

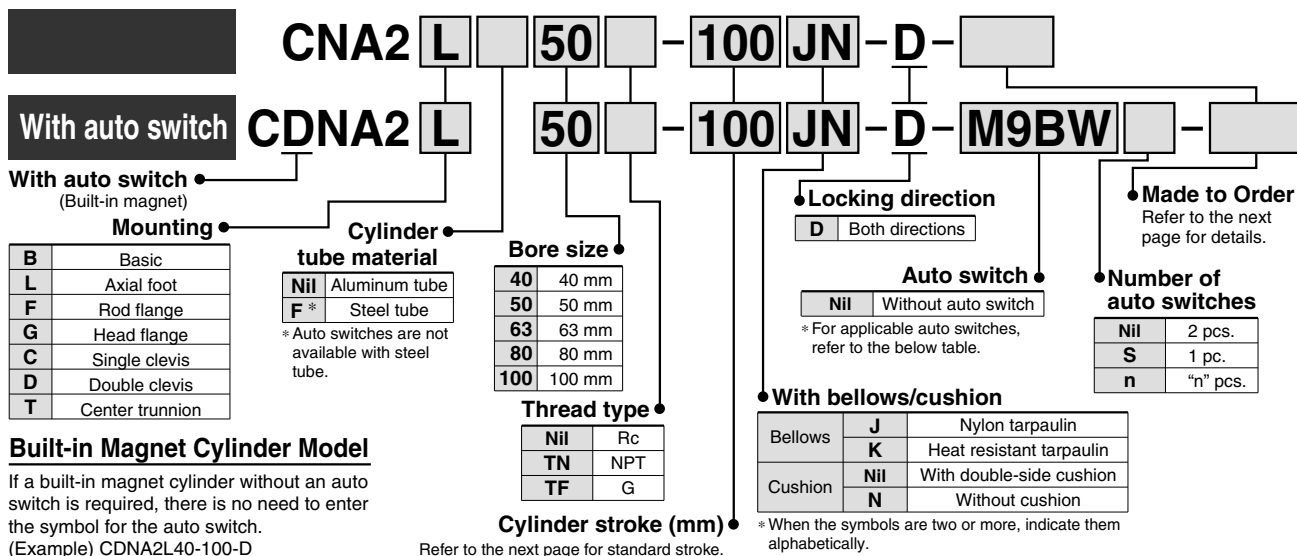
Cylinder with Lock

Double Acting, Single Rod

Series CNA2

ø40, ø50, ø63, ø80, ø100

How to Order



Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) CDNA2L40-100-D

Applicable Auto Switches/Refer to Best Pneumatics No. 3 for further information on auto switches.

Type	Special function	Electrical entry	Indicator/light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m)				Pre-wired connector	Applicable load							
					DC	AC	Tie-rod mounting	Band mounting	0.5 (Nil)	1 (M)	3 (L)	5 (Z)									
Solid state auto switch	—	Grommet	—	3-wire (NPN)	24 V	5 V, 12 V	—	M9N	●	●	●	○	—	IC circuit	—						
				3-wire (PNP)				M9P	●	●	●	○									
				2-wire	—	—	100 V, 200 V	M9B	●	●	●	○				○					
				—				K59	●	—	●	○				○					
				Diagnostic indication (2-color indication)	Grommet	Yes	3-wire (NPN)	24 V	12 V	—	J51	●				—	●	○	—	IC circuit	Relay, PLC
							2-wire				G39C	G39				—	—	—			
	3-wire (NPN)	5 V, 12 V	—				K39C	K39	—	—	—	—									
	3-wire (PNP)						M9NW	—	●	●	●	○	○								
	2-wire	24 V	12 V				—	—	G59W	●	—	●	○	○							
	—							M9PW	—	●	●	●	○	○							
	Water resistant (2-color indication)	Grommet	—	3-wire (NPN)	24 V	12 V	—	M9BW	●	●	●	○	—	—							
				3-wire (PNP)				—	K59W	●	—	●			○	○					
2-wire				5 V, 12 V	—	M9NA	—	○	○	●	○	○									
—						M9PA	—	○	○	●	○	○									
2-wire				12 V	—	M9BA	—	○	○	●	○	○									
—						—	G5BA	—	—	●	○	○									
With diagnostic output (2-color indication)	Grommet	—	4-wire (NPN)	—	5 V, 12 V	—	F59F	G59F	●	—	●	○	○	IC circuit							
Magnetic field resistant (2-color indication)			2-wire (Non-polar)				—	—	P3DW	—	●	—	●	○	○	—					
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	12 V	—	A96	—	●	—	●	—	—	IC circuit	Relay, PLC					
				No				2-wire	100 V	A93	—	●	—	●	—		—	—			
									100 V or less	A90	—	●	—	●	—		—	—			
									100 V, 200 V	A54	B54	●	—	●	●		—	—			
									200 V or less	A64	B64	●	—	●	—		—	—			
				Yes				Terminal conduit	No	—	A33C	A33	—	—	—		—	—	—	PLC	
										100 V, 200 V	A34C	A34	—	—	—		—	—	—		
				Yes				DIN terminal	No	—	A44C	A44	—	—	—		—	—	—	Relay, PLC	
										—	A59W	B59W	●	—	●		—	—	—		

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NWZ

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

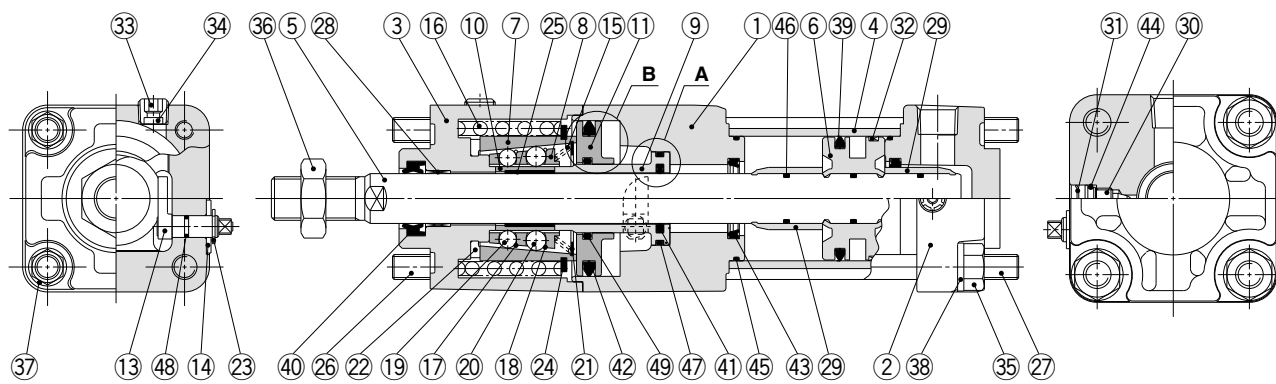
* Since there are other applicable auto switches than listed, refer to page 28 for details.

* For details about auto switches with pre-wired connector, refer to Best Pneumatics No. 3. Refer to CAT.ES20-201 catalog for the D-P3DW□.

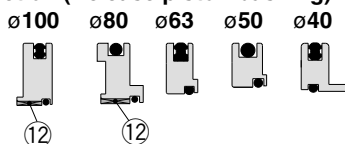
* The D-A9□/M9□□□/P3DW□ auto switches are shipped together, (but not assembled). (Only auto switch mounting brackets are assembled at the time of shipment for the D-A9□/M9□□□.)

Series CNA2

Construction



B section (Release piston bushing)



A section: ø50 to ø100



Component Parts

No.	Description	Material	Note
1	Rod cover	Aluminum alloy	Metallic painted after hard anodized
2	Head cover	Aluminum alloy	Metallic painted
3	Cover	Aluminum alloy	Metallic painted after chromated
4	Cylinder tube	Aluminum alloy	Hard anodized
5	Piston rod	Carbon steel	Hard chrome plated
6	Piston	Aluminum alloy	Chromated
7	Taper ring	Bearing steel	Heat treated
8	Ball retainer	Special resin	
9	Piston guide	Carbon steel	Zinc chromated
10	Brake shoe holder	Special steel	Heat treated
11	Release piston	Aluminum alloy	Hard anodized (ø40, ø50, ø63) Chromated (ø80, ø100)
12	Release piston bushing	Steel + Special resin	Only ø80, ø100
13	Unlocking cam	Chromium molybdenum steel	Zinc chromated
14	Washer	Rolled steel	Zinc chromated
15	Retainer pre-load spring	Stainless steel wire	
16	Brake spring	Steel wire	Zinc chromated
17	Clip A	Stainless steel	
18	Clip B	Stainless steel	
19	Steel ball A	Bearing steel	
20	Steel ball B	Bearing steel	
21	Tooth ring	Stainless steel	
22	Bumper	Urethane	
23	Type C retaining ring for unlocking cam shaft	Carbon tool steel	
24	Type C retaining ring for taper ring	Carbon tool steel	
25	Brake shoe	Special friction material	
26	Unit holding tie-rod	Carbon steel	Chromated
27	Tie-rod	Carbon steel	Zinc chromated
28	Bushing	Copper alloy	
29	Cushion ring	Aluminum alloy	Anodized
30	Cushion valve	Steel wire	Electroless nickel plated
31	Stop ring	Steel for spring	
32	Wear ring	Special resin	
33	Hexagon socket head plug	Carbon steel	Nickel plated

Component Parts

No.	Description	Material	Note
34	Element	Bronze	
35	Tie-rod nut	Rolled steel	Nickel plated
36	Rod end nut	Rolled steel	Nickel plated
37	Spring washer	Steel wire	Chromated
38	Spring washer	Steel wire	Chromated
39	Piston seal	NBR	
40	Rod seal A	NBR	
41	Rod seal B	NBR	
42	Release piston seal	NBR	
43	Cushion seal	Urethane	
44	Cushion valve seal	NBR	
45	Tube gasket	NBR	
46	Piston gasket	NBR	
47	Piston guide gasket	NBR	
48	Unlocking cam gasket	NBR	
49	O-ring	NBR	

Replacement Parts/Seal Kit

Bore size (mm)	Kit no.	Contents
40	MB 40-PS	Including 39, 40, 43, 45.
50	MB 50-PS	
63	MB 63-PS	
80	MB 80-PS	
100	MB100-PS	

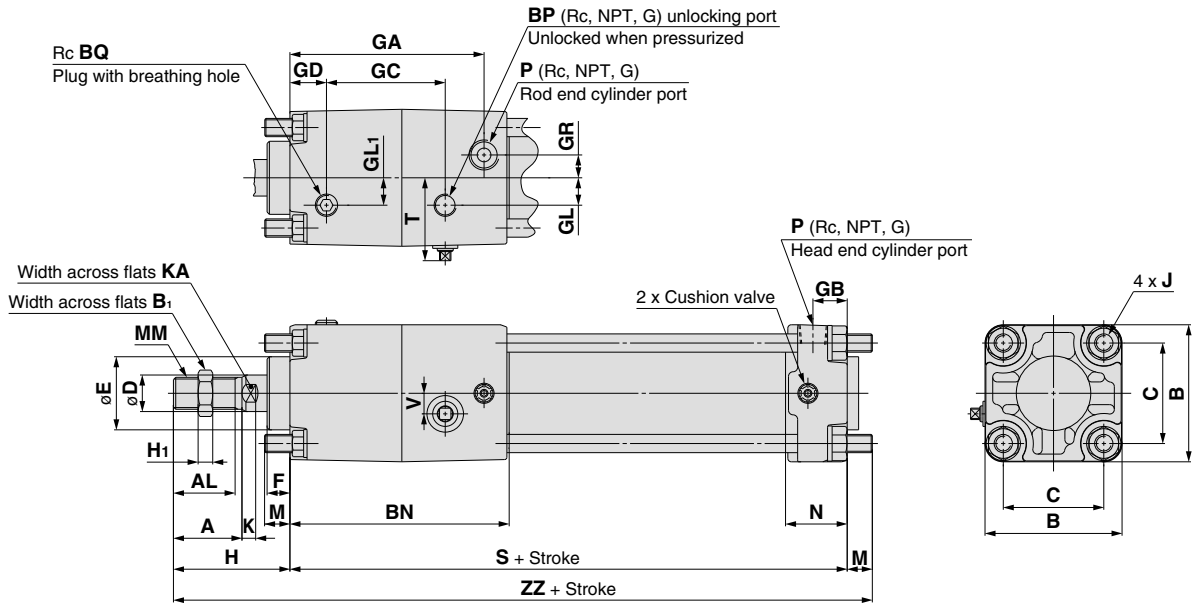
* Since the lock of the CNA2 series cannot be disassembled and is normally replaced as a unit, kits are for the cylinder section only. These can be ordered using the order number for each bore size.

* Seal kit includes a grease pack (ø40 and ø50: 10 g, ø63 and ø80: 20 g, ø100: 30 g).

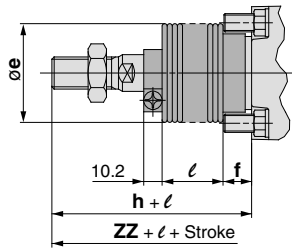
Order with the following part number when only the grease pack is needed.
Grease pack part number: GR-S-010 (10 g), GR-S-020 (20 g)

Dimensions

Basic (B): CNA2B



With bellows



Bore size (mm)	Stroke range (mm)	A	AL	B	B ₁	BN	BP	BQ	C	D	E	F	GA	GB	GC	GD	GL	GL ₁	GR	H	H ₁	J	K
40	Up to 500	30	27	60	22	96	1/8	1/8	44	16	32	10	85	15	50	16	12	12	10	51	8	M8 x 1.25	6
50	Up to 600	35	32	70	27	108	1/4	1/8	52	20	40	10	95	17	56	20	13	15	12	58	11	M8 x 1.25	7
63	Up to 600	35	32	86	27	115	1/4	1/4	64	20	40	10	102	17	65	20	18	12	15	58	11	M10 x 1.25	7
80	Up to 750	40	37	102	32	139	1/4	1/4	78	25	52	14	123	21	79.5	20	23	18	17	71	13	M12 x 1.75	10
100	Up to 750	40	37	116	41	160	1/4	1/4	92	30	52	14	144	21	93.5	22	25	20	19	72	16	M12 x 1.75	10

Bore size (mm)	KA	M	MM	N	P	S	T	V	ZZ
40	14	11	M14 x 1.5	27	1/4	153	37.5	9	215
50	18	11	M18 x 1.5	30	3/8	168	44	11	237
63	18	14	M18 x 1.5	31	3/8	182	52.5	12	254
80	22	17	M22 x 1.5	37	1/2	218	59.5	15	306
100	26	17	M26 x 1.5	40	1/2	246	69.5	15	335

Bore size (mm)	Stroke range (mm)	e	f	h	ℓ	ZZ
40	20 to 500	43	11.2	59	1/4 stroke	223
50	20 to 600	52	11.2	66	1/4 stroke	245
63	20 to 600	52	11.2	66	1/4 stroke	262
80	20 to 750	65	12.5	80	1/4 stroke	315
100	20 to 750	65	14	81	1/4 stroke	344