

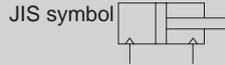


Pneumatic Cylinders II  
Catalog No. CB-030SA

Linear slide cylinder Double acting/ Single rod

# LCG Series

● Bore size:  $\phi 6/\phi 8/\phi 12/\phi 16/\phi 20/\phi 25$



## Specifications

Item		LCG					
Bore size mm		$\phi 6$	$\phi 8$	$\phi 12$	$\phi 16$	$\phi 20$	$\phi 25$
Actuation		Double acting					
Working fluid		Compressed air					
Max. working pressure MPa		0.7					
Min. working pressure MPa		0.15 (*1)					
Proof pressure MPa		1.05					
Ambient temperature °C		-10 to 60 (no freezing)					
Port size	Main body side	M3	M5			Rc1/8	
	Main body back	M3			M5	Rc1/8	
Stroke tolerance mm		+2.0 0 (*2)					
Working piston speed mm/s		50 to 500 (*3)					
Cushion		With rubber cushion					
Lubrication		Not available					
Allowable absorbed energy J		Refer to the following table.					

\*1: 0.2 MPa when using  $\phi 6$  shock absorber type stopper.

\*2: Note that there will be a slight gap between the end plate and floating bush if no stopper is attached.

\*3: Keep within 50 to 200 mm/s when using a stroke adjusting stopper.

\*4: The stroke adjusting stopper for 0.3 MPa and over working pressure is the metal sealing type.

## Stroke

Bore size (mm)	Standard Stroke (mm)
$\phi 6$	10, 20, 30, 40, 50
$\phi 8$	10, 20, 30, 40, 50, 75
$\phi 12$	10, 20, 30, 40, 50, 75, 100
$\phi 16$	10, 20, 30, 40, 50, 75, 100, 125
$\phi 20$	10, 20, 30, 40, 50, 75, 100, 125, 150
$\phi 25$	10, 20, 30, 40, 50, 75, 100, 125, 150

Note: Products with Strokes other than the above are not available.

With buffer specifications Specifications other than the below are same as the above common specifications.

Item		Description					
Bore size mm		$\phi 6$	$\phi 8$	$\phi 12$	$\phi 16$	$\phi 20$	$\phi 25$
Buffer Stroke mm		4		9		10	
Buffer part	When set N	3	5	10	13	17	21
	When operated N	7	8	14	20	25	29

\*1: In the type with buffer, adjusting the rod side Stroke will shorten the buffer Stroke and increase the spring load when set.

\*2: Keep the buffer Stroke less than the Stroke above. Otherwise, malfunctions or damage may result.

## LCG allowable absorbed energy (Eo)

Bore size	Standard (J)	With stroke adjusting stopper (J)	With shock absorber stopper (J)
$\phi 6$	0.025	0.0032	0.14
$\phi 8$	0.058	0.0032	0.25
$\phi 12$	0.112	0.014	0.25
$\phi 16$	0.176	0.043	0.65
$\phi 20$	0.314	0.055	1.3
$\phi 25$	0.314	0.14	1.3

## Related products

		Speed controller							Description page
Model No.	Appearance	Port size (Rc or R)			Compatible tube O.D.				
		M3	M5	1/8	4 ( $\phi 4$ )	6 ( $\phi 6$ )	8 ( $\phi 8$ )		
SC3W-M3*-P4		●			●			530	
SC3W-M5*-P4			●		●	●			
SC3W-6*-P4				●	●	●	●		

Specify the compatible tube O.D. code for \*.

## Compatibility table by variation

Applicable bore size		Double acting/ single rod	Double acting/ position locking
		P	Q
ø6 to 25	P4	●	●
	P40	●	●
	P42	▲	▲

●: Applicable models ○: Semi-applicable models ▲: Contact CKD for details. □: Not applicable

\*1: Even when P40 is selected for the external stopper option, electrolytic nickel plating is used for the stopper part.

\*2: If P4 is chosen, rust proofing (option code: U) is recommended for LCG-20, 25.  
(ø20, ø25 P40 has rust proofing added.)

## How to order (ø6 to ø16)

Without switch (built-in magnet for switch)



With switch (built-in magnet for switch)



Model No.

A Tube Bore size

B Stroke

D Switch quantity

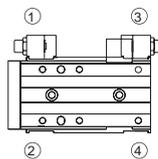
C Switch model No.

E Option

## ⚠ Precautions for model No. selection

- \*1: The port positions of the standard without stopper are ① and ③ in the figure below.
- \*2: Combination of the stroke adjusting stopper and shock absorber stopper is made to order.
- \*3: Can be selected for the type with stopper only.
- \*4: Refer to the selection table below for combinations of options.
- \*5: A1\*\*, A2\*\*, A5\*\* and A6\*\* of ø6 to ø8 with 10 mm stroke length or less and ø12/ø16 with 20 mm stroke length or less are made to order since adjustment is not possible with the standard stopper.
- \*6: When two switches are necessary for the type with S\*\*\* or A\*\*\* of ø6 to ø8 with 30 mm stroke length or less, select the F□H type switch.
- \*7: The anti-rust type is made to order.
- \*8: The stroke adjusting stopper for 0.3 MPa and over working pressure is the metal sealing type.

● Stopper position



Code	Description
<b>A Bore size</b>	
6	ø6
8	ø8
12	ø12
16	ø16
<b>B Stroke (mm)</b>	
	Bore size (ø)
	6 8 12 16
10	10 ● ● ● ●
20	20 ● ● ● ●
30	30 ● ● ● ●
40	40 ● ● ● ●
50	50 ● ● ● ●
75	75 ● ● ● ●
100	100 ● ● ● ●
125	125 ● ● ● ●
<b>C Switch model No.</b>	
Refer to the compatibility table on Intro Pages 23 to 26 for switch model No.	
<b>D Switch quantity</b>	
R	1 on rod side
H	1 on head side
D	2
<b>E Option</b>	
Blank	No option
<b>S Stroke adjusting stopper</b>	
5 mm stroke adjustment on one side *2, *4	
S1**	Stopper position ① (can be changed to ④)
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
<b>A Shock absorber stopper *2, *4</b>	
A1**	Stopper position ① (can be changed to ④)
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
<b>** part</b>	
Blank	Port on stopper: without port
D	Port on the stopper: With side and bottom ports *3
Blank	Stopper block material: Steel
T	Stopper block material: steel (nitriding) *3
<b>B With buffer *4</b>	
B	Without switch groove
BL	With switch groove
<b>Plug included</b>	
Blank	No
N	With side piping port plug (not available for ø6)

## LCG Double acting/ Single rod selection table

(Combination with stroke adjusting stopper, shock absorber stopper)

○: Available —: Not available

Model No. code	Option code		Stroke adjusting stopper						Shock absorber stopper						
	Bore size	Stroke	S1	S2	S3	S4	S5	S6	A1	A2	A3	A4	A5	A6	
LCG	ø6, ø8	10	○	○	○	○	○	○	○	—	—	○	○	—	—
		20 or more	○	○	○	○	○	○	○	○	○	○	○	○	○
LCG-B, BL	ø12 to ø25	10 to 20	○	○	○	○	○	○	○	—	—	○	○	—	—
		30 or more	○	○	○	○	○	○	○	○	○	○	○	○	○

The table above also applies to combinations with option code D (with port on stopper) or T (steel stopper block (nitriding)).

P4 Series  
Pneumatic cylinders  
Hand/ Chuck  
Related products  
Cylinder Switch  
Pneumatic actuator  
Vacuum components  
Pneumatic valves  
Clean air components  
controller  
Speed  
Pneumatic auxiliary components  
Fitting  
Auxiliary valve  
Silencer  
Tube  
Gas generator  
Fluid control components  
Electric actuator  
Motor specification

P4 Series

## How to order (ø20, ø25)

Without switch (built-in magnet for switch)



With switch (built-in magnet for switch)



Model No.

**A** Tube Bore size

**B** Stroke

**C** Switch model No.

**D** Switch quantity

**F** Anti-rust treatment

**E** Option

### ⚠ Precautions for model No. selection

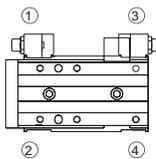
- \*1: The port positions of the standard without stopper are ① and ③ in the figure below.
- \*2: Combination of the stroke adjusting stopper and shock absorber stopper is made to order.
- \*3: Can be selected for the type with stopper only.
- \*4: Refer to the selection table below for combinations of options.
- \*5: A1\*\*, A2\*\*, A5\*\* and A6\*\* with 20 mm stroke length or less are made to order since adjustment is not possible with the standard stopper.
- \*6: The table is alloy steel. To prevent rust, select "U" for an environment where the temperature and humidity is high or condensation may occur on the product surface.
- \*7: The stroke adjusting stopper for 0.3 MPa and over working pressure is the metal sealing type.

### Rust-proof (ø20,25)



Anti-corrosion treatment is applied to the table surface and rail surface to reduce the occurrence of rust in humid environments such as near ionizers. The table and rail are black.

● Stopper position



Code	Description
<b>A Bore size</b>	
20	ø20
25	ø25
<b>B Stroke (mm)</b>	
10	10
20	20
30	30
40	40
50	50
75	75
100	100
125	125
150	150
<b>C Switch model No.</b>	
Refer to the compatibility table on Intro Pages 23 to 26 for switch model No.	
<b>D Switch quantity</b>	
R	1 on rod side
H	1 on head side
D	2
<b>E Option</b>	
Blank	No option
<b>S Stroke adjusting stopper</b>	
5 mm stroke adjustment on one side *2, *4	
S1**	Stopper position ① (can be changed to ④)
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
<b>A Shock absorber stopper *2, *4</b>	
A1**	Stopper position ① (can be changed to ④)
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
<b>** part</b>	
Blank	Port on stopper: without port
D	Port on the stopper: With side and bottom ports *3
Blank	Stopper block material: Steel
T	Stopper block material: Steel (Nitriding) *3
<b>B With buffer</b> *4	
B	Without switch groove
BL	With switch groove
<b>Plug included</b>	
Blank	None
N	With side piping port plug (not available for ø25)
<b>F Anti-rust treatment</b>	
Blank	None
U	Rust proof (guide only) *6

## LCG Double acting/ Single rod selection table

(Combination with stroke adjusting stopper, shock absorber stopper)

○: Available —: Not available

Model No. code	Option code		Stroke adjusting stopper						Shock absorber stopper					
	Bore size	Stroke	S1	S2	S3	S4	S5	S6	A1	A2	A3	A4	A5	A6
LCG	ø6, ø8	10	○	○	○	○	○	○	—	—	○	○	—	—
		20 or more	○	○	○	○	○	○	○	○	○	○	○	○
	ø12 to ø25	10 to 20	○	○	○	○	○	○	—	—	○	○	—	—
		30 or more	○	○	○	○	○	○	○	○	○	○	○	○

The table above also applies to a combination with option code D (with port on the stopper) or T (alloy steel stopper block (nitriding)).