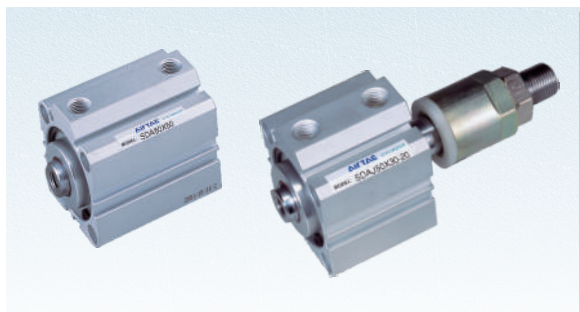


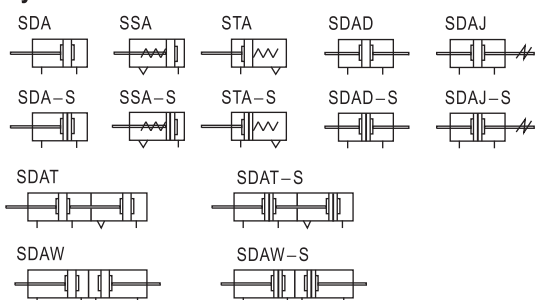
# Compact cylinder



## SDA Series



### Symbol



### Product feature

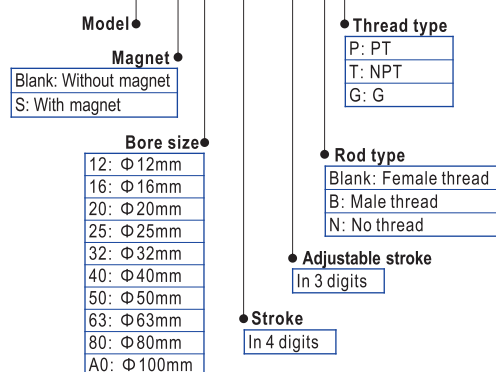
1. Manufactured by our enterprise.
2. Riveted structure is adopted to connect the cylinder body and back cover, and piston and piston rod to make it compact and reliable;
3. The inner diameter of the body is treated with rolling followed by the treatment of hard anodizing, forming an excellent abrasion resistance and durability.
4. The seal of piston adopts heterogeneous two-way seal structure. It has compact dimension and the function of grease reservation.
5. Compact structure can effectively save installation space.
6. There are magnetic switch slots around the cylinder body, which is convenient to install sensor switch
7. Mounting accessories with various specifications are optional.

### Ordering code

Model can be changed Ordering code. Example:  
 Production type: SDAJ  
 Magnet: With magnet  
 Bore size: 50mm  
 Stroke: 80mm  
 Adjustable stroke: 50mm  
 Rod type: Male thread  
 Thread type: NPT

**Model: SDAJ S-50 × 80-50-B-T**

**Ordering code: SDAJ S 50 0080 050 B T**



### Specification

Bore size(mm)	12	16	20	25	32	40	50	63	80	100	
Acting type	Double acting										
	Single acting-Push type, Single acting-Pull type										
Fluid	Air(to be filtered by 40 μ m filter element)										
Operating pressure	0.1~1.0MPa(15~145psi)(1.0~10.0bar)										
	0.2~1.0MPa(28~145psi)(2.0~10.0bar)										
Proof pressure	1.5MPa(215psi)(15bar)										
Temperature °C	-20~80										
Speed range mm/s	Double acting: 30~500					Single acting: 50~500					
Stroke tolerance											
Cushion type	Bumper										
Port size ①	M5 × 0.8					1/8"		1/4"		3/8"	

① PT thread, NPT thread and G thread are available. Add) Refer to P403~426 for detail of sensor switch.

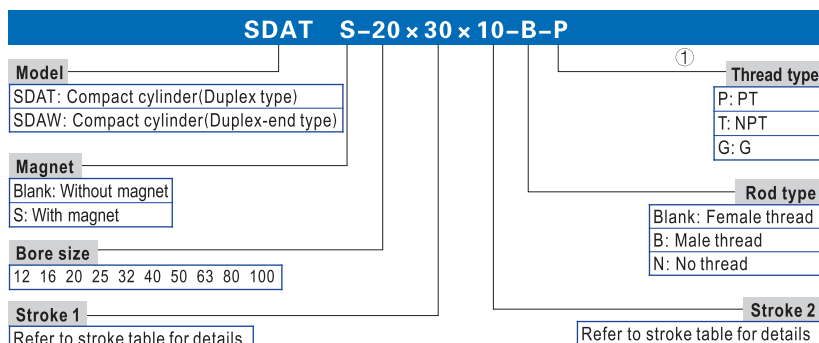
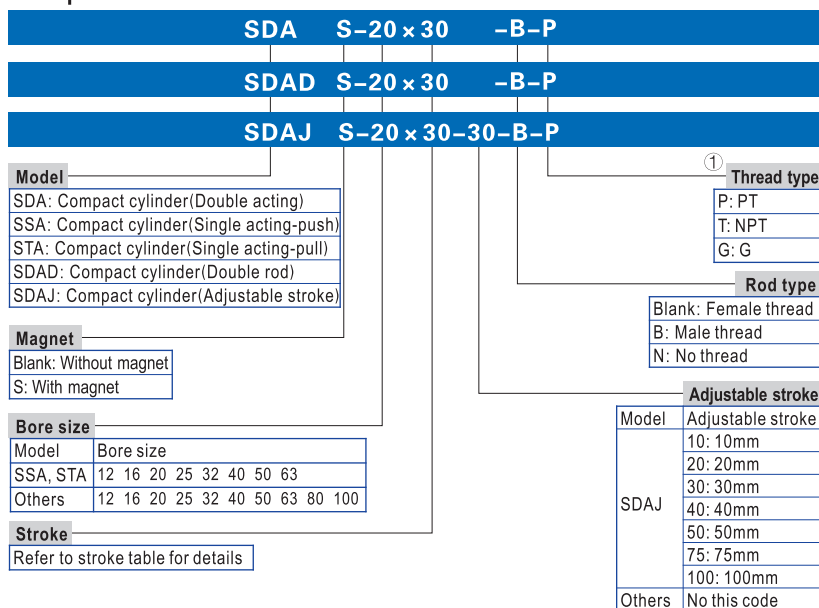
### Stroke

Bore size (mm)			Standard stroke (mm)										Max. std. stroke	Max. stroke										
	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50												
12	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50	50	70										
		Without magnet	5	10	15	20	25	30	35	40	45	50	55	60										
16	Single acting		5	10	15	20	25	30					30	-										
			5	10	15	20	25	30					90	130										
20	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90				
		Without magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100			
		Single acting	5	10	15	20	25	30						30	-									
25, 32	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
		Without magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130
		Single acting	5	10	15	20	25	30						30	-									
40, 50	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130
		Without magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130
		Single acting	5	10	15	20	25	30						30	-									
63	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
		Without magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
		Single acting	5	10	15	20	25	30						30	-									
80	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
		Without magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
		Single acting	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
100	Double acting	With magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
		Without magnet	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	
		Single acting	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	

Note) 1. Please contact the company for other special strokes.

2. The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder. e.g. 23mm stroke cylinder has the same dimensions of 25 std. stroke cylinder.

### Explain of model



# Compact cylinder



## SDA Series

### Inner structure and material of major parts

**SDA**

NO.	Item	Material
1	Back cover	No(Φ 12, 16) Aluminum alloy(Others)
2	Bumper	NBR
3	Piston	Brass(Φ 12, 16) Aluminum alloy(Others)
4	Piston seal	NBR
5	Piston rod	Carbon steel with 20 μ m chrome plated
6	Body	Aluminum alloy
7	Front cover	Aluminum alloy
8	O-ring	NBR
9	C clip	Spring steel
10	Front cover packing	NBR
11	Piston nut	Carbon steel
12	Bushing	No(Φ 12~32) Wear resistant material(Others)

### Dimensions

**SDA**

Item	A		C		B1	D	E	F	G	K1	L	M	N1		N2	
	Standard	With magnet	Standard	With magnet									St=5	St>5	St=5	St>5
12	22	32	17	27	5	-	6	4	1	M3 × 0.5	10.2	3	7.5	7.5	5	5
16	24	34	18.5	28.5	5.5	-	6	4	1.5	M3 × 0.5	11	3	8	8	5.5	5.5
20	25	35	19.5	29.5	5.5	36	8	4	1.5	M4 × 0.7	13	3	9	9	5.5	5.5
25	27	37	21	31	6	42	10	4	2	M5 × 0.8	17	3	9.2	9.2	5.5	5.5
32	31.5	41.5	24.5	34.5	7	50	12	4.6	2.4	M6 × 1.0	22	3	9	9	6.5	9
40	33	43	26	36	7	58.5	12	4	3	M8 × 1.25	28	3	9.5	9.5	7.5	7.5
50	37	47	28	38	9	71.5	15	5	4	M10 × 1.5	38	3	8	10.5	8	10.5
63	41	51	32	42	9	84.5	15	5	4	M10 × 1.5	40	3	9.5	12	9.5	11
80	52	62	41	51	11	104	20	6	5	M14 × 1.5	45	4	11.5	14.5	11.5	14.5
100	63	73	51	61	12	124	20	7	5	M18 × 1.5	55	4	16	20.5	16	20.5

Bore size\Item	O	P1	P3	P4	R	S	T1	T2	V	W	X	Y
12	M5 × 0.8	2-Sides: Φ 6.5 Thread:M5 × 0.8 Thru.hole: Φ 4.2	12	4.5	-	25	16.2	23	6	5	-	-
16	M5 × 0.8	2-Sides: Φ 6.5 Thread:M5 × 0.8 Thru.hole: Φ 4.2	12	4.5	-	29	19.8	28	6	5	-	-
20	M5 × 0.8	2-Sides: Φ 6.5 Thread:M5 × 0.8 Thru.hole: Φ 4.2	14	4.5	2	34	24	-	8	6	11.3	10
25	M5 × 0.8	2-Sides: Φ 8.2 Thread:M6 × 1.0 Thru.hole: Φ 4.6	15	5.5	2	40	28	-	10	8	12	10
32	1/8"	2-Sides: Φ 8.2 Thread:M6 × 1.0 Thru.hole: Φ 4.6	16	5.5	6	44	34	-	12	10	18.3	15
40	1/8"	2-Sides: Φ 10 Thread:M8 × 1.25 Thru.hole: Φ 6.5	20	7.5	6.5	52	40	-	16	14	21.7	16
50	1/4"	2-Sides: Φ 11 Thread:M8 × 1.25 Thru.hole: Φ 6.5	25	8.5	9.5	62	48	-	20	17	30	20
63	1/4"	2-Sides: Φ 11 Thread:M8 × 1.25 Thru.hole: Φ 6.5	25	8.5	9.5	75	60	-	20	17	28.7	20
80	3/8"	2-Sides: Φ 14 Thread:M12 × 1.75 Thru.hole: Φ 9.2	25	10.5	10	94	74	-	25	22	36	26
100	3/8"	2-Sides: Φ 17.5 Thread:M14 × 2.0 Thru.hole: Φ 11.3	30	13	10	114	90	-	32	27	35	26

