

Standard: Double Acting Single Rod

Series CG1

ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order

Standard

CG1 L N 25 100

With auto switch

CDG1 L N 25 100 B53

With auto switch
(magnet)

Mounting

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



* Not available for bore sizes ø80 and ø100.
** Mounting brackets are included, not mounted.

Cushion

N	Rubber bumper
A	Air cushion

Rod boot (at one side)

—	Without rod boot
J	Nylon tarpaulin
K	Heat resistant tarpaulin

* Foot brackets and front flanges are fitted when rod boots are mounted.

Number of auto switches

—	2
S	1
n	n

Auto switch

—	Without auto switch (Built-in magnet)
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* Refer to the table below for selecting applicable auto switches.

Bore size

20	20mm	50	50mm
25	25mm	63	63mm
32	32mm	80	80mm
40	40mm	100	100mm

Cylinder stroke (mm)

Refer to p.1.7-3 for Standard Stroke Table.

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	Applicable bore size		0.5 (—)	3 (L)	5 (Z)	None (N)											
							ø20 to ø63	ø20 to ø100															
Reed switch	—	Grommet	Yes	3 wire (NPN)	—	5V	—	C76	—	●	●	—	—	IC	—								
			No	2 wire	24V	12V	200V or less	—	B53	●	●	●	—	—	PLC								
								—	B54	●	●	●	—	—	Relay PLC								
								—	B64	●	●	—	—										
		Yes	12V			100V	C73	—	●	●	●	—	—	Relay PLC									
		No	5V, 12V			100V or less	C80	—	●	●	—	—			IC								
	Connector	Yes	12V			—	C73C	—	●	●	●	●	—	—									
		No	5V, 12V			24V or less	C80C	—	●	●	●	●	IC	—									
Diagnostic indication (2 color)	Grommet	Yes	—	—	—	B59W	●	●	—	—	—	—	—	—									
Solid state switch	—	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	—	H7A1	G59	●	●	○	—	IC	Relay PLC								
				3 wire (PNP)				H7A2	G5P	●	●	○	—										
		Connector		2 wire				12V	H7B	K59	●	●	○	—		—							
				H7C				—	●	●	●	●	—	—									
	Diagnostic indication (2 color)	Grommet		3 wire (NPN)		5V, 12V		H7NW	G59W	●	●	○	—	IC									
				3 wire (PNP)				H7PW	G5PW	●	●	○	—										
				2 wire				12V	H7BW	K59W	●	●	○			—	—						
				H7BA				G5BA	—	●	○	—	—										
			Water resistant (2 color)	Grommet		3 wire (NPN)		5V, 12V	—	G5NT	—	●	○	—		IC							
						4 wire (NPN)			H7NF	G59F	●	●	○	—			—						
									With timer	Grommet	Yes	4 wire (NPN)	5V, 12V	—			H7LF	—	●	●	○	—	—

* Lead wire length 0.5m.....— 3m.....L e.g.) C73C 5m.....Z e.g.) C73CZ C73CL None.....N C73CN

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

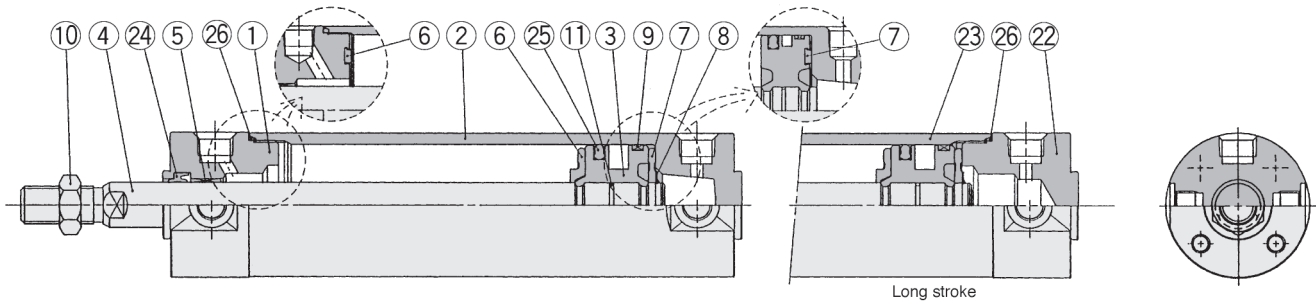
Standard: Double Acting Single Rod *Series CG1*

Construction

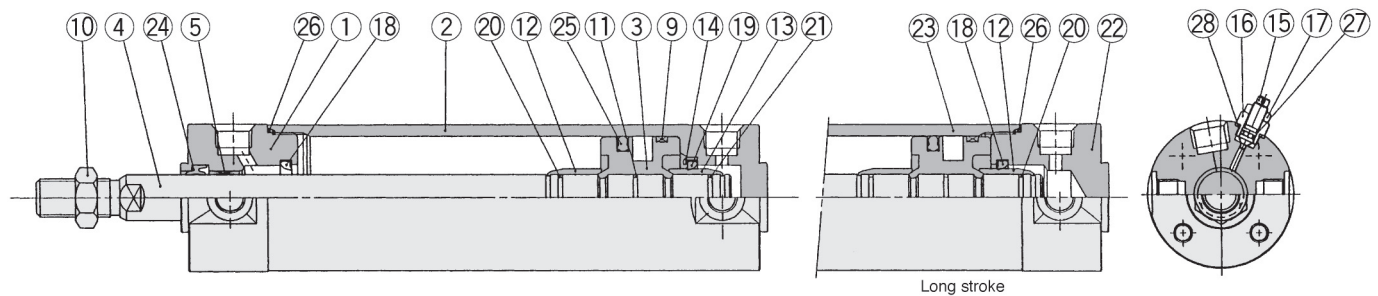
With rubber bumper

ø80, ø100

ø80, ø100



With air cushion



Component Parts

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	White hard anodized
②	Tube cover	Aluminum alloy	White hard anodized
③	Piston	Aluminum alloy	Chromated
④	Piston rod	Carbon steel	Hard chrome plated
⑤	Bushing	Oil impregnated sintered alloy	ø40 or larger: Lead bronze cast
⑥	Bumper A	Urethane	
⑦	Bumper B	Urethane	ø40 or larger: the same as damper A
⑧	Snap ring	Stainless steel	Except for ø80 and ø100
⑨	Wear ring	Resin	
⑩	Rod end nut	Rolled steel	Nickel plated
⑪	Piston gasket	NBR	
⑫	Cushion ring A	Brass	
⑬	Cushion ring B	Brass	ø32 or more: the same as A
⑭	Seal retainer	Rolled steel	Nickel plated/Except for long stroke
⑮	Cushion valve	Rolled steel	Electroless nickel plated
⑯	Valve retainer	Rolled steel	Electroless nickel plated
⑰	Lock nut	Rolled steel	Nickel plated
⑱	Cushion seal A	Urethane	
⑲	Cushion seal B	Urethane	ø32 or larger: the same as A *
⑳	Cushion ring gasket A	NBR	
㉑	Cushion ring gasket B	NBR	ø32 or larger: the same as A
㉒	Head cover	Aluminum alloy	White hard anodized
㉓	Cylinder tube	Aluminum alloy	Hard anodized

Note) A magnet is equipped on the piston of the cylinder with auto switch.

* The material is stainless steel on auto switch equipped styles ø20 and ø25.

Replacement Parts/With rubber bumper

No.	Description	Material	Bore size (mm)/Part No.							
			ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
㉔	Rod seal	NBR	PDU-8Z	PDU-10Z	PDU-12LZ	PDU-16Z	PDU-20Z	PDU-20Z	PDU-25Z	PDU-30Z
㉕	Piston seal	NBR	PPD-20	PPD-25-19	PPD-32	PPD-40	PPD-50	PPD-63	PPD-80	PPD-100
㉖	Tube gasket	NBR	CM-020-16-123	CM-025-16-124	CM-032-16-126	CM-040-16-127	CM-050-16-128	CM-063-16-129	CM-080-16-152	CM-100-16-153

With air cushion (Parts ㉔ to ㉖ are the same as rubber bumper style.)

㉗	Valve seal	NBR	O ring ø4.5 X ø2.5 X ø1				O ring ø5.5 X ø3.5 X ø1		O ring ø6.5 X ø4.5 X ø1	
㉘	Gasket for valve retainer	NBR	O ring ø6.4 X ø5.2 X ø0.6				O ring ø7.4 X ø5.8 X ø0.8		O ring ø11.4 X ø9.4 X ø1	

CJ1

CJP

CJ2

CM2

C85

C76

CG1

MB

MB1

CP95

C95

C92

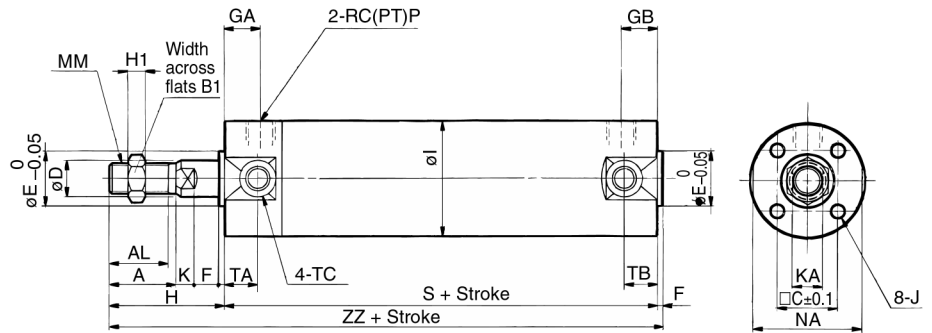
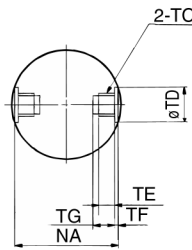
CA1

CS1

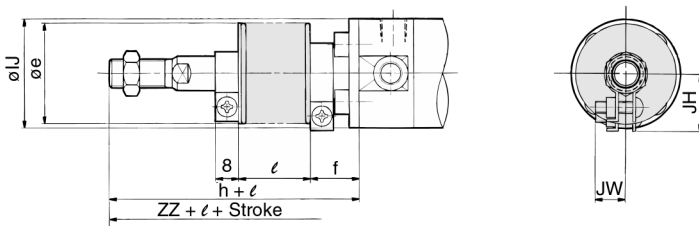
Series CG1

Basic/CG1BN: With Rubber Bumper

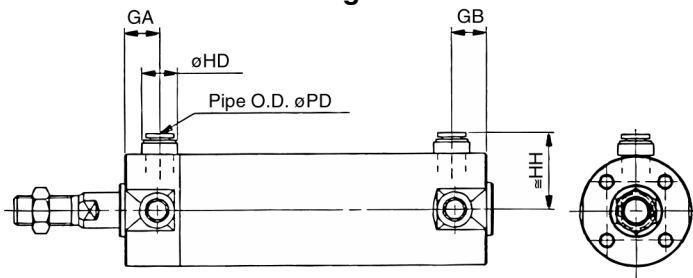
TA/TB cross section



Basic: With rod boot

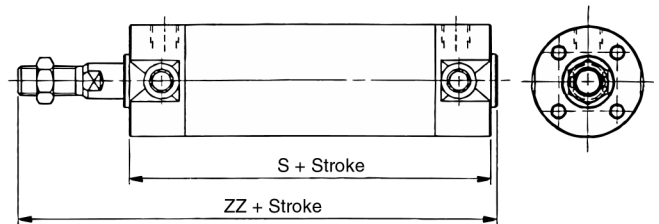


Built-in One-touch fitting



Other dimensions are the same as standard.

Air-hydro



Other dimensions are the same as the long stroke standard.

Bore (mm)	Standard stroke (mm)	Long stroke (mm)	A	AL	B1	C	D	E	F	GA	GB	H	H1	I	J	K	KA	MM	NA	P	S	TA	TB	ZZ
20	Up to 200	201 to 350	18	15.5	13	14	8	12	2	12	12	35	5	26	M4 Depth 7	5	6	M8	24	1/8	69 (77)	11	11	106 (114)
25	Up to 300	301 to 400	22	19.5	17	16.5	10	14	2	12	10 (12)	40	6	31	M5 Depth 7.5	5.5	8	M10 X 1.25	29	1/8	69 (77)	11	11	111 (119)
32	Up to 300	301 to 450	22	19.5	17	20	12	18	2	12	10 (12)	40	6	38	M5 Depth 8	5.5	10	M10 X 1.25	35.5	1/8	71 (79)	11	10 (11)	113 (121)
40	Up to 300	301 to 800	30	27	19	26	16	25	2	13	10 (13)	50	8	47	M6 Depth 12	6	14	M14 X 1.5	44	1/8	78 (87)	12	10 (12)	130 (139)
50	Up to 300	301 to 1200	35	32	27	32	20	30	2	14	12 (14)	58	11	58	M8 Depth 16	7	18	M18 X 1.5	55	1/4	90 (102)	13	12 (13)	150 (162)
63	Up to 300	301 to 1200	35	32	27	38	20	32	2	14	12 (14)	58	11	72	M10 Depth 16	7	18	M18 X 1.5	69	1/4	90 (102)	13	12 (13)	150 (162)
80	Up to 300	301 to 1400	40	37	32	50	25	40	3	20	16 (20)	71	13	89	M10 Depth 22	10	22	M22 X 1.5	80	3/8	108 (122)	—	—	182 (196)
100	Up to 300	301 to 1500	40	37	41	60	30	50	3	20	16 (20)	71	16	110	M12 Depth 22	10	26	M26 X 1.5	100	1/2	108 (122)	—	—	182 (196)

Note 1) (): Long stroke

Note 2) Trunnion mounting taps with width across flats NA are not attached for bore size 80 and 100.

TA/TB cross section

(mm)

Bore (mm)	TC*	TDH9	TE	TF	TG
20	M5	8 ^{+0.08} ₀	4	0.5	5.5
25	M6 X 0.75	10 ^{+0.08} ₀	5	1	6.5
32	M8 X 1.0	12 ^{+0.08} ₀	5.5	1	7.5
40	M10 X 1.25	14 ^{+0.08} ₀	6	1.25	8.5
50	M12 X 1.25	16 ^{+0.08} ₀	7.5	2	10
63	M14 X 1.5	18 ^{+0.08} ₀	11.5	3	14.5
80	—	—	—	—	—
100	—	—	—	—	—

With rod boot

(mm)

Bore (mm)	e	f	h	IJ	JH	JW	ℓ	ZZ
20	30	16	55	27	(14.5)	(11.5)	0.25 stroke	126 (134)
25	30	17	62	32	(17.5)	(11.5)		133 (141)
32	35	17	62	38	(19.5)	(11.5)		135 (143)
40	35	17	70	48	(22.5)	(13)		150 (159)
50	40	17	78	59	(25)	(13)		170 (182)
63	40	18	78	72	(25)	(13)		170 (182)
80	52	10	80	59	—	—		191 (205)
100	62	7	80	71	—	—		191 (205)

* The minimum stroke for rod boot equipped style is 20mm.

Built-in One-touch fitting

Air-hydro

Bore (mm)	GA	GB	HD	HH	PD	Bore (mm)	S	ZZ
20	12	10 (12)	13	24.2	6	20	70	107
25	12	10 (12)	13	26.7	6	25	70	112
32	12	10 (12)	13	30.2	6	32	72	114
40	12	10 (12)	16	34.6	8	40	80	132
50	13	13	20	40.6	10	50	95	155
63	13	13	20	47.1	10	63	95	155

Note) (): Long stroke