Air Cylinder: Standard Type
Double Acting, Single Rod
Series CG1
ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order

Without auto switch CG1 L N 25 100

With auto switch CDG1 L N 25 100 H7BW

Built-in magnet

Mounting style

B	Basic style
L	Axial foot style
F	Rod side flange style
G	Head side flange style
U*	Rod side trunnion style
T*	Head side trunnion style
D	Clevis style

* Not available for ø80 or ø100.

Note) Mounting brackets are shipped together, (but not assembled).

Type

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

Bore size

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

Cylinder stroke (mm)

Refer to "Standard Stroke" on page 6-5-3.

Suffix for cylinder (Rod boot (at one end))

Nil	Without rod boot
J	Nylon tarpaulin
K	Heat resistant tarpaulin

* In the case of w/ rod boot, and a foot bracket or rod side flange as a bracket, those parts are to be assembled at the time of shipment.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)

* For the applicable auto switch model, refer to the table below.

Applicable Auto Switch/Refer to page 6-16-1 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC		Load voltage AC	Auto switch model: Applicable bore size (mm) 20 to 63	Auto switch model: Applicable bore size (mm) 80, 100	Lead wire length (m)* 0.5 (Nil)	3 (L)	5 (Z)	None (N)	Pre-wire connector	Applicable load	
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	C76	—	●	●	—	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V, 200 V	B54		●	●	●	—	—		
							100 V	C73	—	●	●	●	—	—		
		Connector					—	C73C	—	●	●	●	●	—	—	Relay, PLC
	Diagnostic indication (2-color indication)	Grommet				—		B59W		●	●	—	—	—		
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	H7A1	G59	●	●	○	—	○	IC circuit	Relay, PLC
				3-wire (PNP)				H7A2	G5P	●	●	○	—	○		
				2-wire		12 V		H7B	K59	●	●	○	—	○	—	
		Connector						H7C	—	●	●	●	●	—		
	Diagnostic indication (2-color indication)	Grommet		3-wire (NPN)		5 V, 12 V		H7NW	G59W	●	●	○	—	○	IC circuit	
				3-wire (PNP)				H7PW	G5PW	●	●	○	—	○		
				2-wire		12 V		H7BW	K59W	●	●	○	—	○	—	
	Water resistant (2-color indication)							H7BA	G5BA		●	○	—	○		
	With diagnostic output (2-color indication)			4-wire (NPN)		5 V, 12 V		H7NF	G59F	●	●	○	—	○	IC circuit	

* Lead wire length symbols: 0.5 m ····· Nil (Example) C73C
3 m ····· L (Example) C73CL
5 m ····· Z (Example) C73CZ
None ····· N (Example) C73CN

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

• Since there are other applicable auto switches than listed, refer to page 6-5-14 for details.
• For details about auto switches with pre-wire connector, refer to page 6-16-60.

Substantially shorter length:

ø20 to ø40··· –15 to –30 mm
(in comparison with Series CM2)
ø40 to ø63··· –17 to –28 mm
(in comparison with Series CA1)
ø80, ø100··· –9 to –33 mm
(in comparison with Series CA1)

High speed operation:

1000 mm/s

(ø80 and ø100 operate at 700 mm/s)

Air cushion standardized

Two cushions are available:
an air cushion and rubber bumper

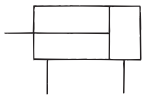
Weight reduction of 10 to 50%

(50 mm stroke, in-house comparison)

Highly accurate mounting brackets

(Axial foot style, Rod side frange style)

JIS Symbol
Double acting



Specifications

Bore size (mm)	20	25	32	40	50	63	80	100
Action	Double acting, Single rod							
Type	Non-lube							
Fluid	Air							
Proof pressure	1.5 MPa							
Maximum operating pressure	1.0 MPa							
Minimum operating pressure	0.05 MPa							
Ambient and fluid temperature	Without auto switch: –10 to 70°C (No freezing) With auto switch: –10 to 60°C (No freezing)							
Piston speed	50 to 1000 mm/s							50 to 700 mm/s
Stroke length tolerance	Up to 1000 $^{st\ +1.4}_{0}$ mm, Up to 1200 $^{st\ +1.8}_{0}$ mm							Up to 1000 $^{st\ +1.4}_{0}$ mm Up to 1500 $^{st\ +1.8}_{0}$ mm
Thread tolerance	JIS Class 2							
Cushion	Rubber bumper, Air cushion							
Mounting *	Basic style, Axial foot style, Rod side flange style, Head side flange style, Rod side trunnion style, Head side trunnion style, Clevis style (Used for changing the port location by 90°.)							

Rod/Head side trunnion styles are not available for bore sizes ø80 and ø100.

Accessory

Mounting		Basic style	Axial foot style	Rod side flange style	Head side flange style	Rod side trunnion style	Head side trunnion style	Clevis style
Standard equipment	Rod end nut	●	●	●	●	●	●	●
	Clevis pin	—	—	—	—	—	—	●
Option	Single knuckle joint	●	●	●	●	●	●	●
	Double knuckle joint (With pin)	●	●	●	●	●	●	●
	Pivot bracket	—	—	—	—	●*	●*	●
	Rod boot	●	●	●	●	●	●	●

* Trunnion bracket is not available for ø80 and ø100.
** Pin and snap ring are shipped together with double knuckle joint.

Made to Order Specifications (For details, refer to page 6-17-1.)

Symbol	Specifications
-XA□	Change of rod end shape
-XB6	Heat resistant cylinder (150°C)
-XB7	Cold resistant cylinder
-XB9	Low speed cylinder (10 to 50 mm/s)
-XB13	Low speed cylinder (5 to 50 mm/s)
-XC4	With heavy duty scraper
-XC6	Piston rod and rod end nut made of stainless steel
-XC8	Adjustable stroke cylinder/Adjustable extension type
-XC9	Adjustable stroke cylinder/Adjustable retraction type
-XC10	Dual stroke cylinder/Double rod type
-XC11	Dual stroke cylinder/Single rod type
-XC12	Tandem type cylinder
-XC13	Auto switch rail mounting style
-XC18	NPT finish piping port
-XC20	Head cover axial port
-XC22	Fluoro rubber seals
-XC29	Double knuckle joint with spring pin
-XC35	With coil scraper
-XC37	Larger throttle diameter of connecting port
-XC42	Built-in rear shock absorber

Standard Stroke

Bore size (mm)	Standard stroke(1) (mm)	Long stroke (mm)	Maximum manufacturable stroke (mm)
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 an order. Spaces are not used for the intermediate strokes.
Note 2) Long stroke applies to the axial foot style and the rod side flange style. If other length exceeds the stroke limit, the stroke should be determined based on the stroke selection table in the technical data.

Rod Boot Material

Symbol	Rod boot material	Maximum operating temperature
J	Nylon tarpaulin	70°C
K	Heat resistant tarpaulin	110°C *

* Maximum ambient temperature for the rod boot itself.

Minimum Stroke for Auto Switch Mounting

Model	No. of auto switches mounted	
	2	1
D-C7/C8 **D-B5/B6** **D-H7** **D-G5/K5**	15 mm	10 mm
D-B59W	20 mm	15 mm

Model	Bore size (mm)	No. of auto switches mounted	
		2	1
D-G5NBL	**20**	50 mm	30 mm
	25	55 mm	35 mm
	32		
	40	65 mm	
	50		
	63		
	80		
	100	70 mm	40 mm

Mounting Bracket Part No.

Mounting bracket	Bore size (mm)							
	20	25	32	40	50	63	80	100
Axial foot (1)	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	—	—
Cleveis (2)	CG-D020	CG-D025	CG-D032	CG-D040	CG-D050	CG-D063	CG-D080	CG-D100
Pivot bracket	CG-020-24A	CG-025-24A	CG-032-24A	CG-040-24A	CG-050-24A	CG-063-24A	CG-080-24A	CG-100-24A

Note 1) Order two foot brackets per cylinder.
Note 2) Clevis pin, snap ring and mounting bolt are shipped together with clevis style.
Note 3) Mounting bolts are shipped together for foot style and flange style.

Auto Switch Mounting Bracket Part No.

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

∗ Mounting screws set made of stainless steel
The following set of mounting screws made of stainless steel is also available. Use it in accordance with the operating environment.
(A switch mounting band is not included, so please order it separately.)
BBA3: For D-B5/B6/G5/K5
BBA4: For D-C7/C8/H7

- D-G5BAL and D-H7BAL switches are set on the cylinder with the stainless steel screws above when shipped. When a switch only is shipped, BBA3 or BBA4 screws are attached.

Weight

(kg)

Bore size (mm)		20	25	32	40	50	63	80	100
Basic weight	Basic style	0.10	0.17	0.26	0.41	0.77	1.07	2.04	3.17
	Axial foot style	0.21	0.30	0.42	0.63	1.25	1.79	3.00	4.92
	Flange style	0.18	0.27	0.40	0.61	1.11	1.57	2.75	4.52
	Trunnion style	0.11	0.19	0.29	0.46	0.91	1.21	—	—
	Clevis style	0.15	0.25	0.41	0.64	1.17	1.75	2.75	4.45
Pivot bracket		0.08	0.09	0.17	0.25	0.44	0.80	0.98	1.75
Single knuckle joint		0.05	0.09	0.09	0.10	0.22	0.22	0.39	0.57
Double knuckle joint (With pin)		0.05	0.09	0.09	0.13	0.26	0.26	0.64	1.31
Additional weight per each 50 mm of stroke		0.05	0.07	0.09	0.15	0.22	0.26	0.35	0.49
Additional weight with air cushion		0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03
Additional weight for long stroke		0.01	0.01	0.02	0.03	0.06	0.10	0.19	0.26

Calculation: (Example) CG1LA20-100 (Foot style, ø20, 100 st)

- Basic weight·····0.21 (Foot, ø20)
- Additional weight·····0.05/50 stroke
- Cylinder stroke·····100 stroke
- Additional weight by air cushion·····0.01 kg

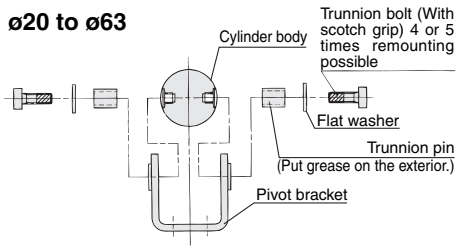
0.21 + 0.05 x 100/50 + 0.01 = 0.32 kg

Mounting Procedure

Mounting procedure for trunnion

Follow the procedures below when mounting a pivot bracket on the trunnion.

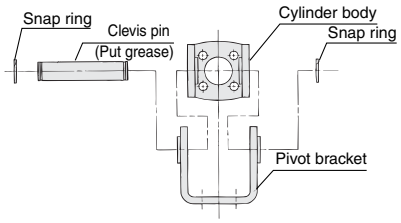
ø20 to ø63



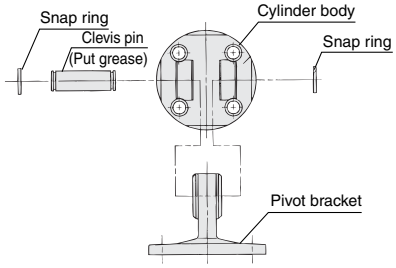
Mounting procedure for clevis

Follow the procedures below when mounting a pivot bracket on the clevis style.

ø20 to ø63



ø80, ø100



Built-in One-touch Fittings

CG1 Mounting style N Bore size F – Stroke

F: Built-in One-touch fittings

This type has the One-touch fitting integrated in a cylinder, which enables to reduce the piping labor and installing space dramatically.

Specifications

Bore size (mm)	20, 25, 32, 40, 50, 63
Action	Double acting
Fluid	Air
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.05 MPa
Piston speed	50 to 750 mm/s
Cushion	Rubber bumper
Mounting	Basic style, Axial foot style, Rod side flange style Head side flange style, Rod side trunnion style Head side trunnion style, Clevis style (Used for changing the port location by 90°.)

∗ Auto switch can be mounted.

Applicable Tubing O.D./I.D.

Bore size (mm)	20	25	32	40	50	63
Applicable tubing O.D. (mm)	6/4	6/4	6/4	8/6	10/7.5	10/7.5
Applicable tubing material	Can be used for either nylon, soft nylon or polyurethane tubing.					

∗ For other specifications, refer to page 6-5-3.

Clean Series

10-CG1 Mounting style N Bore size – Stroke

Clean series (With relief port)

The type which is applicable for using inside the clean room graded Class 100 by making an actuator's rod section a double seal construction and discharging by relief port directly to the outside of clean room.

Specifications

Bore size (mm)	20, 25, 32, 40, 50, 63, 80, 100
Action	Double acting
Fluid	Air
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.05 MPa
Cushion	Rubber bumper
Piston speed	50 to 400 mm/s
Relief port size	M5 x 0.8
Mounting	Basic style, Axial foot style, Rod side flange style Head side flange style

∗ Auto switch can be mounted.

For details, refer to the separate catalog, "Pneumatic Clean Series".

Air-hydro

CG1 Mounting style H Bore size – Stroke

H: Air-hydro

Low pressure hydraulic cylinder of 1.0 MPa or less
When used together with a Series CC air-hydro unit, constant and low speed actuation and intermediate stopping similar to hydraulic units are possible with the use of valves and other pneumatic equipment.

Specifications

Type	Air-hydro
Bore size (mm)	20, 25, 32, 40, 50, 63
Action	Double acting
Fluid	Turbine oil
Proof pressure	1.5 MPa
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.18 MPa
Piston speed	15 to 300 mm/s
Cushion	None
Ambient and fluid temperature	5 to 60°C
Thread tolerance	JIS Class 2
Stroke length tolerance	Up to 1000 $^{st\ +1.4}_{0}$ mm, Up to 1200 $^{st\ +1.8}_{0}$ mm
Mounting	Basic style, Axial foot style, Rod side flange style Head side flange style, Rod side trunnion style Head side trunnion style, Clevis style (Used for changing the port location by 90°.)

∗ Auto switch can be mounted.

Copper-free

20-CG1 Mounting style Type Bore size – Stroke

Copper-free

The type which prevents copper based ions from generating by changing the copper based materials into electroless nickel plated treatment or non-copper materials in order to eliminate the effects by copper based ions or fluororesins over the color cathode ray tube.

Specifications

Bore size (mm)		20, 25, 32, 40, 50, 63, 80, 100
Action		Double acting
Fluid		Air
Maximum operating pressure		1.0 MPa
Minimum operating pressure		0.05 MPa
Cushion	Type N	Rubber bumper
	Type A	With air cushion
Piston speed	ø20 to 63	50 to 1000 mm/s
	ø80/100	50 to 700 mm/s
Mounting ∗		Basic style, Axial foot style, Rod side flange style Head side flange style, Rod side trunnion style Head side trunnion style, Clevis style (Used for changing the port location by 90°.)

∗ Rod/Head side trunnion styles are not available for bore sizes ø80 and ø100.
Dimensions are the same as double acting single rod, standard type.
∗ Auto switch can be mounted.

Water Resistant

CDG1 | Mounting style | Style | Bore size | R | Stroke | G5BAL | -XC6

With auto switch
(Built-in magnet)

Water resistant cylinder

R	NBR seals (Nitrile rubber)
V	FKM seals (Fluoro rubber)

Made to order specifications

Water resistant 2-color indication, Solid state switch

Failure to do so will damage the cylinder and the seals.
Applicable for use in an environment with water splashing such as food processing and car wash equipment, etc.

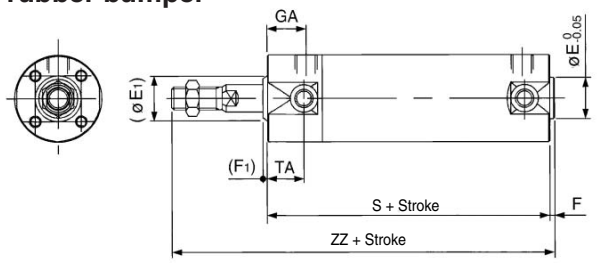
Specifications

Action	Double acting, Single rod
Bore size (mm)	32, 40, 50, 63, 80, 100
Cushion	Rubber bumper/Air cushion
Auto switch mounting	Band mounting style
Made to order	Piston rod/Rod end nut material: Stainless steel (-XC6)

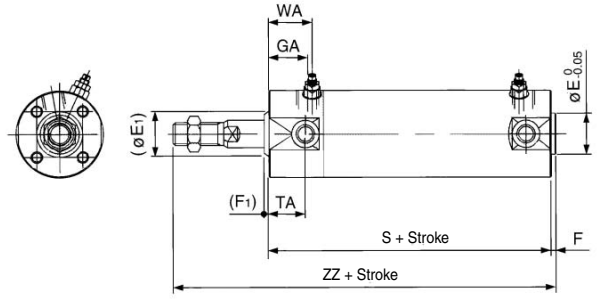
∗ Specifications other than above are the same as standard, basic style.

Dimensions

With rubber bumper



With air cushion



Bore size (mm)	(E1)	E ∗	(F1)	F ∗	GA	S	TA	WA	ZZ
32	17	18	2	2	18	77(85)	17	22	119(127)
40	21	25	2	2	19	84(93)	18	22	136(145)
50	26	30	2	2	21	97(109)	20	25	157(169)
63	26	32	2	2	21	97(109)	20	25	157(169)
80	32	40	3	3	28	116(130)	—	30	190(204)
100	37	50	3	3	29	117(131)	—	31	191(205)

∗ These dimensions and other dimensions not indicated here are the same as standard.
∗ ( ): Denotes the dimensions for long stroke.

For detailed specifications, refer to the separate catalog (CAT. E244C).

⚠ Precautions

Be sure to read before handling. Refer to pages 6-20-3 to 6-20-6 for Safety Instructions and Actuator Precautions.

Operating Precautions

⚠ Warning

1. Do not operate the cushion valve in the fully closed or fully opened state.
Using it in the fully closed state will cause the cushion seal to be damaged. Using it in the fully opened state will cause the piston rod assembly or the cover to be damaged.

2. Operate within the specified cylinder speed.
Otherwise, cylinder and seal damage may occur.

⚠ Caution

1. Do not use the air cylinder as an air-hydro cylinder. This will cause an oil leak.

2. Install a rod boot without twisting.
If the cylinder is installed with its bellows twisted, it could damage the bellows.

Disassembly/Replacement

⚠ Caution

1. Do not replace the bushings or the cushion seals.
The bushings and the cushion seals are press-fit. To replace them, they must be replaced together with the cover assembly.

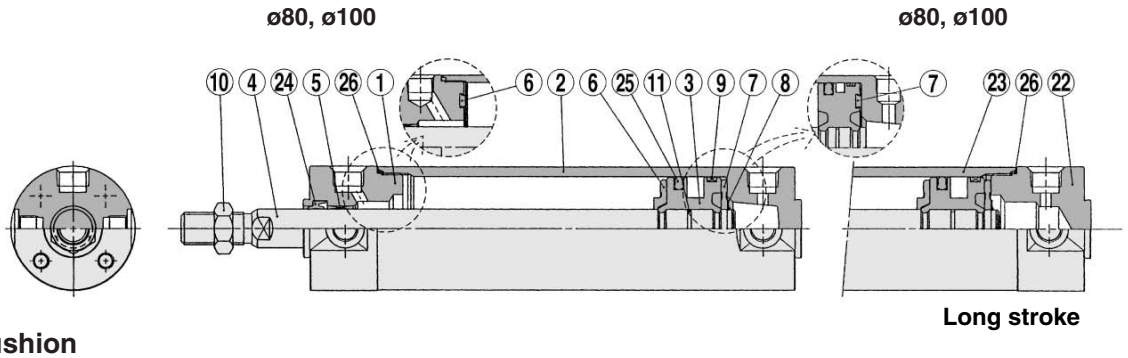
2. To replace a seal, apply grease to the new seal before installing it.
If the cylinder is put into operation without applying grease to the seal, it could cause the seal to wear significantly, leading to premature air leakage.

3. Do not replace One-touch fittings.
Because pipe fittings are press-fit, they must be replaced together with the cover assembly.

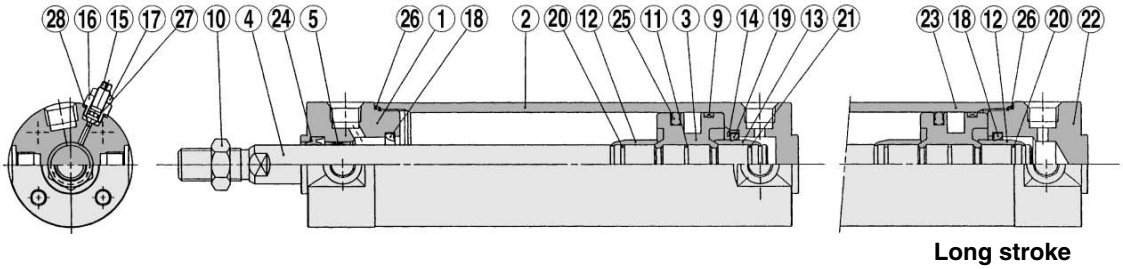
4. Those with a bore of ø50 or more cannot be disassembled.
When disassembling cylinders with bore sizes of ø20 through ø40, grip the double flat part of either the head cover or the rod cover with a vise and loosen the other side with a wrench or a monkey wrench, etc., and then remove the cover. When re-tightening, tighten approximately 2 degrees more than the original position. (Cylinders with ø50 or larger bore sizes are tightened with a large tightening torque and cannot be disassembled. Please contact SMC when disassembly is required.)

Construction

With rubber bumper



With air cushion



Component Parts

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	Clear hard anodized
②	Tube cover	Aluminum alloy	Clear hard anodized
③	Piston	Aluminum alloy	Chromated
④	Piston rod	Carbon steel*	Hard chrome plated
⑤	Bushing	Oil-impregnated sintered alloy	ø40 and larger are lead-bronze casted
⑥	Bumper A	Urethane	
⑦	Bumper B	Urethane	ø40 or larger: The same as bumper A
⑧	Snap ring	Stainless steel	Except 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 larger: The same as A
⑭	Seal retainer	Rolled steel	Nickel plated/Except 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	Clear hard anodized
㉓	Cylinder tube	Aluminum alloy	Hard anodized
㉔	Rod seal	NBR	
㉕	Piston seal	NBR	
㉖	Tube gasket	NBR	
㉗	Valve seal	NBR	
㉘	Valve retaining gasket	NBR	

Note) In the case of cylinders with auto switches, magnets are installed in the piston.
* The material is stainless steel on auto switch equipped styles ø20 and ø25.

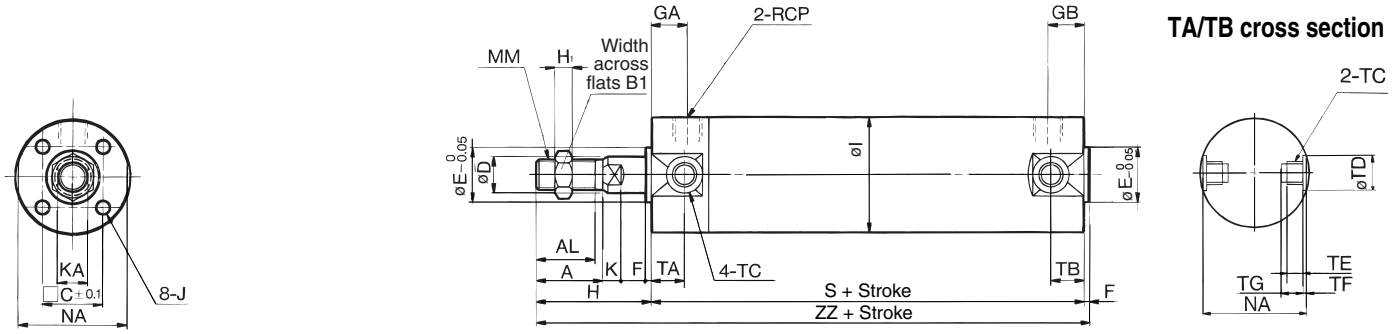
Replacement Parts: Seal Kit for Rubber Bumper

Bore size (mm)	Kit no.	Contents
20	CG1N20-PS	Set of the nos. ㉔, ㉕, ㉖
25	CG1N25-PS	
32	CG1N32-PS	
40	CG1N40-PS	
50	CG1N50-PS	
63	CG1N63-PS	
80	CG1N80-PS	
100	CG1N100-PS	

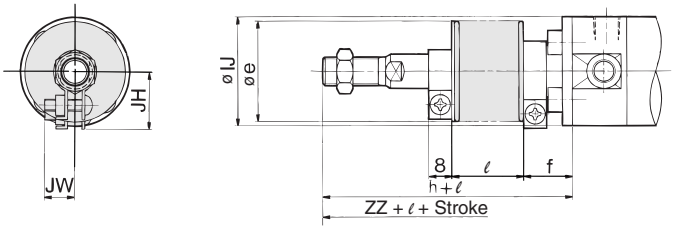
Replacement Parts: Seal Kit for Air Cushion

Bore size (mm)	Kit no.	Contents
20	CG1A20-PS	Set of the nos. ㉔, ㉕, ㉖, ㉗, ㉘
25	CG1A25-PS	
32	CG1A32-PS	
40	CG1A40-PS	
50	CG1A50-PS	
63	CG1A63-PS	
80	CG1A80-PS	
100	CG1A100-PS	

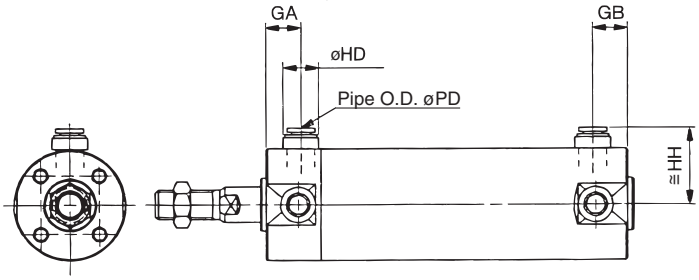
Basic Style with Rubber Bumper: CG1BN



Basic style with rod boot

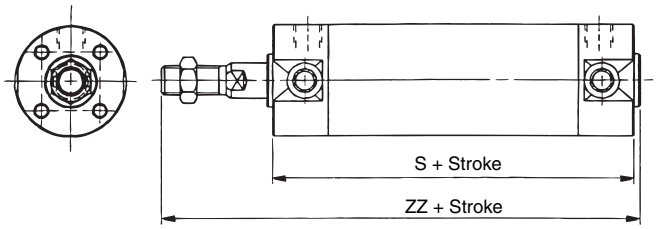


Built-in One-touch fittings



Other dimensions are the same as standard.

Air-hydro



Other dimensions are the same as the long stroke standard.

Bore size (mm)	Standard stroke range (mm)	Long stroke range (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	10(12)	35	5	26	M4 x 0.7 depth 7	5	6	M8 x 1.25	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 x 0.8 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 x 0.8 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 x 1 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 x 1.25 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 x 1.5 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 x 1.5 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 x 1.75 depth 22	10	26	M26 x 1.5	100	1/2	108(122)	—	—	182(196)

Note) ( ): Denotes the dimensions for long stroke. ∗ Trunnion mounting taps with width across flats NA are not attached for bore size ø80 and ø100.

TA/TB Sectional View

Bore size (mm)	TC∗	TDH9	TE	TF	TG
20	M5 x 0.8	$8^{+0.08}_{0}$	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

Bore size (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 with rod boot is 20 mm.

Built-in One-touch Fittings

Bore size (mm)	GA	GB	HD	HH	PD
20	12	12	13	24.2	6
25	12	10(12)	13	26.7	6
32	12	10(12)	13	30.2	6
40	12	10(12)	16	34.6	8
50	13	13	20	40.6	10
63	13	13	20	47.1	10

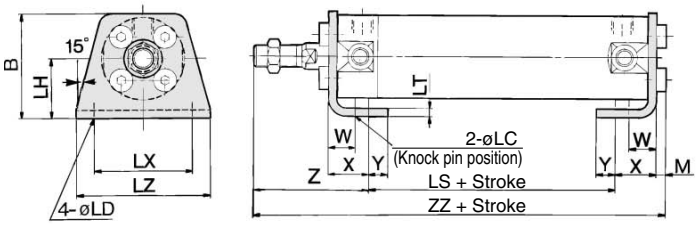
Note) ( ): Denotes the dimensions for long stroke.

Air-hydro

Bore size (mm)	S	ZZ
20	77	114
25	77	119
32	79	121
40	87	139
50	102	162
63	102	162

With Mounting Bracket

Axial foot style: CG1LN

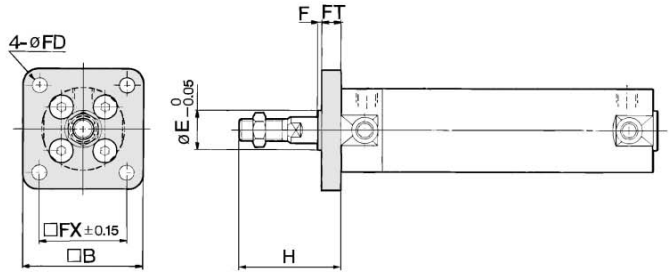


Axial Foot Style

Bore size (mm)	B	LC	LD	LH	LS	LT	LX	LZ	M	W	X	Y	Z		ZZ	
													Without rod boot	With rod boot	Without rod boot	With rod boot
20	34	4	6	20	45(53)	3	32	44	3	10	15	7	47	67 + ℓ	110(118)	130 (138) + ℓ
25	38.5	4	6	22	45(53)	3	36	49	3.5	10	15	7	52	74 + ℓ	115.5(123.5)	137.5(145.5) + ℓ
32	45	4	7	25	45(53)	3	44	58	3.5	10	16	8	53	75 + ℓ	117.5(125.5)	139.5(147.5) + ℓ
40	54.5	4	7	30	51(60)	3	54	71	4	10	16.5	8.5	63.5	83.5 + ℓ	135(144)	155(164) + ℓ
50	70.5	5	10	40	55(67)	4.5	66	86	5	17.5	22	11	75.5	95.5 + ℓ	157.5(169.5)	177.5(189.5) + ℓ
63	82.5	5	12	45	55(67)	4.5	82	106	5	17.5	22	13	75.5	95.5 + ℓ	157.5(169.5)	177.5(189.5) + ℓ
80	101	6	11	55	60(74)	4.5	100	125	5	20	28.5	14	95	104 + ℓ	188.5(202.5)	197.5(211.5) + ℓ
100	121	6	14	65	60(74)	6	120	150	7	20	30	16	95	104 + ℓ	192(206)	201(215) + ℓ

Note) ( ): Denotes the dimensions for long stroke.
∗ Other dimensions are the same as basic style.

Rod side frange style: CG1FN

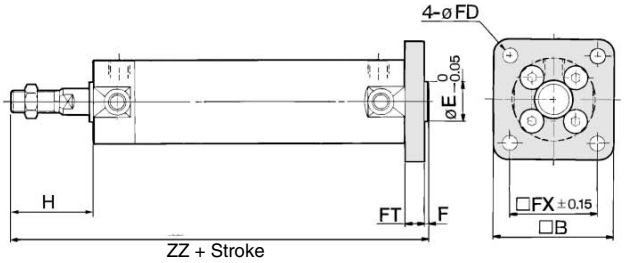


Flange Style

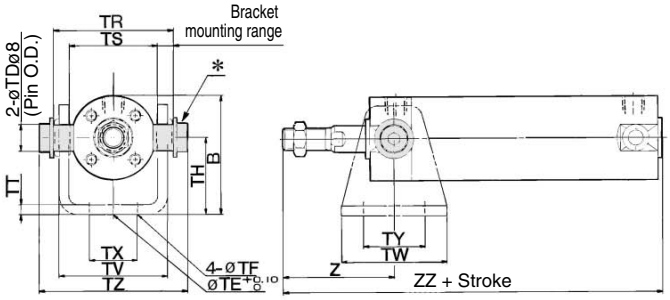
Bore size (mm)	Stroke range		B	E	F	FX	FD	FT	H	Head side flange ZZ	
	Rod side	Head side								Without rod boot	With rod boot
20	Up to 350	Up to 200	40	12	2	28	5.5	6	35	112	132 + ℓ
25	Up to 400	Up to 300	44	14	2	32	5.5	7	40	118	140 + ℓ
32	Up to 450	Up to 300	53	18	2	38	6.6	7	40	120	142 + ℓ
40	Up to 800	Up to 500	61	25	2	46	6.6	8	50	138(147)	158(167) + ℓ
50	Up to 1200	Up to 600	76	30	2	58	9	9	58	159(171)	179(191) + ℓ
63	Up to 1200	Up to 600	92	32	2	70	11	9	58	159(171)	179(191) + ℓ
80	Up to 1400	Up to 750	104	40	3	82	11	11	71	193(207)	202(216) + ℓ
100	Up to 1500	Up to 750	128	50	3	100	14	14	71	196(210)	202(219) + ℓ

Note) ( ): Denotes the dimensions for long stroke.
End boss is machined on the flange for øE.
∗ Other dimensions are the same as basic style.

Head side frange style: CG1GN



Rod side trunnion style: CG1UN



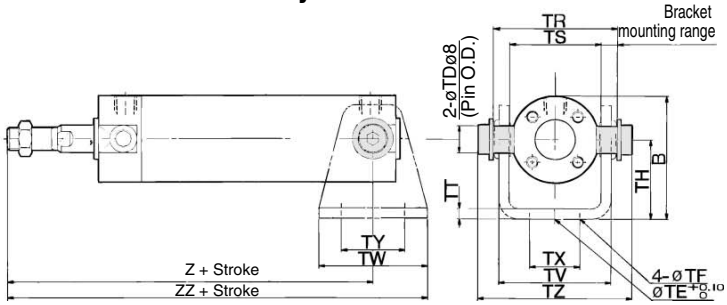
Trunnion Style

Bore size (mm)	Stroke range		B	TDe8	TE	TF	TH	TR	TS	TT	TV
	Rod side	Head side									
20	Up to 200	Up to 200	38	8 −0.025 −0.047	10	5.5	25	39	28	3.2	(35.8)
25	Up to 300	Up to 300	45.5	10 −0.025 −0.047	10	5.5	30	43	33	3.2	(39.8)
32	Up to 300	Up to 300	54	12 −0.032 −0.059	10	6.6	35	54.5	40	4.5	(49.4)
40	Up to 500	Up to 500	63.5	14 −0.032 −0.059	10	6.6	40	65.5	49	4.5	(58.4)
50	Up to 600	Up to 600	79	16 −0.032 −0.059	20	9	50	80	60	6	(72.4)
63	Up to 600	Up to 600	96	18 −0.032 −0.059	20	11	60	98	74	8	(90.4)

Bore size (mm)	TW	TX	TY	TZ	Rod side Z		Head side Z		Head side ZZ	
					Without rod boot	Without rod boot	Without rod boot	With rod boot	Without rod boot	With rod boot
20	42	16	28	47.6	46	66 + ℓ	93	113 + ℓ	114	134 + ℓ
25	42	20	28	53	51	73 + ℓ	98	120 + ℓ	119	141 + ℓ
32	48	22	28	67.7	51	73 + ℓ	101	123 + ℓ	125	147 + ℓ
40	56	30	30	78.7	62	82 + ℓ	118(125)	138(145) + ℓ	146(153)	166(173) + ℓ
50	64	36	36	98.6	71	91 + ℓ	136(147)	156(167) + ℓ	168(179)	188(199) + ℓ
63	74	46	46	119.2	71	91 + ℓ	136(147)	156(167) + ℓ	173(184)	193(204) + ℓ

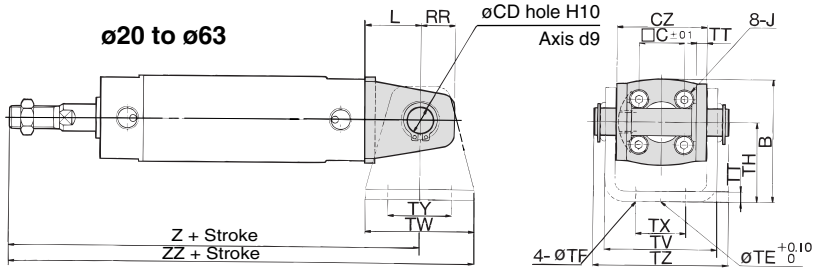
∗ Consists of pin, flat washer and hexagon socket head cap bolt.
Note) ( ): Denotes the dimensions for long stroke. Refer to page 6-5-12 for pivot bracket.
∗ Other dimensions are the same as basic style.

Head side trunnion style: CG1TN

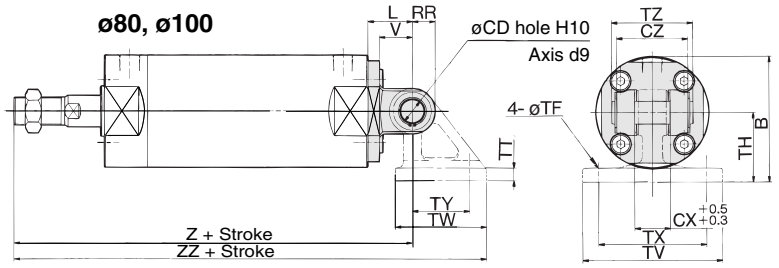


With Mounting Bracket

Clevis style: CG1DN



(The above shows the case port location is changed by 90°.)



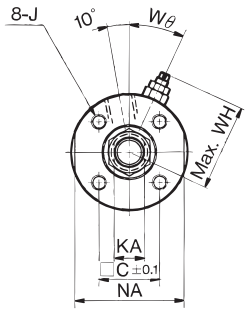
∗ Clevis pin and snap ring are attached for the clevis style.

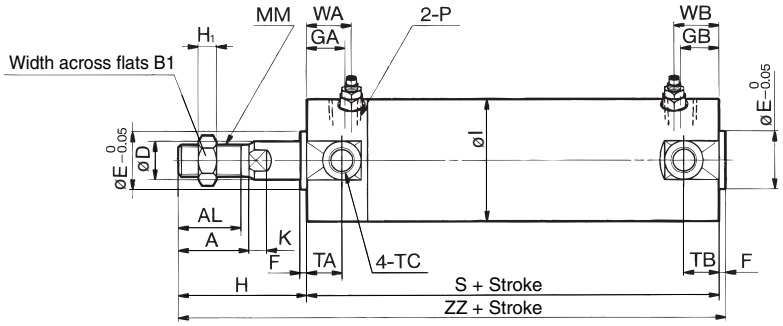
Clevis Style

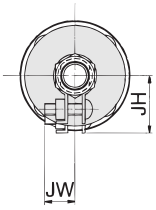
Bore size (mm)	Stroke range (mm)	B	CD	CX	CZ	L	RR	V	TE	TF	TH	TT	TV	TW	TX	TY	TZ	Z	ZZ	With rod boot Z	With rod boot ZZ	Applicable pin part no.
20	Up to 200	38	8	—	29	14	11	—	10	5.5	25	3.2	35.8	42	16	28	43.4	118	139	138 + ℓ	159 + ℓ	CD-G02
25	Up to 300	45.5	10	—	33	16	13	—	10	5.5	30	3.2	39.8	42	20	28	48	125	146	147 + ℓ	168 + ℓ	CD-G25
32	Up to 300	54	12	—	40	20	15	—	10	6.6	35	4.5	49.4	48	22	28	59.4	131	155	153 + ℓ	177 + ℓ	CD-G03
40	Up to 500	63.5	14	—	49	22	18	—	10	6.6	40	4.5	58.4	56	30	30	71.4	150 (159)	178 (187)	170 + ℓ (179 + ℓ)	198 + ℓ (207 + ℓ)	CD-G04
50	Up to 600	79	16	—	60	25	20	—	20	9	50	6	72.4	64	36	36	86	173 (185)	205 (217)	193 + ℓ (205 + ℓ)	225 + ℓ (237 + ℓ)	CD-G05
63	Up to 600	96	18	—	74	30	22	—	20	11	60	8	90.4	74	46	46	105.4	178 (190)	215 (227)	198 + ℓ (210 + ℓ)	235 + ℓ (247 + ℓ)	CD-G06
80	Up to 750	99.5	18	28	56	35	18	26	—	11	55	11	110	72	85	45	64	214 (228)	272.5 (286.5)	223 + ℓ (237 + ℓ)	281.5 + ℓ (295.5 + ℓ)	IY-G08
100	Up to 750	120	22	32	64	43	22	32	—	13.5	65	12	130	93	100	60	72	222 (236)	298.5 (312.5)	231 + ℓ (245 + ℓ)	307.5 + ℓ (321.5 + ℓ)	IY-G10

Note) ( ): Denotes the dimensions for long stroke.
* Refer to page 6-5-12 for pivot bracket.
* Other dimensions are the same as basic style.

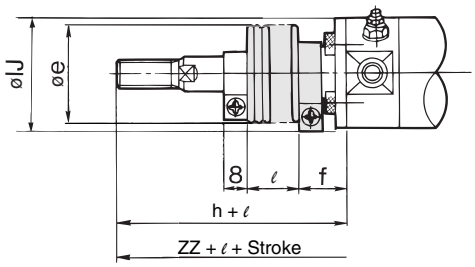
Basic Style with Air Cushion: CG1BA







With rod boot



With Rod Boot

Bore size (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 with rod boot is 20 mm.

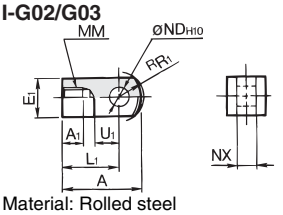
Bore size (mm)	Standard stroke range (mm)	Long stroke range (mm)	A	AL	B_1	C	D	E	F	GA	GB	H	H_1	I	J	K	KA	MM	NA	P	S	TA	TB	TC∗	ZZ	WA	WB	WH	Wθ
20	Up to 200	201 to 350	18	15.5	13	14	8	12	2	12	10(12)	35	5	26	M4 x 0.7 depth 7	5	6	M8 x 1.25	24	M5 x 0.8	69(77)	11	11	M5 x 0.8	106(114)	16	15(16)	23	30°
25	Up to 300	301 to 400	22	19.5	17	16.5	10	14	2	12	10(12)	40	6	31	M5 x 0.8 depth 7.5	5.5	8	M10 x 1.25	29	M5 x 0.8	69(77)	11	11	M6 x 0.75	111(119)	16	15(16)	25	30°
32	Up to 300	301 to 450	22	19.5	17	20	12	18	2	12	10(12)	40	6	38	M5 x 0.8 depth 8	5.5	10	M10 x 1.25	35.5	Rc 1/8	71(79)	11	10(11)	M8 x 1.0	113(121)	16	15(16)	28.5	25°
40	Up to 300	301 to 800	30	27	19	26	16	25	2	13	10(13)	50	8	47	M6 x 1 depth 12	6	14	M14 x 1.5	44	Rc 1/8	78(87)	12	10(12)	M10 x 1.25	130(139)	16	15(16)	33	20°
50	Up to 300	301 to 1200	35	32	27	32	20	30	2	14	12(14)	58	11	58	M8 x 1.25 depth 16	7	18	M18 x 1.5	55	Rc 1/4	90(102)	13	12(13)	M12 x 1.25	150(162)	18	17(18)	40.5	20°
63	Up to 300	301 to 1200	35	32	27	38	20	32	2	14	12(14)	58	11	72	M10 x 1.5 depth 16	7	18	M18 x 1.5	69	Rc 1/4	90(102)	13	12(13)	M14 x 1.5	150(162)	18	17(18)	47.5	20°
80	Up to 300	301 to 1400	40	37	32	50	25	40	3	20	16(20)	71	13	89	M10 x 1.5 depth 22	10	22	M22 x 1.5	80	Rc 3/8	108(122)	—	—	—	182(196)	22	22	60.5	20°
100	Up to 300	301 to 1500	40	37	41	60	30	50	3	20	16(20)	71	16	110	M12 x 1.75 depth 22	10	26	M26 x 1.5	100	Rc 1/2	108(122)	—	—	—	182(196)	22	22	71	20°

Note) ( ): Denotes the dimensions for long stroke.
∗ Trunnion mounting taps with width across flats NA are not attached for bore size ø80 and ø100.
∗ For mounting brackets, refer to page 6-5-12.

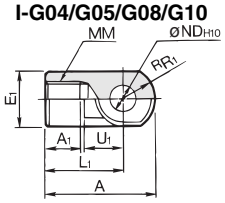
Series CG1
Accessory Bracket Dimensions

Single Knuckle Joint

I-G02/G03



I-G04/G05/G08/G10

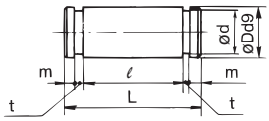


Material: Cast iron

Material: Rolled steel

Part no.	Applicable bore (mm)	A	A1	E1	L1	MM	R1	U1	NDH10	NX
I-G02	20	34	8.5	□16	25	M8 x 1.25	10.3	11.5	$8^{+0.058}_{0}$	$8^{-0.2}_{-0.4}$
I-G03	25, 32	41	10.5	□20	30	M10 x 1.25	12.8	14	$10^{+0.058}_{0}$	$10^{-0.2}_{-0.4}$
I-G04	40	42	14	ø22	30	M14 x 1.5	12	14	$10^{+0.058}_{0}$	$18^{-0.3}_{-0.5}$
I-G05	50, 63	56	18	ø28	40	M18 x 1.5	16	20	$14^{+0.070}_{0}$	$22^{-0.3}_{-0.5}$
I-G08	80	71	21	ø38	50	M22 x 1.5	21	27	$18^{+0.070}_{0}$	$28^{-0.3}_{-0.5}$
I-G10	100	79	21	ø44	55	M26 x 1.5	24	31	$22^{+0.084}_{0}$	$32^{-0.3}_{-0.5}$

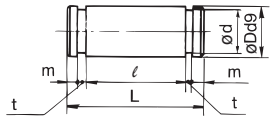
Knuckle Pin



Material: Carbon steel

Part no.	Applicable bore (mm)	Dd9	L	d	ℓ	m	t	Applicable snap ring
IY-G02	20	$8^{-0.040}_{-0.076}$	21	7.6	16.2	1.5	0.9	Type C 8 for axis
IY-G03	25, 32	$10^{-0.040}_{-0.076}$	25.6	9.6	20.2	1.55	1.15	Type C 10 for axis
IY-G04	40	$10^{-0.040}_{-0.076}$	41.6	9.6	36.2	1.55	1.15	Type C 10 for axis
IY-G05	50, 63	$14^{-0.050}_{-0.093}$	50.6	13.4	44.2	2.05	1.15	Type C 14 for axis
IY-G08	80	$18^{-0.050}_{-0.093}$	64	17	56.2	2.55	1.35	Type C 18 for axis
IY-G10	100	$22^{-0.065}_{-0.117}$	72	21	64.2	2.55	1.35	Type C 22 for axis

Clevis Pin



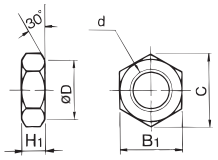
Material: Carbon steel

Part no.	Applicable bore (mm)	Dd9	L	d	ℓ	m	t	Applicable snap ring
CD-G02	20	$8^{-0.040}_{-0.076}$	43.4	7.6	38.6	1.5	0.9	Type C 8 for axis
CD-G25	25	$10^{-0.040}_{-0.076}$	48	9.6	42.6	1.55	1.15	Type C 10 for axis
CD-G03	32	$12^{-0.050}_{-0.093}$	59.4	11.5	54	1.55	1.15	Type C 12 for axis
CD-G04	40	$14^{-0.050}_{-0.093}$	71.4	13.4	65	2.05	1.15	Type C 14 for axis
CD-G05	50	$16^{-0.050}_{-0.093}$	86	15.2	79.6	2.05	1.15	Type C 16 for axis
CD-G06	63	$18^{-0.050}_{-0.093}$	105.4	17	97.8	2.45	1.35	Type C 18 for axis

∗ Clevis pin and knuckle pin are common for bore size ø80 and ø100.

Rod End Nut

Material: Rolled steel

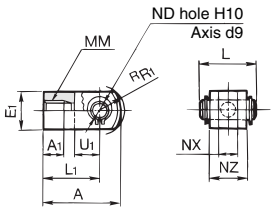


Part no.	Applicable bore (mm)	d	H1	B1	C	D
NT-02	20	M8 x 1.25	5	13	(15.0)	12.5
NT-03	25, 32	M10 x 1.25	6	17	(19.6)	16.5
NT-G04	40	M14 x 1.5	8	19	(21.9)	18
NT-05	50, 63	M18 x 1.5	11	27	(31.2)	26
NT-08	80	M22 x 1.5	13	32	(37.0)	31
NT-10	100	M26 x 1.5	16	41	(47.3)	39

Double Knuckle Joint

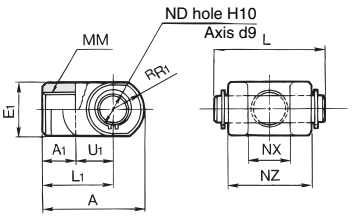
Y-G02/G03

Material: Rolled steel



Y-G04/G05/G08/G10

Material: Cast iron



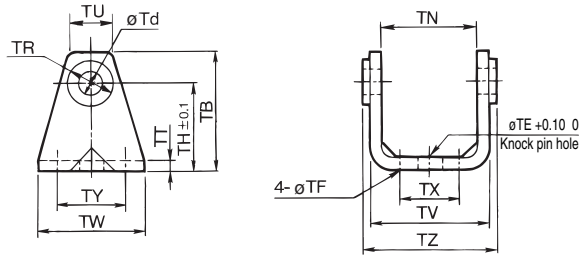
Part no.	Applicable bore (mm)	A	A1	E1	L1	MM	R1	U1	ND	NX	NZ	L	Applicable pin part no.
Y-G02	20	34	8.5	□16	25	M8 x 1.25	10.3	11.5	8	$8^{+0.4}_{+0.2}$	16	21	IY-G02
Y-G03	25, 32	41	10.5	□20	30	M10 x 1.25	12.8	14	10	$10^{+0.4}_{+0.2}$	20	25.6	IY-G03
Y-G04	40	42	16	ø22	30	M14 x 1.5	12	14	10	$18^{+0.5}_{+0.3}$	36	41.6	IY-G04
Y-G05	50, 63	56	20	ø28	40	M18 x 1.5	16	20	14	$22^{+0.5}_{+0.3}$	44	50.6	IY-G05
Y-G08	80	71	23	ø38	50	M22 x 1.5	21	27	18	$28^{+0.5}_{+0.3}$	56	64	IY-G08
Y-G10	100	79	24	ø44	55	M26 x 1.5	24	31	22	$32^{+0.5}_{+0.3}$	64	72	IY-G10

∗ Knuckle pin and set ring are shipped together.

Pivot Bracket (Order separately)

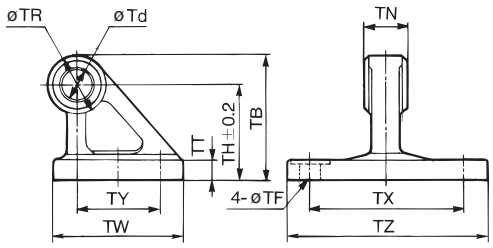
ø20 to ø63

Material: Rolled steel



ø80, ø100

Material: Cast iron

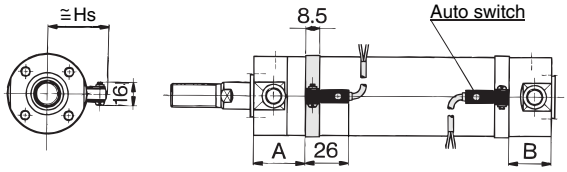


Part no.	Applicable bore (mm)	TB	Td	TE	TF	TH	TN	TR	TT
CG-020-24A	20	36	8	10	5.5	25	(29.3)	13	3.2
CG-025-24A	25	43	10	10	5.5	30	(33.1)	15	3.2
CG-032-24A	32	50	12	10	6.6	35	(40.4)	17	4.5
CG-040-24A	40	58	14	10	6.6	40	(49.2)	21	4.5
CG-050-24A	50	70	16	20	9	50	(60.4)	24	6
CG-063-24A	63	82	18	20	11	60	(74.6)	26	8
CG-080-24A	80	73	18	—	11	55	28^{-01}_{-03}	36	11
CG-100-24A	100	90	22	—	13.5	65	32^{-01}_{-03}	50	12

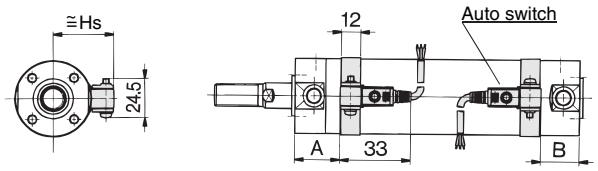
Part no.	Applicable bore (mm)	TU	TV	TW	TX	TY	TZ	Applicable pin O.D.
CG-020-24A	20	(18.1)	(35.8)	42	16	28	38.3	$8d_9^{-0.040}_{-0.076}$
CG-025-24A	25	(20.7)	(39.8)	42	20	28	42.1	$10d_9^{-0.040}_{-0.076}$
CG-032-24A	32	(23.6)	(49.4)	48	22	28	53.8	$12d_9^{-0.050}_{-0.093}$
CG-040-24A	40	(27.3)	(58.4)	56	30	30	64.6	$14d_9^{-0.050}_{-0.093}$
CG-050-24A	50	(29.7)	(72.4)	64	36	36	79.2	$16d_9^{-0.050}_{-0.093}$
CG-063-24A	63	(34.3)	(90.4)	74	46	46	97.2	$18d_9^{-0.050}_{-0.093}$
CG-080-24A	80	—	—	72	85	45	110	$18d_9^{-0.050}_{-0.093}$
CG-100-24A	100	—	—	93	100	60	130	$22d_9^{-0.065}_{-0.117}$

Auto Switch Mounting Position (Detection at stroke end) and Its Mounting Height

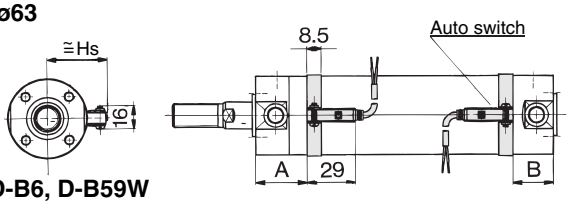
D-C7, D-C8
ø20 to ø63



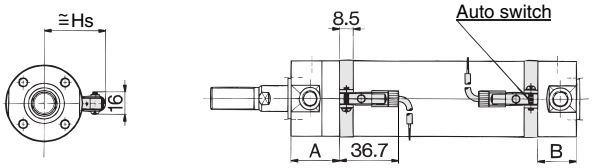
D-G5, D-K5, D-G5□W, D-G5BAL
D-K59W, D-G59F, D-G5NTL



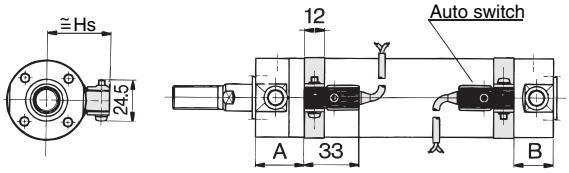
D-H7□, D-H7□W
D-H7NF, D-H7BAL
ø20 to ø63



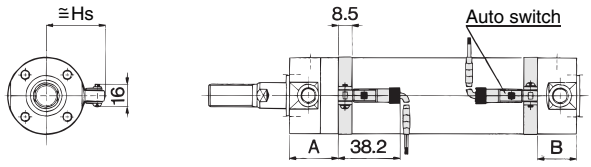
D-C73C, D-C80C
ø20 to ø63



D-B5, D-B6, D-B59W
ø20 to ø100



D-H7C
ø20 to ø63



Proper Auto Switch Mounting Position

Auto switch model / Bore size (mm)	D-C7/C8 D-C73C D-C80C		D-B5/B6		D-B59W		D-H7□ D-H7C D-H7□W D-H7BAL D-H7NF		D-G5□W D-K59W D-G59F D-G5 D-K5 D-G5NTL D-G5BAL	
	A	B	A	B	A	B	A	B	A	B
20	30	20.5 (28.5)	24	15.5 (22.5)	27	17.5 (25.5)	29	19.5 (27.5)	25.5	16 (24)
25	30	20.5 (28.5)	24	15.5 (22.5)	27	17.5 (25.5)	29	19.5 (27.5)	25.5	16 (24)
32	31	21.5 (29.5)	25	15.5 (23.5)	28	18.5 (26.5)	30	20.5 (28.5)	26.5	17 (25)
40	35.5	23.5 (32.5)	29.5	19 (26.5)	32.5	20.5 (29.5)	34.5	22.5 (31.5)	31	19 (28)
50	43	28.5 (40.5)	37	22.5 (34.5)	40	25.5 (37.5)	42	27.5 (39.5)	38.5	24 (36)
63	43	28.5 (40.5)	37	22.5 (34.5)	40	25.5 (37.5)	42	27.5 (39.5)	38.5	24 (36)
80	—	—	46.5	30.5 (44.5)	49.5	33.5 (47.5)	—	—	48	32 (46)
100	—	—	46.5	30.5 (44.5)	49.5	33.5 (47.5)	—	—	48	32 (46)

( ): Denotes the dimensions for long stroke, bore size ø20 to ø100, double rod.

Auto Switch Mounting Height

D-C7/C8 D-H7□ D-H7□W D-H7□F D-H7BAL	D-C73C D-C80C	D-B5/B6 D-B59W D-G5/K5 D-G5□W D-K59W D-G5NTL D-G59F D-H7C D-G5BAL
HS	**HS**	**HS**
24.5	27	27.5
27	29.5	30
30.5	33	33.5
35	37.5	38
40.5	43	43.5
47.5	50	50.5
—	—	59
—	—	69.5

Operating Range

Auto switch model	Bore size (mm)							
	20	**25**	**32**	**40**	**50**	**63**	**80**	**100**
D-C7□/C80 D-C73C/C80C	8	10	9	10	10	11	—	—
D-B5□/B64	8	10	9	10	10	11	11	11
D-B59W	13	13	14	14	14	17	16	18
D-H7□/H7□W D-H7NF/H7BAL	4	4	4.5	5	6	6.5	—	—
D-H7C	7	8.5	9	10	9.5	10.5	—	—
D-G5□/G5□W/G59F D-G5BAL/K59/K59W	—	—	—	—	—	—	6.5	7
D-G5NTL	4	4	4.5	5	6	6.5	6.5	7
D-G5NBL	35	40	40	45	45	45	45	50

∗ Since this is a guideline including hysteresis, not meant to be guaranteed. (Assuming approximately ±30% dispersion)
There may be the case it will vary substantially depending on an ambient environment.

Auto Switch Mounting Bracket, Mounting by Stroke

st: Stroke (mm)

Mounting bracket	Basic style, Foot style, Flange style, Clevis style			Trunnion style *		
No. of auto switches	1 (Rod cover side)	2 (Different sides)	2 (Mounted on the same side)	1	2 (Different sides)	2 (Mounted on the same side)
Switch mounting surface / Switch type	Port surface 	Port surface 	Port surface 			
D-C7/C8	10 st or more	15 to 49 st	50 st or more	10 st or more	15 to 49 st	50 st or more
D-H7□/H7□W D-H7BAL/H7NF	10 st or more	15 to 59 st	60 st or more	10 st or more	15 to 59 st	60 st or more
D-C73C/C80C/H7C	10 st or more	15 to 64 st	65 st or more	10 st or more	15 to 64 st	65 st or more
D-B5/B6/G5/K5 D-G5□W/K59W/G5BAL D-G59F/G5NTL	10 st or more	15 to 74 st	75 st or more	10 st or more	15 to 74 st	75 st or more
D-B59W	15 st or more	20 to 74 st	75 st or more	15 st or more	20 to 74 st	75 st or more

* Trunnion style is not available for bore sizes ø80 and ø100.

Other than the applicable auto switches listed in “How to Order”, the following auto switches can be mounted. For detailed specifications, refer to page 6-16-1.

Type	Model	Electrical entry	Features	Applicable bore size (mm)
Reed switch	D-C80	Grommet	Without indicator light	20 to 63
	D-C80C	Connector		
	D-B53	Grommet	—	20 to 100
	D-B64	Grommet	Without indicator light	

* Timer equipped type, solid state auto switch (D-G5NTL) is also available.
* Wide range detection type, solid state auto switch (D-G5NBL) is also available.
* With pre-wire connector is available for D-G5NTL and D-G5NBL.