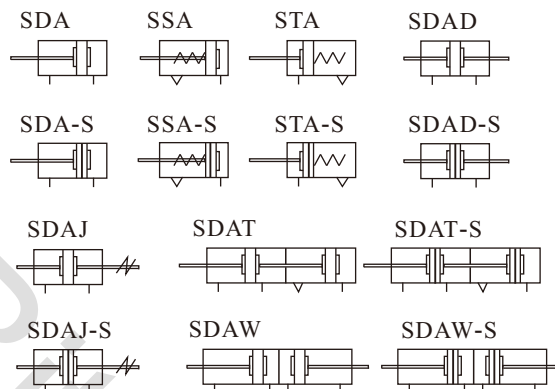


Product feature

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.

Symbol



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 40μm filter element)										
Operating pressure	Double acting	0.15~1.0MPa(22~145psi)(1.5~10.0bar)										
	Single acting	0.2~1.0MPa(28~145psi)(2.0~10.0bar)										
Proof pressure		1.5MPa(215psi)(15bar)										
Temperature °C		-20~70										
Speed range mm/s		Double acting: 30~500					Single acting: 50~500					
Stroke tolerance		Stroke≤100 $+1.0_0$					Stroke>100 $+1.5_0$					
Cushion type		Bumper										
Port size [Note1]		M5×0.8				G1/8		G1/4		G3/8		

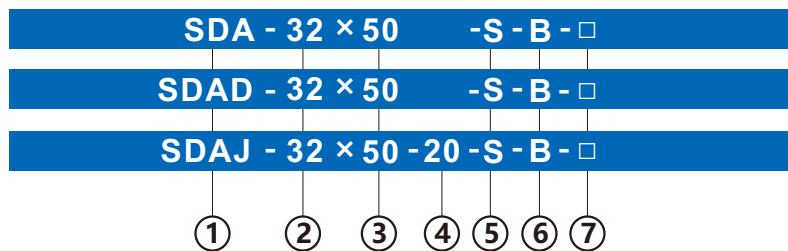
[Note1] The standard thread type is G thread, Please control us for other thread type.

Standard Stroke

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

[Note] Consult us for non-standard stroke.

Ordering code



① Model

SDA: Compact cylinder(Double acting)
 SSA: Compact cylinder(Single acting-push)
 STA: Compact cylinder(Single acting-pull)
 SDAD: Compact cylinder(Double rod)
 SDAJ: Compact cylinder(Adjustable stroke)

② Bore size

Bore size	Series
12 16 20 25 32 40 50 63 80 100	SDA SDAD SDAJ
12 16 20 25 32 40 50 63	SSA STA

⑥ Rod type

Blank: Female thread
 B: Male thread

⑦ Thread type

Blank: G thread
 PT: PT thread

③ Stroke

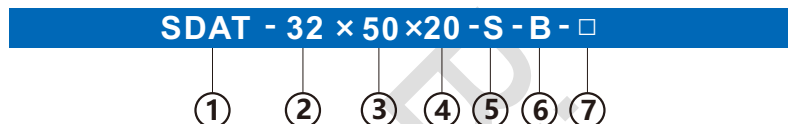
Refer to stroke table for details

⑤ Magnet

Blank: Without magnet
 S: With magnet

④ Adjustable stroke

Series	Adjustable stroke
SDAJ series	10: 10mm
	20: 20mm
	30: 30mm
	40: 40mm
	50: 50mm
75: 75mm	
100: 100mm	
Others series	No this code



① Model

SDAT: Compact cylinder (Duplex type)
 SDAW: Compact cylinder(Duplex-end type)

② Bore size

12 16 20 25 32 40 50 63 80 100

⑦ Thread type

Blank: G thread
 PT: PT thread

⑥ Rod type

Blank: Female thread
 B: Male thread

⑤ Magnet

Blank: Without magnet
 S: With magnet

③ Stroke I

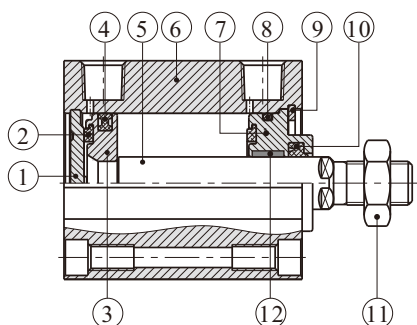
Refer to stroke table for details

④ Stroke II

Refer to stroke table for details

Inner structure and material of major parts

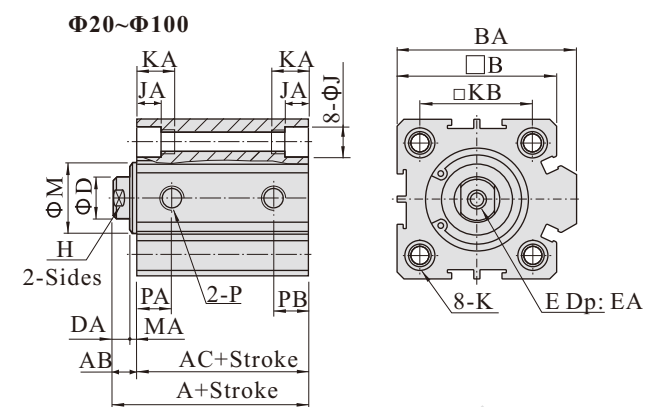
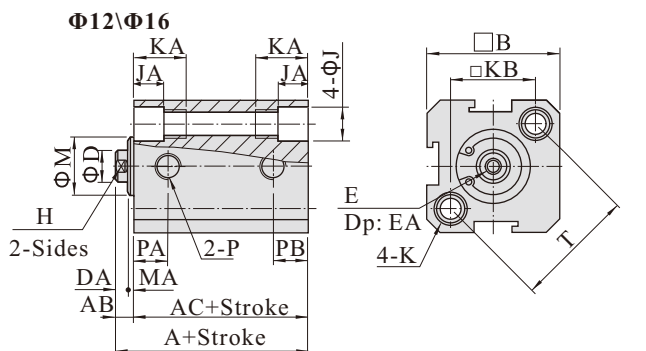
SDA



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 20μm 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(Φ12~32)/Wear resistant material(Others)

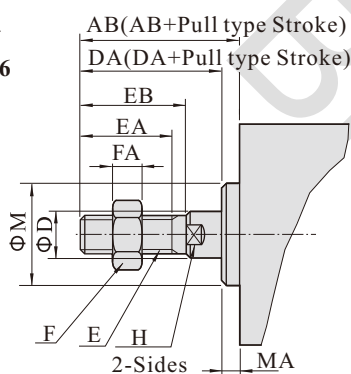
Dimensions

SDA series

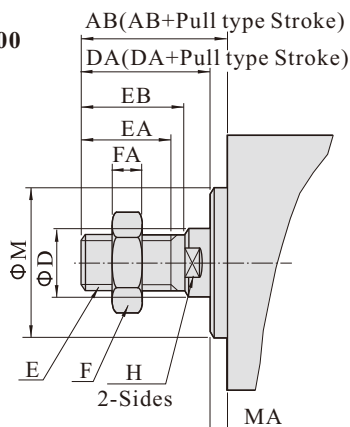


Male thread

Φ12\Φ16



Φ20~Φ100



Item	A	AC	A	AC	AB	B	BA	D	DA
Bore size	Without magnet	With magnet	Without magnet	With magnet					
12	22	17	32	27	5	25	-	6	4
16	24	18.5	34	28.5	5.5	29	-	6	4
20	25	19.5	35	29.5	5.5	34	36	8	4
25	27	21	37	31	6	40	42	10	4
32	31.5	24.5	41.5	34.5	7	44	50	12	4.5
40	33	26	43	36	7	52	58.5	16	4
50	37	28	47	38	9	62	71.5	20	5
63	41	32	51	42	9	75	84.5	20	5
80	52	41	62	51	11	94	104	25	6
100	63	51	73	61	12	114	124	32	7

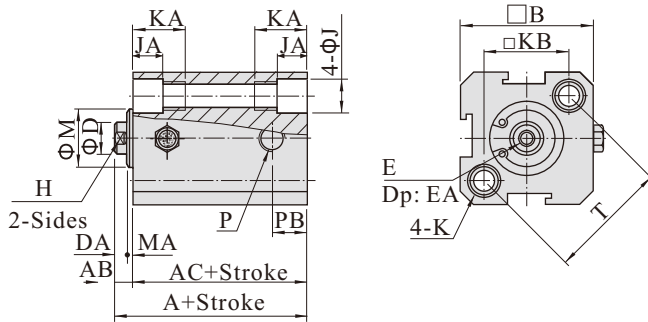
Item	E	EA	H	J	JA	K
Bore size						
12	M3×0.5	6	5	6.5	4.5	M5×0.8Thru.hole:Φ4.2
16	M3×0.5	6	5	6.5	4.5	M5×0.8Thru.hole:Φ4.2
20	M4×0.7	8	6	6.5	4.5	M5×0.8Thru.hole:Φ4.2
25	M5×0.8	10	8	8.2	5.5	M6×1.0Thru.hole:Φ5.2
32	M6×1.0	12	10	8.2	5.5	M6×1.0Thru.hole:Φ5.2
40	M8×1.25	12	14	10.5	6.5	M8×1.25Thru.hole:Φ6.7
50	M10×1.5	15	17	10.5	6.5	M8×1.25Thru.hole:Φ6.7
63	M10×1.5	15	17	10.5	6.5	M8×1.25Thru.hole:Φ6.7
80	M14×1.5	20	22	17	11	M12×1.75Thru.hole:Φ10.4
100	M18×1.5	20	27	19	13	M14×2.0Thru.hole:Φ12.4

Item	KA	KB	M	MA	P	PA		PB		T
						St=5	St>5	St=5	St>5	
Bore size										
12	12	16.3	10.2	1	M5×0.8	7.5	7.5	5	5	23
16	12	19.8	11	1.5	M5×0.8	8	8	5	5.5	28
20	14	24	13	1.5	M5×0.8	8	9	5	5.5	-
25	15	28	17	2	M5×0.8	9	9	5.5	5.5	-
32	16	34	22	2.5	G1/8	9	9	6.5	9	-
40	20	40	28	3	G1/8	9.5	9.5	7.5	7.5	-
50	25	48	38	4	G1/4	8	10.5	8	10.5	-
63	25	60	40	4	G1/4	9.5	12	9.5	11	-
80	25	74	45	5	G3/8	11.5	14.5	11.5	14.5	-
100	30	90	55	5	G3/8	16	20.5	16	20.5	-

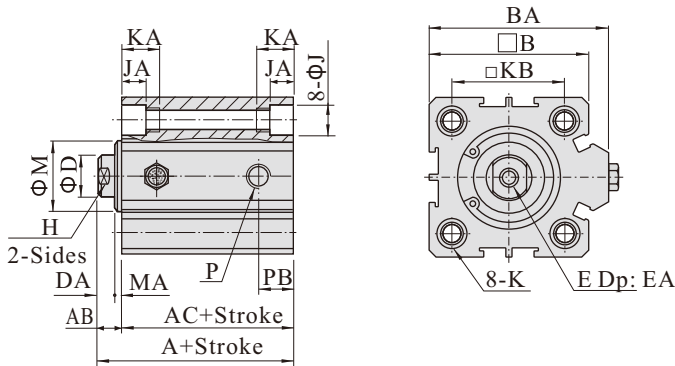
Item	AB	D	DA	E	EA	EB	F	FA	H	M	MA	
											SDAD/SDAJ	Others
Bore size												
12	17	6	16	M5×0.8	10	12	8	4	5	10.2	1	1
16	17.5	6	16	M5×0.8	10	12	8	4	5	11	1.5	1.5
20	20.5	8	19	M6×1.0	13	15	10	5	6	13	1.5	1.5
25	23	10	21	M8×1.25	15	17	12	6	8	17	2	2
32	25	12	22	M10×1.25	15	18	17	6	10	22	3	2.5
40	35	16	32	M14×1.5	25	28	19	8	14	28	3	3
50	37	20	33	M18×1.5	25	28	27	11	17	38	4	4
63	37	20	33	M18×1.5	25	28	27	11	17	40	4	4
80	44	25	39	M22×1.5	30	33	32	13	22	45	5	5
100	50	32	45	M26×1.5	35	38	36	13	27	55	5	5

SSA series

Φ12\Φ16

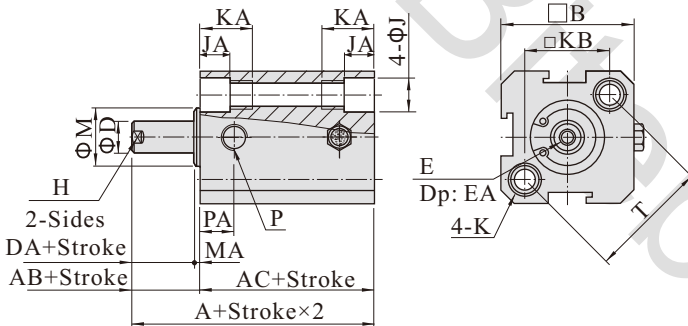


Φ20~Φ100

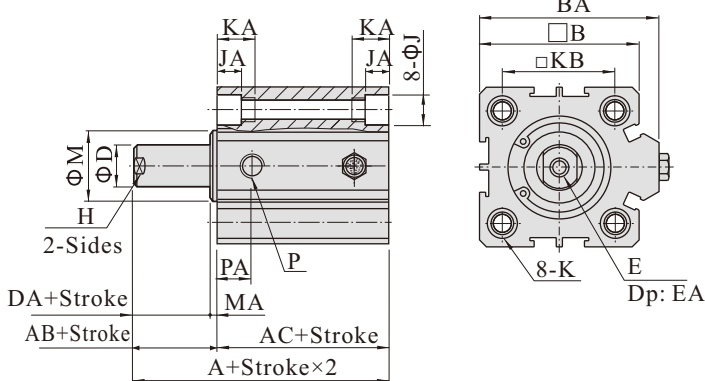


STA series

Φ12\Φ16



Φ20~Φ100



Bore size/Item	A(Without magnet)		A(With magnet)		AB
	St≤10	St>10	St≤10	St>10	
12	32	42	42	52	5
16	34	44	44	54	5.5
20	35	45	45	55	5.5
25	37	47	47	57	6
32	41.5	51.5	51.5	61.5	7
40	43	53	53	63	7
50	47	57	57	67	9
63	51	61	61	71	9

Bore size/Item	AC(Without magnet)		AC(With magnet)		B
	St≤10	St>10	St≤10	St>10	
12	27	37	37	47	25
16	28.5	38.5	38.5	48.5	29
20	29.5	39.5	39.5	49.5	34
25	31	41	41	51	40
32	34.5	44.5	44.5	54.5	44
40	36	46	46	56	52
50	38	48	48	58	62
63	42	52	52	62	75

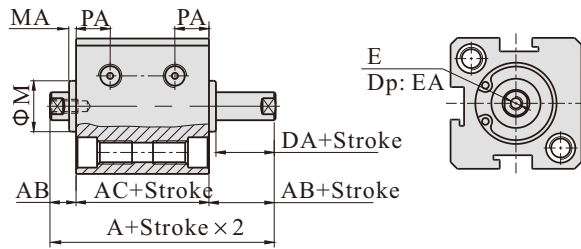
Bore size/Item	BA	D	DA	E	EA	H	J	JA
12	-	6	4	M3×0.5	6	5	6.5	4.5
16	-	6	4	M3×0.5	6	5	6.5	4.5
20	36	8	4	M4×0.7	8	6	6.5	4.5
25	42	10	4	M5×0.8	10	8	8.2	5.5
32	50	12	4	M6×1.0	12	10	8.2	5.5
40	58.5	16	4	M8×1.25	12	14	10.5	6.5
50	71.5	20	5	M10×1.5	15	17	10.5	6.5
63	84.5	20	5	M10×1.5	15	17	10.5	6.5

Bore size/Item	K	KA	KB	M	MA
12	M5×0.8 Thru.hole:Φ4.2	12	16.3	10.2	1
16	M5×0.8 Thru.hole:Φ4.2	12	19.8	11	1.5
20	M5×0.8 Thru.hole:Φ4.2	14	24	13	1.5
25	M6×1.0 Thru.hole:Φ5.2	15	28	17	2
32	M6×1.0 Thru.hole:Φ5.2	16	34	22	2.4
40	M8×1.25 Thru.hole:Φ6.7	20	40	28	3
50	M8×1.25 Thru.hole:Φ6.7	25	48	38	4
63	M8×1.25 Thru.hole:Φ6.7	25	60	40	4

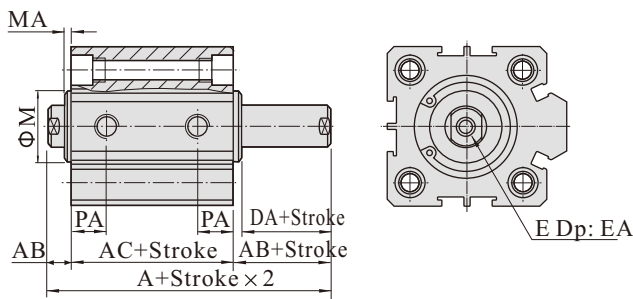
Bore size/Item	P	PA	PB	T
12	M5×0.8	7.5	5	23
16	M5×0.8	8	5.5	28
20	M5×0.8	9	5.5	-
25	M5×0.8	9	5.5	-
32	G1/8	9	9	-
40	G1/8	9.5	7.5	-
50	G1/4	10.5	10.5	-
63	G1/4	12	11	-

SDAD series

Φ12\Φ16



Φ20~Φ100



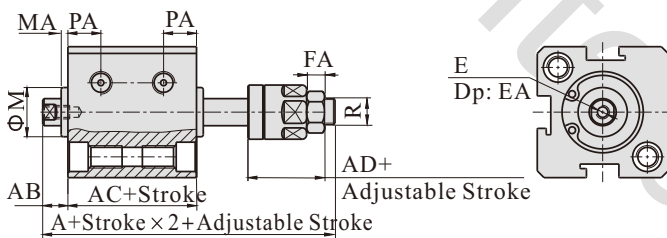
Item	A	AC	A	AC	AB	DA
	Without magnet		With magnet			
Bore size 12	27	17	37	27	5	4
16	29.5	18.5	39.5	28.5	5.5	4
20	30.5	19.5	40.5	29.5	5.5	4
25	33	21	43	31	6	4
32	38.5	24.5	48.5	34.5	7	4
40	40	26	50	36	7	4
50	46	28	56	38	9	5
63	50	32	60	42	9	5
80	63	41	73	51	11	6
100	75	51	85	61	12	7

Item	E	EA		M	MA	PA	
		St≤10	St>10			St=5	St>5
Bore size 12	M3×0.5	6	6	10.2	1	5.5	6.3
16	M3×0.5	6	6	11	1.5	6.5	7.3
20	M4×0.7	8(6.5 for St=5)		15	1.5	7.5	7.5
25	M5×0.8	10(7 for St=5)		17	2	8	8
32	M6×1.0	8	12	22	3	8	9
40	M8×1.25	8	12	28	3	8	10
50	M10×1.5	8	15	38	4	8	10.5
63	M10×1.5	10	15	40	4	9.5	11.8
80	M14×1.5	13	20	45	5	11.5	14.5
100	M18×1.5	18	20	55	5	16	20.5

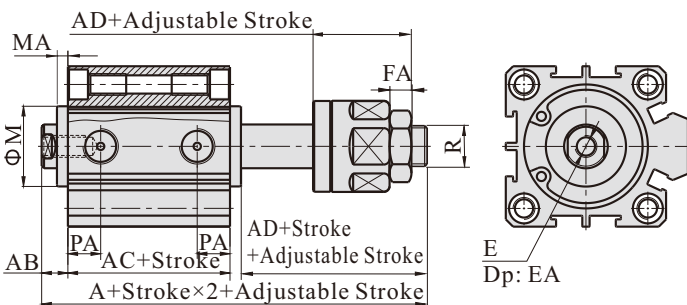
Note) The unmarked dimension is the same as SDA standard type.

SDAJ series

Φ12\Φ16



Φ20~Φ100



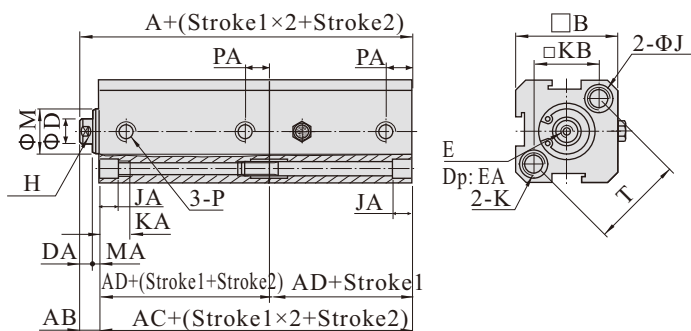
Item	A	AC	A	AC	AB	AD	E
	Without magnet		With magnet				
Bore size 12	40	17	50	27	5	17	M3×0.5
16	42.5	18.5	52.5	28.5	5.5	17	M3×0.5
20	47.5	19.5	57.5	29.5	5.5	21	M4×0.7
25	54	21	64	31	6	25	M5×0.8
32	61.5	24.5	71.5	34.5	7	27	M6×1.0
40	64	26	74	36	7	28	M8×1.25
50	70	28	80	38	9	29	M10×1.5
63	74	32	84	42	9	29	M10×1.5
80	92.5	41	102.5	51	11	35.5	M14×1.5
100	110.5	51	120.5	61	12	42.5	M18×1.5

Item	EA		FA	M	MA	PA		R
	St≤10	St>10				St=5	St>5	
Bore size 12	6	6	4	10.2	1	5.5	6.3	M5×0.8
16	6	6	4	11	1.5	6.5	7.3	M5×0.8
20	8(6.5 for St=5)		5	15	1.5	7.5	7.5	M6×1.0
25	10(7 for St=5)		6	17	2	8	8	M8×1.25
32	8	12	6	22	3	8	9	M10×1.25
40	8	12	7	28	3	8	10	M12×1.25
50	8	15	8	38	4	8	10.5	M16×1.5
63	10	15	8	40	4	9.5	11.8	M16×1.5
80	13	20	10	45	5	11.5	14.5	M20×1.5
100	18	20	13.5	55	5	16	20.5	M27×2.0

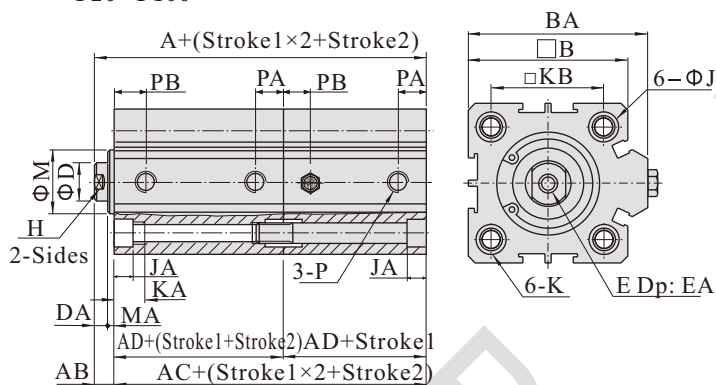
Note) The unmarked dimension is the same as SDA standard type.

SDAT series

Φ12\Φ16



Φ20~Φ100



Bore size	Without magnet			With magnet			AB	B
	A	AC	AD	A	AC	AD		
12	39	34	17	59	54	27	5	25
16	42.5	37	18.5	62.5	57	28.5	5.5	29
20	44.5	39	19.5	64.5	59	29.5	5.5	34
25	48	42	21	68	62	31	6	40
32	56	49	24.5	76	69	34.5	7	44
40	59	52	26	79	72	36	7	52
50	65	56	28	85	76	38	9	62
63	73	64	32	93	84	42	9	75
80	93	82	41	113	102	51	11	94
100	114	102	51	134	122	61	12	114

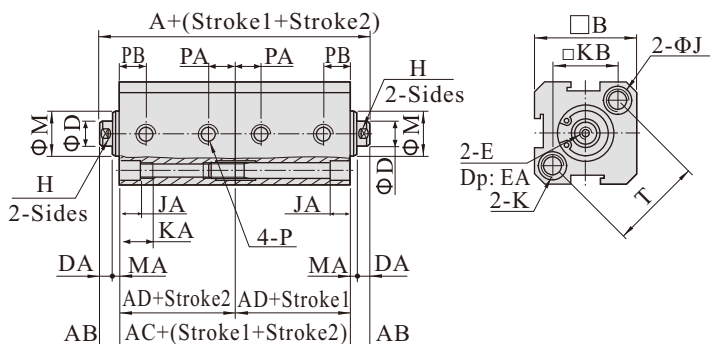
Bore size\Item	BA	D	DA	E	EA	H
12	-	6	4	M3×0.5	6	5
16	-	6	4	M3×0.5	6	5
20	36	8	4	M4×0.7	8	6
25	42	10	4	M5×0.8	10	8
32	50	12	4	M6×1.0	12	10
40	58.5	16	4	M8×1.25	12	14
50	71.5	20	5	M10×1.5	15	17
63	84.5	20	5	M10×1.5	15	17
80	104	25	6	M14×1.5	20	22
100	124	32	7	M18×1.5	20	27

Bore size\Item	J	JA	K	KA
12	6.5	4.5	M5×0.8 Thru.hole:Φ4.2	12
16	6.5	4.5	M5×0.8 Thru.hole:Φ4.2	12
20	6.5	4.5	M5×0.8 Thru.hole:Φ4.2	14
25	8.2	5.5	M6×1.0 Thru.hole:Φ5.2	15
32	8.2	5.5	M6×1.0 Thru.hole:Φ5.2	16
40	10.5	6.5	M8×1.25 Thru.hole:Φ6.7	20
50	10.5	6.5	M8×1.25 Thru.hole:Φ6.7	25
63	10.5	6.5	M8×1.25 Thru.hole:Φ6.7	25
80	17	11	M12×1.75 Thru.hole:Φ10.4	25
100	19	13	M14×2.0 Thru.hole:Φ12.4	30

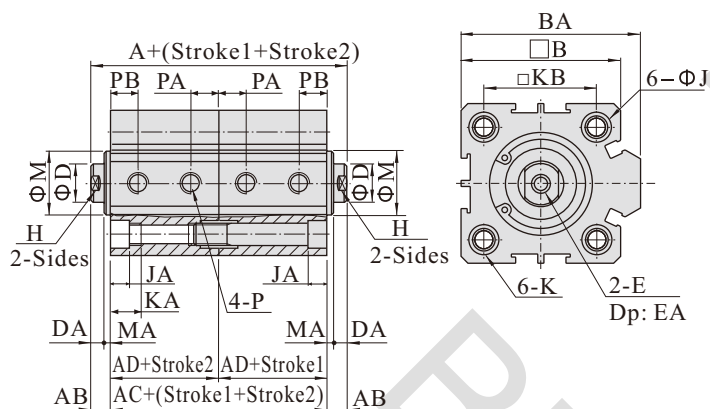
Bore size	Item	KB	M	MA	P	PA		PB	
						St=5	St>5	St=5	St>5
12	16.3	10.2	1	M5×0.8	5	5	7.5	7.5	
16	19.8	11	1.5	M5×0.8	5.5	5.5	8	8	
20	24	13	1.5	M5×0.8	5	5.5	8	9	
25	28	17	2	M5×0.8	5.5	5.5	9	9	
32	34	22	2.5	G1/8	6.5	9	9	9	
40	40	28	3	G1/8	7.5	7.5	9.5	9.5	
50	48	38	4	G1/4	8	10.5	8	10.5	
63	60	40	4	G1/4	9.5	11	9.5	12	
80	74	45	5	G3/8	11.5	14.5	11.5	14.5	
100	90	55	5	G3/8	16	20.5	16	20.5	

SDAW series

Φ12\Φ16



Φ20~Φ100



Bore size	Item	A	AC	AD	A	AC	AD	AB	B
	Without magnet			With magnet					
12		44	34	17	64	54	27	5	25
16		48	37	18.5	68	57	28.5	5.5	29
20		50	39	19.5	70	59	29.5	5.5	34
25		54	42	21	74	62	31	6	40
32		63	49	24.5	83	69	34.5	7	44
40		66	52	26	86	72	36	7	52
50		74	56	28	94	76	38	9	62
63		82	64	32	102	84	42	9	75
80		104	82	41	124	102	51	11	94
100		126	102	51	146	122	61	12	114

Bore size\Item	BA	D	DA	E	EA	H
12	-	6	4	M3×0.5	6	5
16	-	6	4	M3×0.5	6	5
20	36	8	4	M4×0.7	8	6
25	42	10	4	M5×0.8	10	8
32	50	12	4	M6×1.0	12	10
40	58.5	16	4	M8×1.25	12	14
50	71.5	20	5	M10×1.5	15	17
63	84.5	20	5	M10×1.5	15	17
80	104	25	6	M14×1.5	20	22
100	124	32	7	M18×1.5	20	27

Bore size\Item	J	JA	K	KA
12	6.5	4.5	M5×0.8 Thru.hole:Φ4.2	12
16	6.5	4.5	M5×0.8 Thru.hole:Φ4.2	12
20	6.5	4.5	M5×0.8 Thru.hole:Φ4.2	14
25	8.2	5.5	M6×1.0 Thru.hole:Φ5.2	15
32	8.2	5.5	M6×1.0 Thru.hole:Φ5.2	16
40	10.5	6.5	M8×1.25 Thru.hole:Φ6.7	20
50	10.5	6.5	M8×1.25 Thru.hole:Φ6.7	25
63	10.5	6.5	M8×1.25 Thru.hole:Φ6.7	25
80	17	11	M12×1.75 Thru.hole:Φ10.4	25
100	19	13	M14×2.0 Thru.hole:Φ12.4	30

Bore size	Item	KB	M	MA	P	PA		PB	
						St=5	St>5	St=5	St>5
12		16.3	10.2	1	M5×0.8	5	5	7.5	7.5
16		19.8	11	1.5	M5×0.8	5	5.5	8	8
20		24	13	1.5	M5×0.8	5	5.5	8	9
25		28	17	2	M5×0.8	5.5	5.5	9	9
32		34	22	2.5	G1/8	6.5	9	9	9
40		40	28	3	G1/8	7.5	7.5	9.5	9.5
50		48	38	4	G1/4	8	10.5	8	10.5
63		60	40	4	G1/4	9.5	11	9.5	12
80		74	45	5	G3/8	11.5	14.5	11.5	14.5
100		90	55	5	G3/8	16	20.5	16	20.5