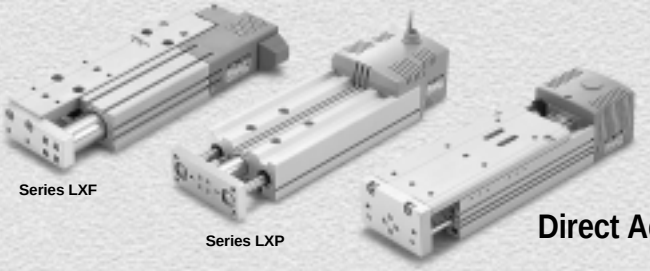


Series LXF

Series LXP

Series LXS

Short Stroke Electric Actuator

Series LX

Direct Acting Guide/Ball Bushing

Series	Motor type	Brake	Guide type	Model	Lead screw lead mm				Page
					Ball screw		Slide screw		
LXF	5 phase stepper	Without brake	Direct acting guide	LXFH5	2	5	6	12	210
LXP	2 phase stepper	Without brake	Ball bushing	LXPB2	2	5	6	12	218
		With brake			2	5	6	12	226
	5 phase stepper	Without brake		LXPB5	2	5	6	12	234
		With brake			2	5	6	12	242
LXS	2 phase stepper	Without brake	High rigidity direct acting guide	LXSH2	2	5	6	12	250
		With brake			2	5	6	12	258
	5 phase stepper	Without brake		LXSH5	2	5	6	12	266
		With brake			2	5	6	12	274

Part Number Designations

LX S H 5 B C – 100 S B – F9N 1

Actuator configuration

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

Guide type

H	Direct acting guide
B	Ball bushing

Motor type

2	2 phase stepper motor
5	5 phase stepper motor

Lead screw type

B	Ball screw
S	Slide screw

Lead screw lead

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

Stroke

Home position switch

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

Brake

Nil	None
B	With brake

Number of auto switches/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch/Proximity switch type

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

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

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

How to Order

LXFH5 BC — Stroke — S — GD — 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Proximity switch type

Nil	None

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

Number of proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Proximity switch types

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

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

Specifications

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

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

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

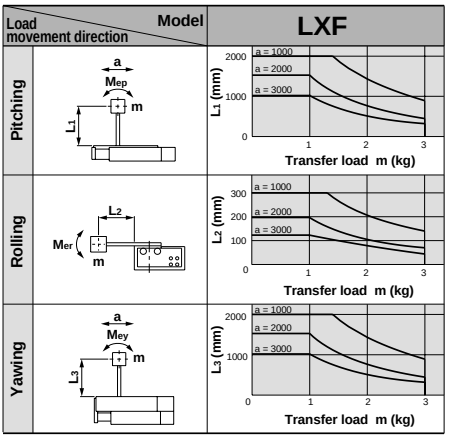
Allowable Moment (N·m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

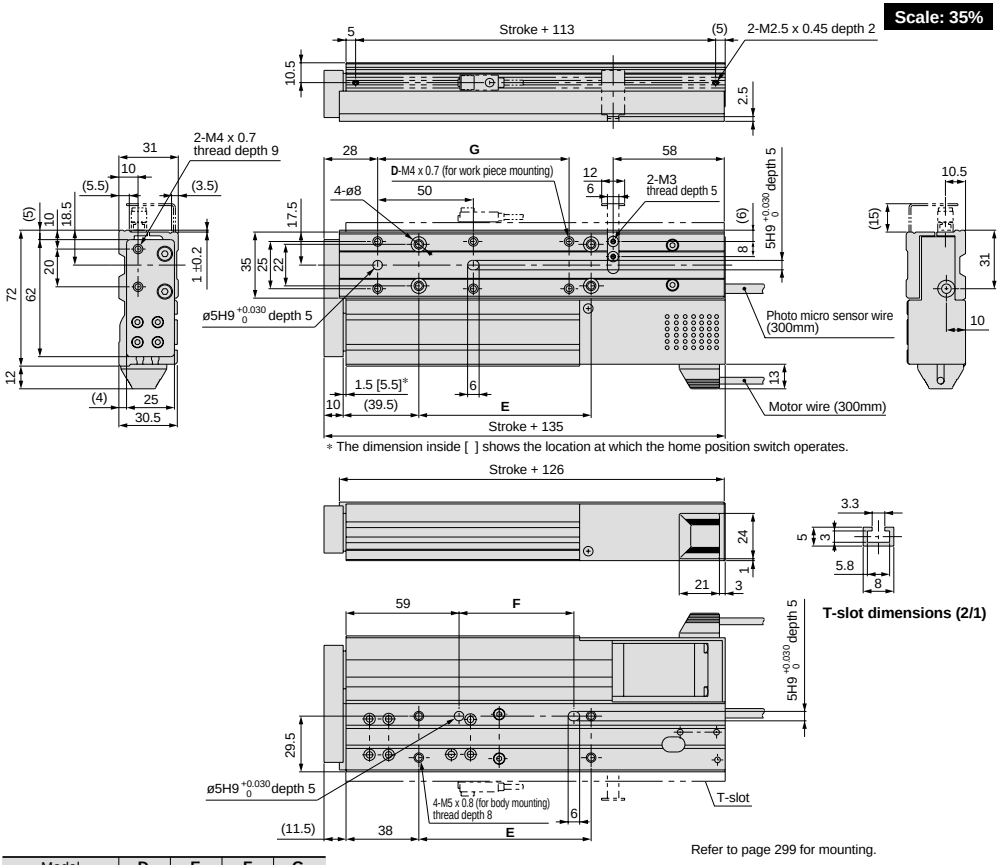
m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me: Dynamic moment

Allowable dynamic moment



Refer to page 304 for deflection data.

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 299 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 1kg

		Positioning time (sec)			
Positioning distance (mm)		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 303 for acceleration time.

For transfer load of 2kg

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

For transfer load of 3kg

		Positioning time (sec)			
Positioning distance (mm)		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

How to Order

LXFH5 BD — Stroke — S — GD — 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Proximity switch type

Nil	None

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

Number of proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Proximity switch types

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

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

Specifications

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

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

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

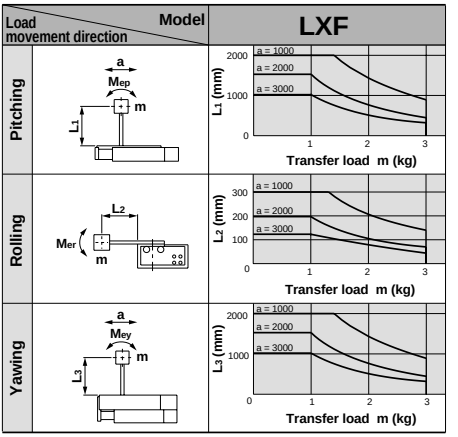
Allowable Moment (N·m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

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

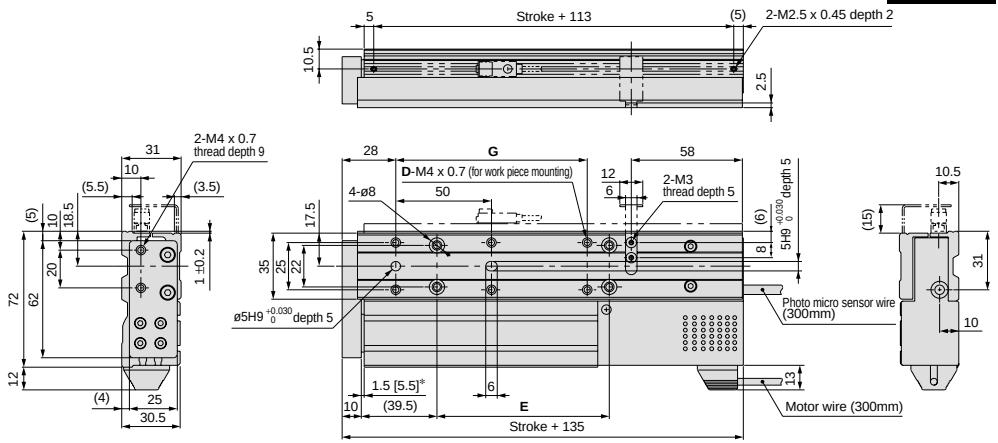
Allowable dynamic moment



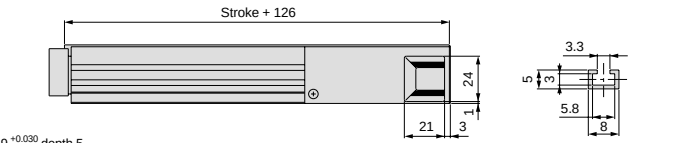
Refer to page 304 for deflection data.

Dimensions/LXFH5BD

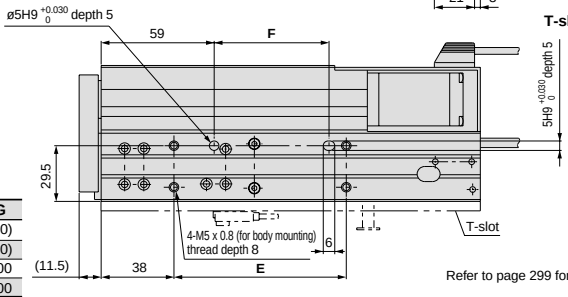
Scale: 35%



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



T-slot dimensions (2/1)



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

Refer to page 299 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 1kg

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

Refer to page 303 for acceleration time.

For transfer load of 2kg

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

For transfer load of 3kg

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

How to Order

LXFH5 SA — Stroke — S — F9N — 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

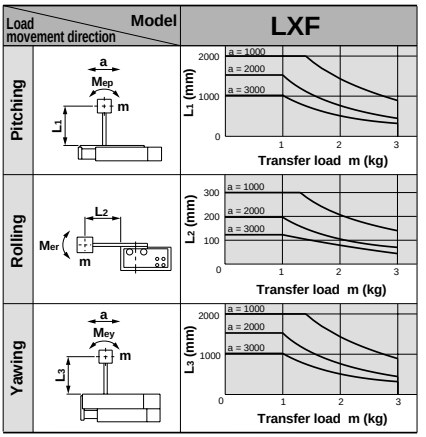
Allowable Moment (N·m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

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

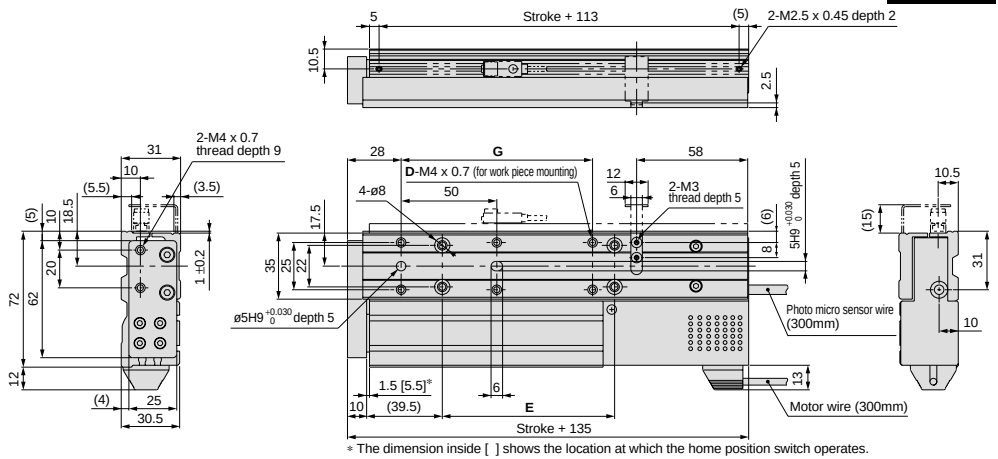
Allowable dynamic moment



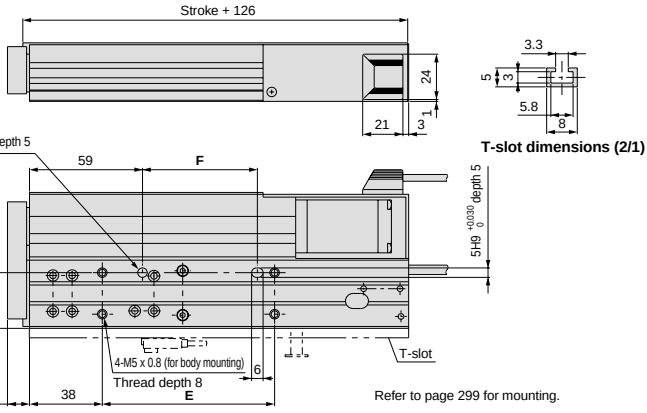
Refer to page 304 for deflection data.

Dimensions/LXFH5SA

Scale: 35%



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



T-slot dimensions (2/1)

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 299 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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 2kg

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 1kg

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 3kg

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

Refer to page 302 for acceleration time.

How to Order

LXFH5 SB — Stroke — S — F9N — 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

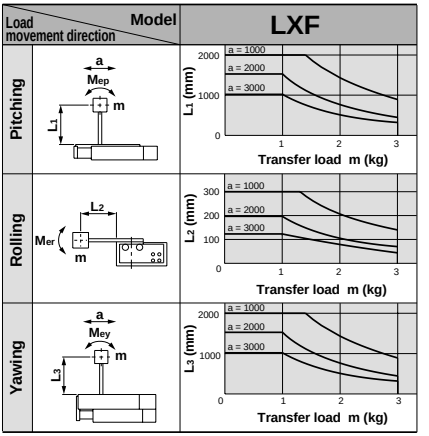
Allowable Moment (N·m)

Allowable static moment

Pitching	4
Rolling	3
Yawing	4

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

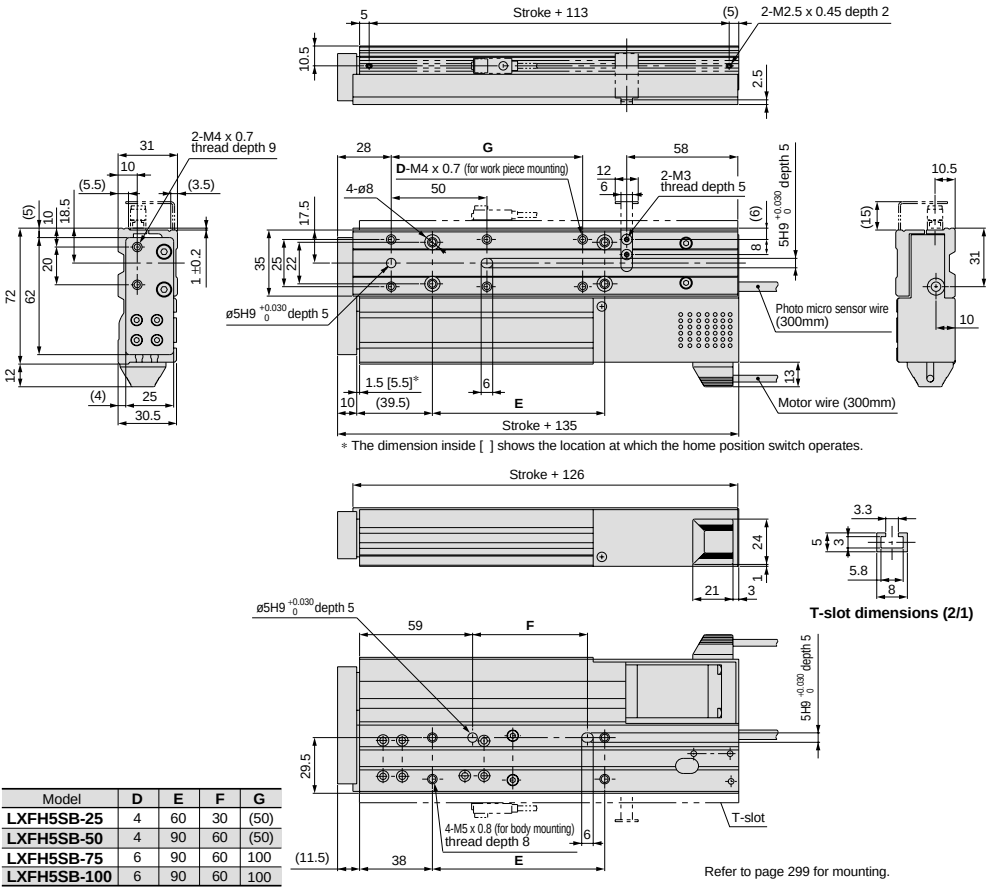
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXFH5SB

Scale: 35%



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

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 2kg

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

For transfer load of 1kg

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

Refer to page 302 for acceleration time.

How to Order

LXPB2 BC – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

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

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

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

Operating Conditions

Allowable lateral load (F)

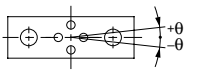
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

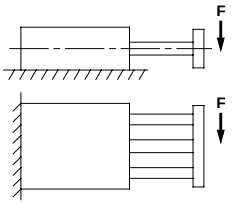
Allowable plate rotation torque (T)

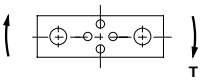
Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°





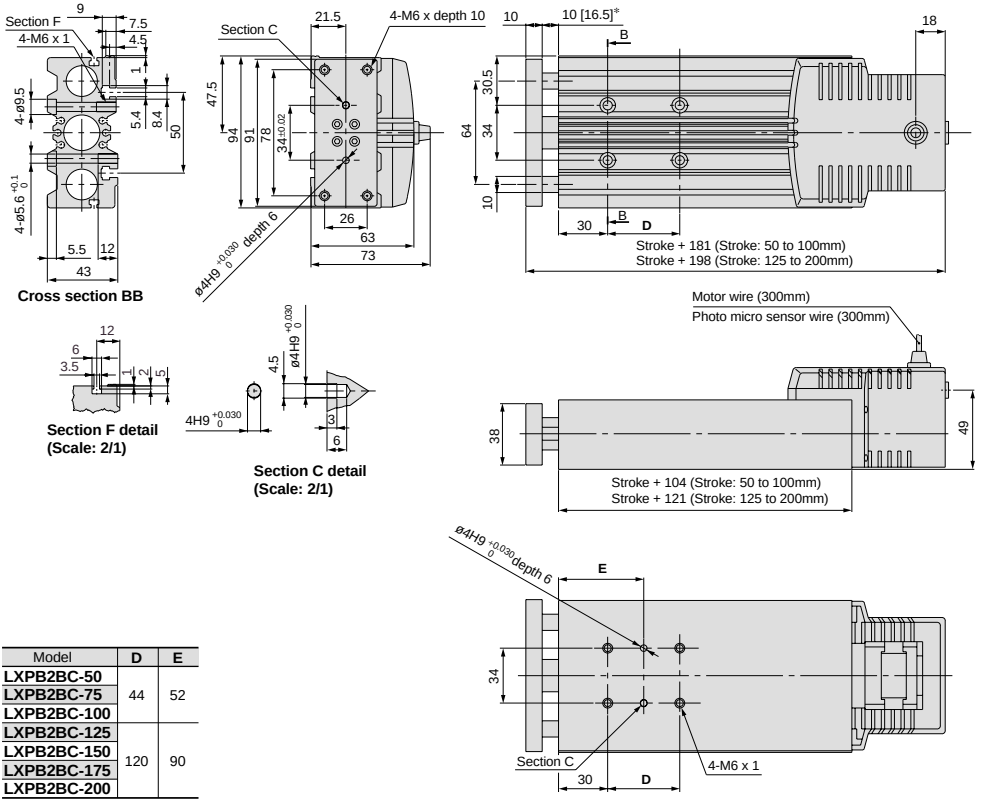


Refer to page 304 for deflection data.

Dimensions/LXPB2BC

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 3kg

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

Refer to page 303 for acceleration time.

For transfer load of 6kg

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

How to Order

LXPB2 BD – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

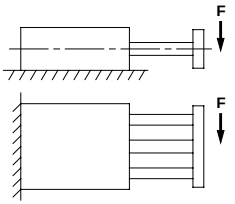
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.0	2.2	2.3	2.6	2.8	2.9	3.1
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 80 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts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

Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.
Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

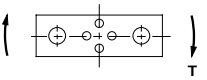
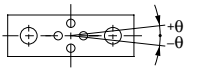


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

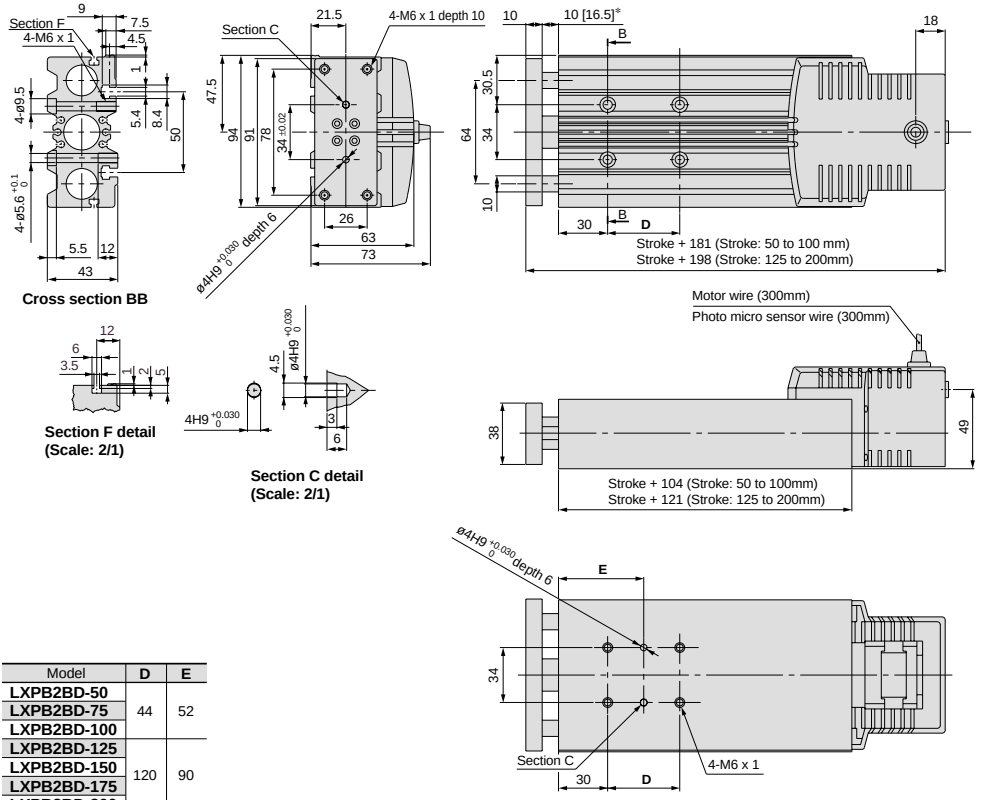


Refer to page 304 for deflection data.

Dimensions/LXPB2BD

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	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 6kg

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

For transfer load of 3kg

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

Refer to page 303 for acceleration time.

How to Order

LXPB2 SA – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

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

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

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

Operating Conditions

Allowable lateral load (F)

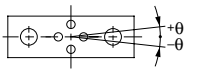
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

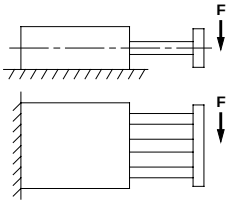
Allowable plate rotation torque (T)

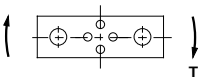
Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°





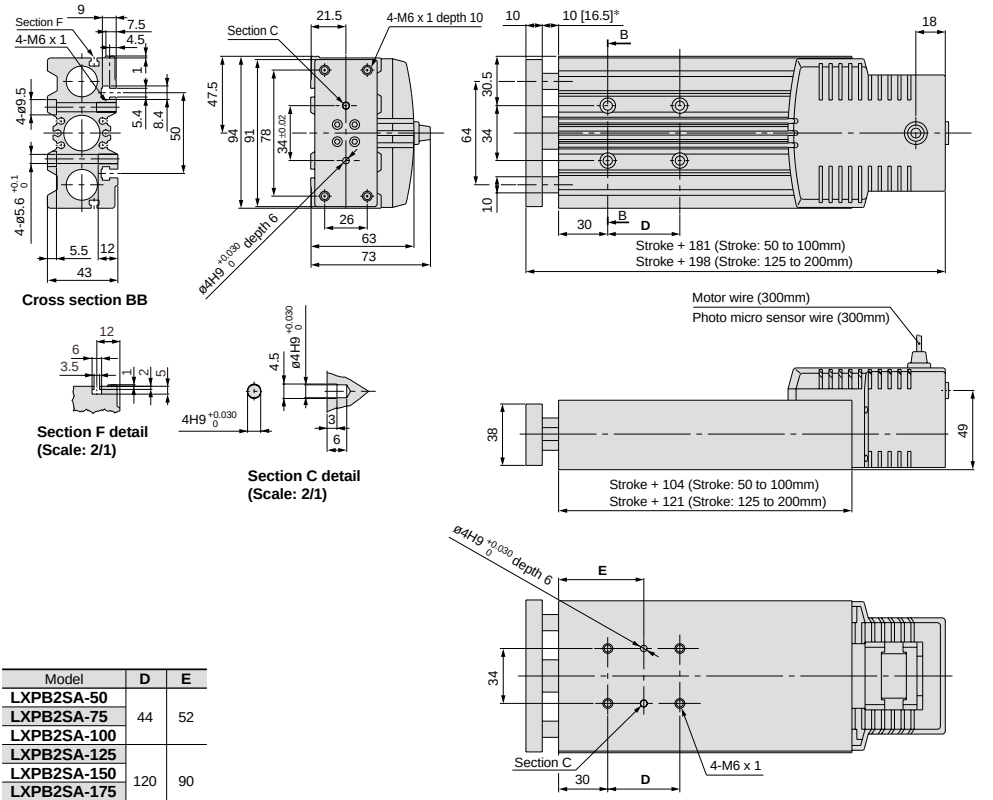


Refer to page 304 for deflection data.

Dimensions/LXPB2SA

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	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 6kg

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

For transfer load of 3kg

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

Refer to page 302 for acceleration time.

How to Order

LXPB2 SB – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

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

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

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

Operating Conditions

Allowable lateral load (F)

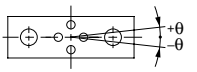
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

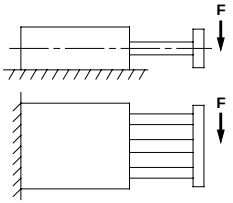
Allowable plate rotation torque (T)

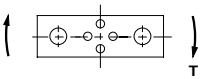
Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°





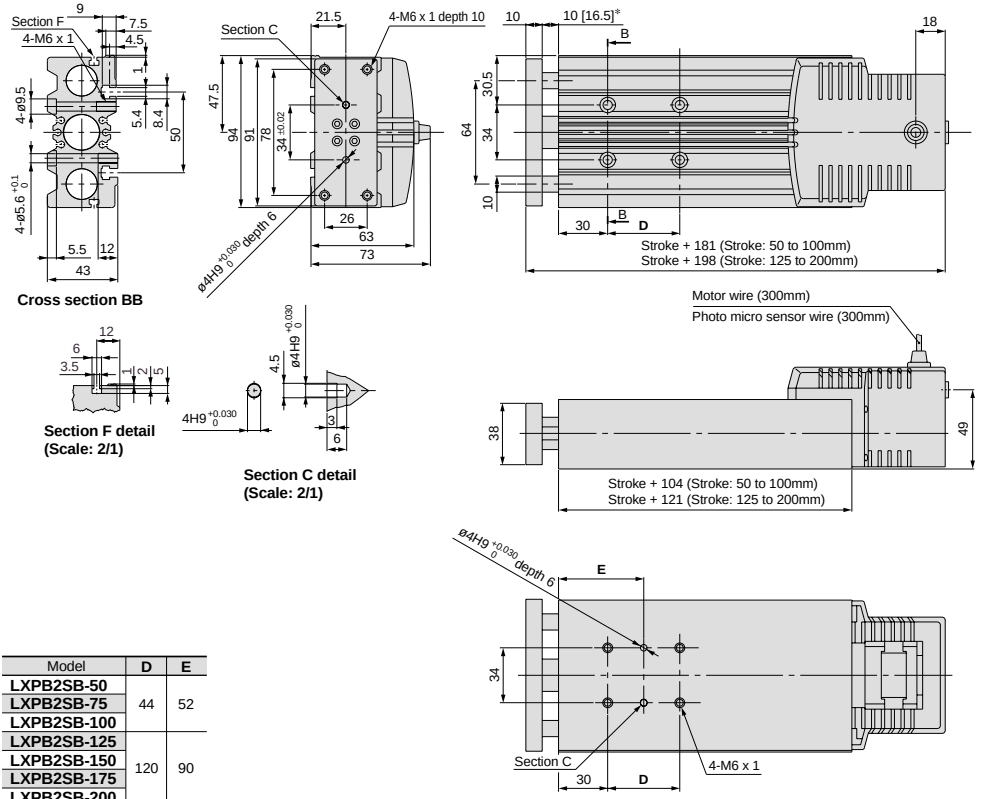


Refer to page 304 for deflection data.

Dimensions/LXPB2SB

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 1.5kg

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

For transfer load of 3kg

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

Refer to page 302 for acceleration time.

How to Order

LXPB2 BC – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

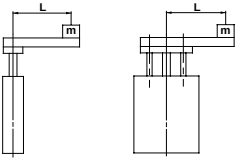
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 30 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts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

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

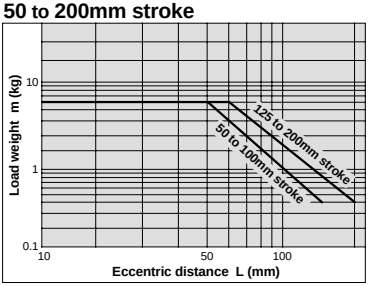
Note 2) Since vibration may increase with low speed operation, use 2mm/s or more as a guide for speed.

Lifter Operation Range

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



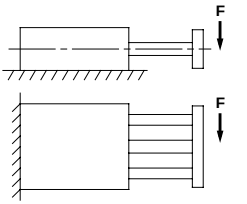
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

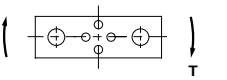
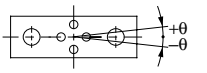


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

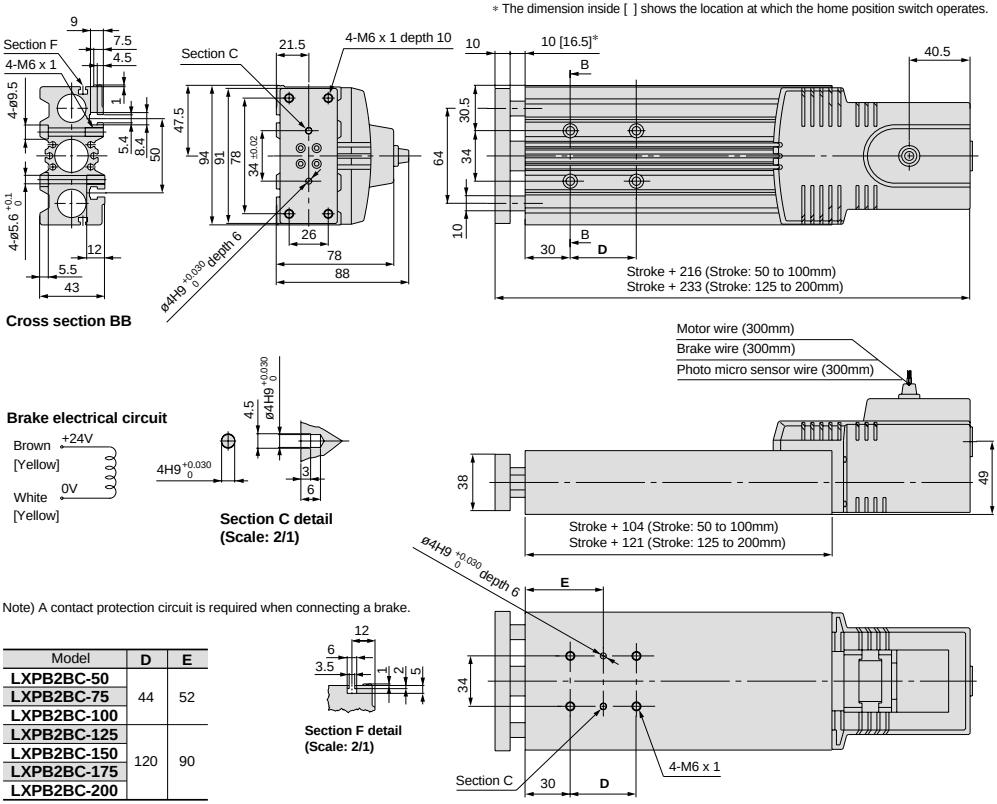


Refer to page 304 for deflection data.

Dimensions/LXPB2BC

Scale: 30%

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



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

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

Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXPB2 BD – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

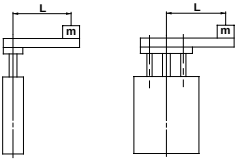
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 80 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts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

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

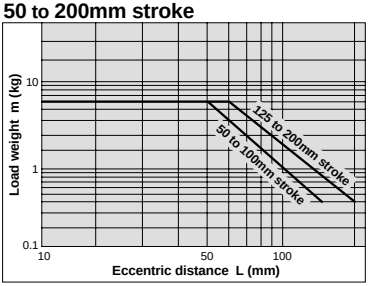
Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Lifter Operation Range

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



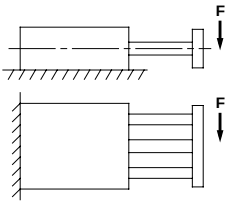
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

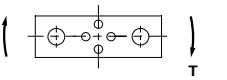
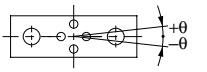


Plate non-rotating accuracy (θ)

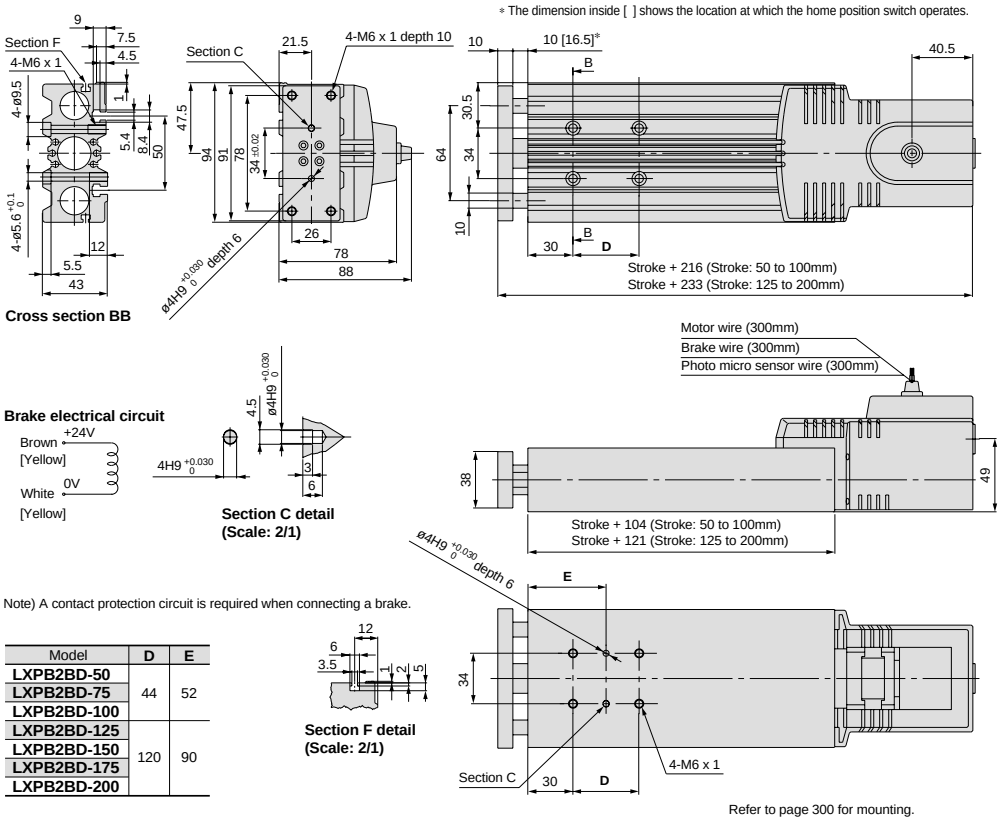
Non-rotating accuracy (θ)
±0.09°



Refer to page 304 for deflection data.

Dimensions/LXPB2BD

Scale: 30%



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

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

Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXPB2 SA – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

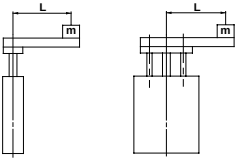
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 100 Note 2)						
	Positioning repeatability	mm	±0.05						
Main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

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

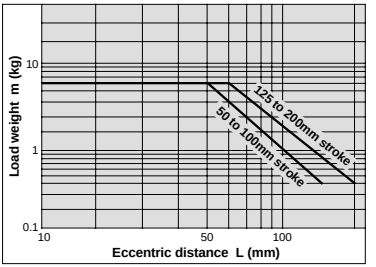
Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Lifter Operation Range

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



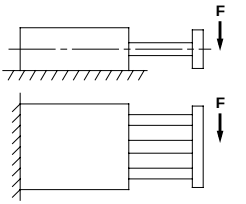
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

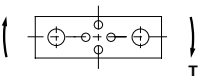
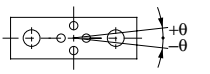


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

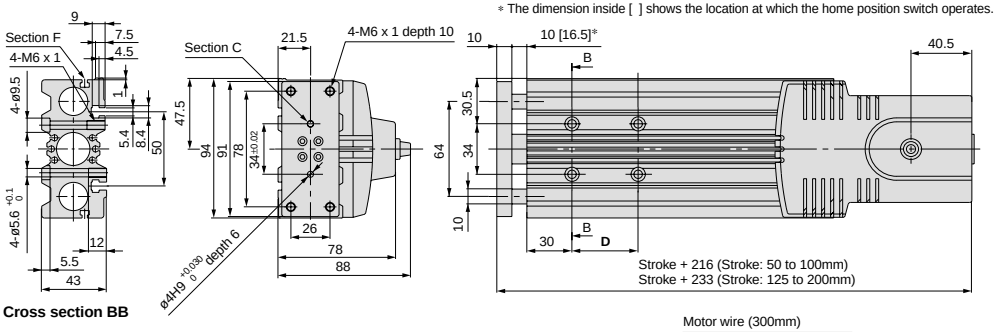


Refer to page 304 for deflection data.

Dimensions/LXPB2SA

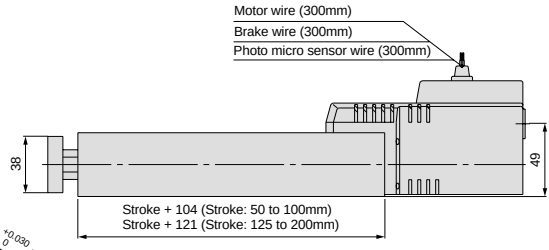
Scale: 30%

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



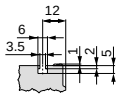
Brake electrical circuit

Section C detail (Scale: 2/1)

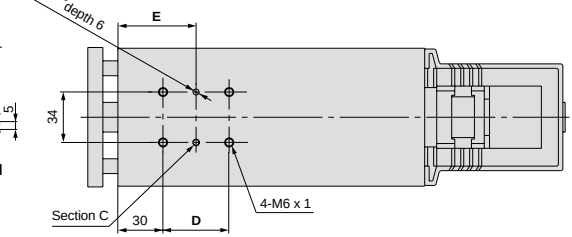


Note) A contact protection circuit is required when connecting a brake.

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



Section F detail (Scale: 2/1)



Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	200
Speed (mm/s)	10	0.2	1.1	5.1	10.1	20.1
	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 5kg

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

For transfer load of 2.5kg

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

Refer to page 302 for acceleration time.

How to Order

LXPB2 SB – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

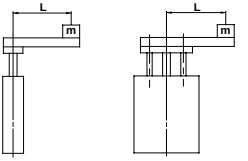
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	3 horizontal/3 vertical Note 1)						
	Speed	mm/s	to 200 Note 2)						
	Positioning repeatability	mm	±0.05						
Main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

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

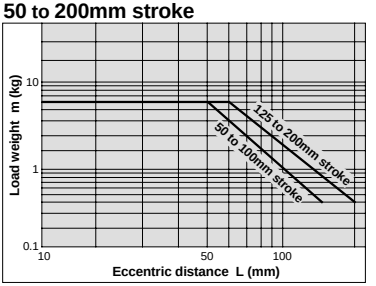
Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

Lifter Operation Range

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



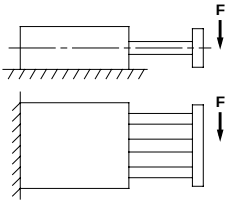
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

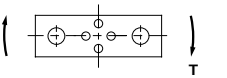
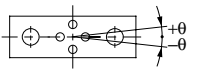


Plate non-rotating accuracy (θ)

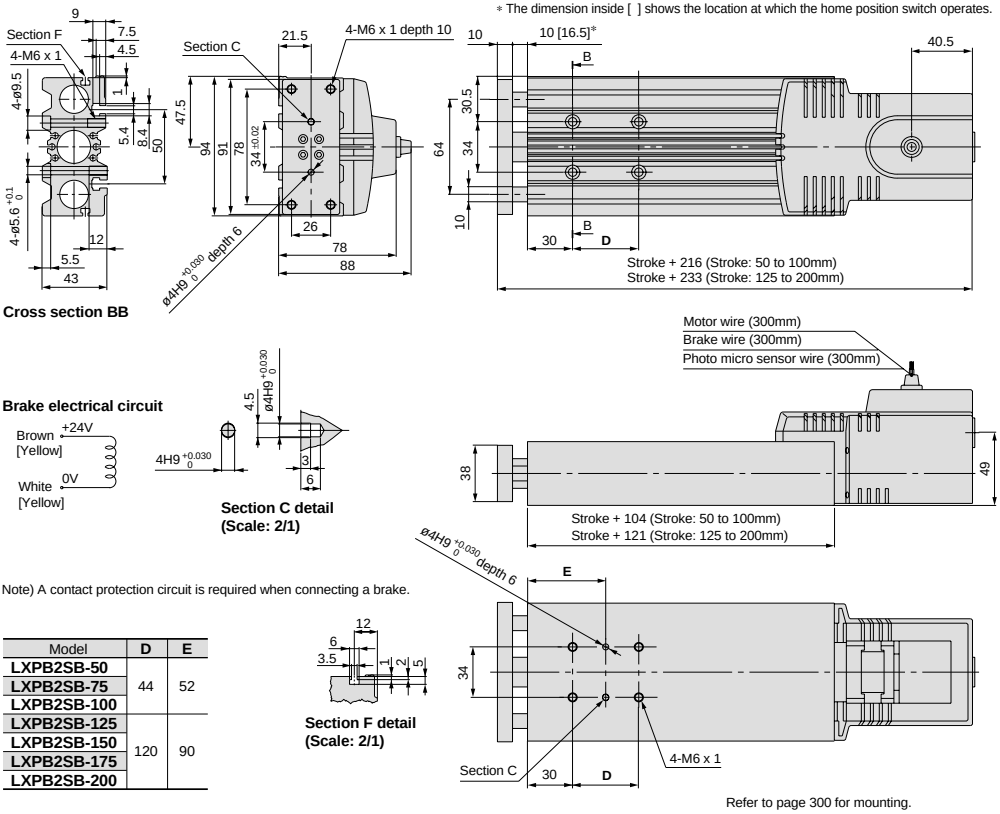
Non-rotating accuracy (θ)
±0.09°



Refer to page 304 for deflection data.

Dimensions/LXPB2SB

Scale: 30%



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		

Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 3kg

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

For transfer load of 1.5kg

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

Refer to page 302 for acceleration time.

How to Order

LXPB5 BC – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

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

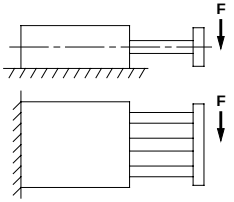
Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

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

Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

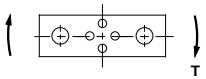
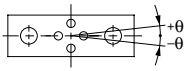


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

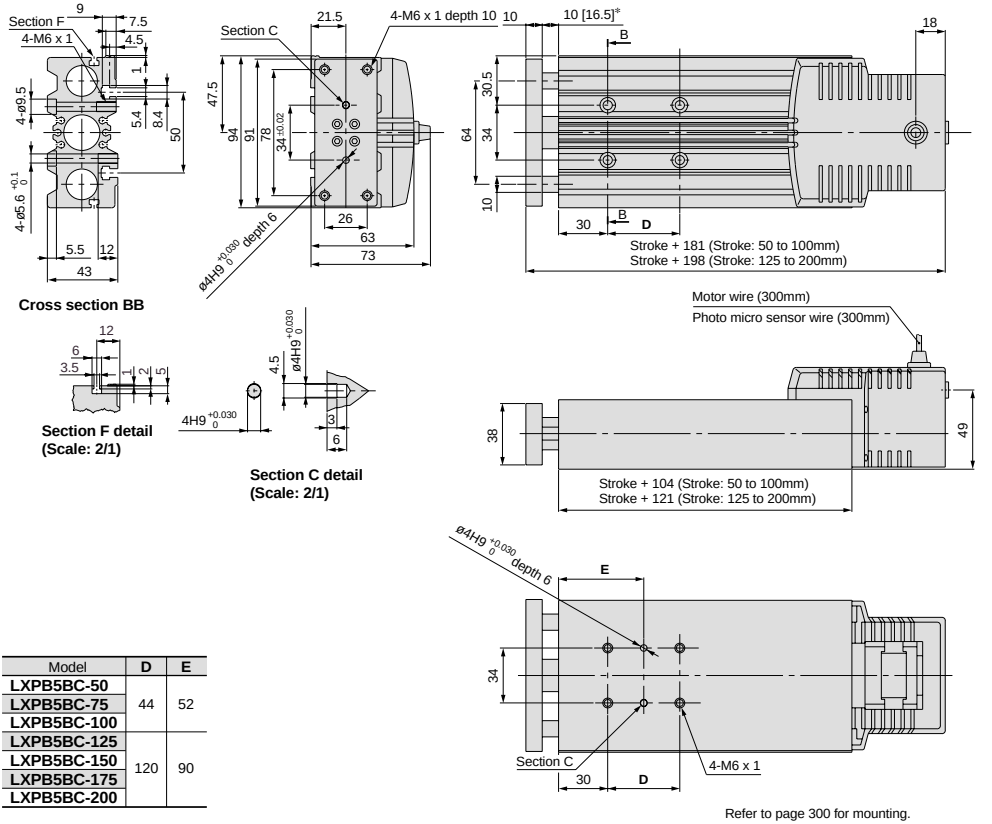


Refer to page 304 for deflection data.

Dimensions/LXPB5BC

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 6kg

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

For transfer load of 3kg

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

Refer to page 303 for acceleration time.

How to Order

LXPB5 BD – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

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

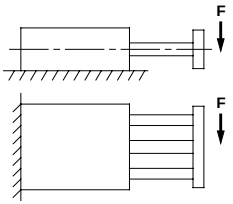
Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

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

Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

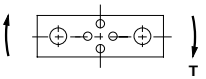
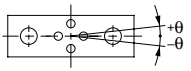


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

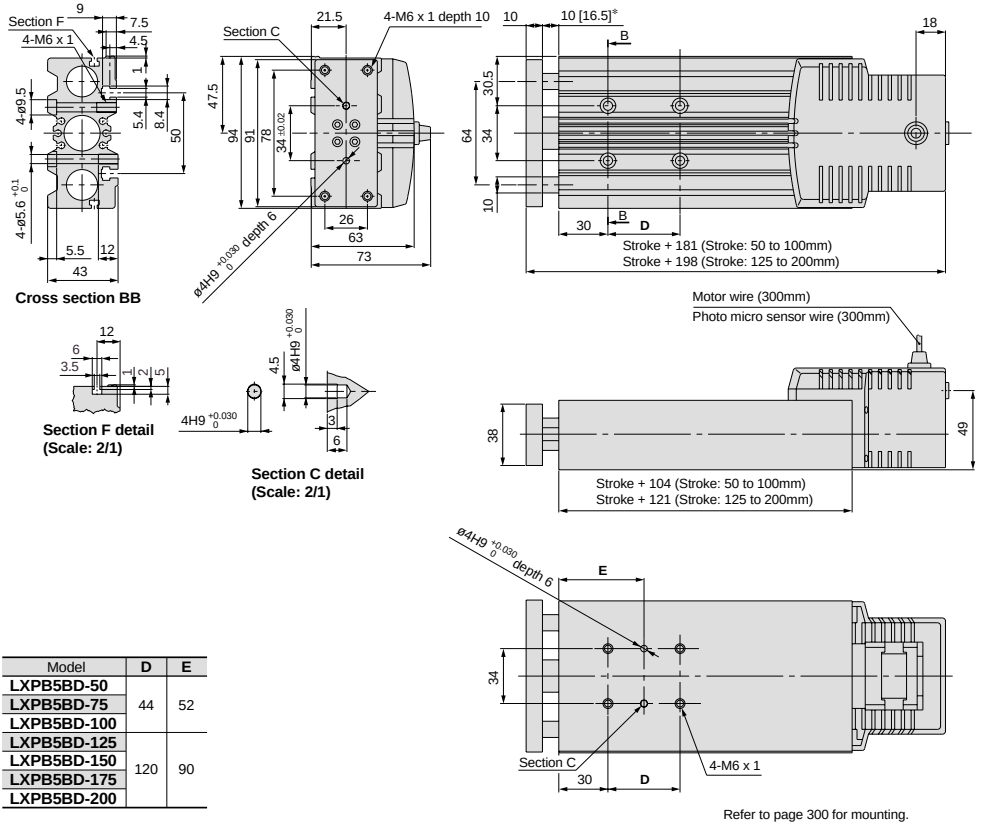


Refer to page 304 for deflection data.

Dimensions/LXPB5BD

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 3kg

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

Refer to page 303 for acceleration time.

For transfer load of 6kg

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

How to Order

LXPB5 SA – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

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

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

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

Operating Conditions

Allowable lateral load (F)

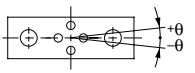
Stroke	Load (N)
50	42
75	42
100	40
125	42
150	32
175	24
200	17

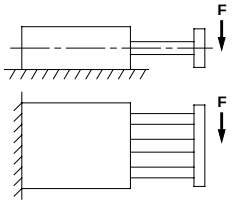
Allowable plate rotation torque (T)

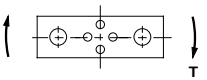
Stroke	Torque (N·m)
50	2.87
75	2.47
100	2.17
125	2.38
150	2.16
175	1.98
200	1.82

Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°





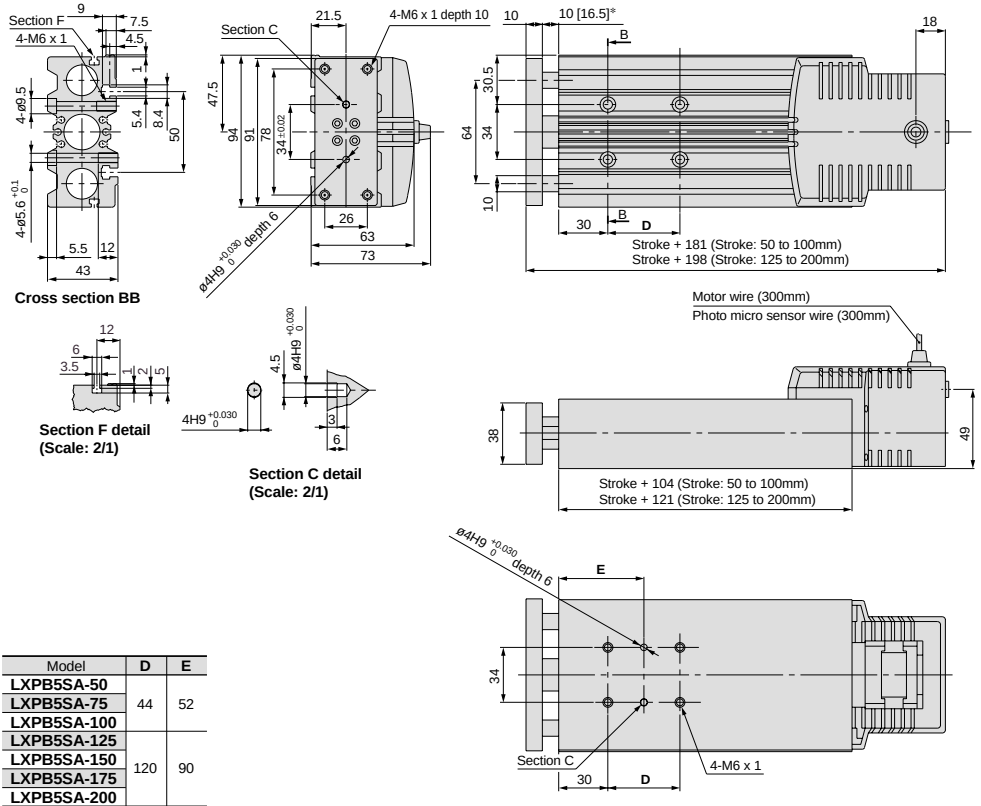


Refer to page 304 for deflection data.

Dimensions/LXPB5SA

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 4kg

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

For transfer load of 2kg

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

Refer to page 302 for acceleration time.

How to Order

LXPB5 SB – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

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

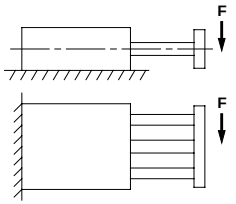
Note 1) Based on the operating conditions, establish a separate guide when exceeding the maximum allowable lateral load.

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

Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

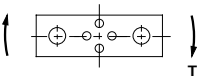
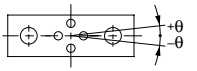


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

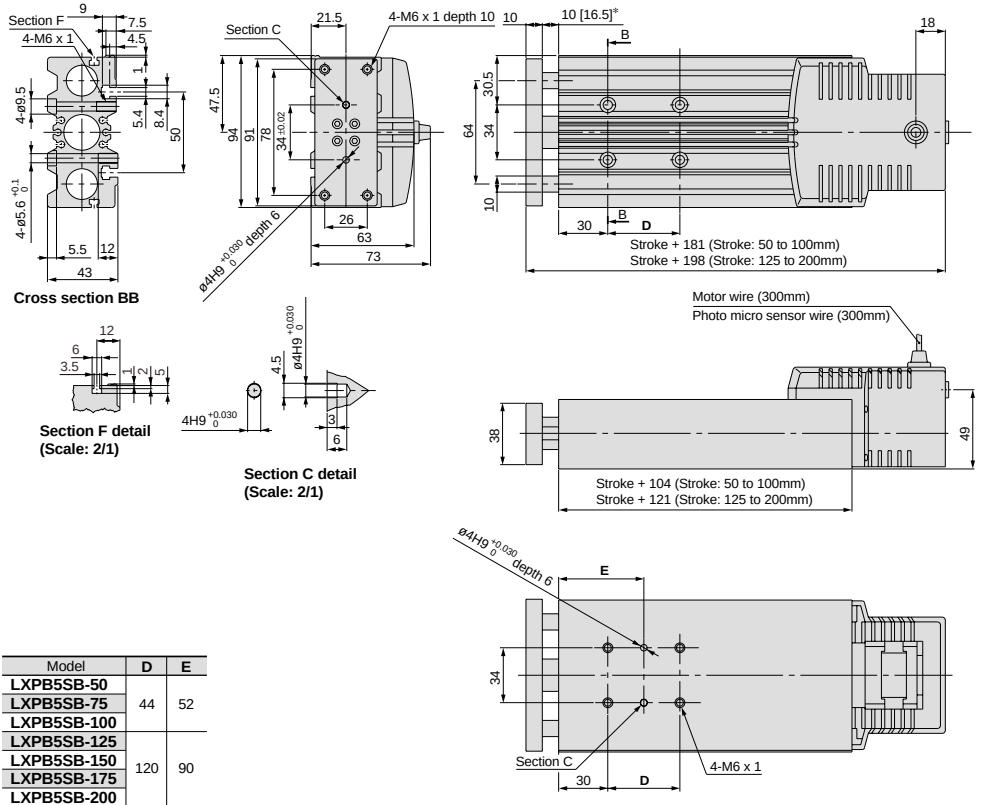


Refer to page 304 for deflection data.

Dimensions/LXPB5SB

Scale: 30%

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



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

Refer to page 300 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 1kg

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

Refer to page 302 for acceleration time.

For transfer load of 2kg

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

How to Order

LXPB5 BC – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

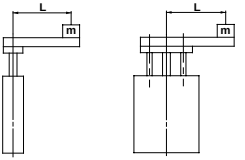
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 30 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts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

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

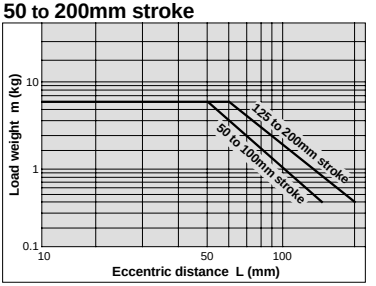
Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Lifter Operation Range

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



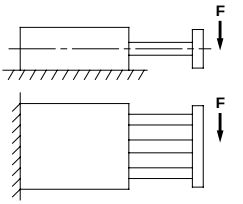
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

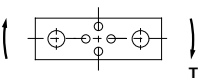
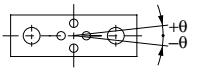


Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°

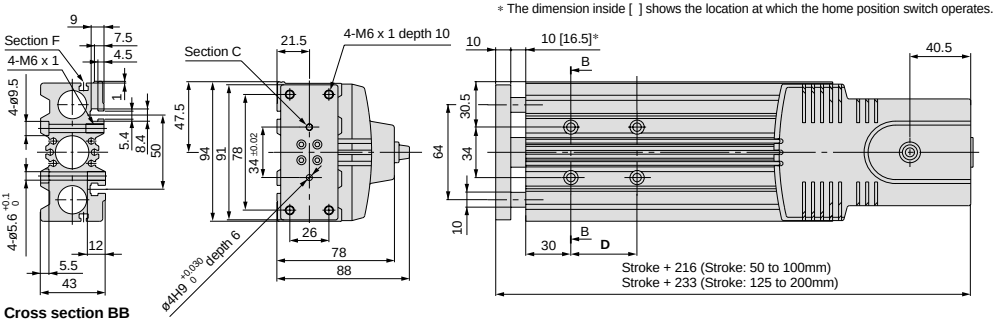


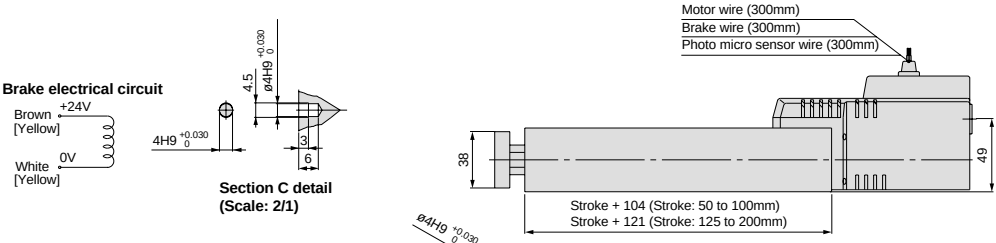
Refer to page 304 for deflection data.

Dimensions/LXPB5BC

Scale: 30%

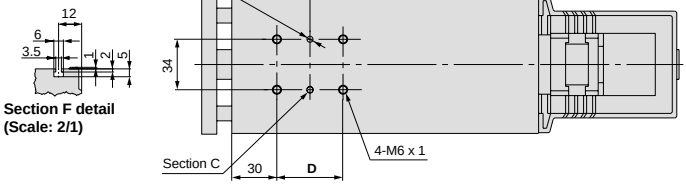
∗ The dimension inside [ ] shows the location at which the home position switch operates.





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 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXPB5 BD – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

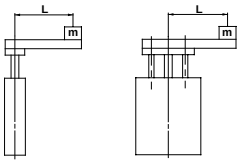
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	6 horizontal/5 vertical Note 1)						
	Speed	mm/s	to 80 Note 2)						
	Positioning repeatability	mm	±0.03						
Main parts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

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

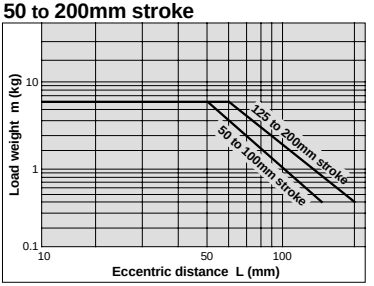
Note 2) Since vibration may increase with low speed operation, use 5mm/s or more as a guide for speed.

Lifter Operation Range

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



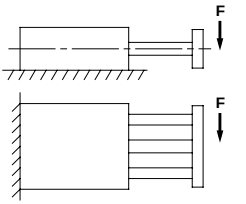
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

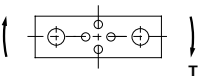
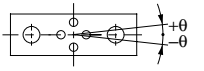


Plate non-rotating accuracy (θ)

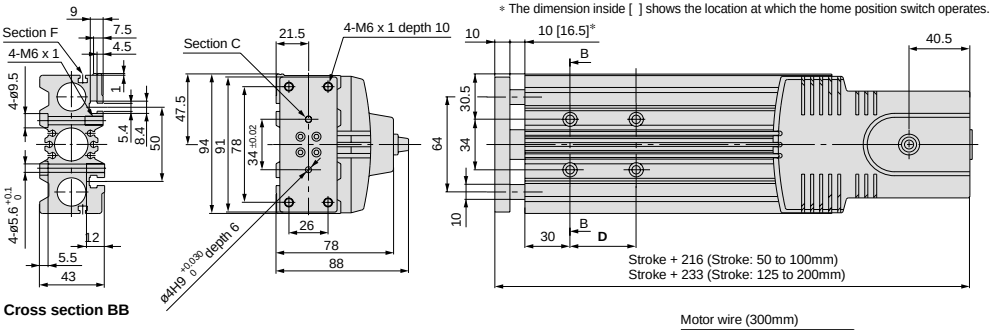
Non-rotating accuracy (θ)
±0.09°

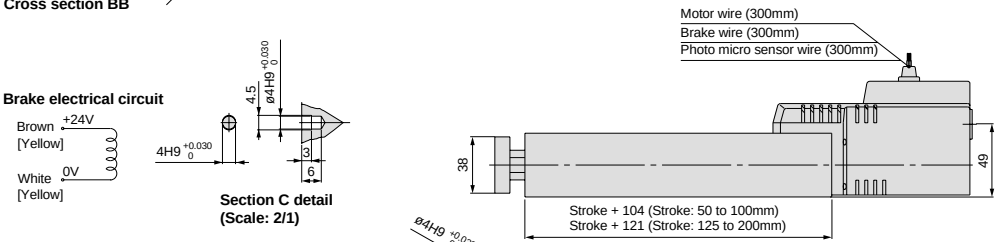


Refer to page 304 for deflection data.

Dimensions/LXPB5BD

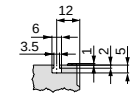
Scale: 30%

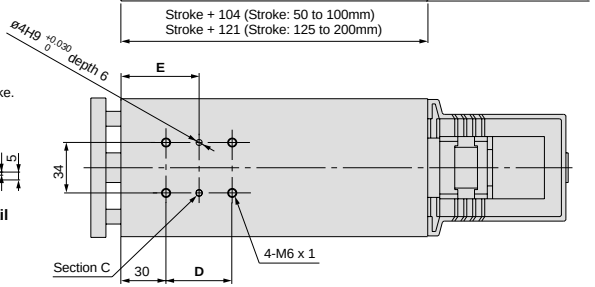




Note) A contact protection circuit is required when connecting a brake.

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





Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXPB5 SA – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

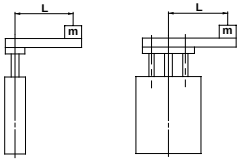
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	4 horizontal/4 vertical Note 1)						
	Speed	mm/s	to 100 Note 2)						
	Positioning repeatability	mm	±0.05						
Main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

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

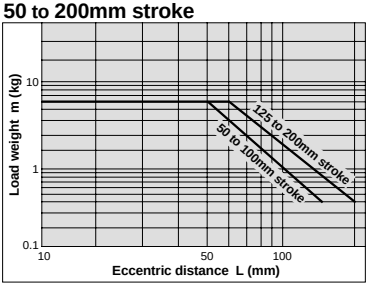
Note 2) Since vibration may increase with low speed operation, use 6mm/s or more as a guide for speed.

Lifter Operation Range

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



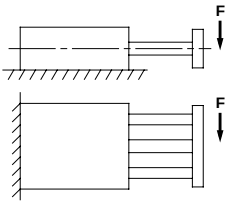
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Refer to page 304 for deflection data.

Allowable plate rotation torque (T)

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

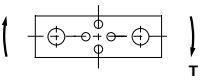
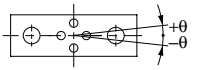


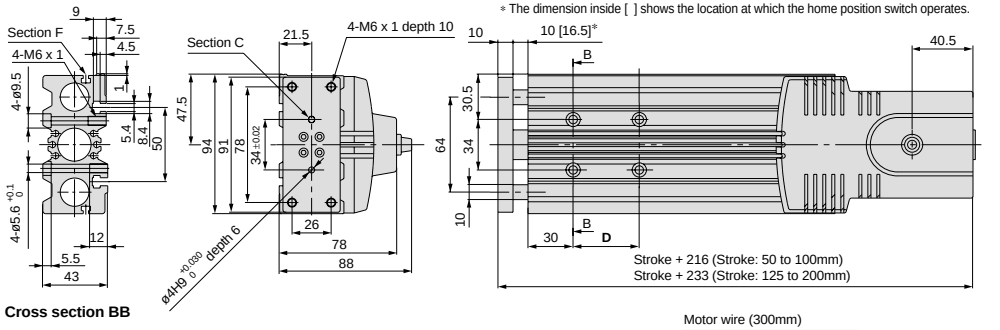
Plate non-rotating accuracy (θ)

Non-rotating accuracy (θ)
±0.09°



Dimensions/LXPB5SA

Scale: 30%



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

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

Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 4kg

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

For transfer load of 2kg

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

Refer to page 302 for acceleration time.

How to Order

LXPB5 SB – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

Nil	None

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch types

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

Specifications

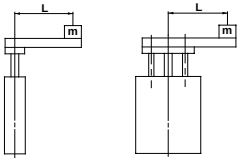
	Standard stroke	mm	50	75	100	125	150	175	200
Performance	Body weight	kg	2.2	2.4	2.5	2.8	3.0	3.1	3.3
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	2 horizontal/2 vertical Note 1)						
	Speed	mm/s	to 200 Note 2)						
	Positioning repeatability	mm	±0.05						
Main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

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

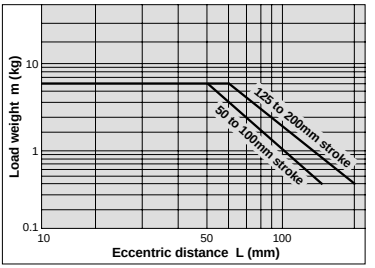
Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

Lifter Operation Range

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



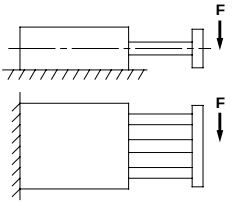
50 to 200mm stroke



Operating Conditions

Allowable lateral load (F)

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



Allowable plate rotation torque (T)

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

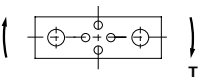
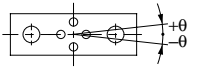


Plate non-rotating accuracy (θ)

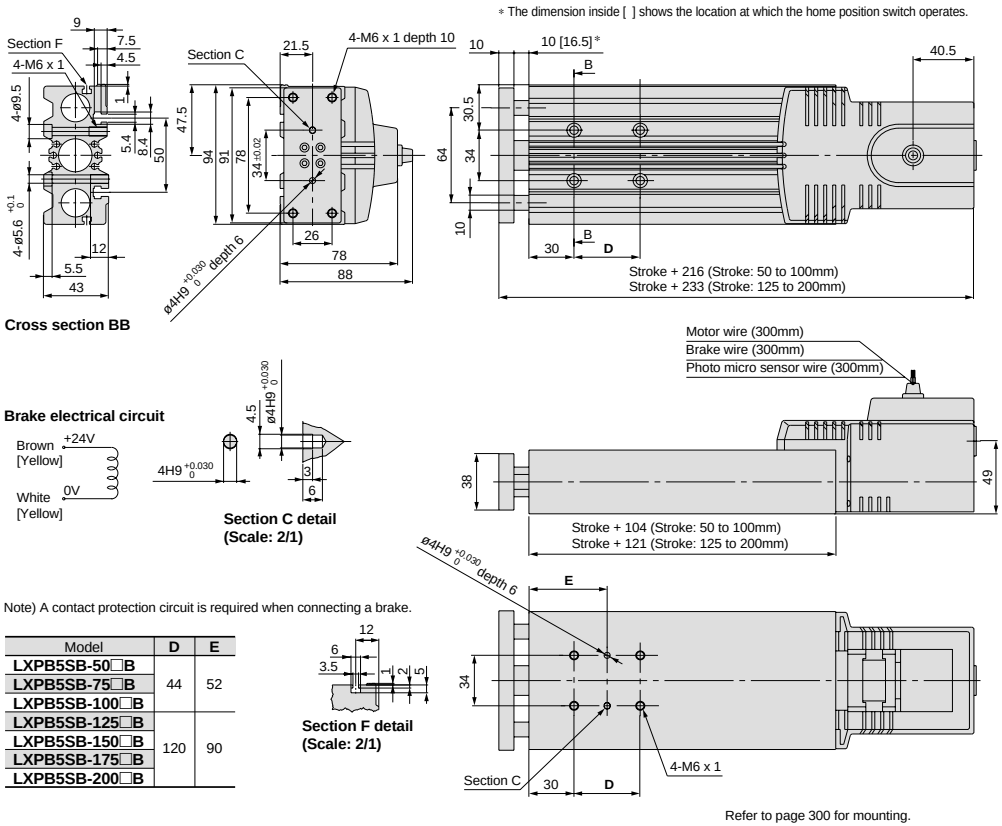
Non-rotating accuracy (θ)
±0.09°



Refer to page 304 for deflection data.

Dimensions/LXPB5SB

Scale: 30%



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

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

Refer to page 300 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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 2kg

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

For transfer load of 1kg

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 302 for acceleration time.

How to Order

LXSH2 BC — Stroke — S — F9N — 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

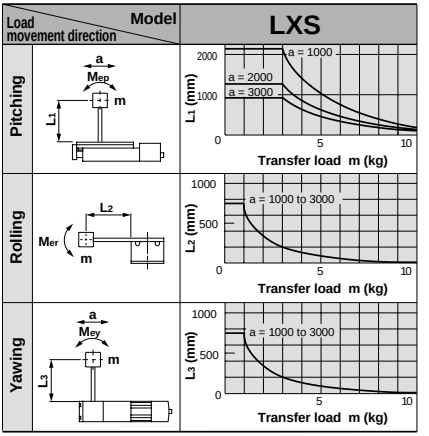
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

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

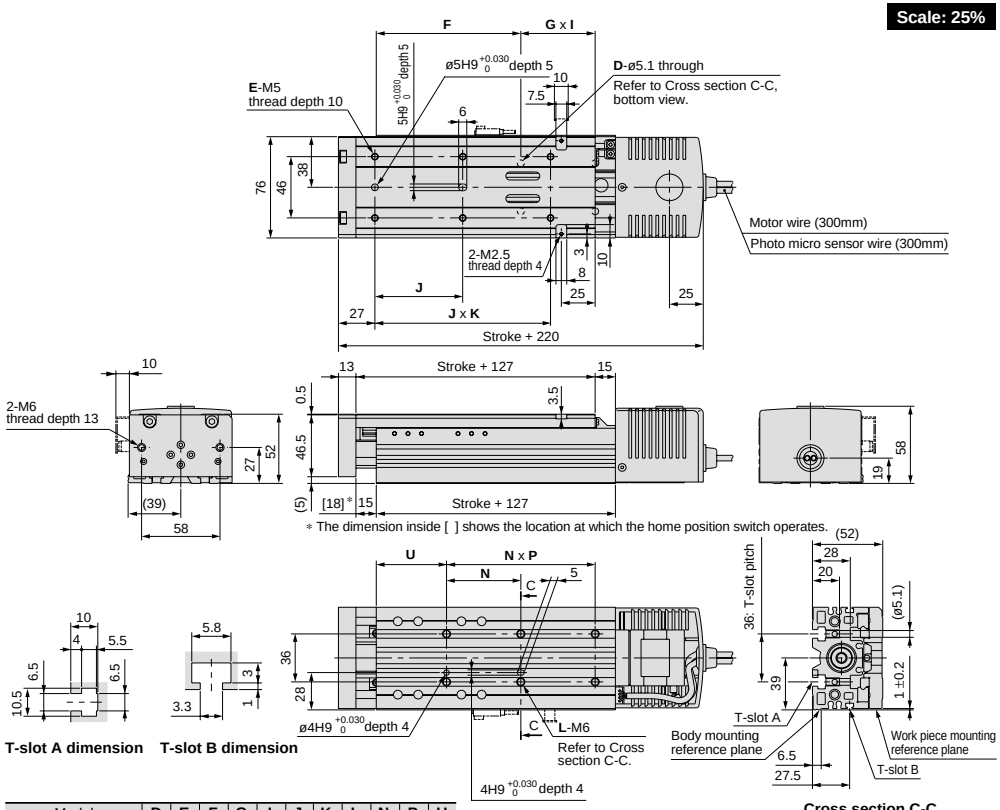
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2BC

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

Refer to page 303 for acceleration time.

For transfer load of 10kg

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

How to Order

LXSH2 BD — Stroke — S — F9N — 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

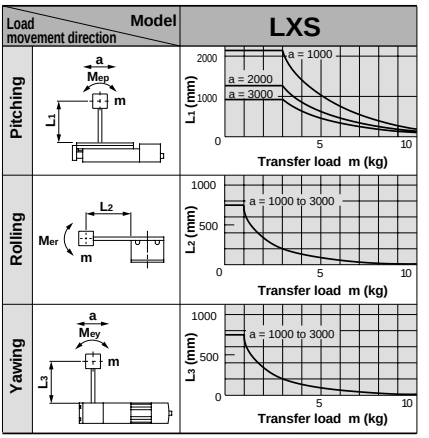
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

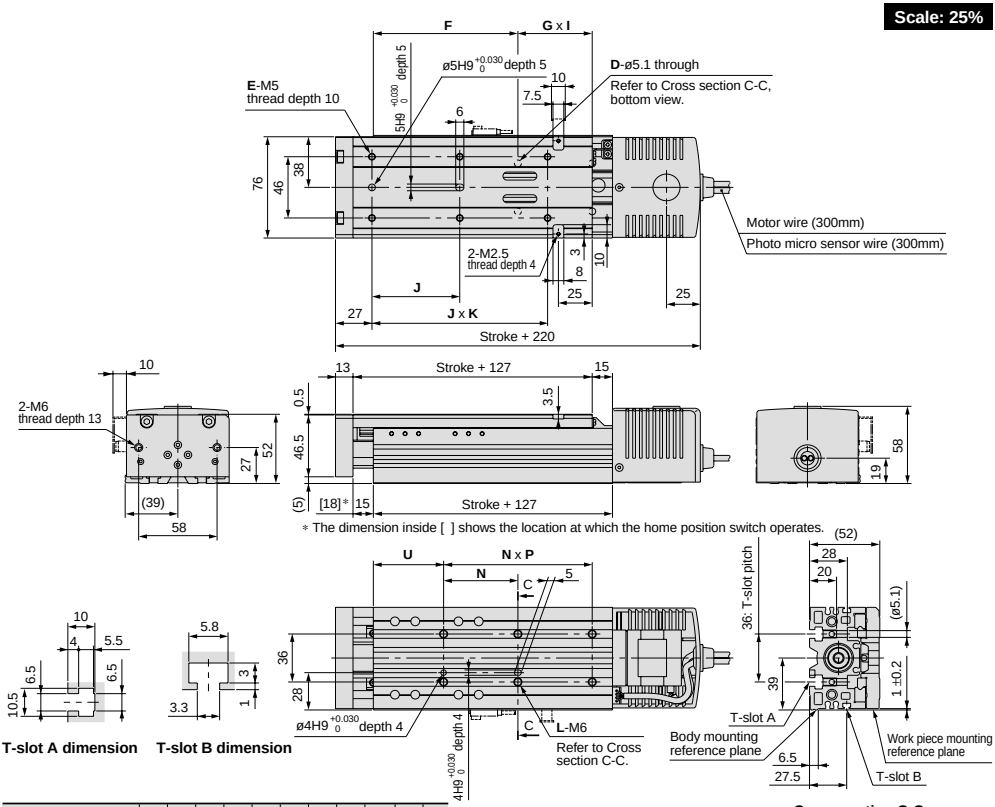
m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me: Dynamic moment

Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/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 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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 10kg

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 5kg

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 303 for acceleration time.

How to Order

LXSH2 SA — Stroke — S — F9N — 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

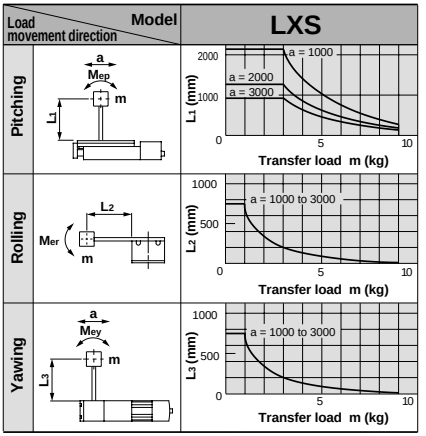
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

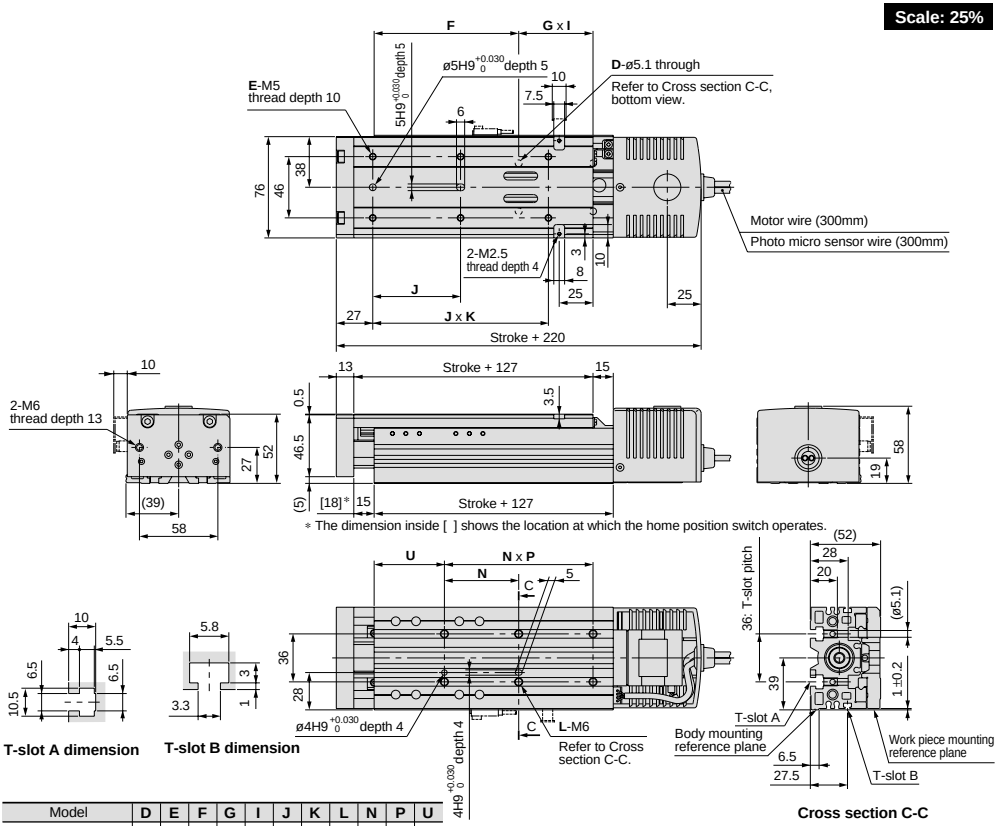
m : Transfer load (kg)
L : Overhang to work piece center of gravity (mm)
a : Work piece acceleration (mm/sec²)
Me : Dynamic moment

Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/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 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 9kg

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

For transfer load of 4.5kg

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

Refer to page 302 for acceleration time.

How to Order

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

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

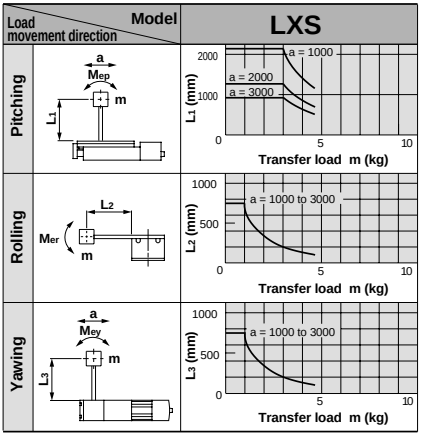
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

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

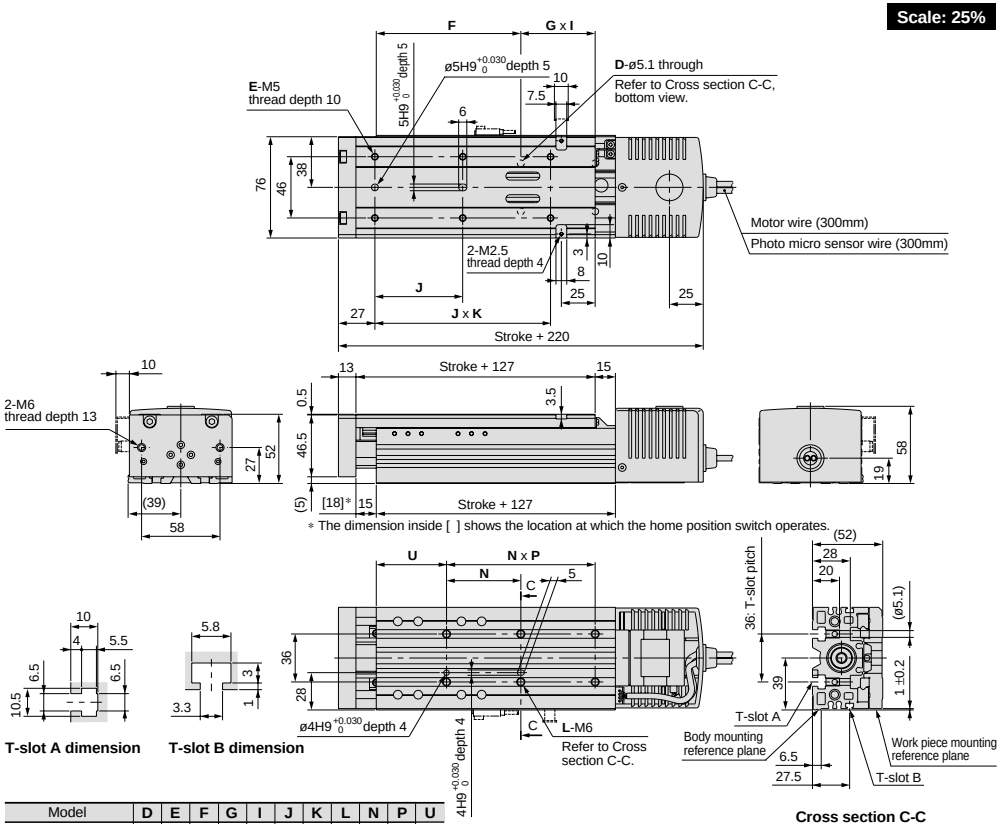
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2SB

Scale: 25%



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 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 4.5kg

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

For transfer load of 2.5kg

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

Refer to page 302 for acceleration time.

How to Order

LXSH2 BC – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

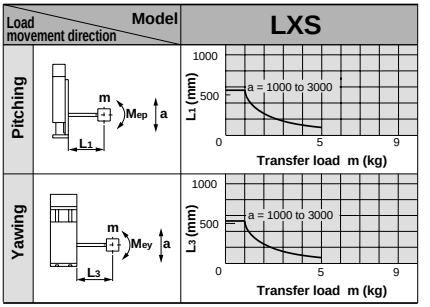
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

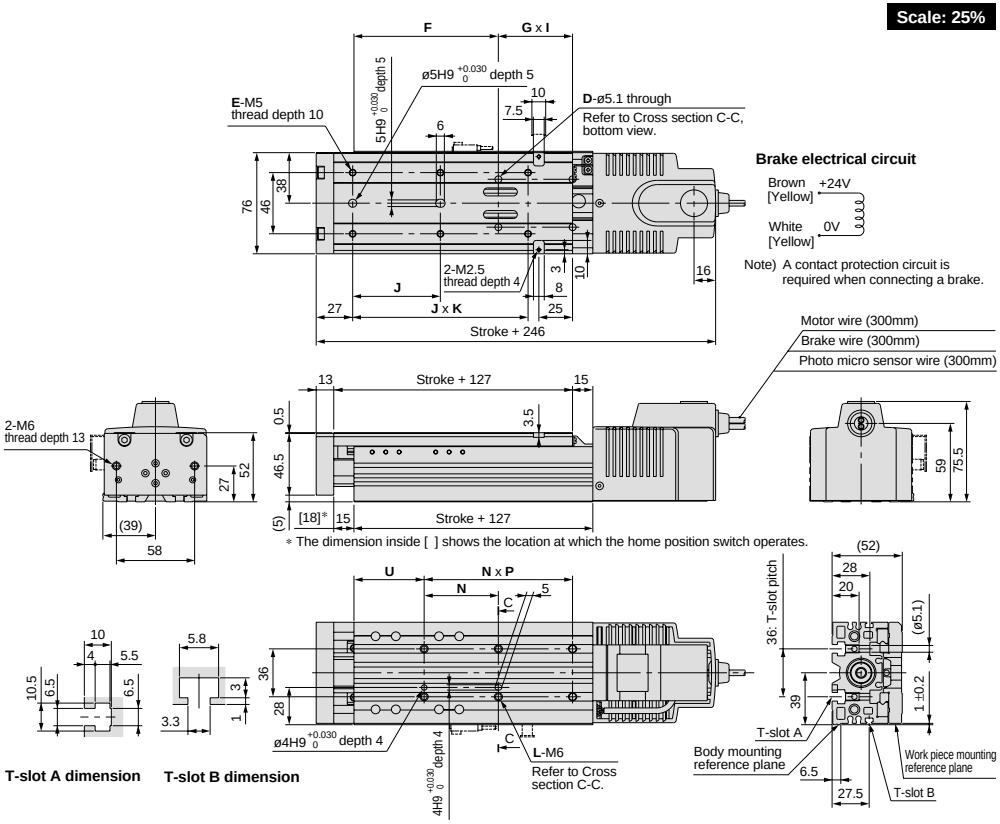
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2BC

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXSH2 BD – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

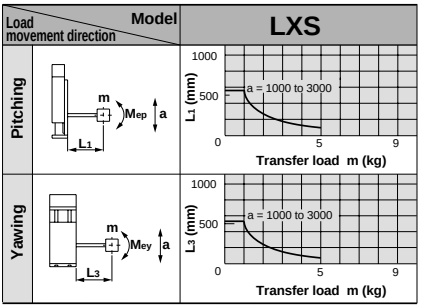
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

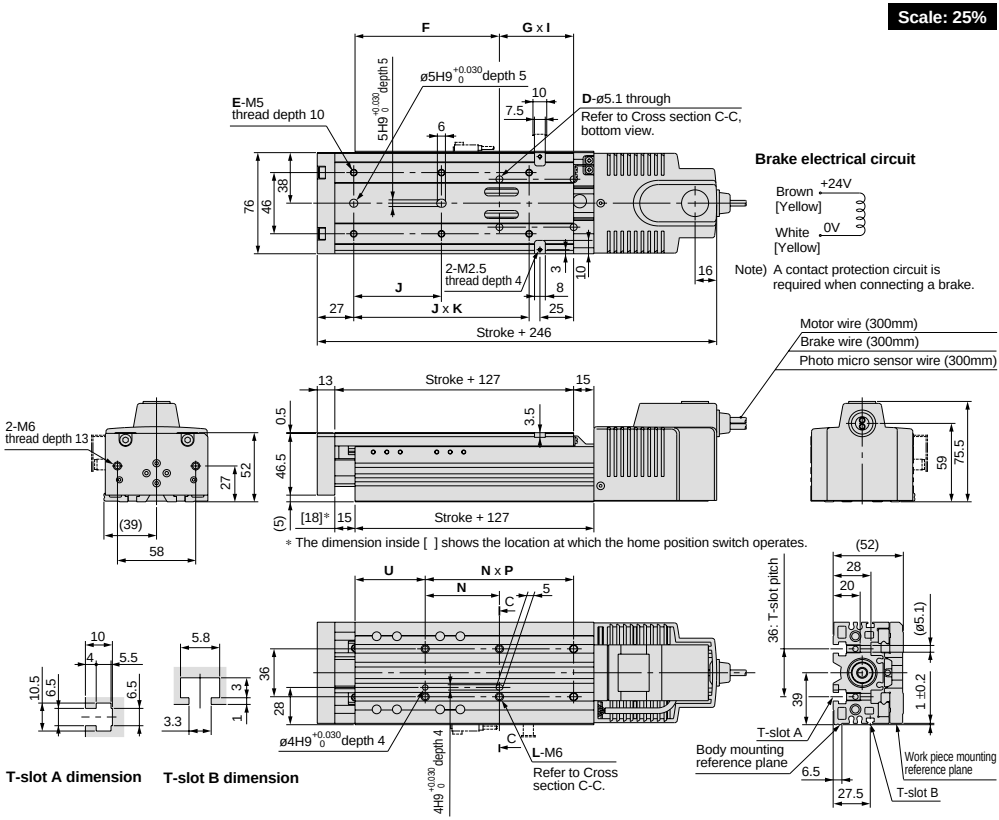
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2BD

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXSH2 SA – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

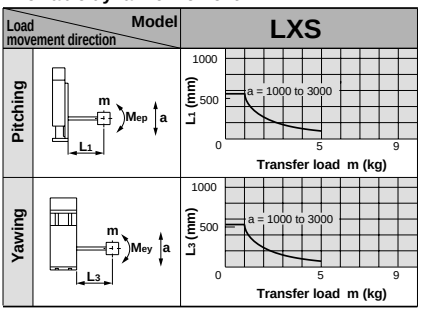
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

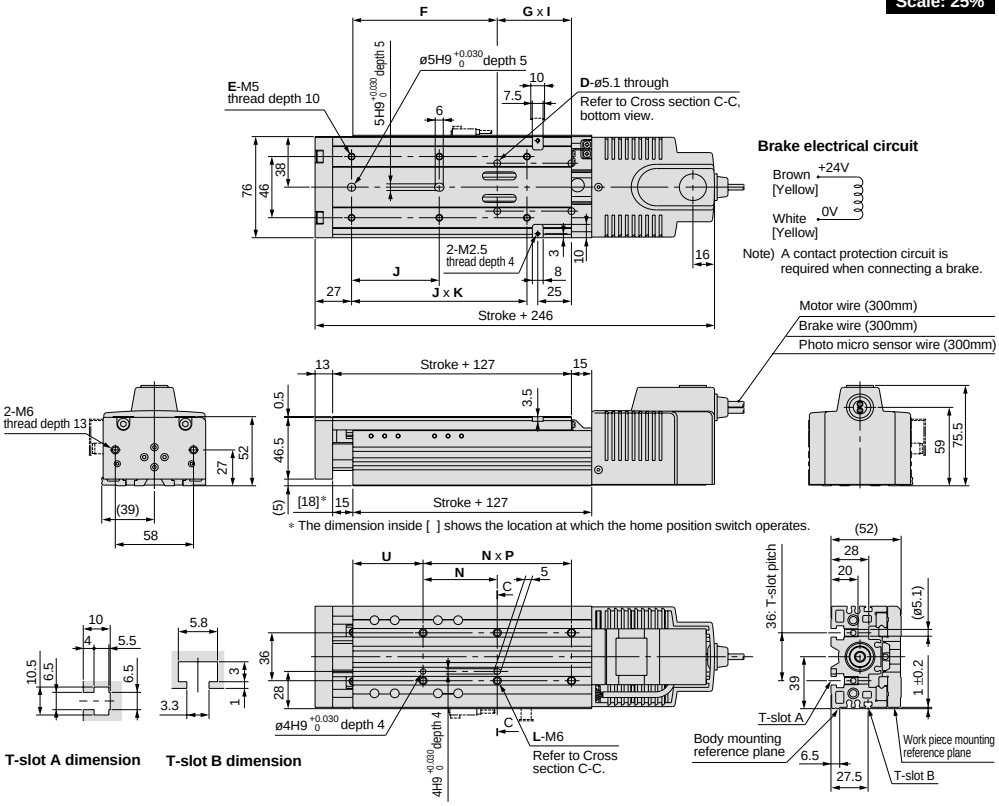
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2SA

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	10	0.2	1.1	5.1	10.1	15.1
	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 4kg

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

For transfer load of 2kg

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

Refer to page 302 for acceleration time.

How to Order

LXSH2 SB – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ( ).
Note 2) Since vibration may increase with low speed operation, use 12mm/s or more as a guide for speed.

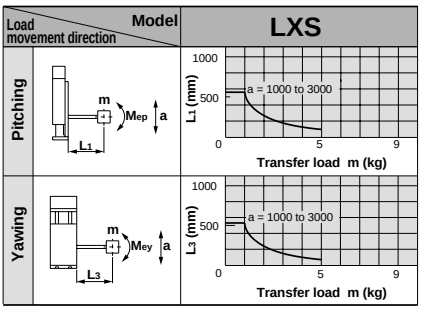
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

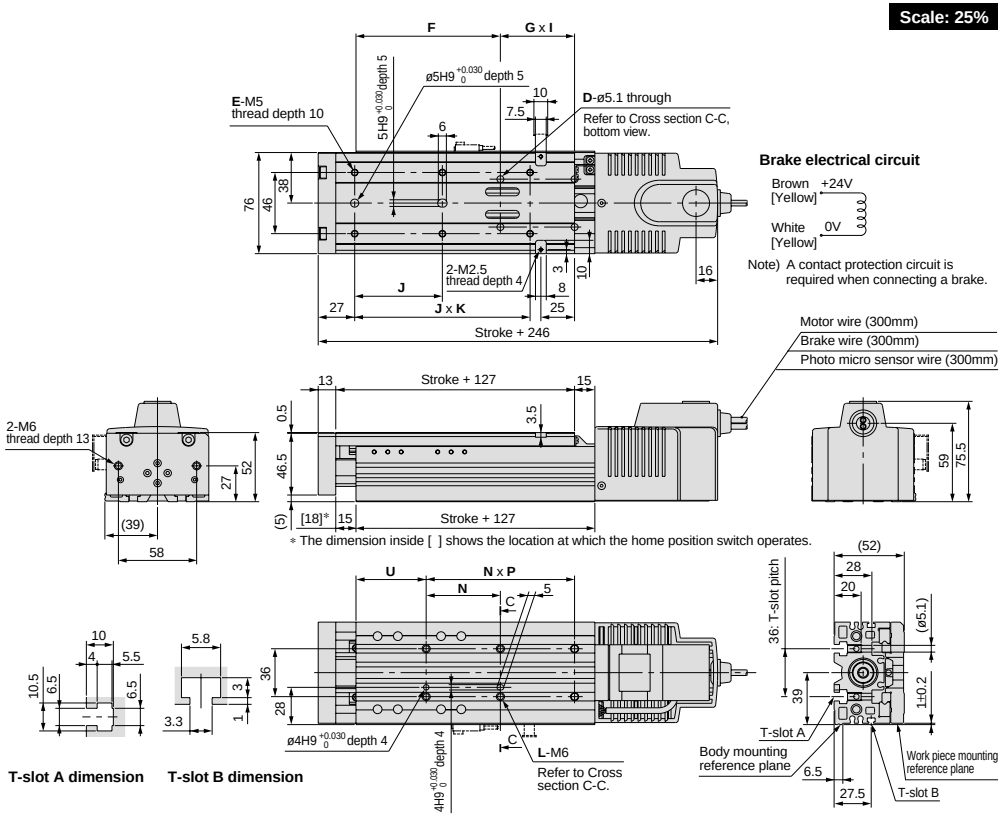
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH2SB

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 1kg

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

Refer to page 302 for acceleration time.

For transfer load of 2kg

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

How to Order

LXSH5 BC – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

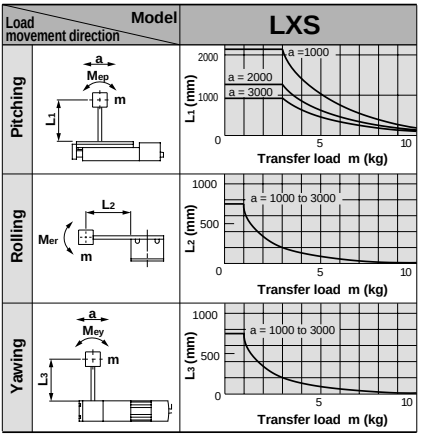
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

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

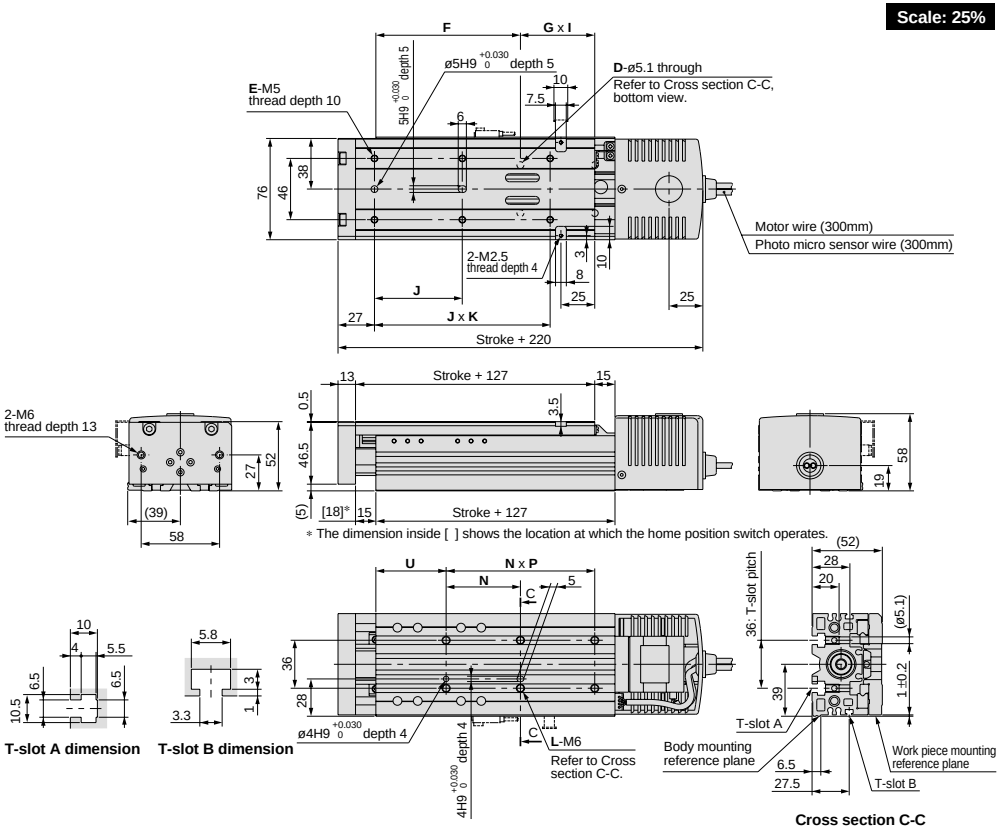
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5BC

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

Positioning 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 10kg

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 5kg

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 303 for acceleration time.

How to Order

LXSH5 BD – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

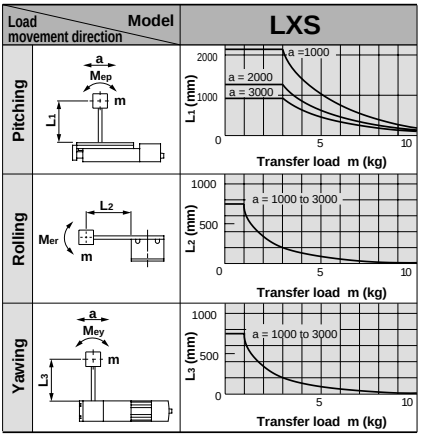
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

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

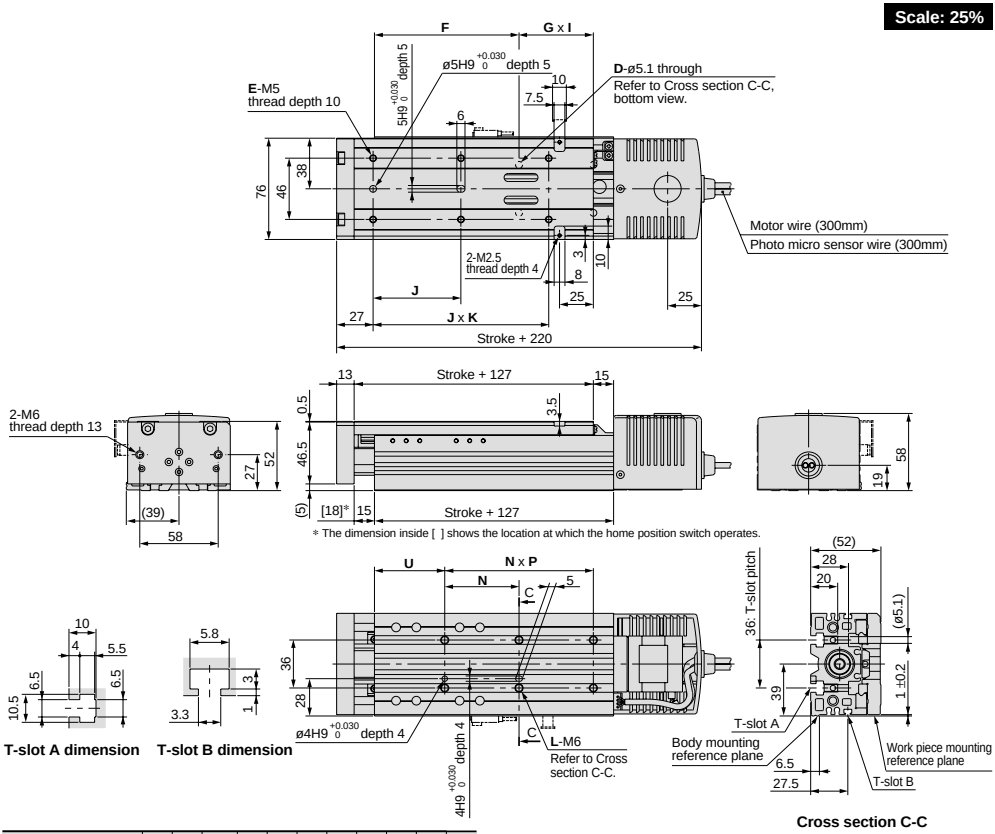
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5BD

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

Refer to page 303 for acceleration time.

For transfer load of 10kg

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

How to Order

LXSH5 SA – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

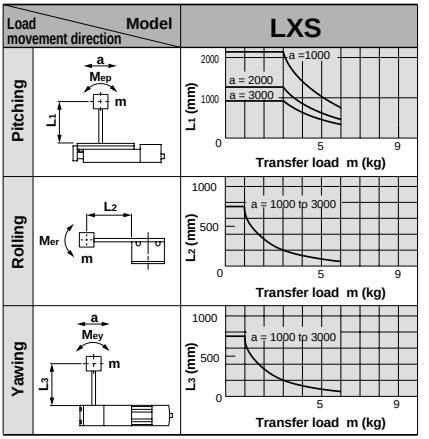
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

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

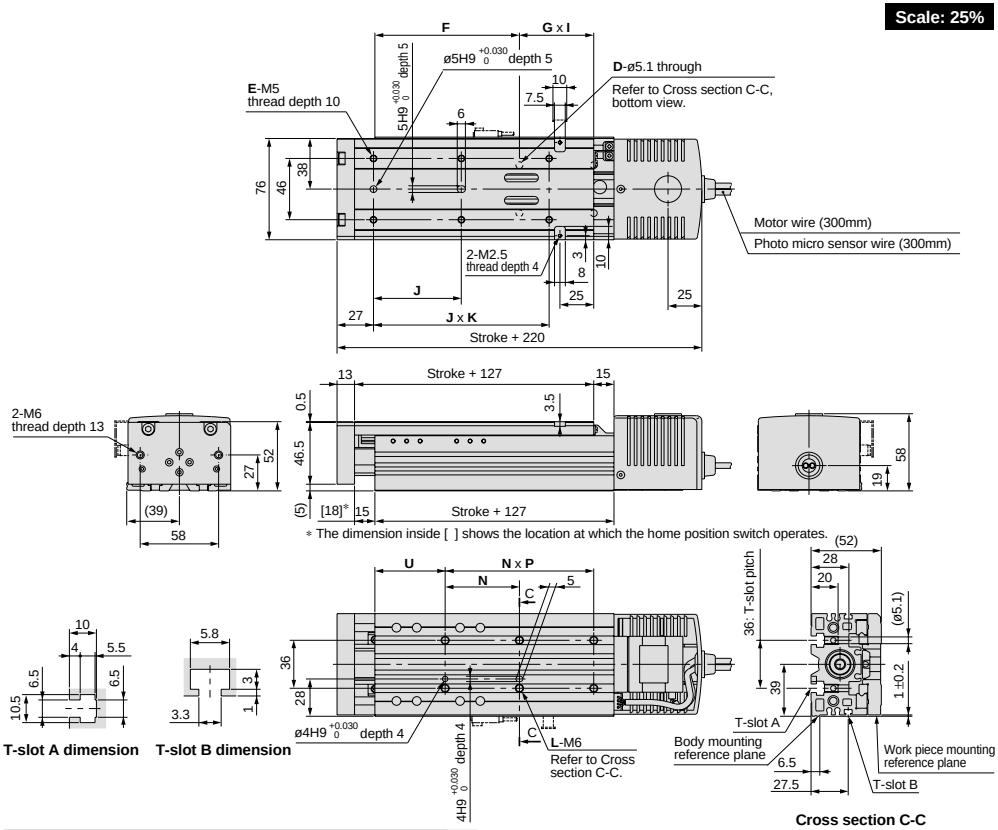
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5SA

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

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

For transfer load of 3kg

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

Refer to page 302 for acceleration time.

For transfer load of 6kg

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

How to Order

LXSH5 SB – Stroke S – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

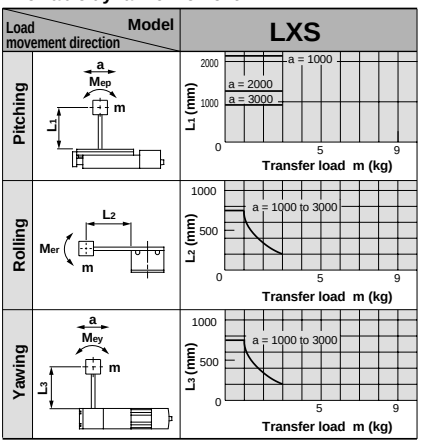
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Rolling	15.7
Yawing	7.84

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

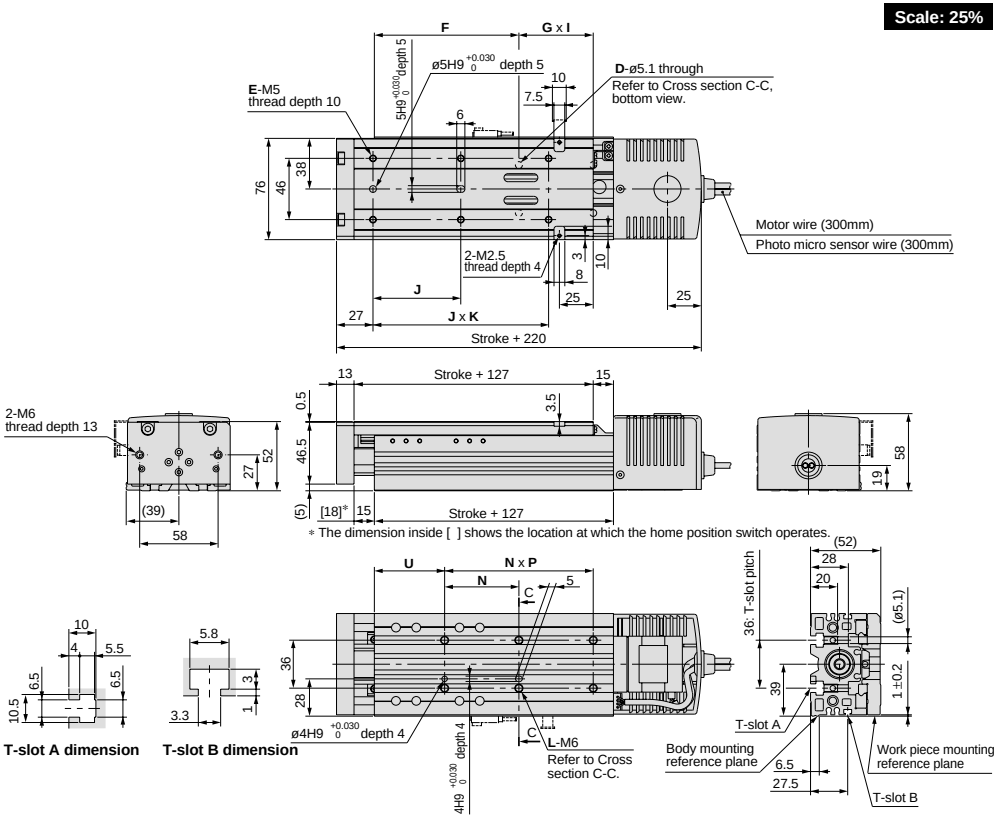
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5SB

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Horizontal Mount)

For transfer load of 0kg

		Positioning time (sec)				
Positioning distance (mm)		1	10	50	100	150
Speed (mm/s)	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 3kg

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

For transfer load of 1.5kg

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

Refer to page 302 for acceleration time.

How to Order

LXSH5 BC – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

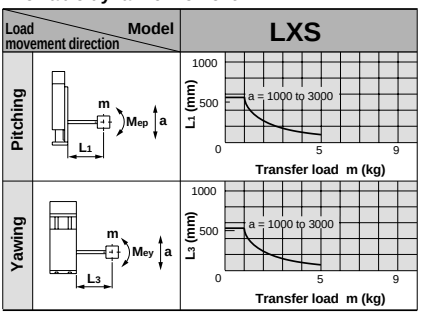
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

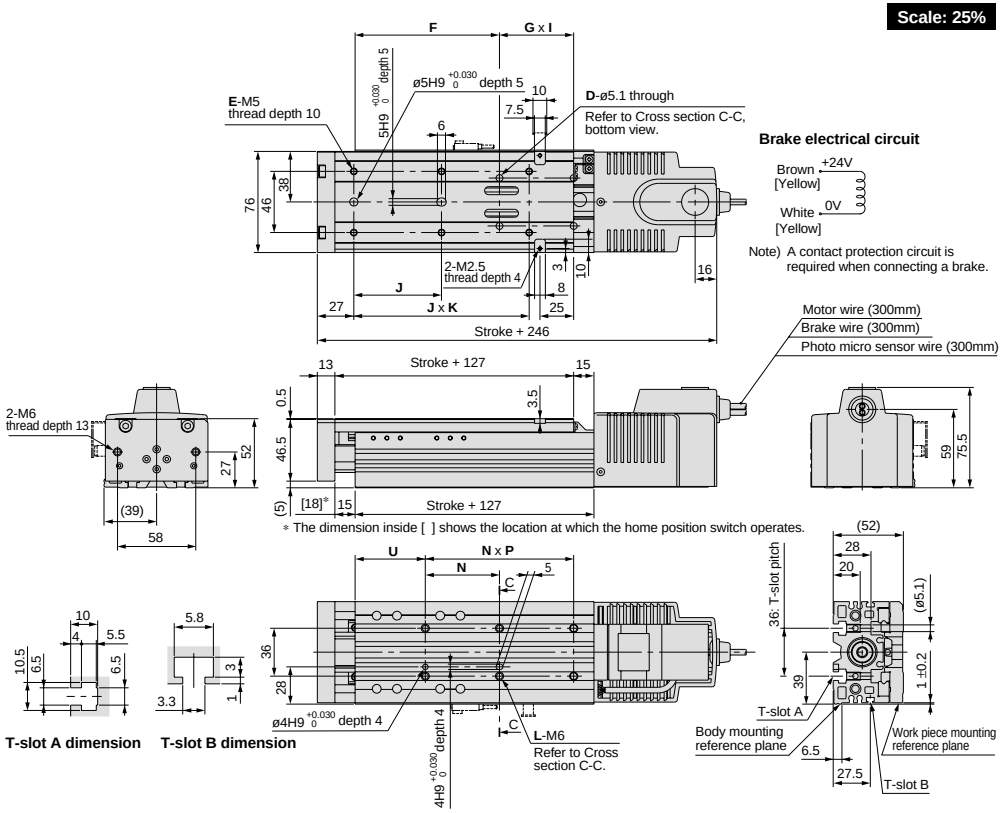
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5BC

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXSH5 BD – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

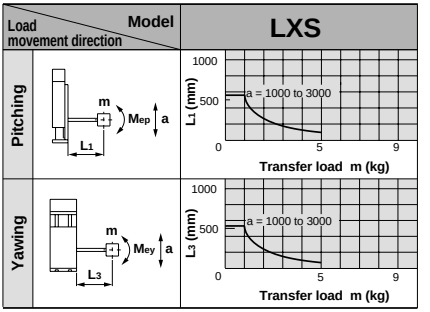
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

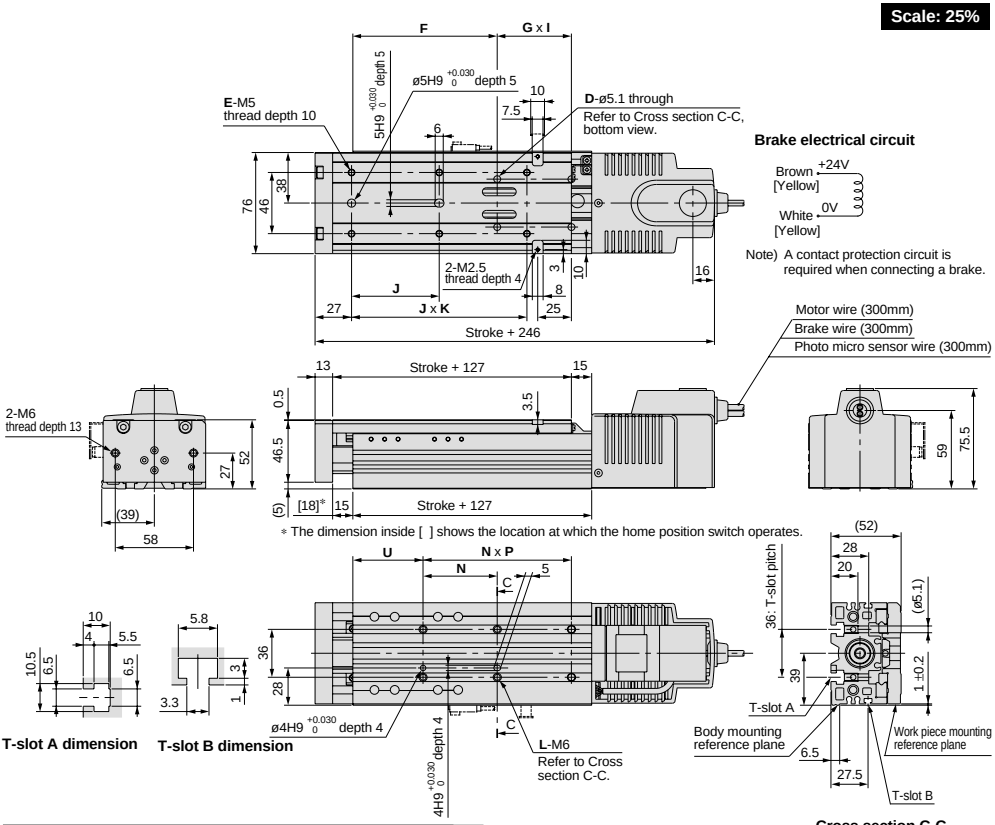
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5BD

Scale: 25%



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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 5kg

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

For transfer load of 2.5kg

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

Refer to page 303 for acceleration time.

How to Order

LXSH5 SA – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

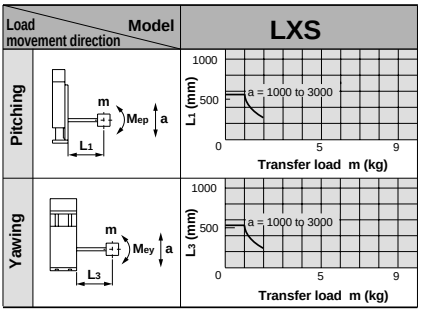
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

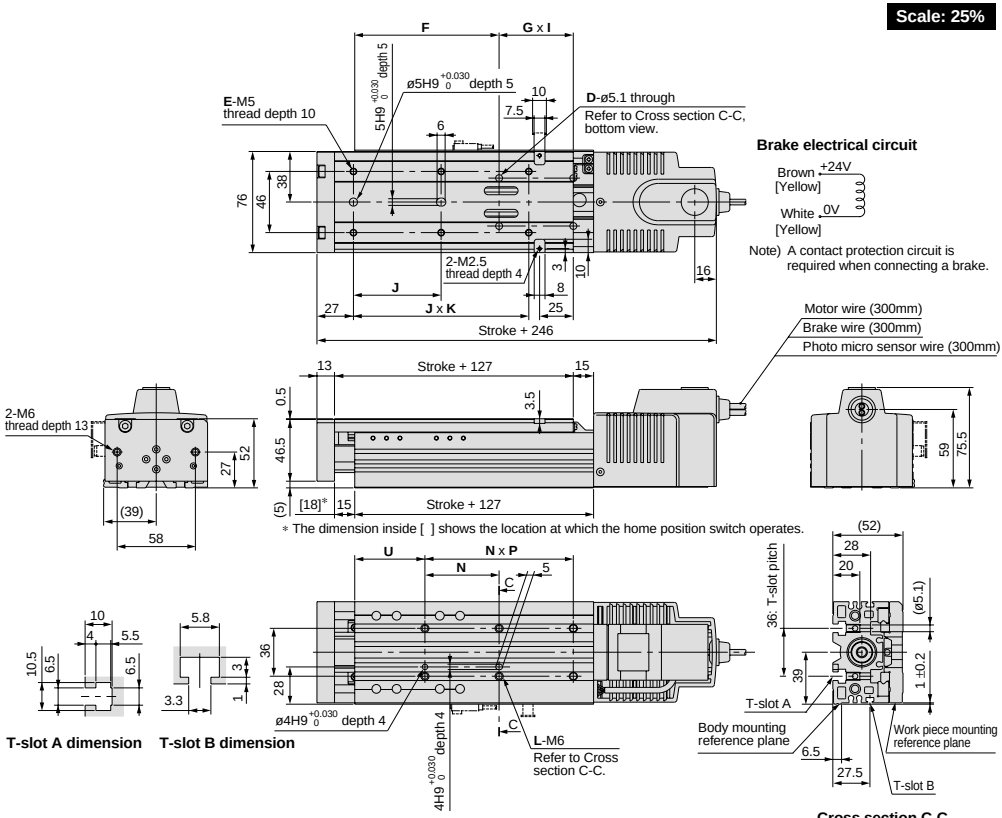
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5SA

Scale: 25%



T-slot A dimension **T-slot B dimension** **Cross section C-C**

Model	D	E	F	G	I	J	K	L	N	P	U
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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 1kg

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

For transfer load of 2kg

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

Refer to page 302 for acceleration time.

How to Order

LXSH5 SB – Stroke S B – F9N 1

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch types

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

Proximity switch types

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

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

Specifications

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

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

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

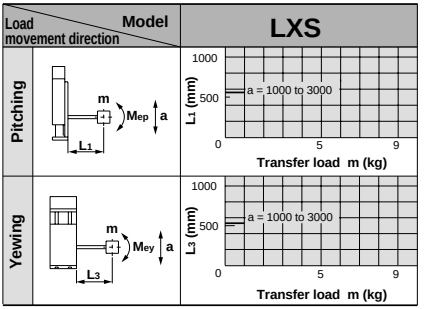
Allowable Moment (N·m)

Allowable static moment

Pitching	15.7
Yawing	7.84

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

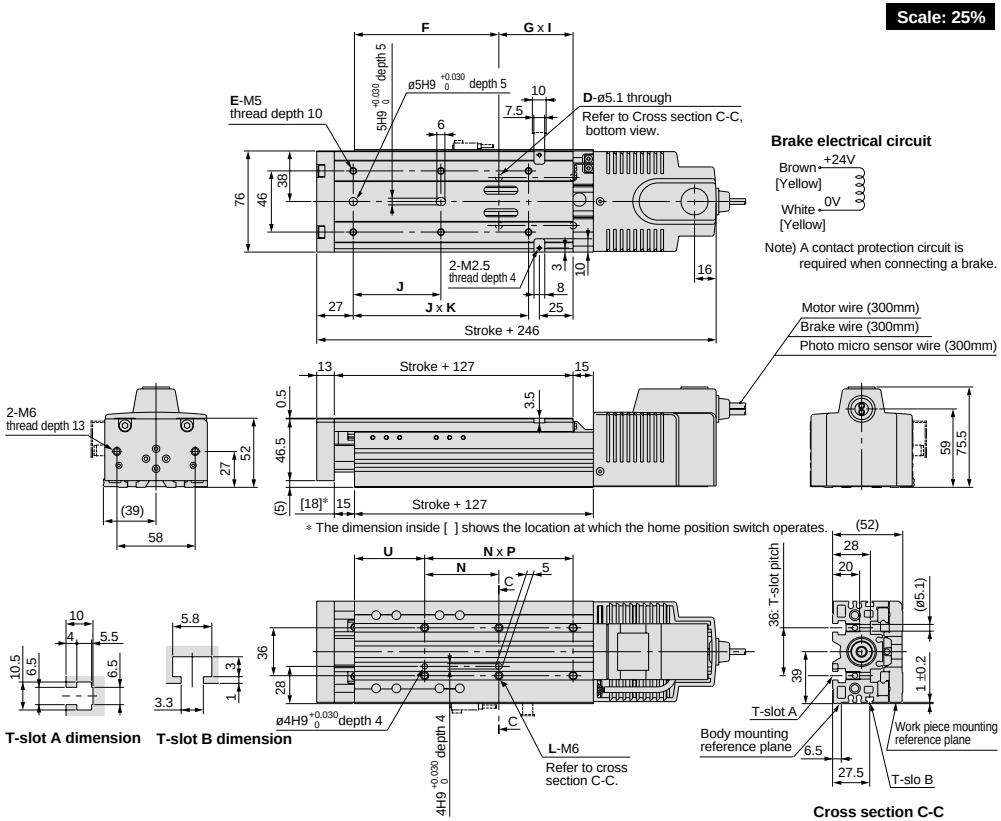
Allowable dynamic moment



Refer to page 304 for deflection data.

Dimensions/LXSH5SB

Scale: 25%



T-slot A dimension **T-slot B dimension** **Cross section C-C**

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

Refer to page 301 for mounting.

Positioning Time Guide (for Vertical Mount)

For transfer load of 0kg

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

For transfer load of 1kg

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

Refer to page 302 for acceleration time.

How to Order

LX F H 5 S B — 50 S — F9N 1 — Q

Actuator configuration

F	Flat table type

Guide type

H	Direct acting guide

Motor type

5	5 phase stepper motor

Lead screw type

S	Slide screw

Lead screw lead

A	6mm
B	12mm

Stroke

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

Use a driver with CE marking.

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Auto switch type

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

CE marking

Specifications

Motor		5 phase stepper motor (without brake)	
Lead screw		Slide screw ø8mm	
Positioning repeatability		±0.05mm	
Lead		6 mm	12 mm
Speed Note 1)		3 to 100mm/s	6 to 200mm/s
Work load Note 2)	Horizontal	3 (2)kg	2 (2)kg
Guide type		Direct acting guide	
Operating temperature range		5° to 40°C (with no condensation)	
Home position switch		Photo micro sensor EE-SX672 (Refer to page 319 for details.)	
Applicable driver		LC6D-507AD-Q (Refer to page 306 for details.)	
CE marking accessories		Holding plate: MB1(1 pc.), Phillips countersunk head screw M3 x 6ℓ (1 pc.) Phillips binding head screw: M3 x 4ℓ (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)	

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

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

Weights

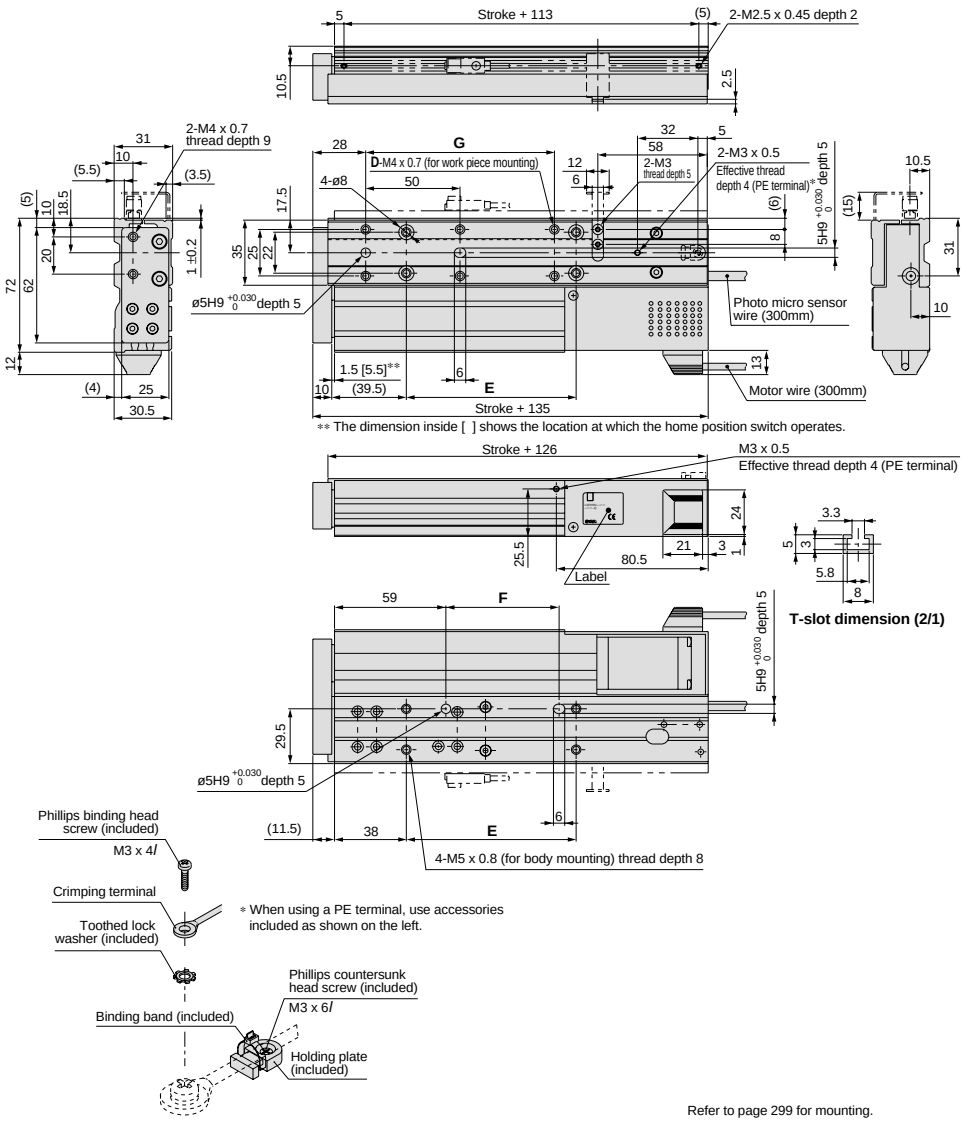
(kg)

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

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

Dimensions/LXFH5S

Scale: 35%



Refer to page 299 for mounting.

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

How to Order

LX P B 2 S B – 100 S B – F9N 1 – Q

Actuator configuration

P	Guide rod type

Guide type

B	Ball bushing

Motor type

2	2 phase stepper motor
5	5 phase stepper motor

Lead screw type

S	Slide screw

Lead screw lead

A	6mm
B	12mm

Use a driver with CE marking.

Stroke

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

Brake

Nil	Without brake
B	With brake

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch type

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

CE marking

Specifications

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

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

Weights

(kg)

Model	Standard stroke (mm)							Additional weight with motor
	50	75	100	125	150	175	200	With brake
LXPB$^{2}_{5}$S	2.0	2.2	2.3	2.6	2.8	2.9	3.1	0.2

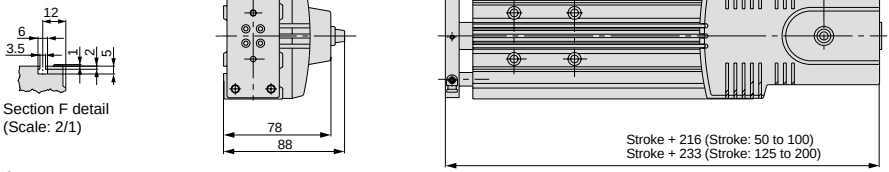
For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

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

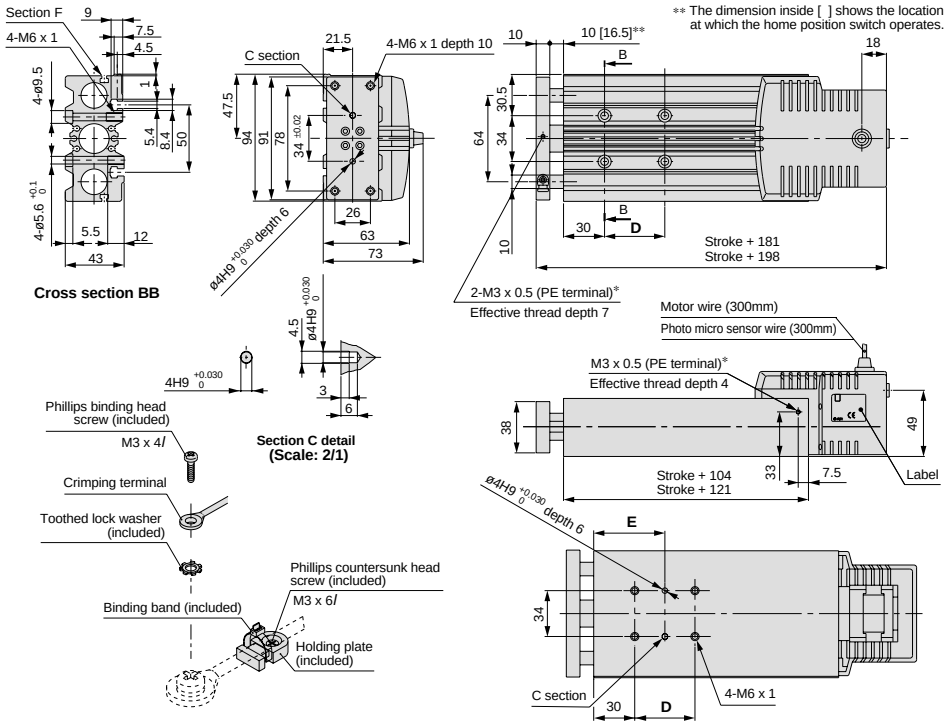
When two dimensions are shown, the top dimensions is for 50 to 75 and 100mm stokes, and the bottom dimension is for 125, 150, 175, and 200mm strokes.

Scale: 25%

With brake



Without brake



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

(mm)

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

Refer to page 300 for mounting.

How to Order

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

Actuator configuration

S	Slide table type

Guide type

H	Direct acting guide

Motor type

2	2 phase stepper motor
5	5 phase stepper motor

Lead screw type

S	Slide screw

Lead screw lead

A	6mm
B	12mm

Stroke

Use a driver with CE marking.

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

Brake

Nil	Without brake
B	With brake

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

CE marking

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

CE marking

Q	

Specifications

Motor		2 phase stepper motor (with/without brake)		5 phase stepper motor (with/without brake)	
Lead screw		Slide screw ø8mm			
Positioning repeatability		±0.05mm			
Lead		6mm	12mm	6mm	12mm
Speed Note1)		3 to 100mm/s	6 to 200mm/s	3 to 100mm/s	6 to 200mm/s
Work load Note 2)	Horizontal	9 (4)kg	4.5 (4)kg	6 (4)kg	3 (3)kg
	Vertical	4 (4)kg	2 (2)kg	2 (2)kg	1 (1)kg
Guide type		High rigidity direct acting guide			
Operating temperature range		5° to 40°C (with no condensation)			
Home position switch (optional)		Photo micro sensor EE-SX673 (Refer to page 319 for details.)			
Brake specifications	Model	De-energized operating type			
	Static torque	0.1N·m			
	Rated voltage	24VDC ±5%			
	Power consumption	5W (at 75°C)			
Applicable driver		LC6D-220AD-Q (Refer to page 306 for details.)		LC6D-507AD-Q (Refer to page 306 for details.)	
Positioning repeatability		±0.05mm			
CE marking accessories		Holding plate: MB1 (1 pc.), Phillips countersunk head screw: M3 x 6ℓ (1 pc.) Phillips binding head screw: M3 x 4ℓ (2 pcs.), Toothed lock washer M3 (2 pcs.) Binding band: T18S (1 pc.)			

Note 1) Since vibration may increase with low speed operation, use 6mm/s or more for 6mm lead, and 12mm/s or more for 12mm lead as a guide for speed.
Note 2) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ( ).

Weights

(kg)

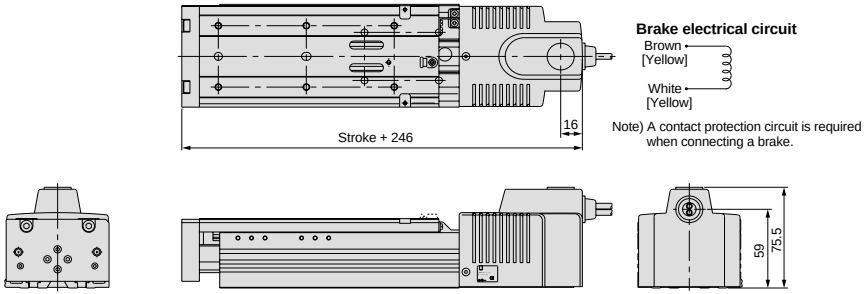
Model	Standard stroke (mm)					Additional weight with motor
	50	75	100	125	150	With brake
LXSH$^{2}_{5}$S	1.9	2.1	2.3	2.5	2.7	0.2

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

Dimensions/LXSH$^{2}_{5}$S

Scale: 25%

With brake

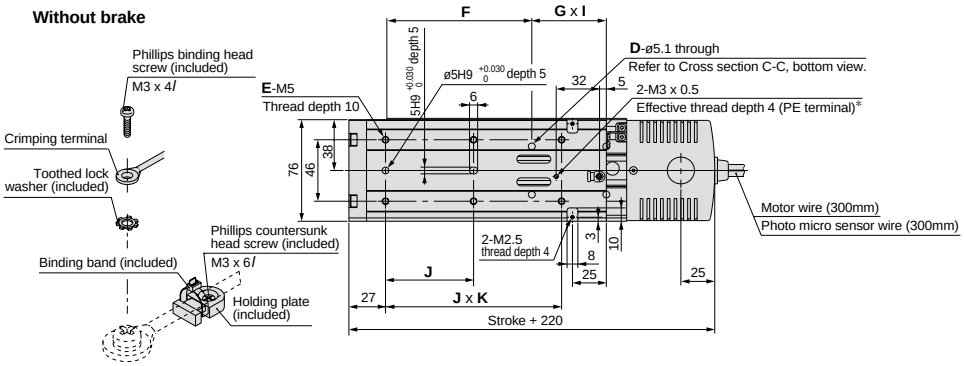


Brake electrical circuit

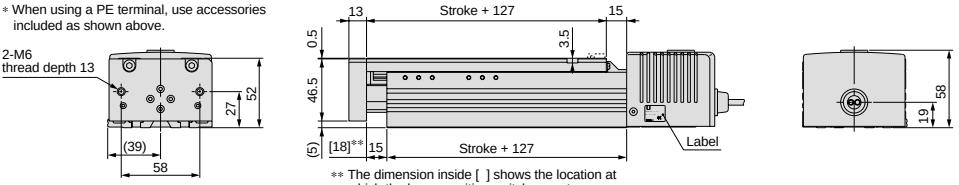
Brown [Yellow]
White [Yellow]

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

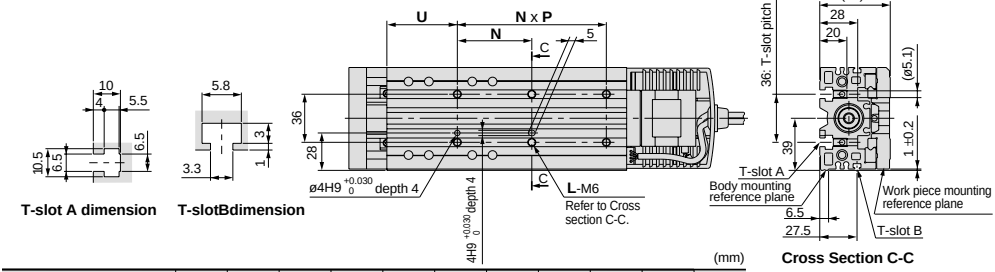
Without brake



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



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



Cross Section C-C

(mm)

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

Refer to page 301 for mounting.

How to Order

LX F H A B D — 50 S B — GN 1 — X20

Actuator configuration

F	Flat table type

Guide type

H	Direct acting guide

Motor type

A	AC servomotor

Lead screw type

B	Ball screw

Lead screw lead

C	2mm
D	5mm

Stroke

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

Brake

Nil	Without brake
B	With brake

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Proximity switch type

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

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

Number of proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Mitsubishi Electric Corporation AC servomotor specification

Specifications

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

∗ Contact motor manufacturers for brake specifications.
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ( ).

Weights

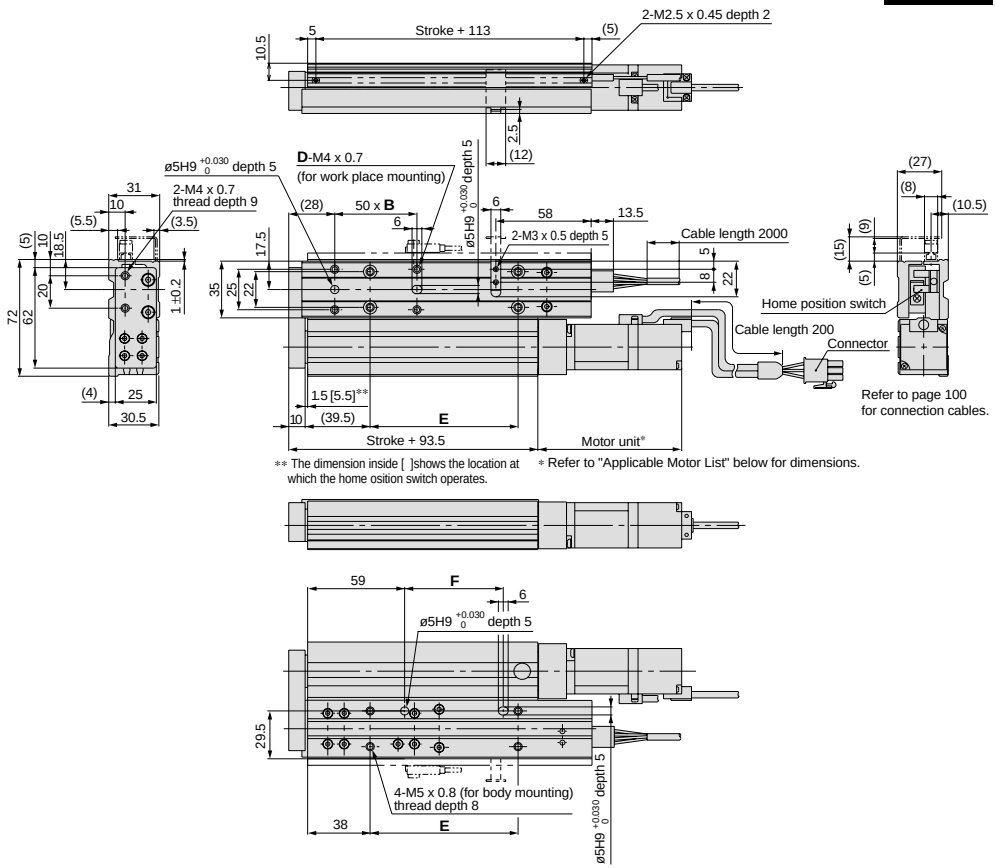
(kg)

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

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

Dimensions/LXFHAB

Scale: 30%



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

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

Refer to page 299 for mounting.

Applicable Motor List

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

Note) Refer to pages starting with 205 for driver dimensions. Contact motor manufacturers for each motor's detailed specifications, etc.
A driver is included, however, the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

How to Order

LX P B A B D – 100 S B – F9N 1 – X12

Actuator configuration

P	Guide rod type

Guide type

B	Ball bushing

Motor type

A	AC servomotor

Lead screw type

B	Ball screw

Lead screw lead

C Note 1)	2mm
D	5mm

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

Stroke

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

Home position switch Note 2)

Nil	None
S	Yes (cable length 0.3m)

Brake

Nil	Without brake
B	With brake

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

Number of auto switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Auto switch type Note 2)

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

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

Example) LXPBABC-100**S**B-**F9N1**F9G1-X12

Specifications

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

∗ Contact motor manufacturers for brake specifications.

Weights

(kg)

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

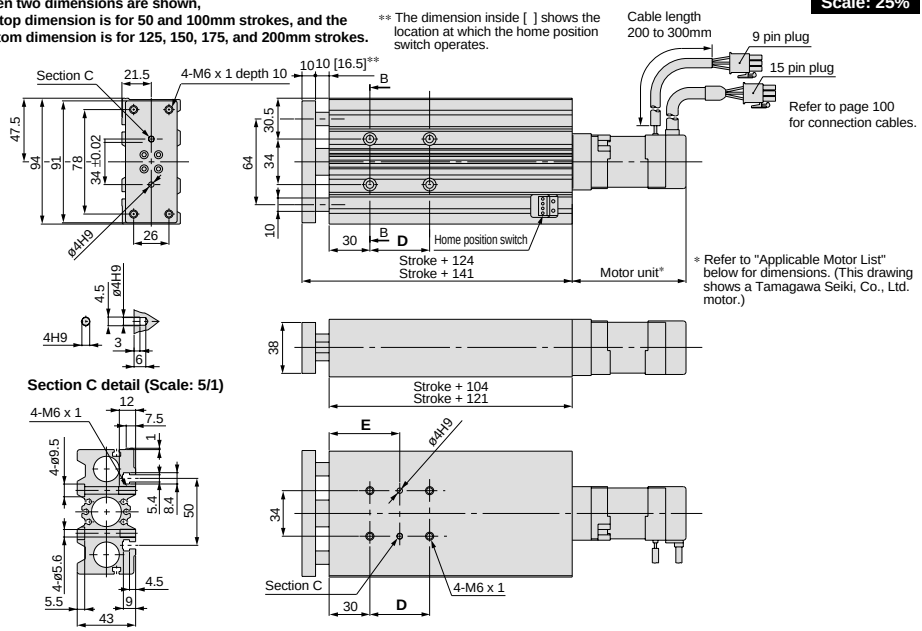
For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on Features pages 3 and 4.

Dimensions/LXPBAB

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

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

Scale: 25%



Refer to page 300 for mounting.

(mm)

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

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

Applicable Motor List

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

Note) Refer to pages starting with 205 for driver dimensions. Contact motor manufacturers for each motor's detailed specifications, etc.
A driver is included with motors by Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corporation, and Yaskawa Electric Corporation. However, the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

How to Order

LX S H A B D — 100 S B — F9N 1 — X12

Actuator configuration

S	Slide table type

Guide type

H	Direct acting guide

Motor type

A	AC servomotor

Lead screw type

B	Ball screw

Lead screw lead

C Note 1)	2mm
D	5mm

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

Stroke

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

Home position switch Note 2)

Nil	None
S	Yes (cable length 0.3m)

Brake

Nil	Without brake
B	With brake

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

Number of auto/ proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

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

Auto switch type Note 2)

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

Proximity switch types

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

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

Note 2) For Tamagawa Seiki Co., Ltd. motors (X12, X13), only "Yes" is applicable for the home position switch setting. Also, auto switch **F9N** (1 pc.) is always attached for this specification. When using another switch in addition, list its part number next.
Example) LXSHABC-100**S**B-**F9N1**F9G1-X12

Specifications

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

∗ Contact motor manufacturers for brake specifications.
Note 1) When mounting a work piece to the actuator's end plate, its weight should be within the value inside ( ).

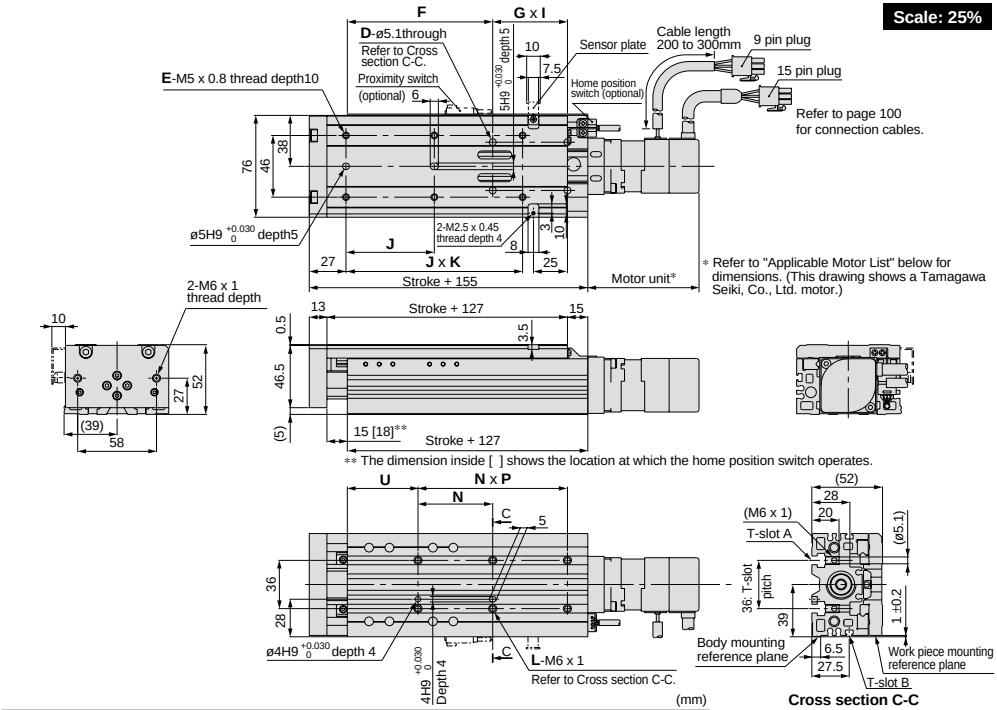
Weights

(kg)

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

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

Dimensions/LXSHAB



(mm)

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

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

Refer to page 301 for mounting.

Applicable Motor List

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

Note) Refer to pages starting with 205 for driver dimensions. Contact motor manufacturers for each motor's detailed specifications, etc.
A driver is included with motors by Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corporation, and Yaskawa Electric Corporation. However, the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

How to Order

Low Profile Slide Table Type LXFH 5 B C 25 GD 1 X60

Guide Rod Type LXPB 2 B C 50 B F9N 1 X60

High Rigidity Slide Table Type LXSH 2 B C 50 B F9N 1 X60

Motor type

2	2 phase stepper motor
5	5 phase stepper motor

Lead screw type

B	Ball screw

Lead screw lead

C	2mm
D	5mm

Stroke

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

Home position switch

Nil	None
S	Yes (cable length 0.3m)

Brake

Nil	Without brake
B	With brake

Auto/Proximity switch type

Nil	None

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

Number of auto/proximity switches

1	1 pc.
2	2 pcs.
⋮	⋮
6	6 pcs.

Low particulate generation specification

Auto switch types

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

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

Proximity switch types

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

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

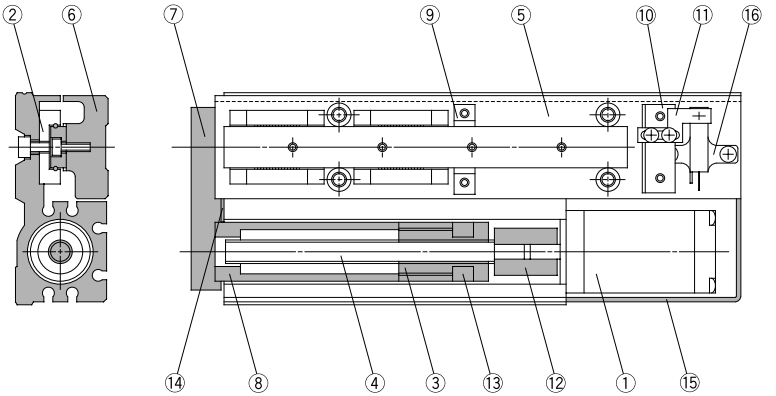
Specifications

Model	LXF	LXP	LXS
Guide type	Direct acting guide Stainless steel, With low particulate generating grease	Ball bushing Stainless steel, With low particulate generating grease	High rigidity direct acting guide Stainless steel, With low particulate generating grease
Lead screw	Ball screw ø8mm 2mm/5mm lead Black chrome coating + Special fluororesin coating, AFE grease (made by THK) applied		

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

Construction

Series LXF



Parts list

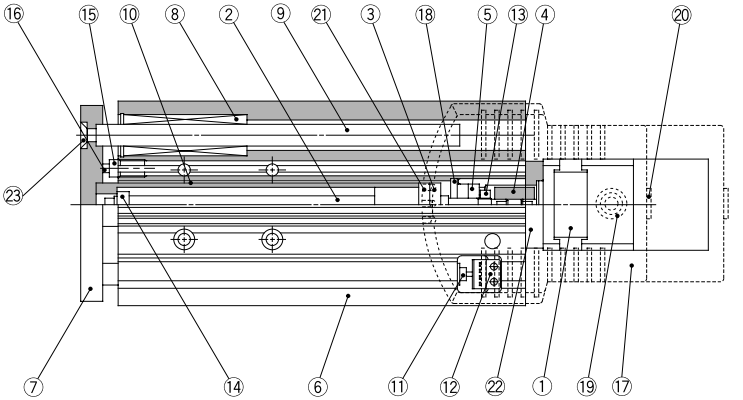
No.	Description	Material	Note
1	**Motor**	——	
2	**Direct acting guide**	——	
3	**Nut**	Resin/Alloy steel	
4	**Rolled screw**	Alloy steel	
5	**Body**	Aluminum alloy	Anodized
6	**Table**	Aluminum alloy	Anodized
7	**End plate**	Aluminum alloy	Anodized
8	**Tube**	Aluminum alloy	Anodized
9	**Stopper A**	——	

Parts list

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

Construction

Series LXP



Parts list

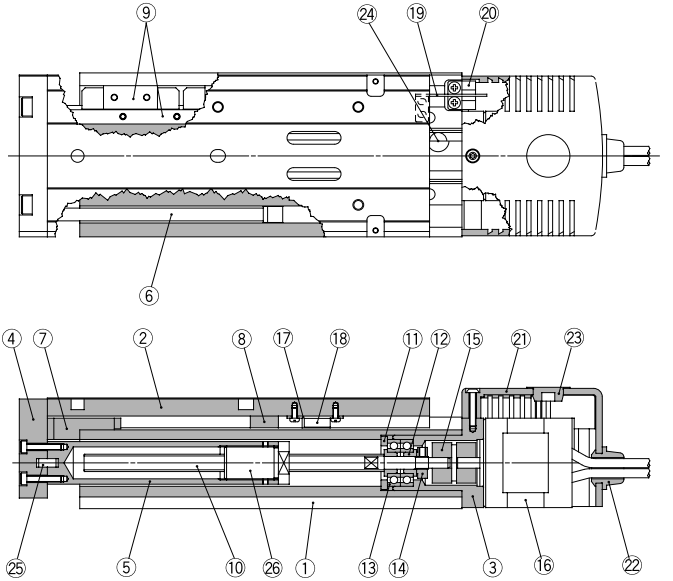
No.	Description	Material	Note
1	**Motor**	——	Stepper motor
2	**Rolled screw**	Alloy steel	
3	**Nut**	Resin	
4	**Coupling**	——	
5	**Bearing**	——	
6	**Body**	Aluminum alloy	Anodized
7	**Mounting plate**	Mild steel	Nickel plated
8	**Ball bushing**	——	
9	**Guide rod**	Bearing steel	Chrome plated
10	**Tube**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

Construction

Series LX**S**



Parts list

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

Parts list

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

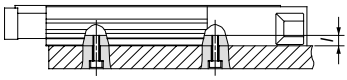
Mounting

Series LXF

Actuator mounting

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

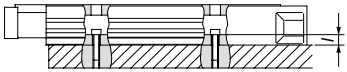
1. Tapped holes



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

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

2. Through holes

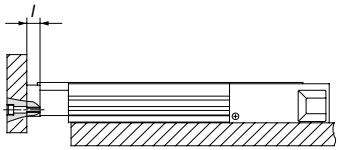


Model	Bolt	Max. tightening torque N·m	Body thickness (*l* mm)
LXF	M4 x 0.7	2.1	8

Work piece mounting

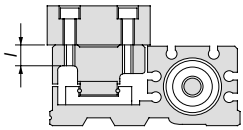
Work pieces can be mounted on two sides of the actuator.

1. Front mount type



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

2. Top mount type



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

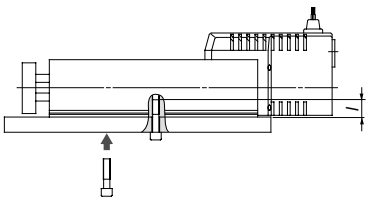
⚠**Caution** Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

Mounting

Series LX**P**

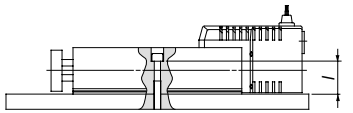
Actuator mounting

1. Tapped holes



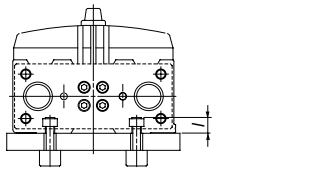
Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXP	M6 x 1	7.4	12

2. Through holes



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

3. T-slots

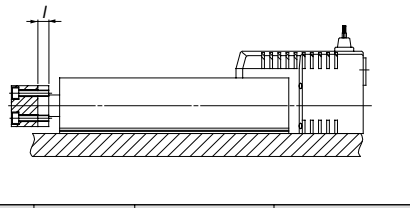


Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (l mm)
LXP	M5 x 0.8	7.4	8.5

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

Work piece mounting

1. Front mount type



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

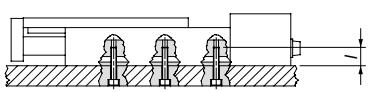
Mounting

Series LXS

Actuator mounting

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

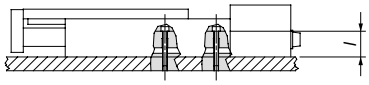
1. Tapped holes



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

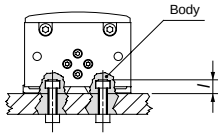
⚠**Caution** Use bolts at least 0.5mm shorter than the maximum screw-in depth, so they do not touch the body.

2. Through holes



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

3. T-slots



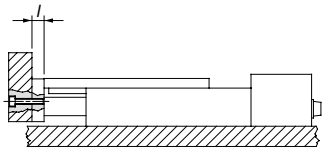
Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (*l* mm)
LXS	M6 x 1	7.4	10

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

Work piece mounting

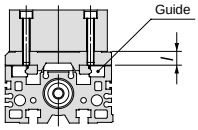
Work pieces can be mounted on two sides of the actuator.

1. Front mount type



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

2. Top mount type



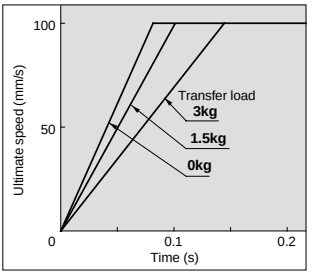
Model	Bolt	Max. tightening torque N·m	Max. screw-in depth (*l* mm)
LXS	M5 x 0.8	4.4	10

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

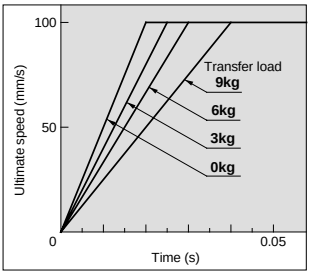
Acceleration Time Guide

Acceleration Time Guide/Slide Screw Specification (Horizontal)

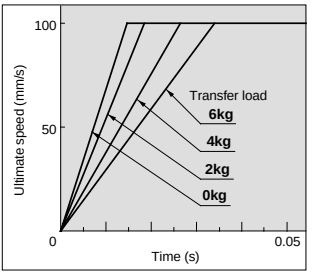
LXFH5SA



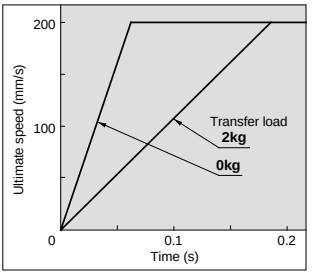
LXPB2SA/LXSH2SA



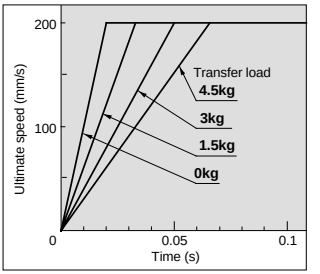
LXPB5SA/LXSH5SA



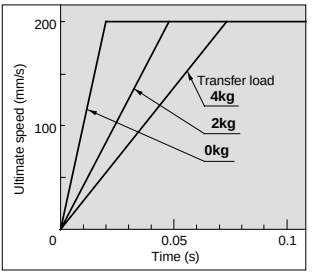
LXFH5SB



LXPB2SB/LXSH2SB

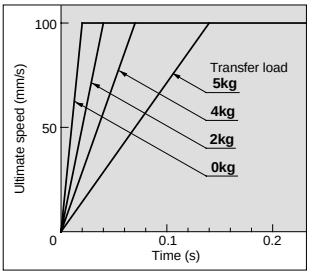


LXPB5SB/LXSH5SB

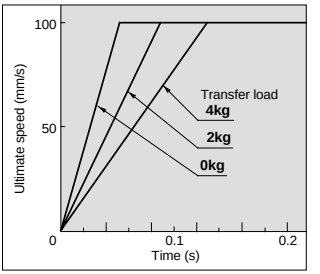


Acceleration Time Guide/Slide Screw Specification (Vertical)

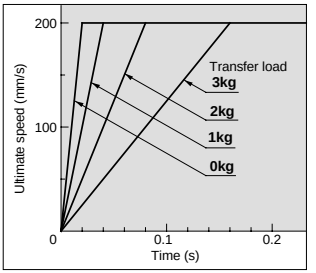
LXPB2SA/LXSH2SA



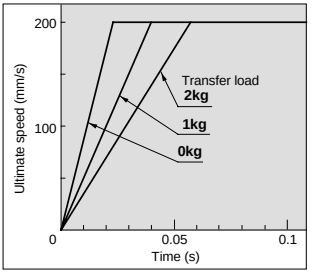
LXPB5SA/LXSH5SA



LXPB2SB/LXSH2SB



LXPB5SB/LXSH5SB

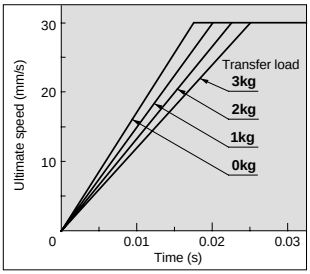


⚠ Caution

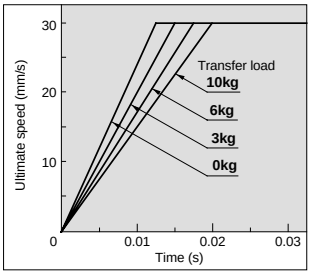
- Transfer loads should not exceed each model's work load specification.
- Determine the acceleration time based on the transfer load and ultimate speed.
- Operating over the graph ranges will cause loss of synchronism.
- The graphs are based on operation using an SMC DC power input type driver with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

Acceleration Time Guide/Ball Screw Specification (Horizontal)

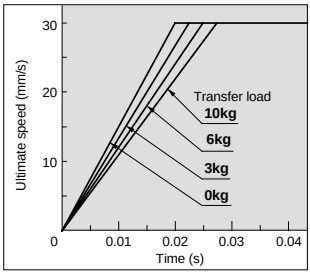
LXFH5BC



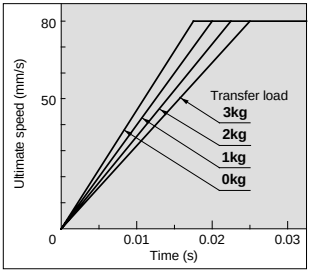
LXPB2BC/LXSH2BC



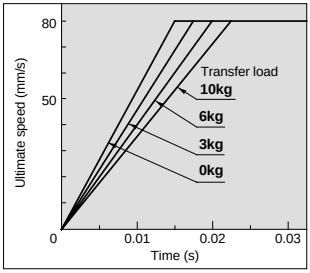
LXPB5BC/LXSH5BC



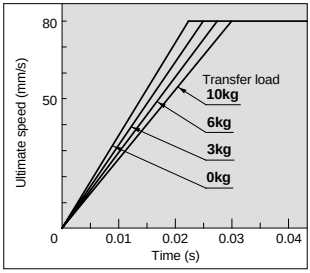
LXFH5BD



LXPB2BD/LXSH2BD

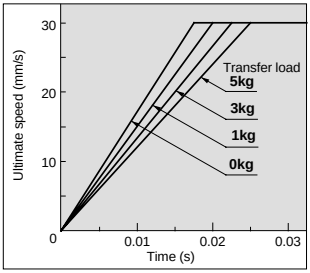


LXPB5BD/LXSH5BD

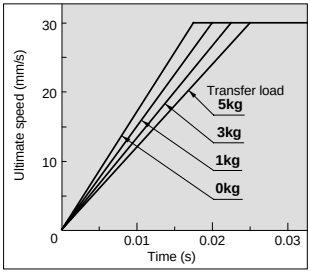


Acceleration Time Guide/Ball Screw Specification (Vertical)

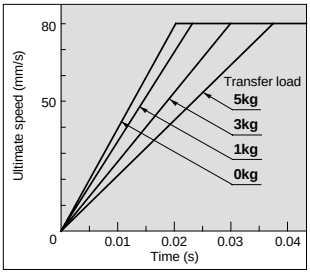
LXPB2BC/LXSH2BC



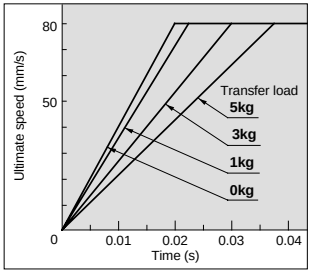
LXPB5BC/LXSH5BC



LXPB2BD/LXSH2BD



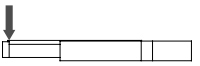
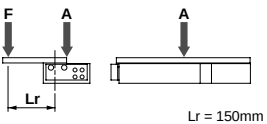
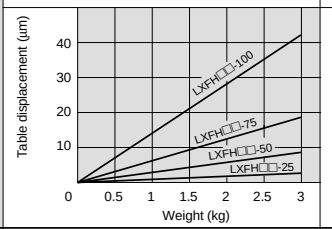
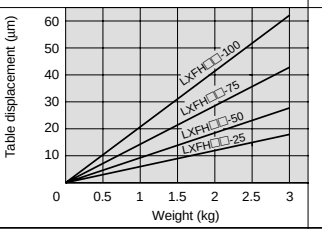
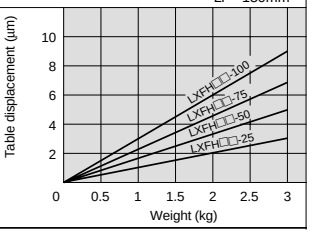
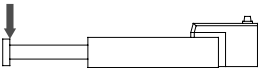
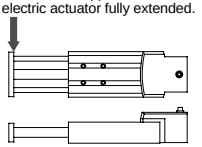
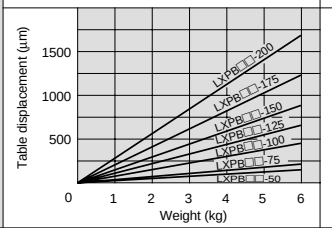
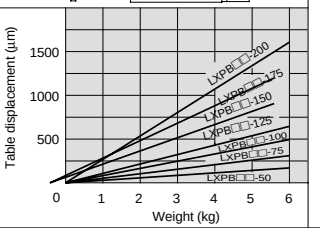
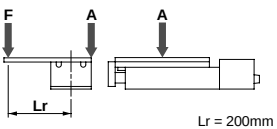
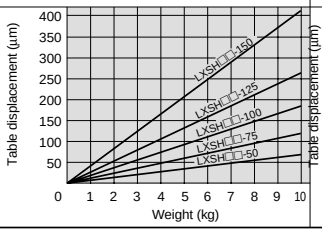
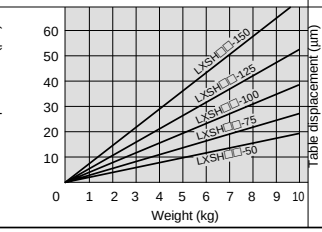
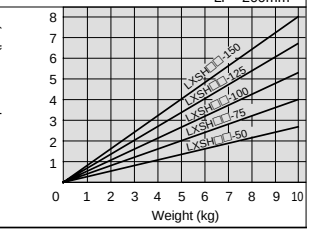
LXPB5BD/LXSH5BD



⚠ Caution

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

Table Deflection

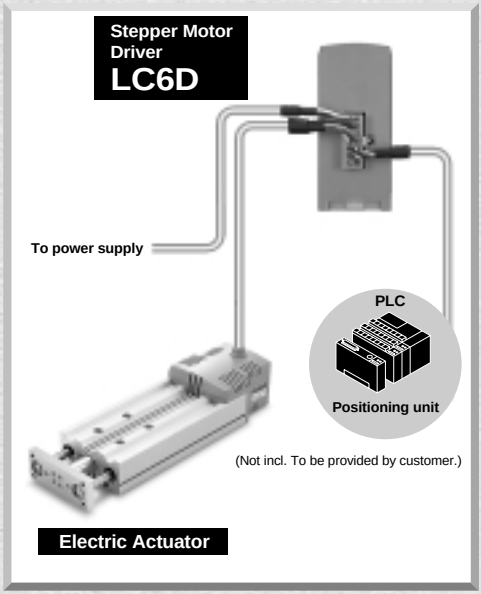
	Table displacement by pitch moment load	Table displacement by yaw moment load	Table displacement by roll moment load
LXF	Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.	Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.	Displacement at "A" when a load is applied to "F" with the slide table retracted.
			
			Lr = 150mm
			
LXP	Displacement at the section indicated by the arrow when a load is applied to this section with the electric actuator fully extended.	Displacement at the section indicated by the arrow when a load is applied to this section with the electric actuator fully extended.	
			
			
LXS	Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.	Displacement at the section indicated by the arrow when a load is applied to this section with the slide table fully extended.	Displacement at "A" when a load is applied to "F" with the slide table retracted.
			
			Lr = 200mm
			

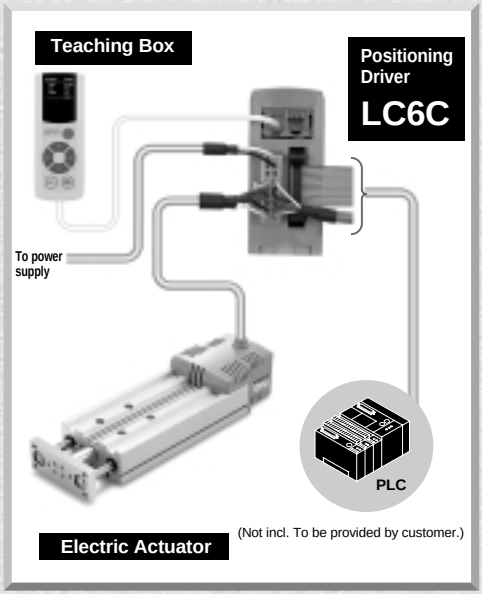
Series LC6D

Series LC6C

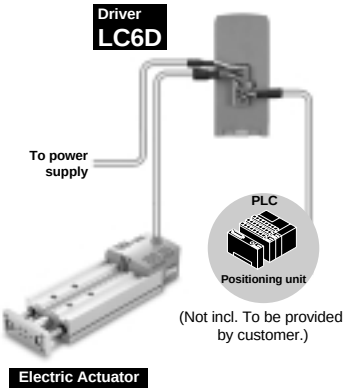
Series LX Dedicated
Stepper Motor Driver and Positioning Driver

Series LC6D/LC6C





- **Can be mounted on a DIN rail**
- **Driver position controlled by pulse signal**
- **Can be controlled by a general positioning unit or controller**



(Not incl. To be provided by customer.)

How to Order

LC 6 D — 220 A D —

Applicable motor

6	Stepper motor

Function

D	Driver function only

CE marking

Nil	Standard
Q	CE marking

Driver power supply

D	24VDC

Input/Output type

A	Photo coupler input/output

Motor type

220	2 phase motor (2.0A/phase)
507	5 phase motor (0.75A/phase)

Applicable Actuators

Driver model	Applicable actuator		Motor type
LC6D-220AD	Guide rod type	LXPB2	2 phase stepper motor
	High rigidity slide table type	LXSH2	
LC6D-507AD	Low profile slide table type	LXFH5	5 phase stepper motor
	High rigidity slide table type	LXSH5	
	Guide rod type	LXPB5	

Specifications

Part no.	LC6D-220AD	LC6D-507AD
Power supply	24VDC ±10%, 3A	24VDC ±10%, 2.5A
Energization (Step angle °)	Full step (1.8°) Half step (0.9°)	Full step (0.72°) Half step (0.36°)
Motor current	2.0A/phase	0.75A/phase
Input signal	Photo coupler input (Input impedance 330Ω)	
Maximum input frequency (See caution below.)	10kHz for full step 20kHz for half step	
Function	Auto current down, Power down input	
Connection method	Connector	
Operating environment	5° to 40°C	
	35 to 85% (with no condensation)	
Accessories	Connectors (receptacle, female terminal) Cable should be arranged by customer.	

CE marking

1. **The combination of Series LC6D and Series LX has been certified for CE marking.**
   When using Series LX with CE marking, use it in combination with Series LC6D with CE marking.
2. **The combination of Series LC6D and Series LX has been certified for EMC conformity.**
   EMC changes depending on the customer's control panel configuration, and the relationship between other electrical equipment and wiring. Therefore, conformity cannot be certified for the customer's equipment in the actual operating environment. As a result, it is necessary for the customer to verify final EMC conformity for the machinery and equipment as a whole.

⚠Caution

Maximum speeds of actuators vary depending on the type. Observe the maximum speed of the actuator in use.

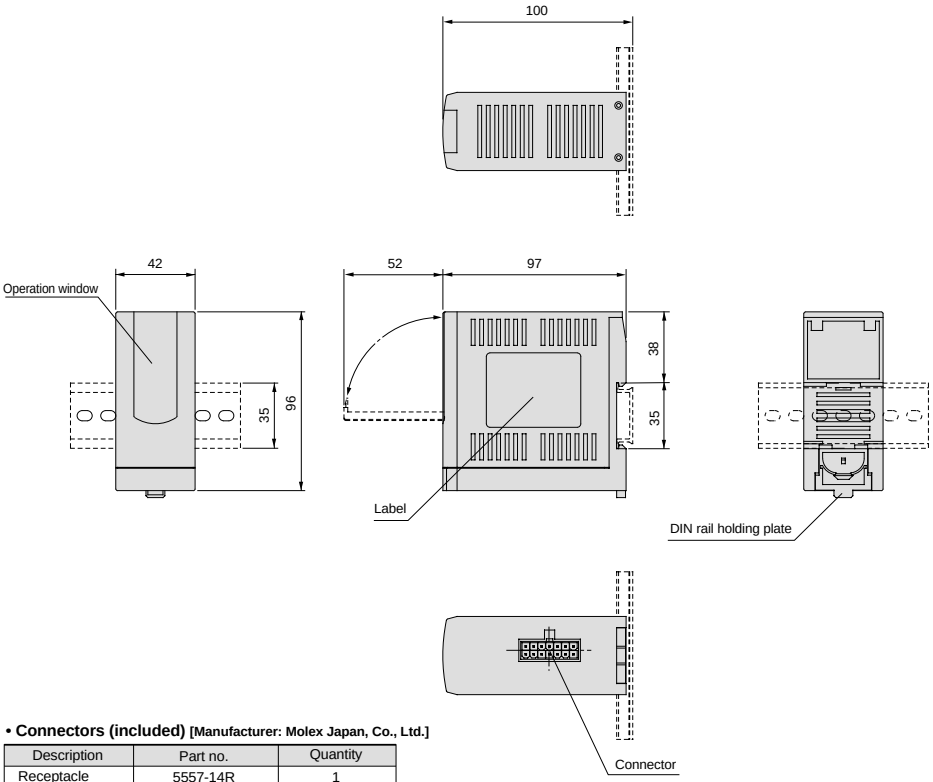
Pulse Signals

LC6D positioning is controlled by the number of pulse signal inputs to the CW and CCW terminals, and speed is controlled by pulse frequencies.

- Calculation for speed and pulse frequencies
  Pulse frequency [pps] = (Speed [mm/s]/Lead [mm]) x Divisions per rotation
- Calculation for moving distance and pulse numbers
  Pulse numbers = (Moving distance [mm]/Lead [mm]) x Divisions per rotation
- The divisions per rotation are as shown in the table below.

Driver	Energization type	Divisions per rotation
LC6D-220AD-□	Full step	200
	Half step	400
LC6D-507AD-□	Full step	500
	Half step	1000

Dimensions



- **Connectors (included)** **[Manufacturer: Molex Japan, Co., Ltd.]**

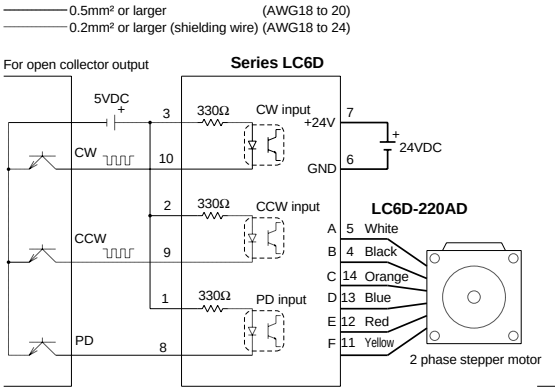
Description	Part no.	Quantity
Receptacle	5557-14R	1
Female terminal	5556PBTL	14

- **Wiring tools** **[Manufacturer: Molex Japan Co., Ltd.]**
  Wiring tools should be arranged by the customer.

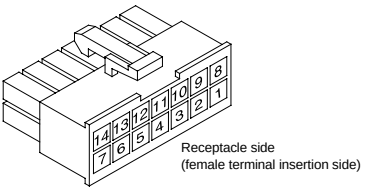
Description	Part no.
Crimping tool	57026-5000 (for UL1007) 57027-5000 (for UL1015)
Puller	57031-6000

Connection Examples

• Electrical wires

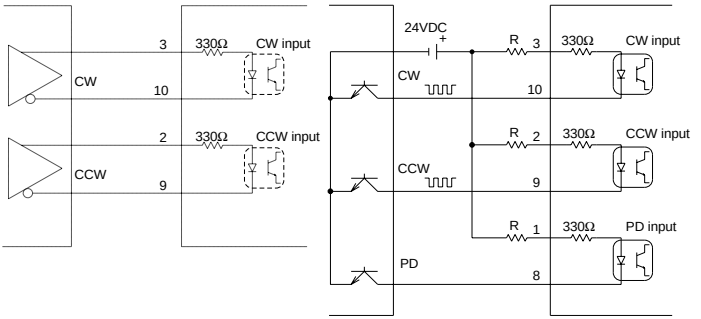


• Wiring numbers



For line driver output

For a signal power supply of 24VDC, connect an external resistor R (1.3kΩ 1/2W) in order to hold the current to 15mA or lower.



Signal description	Function	Pin no.
+24V	Driver power supply +24V	7
GND	Driver power supply GND	6
CW+	CW pulse input terminal (+)	3
CW–	CW pulse input terminal (–)	10
CCW+	CCW pulse input terminal (+)	2
CCW–	CCW pulse input terminal (–)	9
PD+	Power down input terminal (+)	1
PD–	Power down input terminal (–)	8
A	Motor drive output A	5
B	Motor drive output B	4
C	Motor drive output C	14
D	Motor drive output D	13
E	Motor drive output E	12
F	Motor drive output F (LC6D-2□□□□ only)	11

Functions

• Function change-over switch

Use the function change-over switch to set each function.
It is set as follows when shipped.

1. ON ..... Energization type: Half step
2. OFF ... Auto current down function

	ON	OFF
1	Half step	Full step
2	Release	Set

• Input signal terminal

• CW pulse input terminal
By applying the pulse input, the actuator moves from the motor side to the end side.

• CCW pulse input terminal
By applying the pulse input, the actuator moves from the end side to the motor side.

• Power down input terminal
By applying the "H" level input, the motor current is shut off and the motor becomes de-energized.

• Functions

• Auto current down
This is a function that reduces the motor current to half when the motor stops. This will prevent the motor and driver from generating heat.
Although auto current down causes the holding torque to be reduced when the motor stops, the holding torque that supports the actuator transfer load is maintained.

• Power down
This function shuts off the motor current and de-energizes the motor. Use this function to release the electric actuator for maintenance, etc.

How to Order

LC 6 C – 220 A D

- **Applicable motor**: 6 — Stepper motor
- **Function**: C — Position control/Driver
- **Motor type**: 220 — 2 phase motor (2A/phase)
- **Input/Output type**: A — Photo coupler input
- **Power supply**: D — 24VDC

- **Built-in position control function added to LC6D**
- **Up to 28 patterns of movement data can be set.**
- **Point movement can be easily achieved with a PLC, etc.**
- **Compatible with Series LX two phase stepper motor**

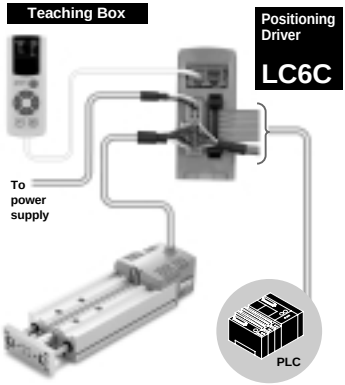
Applicable Actuators

Driver	Applicable actuator		Motor type
LC6C-220AD	Guide rod type	LXPB2	2 phase stepper motor
	High rigidity slide table type	LXSH2	

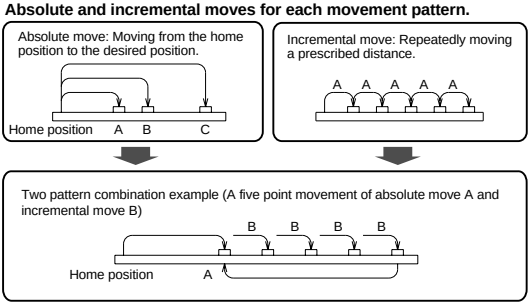
∗ Select a 3 wire NPN type when using an auto switch.

Specifications

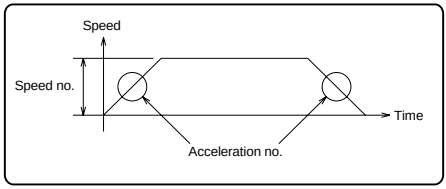
Part no.	LC6C-220AD
Power supply	24VDC ±10%, Max. 3.0A
Number of position settings	28 patterns
Position setting method	Setting with dedicated teaching box (LC5-1-T1-02)
Position control method	Absolute and incremental moves Speed: 6 to 200mm/s (with lead screw lead of 12mm)
Input signal capacity	Photo coupler input 24VDC, Max. 6mA
Output signal capacity	Photo coupler output Max. 30VDC or less, Max. 20mA
Parameter setting	Position data setting, Speed/Acceleration setting, etc.
Indication LED	Power supply LED, Alarm LED
Operating temperature	5° to 40°C
Accessories	Power connector, Interface connector (Cables should be arranged by customer.)



Absolute and incremental moves for each movement pattern.

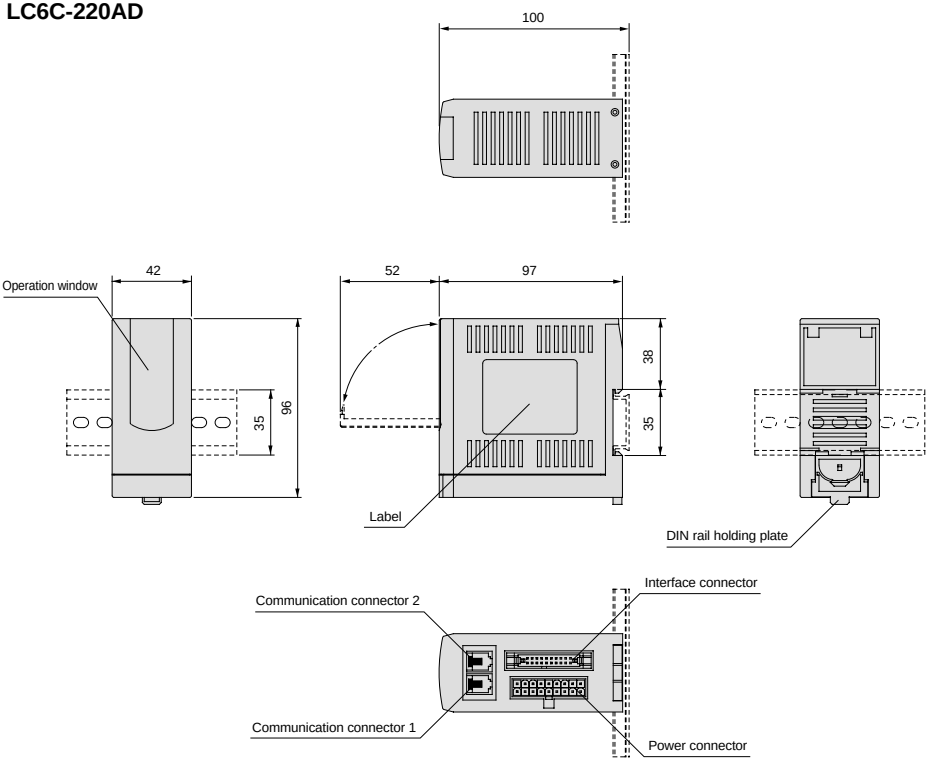


Eight speed patterns based on the speed number and acceleration number can be set, and a speed pattern can be selected for each movement pattern.



Dimensions

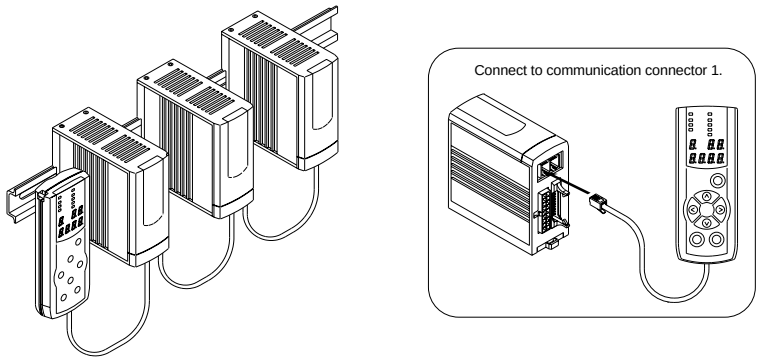
LC6C-220AD



Connection Example

Wiring to the teaching box

By connecting multiple drivers (maximum of 16), they can be set by one teaching box.
(When the teaching box is in use, external input to the drivers become invalid.)

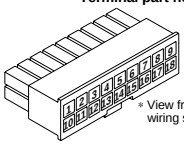


Connection Examples

Power connector wiring

Connector: Power connector (included)
Manufacturer: Molex Japan, Co., Ltd.
Part no.: Receptacle 5557-18R
Female terminal 5556PBTL

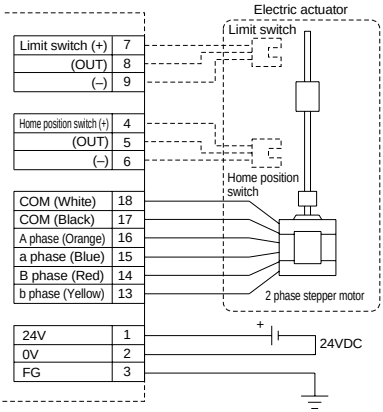
Terminal part no.



Switches

Home position switch: This switch indicates the home position. Connect this switch when returning to the origin point. This switch also acts as a sensor that detects overrun in the motor direction.

Limit switch: This sensor detects overrun in the end direction. Connect this switch as needed.

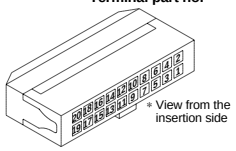


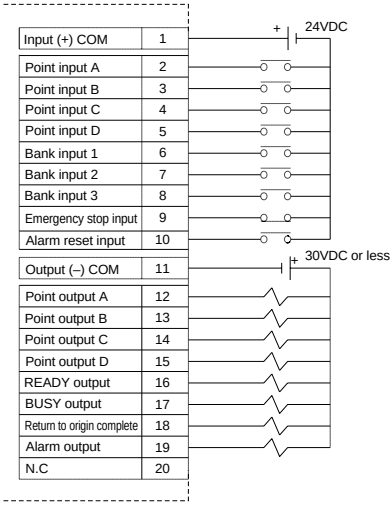
Interface connector wiring

Connector: Interface connector (included)
Manufacturer: OMRON Corporation
Part no.: Connector XG4M-2030-T

A ▽ mark is located on the connector number 1 side.

Terminal part no.





Power connector input/output signal details

Connector no.	Signal description	Detail
1	24V	Connect to power supply (+24VDC)
2	0V	Connect to power supply (0V)
3	FG	Connect to frame ground
4	Home position switch (+)	Connect to home position switch positive power supply line
5	Home position switch (OUT)	Connect to home position switch output line
6	Home position switch (–)	Connect to home position switch 0V power supply line
7	Limit switch (+)	Connect to limit switch positive power supply line
8	Limit switch (OUT)	Connect to limit switch output line
9	Limit switch (–)	Connect to limit switch 0V power supply line
10	N.C.	Do not connect.
11	N.C.	Do not connect.
12	N.C.	Do not connect.
13	b phase (Yellow)	Connect to actuator power line (Yellow)
14	B phase (Red)	Connect to actuator power line (Red)
15	a phase (Blue)	Connect to actuator power line (Blue)
16	A phase (Orange)	Connect to actuator power line (Orange)
17	COM (Black)	Connect to actuator power line (Black)
18	COM (White)	Connect to actuator power line (White)

⚠ Caution

Use a 3 wire NPN type for each switch.

Interface connector input/output signal details

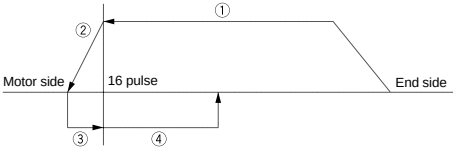
Connector no.	Signal description	Details
1	Input (+) COM	Input COM signal
2	Point input A	Point setting input (point A)
3	Point input B	Point setting input (point B)
4	Point input C	Point setting input (point C)
5	Point input D	Point setting input (point D)
6	Bank input 1	Bank setting input (binary, first bit)
7	Bank input 2	Bank setting input (binary, second bit)
8	Bank input 3	Bank setting input (binary, third bit)
9	Emergency stop input	Emergency stop input
10	Alarm reset input	When an alarm occurs, this signal turns off the alarm after the cause is resolved.
11	Output (–) COM	Output COM signal (GND)
12	Point output A	This signal indicates move completion for point input A.
13	Point output B	This signal indicates move completion for point input B.
14	Point output C	This signal indicates move completion for point input C.
15	Point output D	This signal indicates move completion for point input D.
16	READY output	This signal indicates that the controller is ready.
17	BUSY output	This signal indicates motor control in progress.
18	Home position return output	This signal indicates that home position returen is completed.
19	Alarm output	This signal indicates occurrence of alarm.
20	N.C.	Do not connect.

⚠ Caution

If input is not provided as prescribed for the operation, this may cause malfunction or failure.

Home Position Return

1 Operation



Home position sensor position

① Moves to the motor side at home position return speed
② Decelerates and stops at the home position sensor ON position
③ Moves to the end side at low speed
④ Moves and stops at 16 pulse position from the home position sensor OFF position

2 Operating procedures

1. Confirm that both READY output and alarm output are ON.
2. Turn OFF bank inputs 1 to 3. [Specify bank 0.]
3. When point input A is turned ON, the actuator begins to return to the home position.
4. BUSY output is turned ON during home position return.
5. BUSY output is turned OFF when the actuator reaches the home position, and home position return output turns ON.
6. Turn OFF point input A.

Note) The actuator stops if point input A is turned OFF when BUSY output is ON (home position return movement in progress).

3 Home position return speed

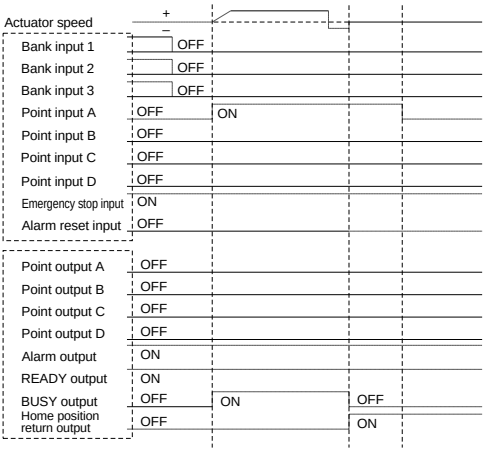
Speed is set by parameter number 0D.

1.	015
Acceleration no.	Speed no.

4 Home position return signal

This signal output turns ON when the home position return movement completes. It turns OFF when an alarm occurs or when JOG movement takes place.

5 Time chart

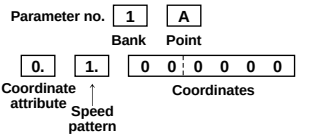


Point Movement

With this driver, a maximum of 28 point positions can be set by combining banks and points. With the combination of bank and point inputs, the actuator can move to the position indicated by each point.

1 Setting detail

To set point settings, use the parameter setting and teaching functions of the dedicated teaching box.

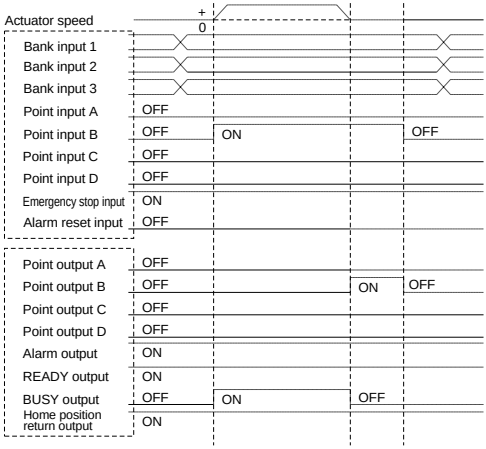


2 Operating procedures

1. Confirm that both READY output and alarm output are ON.
2. Set bank with bank inputs 1 to 3. [Bank 1 to 7.]
3. When points are specified with point inputs A to D, the actuator starts to move.
4. BUSY output is ON while the actuator is moving.
5. BUSY output turns OFF when the move completes and point outputs A to D turn ON. These correspond to point inputs A to D that are ON.
6. When point inputs A to D are turned OFF, point outputs A to D turn OFF.

Note) The actuator stops moving if point inputs A to D are turned OFF or two or more of point inputs A to D are turned ON while BUSY output is ON (during movement).

3 Time chart (when specifying point B)



Performance/Specifications

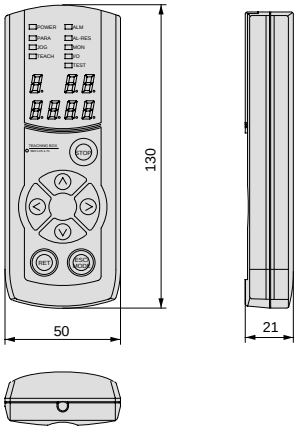
General specifications

Part no.	LC5-1-T1-02
Power supply	Supplied by **LC6C-220AD**
Dimensions	130mm x 50mm x 21mm
Weight	110g
Body type	Resin body
Indication unit	7 LED numerical indicators, 9 LED indicator lights
Operation unit	Key switches
Cable length	2m

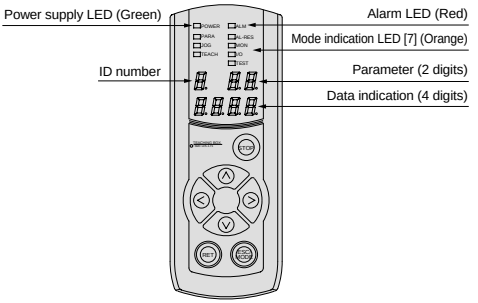
Basic performance

	Performance/Specifications
Applicable controller	**LC6C-220AD**
Operating temperature range	5° to 40°C
Communication method	Conforming to RS485
Functions	Parameter change, JOG operation, alarm reset, teaching, test
Protective function indication	Alarm code

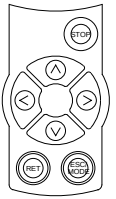
Dimensions



Part Descriptions



Key Arrangement and Functions



Mark	Key description	Function
∧	UP	Increases a numerical value.
∨	DOWN	Reduces a numerical value.
<	L	Moves a numerical value place to the left. Rotates the motor counter clockwise during JOG operation.
>	R	Moves a numerical value place to the right. Rotates the motor clockwise during JOG operation.
STOP	STOP	Becomes the emergency stop key when the actuator is moving.
ESC/ MODE	ESC/ MODE	Selects a mode. Completes each mode and returns to the mode level.
RET	RET	Determines the mode and records data.

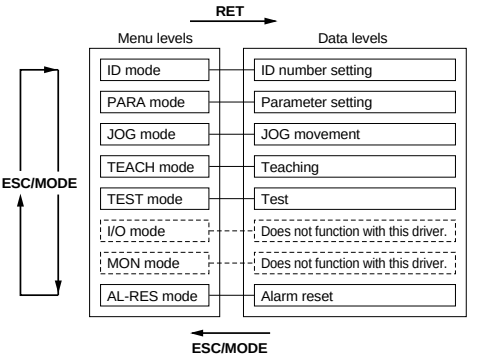
⚠ Caution

STOP key only stops the driver that is in communication.

Alarm Details

Alarm no.	Alarm description	Presumed cause and solution
1	Emergency stop input	Emergency stop input is turned OFF (open).
2	Temperature abnormality	The temperature inside the driver is high. Check the installation environment and operation frequency.
3	Power supply abnormality	Operating beyond the range of the specified power supply. Adjust the power supply.
4	Limit switch abnormality	Home position switch and limit switch are operating. Malfunction such as loss of synchronism may have occurred. Check the equipment.

Operating Method



As shown above, 6 modes are available. (I/O mode and MON mode do not function with this driver.) When the communication mode is started by the teaching box, a menu can be selected with [ESC/MODE]. Select the mode indication LED for the mode to be implemented (all mode indication LEDs turn Off in the ID mode) and press [RET] to start each mode.
Refer to the instruction manual for the operation of each mode.

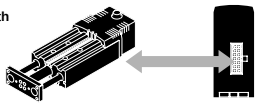
⚠ Caution

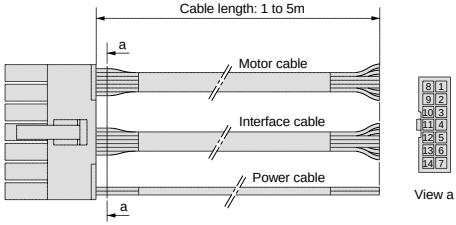
- **Do not repeatedly apply bending stress or tension to the cables.**
  Wiring that subjects cables to repeated bending stress and tension causes line breakage.
- **Make connections based on each driver's connection example.**

LC6D Connector Cable

Model **LC6-1-C1-□-X258**

● **Cable length**
1 - 1m
3 - 3m
5 - 5m





Wiring

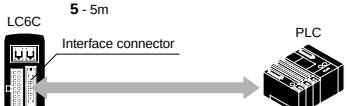
Pin no.	Cable description	Signal description	Color
1	Interface cable	PD+	Yellow
2		CCW+	Red
3		CW+	Black
4	Motor cable	Motor B	White
5		Motor A	Black
6	Power cable	GND	Black
7		+24V	White

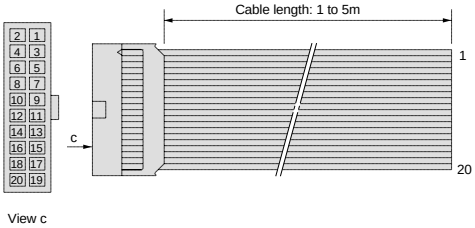
Pin no.	Cable description	Signal description	Color
8	Interface cable	PD–	Brown
9		CCW–	Green
10		CW–	White
11	Motor cable	Motor F	Brown
12		Motor E	Yellow
13		Motor D	Green
14		Motor C	Red

LC6C Interface Connector Cable

Model **LC6-1-C3-□-X252**

● **Cable length**
1 - 1m
2 - 2m
5 - 5m

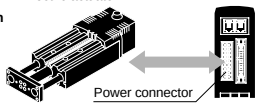


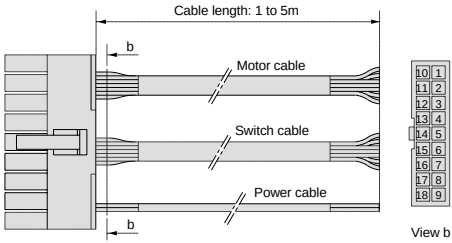


LC6C Power Connector Cable

Model **LC6-1-C2-□-X252**

● **Cable length**
1 - 1m
2 - 2m
5 - 5m





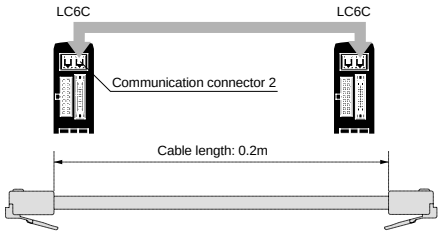
Wiring

Pin no.	Cable description	Signal description	Color
1	Power cable	+24V	White
2		0V	Black
3		FG	Red
4	Switch cable	Home position switch (+)	White
5		Home position switch (OUT)	Black
6		Home position switch (–)	Brown
7		Limit switch (+)	Yellow
8		Limit switch (OUT)	Green
9		Limit switch (–)	Red
13	Motor cable	Motor wire (Yellow)	Red
14		Motor wire (Red)	Green
15		Motor wire (Blue)	Yellow
16		Motor wire (Orange)	Brown
17		Motor wire (Black)	Black
18		Motor wire (White)	White

LC6C Driver Connection Cable

Model **LC5-1-C1-02-X252**

● **Cable length 0.2m**



Solid State Switches

Applicable Actuators

D-F9	**Series LXF*, LXP, LXS**
D-Y7GL	**Series LJ1 (non-standard motor)**

* Cannot be mounted on Series LXF with ball screw specification.

Auto Switch Specifications

Auto switch part no.	D-F9N	D-F9P	D-F9B	D-F9G	D-F9H
Contact	N.O. (A contact)			N.C. (B contact)	
Electrical entry	In-line				
Wiring type	3 wire		2 wire	3 wire	
Output type	NPN	PNP	—	NPN	PNP
Applicable load	IC circuit, Relay, PLC		24VDC relay, PLC	IC circuit, Relay, PLC	
Power supply voltage	5, 12, 24VDC (4.5 to 28V)		—	5, 12, 24VDC (4.5 to 28V)	
Current consumption	10mA or less		—	10mA or less	
Load voltage	28VDC or less	—	24VDC (10 to 28VDC)	28VDC or less	—
Load current	40mA or less	80mA or less	5 to 40mA	40mA or less	80mA or less
Internal voltage drop	1.5V or less (0.8V or less at load current of 10mA)	0.8V or less	0.4V or less	1.5V or less (0.8V or less at load current of 10mA)	0.8V or less
Leakage current	100μA or less at 24VDC		80mA or less	100μA or less at 24VDC	
Indicator light	Red LED lights up when ON			Red LED lights up when OFF	

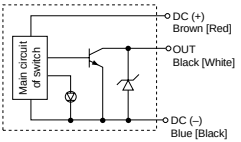
- Lead wire ——— Oil resistant heavy duty vinyl cord, ø2.7, 0.15mm² x 3 wire (Brown, Black, Blue [Red, White, Black]), 0.18mm² x 2 wire (Brown, Blue [Red, Black])
- Insulation resistance —— 50MΩ or more at 500VDC (between lead wire and case)
- Withstand voltage —— 1000VAC for 1 min. (between lead wire and case)
- Indication light ——— Lights when ON
- Ambient temperature —— –10 to 60°C
- Operating time ——— 1ms or less
- Impact resistance ——— 1000m/s²

Auto switch part no.	D-Y7GL
Contact	N.C. (B contact)
Electrical entry	In-line
Wiring type	3 wire
Output type	NPN
Applicable load	IC circuit, Relay, PLC
Power supply voltage	5, 12, 24VDC (4.5 to 28V)
Current consumption	10mA or less
Load voltage	28VDC or less
Load current	40mA or less
Internal voltage drop	1.5V or less (0.8V or less at load current of 10mA)
Leakage current	100μA or less at 24VDC
Indicator light	Red LED lights up when OFF

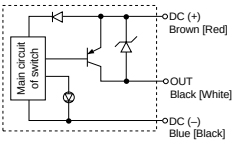
Auto switch internal circuits

Lead wire colors inside [ ] are those prior to conformity with IEC standards.

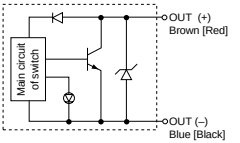
D-F9G, D-Y7GL



D-F9P, D-F9H



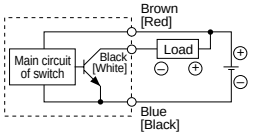
D-F9B



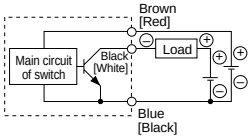
Solid State Switch Connection and Examples

Basic Wiring

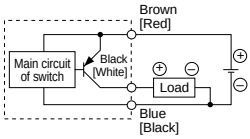
3 wire, NPN
(When the switch power supply and load power supply are the same)



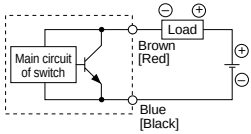
(When the switch power supply and load power supply are separate)

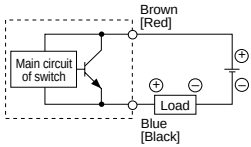


3 wire, PNP



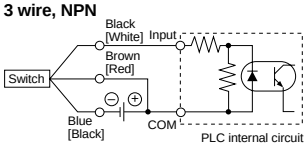
2 wire



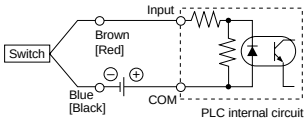


Examples of Connection to PLC

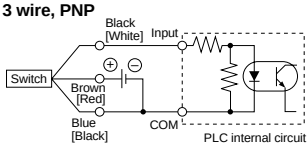
Sink input specifications,
3 wire, NPN



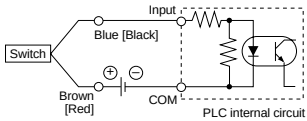
2 wire



Source input specifications,
3 wire, PNP



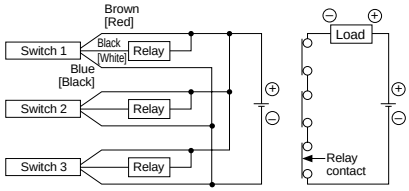
2 wire



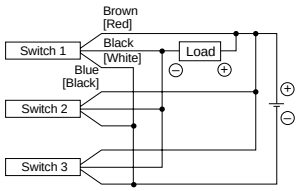
Connect according to the applicable PLC input specifications, as the connection method will vary depending on the PLC input specifications.

Connection Examples for AND (Series) and OR (Parallel)

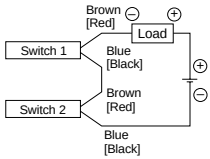
3 wire, AND connection for NPN output



3 wire, OR connection for NPN output



2 wire with 2 switch AND connection

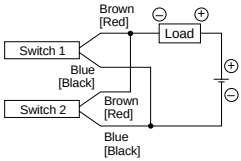


When two switches are connected in series, a load may malfunction because the load voltage will decline when in the ON state.
The indicator lights will light up when both of the switches are in the ON state.

Load voltage at ON = Power supply voltage – Residual voltage x 2 pcs.
= 24V – 4V x 2 pcs.
= 16V

Example: Power supply voltage is 24VDC.
Internal voltage drop in switch is 4V.

2 wire with 2 switch OR connection



When two switches are connected in parallel, malfunction may occur because the load voltage will increase when in the OFF state.

Load voltage at OFF = Leakage current x 2 pcs. x Load impedance
= 1mA x 2pcs. = 3kΩ
= 6V

Example: Load impedance is 3kΩ.
Leakage current from switch is 1mA.

Applicable switch models

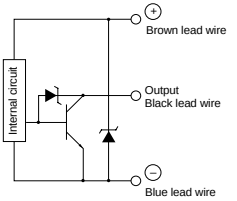
Applicable model	Model type	Part no.	Switch type		
LXF LXS	G	GXL-8F	Standard	N.O. (A contact)	3 wire
	GD	GXL-8FI	Varying frequencies	N.O. (A contact)	3 wire
	GB	GXL-8FB	Standard	N.C. (B contact)	3 wire
	GDB	GXL-8FIB	Varying frequencies	N.C. (B contact)	3 wire
	GU	GXL-8FU	Standard	N.O. (A contact)	2 wire
	GUB	GXL-8FUB	Standard	N.C. (B contact)	2 wire

Switch specifications (SUNX Corporation)

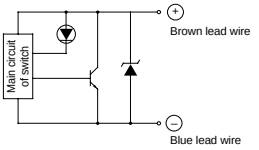
Part no.		GXL-8F(I)(B)	GXL-8FU	GXL-8FUB
Repeatability		Direction of detecting axis, Perpendicular to detecting axis: 0.04mm or less		
Power supply voltage		12 to 24VDC ±10%, Ripple P-P 10% or less		
Current consumption		15mA	0.8mA or less (when output is OFF)	
Output		NPN Maximum load current: 100mA Maximum applied voltage: 30VDC Residual voltage: 1V or less	2 wire solid state DC Load current: 3 to 70mA Residual voltage: 3V or less	
Maximum response frequency		500Hz	1kHz	
Indicator light		Red LED (lights up when ON)	Green LED (stable detection) Red LED (unstable detection)	
Environmental resistance	Ambient temperature	–10° to 55°C	–25° to 70°C	
	Ambient humidity	45 to 85% RH		
	Noise resistance	Power line: 240Vp, pulse width of 0.5µs		
Detecting distance fluctuation	Temperature characteristics	Within +15/–10% of detecting distance at 20°C within ambient temperature range		
	Voltage characteristics	Within ±2% with ±10% fluctuation of operating voltage		
Cable		0.08mm 3 wire heavy duty cable 1m	0.15mm 2 wire heavy duty cable 1m	

Proximity switch internal circuit

GXL-8F(I)(B)

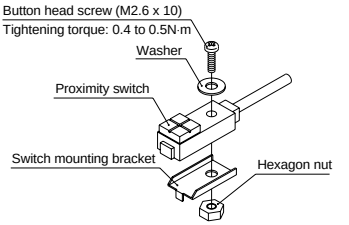


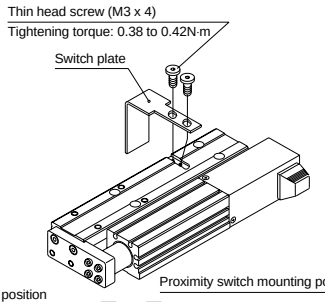
GXL-8FU(B)(I)

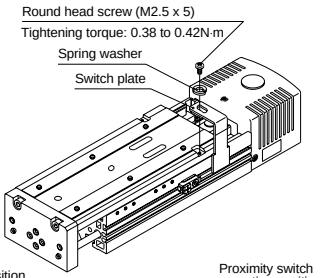


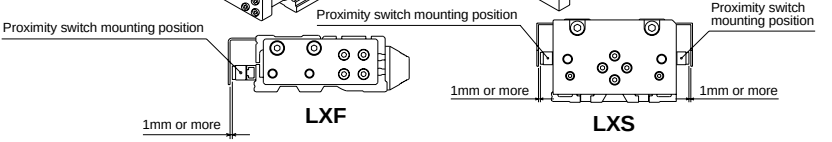
Proximity Switch/Switch Plate Mounting

Be sure to use the mounting screws included, and mount the proximity switch as shown in the drawing to the right.
Mount the switch plate as shown below. Always use the proper tightening torque and use a thread locking agent on screws to prevent loosening.
The switch body is made of PBT and acrylic resin. Select a thread locking agent that will not affect these materials.





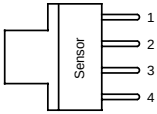




Standard Photo Micro Sensor for Home Position (OMRON Corporation)

Rating

Power supply voltage	5 to 24VDC ±10%, Ripple (p-p) 10% or less		
Current consumption	35mA or less		
Control output	5 to 24VDC load current (Ic) 100mA, Residual voltage 0.8V or less Load current (Ic) 40mA, Residual voltage 0.4V or less		
Ambient temperature	Operation: –25° to 55°C (When stored: –30° to 80°C)		
Ambient humidity	Operation: 5 to 85%RH (When stored: 5 to 95%RH)		
Part no.	EE-SX672 equivalent	EE-SX673 equivalent	EE-SX674
Applicable actuator	**LXF**	**LXP, LXS**	**LG1** (non-standard motor)

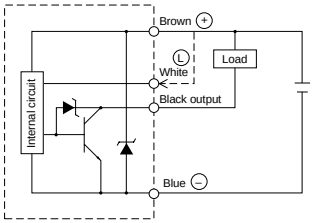
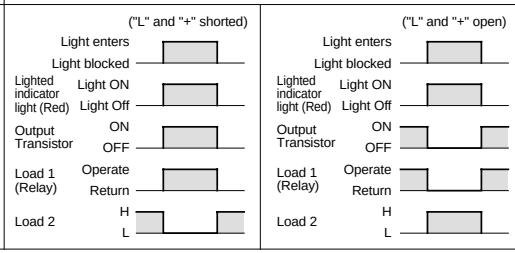


Terminal arrangement

1	Brown	Vcc ⊕
2	White	L*
3	Black	OUTPUT
4	Blue	GND (OV) ⊖

* Normally ON when light is blocked. However, if the Ⓛ terminal and ⊕ terminal are shorted, it changes to ON when light enters.

Output level circuit

Operating condition of output transistor	ON when light enters	ON when light is blocked
Output circuit		
Time chart		

* Normally ON when light is blocked. However, if the Ⓛ terminal and ⊕ terminal are shorted, it changes to ON when light enters.