

Standard: Double Acting Double Rod

Series CG1W

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

How to Order

Standard

CG1W L N 25 100

With auto switch

CDG1W L N 25 100 B53

With auto switch (magnet)

Double acting/Double rod

Mounting

B	Basic
L	Axial foot
F	Front flange
U*	Front trunnion

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

Cushion

N	Rubber bumper
A	Air cushion

Bore size

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

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

Applicable auto switch

—	Without auto switch (Built-in magnet)
S	Without auto switch (Built-in magnet)
n	Without auto switch (Built-in magnet)

* Refer to the table below for selecting applicable auto switches.

Rod boot

—	Without rod boot
One side	J Nylon tarpaulin
Both sides	KK Heat resistant tarpaulin

* In case of foot brackets and front flanges, rod boots are mounted when shipped.

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	—	
				2 wire	24V	12V	—	—	B53	●	●	●	—	—		PLC
			200V or less				—	B54	●	●	●	—	—			
			—			—	B64	●	●	—	—					
		100V	C73			—	●	●	●	—		—				
		5V, 12V	100V or less	C80	—	●	●	—	—	IC						
		Connector	No	12V	—	C73C	—	●	●	●	●	—	—			
				5V, 12V	24V or less	C80C	—	●	●	●	●	—		IC		
—	—			B59W	●	●	—	—	—							
—	—			—	—	—	—	—		—	—	—				
Diagnostic indication (2 colour)	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	—	●	●	●	●	—		—
	Grommet	3 wire (NPN)		5V, 12V				—	H7NW	G59W	●	●	○	—		IC
		3 wire (PNP)							H7PW	G5PW	●	●	○	—		—
		2 wire	12V		H7BW	K59W	●		●	○	—	—				
		—	H7BA		G5BA	—	●		○	—	—					
		3 wire (NPN)	—		G5NT	—	●		○	—	—					
		4 wire (NPN)	5V, 12V		H7NF	G59F	●		●	○	—	IC				
					—	—	—		—	—	—	—	—			
					—	—	—		—	—	—	—	—			
—	—			—	—	—	—	—	—							

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

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

Standard: Double Acting Double Rod *Series CG1W*



Specifications

Bore size (mm)	20	25	32	40	50	63	80	100
Action	Double acting/Double rod							
Lubrication	Non-lube							
Fluid	Air							
Proof pressure	1.5MPa							
Max. operating pressure	1.0MPa							
Min. operating pressure	0.05MPa							
Ambient and fluid temperature	Without auto switch: -10°C to +70°C (No freezing)							
	With auto switch: -10°C to +60°C (No freezing)							
Piston speed	50 to 1000mm/s						50 to 700mm/s	
Stroke tolerance	Up to 1000 ^{+1.4} ₀ mm,						Up to 1000 ^{+1.4} ₀ mm	
	Up to 1200 ^{+1.8} ₀ mm						Up to 1500 ^{+1.8} ₀ mm	
Thread tolerance	JIS class 2							
Cushion	Rubber bumper/Air cushion							
Mounting*	Basic, Axial foot, Front flange, Front trunnion							



* Front trunnion style is not available for bore sizes ø80 and ø100. ** No freezing

Accessories

Mounting		Basic	Axial foot	Front flange	Front trunnion
Standard	Rod end nut	●	●	●	●
	Single knuckle joint	●	●	●	●
	Double knuckle joint** (With pins)	●	●	●	●
	Pivot bracket*	—	—	—	●*
	Rod boot	●	●	●	●

* Pivot bracket is not available for bore size ø80 and ø100.

** Pins and snap rings for double knuckle joint are included, not mounted.

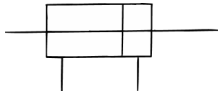
Stroke

Bore size(mm)	Standard stroke (mm) ⁽¹⁾	Long stroke (mm)	Max. stroke
20	25, 50, 75, 100, 125, 150, 200	201 to 350	1500
25	25, 50, 75, 100, 125, 150, 200 250, 300	301 to 400	
32		301 to 450	
40		301 to 800	
50/63		301 to 1200	
80		301 to 1400	
100		301 to 1500	

Note 1) Other intermediate strokes can be manufactured upon receipt of order. Spacers are not used for the intermediate strokes. Refer to p.1.7-17 to 1.7-19 for dimensions.

Note 2) Long stroke applies to the axial foot style and the front flange style. If other mounting brackets are used, or the length exceeds the long stroke limit, the stroke should be determined based on the stroke selection table in the technical data.

JIS symbol



Made to Order

Refer to p.5.4-1 for made to order products of series CG1.

Mounting Bracket

Refer to p.1.7-19 for part numbers of the mounting brackets.

Auto Switch Mounting Band

Refer to p.1.7-19 for part numbers of the mounting bands.

With Auto Switch

The auto switch can be mounted. Refer to p.1.7-12 to 1.7-14 for the details.

Rod Boot Materials

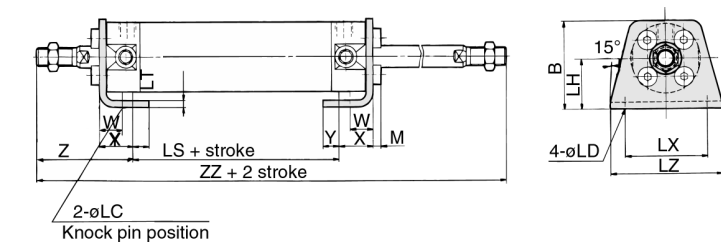
Symbol	Material	Max. operating temp
J	Nylon tarpaulin	70°C
K	Heat resistant tarpaulin	110°C*

* Maximum ambient temperature for the rod boot only.

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With Mounting Bracket

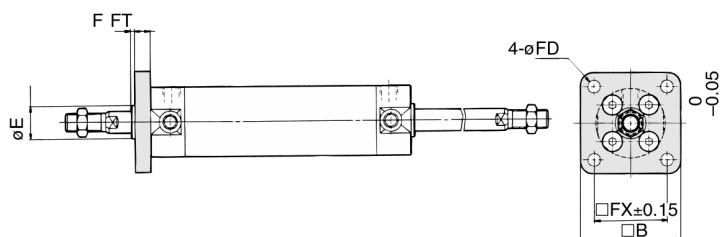
Axial foot/CG1WLN



Foot

Bore (mm)	Stroke range (mm)	B	LC	LD	LH	LS	LT	LX	LZ	M	W	X	Y	Z
20	Up to 350	34	4	6	20	53	3	32	44	3	10	15	7	47
25	Up to 400	38.5	4	6	22	53	3	36	49	3.5	10	15	7	52
32	Up to 450	45	4	6.6	25	53	3	44	58	3.5	10	16	8	53
40	Up to 800	54.5	4	6.6	30	60	3	54	71	4	10	16.5	8.5	63.5
50	Up to 1200	70.5	5	9	40	67	4.5	66	86	5	17.5	22	11	75.5
63	Up to 1200	82.5	5	11	45	67	4.5	82	106	5	17.5	22	13	75.5
80	Up to 1400	101	6	11	55	74	4.5	100	125	5	20	28.5	14	95
100	Up to 1500	121	6	14	65	74	6	120	150	7	20	30	16	95

Front flange/CG1WFN

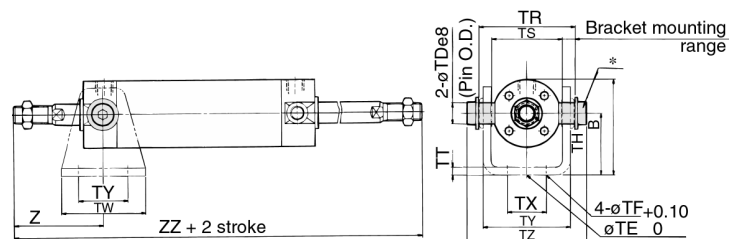


Front flange

Bore (mm)	Stroke range (mm)	B	E	F	FX	FD	FT
20	Up to 350	40	12	2	28	5.5	6
25	Up to 400	44	14	2	32	5.5	7
32	Up to 450	53	18	2	38	6.6	7
40	Up to 800	61	25	2	46	6.6	8
50	Up to 1200	76	30	2	58	9	9
63	Up to 1200	92	32	2	70	11	9
80	Up to 1400	104	40	3	82	11	11
100	Up to 1500	128	50	3	100	14	14

* End boss is machined on the flange for øE.

Front trunnion/CG1WUN



Front trunnion

Bore (mm)	Stroke range (mm)	B	TDe8	TE	TF	TH	TR	TS
20	Up to 200	38	8 ^{-0.025/0.047}	10	5.5	25	39	28
25	Up to 300	45.5	10 ^{-0.025/0.047}	10	5.5	30	43	33
32	Up to 300	54	12 ^{-0.032/0.059}	10	6.6	35	54.5	40
40	Up to 500	63.5	14 ^{-0.032/0.059}	10	6.6	40	65.5	49
50	Up to 600	79	16 ^{-0.032/0.059}	20	9	50	80	60
63	Up to 600	96	18 ^{-0.032/0.059}	20	11	60	98	74

								(mm)
Bore (mm)	TT	TV	TW	TX	TY	TZ	Z	
							Without rod boot	With rod boot
20	3.2	35.8	42	16	28	47.6	46	66 + ℓ
25	3.2	39.8	42	20	28	53	51	73 + ℓ
32	4.5	49.4	48	22	28	67.7	51	73 + ℓ
40	4.5	58.4	56	30	30	78.7	62	82 + ℓ
50	6	72.4	64	36	36	98.6	71	91 + ℓ
63	8	90.4	74	46	46	119.2	71	91 + ℓ

* Consists of pins, flat washer and hexagon socket head cap bolt.

Mounting Bracket Part No.

Mounting bracket	Bore size (mm)							
	20	25	32	40	50	63	80	100
Axial foot*	CG-L020	CG-L025	CG-L032	CG-L040	CG-L050	CG-L063	CG-L080	CG-L100
Flange	CG-F020	CG-F025	CG-F032	CG-F040	CG-F050	CG-F063	CG-F080	CG-F100
Trunnion pin	CG-T020	CG-T025	CG-T032	CG-T040	CG-T050	CG-T063	—	—
Pivot bracket	CG-020-24A	CG-025-24A	CG-032-24A	CG-040-24A	CG-050-24A	CG-063-24A	—	—

* Order two foot brackets per a cylinder.

** Mounting bolts are attached for the foot and the flange styles.

Auto Switch Mounting Bracket Part No.

Auto switch model	Bore size (mm)							
	20	25	32	40	50	63	80	100
D-C7, C8	BMA2	BMA2	BMA2	BMA2	BMA2	BMA2	—	—
D-H7	-020	-025	-032	-040	-050	-063	—	—
D-B5, B6	BA-01	BA-02	BA-32	BA-04	BA-05	BA-06	BA-08	BA-10
D-G5, K5								



Note) A set of following stainless steel mounting screws is attached. (A switch mounting band is not attached. Please order the band separately.)

BBA3: D-B5/B6/G5 types

BBA4: D-C7/C8/H7 types

* "D-G5BAL" and "D-H7BAL" switches are set on the cylinder with the screws above when shipped.

When a switch only is shipped, "BBA3" or "BBA4" screws are attached.