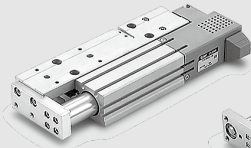


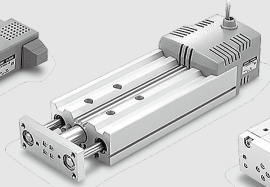
Short Stroke Electric Actuator

Series LX

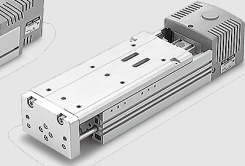
Direct Acting Guide/Ball Bushing



Series LXF



Series LXP



Series LXS

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	6 12	P.898
LXP	2 phase stepper	Without brake	Ball bushing	LXPB2	2 5	6 12	P.908
		With brake			2 5	6 12	P.916
	5 phase stepper	Without brake		LXPB5	2 5	6 12	P.924
		With brake			2 5	6 12	P.932
LXS	2 phase stepper	Without brake	High rigidity direct acting guide	LXSH2	2 5	6 12	P.940
		With brake			2 5	6 12	P.948
	5 phase stepper	Without brake		LXSH5	2 5	6 12	P.956
		With brake			2 5	6 12	P.964

- CE-Marking P.972
- Construction P.984
- Mounting P.987
- Acceleration Time Guide P.990
- Table Deflection P.992
- Made to Order/Low Particulate Generation Specification P.993

Part Number Designations

LX S H 5 B C - 100 S B - M9N 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	6 mm
B	12 mm
C	2 mm
D	5 mm

Stroke (mm)

100

Home position switch

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

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

Auto switches	Proximity switches
Nil	Without auto switch/proximity switch
M9N	D-M9N (lead wire length 0.5 m)
M9P	D-M9P (lead wire length 0.5 m)
F9G	D-F9G (lead wire length 0.5 m)
F9H	D-F9H (lead wire length 0.5 m)
F9GL	D-F9GL (lead wire length 3 m)
F9HL	D-F9HL (lead wire length 3 m)
M9B	D-M9B (lead wire length 0.5 m)
M9NL	D-M9NL (lead wire length 3 m)
M9PL	D-M9PL (lead wire length 3 m)
M9BL	D-M9BL (lead wire length 3 m)
GN	With sensor plate, without proximity switch
G	GX-F8A (lead wire length 1 m)
GD	GX-F8AI (lead wire length 1 m)
GB	GX-F8B (lead wire length 1 m)
GDGB	GX-F8BI (lead wire length 1 m)
GU	GXL-8FU (lead wire length 1 m)
GUB	GXL-8FUB (lead wire length 1 m)

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

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Low Profile Slide Table Type

5 Phase Stepper Motor

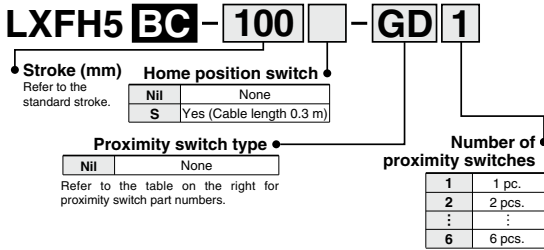
Without Motor Brake

Series LXF

Direct Acting Guide

Ball Screw
 $\varnothing 8$ mm / 2 mm lead

How to Order



Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail without proximity switch	—	—	—
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 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 (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 $\varnothing 8$ mm, 2 mm lead			
	Guide	Direct acting guide			
Home position switch	Model	Photo micro sensor EE-SX672 (Refer to page 1036 for details.)			
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)			

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

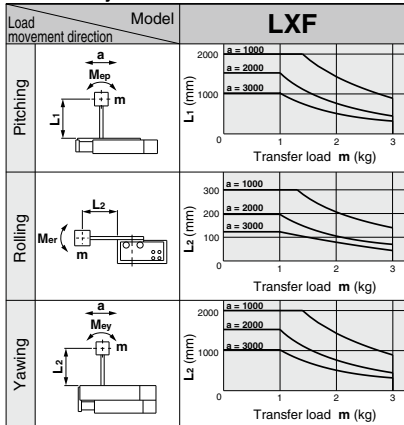
Allowable Moment (N·m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

m : Transfer load (kg)
 L₁, L₂ : Overhang to workpiece center of gravity (mm)
 a : Workpiece acceleration (mm/sec²)
 M_e : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

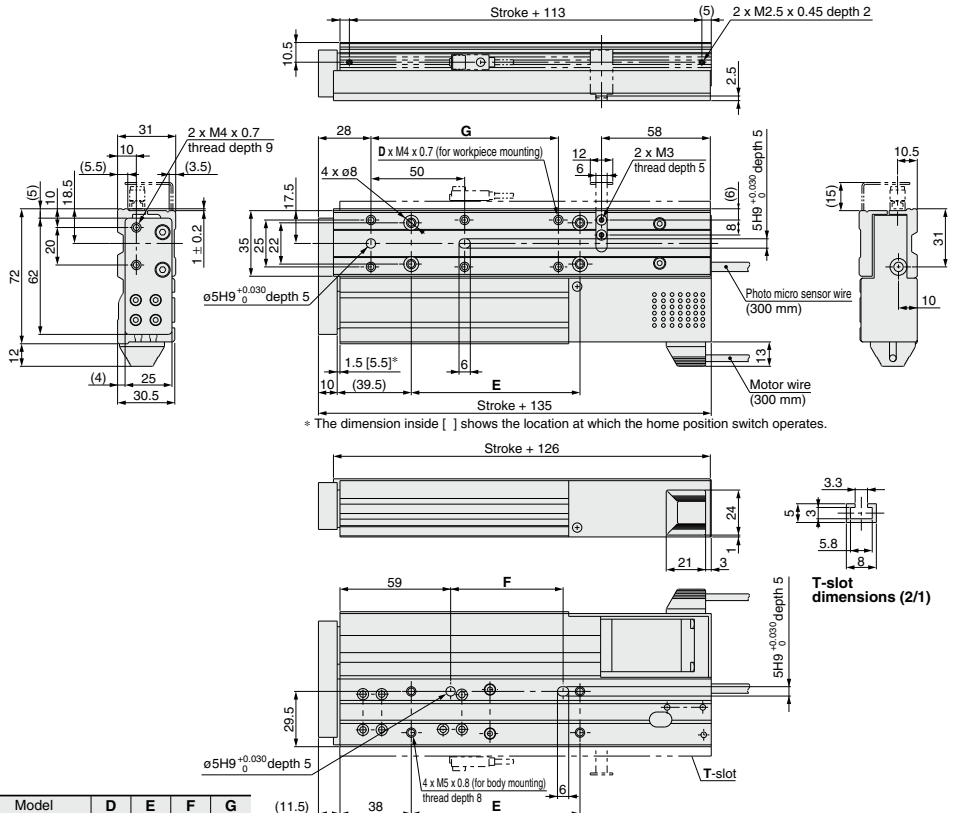


Made to Order specifications
 (For details, refer to page 993.)

Symbol	Specifications
X60	Low particulate generation specification

Low Profile Slide Table Type 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

Refer to page 987 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)			
		1	10	50	100
Speed (mm/s)	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 1 kg

Positioning distance (mm)		Positioning time (sec)			
		1	10	50	100
Speed (mm/s)	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 991 for acceleration time.

For transfer load of 2 kg

Positioning distance (mm)		Positioning time (sec)			
		1	10	50	100
Speed (mm/s)	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 3 kg

Positioning distance (mm)		Positioning time (sec)			
		1	10	50	100
Speed (mm/s)	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

- LJ1
- LG1
- LTF
- LECS
- LXF**
- LXP
- LXS
- LC6
- LZ
- LC3F2
- D-
- E-MY

Low Profile Slide Table Type

5 Phase Stepper Motor

Without Motor Brake

Series LXF

Direct Acting Guide

Ball Screw
 $\varnothing 8$ mm / 5 mm lead

How to Order

LXFH5 BD - 100 - GD 1

Stroke (mm)
 Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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 without proximity switch	—	—	—
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 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 (No condensation)			
	Work load (kg)	3 (2) horizontal Note 1)			
	Speed (mm/s)	to 80 Note 2)			
Main parts	Positioning repeatability (mm)	±0.03			
	Motor	5 phase stepper motor (without brake)			
	Lead screw	Ball screw $\varnothing 8$ mm, 5 mm lead			
Home position switch	Guide	Direct acting guide			
	Model	Photo micro sensor EE-SX672 (Refer to page 1036 for details.)			
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)			

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

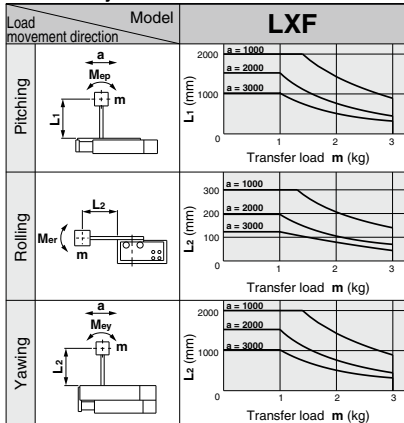
Allowable Moment (N-m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

m : Transfer load (kg)
 L₁, L₂ : Overhang to workpiece center of gravity (mm)
 a : Workpiece acceleration (mm/sec²)
 M_e : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

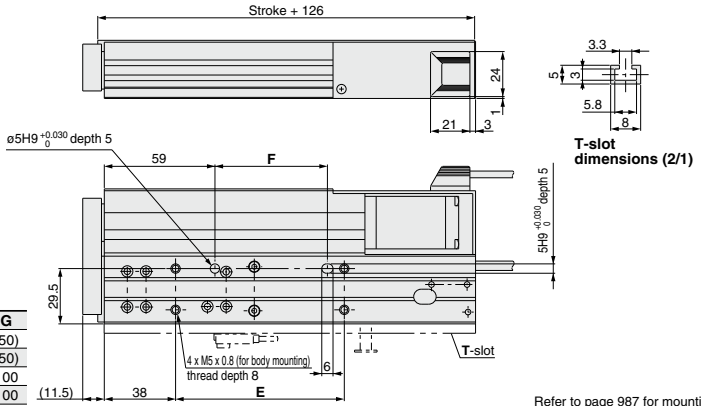
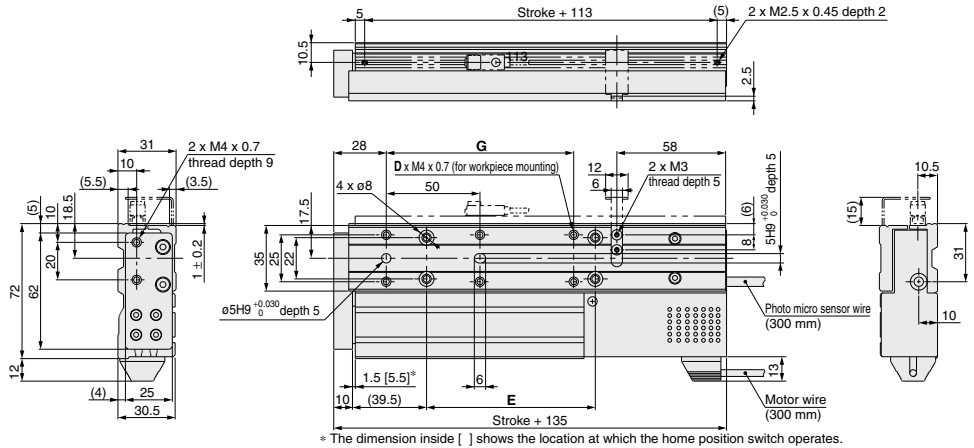


Made to Order specifications
 (For details, refer to page 993.)

Symbol	Specifications
X60	Low particulate generation specification

Low Profile Slide Table Type 5 Phase Stepper Motor/Without Motor Brake *Series LXF*

Dimensions/LXFH5BD



Model	D	E	F	G
LXFH5BD- 25	4	60	30	(50)
LXFH5BD- 50	4	90	60	(50)
LXFH5BD- 75	6	90	60	100
LXFH5BD-100	6	90	60	100

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)			
		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 1 kg

Positioning distance (mm)		Positioning time (sec)			
		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 991 for acceleration time.

For transfer load of 2 kg

Positioning distance (mm)		Positioning time (sec)			
		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 3 kg

Positioning distance (mm)		Positioning time (sec)			
		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

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Low Profile Slide Table Type

5 Phase Stepper Motor Without Motor Brake

Direct
Acting
Guide

Ball Screw
ø 8 mm / 6 mm lead

Series LXF

How to Order

LXFH5 SA - 100 - M9N 1

Stroke (mm)

Refer to the standard stroke.

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

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) M9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/NPN	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/PNP	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/NPN	3	N.C. (B contact)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

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 (No condensation)			
	Work load (kg)	3 (2) horizontal Note 1)			
	Speed (mm/s)	to 100 Note 2)			
Main parts	Positioning repeatability (mm)	±0.05			
	Motor	5 phase stepper motor (without brake)			
	Lead screw	Slide screw ø8 mm, 6 mm lead			
	Guide	Direct acting guide			
Home position switch	Model	Photo micro sensor EE-SX672 (Refer to page 1036 for details.)			
Driver	Model	LC6D-S07AD-□ (Refer to page 996 for details.)			

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail without proximity switch			
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

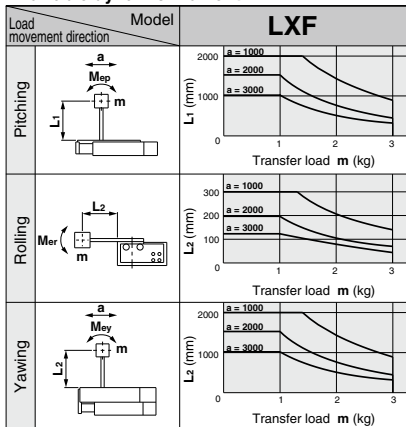
Allowable Moment (N-m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
M_e : Dynamic moment

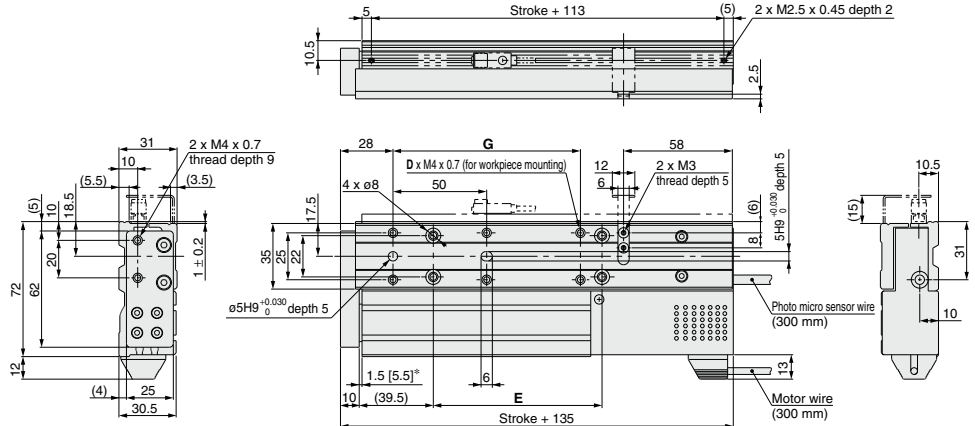
Allowable dynamic moment



Refer to page 992 for deflection data.

Low Profile Slide Table Type 5 Phase Stepper Motor/Without Motor Brake *Series LXF*

Dimensions/LXFH5SA



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

Model	D	E	F	G
LXFH5SA- 25	4	60	30	(50)
LXFH5SA- 50	4	90	60	(50)
LXFH5SA- 75	6	90	60	100
LXFH5SA-100	6	90	60	100

Refer to page 987 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)			
		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 1 kg

Positioning distance (mm)		Positioning time (sec)			
		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 990 for acceleration time.

For transfer load of 2 kg

Positioning distance (mm)		Positioning time (sec)			
		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 3 kg

Positioning distance (mm)		Positioning time (sec)			
		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

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Low Profile Slide Table Type

5 Phase Stepper Motor Without Motor Brake

Direct
Acting
Guide

Slide Screw
ø8 mm/12 mm lead

Series LXF

How to Order

LXFH5 SB - 100 - M9N 1

Stroke (mm)
Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

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 (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 ø8 mm, 12 mm lead			
	Guide	Direct acting guide			
Home position switch	Model	Photo micro sensor EE-SX672 (Refer to page 1036 for details.)			
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)			

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor rail without proximity switch			
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

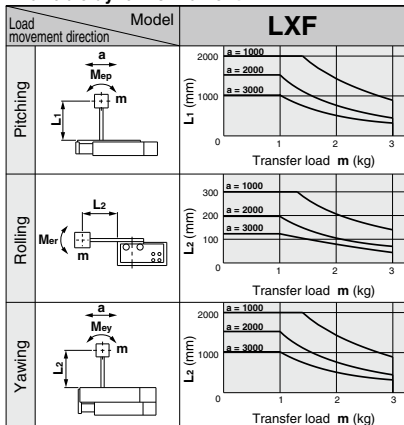
Allowable Moment (N-m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
M_e : Dynamic moment

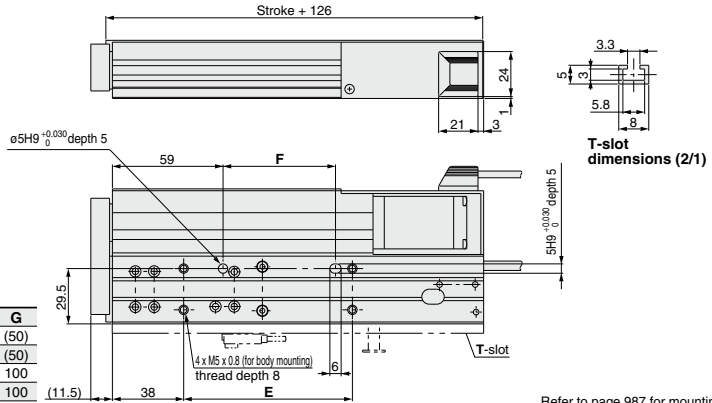
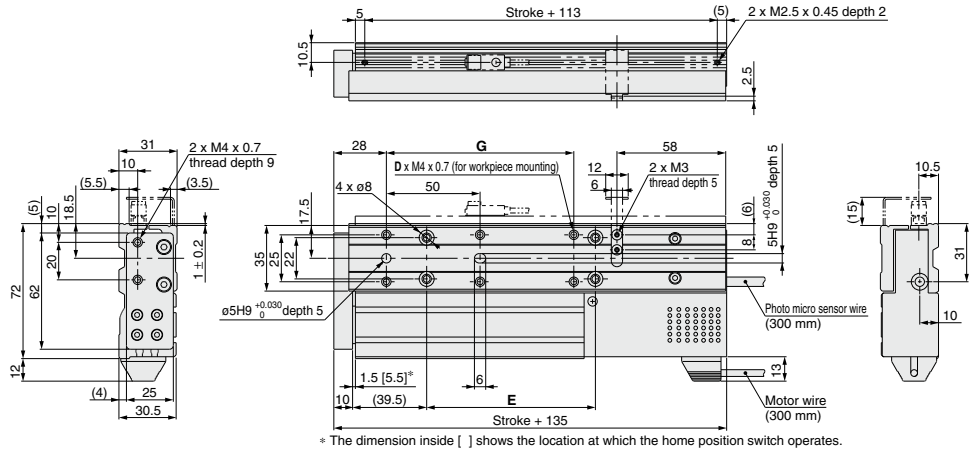
Allowable dynamic moment



Refer to page 992 for deflection data.

Low Profile Slide Table Type 5 Phase Stepper Motor/Without Motor Brake *Series LXF*

Dimensions/LXFH5SB



Model	D	E	F	G
LXFH5SB- 25	4	60	30	(50)
LXFH5SB- 50	4	90	60	(50)
LXFH5SB- 75	6	90	60	100
LXFH5SB-100	6	90	60	100

Refer to page 987 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)			
		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 2 kg

Positioning distance (mm)		Positioning time (sec)			
		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 1 kg

Positioning distance (mm)		Positioning time (sec)			
		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 990 for acceleration time.

- LJ1
- LG1
- LTF
- LECS
- LXF**
- LXP
- LXS
- LC6
- LZ
- LC3F2
- D-
- E-MY

LJ1

LG1

LTF

LECS □

LXF

LXP

LXS

LC6 □

LZ □

LC3F2

D- □

E-MY

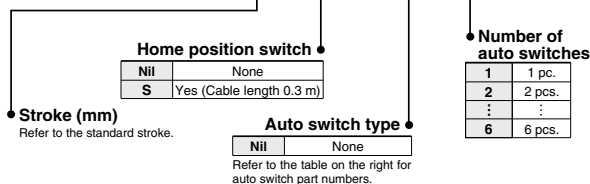
Guide Rod Type 2 Phase Stepper Motor Without Motor Brake Series LXP

Ball Bushing

Ball Screw
ø8 mm/2 mm lead

How to Order

LXPB2 **BC** - **100** - **M9N** **1**



Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (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 ø8 mm, 2 mm lead						
	Guide	Ball bushing						
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
	Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)						



Made to order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

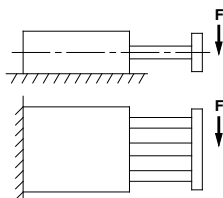
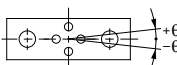
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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

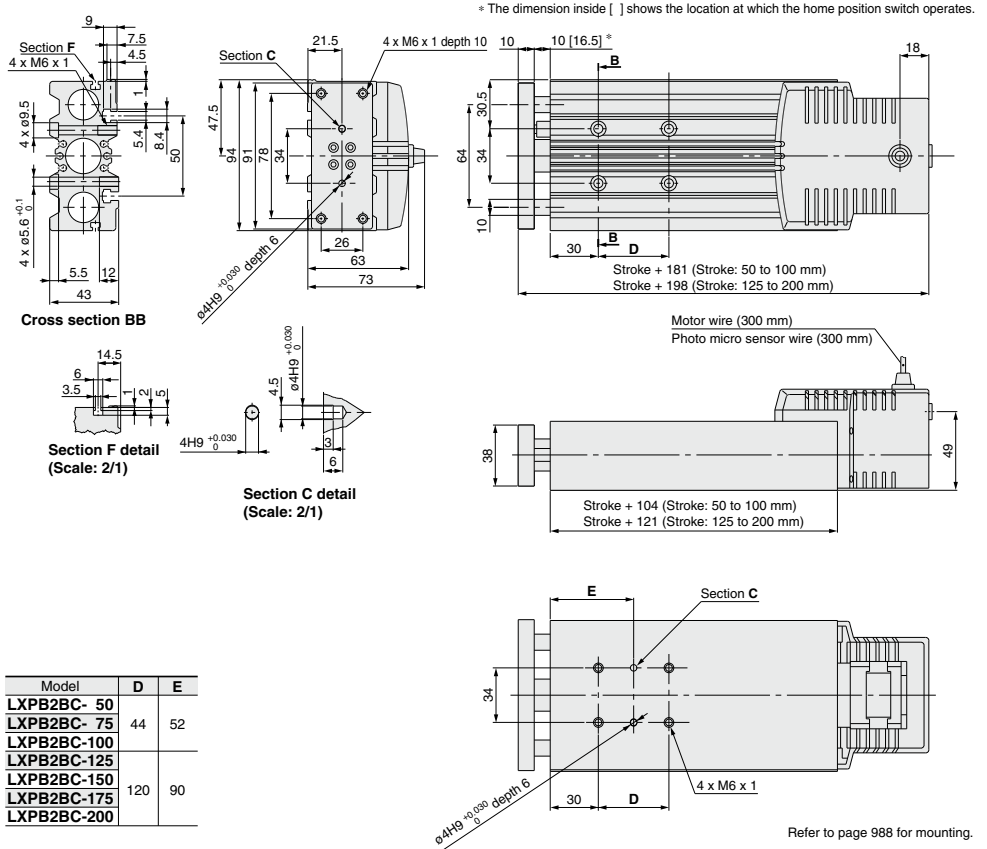
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB2BC



LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

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
	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 6 kg

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
	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 3 kg

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
	20	0.7	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

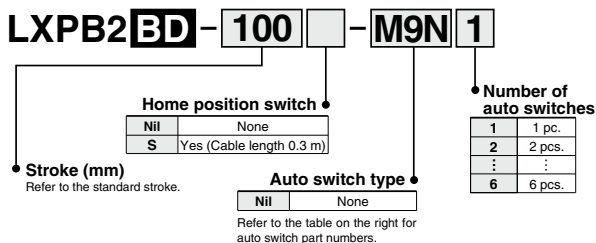
Refer to page 991 for acceleration time.

Guide Rod Type 2 Phase Stepper Motor Without Motor Brake Series LXP

Ball Bushing

Ball Screw
ø 8 mm / 5 mm lead

How to Order



Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (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 ø8 mm, 5 mm lead						
	Guide	Ball bushing						
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)						
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)						



Made to order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

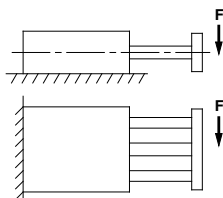
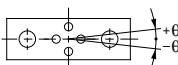
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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

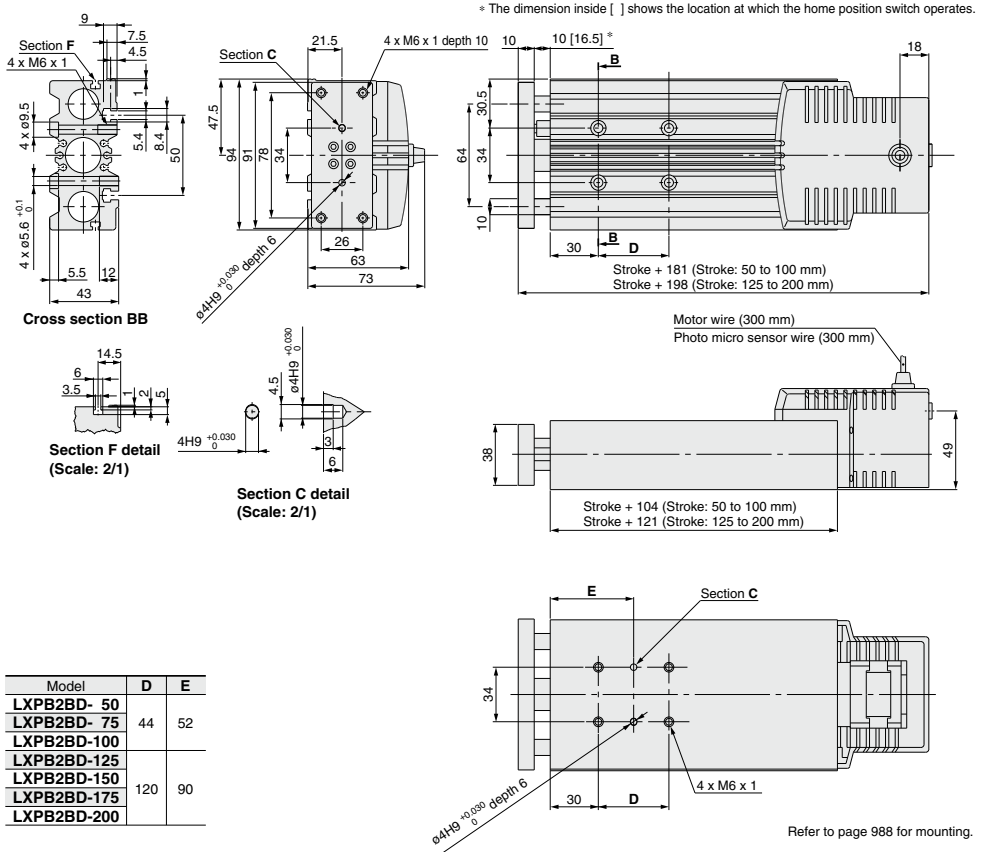
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB2BD



- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP**
- LXS
- LC6
- LZ
- LC3F2
- D-
- E-MY

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

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
	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 6 kg

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
	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 3 kg

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
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

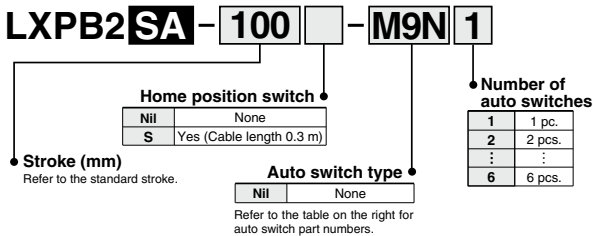
Refer to page 991 for acceleration time.

Guide Rod Type 2 Phase Stepper Motor Without Motor Brake Series LXP

Ball
Bushing

Slide Screw
ø 8 mm / 6 mm lead

How to Order



Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (No condensation)						
	Work load (kg)	6 horizontal/5 vertical ^{Note 1)}						
	Speed (mm/s)	to 100 ^{Note 2)}						
Main parts	Positioning repeatability (mm)	±0.05						
	Motor	2 phase stepper motor (without brake)						
	Lead screw	Slide screw ø8 mm, 6 mm lead						
Home position switch	Guide	Ball bushing						
	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
Driver	Model	LC6D-220AD-□ (Refer to page 995 for details.)						
Positioning driver	Model	LC6C-220AD (Refer to page 999 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, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

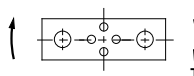
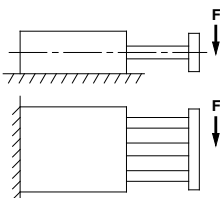
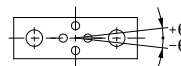
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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

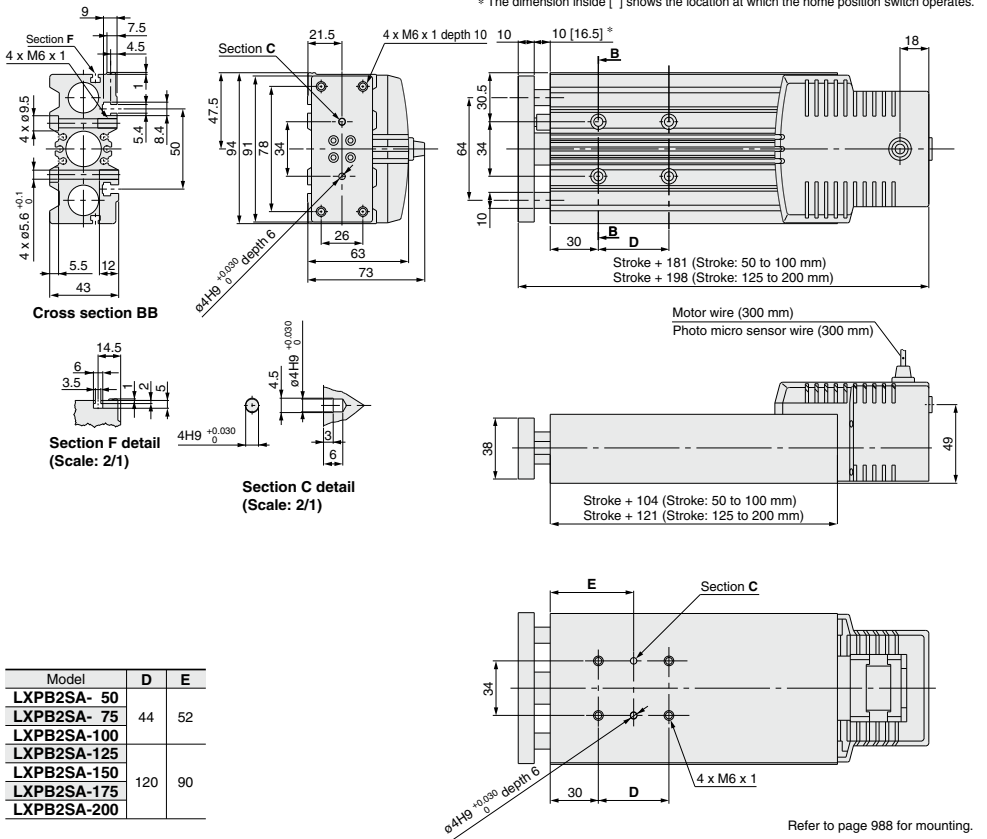
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB2SA



Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

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 3 kg

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 990 for acceleration time.

For transfer load of 6 kg

Positioning distance (mm)		Positioning time (sec)				
		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

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

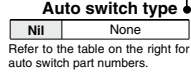
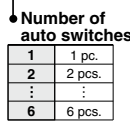
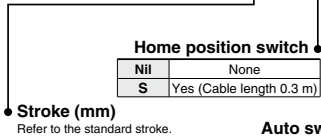
Guide Rod Type 2 Phase Stepper Motor Without Motor Brake Series LXP

Ball
Bushing

Slide Screw
ø8 mm/12 mm lead

How to Order

LXPB2 SB - 100 - M9N 1



Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (No condensation)						
	Work load (kg)	3 horizontal/3 vertical ^{Note 1)}						
	Speed (mm/s)	to 200 ^{Note 2)}						
Main parts	Positioning repeatability (mm)	±0.05						
	Motor	2 phase stepper motor (without brake)						
	Lead screw	Slide screw ø8 mm, 12 mm lead						
Home position switch	Guide	Ball bushing						
	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
Driver	Model	LC6D-220AD-□ (Refer to page 995 for details.)						
Positioning driver	Model	LC6C-220AD (Refer to page 999 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, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

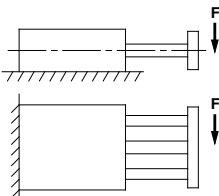
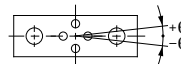
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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

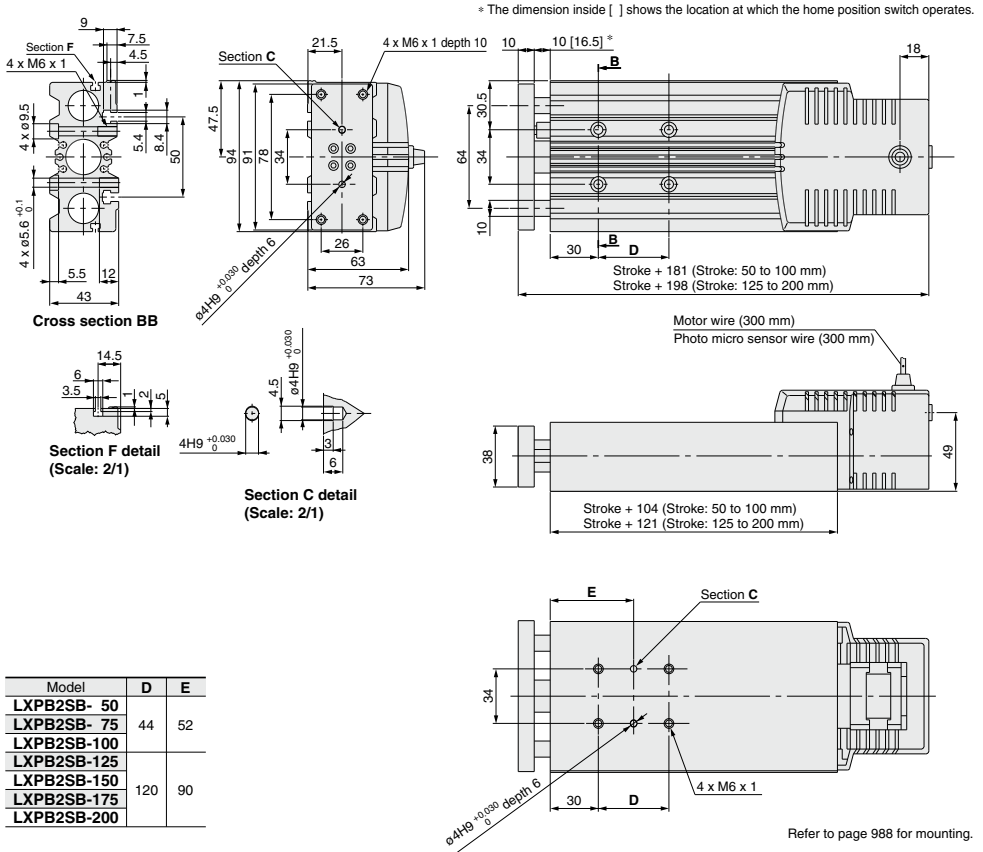
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB2SB



- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP**
- LXS
- LC6
- LZ
- LC3F2
- D-
- E-MY

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 3 kg

Positioning distance (mm)		Positioning time (sec)				
		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 1.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

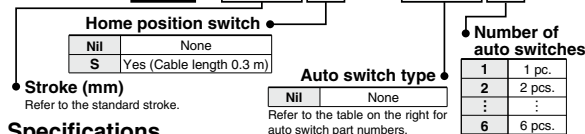
Guide Rod Type 2 Phase Stepper Motor With Motor Brake Series LXP

Ball Bushing

Ball Screw
ø 8 mm/2 mm lead

How to Order

LXPB2 **BC** - **100** **B** - **M9N** **1**



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 (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 ø8 mm, 2 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
	Driver	Model	LC6D-220AD-□ (Refer to page 995 for details.)						
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)							

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)



Made to order specifications
(For details, refer to page 993.)

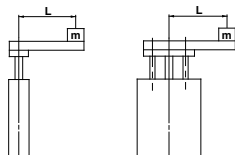
Symbol	Specifications
X60	Low particle generation specification

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

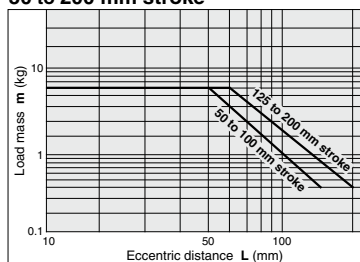
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

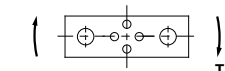
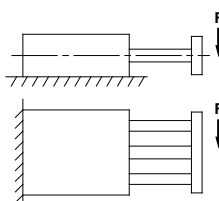
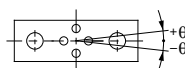


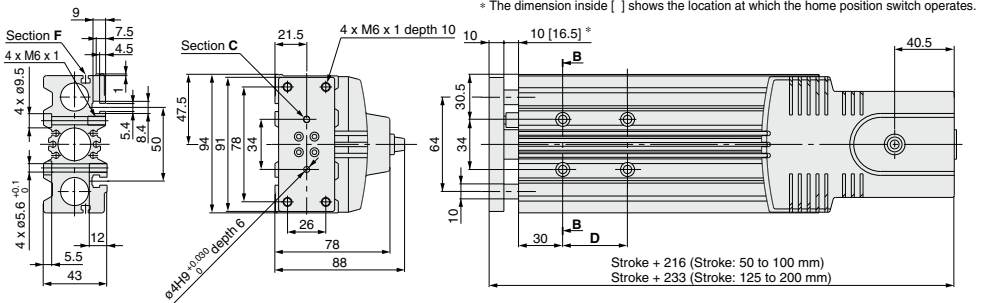
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



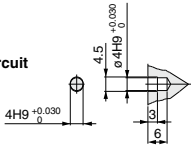
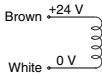
Refer to page 992 for deflection data.

Dimensions/LXPB2BC



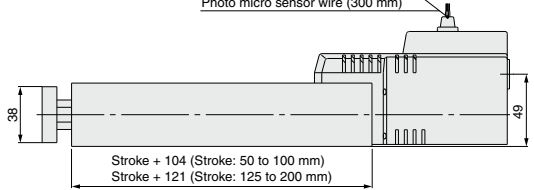
Cross section BB

Brake electrical circuit



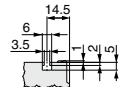
**Section C detail
(Scale: 2/1)**

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

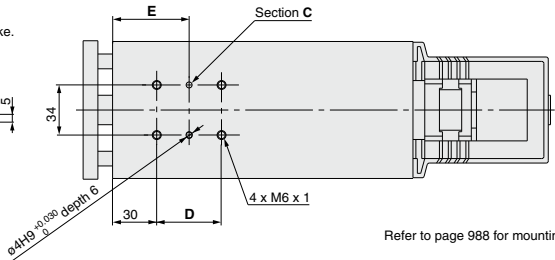


Note A) A contact protection circuit is required when connecting a brake.

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



**Section F detail
(Scale: 2/1)**



Refer to page 988 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

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
	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 2.5 kg

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
	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 991 for acceleration time.

For transfer load of 5 kg

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
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

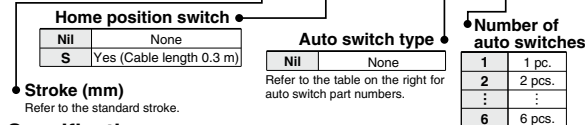
Guide Rod Type 2 Phase Stepper Motor With Motor Brake Series LXP

Ball Bushing

Ball Screw
Ø 8 mm / 5 mm lead

How to Order

LXPB2 **BD** - **100** **B** - **M9N** **1**



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 (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 Ø8 mm, 5 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
Power consumption (W)	5								
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
Driver	Model	LC6D-220AD-□ (Refer to page 995 for details.)							
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)							

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)



Made to order specifications
(For details, refer to page 993.)

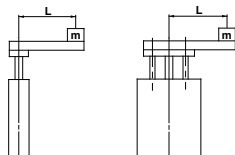
Symbol	Specifications
X60	Low particle generation specification

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

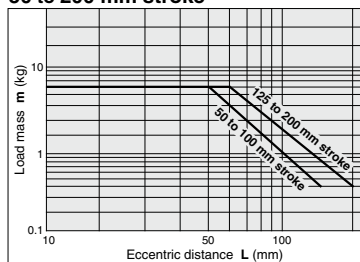
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

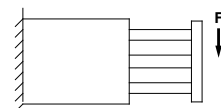
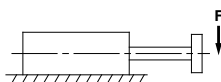
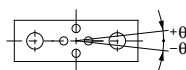


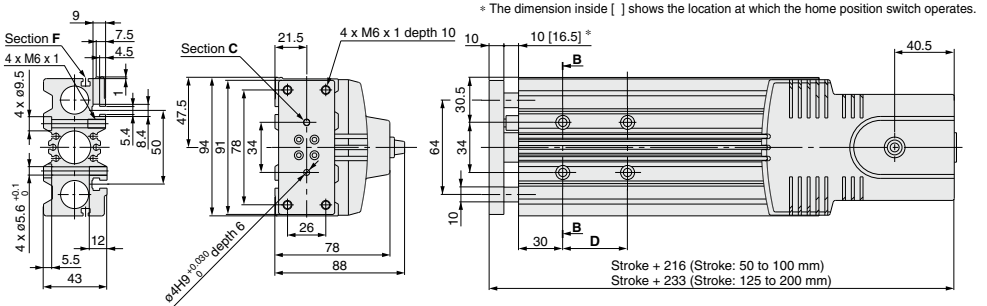
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



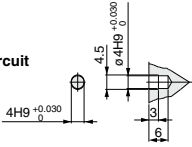
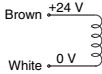
Refer to page 992 for deflection data.

Dimensions/LXPB2BD



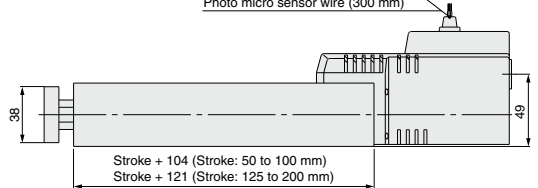
Cross section BB

Brake electrical circuit



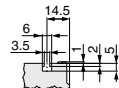
**Section C detail
(Scale: 2/1)**

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

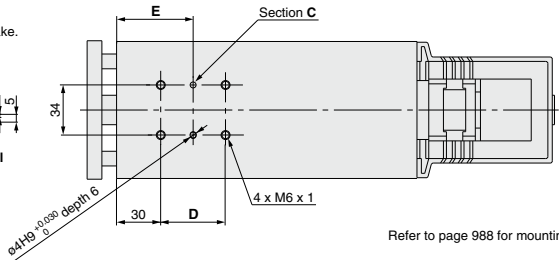


Note A) A contact protection circuit is required when connecting a brake.

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



**Section F detail
(Scale: 2/1)**



Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

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
	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 2.5 kg

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
	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 991 for acceleration time.

For transfer load of 5 kg

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
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

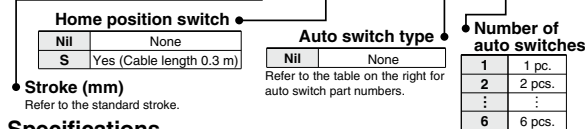
Guide Rod Type 2 Phase Stepper Motor With Motor Brake Series LXP

Ball Bushing

Slide Screw
ø 8 mm / 6 mm lead

How to Order

LXPB2 SA - 100 B - M9N 1



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 (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 ø8 mm, 6 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
	Driver	Model	LC6D-220AD-□ (Refer to page 995 for details.)						
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)							

Auto switch types

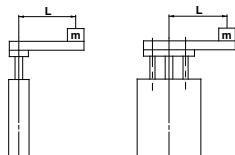
Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

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

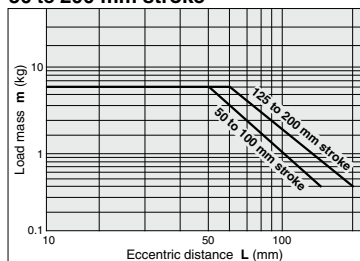
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

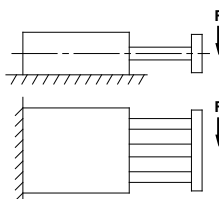
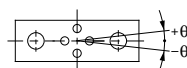


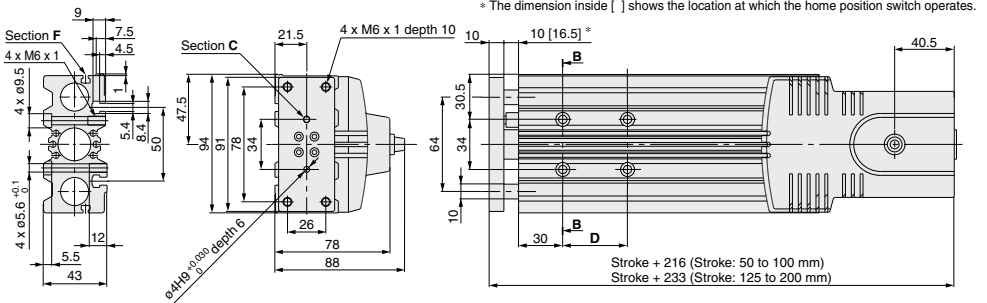
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



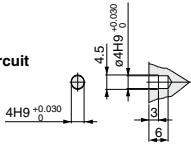
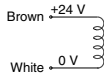
Refer to page 992 for deflection data.

Dimensions/LXPB2SA



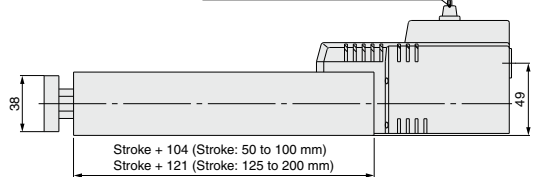
Cross section BB

Brake electrical circuit



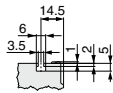
**Section C detail
(Scale: 2/1)**

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

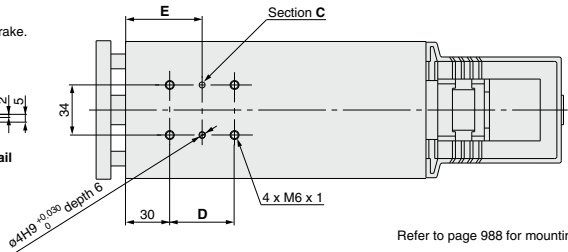


Note A) A contact protection circuit is required when connecting a brake.

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



**Section F detail
(Scale: 2/1)**



Refer to page 988 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

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 2.5 kg

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 990 for acceleration time.

For transfer load of 5 kg

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

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Guide Rod Type 2 Phase Stepper Motor With Motor Brake Series LXP

Ball
Bushing

Slide Screw
Ø 8 mm/12 mm lead

How to Order

LXPB2 SB - 100 B - M9N 1

Home position switch

NII	None
S	Yes (Cable length 0.3 m)

Auto switch type

NII	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.

• **Stroke (mm)**
Refer to the standard stroke.

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 (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 Ø8 mm, 12 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
	Driver	Model	LC6D-220AD-□ (Refer to page 995 for details.)						
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)							

Auto switch types

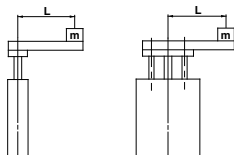
Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
NII	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/PNP	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/PNP	3	N.C. (B contact)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

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

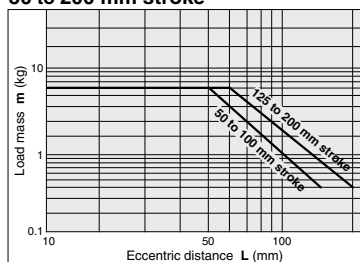
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

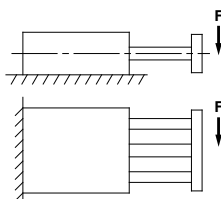
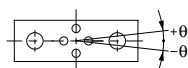


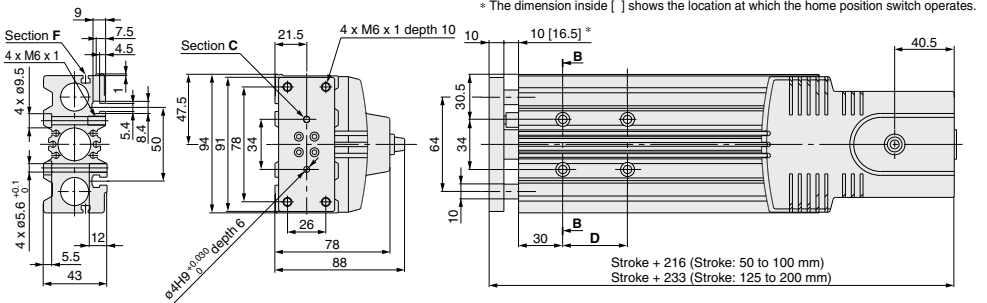
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



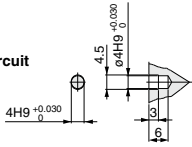
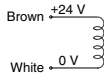
Refer to page 992 for deflection data.

Dimensions/LXPB2SB



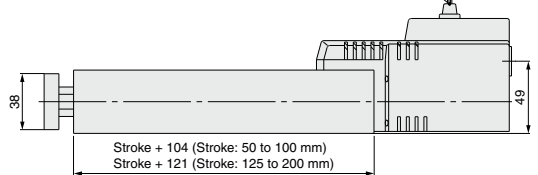
Cross section BB

Brake electrical circuit



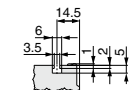
**Section C detail
(Scale: 2/1)**

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

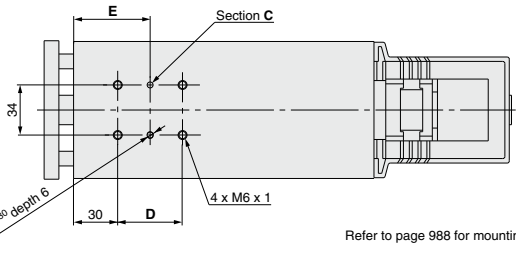


Note) A contact protection circuit is required when connecting a brake.

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)**



Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 1.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

For transfer load of 3 kg

Positioning distance (mm)		Positioning time (sec)				
		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

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

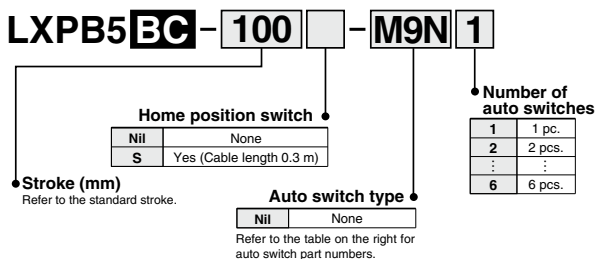
E-MY

Guide Rod Type 5 Phase Stepper Motor Without Motor Brake Series LXP

Ball Bushing

Ball Screw
ø 8 mm / 2 mm lead

How to Order



Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (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 ø8 mm, 2 mm lead						
	Guide	Ball bushing						
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
Driver	Model	LC6D-507AD-□ (Refer to page 995 details.)						



Made to order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

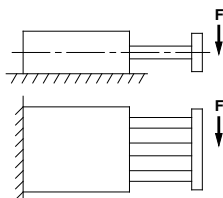
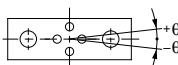
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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)

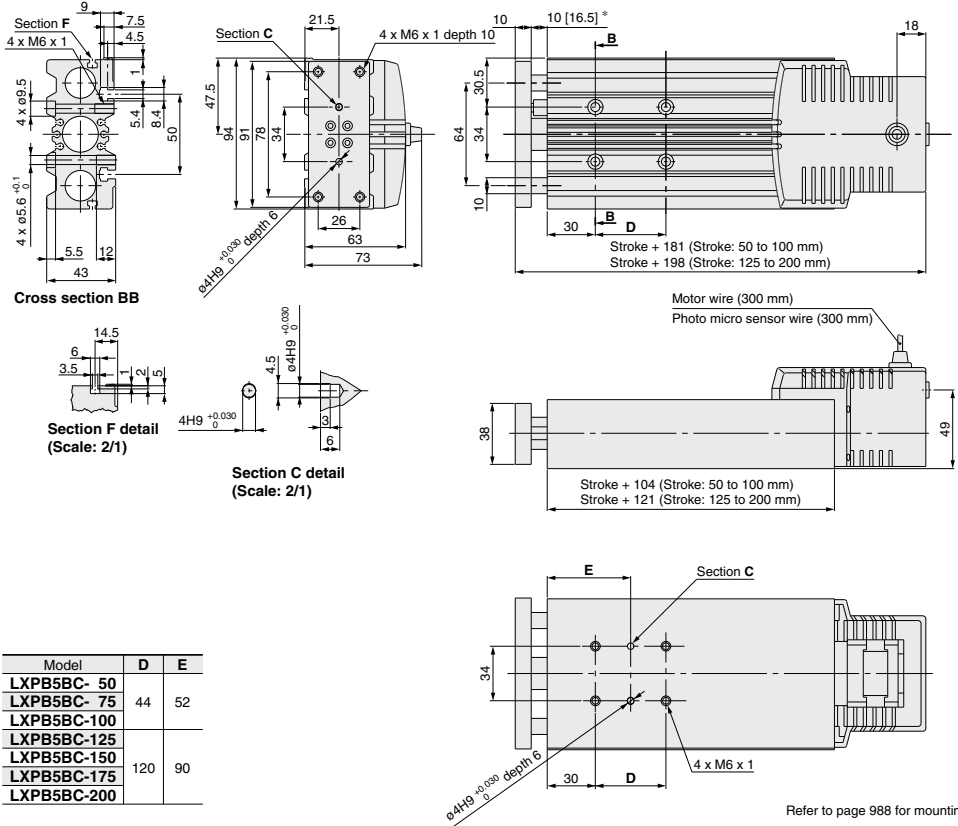
Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB5BC

* 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		

- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP**
- LXS
- LC6
- LZ
- LC3F2
- D-
- E-MY

Refer to page 988 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

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
	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 6 kg

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
	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 3 kg

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
	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 991 for acceleration time.

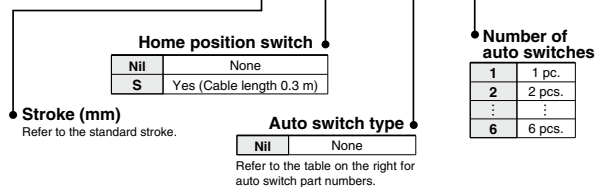
Guide Rod Type 5 Phase Stepper Motor Without Motor Brake Series LXP

Ball Bushing

Ball Screw
ø 8 mm / 5 mm lead

How to Order

LXPB5 **BD** - **100** - **M9N** **1**



Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (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 ø8 mm, 5 mm lead						
	Guide	Ball bushing						
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
Driver	Model	LC6D-507AD-□ (Refer to page 995 for details.)						



Made to order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

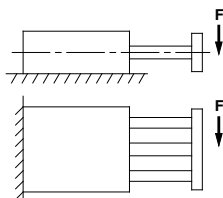
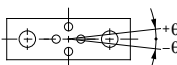
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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

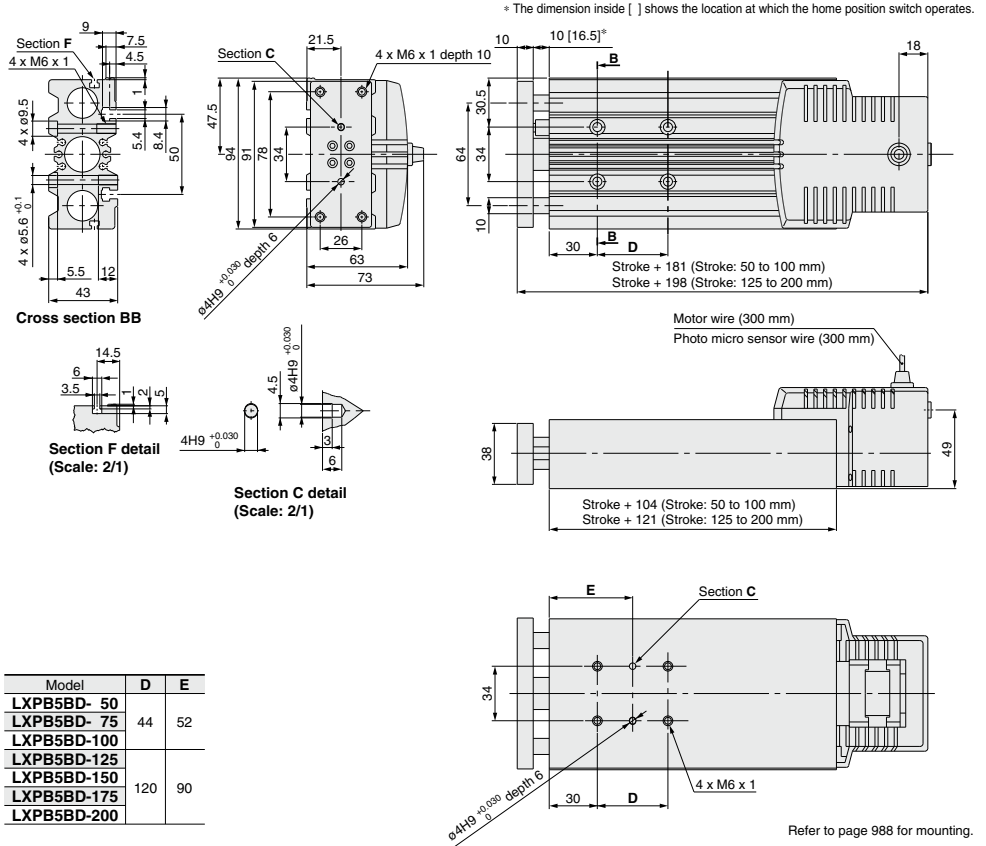
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB5BD



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

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

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
	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 3 kg

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
	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 991 for acceleration time.

For transfer load of 6 kg

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
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

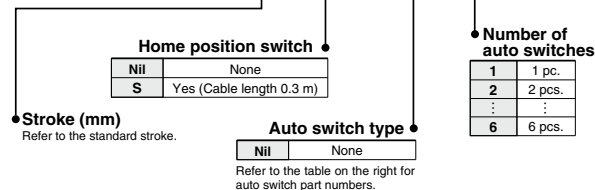
Guide Rod Type 5 Phase Stepper Motor Without Motor Brake Series LXP

Ball
Bushing

Slide Screw
ø 8 mm / 6 mm lead

How to Order

LXPB5 SA - 100 - M9N 1



Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (No condensation)						
	Work load (kg)	4 horizontal/4 vertical ^{Note 1)}						
	Speed (mm/s)	to 100 ^{Note 2)}						
Main parts	Positioning repeatability (mm)	±0.05						
	Motor	5 phase stepper motor (without brake)						
	Lead screw	Slide screw ø8 mm, 6 mm lead						
Home position switch	Guide	Ball bushing						
	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
Driver	Model	LC6D-507AD-□ (Refer to page 995 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, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

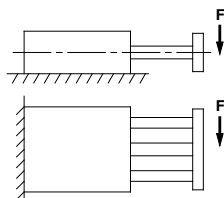
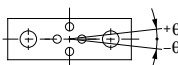
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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

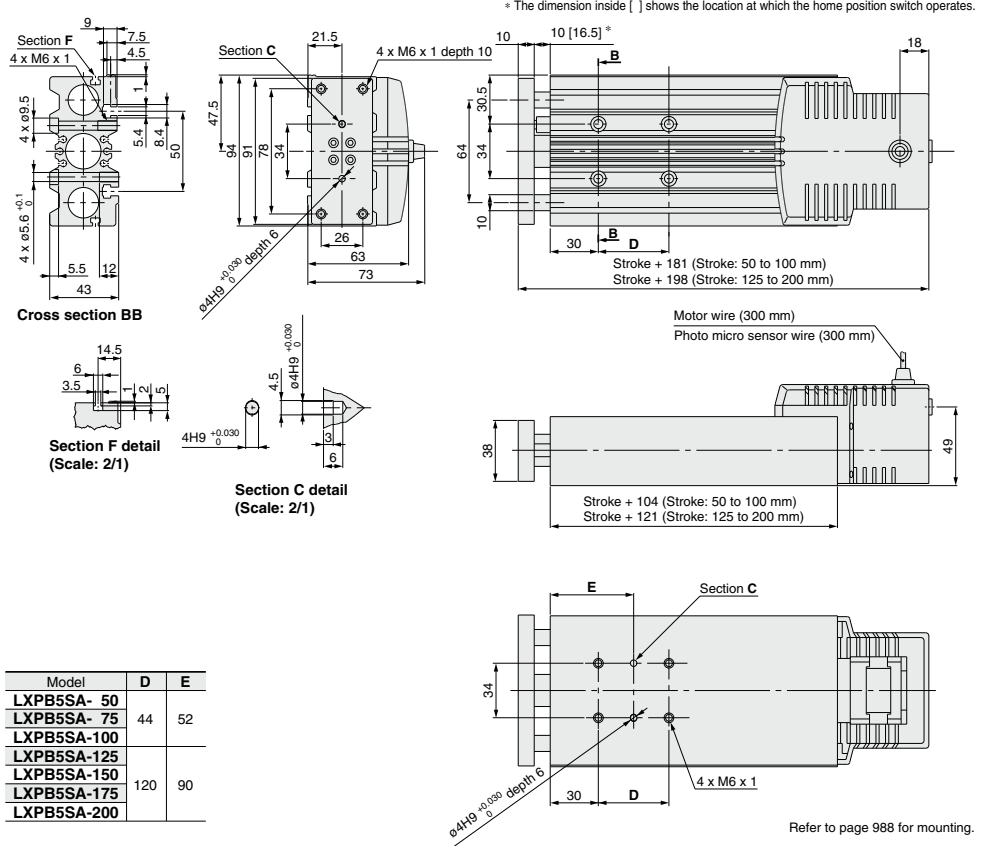
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB5SA



Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

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 2 kg

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 990 for acceleration time.

For transfer load of 4 kg

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

- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP**
- LXS
- LC6
- LZ
- LC3F2
- D-
- E-MY

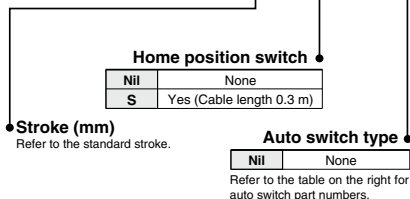
Guide Rod Type 5 Phase Stepper Motor Without Motor Brake Series LXP

Ball
Bushing

Slide Screw
ø 8 mm / 12 mm lead

How to Order

LXPB5 SB - 100 - M9N 1



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			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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 (No condensation)						
	Work load (kg)	2 horizontal/2 vertical ^{Note 1)}						
	Speed (mm/s)	to 200 ^{Note 2)}						
Main parts	Positioning repeatability (mm)	±0.05						
	Motor	5 phase stepper motor (without brake)						
	Lead screw	Slide screw ø8 mm, 12 mm lead						
Home position switch	Guide	Ball bushing						
	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)						
Driver	Model	LC6D-507AD-□ (Refer to page 995 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, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

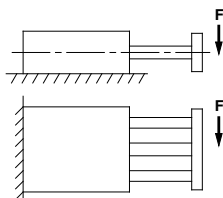
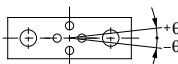
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

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

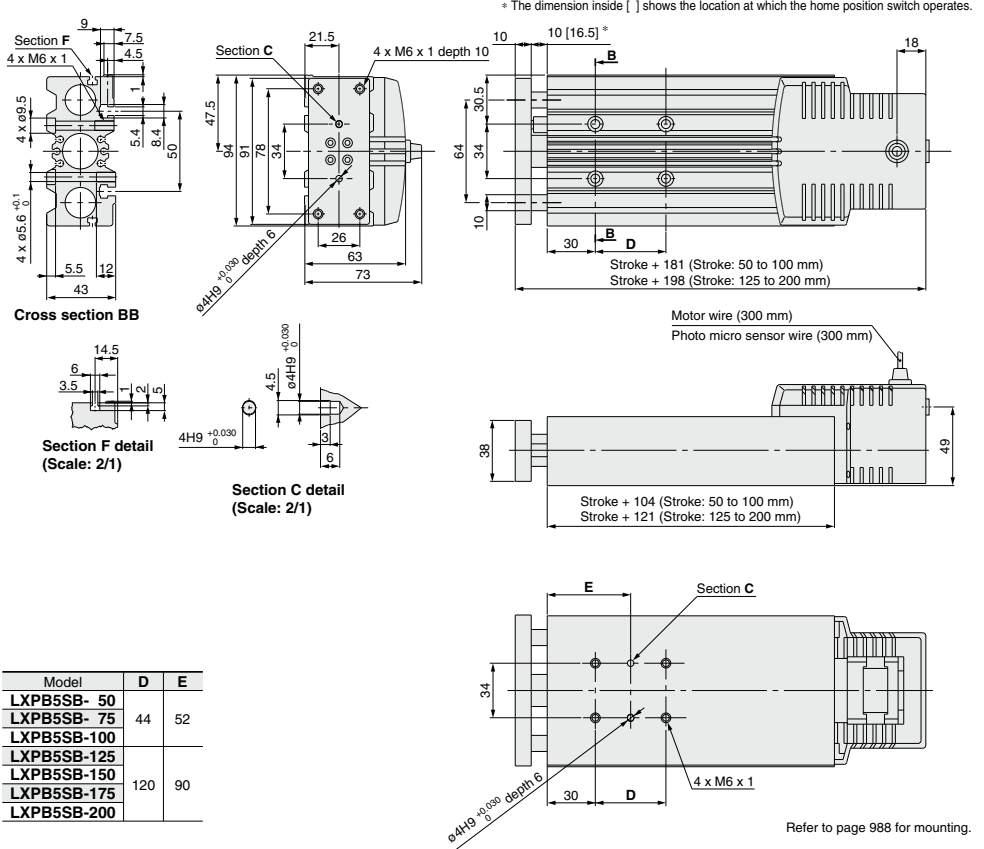
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

Dimensions/LXPB5SB



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

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

For transfer load of 2 kg

Positioning distance (mm)		Positioning time (sec)				
		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

- LJ1
- LG1
- LTF
- LECS □
- LXF
- LXP**
- LXS
- LC6 □
- LZ □
- LC3F2
- D- □
- E-MY

Guide Rod Type 5 Phase Stepper Motor With Motor Brake Series LXP

Ball Bushing

Ball Screw
ø 8 mm/2 mm lead

How to Order

LXPB5 BC - 100 B - M9N 1

Home position switch

NII	None
S	Yes (Cable length 0.3 m)

Auto switch type

NII	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.

Stroke (mm)
Refer to the standard stroke.

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 (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 ø8 mm, 2 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
	Driver	Model	LC6D-507AD-□ (Refer to page 995 for details.)						

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
NII	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)



Made to order specifications
(For details, refer to page 993.)

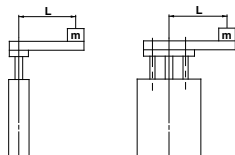
Symbol	Specifications
X60	Low particle generation specification

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

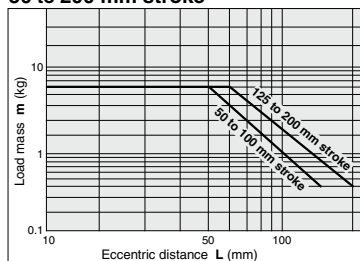
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

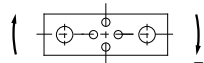
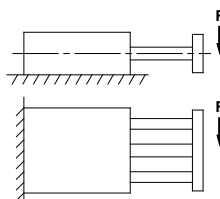
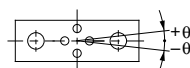


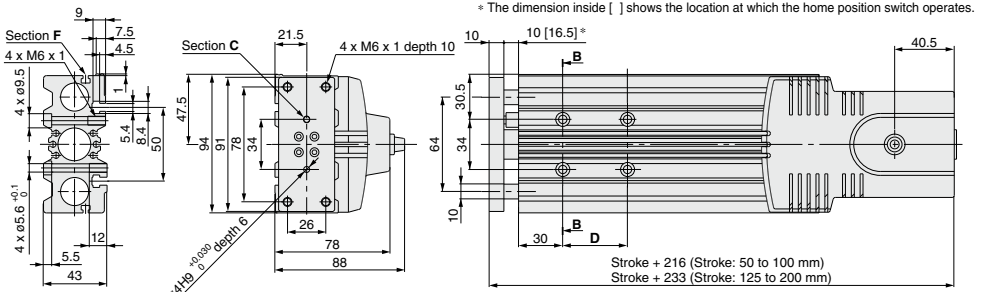
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°

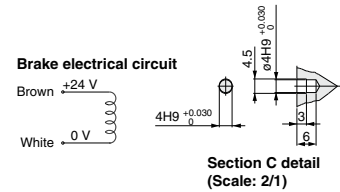


Refer to page 992 for deflection data.

Dimensions/LXPB5BC

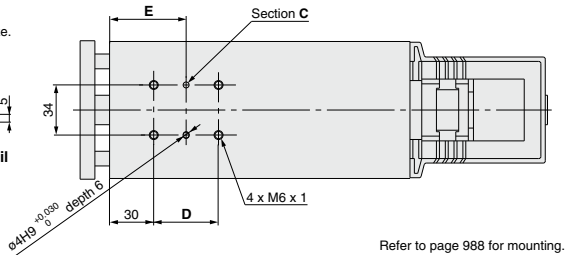
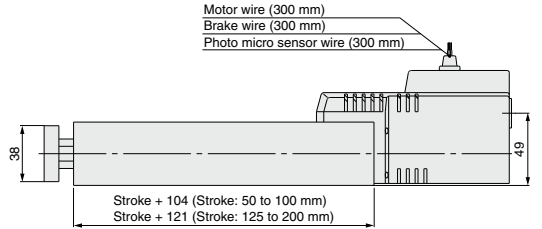
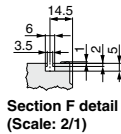


Cross section BB



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	120	90
LXPB5BC-150□B		
LXPB5BC-175□B		
LXPB5BC-200□B		



Refer to page 988 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

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
	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 2.5 kg

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
	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 991 for acceleration time.

For transfer load of 5 kg

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
	20	0.1	0.6	2.6	5.1	10.1
	30	0.1	0.4	1.7	3.4	6.7

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

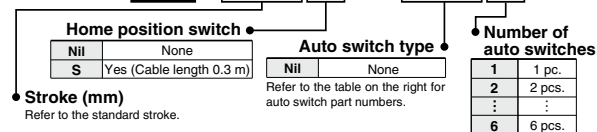
Guide Rod Type 5 Phase Stepper Motor With Motor Brake Series LXP

Ball Bushing

Ball Screw
ø 8 mm/5 mm lead

How to Order

LXPB5 **BD** - **100** **B** - **M9N** **1**



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 (No condensation)							
	Work load (kg)	6 horizontal/5 vertical <small>Note 1)</small>							
	Speed (mm/s)	to 80 <small>Note 2)</small>							
	Positioning repeatability (mm)	±0.03							
Main parts	Motor	5 phase stepper motor (with brake)							
	Lead screw	Ball screw ø8 mm, 5 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
	Power consumption (W)	5							
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
Driver	Model	LC6D-507AD-□ (Refer to page 995 for details.)							

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)



Made to order specifications
(For details, refer to page 993.)

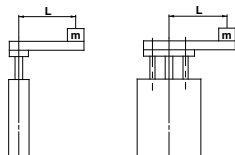
Symbol	Specifications
X60	Low particle generation specification

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

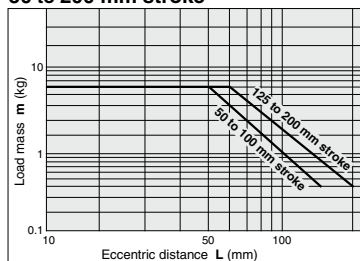
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

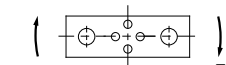
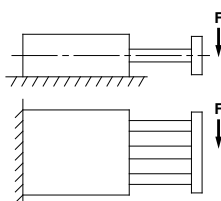
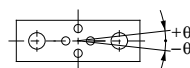


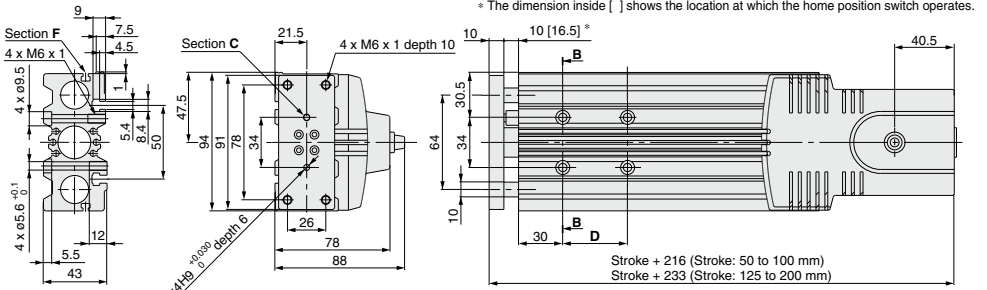
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



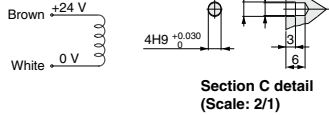
Refer to page 992 for deflection data.

Dimensions/LXPB5BD

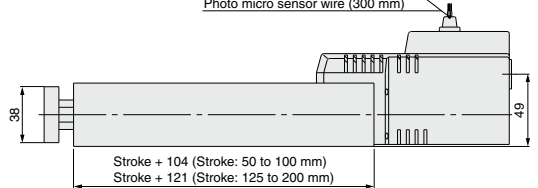


Cross section BB

Brake electrical circuit

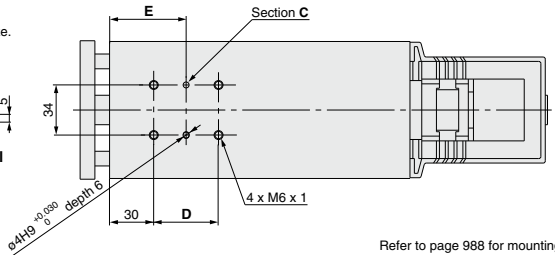
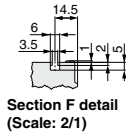


Motor wire (300 mm)
Brake wire (300 mm)
Photo micro sensor wire (300 mm)



Note A) 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		



Refer to page 988 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

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
	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 2.5 kg

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
	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 991 for acceleration time.

For transfer load of 5 kg

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
	40	0.1	0.3	1.3	2.6	5.1
	80	0.1	0.2	0.7	1.3	2.6

- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP
- LXS
- LC6
- LZ
- LC3F2
- D-
- E-MY

Guide Rod Type 5 Phase Stepper Motor With Motor Brake Series LXP

Ball
Bushing

Slide Screw
ø 8 mm/6 mm lead

How to Order

LXPB5 SA - 100 B - M9N 1

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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.

Stroke (mm)
Refer to the standard stroke.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

Specifications

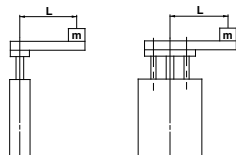
Standard stroke (mm)		50	75	100	125	150	175	200	
Performance	Body weight (kg)	2.2	2.4	2.5	2.8	3.0	3.1	3.3	
	Operating temperature range (°C)	5 to 40 (No condensation)							
	Work load (kg)	4 horizontal/4 vertical ^{Note 1)}							
	Speed (mm/s)	to 100 ^{Note 2)}							
	Positioning repeatability (mm)	±0.05							
Main parts	Motor	5 phase stepper motor (with brake)							
	Lead screw	Slide screw ø8 mm, 6 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
	Driver	Model	LC6D-507AD-□ (Refer to page 995 for details.)						

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

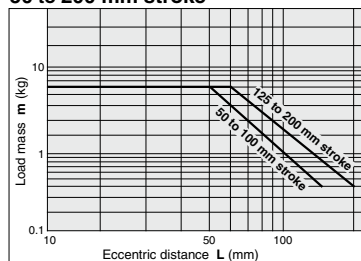
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

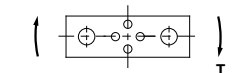
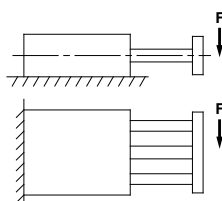
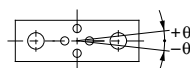


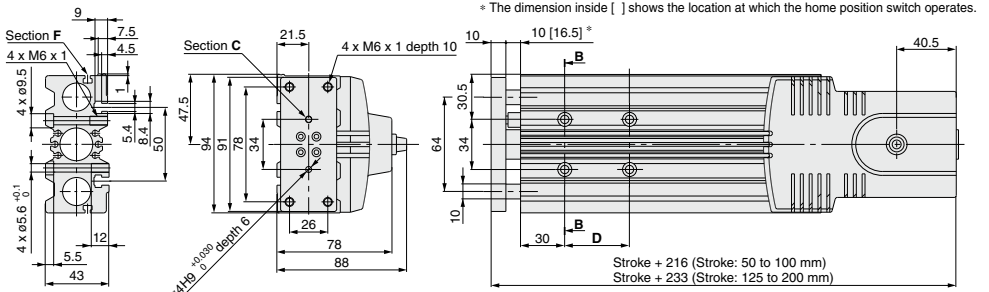
Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



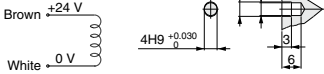
Refer to page 992 for deflection data.

Dimensions/LXPB5SA

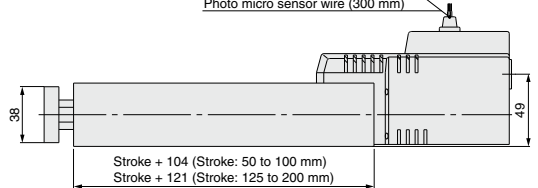


Cross section BB

Brake electrical circuit

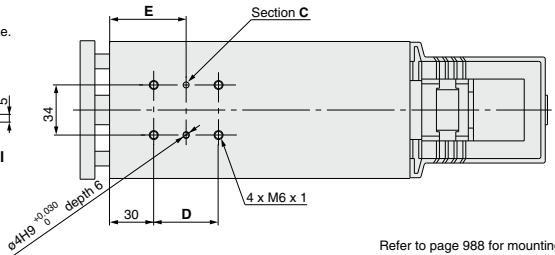
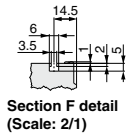


Motor wire (300 mm)
Brake wire (300 mm)
Photo micro sensor wire (300 mm)



Note A) 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 988 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

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 2 kg

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 990 for acceleration time.

For transfer load of 4 kg

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	0.3	0.7	1.2	2.2

LJ1

LG1

LTF

LECS□

LXF

LXP

LXS

LC6□

LZ□

LC3F2

D-□

E-MY

Guide Rod Type 5 Phase Stepper Motor With Motor Brake Series LXP

Ball
Bushing

Slide Screw
Ø 8 mm/12 mm lead

How to Order

LXPB5 SB - 100 B - M9N 1

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

Auto switch type

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

• **Stroke (mm)**
Refer to the standard stroke.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

Specifications

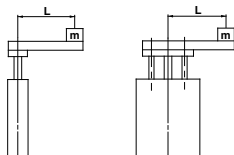
Standard stroke (mm)		50	75	100	125	150	175	200	
Performance	Body weight (kg)	2.2	2.4	2.5	2.8	3.0	3.1	3.3	
	Operating temperature range (°C)	5 to 40 (No condensation)							
	Work load (kg)	2 horizontal/2 vertical ^{Note 1)}							
	Speed (mm/s)	to 200 ^{Note 2)}							
	Positioning repeatability (mm)	±0.05							
Main parts	Motor	5 phase stepper motor (with brake)							
	Lead screw	Slide screw ø8 mm, 12 mm lead							
	Guide	Ball bushing							
	Electromagnetic brake	Model	De-energized operating type						
		Static torque (N-m)	0.1 or more						
Rated voltage (V)		24 DC ±5%							
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)							
	Driver	Model LC6D-507AD-□ (Refer to page 995 for details.)							

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

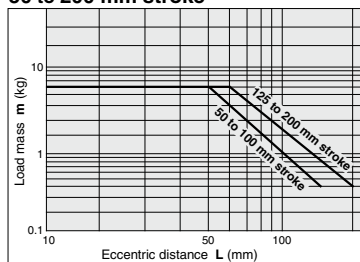
Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

Lifter Operation Range

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



50 to 200 mm 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

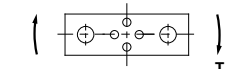
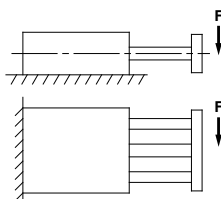
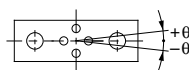


Plate non-rotating accuracy (θ)

Non-rotating accuracy
±0.09°



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 2 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
 $\varnothing 8$ mm / 2 mm lead

How to Order

LXSH2 **BC** - **100** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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 $\varnothing 8$ mm, 2 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)				
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)				

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

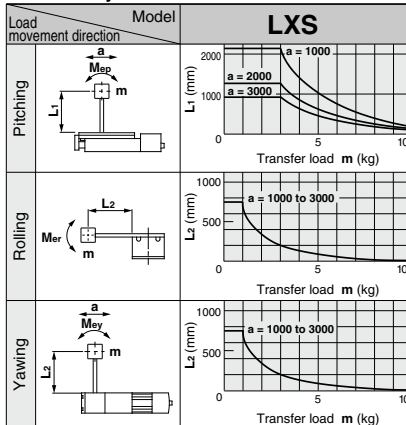
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

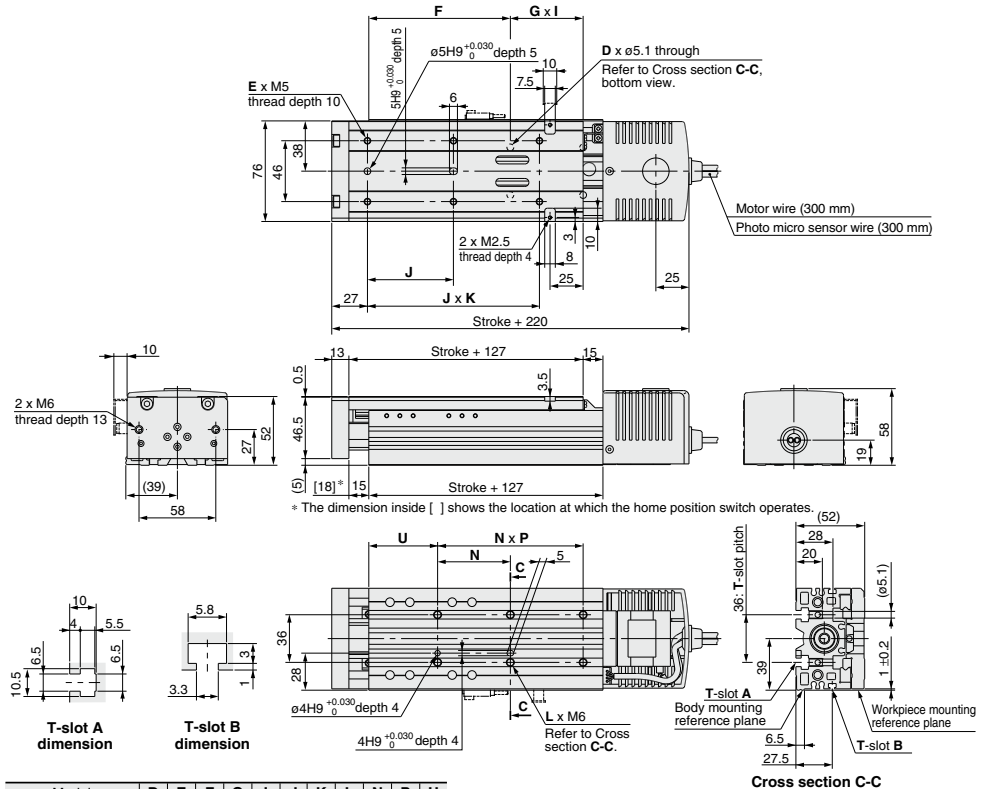


Made to Order specifications (For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

High Rigidity Slide Table Type 2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2BC



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 989 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 10 kg

Positioning distance (mm)		Positioning time (sec)				
		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 5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 991 for acceleration time.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

High Rigidity Slide Table Type 2 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
ø8 mm/5 mm lead

How to Order

LXSH2 **BD** - **100** - **M9N** **1**

Stroke (mm)
Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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 ø8 mm, 5 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
	Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)			
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)				

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

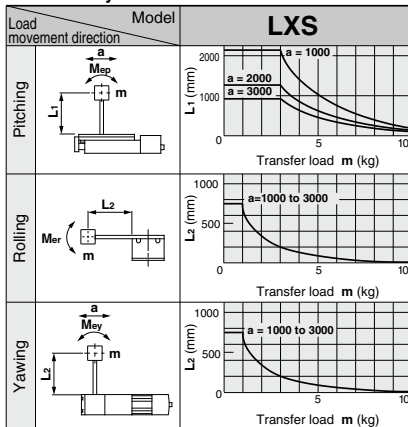
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

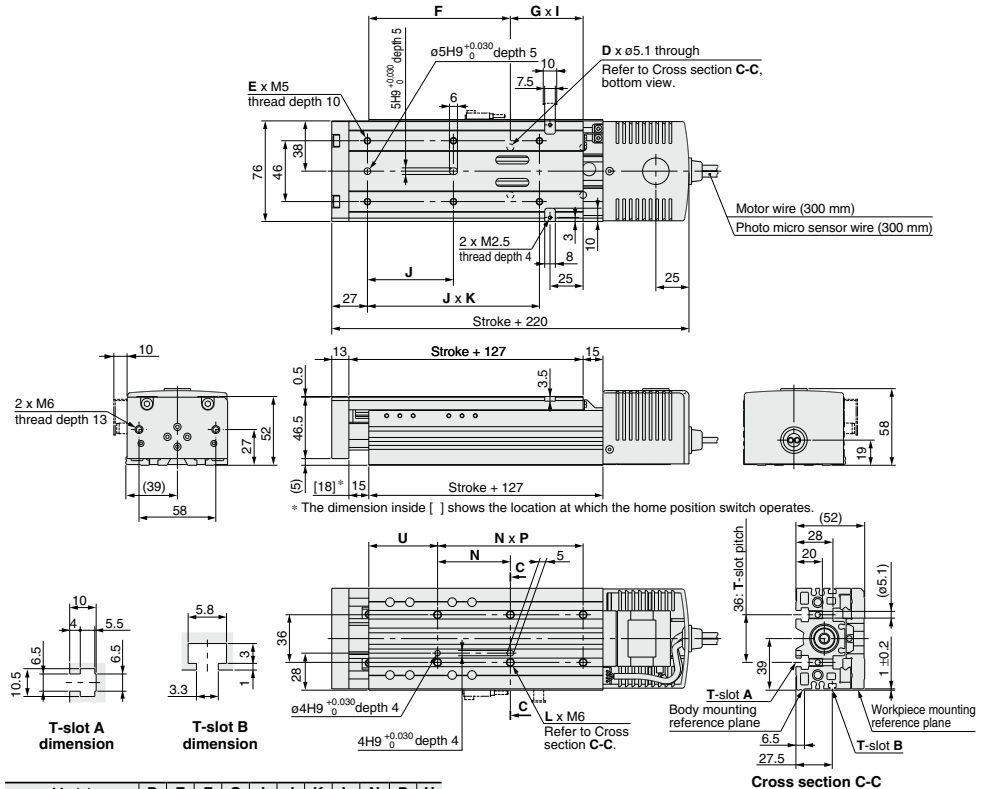


Made to Order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

High Rigidity Slide Table Type 2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2BD



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

Refer to page 989 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 10 kg

Positioning distance (mm)		Positioning time (sec)				
		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 5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 991 for acceleration time.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

High Rigidity Slide Table Type 2 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
ø 8 mm / 6 mm lead

How to Order

LXSH2 SA - 100 - M9N 1

Stroke (mm)
Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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 ø8 mm, 6 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
	Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)			
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)				

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

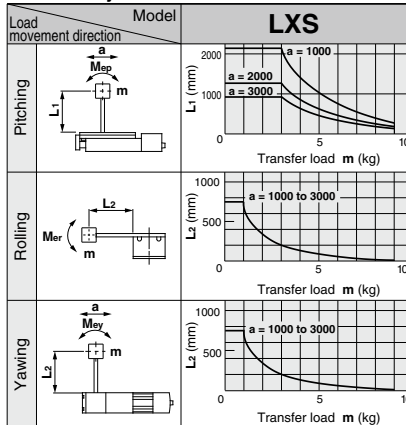
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

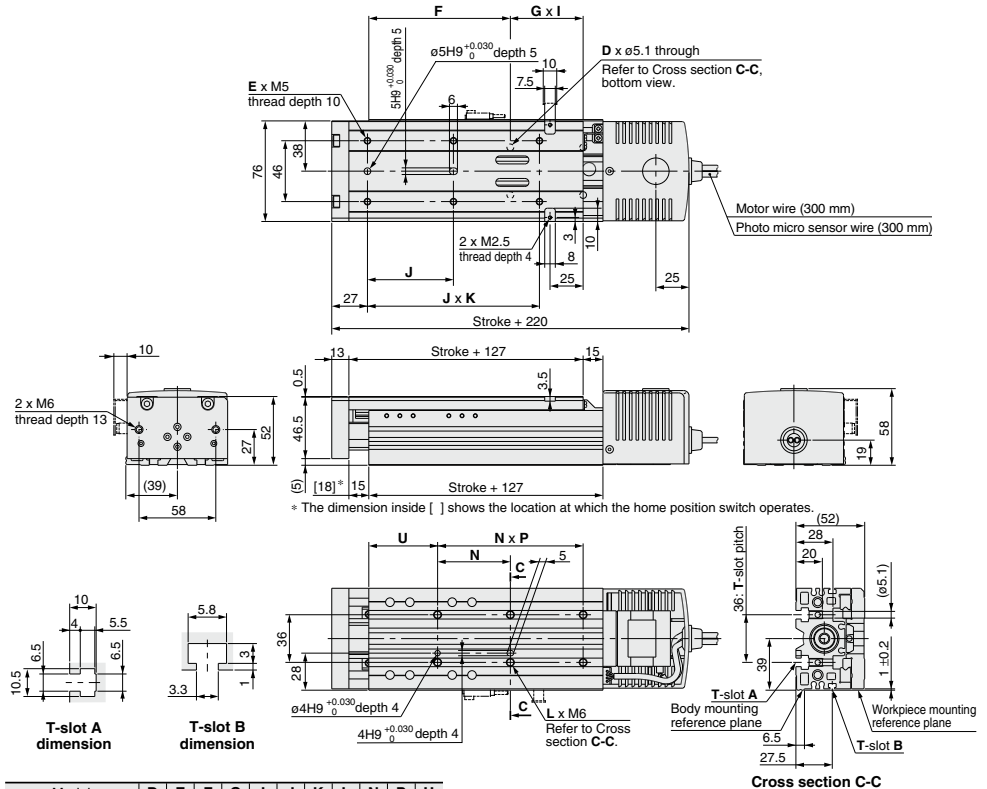
Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch			
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

High Rigidity Slide Table Type 2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2SA



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

Refer to page 989 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 9 kg

Positioning distance (mm)		Positioning time (sec)				
		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 4.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP
- LXS**
- LC6
- LZ
- LC3F2
- D-
- E-MY

High Rigidity Slide Table Type 2 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
Ø 8 mm / 12 mm lead

How to Order

LXSH2 **SB** - **100** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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 Ø 8 mm, 12 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)				
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)				

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

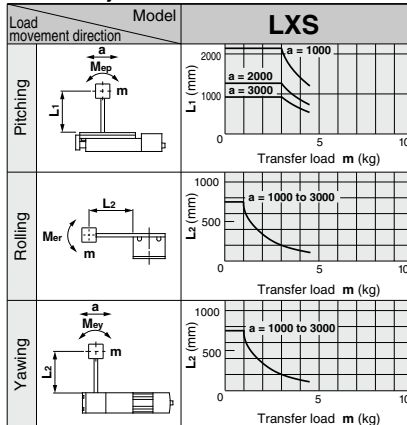
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
M_e : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

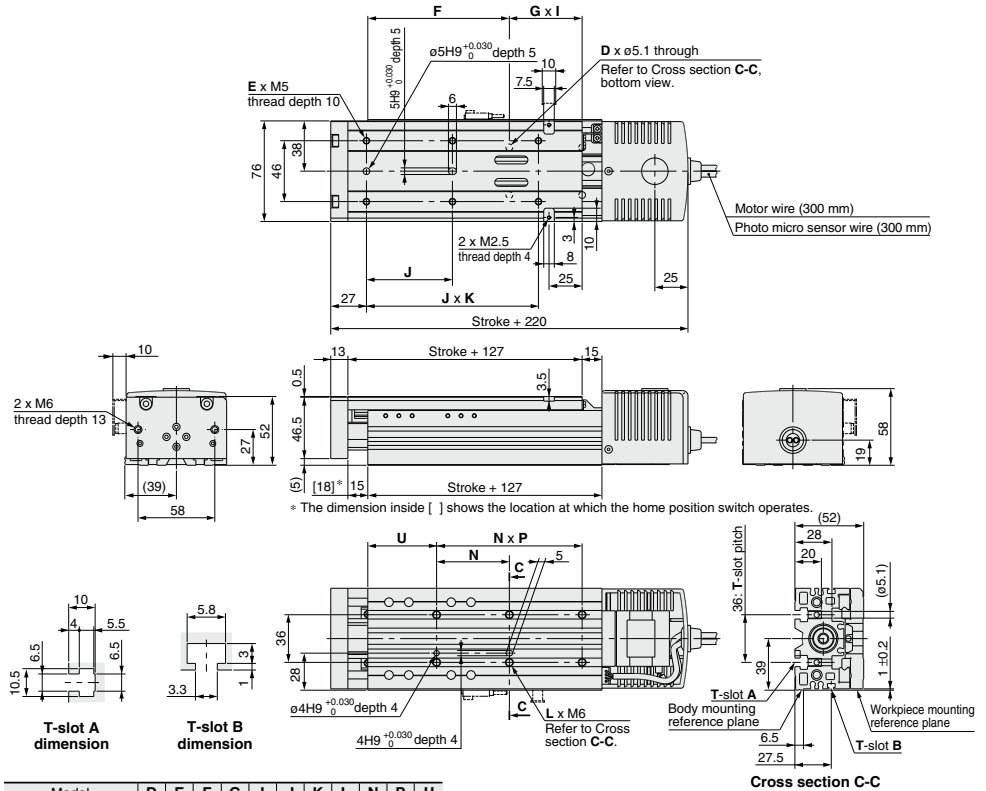
Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch	—	—	—
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

High Rigidity Slide Table Type 2 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH2SB



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH2SB- 50	4	6	107	55	1	65	2	6	55	2	52
LXSH2SB- 75	4	6	112	65	1	75	2	6	65	2	47
LXSH2SB-100	4	8	122	75	1	65	3	6	75	2	47
LXSH2SB-125	4	8	132	85	1	70	3	6	85	2	47
LXSH2SB-150	6	8	112	65	2	75	3	8	65	3	47

Refer to page 989 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 4.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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

For transfer load of 2.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

High Rigidity Slide Table Type 2 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
ø 8 mm / 2 mm lead

How to Order

LXSH2 **BC** - **100** **B** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Nil	None
S	Yes (Cable length 0.3 m)

Home position switch

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

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) M9N1G2

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 (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 ø8 mm, 2 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N·m)	0.1 or more				
Rated voltage (V)		24 DC ±5%					
	Power consumption (W)	5					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
Driver	Model	LC6D-220AD□ (Refer to page 996 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.



Made to Order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

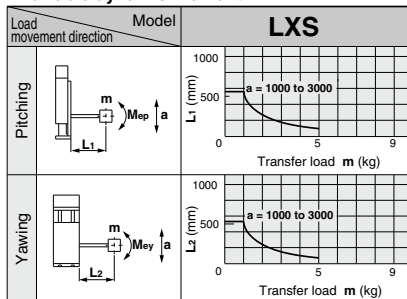
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

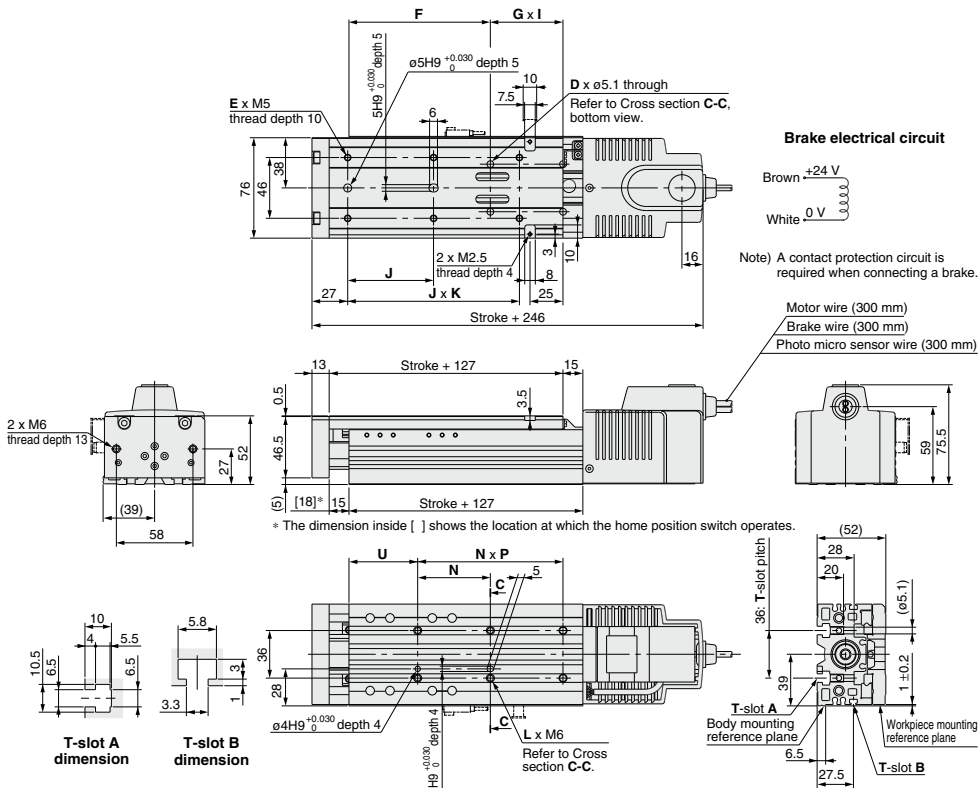
Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 2 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH2BC



Cross section C-C

Refer to page 989 for mounting.

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

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 2.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 991 for acceleration time.

For transfer load of 5 kg

Positioning distance (mm)		Positioning time (sec)				
		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

High Rigidity Slide Table Type 2 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
ø8 mm/5 mm lead

How to Order

LXSH2 **BD** - **100** **B** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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 ø8 mm, 5 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N-m)	0.1 or more				
		Rated voltage (V)	24 DC ±5%				
Power consumption (W)		5					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)					
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.



Made to Order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

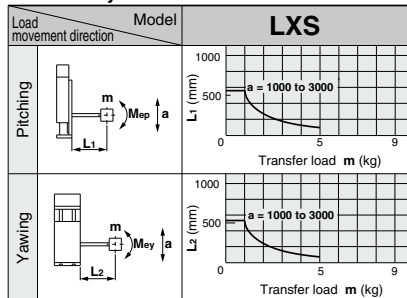
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

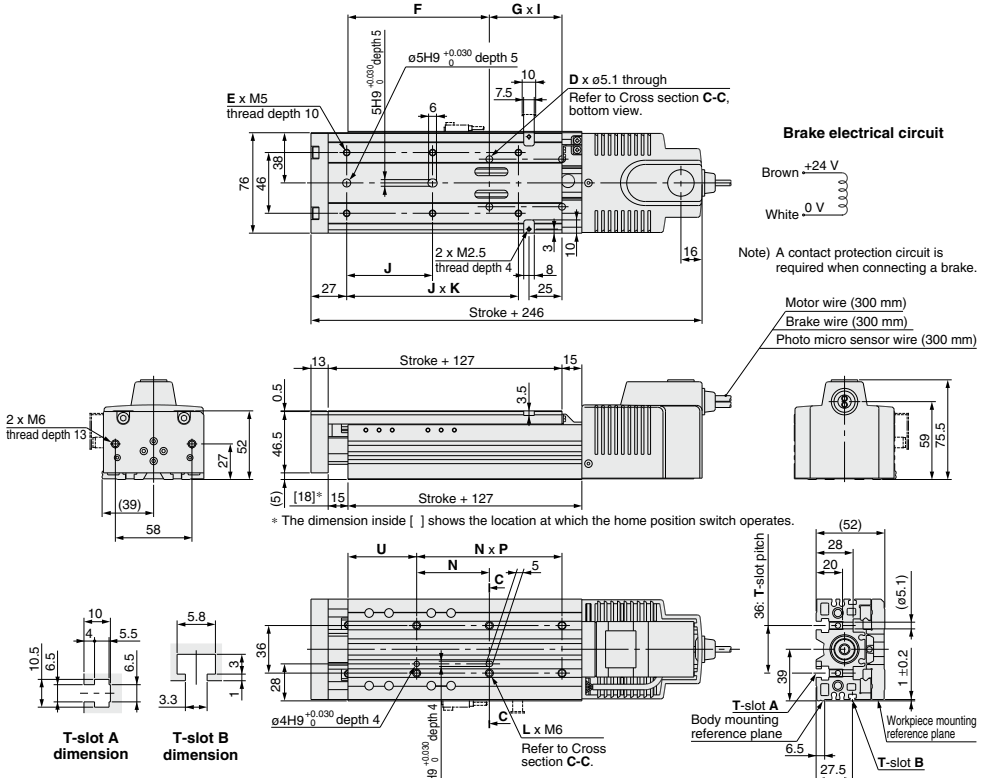
Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 2 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH2BD



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

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 2.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 991 for acceleration time.

For transfer load of 5 kg

Positioning distance (mm)		Positioning time (sec)				
		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

Cross section C-C

Refer to page 989 for mounting.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

High Rigidity Slide Table Type 2 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
Ø 8 mm / 6 mm lead

How to Order

LXSH2 **SA** - **100** **B** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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	Ball screw ø8 mm, 6 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N-m)	0.1 or more				
Rated voltage (V)		24 DC ±5%					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
	Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)				
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

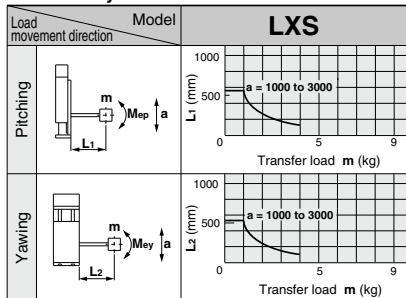
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Yawing	7.84

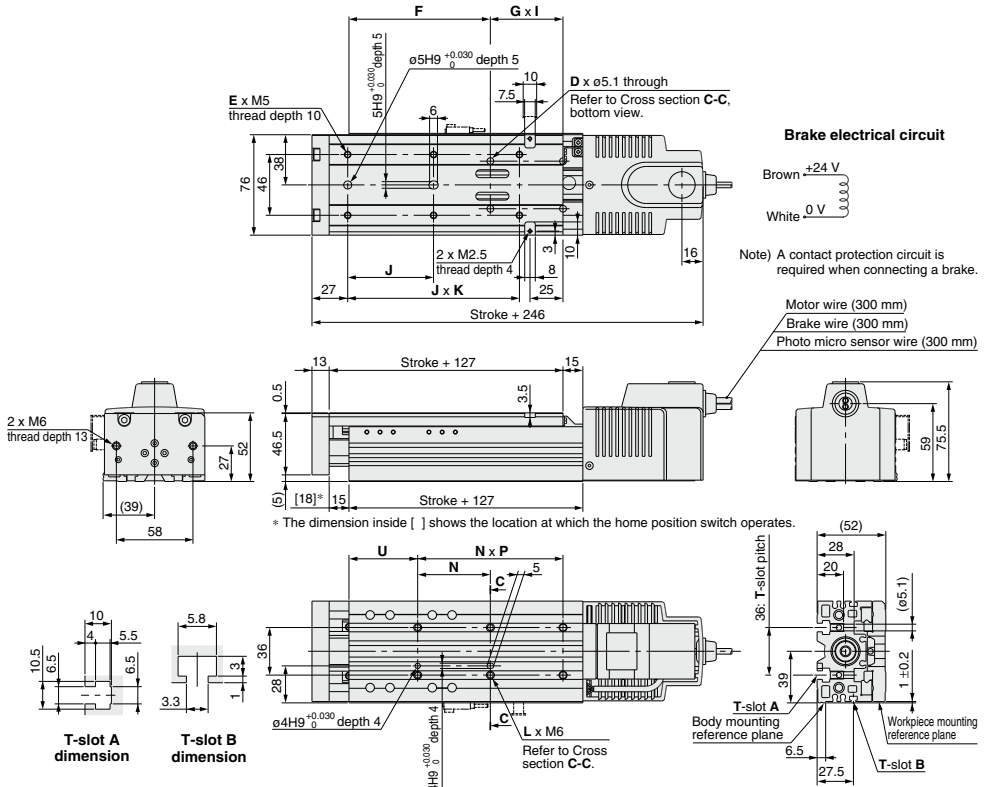
m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



High Rigidity Slide Table Type 2 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH2SA



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 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 2 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

For transfer load of 4 kg

Positioning distance (mm)		Positioning time (sec)				
		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

LJ1

LG1

LTF

LECS□

LXF

LXP

LXS

LC6□

LZ□

LC3F2

D-□

E-MY

High Rigidity Slide Table Type 2 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
Ø8 mm/12 mm lead

How to Order

LXSH2 **SB** - **100** **B** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

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) M9N1G2

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 (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	Ball screw Ø8 mm, 12 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N-m)	0.1 or more				
Rated voltage (V)		24 DC ±5%					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
	Driver	Model	LC6D-220AD-□ (Refer to page 996 for details.)				
Positioning driver	Model	LC6C-220AD (Refer to page 999 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

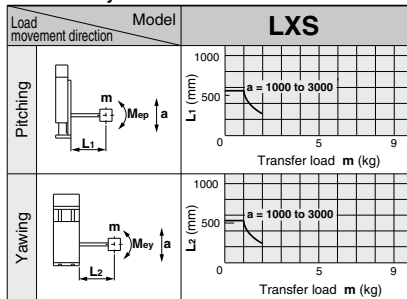
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

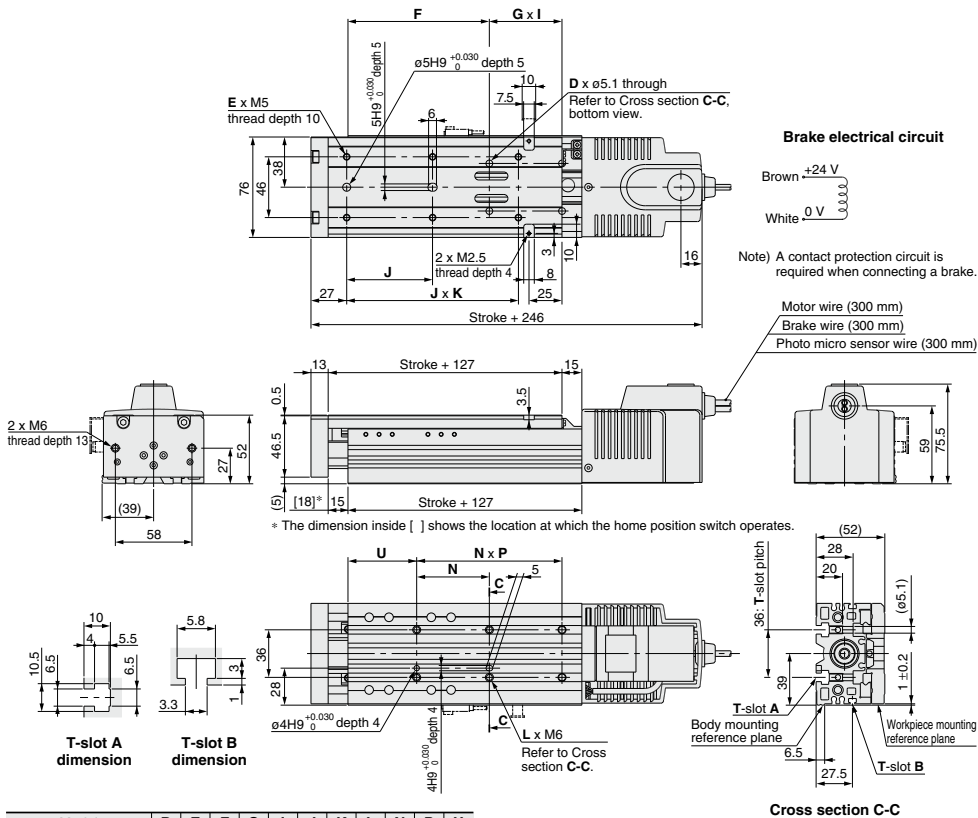
Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 2 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH2SB



Model	D	E	F	G	I	J	K	L	N	P	U
LXSH2SB- 50□B	4	6	107	55	1	65	2	6	55	2	52
LXSH2SB- 75□B	4	6	112	65	1	75	2	6	65	2	47
LXSH2SB-100□B	4	8	122	75	1	65	3	6	75	2	47
LXSH2SB-125□B	4	8	132	85	1	70	3	6	85	2	47
LXSH2SB-150□B	6	8	112	65	2	75	3	8	65	3	47

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 1 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

For transfer load of 2 kg

Positioning distance (mm)		Positioning time (sec)				
		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

LJ1

LG1

LTF

LECS□

LXF

LXP

LXS

LC6□

LZ□

LC3F2

D-□

E-MY

High Rigidity Slide Table Type 5 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
ø8 mm/2 mm lead

How to Order

LXSH5 **BC** - **100** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nll	None
S	Yes (Cable length 0.3 m)

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto/Proximity switch type

Nll	None
-----	------

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

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) M9N1G2

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 (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 ø8 mm, 2 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)				

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

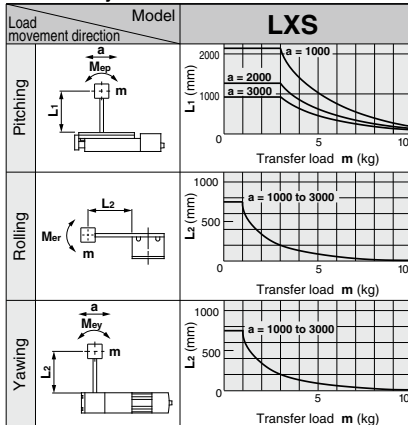
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Without auto switch				
Nll				
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

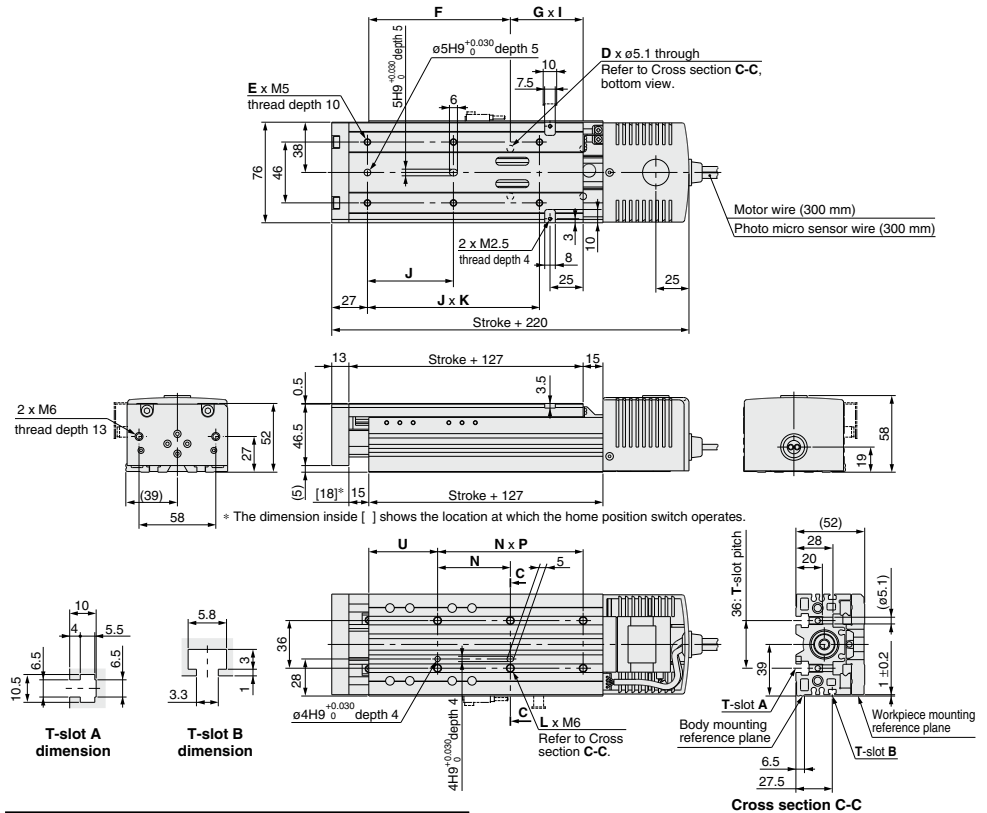


Made to Order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

High Rigidity Slide Table Type 5 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH5BC



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 989 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 991 for acceleration time.

For transfer load of 10 kg

Positioning distance (mm)		Positioning time (sec)				
		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

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

High Rigidity Slide Table Type 5 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
ø8 mm/5 mm lead

How to Order

LXSH5 **BD** - **100** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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 ø8 mm, 5 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)				

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

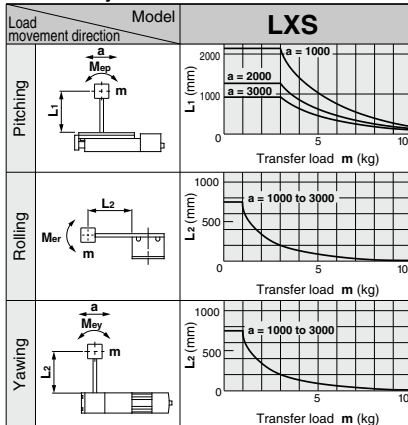
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

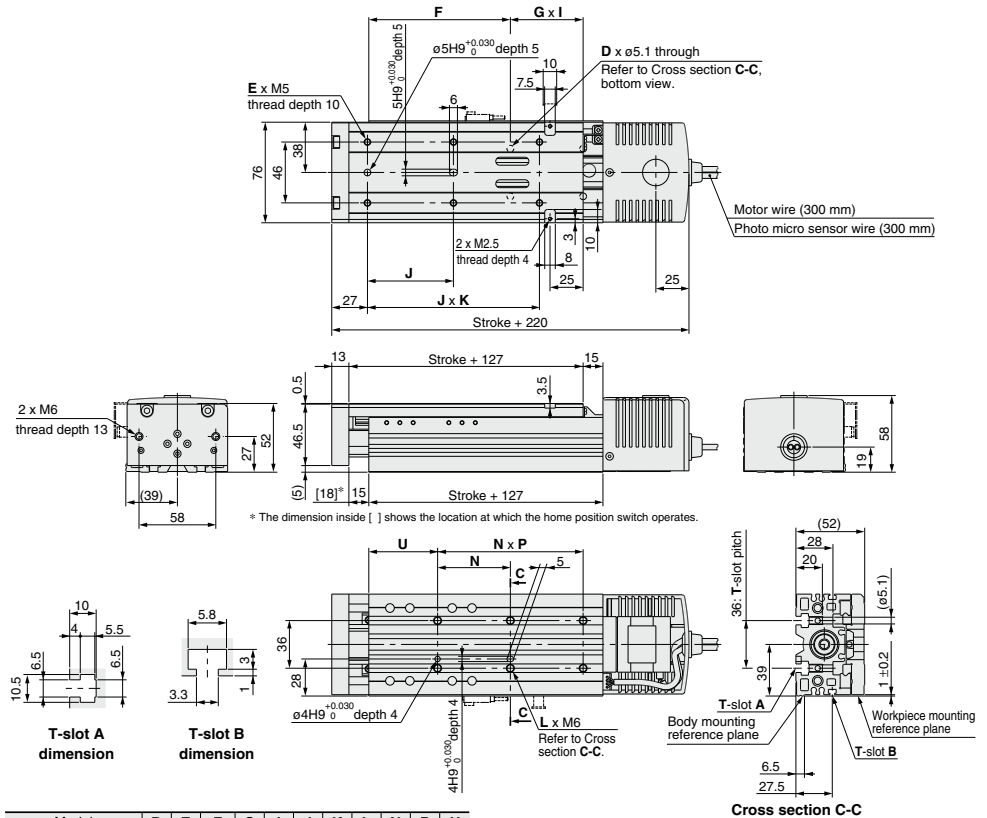


Made to Order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

High Rigidity Slide Table Type 5 Phase Stepper Motor/Without Motor Brake *Series LXS*

Dimensions/LXSH5BD



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 989 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 991 for acceleration time.

For transfer load of 10 kg

Positioning distance (mm)		Positioning time (sec)				
		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

- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP
- LXS**
- LC6
- LZ
- LC3F2
- D-
- E-MY

High Rigidity Slide Table Type 5 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
ø8 mm/6 mm lead

How to Order

LXSH5 SA - 100 - M9N 1

• **Stroke (mm)**
Refer to the standard stroke.

• **Home position switch**

Nil	None
S	Yes (Cable length 0.3 m)

• **Number of auto/proximity switches**

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

• **Auto/Proximity switch type**

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

Refer to the table on the right for auto/proximity switch part numbers.
Example) M9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

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 (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 ø8 mm, 6 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
	Driver	LC6D-507AD-□ (Refer to page 996 for details.)				

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
GN	With sensor plate, without proximity switch	—	—	—
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

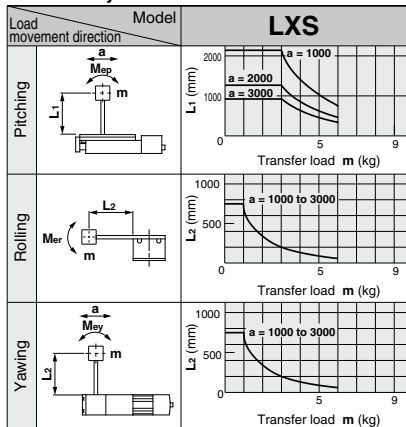
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
M_e : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 5 Phase Stepper Motor Without Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
ø8 mm/12 mm lead

How to Order

LXSH5 SB - 100 - M9N 1

Stroke (mm)

Refer to the standard stroke.

Nil	None
S	Yes (Cable length 0.3 m)

Home position switch

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto/Proximity switch type

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

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

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) M9N1G2

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 (No condensation)				
	Work load (kg)	3 (3) horizontal/1 (1) vertical				
	Speed (mm/s)	to 200 <small>Note 1)</small>				
	Positioning repeatability (mm)	±0.05				
Main parts	Motor	5 phase stepper motor (without brake)				
	Lead screw	Slide screw ø8 mm, 12 mm lead				
	Guide	High rigidity direct acting guide				
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)				
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)				

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

Note 1) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

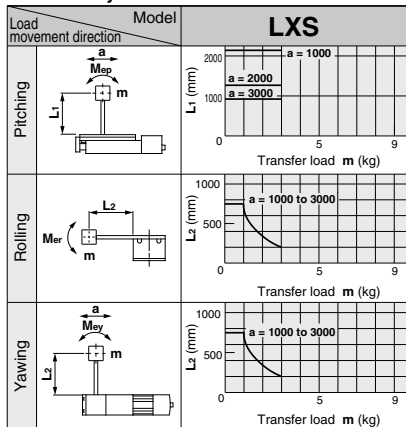
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
M_e : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 5 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
ø8 mm/2 mm lead

How to Order

LXSH5 **BC** - **100** **B** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 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 (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 ø8 mm, 2 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N-m)	0.1 or more				
Rated voltage (V)		24 DC ±5%					
	Power consumption (W)	5					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)					



Made to Order specifications (For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more as a guide for speed.

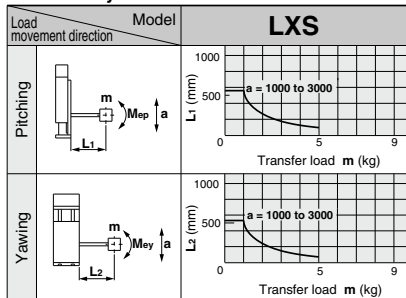
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L₁, L₂ : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
M_e : Dynamic moment

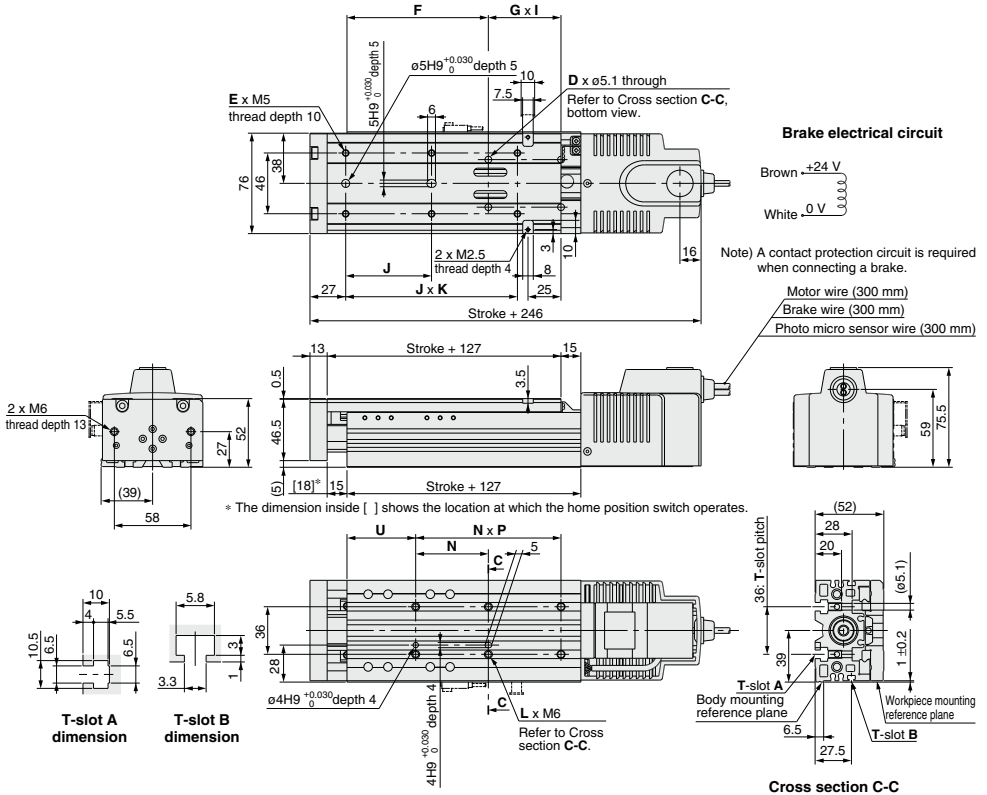
Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 5 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH5BC



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 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 2.5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 991 for acceleration time.

For transfer load of 5 kg

Positioning distance (mm)		Positioning time (sec)				
		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 989 for mounting.

- LJ1
- LG1
- LTF
- LECS□
- LXF
- LXP
- LXS**
- LC6□
- LZ□
- LC3F2
- D-□
- E-MY

High Rigidity Slide Table Type 5 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Ball Screw
ø 8 mm/5 mm lead

How to Order

LXSH5 **BD** - **100** **B** - **M9N** **1**

Stroke (mm)

Refer to the standard stroke.

Nil	None
S	Yes (Cable length 0.3 m)

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

Auto/Proximity switch type

Nil	None
S	Yes (Cable length 0.3 m)

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
3	3 pcs.
4	4 pcs.
5	5 pcs.
6	6 pcs.

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.
Example) M9N1G2

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 (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 ø 8 mm, 5 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N-m)	0.1 or more				
		Rated voltage (V)	24 DC ±5%				
Power consumption (W)		5					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.



Made to Order specifications
(For details, refer to page 993.)

Symbol	Specifications
X60	Low particle generation specification

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 5 mm/s or more as a guide for speed.

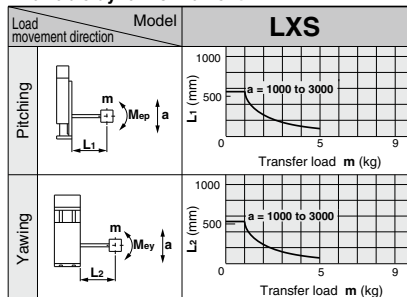
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 5 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
Ø8 mm/6 mm lead

How to Order

LXSH5 SA - 100 B - M9N 1

Stroke (mm)

Refer to the standard stroke.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

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) M9N1G2

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 (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 ø8 mm, 6 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N-m)	0.1 or more				
Rated voltage (V)		24 DC ±5%					
	Power consumption (W)	5					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
Driver	Model	LC6D-507AD-□ (Refer to page 996 for details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more as a guide for speed.

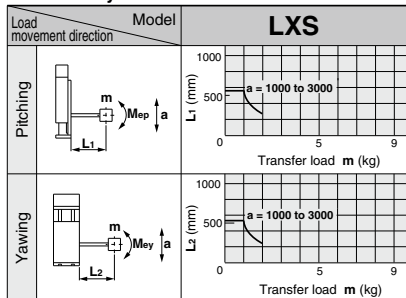
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

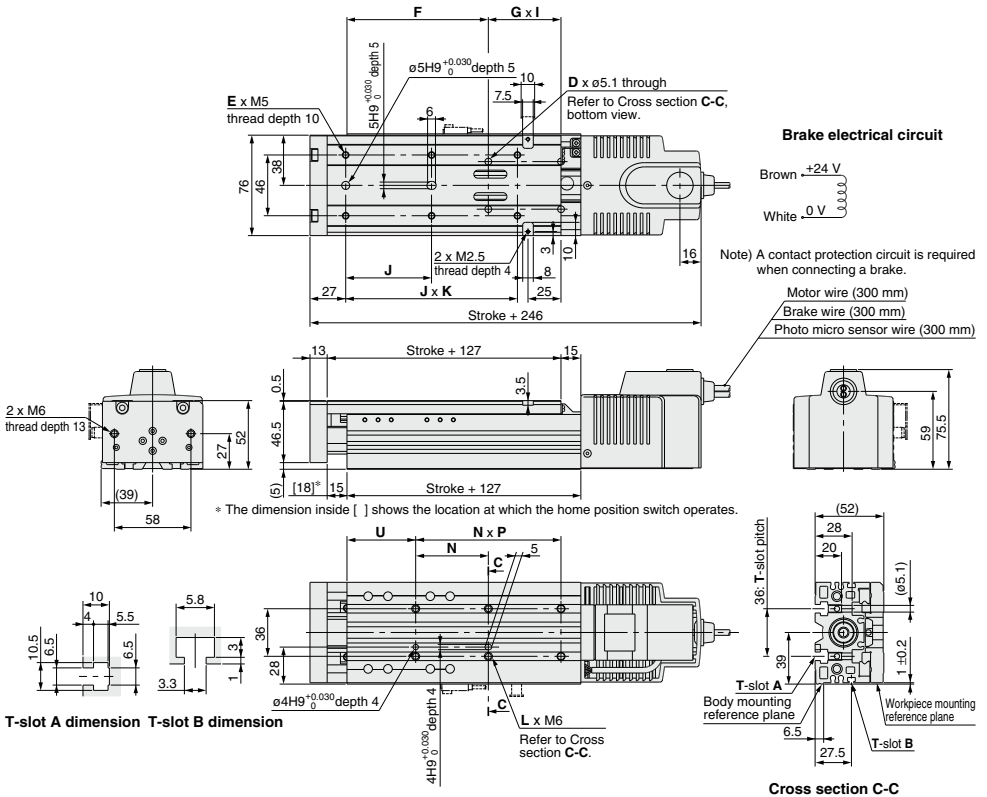
Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 5 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH5SA



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 0 kg

Positioning distance (mm)		Positioning time (sec)				
		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 1 kg

Positioning distance (mm)		Positioning time (sec)				
		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 990 for acceleration time.

For transfer load of 2 kg

Positioning distance (mm)		Positioning time (sec)				
		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 989 for mounting.

LJ1

LG1

LTF

LECS□

LXF

LXP

LXS

LC6□

LZ□

LC3F2

D-□

E-MY

High Rigidity Slide Table Type 5 Phase Stepper Motor With Motor Brake Series LXS

High Rigidity
Direct Acting
Guide

Slide Screw
ø8 mm/12 mm lead

How to Order

LXSH5 SB - 100 B - M9N 1

• Stroke (mm)
Refer to the standard stroke.

Home position switch	
NII	None
S	Yes (Cable length 0.3 m)

Auto/Proximity switch type

NII	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) M9N1G2

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 (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 ø8 mm, 12 mm lead					
	Guide	High rigidity direct acting guide					
	Electromagnetic brake	Model	De-energized operating type				
		Static torque (N-m)	0.1 or more				
Rated voltage (V)		24 DC ±5%					
	Power consumption (W)	5					
Home position switch	Model	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)					
Driver	Model	LC6D-507AD-□ (Refer to page 996 details.)					

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
NII	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

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

Note 2) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 12 mm/s or more as a guide for speed.

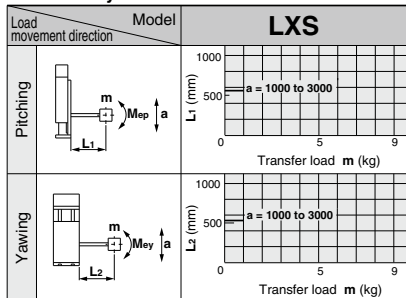
Allowable Moment (N-m)

Allowable static moment

Pitching	15.7
Yawing	7.84

m : Transfer load (kg)
L1, L2 : Overhang to workpiece center of gravity (mm)
a : Workpiece acceleration (mm/sec²)
Me : Dynamic moment

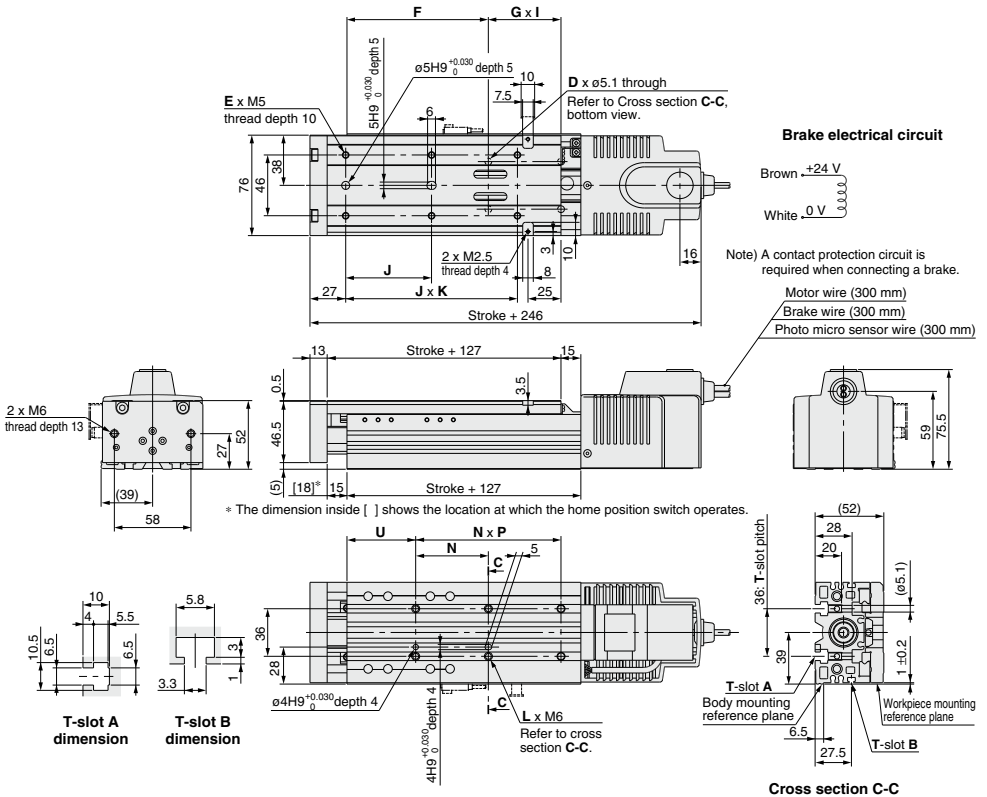
Allowable dynamic moment



Refer to page 992 for deflection data.

High Rigidity Slide Table Type 5 Phase Stepper Motor/With Motor Brake *Series LXS*

Dimensions/LXSH5SB



Model	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

Cross section C-C

Refer to page 989 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0 kg

		Positioning time (sec)				
		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 kg

		Positioning time (sec)				
		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 990 for acceleration time.

- LJ1
- LG1
- LTF
- LECS
- LXF
- LXP
- LXS**
- LC6
- LZ
- LC3F2
- D-
- E-MY

Low Profile Slide Table Type

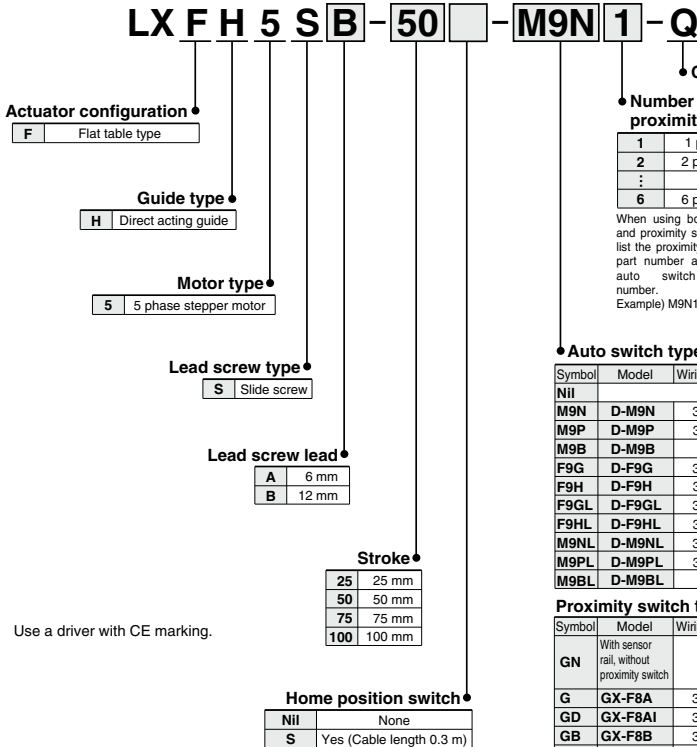
Without Motor Brake

Series LXF



How to Order

Slide screw specification



Use a driver with CE marking.

• CE marking

• Number of auto switches/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) M9N1G2

• Auto switch type

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

Specifications

Motor	5 phase stepper motor (without brake)		
Lead screw (mm)	Slide screw ø8 mm		
Positioning repeatability (mm)	±0.05		
Lead (mm)	6	12	
Speed (mm/s) <small>Note 1)</small>	3 to 100	6 to 200	
Work load (kg) <small>Note 2)</small>	Horizontal	3 (2)	2 (2)
Guide type	Direct acting guide		
Operating temperature range (°C)	5 to 40 (No condensation)		
Home position switch	Photo micro sensor EE-SX672 (Refer to page 1036 for details.)		
Applicable driver	LC6D-507AD-Q, LC6D-507AD-P1-X316 (Refer to page 996 for details.)		
CE marking accessories	Holding plate: MB1(1 pc.), Phillips countersunk head screw M3 x 6 L (1 pc.) Phillips binding head screw: M3 x 4 L (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)		

Note 1) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more for 6 mm lead, and 12 mm/s or more for 12 mm lead as a guide for speed.

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

Weight

Model	Standard stroke (mm)				(kg)
	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 776 and 777.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Low Profile Slide Table Type Without Motor Brake Series LXF



How to Order

Ball screw specification

LXFH5BC-50-GD1-Q

Actuator configuration
F Flat table type

Guide type
H Direct acting guide

Motor type
5 5 phase stepper motor

Lead screw type
B Ball screw

Lead screw lead
C 2 mm
D 5 mm

Stroke

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

Use a driver with CE marking.

CE marking

Number of auto 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, without proximity switch	—	—	—
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

Specifications

Motor	5 phase stepper motor (without brake)		
Lead screw (mm)	Ball screw ø8 mm		
Positioning repeatability (mm)	±0.03		
Lead (mm)	2	5	
Speed (mm/s) <small>Note 1)</small>	2 to 30	5 to 80	
Work load (kg) <small>Note 2)</small>	Horizontal	3 (2)	3 (2)
Guide type	Direct acting guide		
Operating temperature range (°C)	5 to 40 (No condensation)		
Home position switch	Photo micro sensor EE-SX672 (Refer to page 1036 for details.)		
Applicable driver	LC6D-507AD-Q, LC6D-507AD-P1-X316 (Refer to page 996 for details.)		
CE marking accessories	Holding plate: MB1(1 pc.), Phillips countersunk head screw M3 x 6 L (1 pc.) Phillips binding head screw: M3 x 4 L (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)		

Note 1) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more for 2 mm lead, and 5 mm/s or more for 5 mm lead as a guide for speed.

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

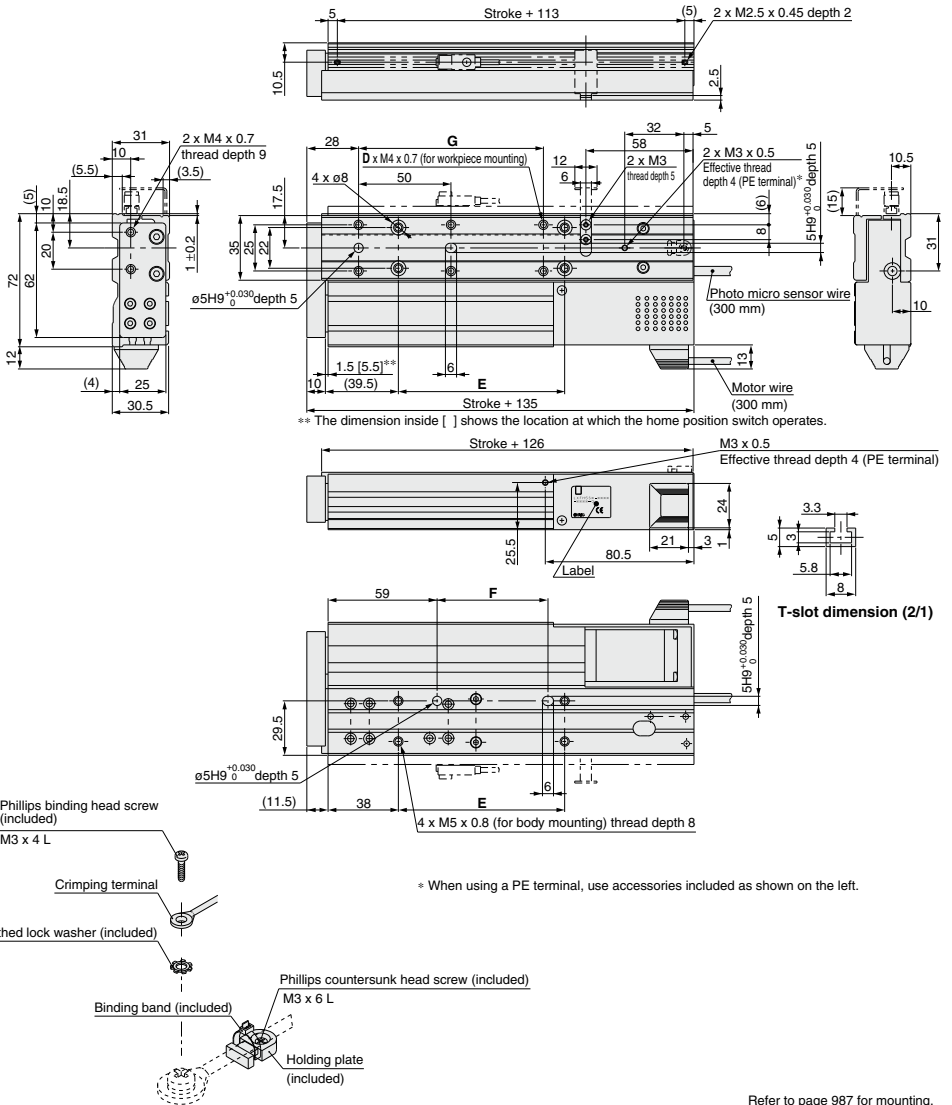
Weight

Model	Standard stroke (mm)				(kg)
	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 776 and 777.

Low Profile Slide Table Type Without Motor Brake **Series LXF**

Dimensions/LXFH5



- LJ1
- LG1
- LTF
- LECS □
- LXF**
- LXP
- LXS
- LC6 □
- LZ □
- LC3F2
- D- □
- E-MY

Refer to page 987 for mounting.

Model	D	E	F	G
LXFH5S□- 25	4	60	30	(50)
LXFH5S□- 50	4	90	60	(50)
LXFH5S□- 75	6	90	60	100
LXFH5S□-100	6	90	60	100

Guide Rod Type With Motor Brake/ Without Motor Brake Series LXP



How to Order

Slide screw specification

LXPB2SB-100 B-M9N1-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	6 mm
B	12 mm

Stroke

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

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

Brake

Nil	Without brake
B	With brake

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
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

Use a driver with CE marking.

Specifications

Motor	2 phase stepper motor (with/without brake)		5 phase stepper motor (with/without brake)	
Lead screw (mm)	Slide screw ø8 mm			
Positioning repeatability (mm)	±0.05			
Lead (mm)	6	12	6	12
Speed (mm/s) <small>Note 1)</small>	3 to 100	6 to 200	3 to 100	6 to 200
Work load (kg)	Horizontal	6	3	4
	Vertical	5	3	4
Guide type	Ball bushing			
Operating temperature range (°C)	5 to 40 (No condensation)			
Home position switch	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)			
Brake specifications	Model	De-energized operating type		
	Static torque (N·m)	0.1		
	Rated voltage (V [DC])	24 ±5%		
	Power consumption (W)	5 (at 75°C)		
Applicable driver	LC6D-220AD-Q (Refer to page 996 details.)		LC6D-507AD-Q (Refer to page 996 for details.)	
CE marking accessories	Holding plate: MB1(1 pc.), Phillips countersunk head screw M3 x 6 L (1 pc.) Phillips binding head screw: M3 x 4 L (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)			

Note 1) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more for 6 mm lead, and 12 mm/s or more for 12 mm lead as a guide for speed.

Weight

Model	Standard stroke (mm)							Additional weight with motor (kg)
	50	75	100	125	150	175	200	
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 776 and 777.

Guide Rod Type With Motor Brake/ Without Motor Brake Series LXP



How to Order

Ball screw specification

LXPB2BC-100 B-M9N1-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
B Ball screw

Lead screw lead
C 2 mm
D 5 mm

Stroke

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

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

Brake
Nil Without brake
B With brake

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
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	2 wire	3	N.O. (A contact)

Use a driver with CE marking.

Specifications

Motor	2 phase stepper motor (with/without brake)		5 phase stepper motor (with/without brake)	
Lead screw (mm)	Ball screw ø8 mm			
Positioning repeatability (mm)	±0.05			
Lead (mm)	2	5	2	5
Speed (mm/s) <small>Note 1)</small>	2 to 30	5 to 80	2 to 30	5 to 80
Work load (kg)	Horizontal	6	6	6
	Vertical	5	5	5
Guide type	Ball bushing			
Operating temperature range (°C)	5 to 40 (No condensation)			
Home position switch	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)			
Brake specifications	Model	De-energized operating type		
	Static torque (N·m)	0.1		
	Rated voltage (V [DC])	24 ±5%		
	Power consumption (W)	5 (at 75°C)		
Applicable driver	LC6D-220AD-Q, LC6D-220AD-P1-X316 (Refer to page 996 details.) LC6D-507AD-Q, LC6D-507AD-P1-X316 (Refer to page 996 for details.)			
CE marking accessories	Holding plate: MB1 (1 pc.), Phillips countersunk head screw M3 x 6 L (1 pc.) Phillips binding head screw: M3 x 4 L (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)			

Note 1) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more for 2 mm lead, and 5 mm/s or more for 5 mm lead as a guide for speed.

Weight

Model	Standard stroke (mm)							Additional weight with motor (kg)
	50	75	100	125	150	175	200	
LXPB ₅ 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 776 and 777.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

High Rigidity Slide Table Type With Motor Brake/ Without Motor Brake Series LXS



How to Order

Slide screw specification

LX S H 2 S B - 100 [] B - M9N 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	6 mm
B	12 mm

Stroke

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

Use a driver with CE marking.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

Brake

Nil	Without brake
B	With brake

CE marking

Number of auto switches/ 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) M9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	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)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Series LXS

Specifications

Motor	2 phase stepper motor (with/without brake)		5 phase stepper motor (with/without brake)	
Lead screw (mm)	Slide screw $\varnothing 8$ mm			
Positioning repeatability (mm)	± 0.05			
Lead (mm)	6	12	6	12
Speed (mm/s) <small>Note 1)</small>	3 to 100	6 to 200	3 to 100	6 to 200
Work load (kg) <small>Note 2)</small>	Horizontal	9 (4)	4.5 (4)	6 (4)
	Vertical	4 (4)	2 (2)	2 (2)
Guide type	High rigidity direct acting guide			
Operating temperature range (°C)	5 to 40 (No condensation)			
Home position switch (optional)	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)			
Brake specifications	Model	De-energized operating type		
	Static torque (N·m)	0.1		
	Rated voltage (V [DC])	24 $\pm 5\%$		
	Power consumption (W)	5 (at 75°C)		
Applicable driver	LC6D-220AD-Q (Refer to page 996 for details.)		LC6D-507AD-Q (Refer to page 996 for details.)	
Positioning repeatability (mm)	± 0.05			
CE marking accessories	Holding plate: MB1 (1 pc.), Phillips countersunk head screw: M3 x 6 L (1 pc.) Phillips binding head screw: M3 x 4 L (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)			

Note 1) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 6 mm/s or more for 6 mm lead, and 12 mm/s or more for 12 mm lead as a guide for speed.

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

Weight

Model	Standard stroke (mm)					Additional weight with motor
	50	75	100	125	150	With brake
LXSH²S	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 776 and 777.

High Rigidity Slide Table Type With Motor Brake/ Without Motor Brake Series LXS



How to Order

Ball screw specification

LX S H 2 B C - 100 [] B - M9N 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

B Ball screw

Lead screw lead

C	2 mm
D	5 mm

Stroke

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

Use a driver with CE marking.

Home position switch

Nil	None
S	Yes (Cable length 0.3 m)

Brake

Nil	Without brake
B	With brake

CE marking

Number of auto switches/ 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) M9N1G2

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact
Nil	Without auto switch			
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)
M9P	D-M9P	3 wire/NPN	0.5	N.O. (A contact)
M9B	D-M9B	2 wire	0.5	N.O. (A contact)
F9G	D-F9G	3 wire/NPN	0.5	N.C. (B contact)
F9H	D-F9H	3 wire/NPN	0.5	N.C. (B contact)
F9GL	D-F9GL	3 wire/NPN	3	N.C. (B contact)
F9HL	D-F9HL	3 wire/NPN	3	N.C. (B contact)
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)
M9PL	D-M9PL	3 wire/NPN	3	N.O. (A contact)
M9BL	D-M9BL	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	GX-F8A	3 wire/NPN	1	N.O. (A contact)
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)
GDB	GX-F8BI	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 1034 for detailed specifications of proximity switches.

LJ1

LG1

LTF

LECS □

LXF

LXP

LXS

LC6 □

LZ □

LC3F2

D-□

E-MY

Series LXS

Specifications

Motor	2 phase stepper motor (with/without brake)		5 phase stepper motor (with/without brake)	
Lead screw (mm)	Ball screw $\varnothing 8$ mm			
Positioning repeatability (mm)	± 0.03			
Lead (mm)	2	5	2	5
Speed (mm/s) <small>Note 1)</small>	2 to 30	5 to 80	2 to 30	5 to 80
Work load (kg) <small>Note 2)</small>	Horizontal	9 (4)	4.5 (4)	6 (4)
	Vertical	4 (4)	2 (2)	2 (2)
Guide type	High rigidity direct acting guide			
Operating temperature range (°C)	5 to 40 (No condensation)			
Home position switch (optional)	Photo micro sensor EE-SX673 (Refer to page 1036 for details.)			
Brake specifications	Model	De-energized operating type		
	Static torque (N·m)	0.1		
	Rated voltage (V [DC])	24 $\pm 5\%$		
	Power consumption (W)	5 (at 75°C)		
Applicable driver	LC6D-220AD-Q (Refer to page 996 for details.)		LC6D-507AD-Q (Refer to page 996 for details.)	
Positioning repeatability (mm)	± 0.05			
CE marking accessories	Holding plate: MB1 (1 pc.), Phillips countersunk head screw: M3 x 6 L (1 pc.) Phillips binding head screw: M3 x 4 L (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)			

Note 1) Since vibration may increase with low speed operation, set the driver to be driven in half-step mode, and use 2 mm/s or more for 2 mm lead, and 5 mm/s or more for 5 mm lead as a guide for speed.

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

Weight

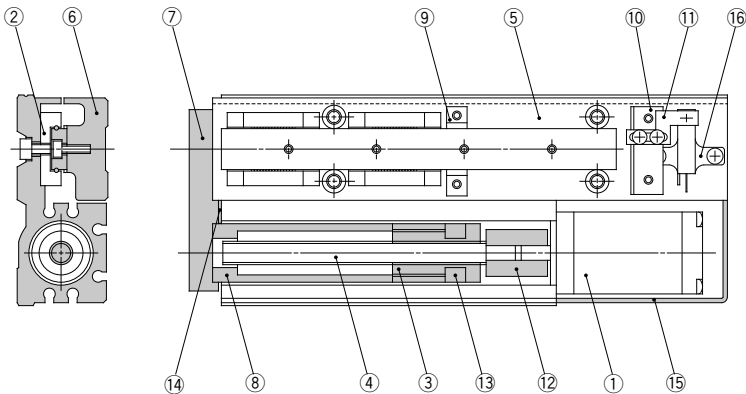
Model	Standard stroke (mm)					Additional weight with motor
	50	75	100	125	150	With brake
LXSH²S	1.9	2.1	2.3	2.5	2.7	0.2

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 776 and 777.

Series LX Construction

Construction

Series LXF



Parts list

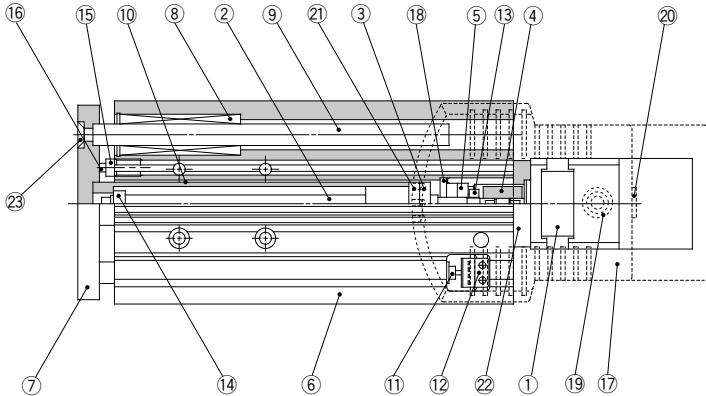
No.	Description	Material	Note
1	Motor	—	
2	Direct acting guide	—	
3	Nut	Resin/Alloy steel	
4	Rolled screw	Alloy steel	
5	Body	Aluminum alloy	Anodized
6	Table	Aluminum alloy	Anodized
7	End plate	Aluminum alloy	Anodized
8	Tube	Aluminum alloy	Anodized
9	Stopper A	—	

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 LXP



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

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

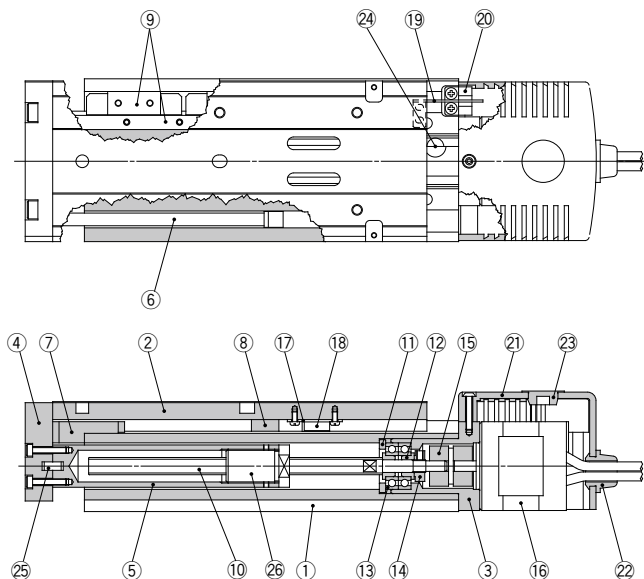
D-

E-MY

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	—	
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	

Series LX Mounting

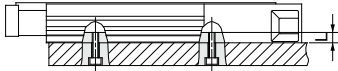
Mounting

Series LXF

Actuator mounting

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

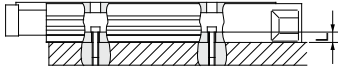
1. Tapped holes



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 0.5 mm shorter than the maximum screw-in depth, so they do not touch the body.

2. Through holes

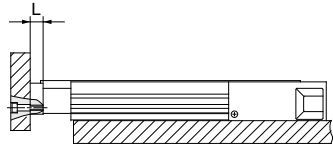


Model	Bolt	Max. tightening torque (N-m)	Body thickness (L mm)
LXF	M4 x 0.7	2.1	8

Workpiece mounting

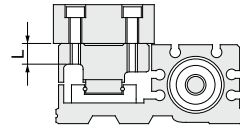
Workpieces can be mounted on two sides of the actuator.

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 0.5 mm shorter than the maximum screw-in depth, so they do not touch the body.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

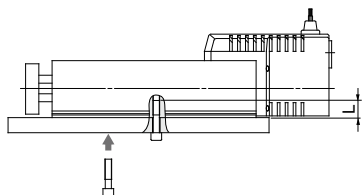
E-MY

Mounting

Series LXP

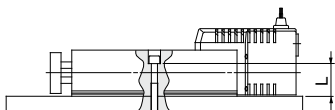
Actuator mounting

1. Tapped holes



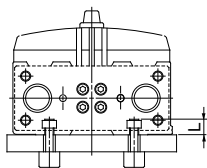
Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth (L mm)
LXP	M6 x 1	7.4	12

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

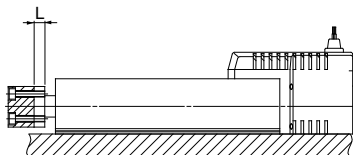


Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth (L mm)
LXP	M5 x 0.8	7.4	8.5

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

Workpiece mounting

1. Front mount type



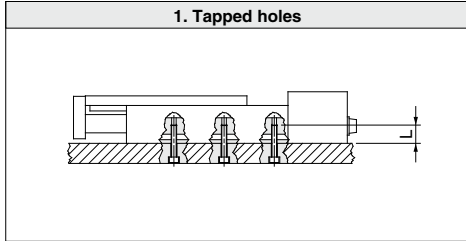
Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth (L mm)
LXP	M6 x 1	7.4	10

Mounting

Series LXS

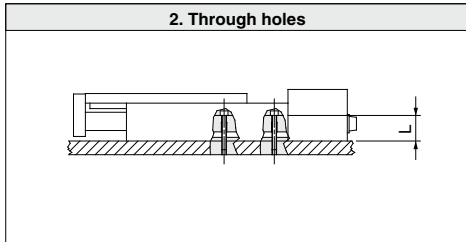
Actuator mounting

An actuator can be mounted in any of 3 ways, which can be selected depending on the equipment or workpiece.

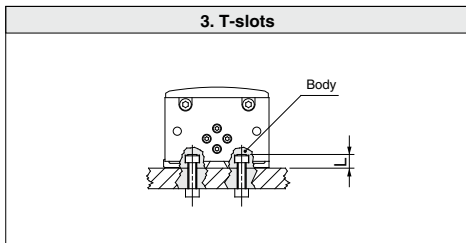


Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth (L mm)
LXS	M6 x 1	7.4	20

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



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

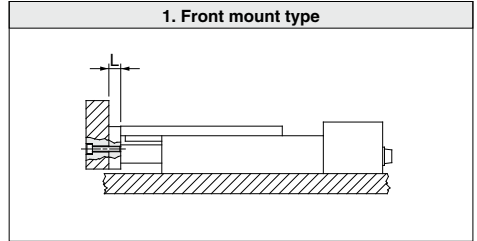


Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth (L mm)
LXS	M6 x 1	7.4	10

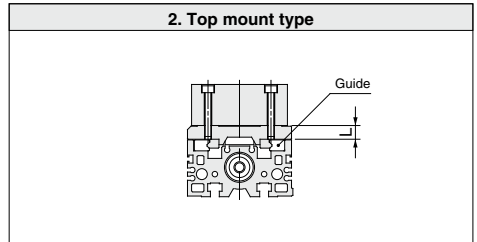
Caution Use bolts at least 0.5 mm shorter than the maximum screw-in depth, so they do not touch the body.

Workpiece mounting

Workpieces can be mounted on two sides of the actuator.



Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth (L mm)
LXS	M6 x 1	7.4	13



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.

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LCG6

LZ

LC3F2

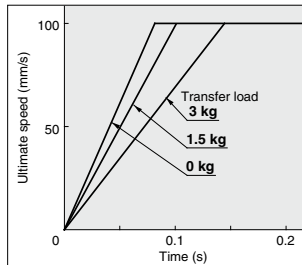
D-

E-MY

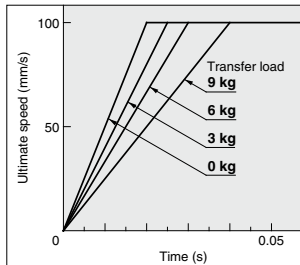
Acceleration Time Guide

Acceleration Time Guide/Slide Screw Specification (Horizontal)

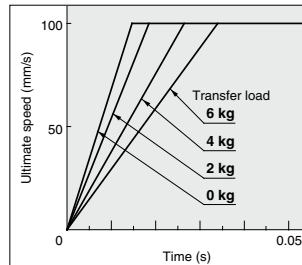
LXFH5SA



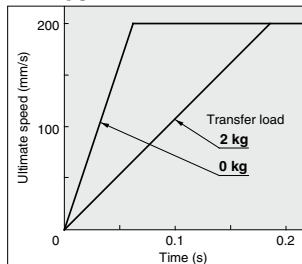
LXPB2SA/LXSH2SA



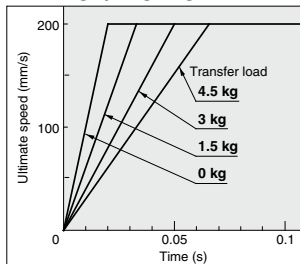
LXPB5SA/LXSH5SA



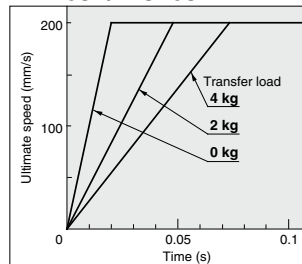
LXFH5SB



LXPB2SB/LXSH2SB

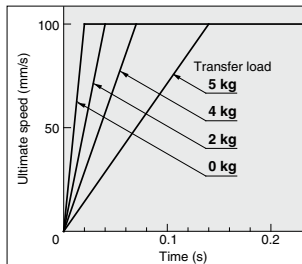


LXPB5SB/LXSH5SB

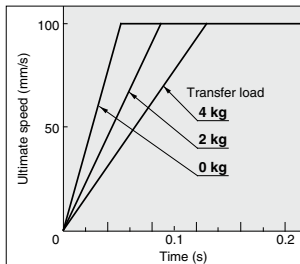


Acceleration Time Guide/Slide Screw Specification (Vertical)

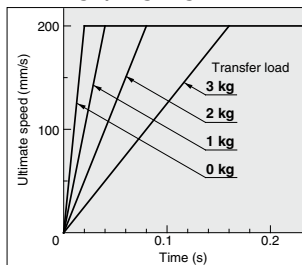
LXPB2SA/LXSH2SA



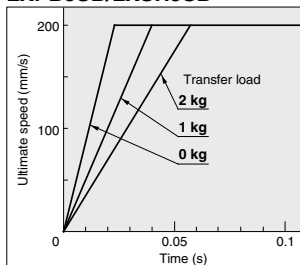
LXPB5SA/LXSH5SA



LXPB2SB/LXSH2SB



LXPB5SB/LXSH5SB

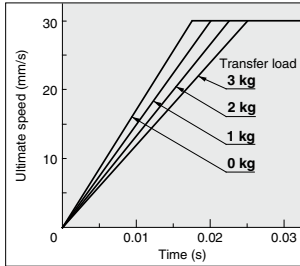


⚠ Caution

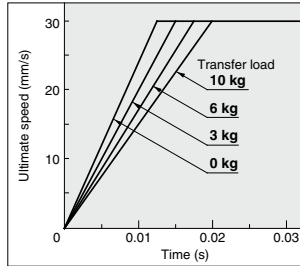
- Transfer loads should not exceed each model's work load specification.
- Determine the acceleration time based on the transfer load and ultimate speed.
- Operating over the graph ranges will cause loss of synchronism.
- The graphs are based on operation using an SMC DC power input type driver with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

Acceleration Time Guide/Ball Screw Specification (Horizontal)

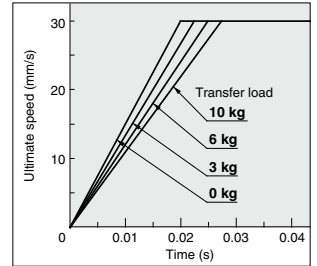
LXFH5BC



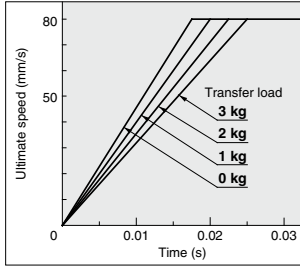
LXPB2BC/LXSH2BC



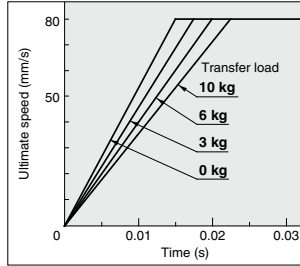
LXPB5BC/LXSH5BC



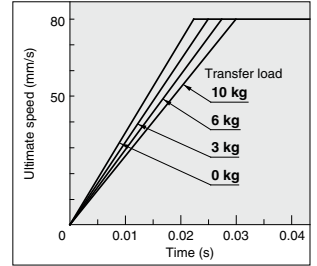
LXFH5BD



LXPB2BD/LXSH2BD

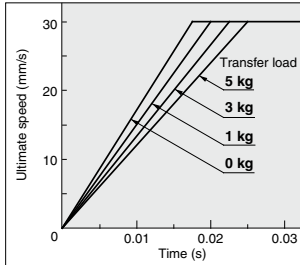


LXPB5BD/LXSH5BD

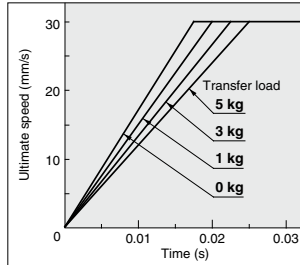


Acceleration Time Guide/Ball Screw Specification (Vertical)

LXPB2BC/LXSH2BC



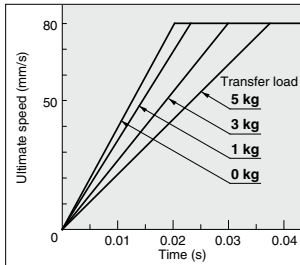
LXPB5BC/LXSH5BC



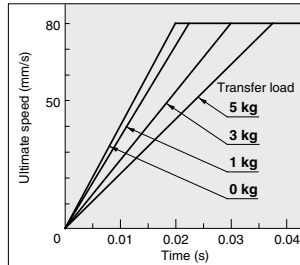
Caution

- 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.

LXPB2BD/LXSH2BD



LXPB5BD/LXSH5BD



LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LCG

LZ

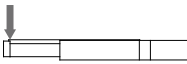

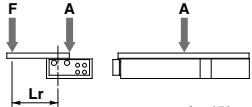
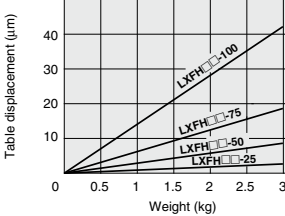
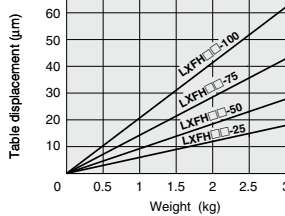
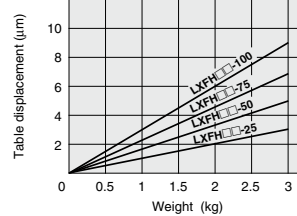

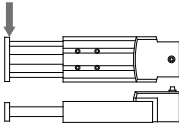
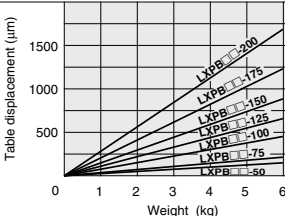
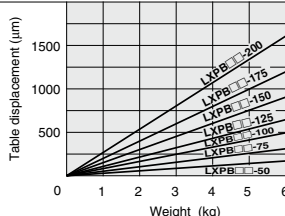


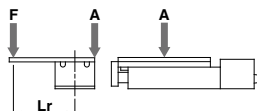
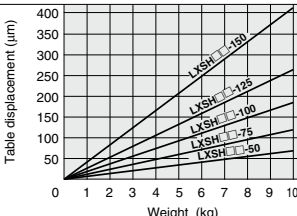
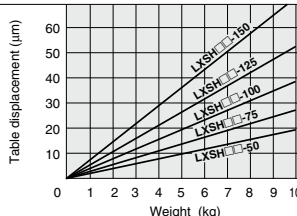
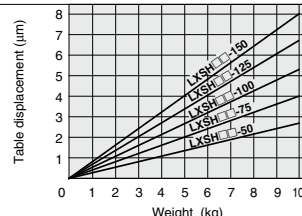
LC3F2

D-

E-MY

Series LX Table Deflection

Table Deflection

	Table displacement by pitch moment load	Table displacement by yaw moment load	Table displacement by roll moment load
LXF	<p>Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.</p> 	<p>Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.</p> 	<p>Displacement at "A" when a load is applied to "F" with the slide table retracted.</p>  <p style="text-align: right;">$L_r = 150 \text{ mm}$</p>
			
LXP	<p>Displacement at the section indicated by the arrow when a load is applied to this section with the electric actuator fully extended.</p> 	<p>Displacement at the section indicated by the arrow when a load is applied to this section with the electric actuator fully extended.</p> 	
			
LXS	<p>Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.</p> 	<p>Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.</p> 	<p>Displacement at "A" when a load is applied to "F" with the slide table retracted.</p>  <p style="text-align: right;">$L_r = 200 \text{ mm}$</p>
			

Short Stroke Type With Motor Brake/Without Motor Brake Series LXF, LXP, LXS

Made to Order Specifications:



Low 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** — **M9N 1 - X60** —

High Rigidity Slide Table Type **LXSH 2 B C - 50** — **M9N 1 - X60** —

Motor type

2	2 phase stepper motor
5	5 phase stepper motor

Lead screw type

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

Lead screw lead

C	2 mm
D	5 mm

Stroke

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

Home position switch

Nil	None
S	Yes (cable length 0.3 m)

Brake

Nil	Without brake
B	With brake

CE-compliant

Nil	—
Q	CE-compliant

Low particulate generation specification

Auto/Proximity switch type

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.

Auto switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact	Applicable actuator
M9N	D-M9N	3 wire/NPN	0.5	N.O. (A contact)	LXP LXS
M9P	D-M9P	3 wire/PNP	0.5	N.O. (A contact)	
M9B	D-M9B	2 wire	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)	
M9NL	D-M9NL	3 wire/NPN	3	N.O. (A contact)	
M9PL	D-M9PL	3 wire/PNP	3	N.O. (A contact)	
M9BL	D-M9BL	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) M9N1G2

Proximity switch types

Symbol	Model	Wiring/Output type	Lead wire length (m)	Contact	Applicable actuator
GN	With sensor rail (LXF)	—	—	—	LXF LXS
	With sensor plate (LXS) Without proximity switch				
G	GX-F8A	3 wire/NPN	1	N.O. (A contact)	
GD	GX-F8AI	3 wire/NPN	1	N.O. (A contact)	
GB	GX-F8B	3 wire/NPN	1	N.C. (B contact)	
GDB	GX-F8BI	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 1034 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 (mm)	Ball screw ø8 mm 2 mm/5 mm lead Black chrome coating + Special fluororesin coating, AFE grease (made by THK) applied		

Specifications and O.D. dimensions other than those above are the same as specifications for standard actuator/ball screw.

LJ1
LG1
LTF
LECS
LXF
LXP
LXS
LC6
LZ
LC3F2
D-
E-MY