

Linear Slide Cylinder LCX Series

LINEAR SLIDE CYLINDER LCX SERIES

NEW

Position locking type and
long stroke are added!

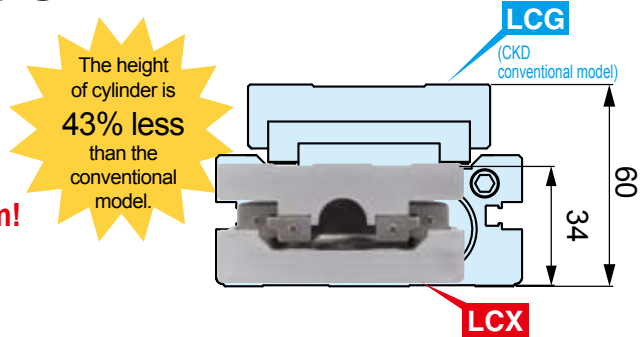


Thinness, lightness, rigidity

Additional option variations cover a wider scope of use.

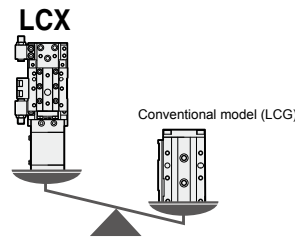
Thin

The thinness in every part of the product reduced the LCG height of 60 mm down to 34 mm! Best suited for space saving applications.



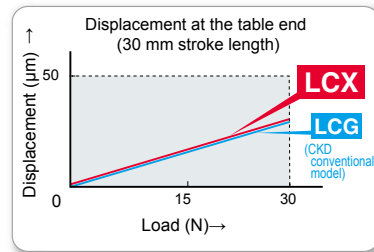
Light

Half the product weight of conventional LCG! The light-weight movable part enables reduced production time and energy consumption.



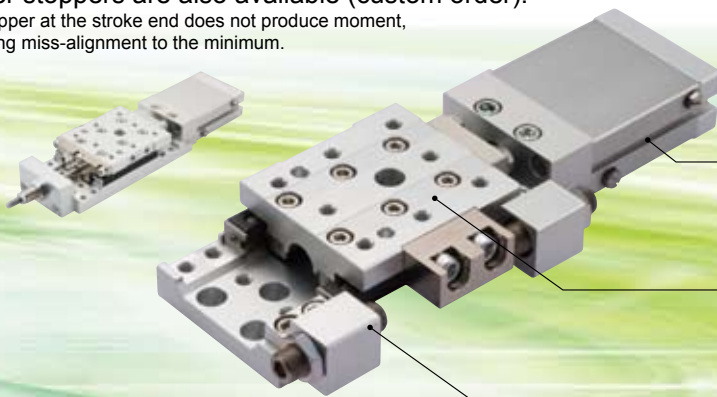
Rigid

Separate-type linear guide is employed. Thin and light weight, with the same rigidity as the conventional model (LCG).

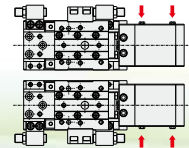


Wide variation

- Center stoppers are also available (custom order). The stopper at the stroke end does not produce moment, restricting miss-alignment to the minimum.



- Symmetric design
Mounting is possible on the left and right of the pipe and stopper. ← indicates the piping direction.



- T-shape switch is employed.
Proximity 2-color indicator switch is available.



- Rust proof type
Rust proof finish is provided as standard.

- Various stopper options



LCX Series

Linear slide cylinder

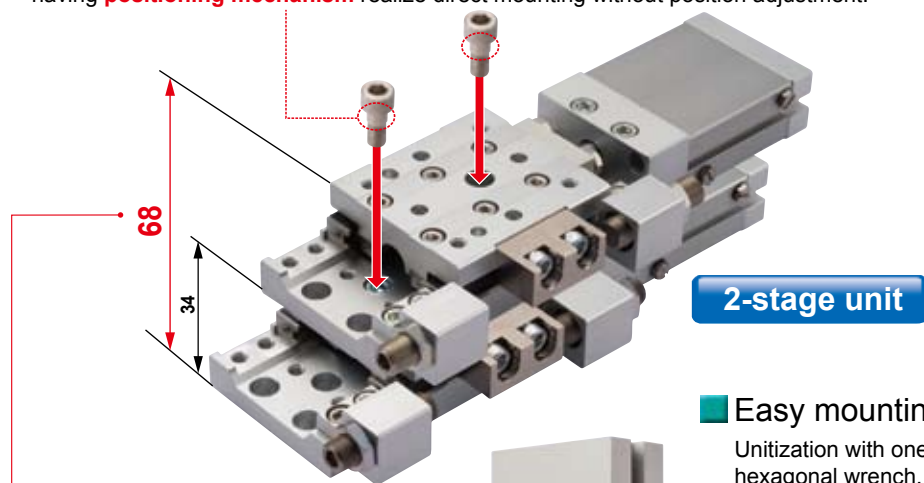


Unitization promotes simplicity, certainty, and precision.

Attractive, rich options including flexible combination, the position locking type, long stroke type (Max. 150 mm), and the dowel hole. The wider scope of use in conveyance and positioning will add to efficient multi-product manufacturing.

High precision positioning mechanism

The accurate dowel hole and the specialized bolt having **positioning mechanism** realize direct mounting without position adjustment.



As thin as **68 mm** even when stacked

Direct mounting without a connection plate realizes the thinness of the product.

Easy mounting

Unitization with one hexagonal wrench.



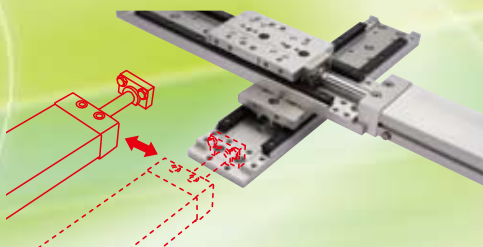
High-rigidity, wide guide

Equivalent to a 42 mm wide rail.



Significant reduction of maintenance time

The cylinder section can be replaced while the body being kept mounted on the equipment.



LCX product variation

LCX

Double acting
single rod type



Φ25, Φ32
stroke: 10 to 50 mm

LCX-Q

Double acting
position locking type

New

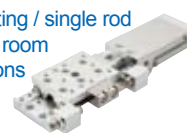
Φ25, Φ32
stroke: 10 to 50 mm



LCX-P7*

Double acting / single rod
type clean room
specifications

Φ25, Φ32
stroke: 10 to 50 mm



LCX-*L

Double acting / single rod
long stroke

New

Φ25, Φ32
stroke: 75 to 150 mm



LCX-Q-*L

Double acting / position locking
type long stroke

New

Φ25, Φ32
stroke: 75 to 150 mm



LCX-*L-P7*

Double acting / single rod type /
clean room specifications long stroke

New

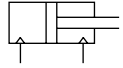
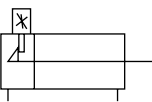
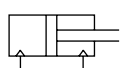
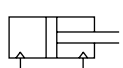
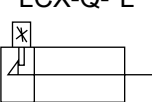
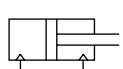
Φ25, Φ32
stroke: 75 to 150 mm



Series variation



Linear slide cylinder LCX Series

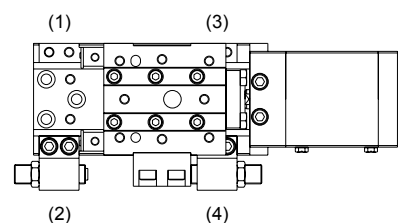
Variation	Model number JIS symbol	Bore size (mm)	Stroke length (mm)										
			10	20	30	40	50	75	100	125		150	
Double acting single rod type	LCX 	ø25/ø32	●	●	●	●	●						
Double acting position locking type	LCX-Q 	ø25/ø32	●	●	●	●	●						
Double acting single rod type clean room specifications	LCX-P7* 	ø25/ø32	●	●	●	●	●						
Double acting single rod type long stroke	LCX-*L 	ø25/ø32							●	●	●	●	
Double acting position locking type long stroke	LCX-Q-*L 	ø25/ø32							●	●	●	●	
Double acting single rod type clean room specifications long stroke	LCX-*L-P7* 	ø25/ø32							●	●	●	●	

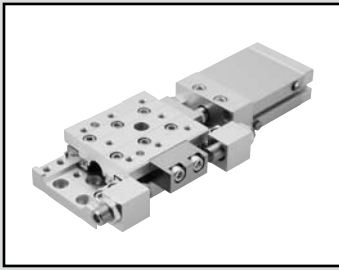
●: Standard ◎: Option ○: Available ■: Not available

		Option																With dowel hole	Center type stopper	Switch	Page			
		Rubber cushion type stopper						Metal type stopper						Shock absorber type stopper										
		Stopper position (1)	Stopper position (2)	Stopper position (3)	Stopper position (4)	Stopper position (1)/(3)	Stopper position (2)/(4)	Stopper position (1)	Stopper position (2)	Stopper position (3)	Stopper position (4)	Stopper position (1)/(3)	Stopper position (2)/(4)	Stopper position (1)	Stopper position (2)	Stopper position (3)	Stopper position (4)					Stopper position (1)/(3)	Stopper position (2)/(4)	
		S1	S2	S3	S4	S5	S6	M1	M2	M3	M4	M5	M6	A1	A2	A3	A4	A5	A6	E	Note 1			
		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	1
		◎	◎	■	■	■	■	◎	◎	■	■	■	■	◎	◎	■	■	■	■	◎	◎	◎	◎	11
		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	■	■	■	■	■	■	◎	◎	◎	◎	17
		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	●	○	◎	23
		◎	◎	■	■	■	■	◎	◎	■	■	■	■	◎	◎	■	■	■	■	◎	◎	◎	◎	33
		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	■	■	■	■	■	■	◎	◎	◎	◎	39

Note 1: Center type stopper is a custom order product. Consult with CKD for details.

● Stopper position



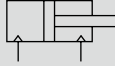


Linear slide cylinder double acting / single rod type

LCX Series

● Bore size: $\varnothing 25/\varnothing 32$

JIS symbol



Specifications

Descriptions		LCX	
		$\varnothing 25$	$\varnothing 32$
Bore size	mm		
Actuation		Double acting	
Working fluid		Compressed air	
Max. working pressure	MPa	0.7	
Min. working pressure	MPa	0.15	
Withstanding pressure	Mpa	1.05	
Ambient temperature	°C	-10 to 60 (not freezing) (Note 1)	
Port size		M5	
Stroke tolerance	mm	+2.0 0 (Note 2)	
Working piston speed	mm/s	20 to 500 (Note 3)	
Cushion		Rubber cushioned	
Lubrication		Not available	
Allowable energy absorption J		Refer to table 3 on Page 46.	

Note 1: Please consult us if you use the instrument in an environment of constantly low (5°C or less) or high (40°C or over) temperature.

Note 2: When not using a stopper, a slight gap may exist between the end plate and floating bushing.

Note 3: Use the metal stopper between 20 and 200 mm/s.

Stroke length

Bore size (mm)	Standard stroke length (mm)
$\varnothing 25$	10, 20, 30, 40, 50
$\varnothing 32$	10, 20, 30, 40, 50

Note: Stroke length other than above is not available.

Switch specifications

* The T0/T5 switch can be used with 220 VAC.
Contact CKD for working conditions.

- 1/2 color indicator

Descriptions	Reed 2 wire				Proximity 2 wire		Proximity 3 wire	
	T0H/T0V		T5H/T5V		T2H/T2V	T2WH/T2WV	T3H/T3V	T3WH/T3WV
Applications	Programmable controller, relay		Programmable controller, relay, IC circuit (w/o light), serial connection		Programmable controller		Programmable controller, relay	
Output method	-		-		-		NPN output	
Power voltage	-		-		-		10 to 28 VDC	
Load voltage	12/24 VDC	110 VAC	5/12/24 VDC	110 VAC	10 to 30 VDC	24 VDC ± 10%	30 VDC or less	
Load current	5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 20 mA		100 mA or less	50 mA or less
Light	LED (ON lighting)		Without indicator light		LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)	Red/green LED (ON lighting)
Leakage current	0 mA				1 mA or less		10 µA or less	

Cylinder weight

- Basic type

(Unit: g)

Bore size (mm)	Basic type stroke length (mm)				
	10	20	30	40	50
ø25	980	1,010	1,030	1,150	1,170
ø32	1,000	1,030	1,050	1,180	1,200

- Additional weight for options

(Unit: g)

Bore size (mm)	Option stopper symbol					
	S1 to S4	M1 to M4	A1 to A4	S5/S6	M5/M6	A5/A6
ø25	170			240		
ø32	170			240		

Secondary battery specifications

LCX - ... -

P4*

- Design applicable for LiB manufacturing process

* Consult with CKD for details.

How to order

Without switch



With switch



Model No.

A Bore size

B Stroke length

C Switch model no.

F Option

D Switch quantity

E Stopper

⚠ Note on model no. selection

Note 1: Use a discrete rubber cushion type stopper or a metal type stopper on page 5 when changing the adjustable stroke range.

Note 2: When using a shock absorber, refer to the stopper dimensions table on page 10 for the adjustable stroke range.

Note 3: When using a metal type stopper, stopper block material copper alloy (symbol: T) is recommended.

Note 4: When a rubber cushion type stopper or a metal type stopper is used in combination with a shock absorber type stopper, they are provided for each custom order.

Note 5: Use the metal stopper between 20 and 200 mm/s.

Note 6: Selectable only when using a stopper type.

Note 7: A5* and A6* cannot be selected for 10-stroke cases.

Note 8: Positioning hole for assembling a cross unit or a 2-stage unit without position adjustment. Use it together with a positioning bolt (page 6).

Note 9: Refer to page 6 for cylinder model numbers.

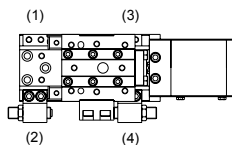
<Example of model number>

LCX-25-40-T2H-R-A1T E

Model: Linear slide cylinder double acting / single rod type LCX

- A** Bore size : ø25
- B** Stroke : 40 mm
- C** Switch model no.: Proximity, 2-wire type
Axial lead wire
- D** Switch quantity : With one pc. on rod end
- E** Stopper : Shock absorber type stopper
Stopper position (1)
Material, alloy steel (nitriding)
- F** Option : Dowel hole

● Stopper position



Symbol	Descriptions			
A Bore size				
25	ø25			
32	ø32			
B Stroke length (mm)				
10	10			
20	20			
30	30			
40	40			
50	50			
C Switch model no.				
Axial lead wire	Radial lead wire	Contact	Indicator	Lead wire
T0H*	T0V*	Reed	One color indicator type	2-wire
T5H*	T5V*		Without indicator light	
T2H*	T2V*	Proximity	One color indicator type	2-wire
T3H*	T3V*		Two color indicator type	3-wire
T2WH*	T2WV*			2-wire
T3WH*	T3WV*			3-wire
* Lead wire length				
Blank	1 m (standard)			
3	3 m (option)			
5	5 m (option)			
D Switch quantity				
R	One on rod end			
H	One on head end			
D	Two			
E Stopper				
Blank	Without stopper			
S: Rubber cushion type stopper Note 1, Note 4				
S1*	Stopper position (1) (can be changed to (4))			Stopper installation position
S2*	Stopper position (2) (can be changed to (3))			
S3*	Stopper position (3) (can be changed to (2))			
S4*	Stopper position (4) (can be changed to (1))			
S5*	Stopper position (1), (3)			
S6*	Stopper position (2), (4)			
M: Metal type stopper Note 1, Note 3, Note 4, Note 5				
M1*	Stopper position (1) (can be changed to (4))			Stopper installation position
M2*	Stopper position (2) (can be changed to (3))			
M3*	Stopper position (3) (can be changed to (2))			
M4*	Stopper position (4) (can be changed to (1))			
M5*	Stopper position (1), (3)			
M6*	Stopper position (2), (4)			
A: Shock absorber type stopper Note 2, Note 4, Note 7				
A1*	Stopper position (1) (can be changed to (4))			Stopper installation position
A2*	Stopper position (2) (can be changed to (3))			
A3*	Stopper position (3) (can be changed to (2))			
A4*	Stopper position (4) (can be changed to (1))			
A5*	Stopper position (1), (3)			
A6*	Stopper position (2), (4)			
* Section				
Blank	Material of stopper block: Rolled steel			
T	Material of stopper block: Alloy steel (nitriding) Note 6			
F Option				
Blank	No options			
E	Dowel hole			Note 8

How to order switch

SW - T2H3

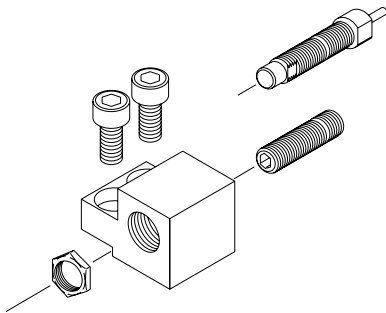
Switch model no.
(© on Page 3)

How to order stopper set

- A set of a stopper section and a rubber cushion stopper, a metal type stopper, or a shock absorber stoppers
- Used when changing from the standard to a rubber cushion stopper, a metal type stopper, or a shock absorber stopper

LCX - 25 - S 2 - S02

Bore size
(A on Page 3)

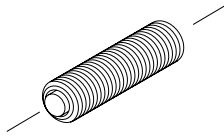


A Stopper type	
S	Rubber cushion type stopper
M	Metal type stopper
A	Shock absorber type stopper
B Stopper installation position	
1	For stopper position (1) or (4)
2	For stopper position (2) or (3)
C Adjustable stroke length Note 1	
Blank	Adjustable stroke range 10 mm
S02	Adjustable stroke range 20 mm

Note 1: Not selectable for shock absorber type stopper "A".

How to order rubber cushion type stopper

- Hexagon socket head set screw with urethane rubber
- Use for changing the adjustable stroke range or setting to the middle stroke



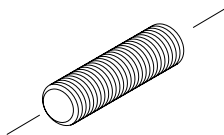
LCX - 25 - S02

Bore size
(A on Page 3)

A Adjustable stroke range	
S01	Single 10 mm (standard)
S02	Single 20 mm

How to order discrete metal type stopper

- Use for changing the adjustable stroke range or setting to the middle stroke



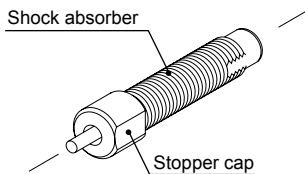
LCX - 25 - M02

Bore size
(A on Page 3)

A Adjustable stroke range	
M01	Single 10 mm (standard)
M02	Single 20 mm

How to order the discrete shock absorber stopper

- A set of a shock absorber and a stopper cap
- Used when changing from a rubber cushion type or metal type stopper to a shock absorber type stopper



LCX - 25 - A01

Bore size
(A on Page 3)

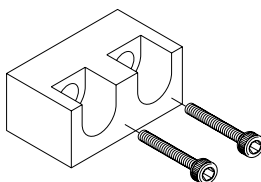
Note: Refer to page 10 for the stroke adjustment range of the shock absorber type stopper.

Applicable shock absorber model No.

Model	Shock absorber model no.
LCX-25	NCK-00-1.2
LCX-32	NCK-00-1.2

How to order stopper block discrete part

- Used when changing from the standard to a rubber cushion type stopper, a metal type stopper, or a shock absorber stopper



LCX - 25 - SB1 T

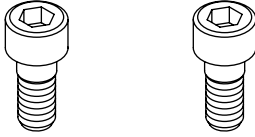
Bore size
(A on Page 3)

A Stopper block	
SB1	For 30 and 50 strokes
SB2	For 10, 20, and 40 strokes
B Material	
Blank	Material of stopper block: Rolled steel
T	Material of stopper block: Alloy steel (nitriding)

How to order the positioning bolt

- Hexagon socket head cap bolt with positioning mechanism
- Cross units and 2-stage units can be assembled without position adjustment.

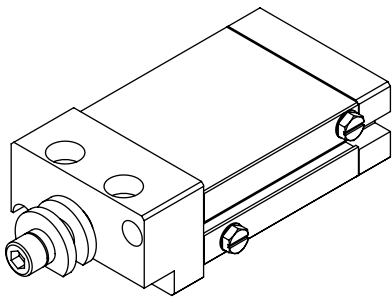
LCX - 25 - J



(2 pieces for each set)

How to order cylinder

LCX - CYL - 25 - 40

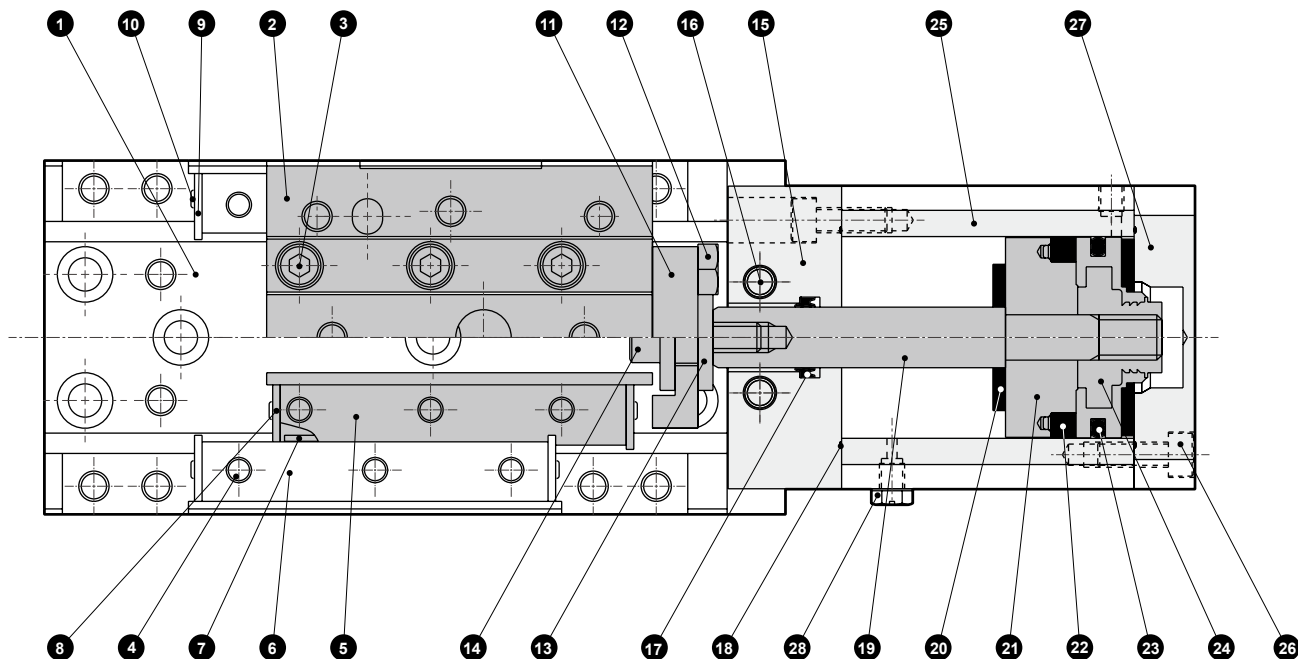


Bore size
(A on Page 3)

Stroke length
(B on Page 3)

Internal structure and parts list

● LCX



Parts list

No.	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Base	Aluminum alloy	Alumite	15	Rod cover	Aluminum alloy	Alumite
2	Table	Aluminum alloy	Alumite	16	Hexagon socket head cap bolt	Alloy steel	Zinc chromate
3	Hexagon socket head cap bolt	Stainless steel		17	Nod packing seal	Nitrile rubber	
4	Hexagon socket head cap bolt	Stainless steel		18	Gasket	Nitrile rubber	
5	Guide rail (1)	Alloy steel	Black chrome film	19	Piston rod	Alloy steel	Industrial chrome plated
6	Guide rail (2)	Alloy steel	Black chrome film	20	Cushion rubber	Urethane rubber	
7	Cage	Resin		21	Spacer	Aluminum alloy	
8	Stopper (1)	Stainless steel		22	Magnet	Plastic	
9	Stopper (2)	Stainless steel		23	Piston packing seal	Nitrile rubber	
10	Cross headed pan	Stainless steel		24	Piston	Aluminum alloy + polyacetal	
11	Plate	Aluminum alloy	Alumite	25	Cylinder body	Aluminum alloy	Hard alumite
12	Hexagon head bolt	Stainless steel		26	Hexagon socket head cap bolt	Alloy steel	Zinc chromate
13	Floating bush	Stainless steel		27	Head cover	Aluminum alloy	Alumite
14	Hexagon socket head cap bolt	Alloy steel	Zinc chromate	28	Plug	Brass	Nickeling

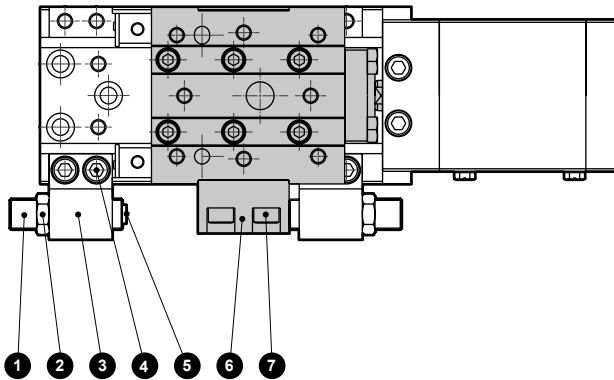
Repair parts list

Bore size (mm)	Kit no.	Repair parts number
ø25	LCX-25K	17 18
ø32	LCX-32K	20 23

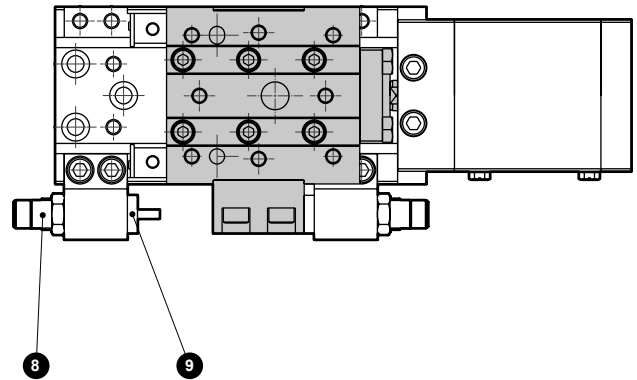
Internal structure and parts list

Configuration with stopper

● Rubber cushion type stopper, metal type stopper



● Shock absorber type stopper

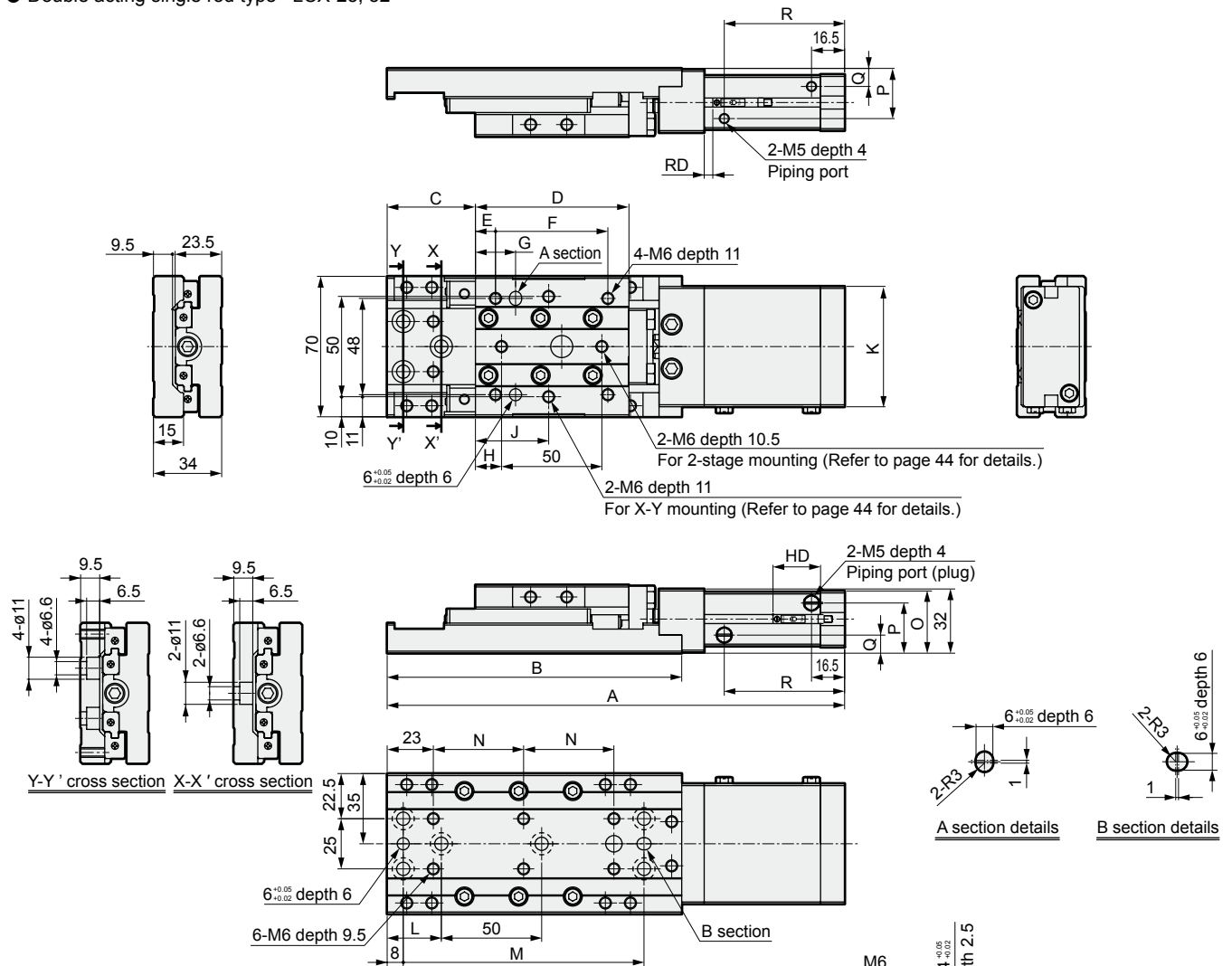


Parts list

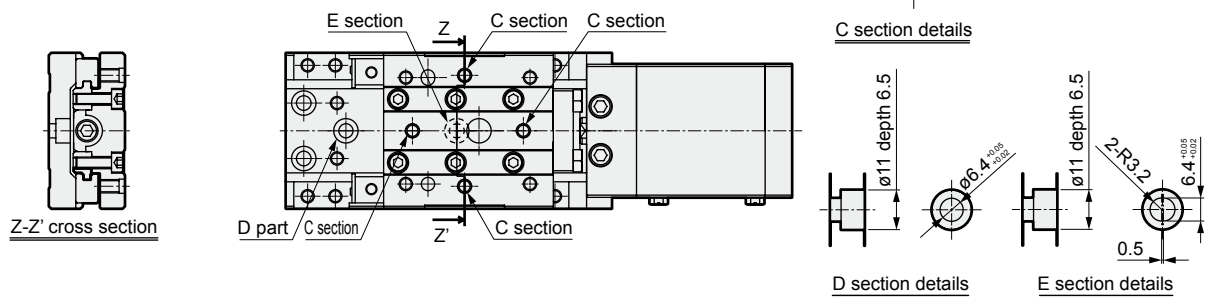
No.	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Stopper bolt	Alloy steel	Nickeling	6	Stopper block (Stopper block symbol: blank)	Steel	Nickeling
2	Hexagon nut	Alloy steel	Zinc chromate		Stopper block (stopper block symbol: T)	Alloy steel	Nitriding
3	Stopper	Aluminum alloy	Alumite	7	Hexagon socket head cap bolt	Alloy steel	Zinc chromate
4	Hexagon socket head cap bolt	Alloy steel	Zinc chromate	8	Shock absorber		
5	Cushion rubber	Urethane rubber	Only rubber cushion type stopper	9	Stop cap	Stainless steel	

Dimensions

● Double acting single rod type LCX-25, 32



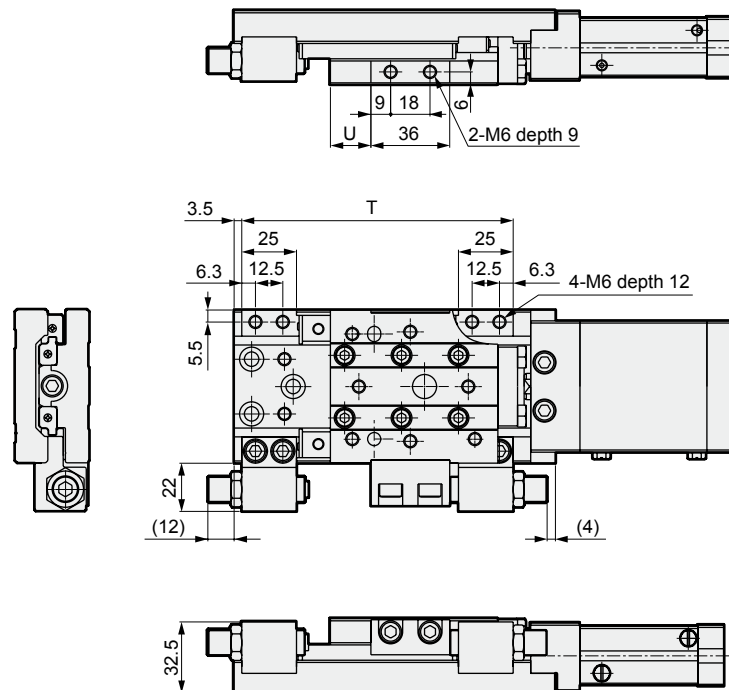
● With dowel hole LCX-25, 32-E



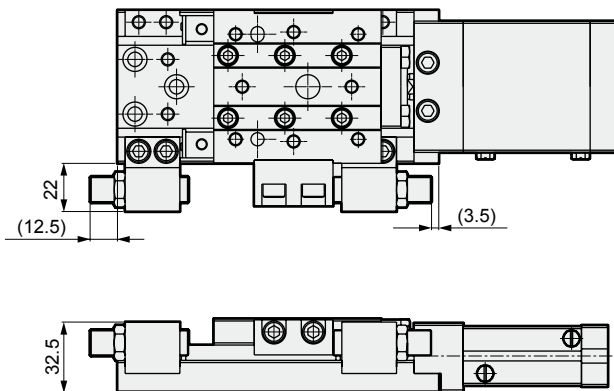
Bore size	Stroke length	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	RD			HD		
																			T0*	T2*	T2W*	T0*	T2*	T2W*
																			T5*	T3*	T3W*	T5*	T3*	T3W*
ø25	10	208		34															40	5	6.5	23.5	21.5	
	20	218	147	39	76.5	10	56	20	13	36.5		27	120	45				50						
	30	228		44							50				29.5	24.5	9.5	60						
	40	258		49	86.5	15	64	30	23	46.5		41	140	55				70						
	50	268	167	54														80						
ø32	10	208		34															40	5	6.5	23.5	21.5	
	20	218	147	39	76.5	10	56	20	13	36.5		27	120	45				50						
	30	228		44							60				31	25	9	60						
	40	258		49	86.5	15	64	30	23	46.5		41	140	55				70						
	50	268	167	54														80						

Dimensions: option

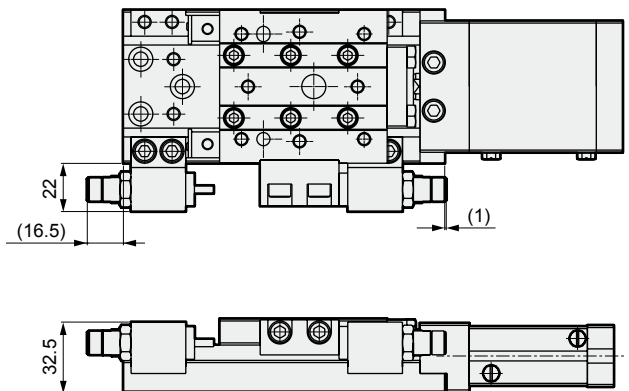
- Rubber cushion type stopper (S1 to S6)



- Metal type stopper (M1 to M6)



- Shock absorber type stopper (A1 to A6)



Note: If the adjustable stroke range is changed by the rubber cushion type stopper (S1 to S6) or metal type stopper (M1 to M6), the value within () will be changed accordingly.

Bore size	Stroke length	T	U	Adjustable stroke range (single)		
				Rubber cushion type stopper	Metal type stopper	Shock absorber type stopper
ø25	10	124	18.5	5	5	1
	20			10	10	7
	30					
	40	144	28.5	10	10	7
	50					
ø32	10	124	18.5	5	5	1
	20			10	10	7
	30					
	40	144	28.5	10	10	7
	50					