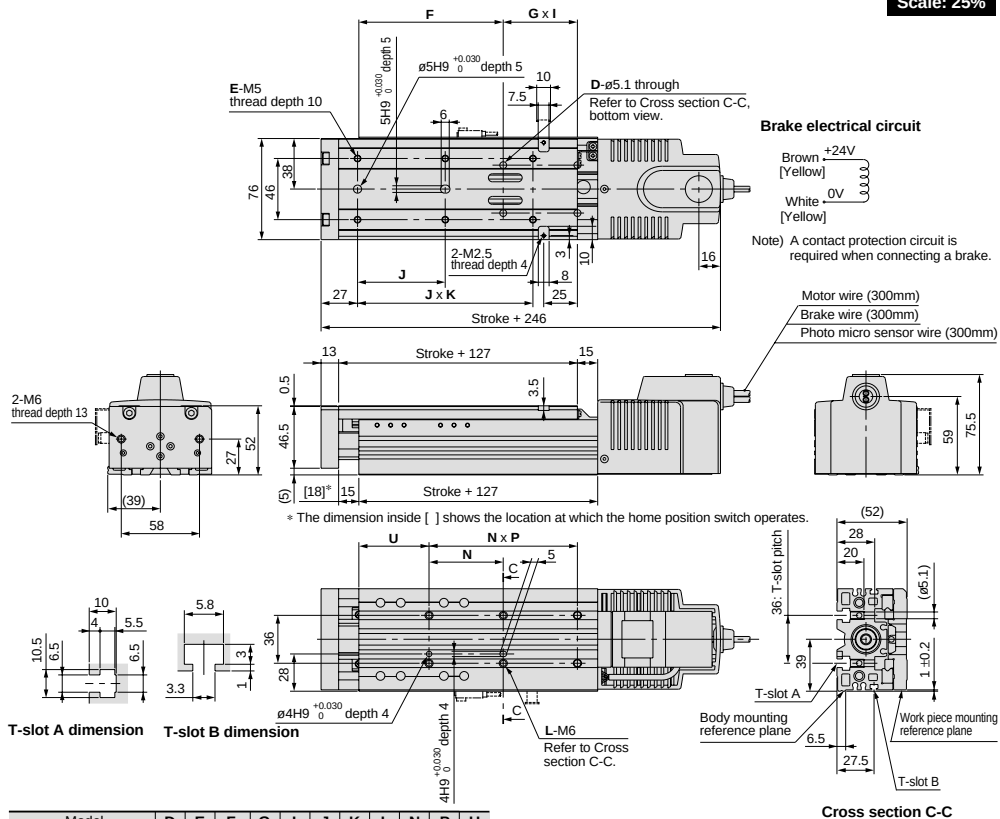
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5BD

Scale: 25%



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH5BD-50□B	4	6	107	55	1	65	2	6	55	2	52
LXSH5BD-75□B	4	6	112	65	1	75	2	6	65	2	47
LXSH5BD-100□B	4	8	122	75	1	65	3	6	75	2	47
LXSH5BD-125□B	4	8	132	85	1	70	3	6	85	2	47
LXSH5BD-150□B	6	8	112	65	2	75	3	8	65	3	47

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	1.9

For transfer load of 2.5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	2.0

Refer to page 303 for acceleration time.

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	40	0.1	0.3	1.3	2.6	3.8
	80	0.1	0.2	0.7	1.3	2.0

5 Phase Stepper Motor**High Rigidity Slide Table Type****With Motor Brake****Series LXS**High Rigidity
Direct Acting
GuideSlide Screw
ø8mm/6mm lead**How to Order****LXSH5 SA—Stroke SB—F9N 1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	2.1	2.3	2.5	2.7	2.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	6 (4) horizontal/2 (2) vertical Note 1)				
	Speed	mm/s	to 100 Note 2)				
	Positioning repeatability	mm	±0.05				
Main parts	Motor		5 phase stepper motor (with brake)				
	Lead screw		Slide screw ø8mm, 6mm lead				
	Guide		High rigidity direct acting guide				
	Electromagnetic brake	Model	De-energized operating type				
		Static torque	0.1N·m or more				
		Rated voltage	24VDC ±5%				
Power consumption		5W					
Home position switch	Model		Photo micro sensor EE-SX673				
Driver	Model		LC6D-507AD (Refer to page 306 for details.)				

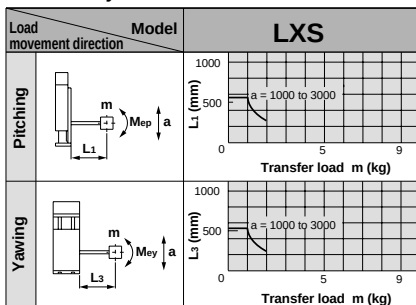
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Allowable Moment (N·m)**Allowable static moment**

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

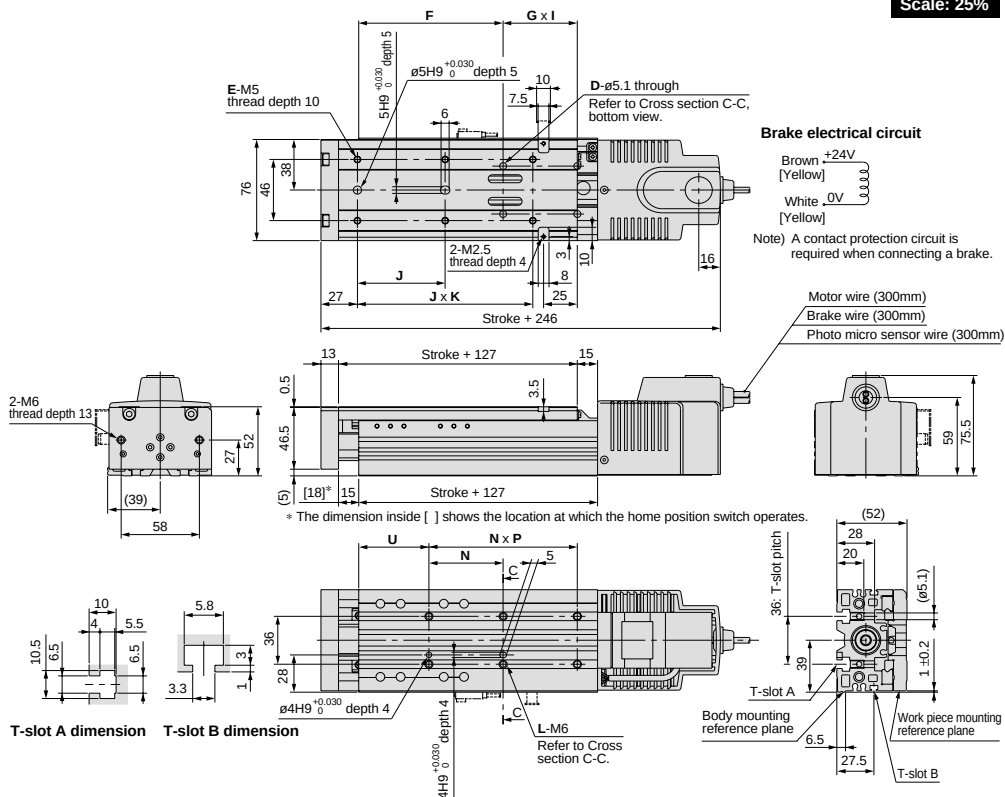
Allowable dynamic moment

Refer to page 304 for deflection data.

5 Phase Stepper Motor/With Motor Brake *Series LX*

Dimensions/LXSH5SA

Scale: 25%



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH5SA-50□B	4	6	107	55	1	65	2	6	55	2	52
LXSH5SA-75□B	4	6	112	65	1	75	2	6	65	2	47
LXSH5SA-100□B	4	8	122	75	1	65	3	6	75	2	47
LXSH5SA-125□B	4	8	132	85	1	70	3	6	85	2	47
LXSH5SA-150□B	6	8	112	65	2	75	3	8	65	3	47

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	50	0.1	0.3	1.1	2.1	3.1	
	100	0.1	0.2	0.6	1.1	1.6	

For transfer load of 1kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	50	0.1	0.3	1.1	2.1	3.1	
	100	0.1	0.2	0.6	1.1	1.6	

Refer to page 302 for acceleration time.

For transfer load of 2kg

		Positioning time (sec)					
Positioning distance (mm)		1	10	50	100	150	
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1	
	50	0.1	0.3	1.1	2.1	3.1	
	100	0.1	0.2	0.6	1.1	1.6	

5 Phase Stepper Motor

With Motor Brake

High Rigidity Slide Table Type

Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw

ø8mm/12mm lead

How to Order

LXSH5 **SB** - Stroke **S** **B** - **F9N** **1**

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None
-----	------

Refer to the table on the right for auto/proximity switch part numbers.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) F9N1G2

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Proximity switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Standard stroke		mm	50	75	100	125	150
Performance	Body weight	kg	2.1	2.3	2.5	2.7	2.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	3 (3) horizontal/1 (1) vertical ^{Note 1)}				
	Speed	mm/s	to 200 ^{Note 2)}				
	Positioning repeatability	mm	±0.05				
Main parts	Motor	5 phase stepper motor (with brake)					
	Lead screw	Slide screw ø8mm, 12mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque	0.1N·m or more				
		Rated voltage	24VDC ±5%				
Power consumption		5W					
Home position switch	Model	Photo micro sensor EE-SX673					
Driver	Model	LC6D-507AD (Refer to page 306 details.)					

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

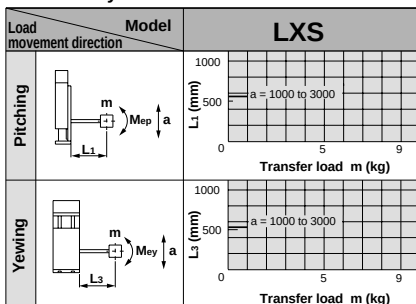
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment

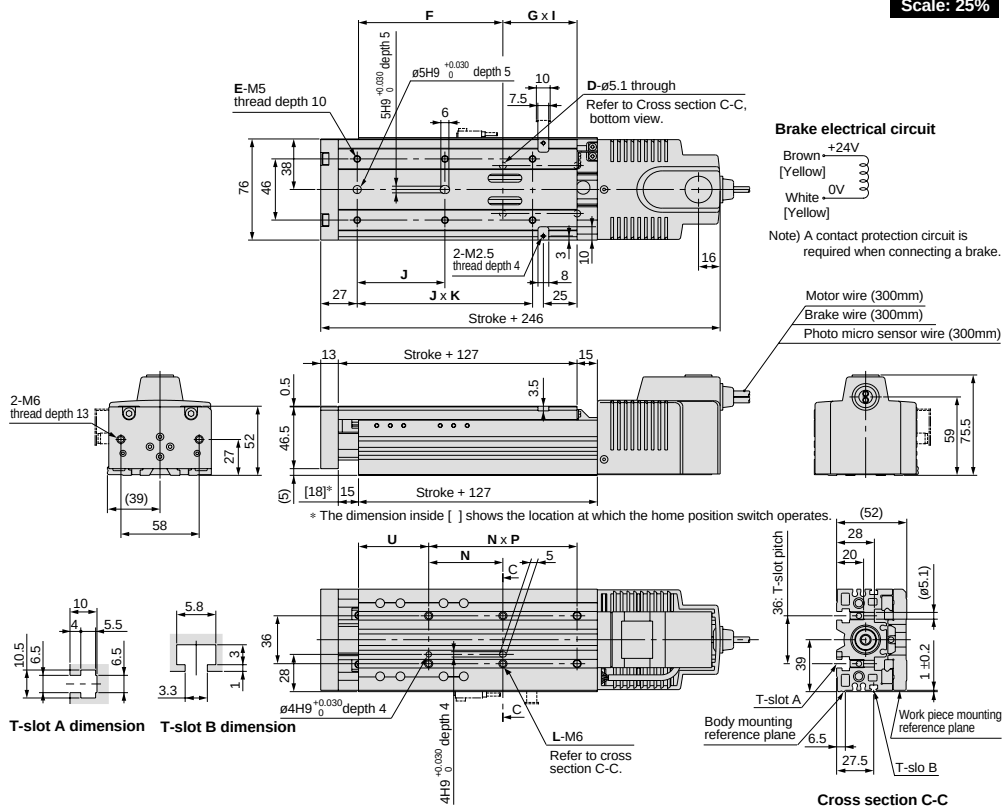


Refer to page 304 for deflection data.

5 Phase Stepper Motor/With Motor Brake Series LXS

Dimensions/LXSH5SB

Scale: 25%



	D	E	F	G	I	J	K	L	N	P	U
LXSH5SB-50□B	4	6	107	55	1	65	2	6	55	2	52
LXSH5SB-75□B	4	6	112	65	1	75	2	6	65	2	47
LXSH5SB-100□B	4	8	122	75	1	65	3	6	75	2	47
LXSH5SB-125□B	4	8	132	85	1	70	3	6	85	2	47
LXSH5SB-150□B	6	8	112	65	2	75	3	8	65	3	47

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.1	0.3	0.6	0.8

For transfer load of 1kg

		Positioning time (sec)				
Speed (mm/s)	Positioning distance (mm)	1	10	50	100	150
	50	0.1	0.3	1.1	2.1	3.1
	100	0.1	0.2	0.6	1.1	1.6
	200	0.1	0.1	0.3	0.6	0.8

Refer to page 302 for acceleration time.

Low Profile Slide Table Type Without Motor Brake

Series LXF

CE Marking

How to Order

LXFH5SB-50S-F9N1-Q

• **Actuator configuration**
F Flat table type

• **Guide type**
H Direct acting guide

• **Motor type**
5 5 phase stepper motor

• **Lead screw type**
S Slide screw

• **Lead screw lead**
A 6mm
B 12mm

• **Stroke**
25 25mm
50 50mm
75 75mm
100 100mm

• **CE marking**

• **Number of auto switches**

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

• **Auto switch type**

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

• **Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Use a driver with CE marking.

Specifications

Motor	5 phase stepper motor (without brake)	
Lead screw	Slide screw $\varnothing 8\text{mm}$	
Positioning repeatability	$\pm 0.05\text{mm}$	
Lead	6 mm	12 mm
Speed ^{Note 1)}	3 to 100mm/s	6 to 200mm/s
Work load ^{Note 2)}	Horizontal	
	3 (2)kg	2 (2)kg
Guide type	Direct acting guide	
Operating temperature range	5° to 40°C (with no condensation)	
Home position switch	Photo micro sensor EE-SX672 (Refer to page 319 for details.)	
Applicable driver	LC6D-507AD-Q (Refer to page 306 for details.)	
CE marking accessories	Holding plate: MB1(1 pc.), Phillips countersunk head screw M3 x 6/ (1 pc.) Phillips binding head screw: M3 x 4/ (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)	

Note 1) Since vibration may increase with low speed operation, use 6mm/s or more for 6mm lead, and 12mm/s or more for 12mm lead as a guide for speed.

Note 2) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

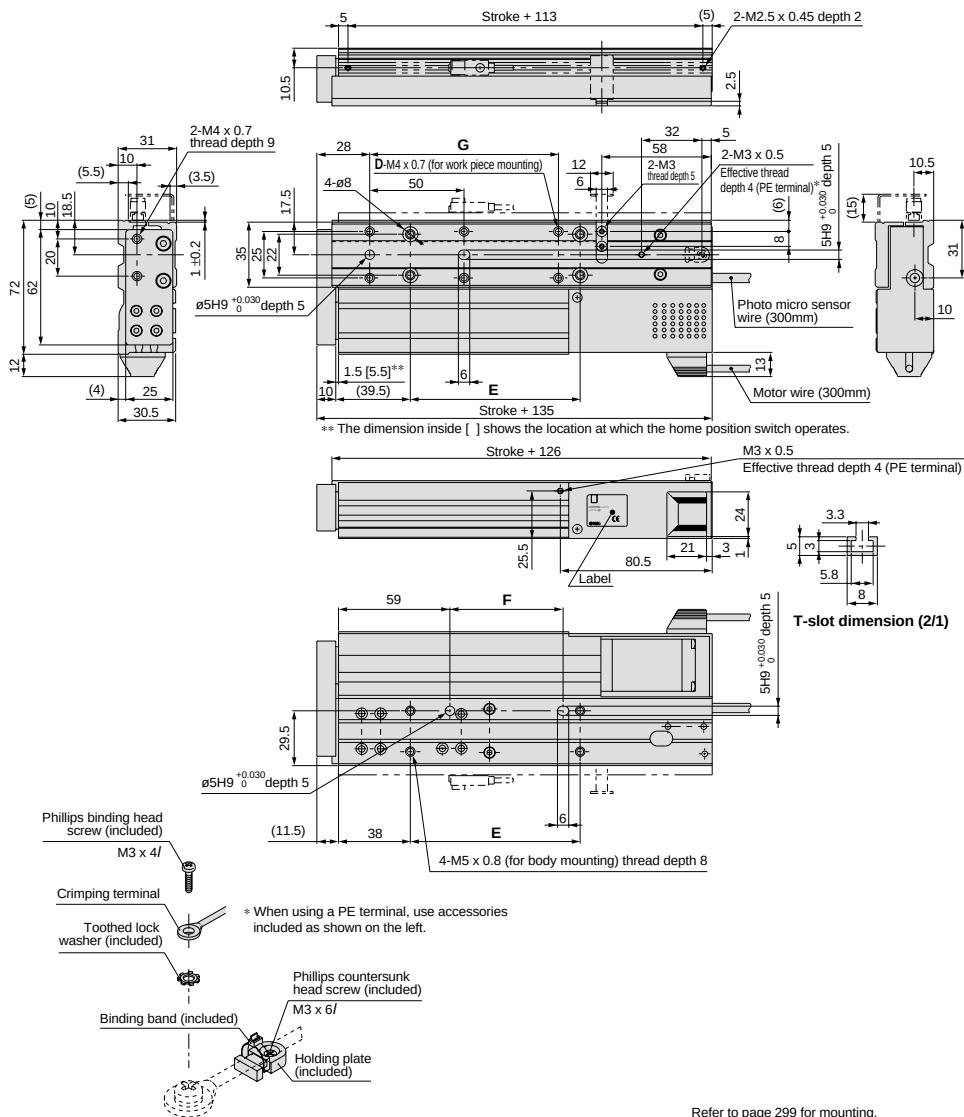
Weights

Model	Standard stroke (mm)			
	25	50	75	100
LXFH5S	0.8	1.0	1.1	1.2

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

Dimensions/LXFH5S

Scale: 35%



Refer to page 299 for mounting.

Model	D	E	F	G
LXFH5□-25	4	60	30	(50)
LXFH5□-50	4	90	60	(50)
LXFH5□-75	6	90	60	100
LXFH5□-100	6	90	60	100

Guide Rod Type

With Motor Brake/Without Motor Brake

Series LXP

CE Marking

How to Order

LXPB2SB-100SB-F9N1-Q

Actuator configuration

P	Guide rod type
---	----------------

Guide type

B	Ball bushing
---	--------------

Motor type

2	2 phase stepper motor
5	5 phase stepper motor

Lead screw type

S	Slide screw
---	-------------

Lead screw lead

A	6mm
B	12mm

Stroke

50	50mm
75	75mm
100	100mm
125	125mm
150	150mm
170	170mm
200	200mm

Use a driver with CE marking.

CE marking

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch type

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	0.5	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	3	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Brake

Nil	Without brake
B	With brake

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Specifications

Motor		2 phase stepper motor (with/without brake)		5 phase stepper motor (with/without brake)	
Lead screw		Slide screw ø8mm			
Positioning repeatability		±0.05mm			
Lead		6mm	12mm	6mm	12mm
Speed ^{Note 1)}		3 to 100mm/s	6 to 200mm/s	3 to 100mm/s	6 to 200mm/s
Work load	Horizontal	6kg	3kg	4kg	2kg
	Vertical	5kg	3kg	4kg	2kg
Guide type		Ball bushing			
Operating temperature range		5° to 40°C (with no condensation)			
Home position switch		Photo micro sensor EE-SX673 (Refer to page 319 for details.)			
Brake specifications	Model	De-energized operating type			
	Static torque	0.1 N·m			
	Rated voltage	24VDC ±5%			
	Power consumption	5W (at 75°C)			
Applicable driver		LC6D-220AD-Q (Refer to page 306 details.)		LC6D-507AD-Q (Refer to page 306 for details.)	
CE marking accessories		Holding plate: MB1(1 pc.), Phillips countersunk head screw M3 x 6/ (1 pc.) Phillips binding head screw: M3 x 4/ (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)			

Note 1) Since vibration may increase with low speed operation, use 6mm/s or more for 6mm lead, and 12mm/s or more for 12mm lead as a guide for speed.

Weights

Model	Standard stroke (mm)							(kg)
	50	75	100	125	150	175	200	Additional weight with motor With brake
LXPB ₂ S	2.0	2.2	2.3	2.6	2.8	2.9	3.1	0.2

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

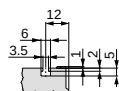
Dimensions/LXPB $\frac{2}{5}$ S



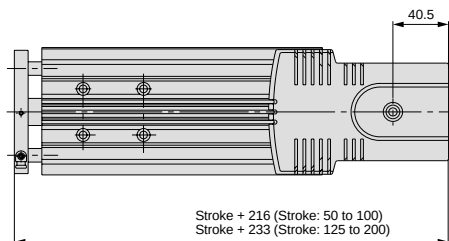
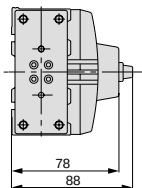
When two dimensions are shown, the top dimensions is for 50 to 75 and 100mm strokes, and the bottom dimension is for 125, 150, 175, and 200mm strokes.

Scale: 25%

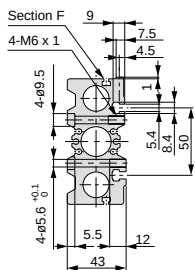
With brake



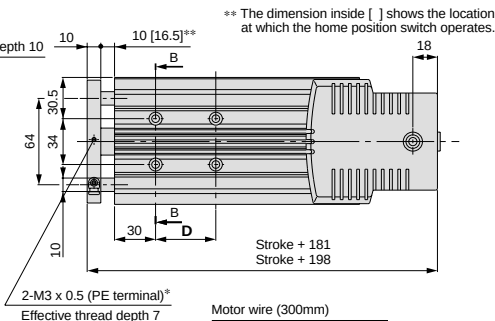
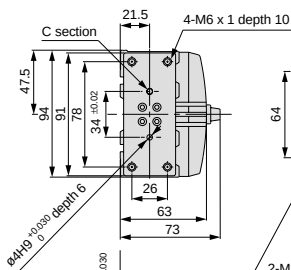
Section F detail
(Scale: 2/1)



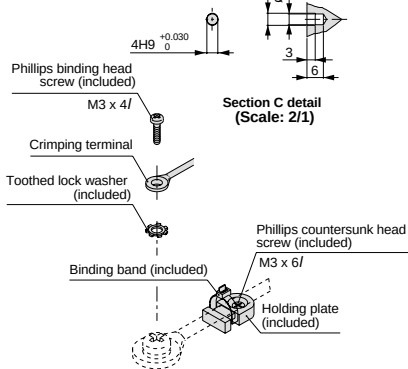
Without brake



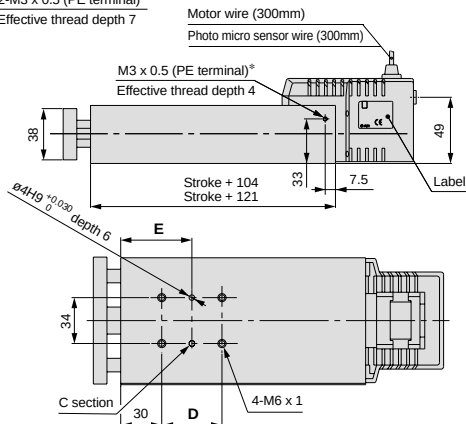
Cross section BB



** The dimension inside [] shows the location at which the home position switch operates.



* When using a PE terminal, use accessories included as shown above.



	(mm)	
Model	D	E
LXPB□□- 50	44	52
LXPB□□- 75		
LXPB□□-100		
LXPB□□-125	120	90
LXPB□□-150		
LXPB□□-175		
LXPB□□-200		

Refer to page 300 for mounting.

High Rigidity Slide Table Type

With Motor Brake/Without Motor Brake

Series **LX^S**

CE Marking

How to Order

LX S H 2 S B 100 S B F9N 1 Q

● **Actuator configuration**
S Slide table type

● **Guide type**
H Direct acting guide

● **Motor type**
2 2 phase stepper motor
5 5 phase stepper motor

● **Lead screw type**
S Slide screw

● **Lead screw lead**
A 6mm
B 12mm

● **Stroke**
50 50mm
75 75mm
100 100mm
125 125mm
150 150mm

Use a driver with CE marking.

● **CE marking**

● **Number of auto switches**

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

● **CE marking**

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	0.5	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

● **Brake**

Nil	Without brake
B	With brake

● **Home position switch**

Nil	None
S	Yes (cable length 0.3m)

Specifications

Motor		2 phase stepper motor (with/without brake)		5 phase stepper motor (with/without brake)	
Lead screw		Slide screw ø8mm			
Positioning repeatability		±0.05mm			
Lead		6mm	12mm	6mm	12mm
Speed ^{Note 1)}		3 to 100mm/s	6 to 200mm/s	3 to 100mm/s	6 to 200mm/s
Work load ^{Note 2)}	Horizontal	9 (4)kg	4.5 (4)kg	6 (4)kg	3 (3)kg
	Vertical	4 (4)kg	2 (2)kg	2 (2)kg	1 (1)kg
Guide type		High rigidity direct acting guide			
Operating temperature range		5° to 40°C (with no condensation)			
Home position switch (optional)		Photo micro sensor EE-SX673 (Refer to page 319 for details.)			
Brake specifications	Model	De-energized operating type			
	Static torque	0.1N·m			
	Rated voltage	24VDC ±5%			
	Power consumption	5W (at 75°C)			
Applicable driver		LC6D-220AD-Q (Refer to page 306 for details.)		LC6D-507AD-Q (Refer to page 306 for details.)	
Positioning repeatability		±0.05mm			
CE marking accessories		Holding plate: MB1 (1 pc.), Phillips countersunk head screw: M3 x 6/ (1 pc.) Phillips binding head screw: M3 x 4/ (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)			

Note 1) Since vibration may increase with low speed operation, use 6mm/s or more for 6mm lead, and 12mm/s or more for 12mm lead as a guide for speed.

Note 2) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Weights

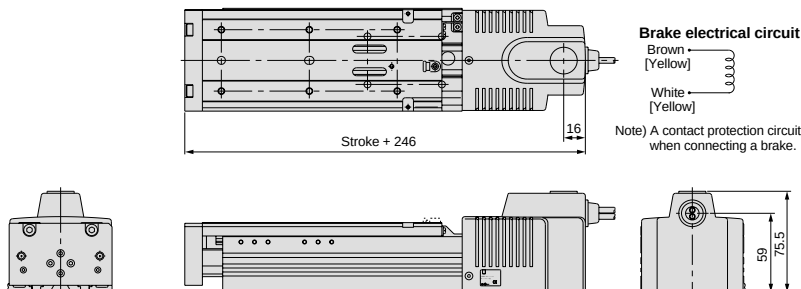
Model	Standard stroke (mm)					(kg)
	50	75	100	125	150	With brake
LXSH ² ₅ S	1.9	2.1	2.3	2.5	2.7	0.2

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

Dimensions/LXSH²₅ S

With brake

Scale: 25%



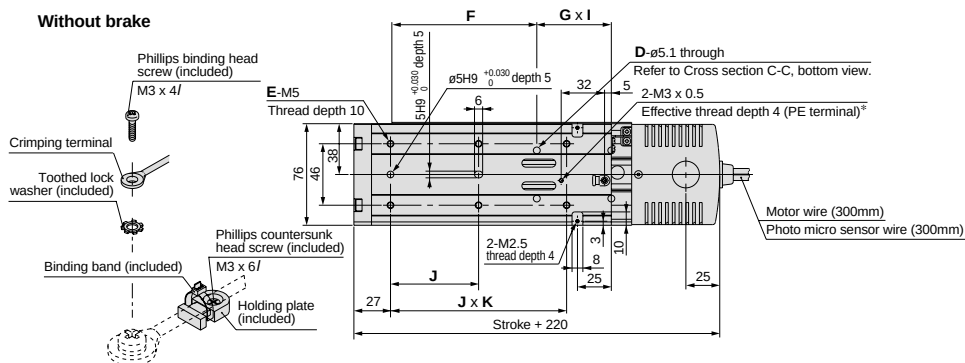
Brake electrical circuit

Brown
[Yellow]

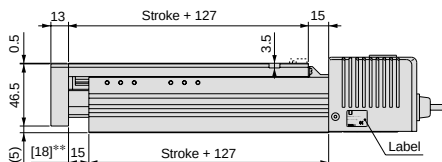
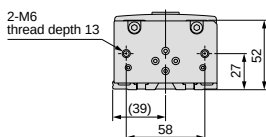
White
[Yellow]

Note) A contact protection circuit is required when connecting a brake.

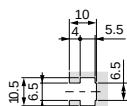
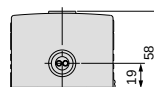
Without brake



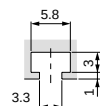
* When using a PE terminal, use accessories included as shown above.



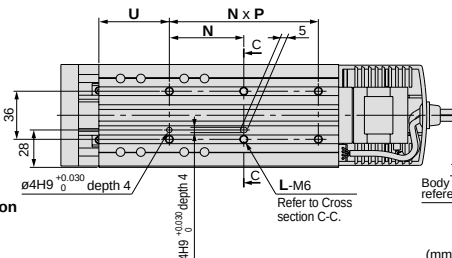
** The dimension inside [] shows the location at which the home position switch operates.



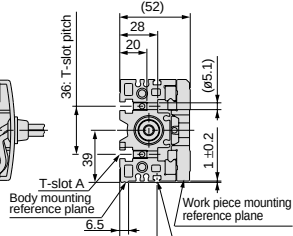
T-slot A dimension



T-slotBdimension



L-M6
Refer to Cross
section C-C.



Cross Section C-C

Refer to page 301 for mounting.

Model	D	E	F	G	I	J	K	L	N	P	U
LXSH□S□- 50□	4	6	107	55	1	65	2	6	55	2	52
LXSH□S□- 75□	4	6	112	65	1	75	2	6	65	2	47
LXSH□S□-100□	4	8	122	75	1	65	3	6	75	2	47
LXSH□S□-125□	4	8	132	85	1	70	3	6	85	2	47
LXSH□S□-150□	6	8	112	65	2	75	3	8	65	3	47

Made to Order

Low Profile Slide Table Type

With Motor Brake/Without Motor Brake

Series LXF

AC Servomotor Specification

How to Order

LXFHABD-50SB-GN1-X20

Actuator configuration
F Flat table type

Guide type
H Direct acting guide

Motor type
A AC servomotor

Lead screw type
B Ball screw

Lead screw lead
C 2mm
D 5mm

Stroke
25 25mm
50 50mm
75 75mm
100 100mm

Brake
Nil Without brake
B With brake

Home position switch
Nil None
S Yes (cable length 0.3m)

Mitsubishi Electric Corporation AC servomotor specification

Number of proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Proximity switch type

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
GN	With sensor rail, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)
GU	GXL-8FU	2 wire/solid state	1	N.O. (A contact)
GUB	GXL-8FUB	2 wire/solid state	1	N.C. (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

Specifications

Motor	AC servomotor (30w)	
Lead screw	Ball screw ø8mm	
Positioning repeatability	±0.03mm	
Lead	2mm	5mm
Maximum speed	40mm/s	100mm/s
Work load Note 1)	Horizontal	3 (2)kg
	Vertical	2kg
Guide type	Direct acting guide	
Operating temperature range	5° to 40°C (with no condensation)	
Home position switch	Photo micro sensor EE-SX674 (Refer to page 319 for details.)	

* Contact motor manufacturers for brake specifications.

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

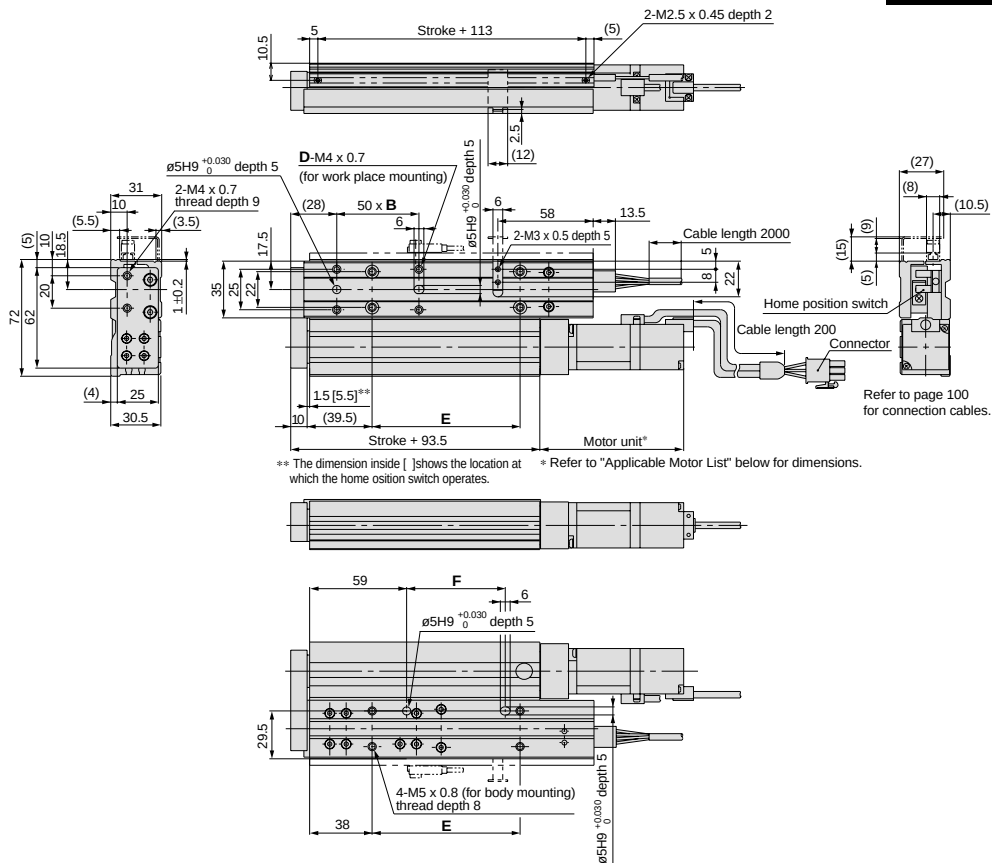
Weights

Model	Standard stroke (mm)				Additional weight with brake (kg)
	25	50	75	100	
LXFHAB□-X20	0.9	1.1	1.2	1.3	0.3

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

Dimensions/LXFHAB

Scale: 30%



Model	B	D	E	F	G
LXFHAB-25□□□□□-X□□	1	4	60	30	60
LXFHAB-50□□□□□-X□□	1	4	90	60	90
LXFHAB-75□□□□□-X□□	2	6	90	60	90
LXFHAB-100□□□□□-X□□	2	6	90	60	90

Refer to page 299 for mounting.

Note) The overall length of an actuator is Stroke + 105.5 + Motor dimension.

Applicable Motor List

Symbol	Manufacturer	Motor output	Power supply voltage	Brake	Motor model	Applicable driver model ^{Note)}	Motor dimension (mm)	
							Without brake	With brake
X20	Mitsubishi Electric Corporation	30W	24VDC	Without brake	HC-AQ335D	MR-J2-03A5	85	112
				With brake	HC-AQ335BD	MR-J2-03A5		

Note) Refer to pages starting with 205 for driver dimensions. Contact motor manufacturers for each motor's detailed specifications, etc.

A driver is included, however, the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Made to Order

Guide Rod Type

With Motor Brake/Without Motor Brake

Series **LXP**

AC Servomotor Specification

How to Order

LXPBABD-100SB-F9N1-X12

Actuator configuration
P Guide rod type

Guide type
B Ball bushing

Motor type
A AC servomotor

Lead screw type
B Ball screw

Lead screw lead
C Note 1) 2mm
D 5mm

Stroke

50	50mm
75	75mm
100	100mm
125	125mm
150	150mm
175	175mm
200	200mm

Home position switch Note 2)
Nil None
S Yes (cable length 0.3m)

Brake
Nil Without brake
B With brake

AC servomotor specification
Refer to the applicable motor list on the next page.

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch type Note 2)

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	0.5	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
F9B	D-F9B	2 wire	3	N.O. (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)
F9BL	D-F9BL	2 wire	3	N.O. (A contact)

Note 1) When Tamagawa Seiki Co., Ltd. motors (X12, X13) are selected, a 2mm lead is applicable only when using the Windows-based setting software for the dedicated controller.

Note 2) For Tamagawa Seiki Co., Ltd. motors (X12, X13), only "Yes" is applicable for the home position switch setting. Also, auto switch **F9N** (1 pc.) is always attached for this specification. When using another switch in addition, list its part number next.
Example) LXPBABC-100SB-F9N1F9G1-X12

Specifications

Motor	AC servomotor (30w)	
Lead screw	Ball screw ø8mm	
Positioning repeatability	±0.03mm	
Lead	2mm	5mm
Speed	50mm/s	100mm/s
Work load	Horizontal	6kg
	Vertical	5kg
Guide type	Ball bushing	
Operating temperature range	5° to 40°C (with no condensation)	
Home position switch	Photo micro sensor EE-SX673 [OMRON Corporation] (Refer to page 319 for details.)	

* Contact motor manufacturers for brake specifications.

Weights

Model	Standard stroke (mm)							(kg)
	50	75	100	125	150	175	200	Additional weight with motor
LXPBAB□-X12/X13	2.0	2.2	2.3	2.6	2.8	2.9	3.1	With brake 0.3
LXPBAB□-X15/X16	1.9	2.1	2.2	2.5	2.7	2.8	3.0	0.2
LXPBAB□-X18/X19	2.0	2.2	2.3	2.6	2.8	2.9	3.1	0.3
LXPBAB□-X21/X22	2.0	2.2	2.3	2.6	2.8	2.9	3.1	0.3

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

Dimensions/LXPBAB



When two dimensions are shown, the top dimension is for 50 and 100mm strokes, and the bottom dimension is for 125, 150, 175, and 200mm strokes.

** The dimension inside [] shows the location at which the home position switch operates.

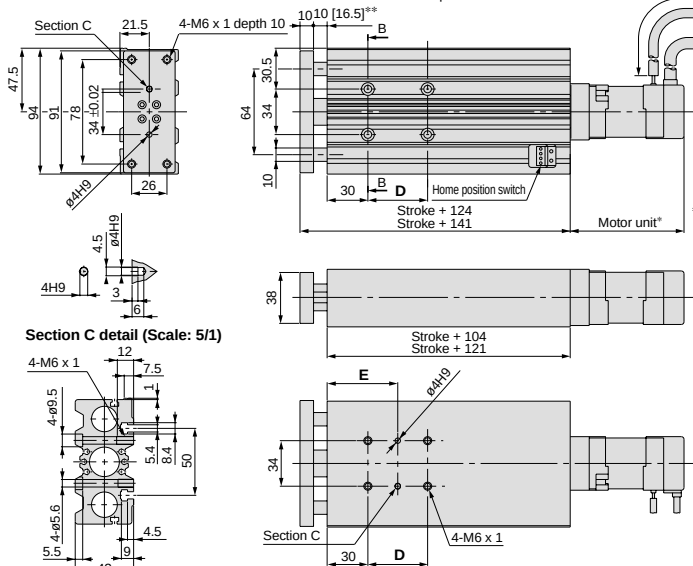
Cable length
200 to 300mm

Scale: 25%

9 pin plug

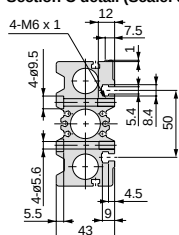
olua

Refer to page 100
for connection cables



* Refer to "Applicable Motor List" below for dimensions. (This drawing shows a Tamagawa Seiki, Co., Ltd. motor.)

Section C detail (Scale: 5/1)



Cross section BB

(mm)

Model	D	E
LXPBAB-50S	44	52
LXPBAB-75S		
LXPBAB-100S		
LXPBAB-125S		
LXPBAB-150S	120	90
LXPBAB-175S		
LXPBAB-200S		

Note) The overall length of an actuator is Stroke + 124 (141) + Motor dimension.

Refer to page 300 for mounting.

Applicable Motor List

Symbol	Manufacturer	Motor output	Power supply voltage	Brake	Motor model	Applicable ^{Note)} driver model	Motor dimension (mm)	
							Without brake	With brake
X12	Tamagawa Seiki Co., Ltd.	30W	100/110VAC	Without brake	TS4501N	SMC controller Series LC1 (X233) Refer to page 189 for details.	80.5	111.5
With brake				TS4501N				
X13			200/220VAC	Without brake	TS4501N			
With brake				TS4501N				
X15	Matsushita Electric Industrial Co., Ltd.		100/115VAC	Without brake	MSM3AZP1A	MSD3A1P1E	91	123
With brake				MSM3AZP1B	MSD3A1P1E			
X16			200VAC	Without brake	MSM3AZP1A	MSD3A3P1E		
With brake				MSM3AZP1B	MSD3A3P1E			
X18	Mitsubishi Electric Corporation	100/115VAC	Without brake	HC-PQ033	MR-C10A1	87.5	111.5	
With brake			HC-PQ033B	MR-C10A1				
X19		200/230VAC	Without brake	HC-PQ033	MR-C10A			
			With brake	HC-PQ033B	MR-C10A			
X21	Yaskawa Electric Corporation	100/115VAC	Without brake	SGME-A3BF12	SGDE-A3BP	91.5	123	
With brake			SGME-A3BF12B	SGDE-A3BP				
X22		200/230VAC	Without brake	SGME-A3BF12	SGDE-A3AP			
			With brake	SGME-A3BF12B	SGDE-A3AP			

Note) Refer to pages starting with 205 for driver dimensions. Contact motor manufacturers for each motor's detailed specifications, etc.

A driver is included with motors by Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corporation, and Yaskawa Electric Corporation. However, the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Made to Order

High Rigidity Slide Table Type

With Motor Brake/Without Motor Brake

Series **LXS**

AC Servomotor Specification

How to Order

LX S H A B D 100 S B F9N 1 X12

Actuator configuration
S Slide table type

Guide type
H Direct acting guide

Motor type
A AC servomotor

Lead screw type
B Ball screw

Lead screw lead
C Note 1) 2mm
D 5mm

Stroke
50 50mm
75 75mm
100 100mm
125 125mm
150 150mm

Home position switch Note 2)
Nil None
S Yes (cable length 0.3m)

Brake
Nil Without brake
B With brake

AC servomotor specification
Refer to the applicable motor list on the next page.

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number. Example) **F9N1G2**

Auto switch type Note 2)

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
F9N	D-F9N	3 wire/NPN	0.5	N.O (A contact)
F9P	D-F9P	3 wire/PNP	0.5	N.O (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C (B contact)
F9B	D-F9B	2 wire	0.5	N.O (A contact)
F9NL	D-F9NL	3 wire/NPN	3	N.O (A contact)
F9PL	D-F9PL	3 wire/PNP	3	N.O (A contact)
F9BL	D-F9BL	2 wire	3	N.O (A contact)

Note 1) When Tamagawa Seiki Co., Ltd. motors (X12, X13) are selected, a 2mm lead is applicable only when using the Windows-based setting software for the dedicated controller.

Specifications

Motor	AC servomotor (30w)	
Lead screw	Ball screw ø8mm	
Positioning repeatability	±0.03mm	
Lead	2mm	5mm
Speed	50mm/s	100mm/s
Work load Note 1)	Horizontal	10 (4)kg
	Vertical	5 (4)kg
Guide type	High rigidity direct acting guide	
Operating temperature range	5° to 40°C (with no condensation)	
Home position switch	Photo micro sensor EE-SX673 (OMRON Corporation) (Refer to page 319 for details.)	

* Contact motor manufacturers for brake specifications.

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ().

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail and sensor plate, without proximity switch			
G	GXL-8F	3 wire/NPN	1	N.O (A contact)
GD	GXL-8FI	3 wire/NPN	1	N.O (A contact)
GB	GXL-8FB	3 wire/NPN	1	N.C (B contact)
GDB	GXL-8FIB	3 wire/NPN	1	N.C (B contact)
GU	GXL-8FU	2 wire/Solid state	1	N.O (A contact)
GUB	GXL-8FUB	2 wire/Solid state	1	N.C (B contact)

* Refer to page 318 for detailed specifications of proximity switches.

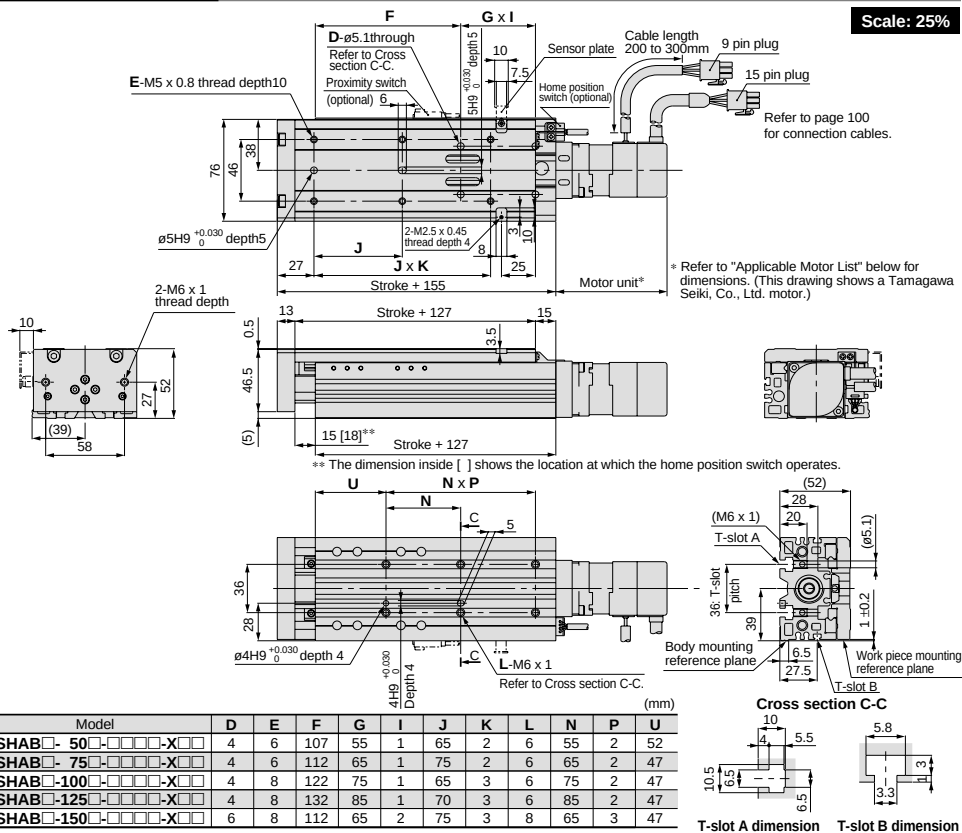
Note 2) For Tamagawa Seiki Co., Ltd. motors (X12, X13), only "Yes" is applicable for the home position switch setting. Also, auto switch **F9N** (1 pc.) is always attached for this specification. When using another switch in addition, list its part number next. Example) **LXSHABC-100SB-F9N1F9G1-X12**

Weights

Model	Standard stroke (mm)					(kg)
	50	75	100	125	150	Additional weight with motor
LXSHAB□-X12/X13	1.9	2.1	2.3	2.5	2.7	0.3
LXSHAB□-X15/X16	1.8	2.0	2.2	2.4	2.6	0.2
LXSHAB□-X18/X19	1.9	2.1	2.3	2.5	2.7	0.3
LXSHAB□-X21/X22	1.9	2.1	2.3	2.5	2.7	0.3

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

Dimensions/LXSHAB



Note) The overall length of an actuator is Stroke + 155 + Motor dimension.

Applicable Motor List

Symbol	Manufacturer	Motor output	Power supply voltage	Brake	Motor model	Applicable ^{Note)} driver model	Motor dimension (mm)	
							Without brake	With brake
X12	Tamagawa Seiki Co., Ltd	30W	100/110VAC	Without brake	TS4501N	SMC controller Series LC1 (X180) Refer to page 189 for details.	82.5	113.5
X13				With brake	TS4501N			
X15			200/220VAC	Without brake	TS4501N			
				With brake	TS4501N			
X16	100/115VAC		Without brake	MSM3AZP1A	MSD3A1P1E	88.5	120.5	
			With brake	MSM3AZP1B	MSD3A1P1E			
X18	200/230VAC		Without brake	MSM3AZP1A	MSD3A3P1E			
			With brake	MSM3AZP1B	MSD3A3P1E			
X19	100/115VAC		Without brake	HC-PQ033	MR-C10A1	89	117	
			With brake	HC-PQ033B	MR-C10A1			
X21	200/230VAC	Without brake	HC-PQ033	MR-C10A				
		With brake	HC-PQ033B	MR-C10A				
X22	100/115VAC	Without brake	SGME-A3BF12	SGDE-A3BP	93	124.5		
		With brake	SGME-A3BF12B	SGDE-A3BP				
X22	200/230VAC	Without brake	SGME-A3BF12	SGDE-A3AP				
		With brake	SGME-A3BF12B	SGDE-A3AP				

Note) Refer to pages starting with 205 for driver dimensions. Contact motor manufacturers for each motor's detailed specifications, etc.

A driver is included with motors by Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corporation, and Yaskawa Electric Corporation. However, the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Made to Order

Short Stroke Type

With Motor Brake/Without Motor Brake

Series LXF/LXP/LXSLow Particulate
Generation Specification

How to Order

Low Profile Slide Table Type **LXFH 5 B C 25** **GD 1 X60**Guide Rod Type **LXPB 2 B C 50** **B F9N 1 X60**High Rigidity Slide Table Type **LXSH 2 B C 50** **B F9N 1 X60**

Motor type

2	2 phase stepper motor
5	5 phase stepper motor

Lead screw type

B	Ball screw
---	------------

Lead screw lead

C	2mm
D	5mm

Stroke

Model	Stroke (mm)							
	25	50	75	100	125	150	175	200
LXF	●	●	●	●				
LXP		●	●	●	●	●	●	●
LXS		●	●	●	●	●		

Low particulate
generation
specificationNumber of
auto/proximity
switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto/Proximity
switch type

Nil	None
-----	------

Refer to the tables below for
auto/proximity switch part numbers.

Brake

Nil	Without brake
B	With brake

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact	Applicable actuator
F9N	D-F9N	3 wire/NPN	0.5	N.O. (A contact)	LXP LXS
F9P	D-F9P	3 wire/PNP	0.5	N.O. (A contact)	
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)	
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)	
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)	
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)	
F9B	D-F9B	2 wire	0.5	N.O. (A contact)	
F9NL	D-F9NL	3 wire/NPN	3	N.O. (A contact)	
F9PL	D-F9PL	3 wire/PNP	3	N.O. (A contact)	
F9BL	D-F9BL	2 wire	3	N.O. (A contact)	

* When using both auto and proximity switches, list the proximity switch part number
after the auto switch part number. Example) **F9N1G2**

Proximity switch types

Symbol	Model	Wiring/ Output type	Lead wire length (m)	Contact	Applicable actuator
GN	With sensor rail and sensor plate, without proximity switch				
G	GXL-8F	3 wire/NPN	1	N.O. (A contact)	LXF LXS
GD	GXL-8FI	3 wire/NPN	1	N.O. (A contact)	
GB	GXL-8FB	3 wire/NPN	1	N.C. (B contact)	
GDB	GXL-8FIB	3 wire/NPN	1	N.C. (B contact)	
GU	GXL-8FU	2 wire/Solid state	1	N.O. (A contact)	
GUB	GXL-8FUB	2 wire/Solid state	1	N.C. (B contact)	

* Refer to page 318 for detailed specifications of proximity switches.

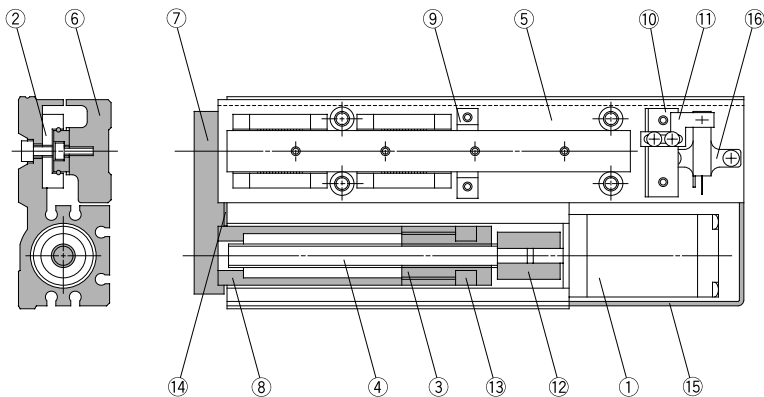
Specifications

Model	LXF	LXP	LXS
Guide type	Direct acting guide Stainless steel, With low particulate generating grease	Ball bushing Stainless steel, With low particulate generating grease	High rigidity direct acting guide Stainless steel, With low particulate generating grease
Lead screw	Ball screw $\varnothing 8\text{mm}$ 2mm/5mm lead Black chrome coating + Special fluororesin coating, AFE grease (made by THK) applied		

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

Construction

Series LXF



Parts list

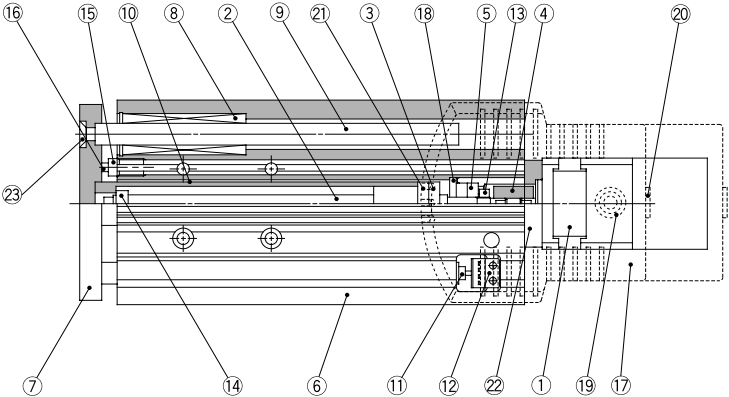
No.	Description	Material	Note
1	Motor	—	
2	Direct acting guide	—	
3	Nut	Resin/Alloy steel	
4	Rolled screw	Alloy steel	
5	Body	Aluminum alloy	Anodized
6	Table	Aluminum alloy	Anodized
7	End plate	Aluminum alloy	Anodized
8	Tube	Aluminum alloy	Anodized
9	Stopper A	—	

Parts list

No.	Description	Material	Note
10	Stopper B	Aluminum alloy	
11	Sensor plate	Mild steel	Chromated
12	Coupling	Aluminum alloy	
13	Magnet	—	
14	Bumper	Rubber	
15	Motor cover	Resin	
16	Photo micro sensor	—	

Construction

Series LX**P**



Parts list

No.	Description	Material	Note
1	Motor	—	Stepper motor
2	Rolled screw	Alloy steel	
3	Nut	Resin	
4	Coupling	—	
5	Bearing	—	
6	Body	Aluminum alloy	Anodized
7	Mounting plate	Mild steel	Nickel plated
8	Ball bushing	—	
9	Guide rod	Bearing steel	Chrome plated
10	Tube	Aluminum alloy	Anodized
11	Sensor pin	Stainless steel	

Parts list

No.	Description	Material	Note
12	Photo micro sensor	—	
13	Lock nut	Carbon steel	Black zinc chromated
14	Stopper nut	Aluminum alloy	
15	Bumper bolt	Bearing steel	Nickel plated
16	Bumper	Resin	
17	Motor cover	Resin	
18	Tension ring	Stainless steel	
19	Cable cap		
20	Plug		
21	Magnet	—	
22	Adaptor	Aluminum alloy	
23	Plate mounting bolt	Carbon steel	Nickel plated

LJ1

LG1

LC1

LX

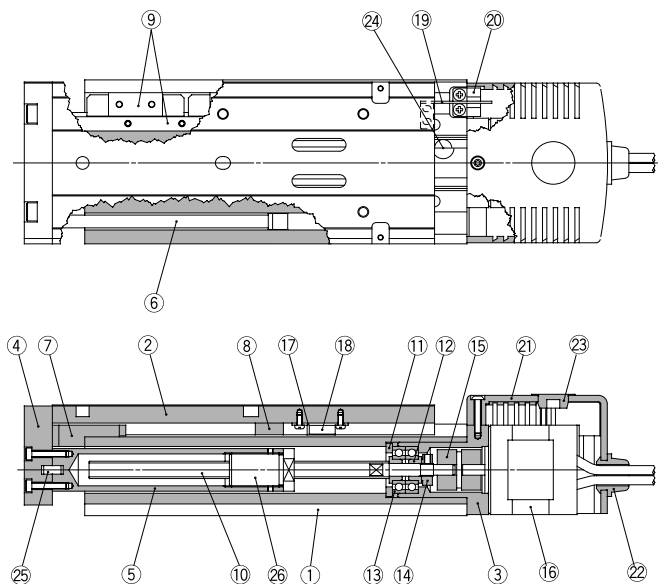
LC6D/LC6C

Switches

Series LX

Construction

Series LXS



Parts list

No.	Description	Material	Note
1	Body	Aluminum alloy	Anodized
2	Table	Aluminum alloy	Anodized
3	Adaptor	Aluminum alloy	Anodized
4	Plate	Aluminum alloy	Anodized
5	Tube	Aluminum alloy	Anodized
6	Rod assembly	—	With magnet
7	Stopper A	—	With bumper
8	Stopper B	—	
9	Direct acting guide (block, rail)	—	
10	Rolled screw (shaft only)	Alloy steel	
11	Tension ring	Stainless steel	
12	Bearing retainer	Stainless steel	
13	Bearing	—	

Parts list

No.	Description	Material	Note
14	Lock nut	Carbon steel	Black zinc chromated
15	Coupling	—	
16	Motor	—	
17	Magnet holder	Resin	
18	Magnet	Rare earth magnet	
19	Sensor plate	Mild steel	With home position switch
20	Photo micro sensor	—	With home position switch
21	Motor cover	Resin	
22	Plug A		
23	Plug B		
24	Cap		
25	Parallel pin	Carbon steel	
26	Nut	Resin/Alloy steel	

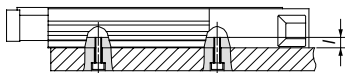
Mounting

Series LXF

Actuator mounting

An actuator can be mounted from two directions, which can be selected depending on the equipment or work piece.

1. Tapped holes



Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXF	M5 x 0.8	4.4	8

Caution Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

2. Through holes



Model	Bolt	Max. tightening torque N·m	Body thickness (l mm)
LXF	M4 x 0.7	2.1	8

Work piece mounting

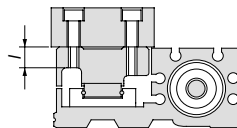
Work pieces can be mounted on two sides of the actuator.

1. Front mount type



Model	Bolt	Max. tightening torque N·m	Body thickness (l mm)
LXF	M4 x 0.7	2.1	10

2. Top mount type



Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXF	M4 x 0.7	2.1	8

Caution Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

LJ1

LG1

LC1

LX

LC6D/LC6C

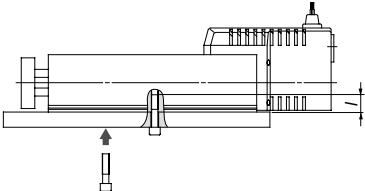
Switches

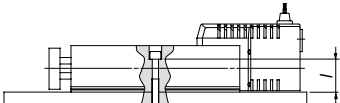
Series LX

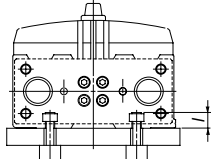
Mounting

Series LXP

Actuator mounting

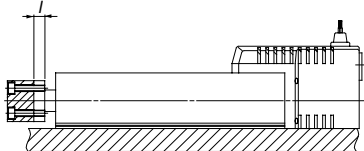
1. Tapped holes			
			
Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXP	M6 x 1	7.4	12

2. Through holes			
			
Model	Bolt	Max. tightening torque N·m	Body thickness (l mm)
LXP	M5 x 0.8	4.4	37.5

3. T-slots			
			
Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXP	M5 x 0.8	7.4	8.5

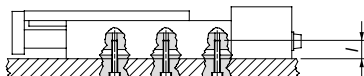
Caution Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

Work piece mounting

1. Front mount type			
			
Model	Bolt	Max. tightening torque N·m	Body thickness (l mm)
LXP	M6 x 1	7.4	10

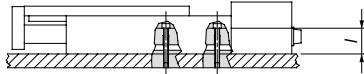
Mounting**Series LXS****Actuator mounting**

An actuator can be mounted from two directions, which can be selected depending on the equipment or work piece.

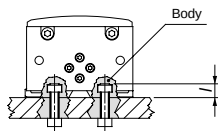
1. Tapped holes

Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXS	M6 x 1	7.4	20

Caution Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

2. Through holes

Model	Bolt	Max. tightening torque N·m	Body thickness (l mm)
LXS	M5 x 0.8	4.4	28

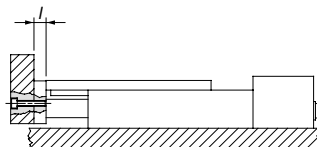
3. T-slots

Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXS	M6 x 1	7.4	10

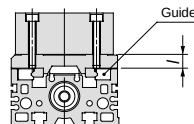
Caution Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

Work piece mounting

Work pieces can be mounted on two sides of the actuator.

1. Front mount type

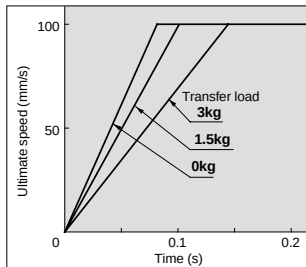
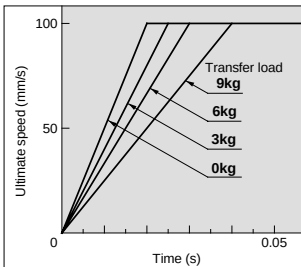
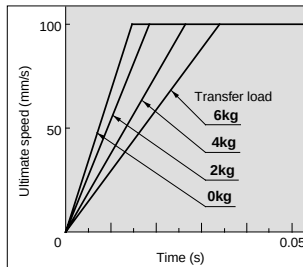
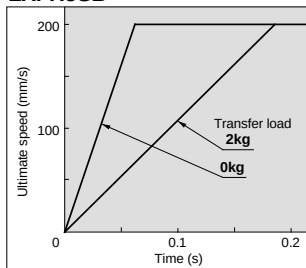
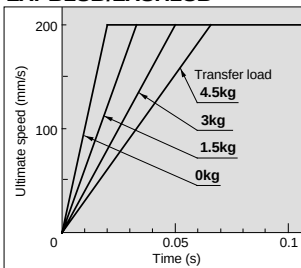
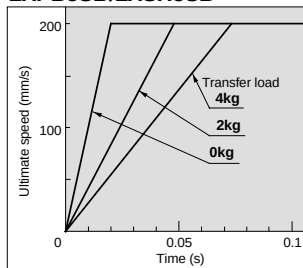
Model	Bolt	Max. tightening torque N·m	Body thickness (l mm)
LXS	M6 x 1	7.4	13

2. Top mount type

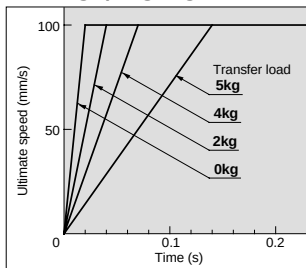
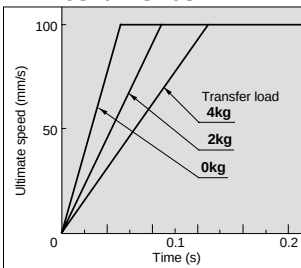
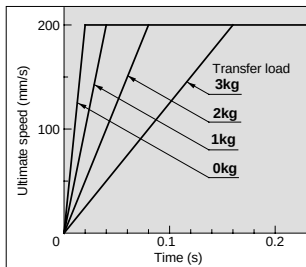
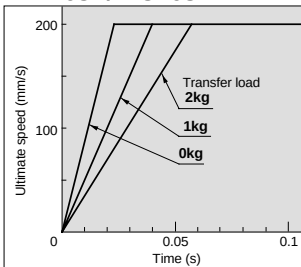
Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXS	M5 x 0.8	4.4	10

Caution Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

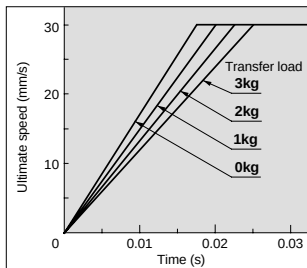
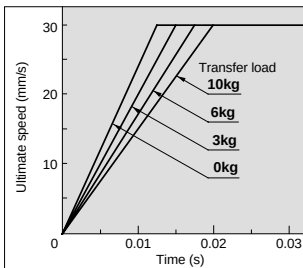
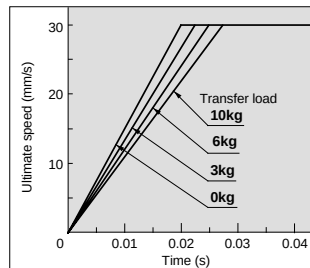
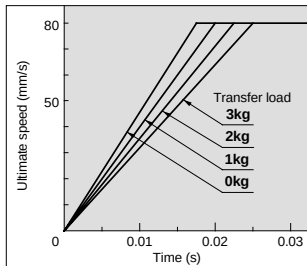
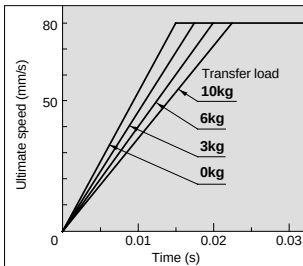
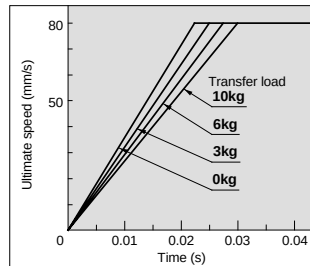
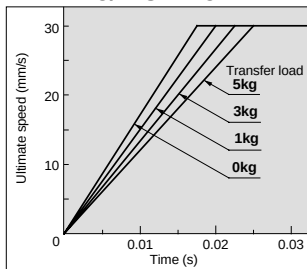
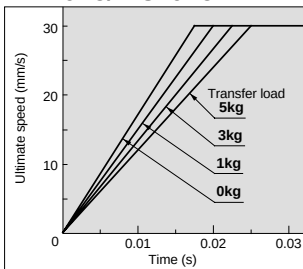
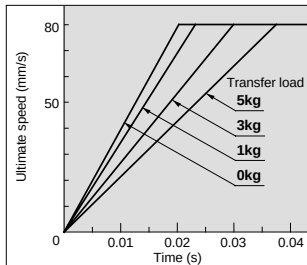
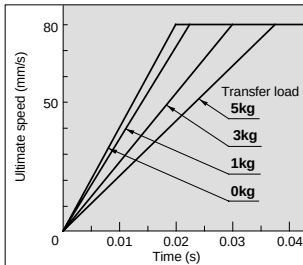
Acceleration Time Guide/Slide Screw Specification (Horizontal)

LXFH5SA**LXPB2SA/LXSH2SA****LXPB5SA/LXSH5SA****LXFH5SB****LXPB2SB/LXSH2SB****LXPB5SB/LXSH5SB**

Acceleration Time Guide/Slide Screw Specification (Vertical)

LXPB2SA/LXSH2SA**LXPB5SA/LXSH5SA****LXPB2SB/LXSH2SB****LXPB5SB/LXSH5SB****⚠ Caution**

- Transfer loads should not exceed each model's work load specification.
- Determine the acceleration time based on the transfer load and ultimate speed.
- Operating over the graph ranges will cause loss of synchronism.
- The graphs are based on operation using an SMC DC power input type driver with halfstep energization.
- Data fluctuate depending on the operating conditions.

Acceleration Time Guide/Ball Screw Specification (Horizontal)**LXFH5BC****LXPB2BC/LXSH2BC****LXPB5BC/LXSH5BC****LXFH5BD****LXPB2BD/LXSH2BD****LXPB5BD/LXSH5BD****Acceleration Time Guide/Ball Screw Specification (Vertical)****LXPB2BC/LXSH2BC****LXPB5BC/LXSH5BC****LXPB2BD/LXSH2BD****LXPB5BD/LXSH5BD****⚠ Caution**

- Transfer loads should not exceed each model's work load specification.
- Determine the acceleration time based on the transfer load and ultimate speed.
- Operating over the graph ranges will cause loss of synchronism.
- The graphs are based on operation using an SMC DC power input type driver with halfstep energization.
- Data fluctuate depending on the operating conditions.

Series LX

Table Deflection

Table Deflection

