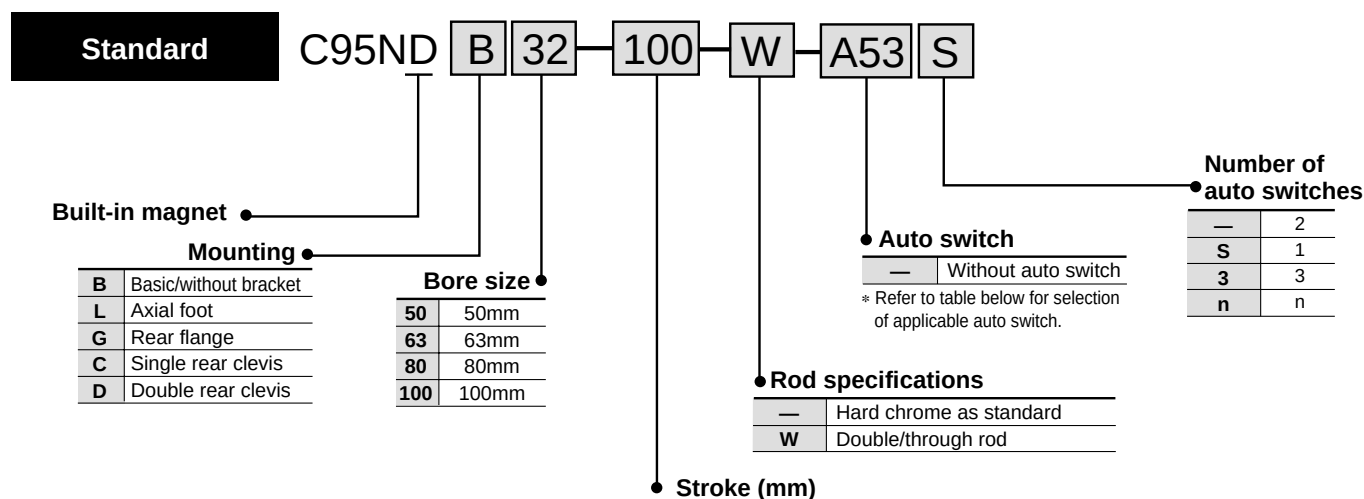


ISO Cylinder/Standard: Double Acting with Lock

Series C95N

ø32, ø40, ø50, ø63, ø80, ø100

How to Order



Applicable Auto Switches/Tie rod mounting

Refer to standard stroke table
on p.1.11-23 maximum 1000mm

Style	Special function	Electrical entry	Indicator	Load voltage			Auto switch model	Lead wire (m)*			Applicable load		Mounting bracket
				Wiring (Output)	DC	AC		0.5 (—)	3 (L)	5 (Z)			
Reed switch	—	Grommet	Yes	3 wire (Equiv. to NPN)	—	5V	—	A56	●	●	—	IC	ø32,ø40 BT-03
				2 wire	24V	12V	—	A53	●	●	●	—	
			5V,12V			100V,200V	A54	●	●	●	—		
			5V,12V			—	A67	●	●	—	—		
	Diagnosis indication (2 colour)	No	12V	200V or less	A64	●	●	—	—				
Solid state switch	—	Grommet	Yes	3 wire (NPN)	24V	5V,12V	—	F59	●	●	○	IC	ø50,ø63 BT-05
				3 wire (PNP)	—	—	100V,200V	F5P	●	●	○	—	
				2 wire	24V	12V	—	J51	●	●	○	—	
				3 wire (NPN)		5V,12V		J59	●	●	○	—	
				3 wire (PNP)	5V,12V	F59W		●	●	○	IC		
				2 wire	12V	F5PW		●	●	○	—		
				3 wire (NPN)	5V,12V	J59W		●	●	○	—		
						F5BA		—	●	○	—		
	2 wire	12V	F5NT	—	●	○		IC					
	Diagnosis indication (2 colour)	3 wire (PNP)	5V,12V	F59F	●	●		○	—				
	Water resistant (2 colour)	4 wire (NPN)	—	F5LF	●	●	○	—					
	With timer												
Diagnosis output (2 colour)													
Latch diagnosis output (2 colour)													

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage			Auto switch model		Lead wire length (m) ^{Note)}			Applicable load		Mounting bracket
					DC	AC		Electrical entry direction	0.5 (Nil)	3 (L)	5 (Z)				
Reed switch	—	Grommet	Yes	3 wire	—	5V	—	—	Z76	●	●	—	IC circuit	—	ø32,ø40 BMB4-032
				2 wire	24V	—	100V	—	Z73	●	●	●	—	Relay PLC	
						5V, 12V	100V or less	—	Z80	●	●	—	IC circuit		
Solid state switch	—	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	—	Y69A	Y59A	●	●	○	IC circuit	ø50,ø63 BMB4-050	
				3 wire (PNP)		12V		Y7PV	Y7P	●	●	○	—		
				2 wire		5V, 12V		Y69B	Y59B	●	●	○			IC circuit
				3 wire (NPN)		12V		Y7NWV	Y7NW	●	●	○	Relay PLC		
	3 wire (PNP)			5V, 12V	Y7PWV	Y7PW		●	●	○	ø80,ø100 BA4-063				
	Diagnostic indication (2 colour indicator)			24V	5V, 12V	Y7BWV		Y7BW	●	●		○			—
					12V	—		Y7BA	—	●		—			
					Water resistant (2 colour indicator)	24V		5V, 12V	Y7BWV	Y7BW		●	●		
12V		—	Y7BA				—	●	—	—					

Cylinder

Series C95N

with lock

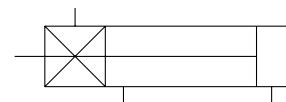
Cylinder Specifications

Bore Size [mm]	32, 40, 50, 63, 80, 100
Fluid	Air
Proof Pressure	1.5MPa
Max. operating pressure	1.0MPa
Min. operating pressure	0.08MPa
Piston speed	50 to 1000mm/s ^{note)}
Ambient and fluid temperature	Without autoswitch : -10°C to 70°C (without freezing) With autoswitch : -10°C to 70°C (without freezing)
Cushion	Double air side cushion
Stroke length tolerance	to 250: $^{+1.0}_0$, 251 to 1000: $^{+1.4}_0$
Bracket type	Basic type, Axial foot type, Front flange type, Rear flange type, Single clevis type, Double clevis type, Spherical bearing
max. possible stroke [mm]	1000

Note) Load limits exist depending upon piston speed when locked, mounting direction and operating pressure.



Cylinder with lock



Lock Specifications

Lock actuation	Spring lock (exhaust lock)
Unlocking pressure	$\geq 0.25\text{MPa}$
Locking pressure	" 0.20MPa
Max. operating pressure	1.0MPa
Locking direction	2 Two-way

Standard Stroke

Bore Size [mm]	Standard Stroke [mm]	Max. Stroke
32	25,50,75,100,125,150,175,200,250,300,350,400,450,500	1000
40	25,50,75,100,125,150,175,200,250,300,350,400,450,500	
50	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600	
63	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600	
80	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,800	
100	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,800	

Stopping Accuracy

[mm]

Locking system	Piston speed [mm/s]			
	100	300	500	1000
Spring lock	± 0.3	± 0.6	± 1.0	± 2.0

Conditions/Horizontal supply pressure P=0.5MPa

Load weight Upper limit of allowable value

Solenoid valve for locking mounted on the locking pdr

Maximum value of stopping position dispersion from 100 measurements

Spring Lock Holding Power (Maximum static Load)

Bore size [mm]	32	40	50	63	80	100
Holding power [N]	552	882	1370	2160	3430	5390

CJ1

CJP

CJ2

CM2

C85

C76

CG1

MB

MB1

CP95

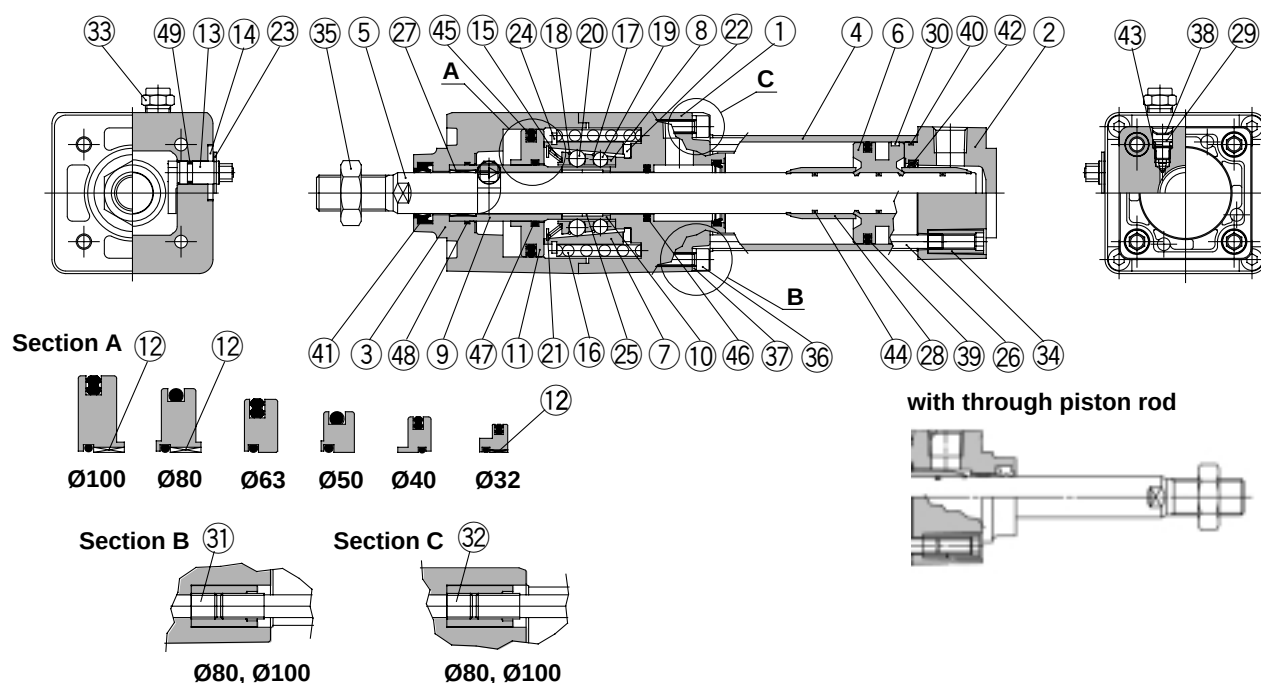
C95

C92

CA1

CS1

Construction



Parts list

No.	Description	Material	Note
①	Rod cover	Aluminium alloy	Hard anodised & metallic coated
②	Head cover	Aluminium alloy	Chromated & metallic coated
③	Cover	Aluminium alloy	Hard anodised & metallic coated
④	Cylinder tubing	Aluminium alloy	Hard anodised
⑤	Piston rod	Carbon steel	Hard chrome plated
⑥	Piston	Aluminium alloy	Chromated
⑦	Taper Ring	Carbon steel	Heat treated
⑧	Ball retainer	Special resin	
⑨	Piston guide	Carbon steel	Zinc chromated
⑩	Brake shoe holder	Carbon steel	Heat treated
⑪	Release piston	Ø40	Aluminium alloy
		Ø50	
		Ø63	
		Ø32	Carbon steel
		Ø80	
		Ø100	
⑫	Release piston bushing	Steel + special resin	Ø32, Ø80, Ø100 only
⑬	Unlocking cam	Carbon steel	Glossy chromated
⑭	Washer	Carbon steel	Black zinc chromated
⑮	Retainer pre-load spring	Carbon steel	Zinc chromated
⑯	Brake spring	Carbon steel	Zinc chromated
⑰	Clip A	Stainless steel	
⑱	Clip B	Stainless steel	
⑲	Steel ball A	Carbon steel	
⑳	Steel ball B	Carbon steel	
㉑	Tooth ring	Stainless steel	
㉒	Damper	Polyurethane rubber	
㉓	C type retaining ring for unlocking cam shaft	Carbon steel	
㉔	C type retaining ring for taper ring	Carbon steel	
㉕	Brake shoe	Special friction material	
㉖	Tie rod	Carbon steel	Chromated
㉗	Bushing	Lead-bronze casting	
㉘	Cushion ring	Brass	

Parts list

No.	Description	Material	Note
㉙	Cushion valve	Carbon steel	Nickel plated
㉚	Wear ring	PUR	
㉛	Unit holding tie-rod A	Carbon steel	Chromated Ø80, Ø100 only
㉜	Unit holding tie-rod B	Carbon steel	Chromated Ø80, Ø100 only
㉝	BC element		
㉞	Tie-rod nut	Carbon steel	Nickel plated
㉟	Rod end nut	Carbon steel	Nickel plated
㊱	Hexagon socket head cap screw	Carbon steel	Nickel plated Ø32, Ø63 only
㊲	Spring washer for hex. socket head cap screw	Carbon steel	Nickel plated Ø32, Ø63 only
㊳	Retaining ring	Carbon steel	
㊴	Piston seal	NBR	
㊵	Cylinder tube gasket	NBR	
㊶	Rod seal A	NBR	
㊷	Cushion seal	NBR	
㊸	Cushion valve seal	NBR	
㊹	Piston gasket	NBR	
㊺	Release piston gasket	NBR	
㊻	Rod seal B	NBR	
㊼	Release piston gasket	NBR	
㊽	Piston guide gasket	NBR	
㊾	Unlocking cam gasket	NBR	

CJ1

CJP

CJ2

CM2

C85

C76

CG1

MB

MB1

CP95

C95

C92

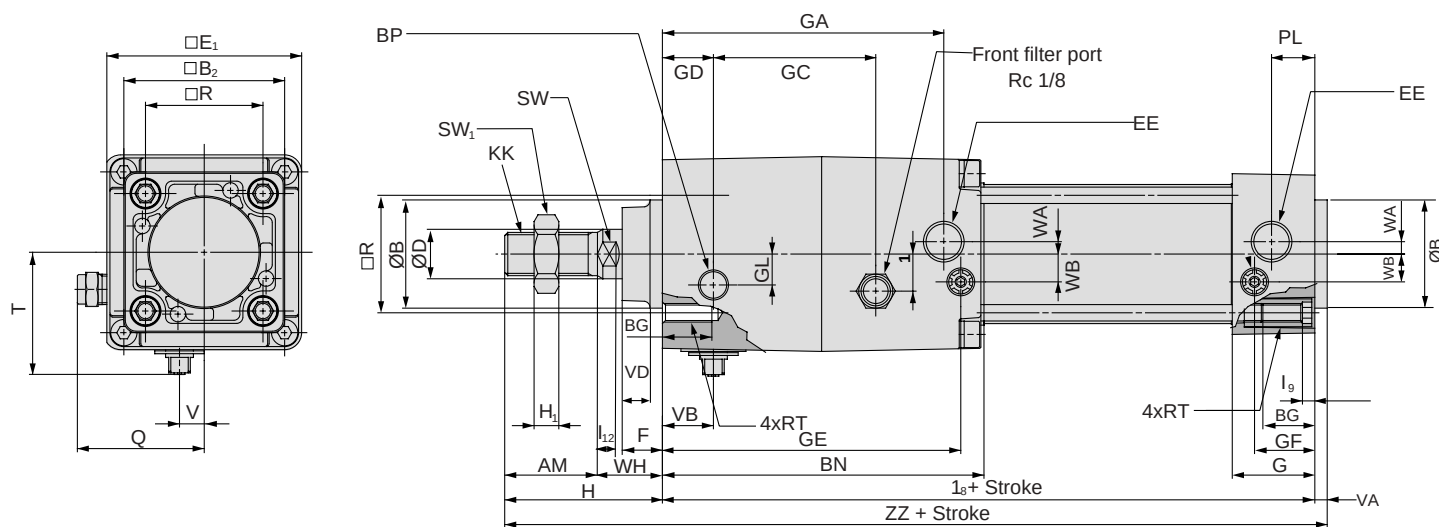
CA1

CS1

Series C95N

Dimensions

Basic type (B)



Bore size (mm)	AM	ØBe 11	□B ₂	BG	BN	BP	ØD	EE	□E	□E ₁	F	G	GA	GC	GD	GE	GF	GL	GL ₁	H	H ₁
32	22	30	46	16	97	G1/8	12	G1/8	46	54	13	27	83	45.5	13	88.5	18.3	7.5	12	48	6
40	24	35	52	16	104	G1/8	16	G1/4	52	63	13	27	91	52.5	16.5	96.5	19.5	10	12	54	8
50	32	40	65	16	120.5	G1/4	20	G1/4	65	75	14	31.5	104.5	58.5	19	111.2	22.4	11.5	15	69	11
63	32	45	75	16	134.5	G1/4	20	G3/8	75	90	14	31.5	119.5	68	23	123.5	20.7	17.5	12	69	11
80	40	45	95	16	169	G1/4	25	G3/8	95	102	20	38	150	81	33	157	26	22	18	86	13
100	40	55	114	16	189	G1/4	30	G1/2	114	116	20	38	170	96	37.5	177	26	25	20	91	16

Bore size (mm)	KK	I ₈	I ₉	I ₁₂	PL	Q	□R	RT	SW	SW ₁	T	V	VA	VB	VD	WA	WB	WH	ZZ
32	M10 x 1.25	164	4	6	13	37	32.5	M6	10	17	34	6.5	4	13	4	4	6.5	26	216
40	M12 x 1.25	182	4	6.5	14	41.5	38	M6	13	19	39.5	8	4	16.5	4	4	9	30	240
50	M16 x 1.5	195	5	8	15.5	47.5	46.5	M8	16	24	47	9	4	20	6	5	10.5	37	268
63	M16 x 1.5	224	5	8	16.5	55	56.5	M8	16	24	55.5	8.5	4	23	6	9	12	37	297
80	M20 x 1.5	259	5	10	19	61	72	M10	21	30	61.5	10.5	4	33	8	11.5	14	46	349
100	M20 x 1.5	289	5	10	19	68	89	M10	21	30	69.5	10.5	4	37.5	8	17	15	51	384