

Smooth Cylinder Series CA2Y

ø40, ø50, ø63, ø80, ø100

Specifications and auto switch information not provided below are the same as those of the standard, double acting, single rod type of Series CA2.

How to Order

Standard

CA2Y L 40 150

With auto switch

CDA2Y L 40 150 Y7BW S

With auto switch
(Built-in magnet)

Mounting

B	Basic
L	Axial foot
F	Front flange
G	Rear flange
C	Single clevis
D	Double clevis
T	Center trunnion

Bore size

40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

Number of auto switches

Nil	2 pcs.
S	1 pc.
3	3 pcs.
n	n pcs.

Auto switch

Nil	Without auto switch
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* Please select the applicable auto switch model from the table below.
* Models D-Z7□, Z80, Y59□, Y69, and Y7□ are not mounted and are supplied loose at the time of shipment. (Only switch mounting brackets for above models are mounted.)

Cylinder stroke (mm)

→ Refer to Standard stroke table on page 15.

Port thread type

Nil	Rc
TN	NPT
TF	G

Cylinders with built-in magnets

If built-in magnet type is ordered without auto switch, leave the field for the auto switch type blank. (Example) CDA2YB40-100

Applicable auto switches

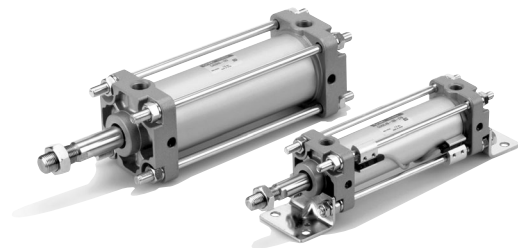
Type	Special function	Electrical entry	Indicator	Wiring (Output)	Load voltage		Auto switch model Tie-rod mounting	Lead wire (m)*			Pre-wired connector	Applicable load		
					DC	AC		0.5 (Nil)	3 (L)	5 (Z)				
Reed switch	-	Grommet	Yes	3-wire (NPN) (Equiv. NPN)	-	5 V	-	Z76	●	●	-	-	IC	-
				2-wire	24 V	12 V	100 V, 200 V	Z73	●	●	●	-	-	Relay, PLC
	Diagnostic indication (2-color)	Grommet	-	-	-	-	A54	●	●	●	-	-	-	
Solid state switch	-	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	-	Y59A	●	●	○	○	IC	Relay, PLC
				3-wire (PNP)	-	-	100 V, 200 V	Y7P	●	●	○	○	-	
	2-wire	-	12 V	-	J51	●	●	○	○	-				
	Diagnostic indication (2-color)	Grommet	3-wire (NPN)	24 V	5 V, 12 V	Y7NW	●	●	○	○	IC			
			3-wire (PNP)			Y7PW	●	●	○	○	-			
			2-wire			Y7BW	●	●	○	○	-			
	Water resistant (2-color)	Grommet	Yes	24 V	12 V	Y7BA	-	●	○	○	-			
	With diagnostic output (2-color)					F59F	●	●	○	○	IC			
	Latch with diagnostic output (2-color)					F5LF	●	●	○	○	-			
	Magnetic field resistant (2-color)	-	-	-	2-wire	-	-	-	P5DW	-	●	●	○	

* Lead wire length 0.5 m Nil (Example) A54
3 m L (Example) A54L
5 m Z (Example) A54Z

* ○: Manufactured upon receipt of order.

In addition to the models in the above table, there are some other auto switches that are applicable. For more information, refer to SMC catalog CAT.ES20-176.

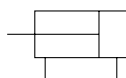
Series CA2Y



Specifications

Action	Double acting
Operating piston speed	5 to 500 mm/s
Fluid	Air
Proof pressure	1.05 MPa
Maximum operating pressure	0.7 MPa
Ambient and fluid temperature	Without auto switch -10 to 70°C (with no freezing)
	With auto switch -10 to 60°C (with no freezing)
Cushion	None
Thread tolerance	JIS class 2
Lubrication	Not required (Non-lube)
Mounting	Basic, Axial foot, Front flange, Rear flange, Single clevis, Double clevis, Center trunnion
Allowable leakage rate	0.5 ℓ/min (ANR)

JIS symbol



Minimum Operating Pressure

	Unit: MPa				
Bore size (mm)	40	50	63	80	100
Minimum operating pressure	0.02	0.01			

Standard Stroke Table

Bore size (mm)	Standard stroke (mm)
40	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
50, 63	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
80, 100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700

Replacement Parts: Seal Kits

Bore size (mm)	Kit No.	Contents
40	CA2Y40-PS	Rod seal 1 pc.
50	CA2Y50-PS	Piston seal 1 pc.
63	CA2Y63-PS	Cylinder tube gasket 2 pcs.
80	CA2Y80-PS	Grease pack (10 g) 1 pc.
100	CA2Y100-PS	

When only grease for maintenance is necessary, please order by the following part numbers.

Grease pack GR-L-005 (5 g)
GR-L-010 (10 g)
GR-L-150 (150 g)



Note 1) Intermediate strokes not listed above are also available. Consult SMC for strokes outside the above ranges.

Note 2) As the stroke increases, more sliding resistance may result due to the deflection of the piston rod and other factors. Take measures such as the installation of a guide.

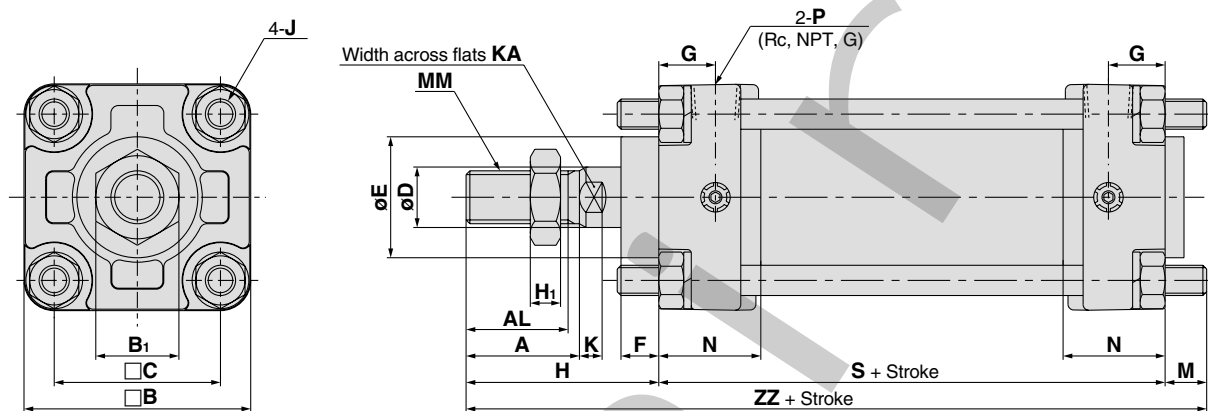
Accessory

Mounting		Basic	Foot	Front flange	Rear flange	Single clevis	Double clevis	Center trunnion
Standard	Jam nut	●	●	●	●	●	●	●
	Clevis pin	-	-	-	-	-	●	-
Option	Single knuckle joint	●	●	●	●	●	●	●
	Double knuckle joint (with pin)	●	●	●	●	●	●	●

Mounting bracket dimensions are the same as those of the standard, double acting, single rod type of Series CA2. Please refer to SMC catalog CAT.ES20-176.

Dimensions/ø40 to ø100

Basic/CA2YB



Bore size (mm)	Stroke range	A	AL	□B	B ₁	□C	D	E	F	G	H	H ₁	J	K	KA	M	MM	N	P	S	ZZ
40	Up to 500	30	27	60	22	44	16	32	10	15	51	8	M8 x 1.25	6	14	11	M14 x 1.5	27	1/4	84	146
50	Up to 600	35	32	70	27	52	20	40	10	17	58	11	M8 x 1.25	7	18	11	M18 x 1.5	30	3/8	90	159
63	Up to 600	35	32	85	27	64	20	40	10	17	58	11	M10 x 1.25	7	18	14	M18 x 1.5	31	3/8	98	170
80	Up to 700	40	37	102	32	78	25	52	14	21	71	13	M12 x 1.75	10	22	17	M22 x 1.5	37	1/2	116	204
100	Up to 700	40	37	116	41	92	30	52	14	21	72	16	M12 x 1.75	10	26	17	M26 x 1.5	40	1/2	126	215

(mm)