

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

Cylinder stroke (mm)

Refer to p.1.7-15 for Standard Stroke Table.

Applicable auto switch

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

Number of auto switches

—	2
S	1
n	n

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.

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	—	—	B53	●	●	●	—	—	PLC	
			200V or less			—	B54	●	●	●	—	—	—		
			100V			—	B64	●	●	—	—				
		Connector	5V, 12V			100V or less	C80	—	●	●	—	—	IC	Relay PLC	
			12V	—	C73C	—	●	●	●	●	—				
			5V, 12V	24V or less	C80C	—	●	●	●	●	IC				
			—	—	B59W	●	●	—	—	—					
Diagnostic indication (2 colour)	Grommet	Yes													
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 colour)	Grommet	3 wire (NPN)	5V, 12V	H7NW	G59W	●	●	○	—	IC				
			3 wire (PNP)	H7PW	G5PW	●	●	○	—	—					
			2 wire	12V	H7BW	K59W	●	●	○	—	—				
			H7BA	G5BA	—	●	○	—	—						
			—	G5NT	—	●	○	—	—						
			5V, 12V	H7NF	G59F	●	●	○	—	IC					
	Diagnostic output (2 colour)	Grommet	Yes	4 wire (NPN)	—	—	H7LF	—	●	●	○	—	—		
	Latch with diagnostic output (2 colour)														

*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.

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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.

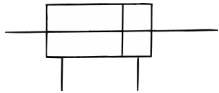
Stroke

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.

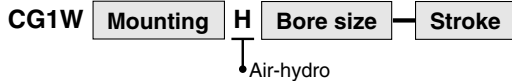
Rod Boot Materials

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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Air-hydro



A low hydraulic pressure cylinder used at a pressure of 1.0MPa or below. Through the concurrent use of a CC series air-hydro unit, it is possible to operate at a constant or low speed or to effect an intermediate stop, just like a hydraulic unit, while using pneumatic equipment such as a valve.

Specifications

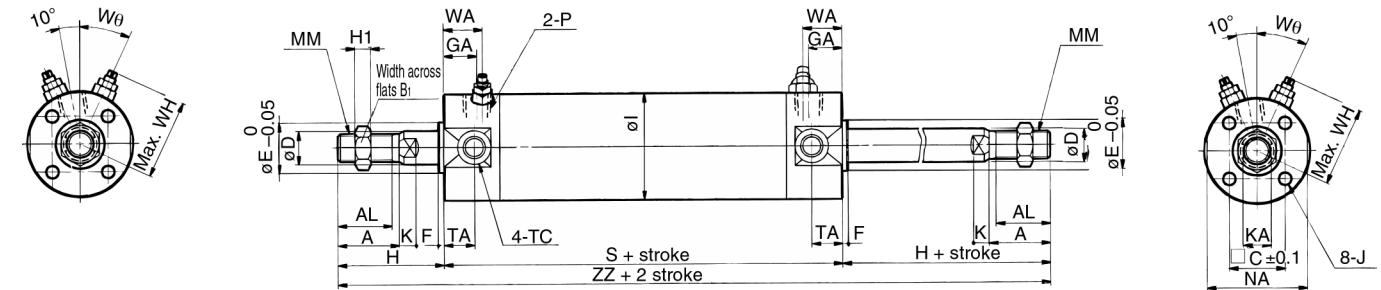
Style	Air-hydro Cylinder
Bore size (mm)	ø20, ø25, ø32, ø40, ø50, ø63
Action	Double acting
Fluid	Turbine oil
Proof pressure	1.5MPa
Max. operating pressure	1.0MPa
Min. operating pressure	0.18MPa
Piston speed	15 to 300mm/s
Cushion	None
Ambient and fluid temperature	+5 to 60°C
Thread tolerance	JIS class 2
Stroke tolerance	Up to 1000 ^{+1.4} ₀ mm, Up to 1200 ^{+1.8} ₀ mm
Mounting	Basic, Axial foot, Front flange, Front trunnion.

* Auto switch can be mounted.

Bore size	ø20	ø25	ø32	ø40	ø50	ø63
S	70	70	72	80	95	95
ZZ	140	150	152	180	211	211

Other dimensions are the same as double rod standard (p.1.7-18).

Basic CG1WBA: With Air Cushion



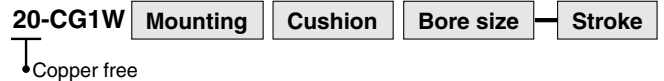
* Refer to rubber bumper equipped type for rod boot equipped type. (mm)

Bore size (mm)	Standard stroke range (mm)	Long stroke range (mm)	A	AL	B ₁	C	D	E	F	GA	H	H ₁	I	J	K	KA
20	Up to 200	201 to 350	18	15.5	13	14	8	12	2	12	35	5	26	M4 Depth 7	5	6
25	Up to 300	301 to 400	22	19.5	17	16.5	10	14	2	12	40	6	31	M5 Depth 7.5	5.5	8
32	Up to 300	301 to 450	22	19.5	17	20	12	18	2	12	40	6	38	M5 Depth 8	5.5	10
40	Up to 300	301 to 800	30	27	19	26	16	25	2	13	50	8	47	M6 Depth 12	6	14
50	Up to 300	301 to 1200	35	32	27	32	20	30	2	14	58	11	58	M8 Depth 16	7	18
63	Up to 300	301 to 1200	35	32	27	38	20	32	2	14	58	11	72	M10 Depth 16	7	18
80	Up to 300	301 to 1400	40	37	32	50	25	40	3	20	71	13	89	M10 Depth 22	10	22
100	Up to 300	301 to 1500	40	37	41	60	30	50	3	20	71	16	110	M12 Depth 22	10	26

Bore size (mm)	MM	NA	P	S	TA	TC**	ZZ	WA	WH	Wθ
20	M8	24	M5	77	11	M5	147	16	23	30°
25	M10 X 1.25	29	M5	77	11	M6 X 0.75	157	16	25	30°
32	M10 X 1.25	35.5	Rc(PT)1/8	79	11	M8 X 1.0	159	16	28.5	25°
40	M14 X 1.5	44	Rc(PT)1/8	87	12	M10 X 1.25	187	16	33	20°
50	M18 X 1.5	55	Rc(PT)1/4	102	13	M12 X 1.25	218	18	40.5	20°
63	M18 X 1.5	69	Rc(PT)1/4	102	13	M14 X 1.5	218	18	47.5	20°
80	M22 X 1.5	80	Rc(PT)3/8	122	—	—	264	22	60.5	20°
100	M26 X 1.5	100	Rc(PT)1/2	122	—	—	264	22	71	20°

* Refer to p.1.6-19 for mounting brackets.
** Trunnion mounting taps with width across flats NA are not attached for bore sizes ø80 and ø100.

Copper Free



This cylinder eliminates any influences of copper ions or fluororesins on colour CRTs. Copper materials have been nickel plated or replaced with non-copper materials to prevent the generation of copper ions.

Specifications

Bore (mm)	ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100	
Action	Double acting	
Fluid	Air	
Max. operating pressure	1.0MPa	
Min. operating pressure	0.05MPa	
Cushion	N	Rubber bumper
	A	Air cushion
Piston speed	ø20 to ø63	50 to 1000mm/s
	ø80, ø100	50 to 700mm/s
Mounting*	Basic, Axial foot, Front flange, Front trunnion	

* Front trunnion style is not available for bore sizes ø80 and ø100. Refer to p.1.7-18 for dimensions.

* Auto switch can be mounted.

CJ1

CJP

CJ2

CM2

C85

C76

CG1

MB

MB1

CP95

C95

C92

CA1

CS1