

# Fine Lock Cylinder/Double Acting Single Rod

## Series *CLG1*

ø20, ø25, ø32, ø40

### How to Order

#### Standard

CLG1 L N 25 100 E

#### With auto switch

CDLG1 L N 25 100 E C73 L

Auto switch  
fine lock cylinder

Mounting

B	Basic
L	Axial foot
F	Front flange
G	Rear flange
U	Front trunnion
T	Rear trunnion
D	Clevis

\* Mounting accessories are not mounted, should be order separate. Please refer order keys in next pages.

Style

N	Non-lube/Rubber bumper
A	Non-lube/Air cushion

Bore size

20	20mm
25	25mm
32	32mm
40	40mm

Cylinder stroke (mm)

Bore (mm)	Standard stroke (mm)	Long stroke (mm)
20	25, 50, 75, 100, 125, 150, 200	201 to 350
25	25, 50, 75, 100, 125, 150, 200, 250	301 to 400
32	25, 50, 75, 100, 125, 150, 200, 250, 300	301 to 450
40	250, 300	301 to 800

\* Intermediate strokes are also available.

Lead wire length

Nil	0.5m
L	3m
Z	5m

Auto switch type

Select an applicable auto switch model from the table below

Lock operation

E	Spring lock (Exhaust lock)
P	Pneumatic lock (Pressurized lock)
D	Spring and pneumatic lock

Cylinder rod boot

—	Without rod boot
J	Nylon tarpaulin
K	Heat resistant tarpaulin

#### Applicable Auto Switches/Refer to p.5.3-2 for further information on auto switch.

Style	Special function	Electrical entry	Indicator	Wiring (Output)	Load voltage		Auto switch model	Lead wire (m)*				Applicable load			
					DC	AC		0.5 (—)	3 (L)	5 (Z)	None (N)				
Reed switch	—	Grommet	Yes	3 wire (NPN equiv.)	—	5V	—	C76	●	●	—	—	IC	—	
				2 wire	12V	—	B53	●	●	●	—	—	PLC		
						200V or less	B54	●	●	●	—				
						100V	B64	●	●	—	—				
						100V	C73	●	●	●	—				
		Connector			5V, 12V	≤ 100V	C80	●	●	—	—	IC	Relay PLC		
	12V				—	C73C	●	●	●	●	—				
	5V, 12V				≤ 24V	C80C	●	●	●	●	IC				
	—				—	B59W	●	●	—	—	—				
Diagnostic indication (2 colour)	Grommet	No	—	—	B59W	●	●	—	—	—					
Solid state switch	—	Grommet	Yes	3 wire (NPN)	5V, 12V	—	H7A1	●	●	○	—	IC	Relay PLC		
				3 wire (PNP)			H7A2	●	●	○	—	—			
		Connector		2 wire			12V	H7B	●	●	○	—		—	
				3 wire (NPN)			5V, 12V	H7C	●	●	●	●		—	
	Grommet			3 wire (PNP)	H7NW			●	●	○	—	IC			
				2 wire	12V			H7PW	●	●	○	—		—	
				2 wire	12V			H7BW	●	●	○	—		—	
				4 wire (NPN)	5V, 12V		H7BA	—	●	○	—	—			
					—		H7NF	●	●	○	—	IC			
					—		H7LF	●	●	○	—	—			
					5V, 12V		G5NT	—	●	○	—	IC			
				3 wire (NPN)	5V, 12V		—	—	—	—	—	—			

\*Lead wire length symbol 0.5m ..... — (Example) H7C  
3m ..... L H7CL  
5m ..... Z H7CZ  
None ..... N H7CN

\* Solid state switches marked with a "○" are manufactured upon receipt of order.

CL

MLG

CNA

CNG

MNB

CNS

CLS

CB

CV/MVG

CXW

CXS

CXT

MX

MXU

MXH

MXS

MXQ

MXF

MXW

MXP

MG

MGP

MGQ

MGG

MGC

MGF

MGZ

CY

MY

# Series CLG1

Provided with a compact locking mechanism, it is suitable for intermediate stops, for emergency stops, and for drop prevention.

## Locks in both directions

The piston rod can be locked in either direction of its cylinder stroke.



## Model

Series	Style	Action	Cushion	Piston seal	Bore (mm)	Lock operation
CLG1□N	Non-lube style	Double acting	Rubber bumper	Special seal	20, 25, 32, 40	Spring lock (Exhaust lock), Pneumatic lock (Pressurized lock), Spring and pneumatic lock
CLG1□A			Air cushion			

## Specifications

Fluid	Air
Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.08MPa
Ambient and fluid temperature	Without auto switch: -10°C to +70°C (No freezing) With auto switch: -10°C to +60°C
Piston speed	50 to 500mm/sec*
Thread tolerance	JIS Class 2
Stroke length tolerance	to 800st <sup>+1.4</sup> <sub>0</sub> mm
Mounting**	Basic, Axial foot, Front flange, Rear flange, Front trunnion, Rear trunnion, Clevis (Used when port position is changed to 90°.)

\* Constraints associated with the allowable kinetic energy are imposed on the speeds at which the piston can be locked. To lock the piston in the stationary state for the purpose of drop prevention, the piston can be locked up to a maximum speed of 1000mm/s.

\*\* The long stroke style is applicable to the basic style, the axial foot style, and the front flange style.

## Fine Lock Specifications

Lock operation	Spring lock (Exhaust lock)	Spring/pneumatic lock	Pneumatic lock (Pressurized lock)
Fluid	Air		
Max. operating press.	0.5MPa		
Lock release press.	0.3MPa or more		0.1MPa or more
Lock starting press.	0.25MPa or less		0.05MPa or more
Lock direction	Both directions		

## Accessories

Mounting		Basic	Axial foot	Front flange	Rear flange	Front trunnion	Rear trunnion	Clevis
Standard	Rod end nut	●	●	●	●	●	●	●
	Clevis pin	—	—	—	—	—	—	●
Option	Single knuckle joint	●	●	●	●	●	●	●
	Double knuckle joint (With pin)	●	●	●	●	●	●	●
	Pivot bracket	—	—	—	—	●	●	●
	Rod boot	●	●	●	●	●	●	●

## Standard Stroke

Bore (mm)	Standard stroke (mm)	Long stroke (mm)
20	25, 50, 75, 100, 125, 150, 200	201 to 350
25	25, 50, 75, 100,	301 to 400
32	125, 150, 200,	301 to 450
40	250, 300	301 to 800

\* Intermediate strokes are available.

## Rod Boot Material

Symbol	Material	Max. ambient temp.
J	Nylon tarpaulin	60°C
K	Heat resistant tarpaulin	110°C*

\* Max. ambient temperature for rod boot

## Minimum Strokes for Auto Switch Mounting

Due to the space requirements for installing auto switches, the minimum cylinder strokes are as shown in the table below.

Model	Number of auto switches	
	1	2
D-B5/B6 D-C7/C8 D-H7 D-G5/K5	10mm	15mm
D-B59W	15mm	20mm
D-H7LF	10mm	20mm