

Standard Cylinder

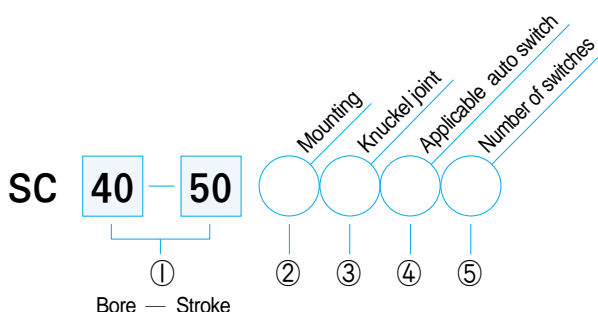
(Series SC)

Bore size $\phi 40 \sim \phi 100$

KS Symbol



How to order



① Bore size — Standard stroke (mm) Max. stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke (mm)
$\phi 40$	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500	800
$\phi 50$	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600	1200
$\phi 63$	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600	1200
$\phi 80$	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	1400
$\phi 100$	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	1500

② Mounting

Blank	Basic type
L	Axial foot type
F	Flange type
C	Single clevis type
D	Double clevis type
T	Trunion type
E	Double clevis bracket type
R	Trunion bracket type

③ Knuckle Joint

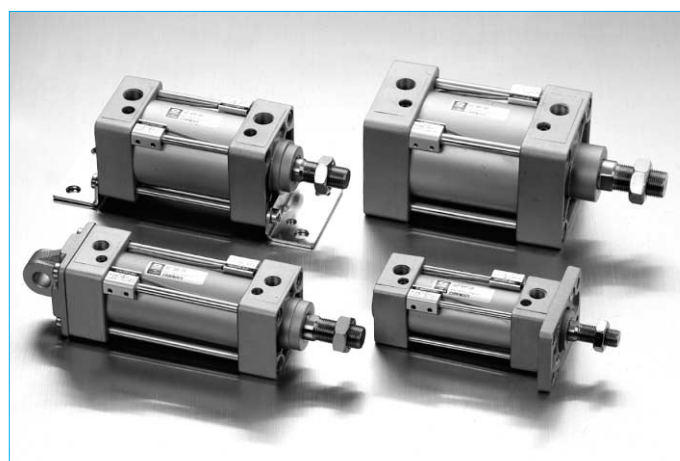
Y	Double knuckle joint
I	Single knuckle joint

④ Applicable auto switch

Blank	None
A20B	A - 20 switch with bracket
A25B	A - 25 switch with bracket

⑤ Number of switches

1	1 pc.
2	2 pcs
n	n pcs



- Compact and outstanding feature
- Built-in magnet(standard) and no lubrication required
- Mounting accuracy and rigidity made possible by means of machining the mounting area
- Increase of allowable kinetic energy

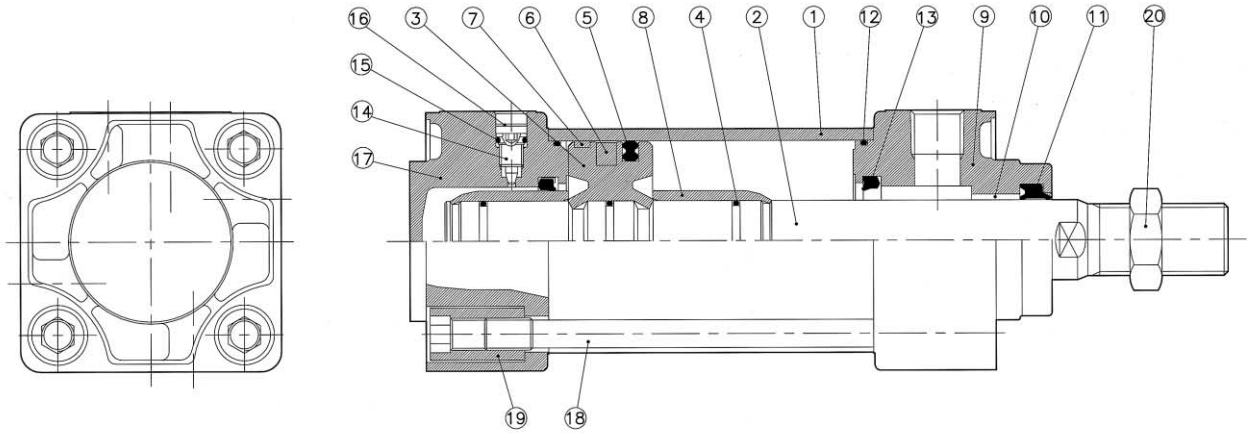
Specifications

Acting	Double acting single rod	
Fluid	Air	
Proof pressure	15 kgf/cm ² (1500kPa)	
Max. operating pressure	9.9 kgf/cm ² (990kPa)	
Min. operating pressure	0.5 kgf/cm ² (50kPa)	
Ambient and fluid Temperature	-10°C ~ +70°C	
Cushion	Air cushion	
Lube	None(Non-lube)	
Piston speed	50~1000 mm/s	
Thread tolerance	KS 2 class	
Stroke tolerance	+1.4 0	
Allowable kinetic energy	$\phi 40$	34.68 kgf · cm
	$\phi 50$	60.18 kgf · cm
	$\phi 63$	122.20 kgf · cm
	$\phi 80$	204 kgf · cm
	$\phi 100$	295.80 kgf · cm

Weight table

Bore size(mm)		$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$
Basic weight		0.70	1.23	1.50	2.78	3.89
Additional weight for each 50 of stroke		0.16	0.25	0.28	0.41	0.54
Mounting bracket additional weight	Foot type	0.14	0.20	0.256	0.49	2.38
	Flange type	0.24	0.47	0.56	1.82	3.31
	Single clevis type	0.20	0.44	0.58	1.38	3.17
	Double clevis type	0.24	0.51	0.79	1.61	3.69
Trunion type		0.36	0.48	0.89	1.46	3.67

Construction



Parts List

No.	Description	Material
①	Cylinder Tube	A6063
②	Piston Rod	SM45C
③	Piston	Al
④	O Ring	NBR
⑤	Piston Packing	NBR
⑥	Magnet	-
⑦	Wear Ring	-
⑧	Sleeve	BS
⑨	Rod Cover	ADC-12
⑩	Oilless Bearing	-

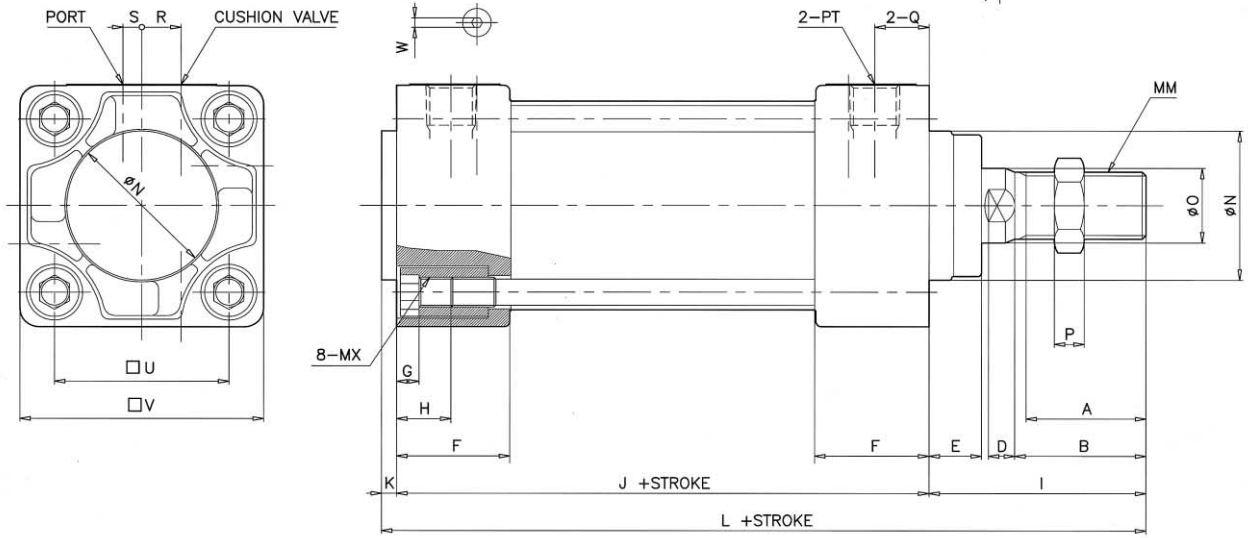
No.	Description	Material
⑪	Rod Packing	NBR
⑫	Guide Packing	NBR
⑬	Cushion Packing	-
⑭	Cushion Valve	MBsBE
⑮	O Ring	NBR
⑯	Retaining Ring	-
⑰	Head Cover	ADC-12
⑱	The Rod	SS41
⑲	Tie Rod Nut	SM45C
⑳	Hexagon Nut	-

Packing List

Bore size	⑤	⑪	⑫	⑬
	Piston Packing	Rod Packing	Guide Packing	Cushion Packing
$\phi 40$	COP-40	DRP-16	GP-40	CP-20
$\phi 50$	COP-50	DRP-20	GP-50	CP-25
$\phi 63$	COP-63	DRP-20	GP-63	CP-25
$\phi 80$	COP-80	DRP-25	GP-80	CP-30
$\phi 100$	COP-100	DRP-30	GP-100	CP-35

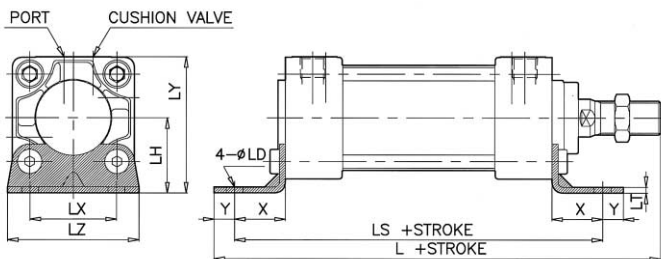
Standard Cylinder $\phi 40 \sim \phi 100$

Basic Type



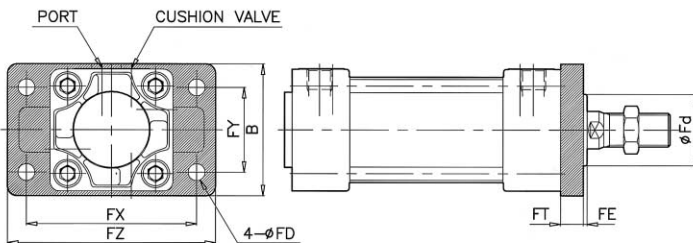
Bore size	A	B	D	E	F	G	H	I	J	K	L	MM	ϕN	ϕO	P	2-PT	2-Q	R	S	T	$\square U$	$\square V$	W	8-MX
$\phi 40$	27	30	6	13	26.5	4	16	51	83	4	138	M14 \times 1.5	35	16	8	1/4	13.5	9	4	14	38	52	2.5	M6 \times 1
$\phi 50$	32	35	7	14	31	5	16	58	93	4	155	M18 \times 1.5	40	20	11	1/4	15	10.5	5	18	46.5	65	2.5	M8 \times 1.25
$\phi 63$	32	35	7	14	31	5	16	58	93	4	155	M18 \times 1.5	45	20	11	3/8	16	12	9	18	56.5	75	4	M8 \times 1.25
$\phi 80$	37	40	10	20	37.5	5	16	72	113	4	189	M22 \times 1.5	45	25	13	3/8	18.5	14	11.5	22	72	95	4	M10 \times 1.5
$\phi 100$	37	40	10	20	37.5	5	16	72	113	4	189	M26 \times 1.5	55	30	16	1/2	18.5	15	17	26	89	114	4	M10 \times 1.5

Axial Foot Type (L)



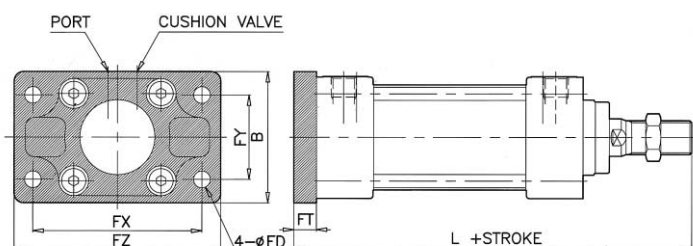
Bore size	Max. stroke	X	Y	ϕLD	LH	LS	LT	LZ	L	LX
$\phi 40$	800	24	11	9	33	131	3.2	55	169	38
$\phi 50$	1000	27	11	9	40	147	3.2	70	189	46
$\phi 63$	1000	27	14	12	45	147	3.2	80	192	56
$\phi 80$	1000	30	14	12	55	173	4.5	100	229	72
$\phi 100$	1000	32	16	14	65	177	4.5	120	233	89

Rod Side Flange Type (F)



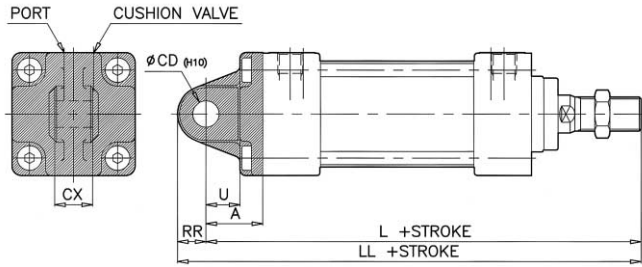
Bore size	Max. stroke	B	ϕFD	FE	FT	FX	FY	FZ	ϕFd
$\phi 40$	800	55	9	3	10	72	36	90	31
$\phi 50$	1000	70	9	2	12	90	45	110	38.5
$\phi 63$	1000	80	9	2	12	100	50	120	39.5
$\phi 80$	1000	100	12	4	18	126	63	153	45.5
$\phi 100$	1000	120	14	4	18	150	75	178	54

Head Side Flange Type (G)



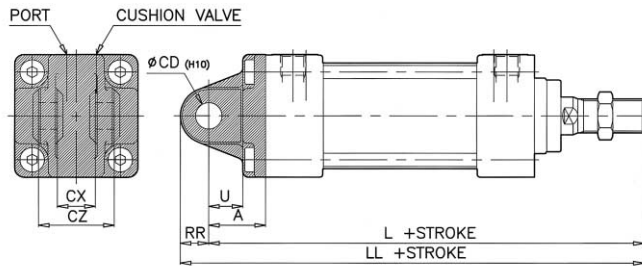
Bore size	Max. stroke	B	ϕFD	FT	FX	FY	FZ	L
$\phi 40$	500	55	9	10	72	36	90	144
$\phi 50$	600	70	9	12	90	45	110	163
$\phi 63$	600	80	9	12	100	50	120	163
$\phi 80$	750	100	12	18	126	63	153	201
$\phi 100$	750	120	14	18	150	75	178	201

Single Clevis Type (C)



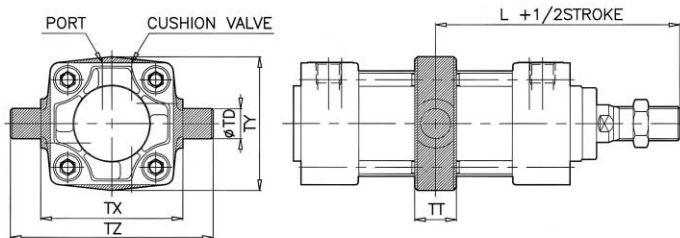
Bore size	Bore size	A	RR	U	ϕ CD	CX	L	LL
$\phi 40$	500	23	11	13	10	14	157	168
$\phi 50$	600	30	15	17	14	20	181	196
$\phi 63$	600	30	15	17	14	20	181	196
$\phi 80$	750	42	23	26	22	30	227	250
$\phi 100$	750	42	23	26	22	30	227	250

Double Clevis Type (D)



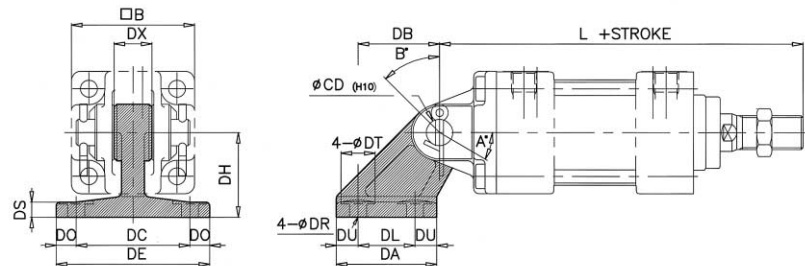
Bore size	Max. stroke	A	RR	U	ϕ CD	CX	CZ	L	LL
$\phi 40$	500	23	11	13	10	14	28	157	168
$\phi 50$	600	30	15	17	14	20	40	181	196
$\phi 63$	600	30	15	17	14	20	40	181	196
$\phi 80$	750	42	23	26	22	30	60	227	250
$\phi 100$	750	42	23	26	22	30	60	227	250

Trunion Type (T)



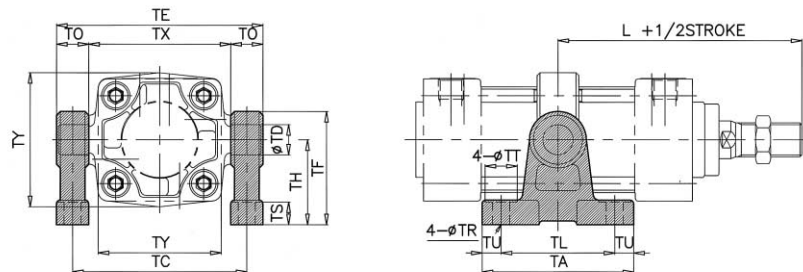
Bore size	Max. stroke	ϕ TD	TT	TX	TY	TZ	L
$\phi 40$	500	16	22	62	58	95	92.5
$\phi 50$	600	16	22	75	71	107	104.5
$\phi 63$	600	20	28	90	87	130	104.5
$\phi 80$	750	20	34	110	110	150	128.5
$\phi 100$	750	25	40	132	136	182	128.5

Double Clevis Bracket Type (E)



Bore size	□B	DA	DB	DL	DU	DC	DX	DE	DO	ϕ DR	ϕ DT	DS	DH	L	ϕ CD (H10)	A°	B°
$\phi 40$	52	42	32	22	10	44	14	62	9	6.6	15	7	33	157	$10^{+0.053}_0$	25	45
$\phi 50$	65	53	43	30	11.5	60	20	81	10.5	9	18	8	45	181	$14^{+0.073}_0$	40	60
$\phi 63$	75	53	43	30	11.5	60	20	81	10.5	9	18	8	45	181	$14^{+0.073}_0$	40	60
$\phi 80$	95	73	64	45	14	86	30	111	12.5	11	22	10	65	227	$22^{+0.084}_0$	30	55
$\phi 100$	114	73	64	45	14	86	30	111	12.5	11	22	10	65	227	$22^{+0.084}_0$	30	55

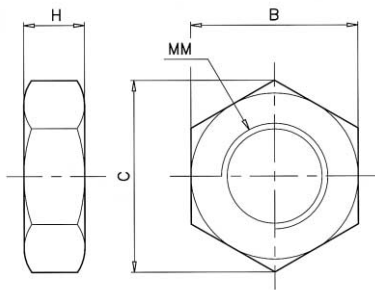
Trunion Bracket Type (R)



Bore size	TA	TL	TU	TC	TX	TE	TO	ϕ TR	TT	TS	TH	TF	TY	L	ϕ TD (H10)
$\phi 40$	80	60	10	79	62	96	17	9	17	12	45	60	58	92.5	$16^{+0.073}_0$
$\phi 50$	80	60	10	92	75	109	17	9	17	12	45	60	71	104.5	$16^{+0.073}_0$
$\phi 63$	100	70	15	110	90	130	20	11	22	14	60	78	87	104.5	$20^{+0.084}_0$
$\phi 80$	100	70	15	130	110	150	20	11	22	14	60	78	110	128.5	$20^{+0.084}_0$
$\phi 100$	120	90	15	157	132	182	25	13.5	24	17	75	100	136	128.5	$25^{+0.084}_0$

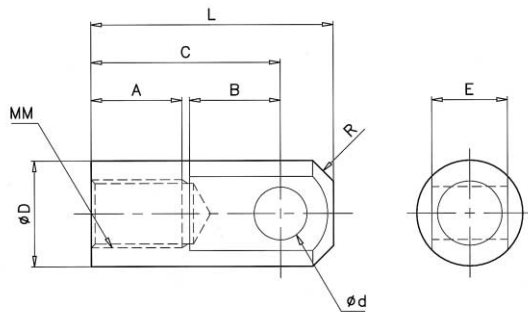
Standard Cylinder $\phi 40 \sim \phi 100$

Rod End Nut



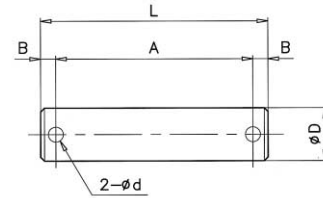
Bore size	B	C	H	MM
$\phi 40$	22	25.4	8	M14 \times 1.5
$\phi 50, \phi 63$	27	31.2	11	M18 \times 1.5
$\phi 80$	32	37	13	M22 \times 1.5
$\phi 100$	41	47.3	16	M26 \times 1.5

Single Knuckle Joint



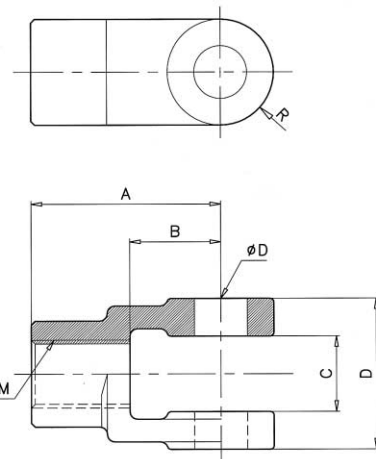
Bore size	A	B	C	ϕD	ϕd (H10)	E	L	R	MM
$\phi 40$	19	19	40	22	$10^{+0.058}_0$	$14^{-0.1}_{-0.3}$	50	12.5	M14 \times 1.5
$\phi 50, \phi 63$	24	24	50	28	$14^{+0.070}_0$	$20^{-0.1}_{-0.3}$	64	16.5	M18 \times 1.5
$\phi 80$	26	34	60	40	$22^{+0.084}_0$	$30^{-0.1}_{-0.3}$	80	23.5	M22 \times 1.5
$\phi 100$	26	34	60	40	$22^{+0.084}_0$	$30^{-0.1}_{-0.3}$	80	23.5	M26 \times 1.5

Pin for Clevis & Knuckle



Bore size	A	B	L	ϕd	ϕD (g9)	Clip
$\phi 40$	36	4	44	3	$10^{-0.040}_{-0.078}$	$\phi 3 \times 18L$
$\phi 50, \phi 63$	51	4.5	60	4	$14^{-0.050}_{-0.093}$	$\phi 4 \times 25L$
$\phi 80, \phi 100$	72	5	82	4	$22^{-0.065}_{-0.117}$	$\phi 4 \times 30L$

Single Knuckle Joint



Bore size	A	B	C	D	ϕd (H10)	MM	R
$\phi 40$	40	19	$14^{+0.1}_{+0.3}$	$28^{-0.1}_{-0.3}$	$10^{+0.058}_0$	M14 \times 1.5	11
$\phi 50, \phi 63$	50	24	$20^{+0.1}_{+0.3}$	$40^{-0.1}_{-0.3}$	$14^{+0.070}_0$	M18 \times 1.5	14
$\phi 80$	65	34	$30^{+0.1}_{+0.3}$	$58^{-0.1}_{-0.3}$	$22^{+0.084}_0$	M22 \times 1.5	20
$\phi 100$	65	34	$30^{+0.1}_{+0.3}$	$58^{-0.1}_{-0.3}$	$22^{+0.084}_0$	M26 \times 1.5	20

No.	Combination of mounting	Construction	No.	Combination of mounting	Construction
1	Single clevis		6	Single clevis	
	Double clevis			Double clevis	
	Pin for clevis & knuckle			Pin for clevis & knuckle	
	Split pin			Split pin	
2	Single clevis		7	Single clevis	
	Double knuckle joint			Double knuckle joint	
	Pin for clevis & knuckle			Pin for clevis & knuckle	
	Split pin			Split pin	
3	Double clevis		8	Double clevis	
	Single clevis			Single clevis	
	Pin for clevis & knuckle			Pin for clevis & knuckle	
	Split pin			Split pin	
4	Double clevis		9	Double clevis	
	Single knuckle joint			Single knuckle joint	
	Pin for clevis & knuckle			Pin for clevis & knuckle	
	Split pin			Split pin	
5	Double clevis		10	Double clevis	
	Double clevis bracket			Double clevis bracket	
	Pin for clevis & knuckle			Pin for clevis & knuckle	
	Split pin			Split pin	

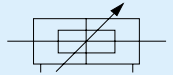
Double Rod

Standard Cylinder

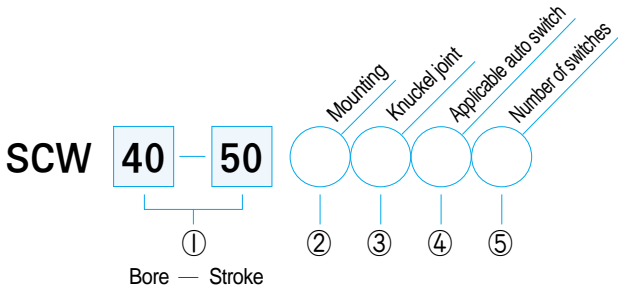
(Series SCW)

Bore size $\phi 40 \sim \phi 100$

KS Symbol



How to order



- Compact and outstanding feature
- Built-in magnet(standard) and no lubrication required
- Mounting accuracy and rigidity made possible by means of machining the mounting area
- Increase of allowable kinetic energy

① Bore size — Standard stroke (mm)

$\phi 40$	25, 50, 75, 100, 150, 200, 250, 300, 400, 500
$\phi 50$	25, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600
$\phi 63$	25, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600
$\phi 80$	25, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800
$\phi 100$	25, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800

② Mouning

Blank	Basic type
L	Axial foot type
F	Flange type
T	Trunion type
R	Trunion bracket type

③ Knuckle joint

Y	Double knuckle joint
I	Single knuckle joint

④ Applicable auto switch

Blank	None
A20B	A - 20 switch with bracket
A25B	A - 25 switch with bracket

⑤ Number of switch

1	1 pc
2	2 pcs
n	n pcs

Technical drawing showing side and front views of the SCW Standard Cylinder. Dimensions include A, B, D, E, F, G, H, I, J, L, MM, ϕN , ϕO , 2-PT, 2-Q, R, S, T, U, V, W, 8-MX, and P. Labels include CUSHION VALVE, R, S, PORT, and MM.

Bore size	A	B	D	E	F	G	H	I	J	L	MM	ϕN	ϕO	2-PT	2-Q	R	S	T	U	V	W	8-MX	P
$\phi 40$	27	30	6	13	26.5	4	16	51	83	185	M14×1.5	35	16	1/4	13.5	9	4	14	38	52	2.5	M6×1	8
$\phi 50$	32	35	7	14	31	5	16	58	93	209	M18×1.5	40	20	1/4	15	10.5	5	18	46.5	65	2.5	M8×1.25	11
$\phi 63$	32	35	7	14	31	5	16	58	93	209	M18×1.5	45	20	3/8	16	12	9	22	56.5	75	4	M8×1.25	11
$\phi 80$	37	40	10	20	37.5	5	16	72	113	257	M22×1.5	45	25	3/8	18.6	14	11.5	22	72	95	4	M10×1.5	13
$\phi 100$	37	40	10	20	37.5	5	16	72	113	257	M26×1.5	55	30	1/2	18.5	15	17	26	89	114	4	M10×1.5	16