


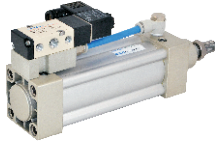




Standard cylinder——SI Series

In accordance with ISO15552 standard

Product series

Series name	Mounting type								Acting type	Bore size	Collocation of sensor switch						
	Basic	LB	FA	FB	CA	CB	CR	TC			FTC	CS1-B	DS1-B	CS1-F	DS1-F	CS1-U	DS1-U
Double acting type: SI 	●	●	●	●	●	●	●	●	●	Double acting	32	●	●	●	●	●	●
Double rod type: SID 	●	●	●	●	●	●	●	●	●		40	●	●	●	●	●	●
Adjustable stroke type: SIJ 	●	●	●	●	●	●	●	●	●		50	●	●	●	●	●	●
With valve type: SIF 	●	●	●	●	●	●	●	●	●		63	●	●	●	●	●	●
											80	●	●	●	●	●	●
											100	●	●	●	●	●	●
											125	●	●	●	●	●	●
											160	●	●	●	●	●	●
											200	●	●	●	●	●	●
Page	176										419						

Installation and application

- When load changes in the work, the cylinder with abundant output capacity shall be selected.
- Relative cylinder with high temperature resistance or corrosion resistance shall be chosen under the condition of high temperature or corrosion.
- Necessary protection measure shall be taken in the environment with higher humidity, much dust or water drops, oil dust and welding dregs.
- Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of particles into the cylinder.
- The medium used by cylinder shall be filtered to 40 μm or below.
- Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing.
- The cylinder shall be carried out test run without load before application. Prior to run, buffer shall be turned to the minimum and gradually released to avoid the damage on cylinder caused by excessive impact.
- The cylinder shall avoid the influence of side load in operation to maintain the normal work of cylinder and extend the service life.
- If the cylinder is dismantled and stored for a long time, please conduct anti-rust treatment to the surface. Anti-dust caps shall be added in air inlet and outlet ports.

Criteria for selection: Cylinder thrust

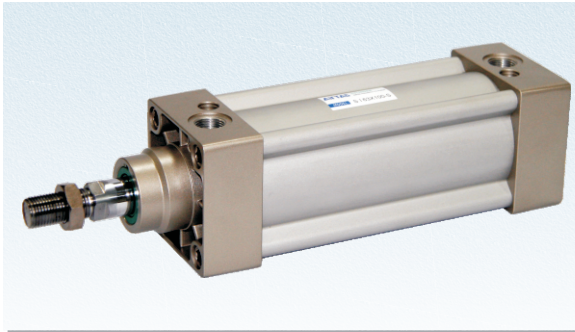
Unit: Newton(N)

Bore size (mm)	Rod size (mm)	Acting type	Pressure area (mm ²)	Operating pressure(MPa)								
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
32	12	Double acting Push side	804	80.4	160.8	241.2	321.6	402.0	482.4	562.8	643.2	723.6
		Double acting Pull side	690	69.0	138.0	207.0	276.0	345.0	414.0	483.0	552.0	621.0
40	16	Double acting Push side	1256	125.6	251.2	376.8	502.4	628.0	753.6	879.2	1004.8	1130.4
		Double acting Pull side	1055	105.5	211.0	316.5	422.0	527.5	633.0	738.5	844.0	949.5
50	20	Double acting Push side	1963	196.3	392.6	588.9	785.2	981.5	1177.8	1374.1	1570.4	1766.7
		Double acting Pull side	1649	164.9	329.8	494.7	659.6	824.5	989.4	1154.3	1399.2	1484.1
63	20	Double acting Push side	3117	311.7	623.4	935.1	1246.8	1558.5	1870.2	2181.9	2493.6	2805.3
		Double acting Pull side	2803	280.3	560.6	840.9	1121.2	1401.5	1681.8	1962.1	2242.4	2522.7
80	25	Double acting Push side	5026	502.6	1005.2	1507.8	2010.4	2513.0	3015.6	3518.2	4020.8	4523.4
		Double acting Pull side	4536	453.6	907.2	1360.8	1814.4	2268.0	2721.6	3175.2	3628.8	4082.4
100	25	Double acting Push side	7853	785.3	1570.6	2355.9	3141.2	3926.5	4711.8	4288.2	6282.4	7067.7
		Double acting Pull side	7362	736.2	1472.4	2208.6	2948.6	3681.0	4417.2	5153.4	5889.6	6625.8
125	32	Double acting Push side	12272	1227.2	2454.4	3681.6	4908.8	6136.0	7363.2	8590.4	9817.6	11044.8
		Double acting Pull side	11468	1146.8	2293.6	3440.4	4587.2	5734.0	6880.8	8027.6	9174.4	10321.2
160	40	Double acting Push side	20106	2010.6	4021.2	6031.8	8042.4	10053.0	12063.6	14074.2	16084.8	18095.4
		Double acting Pull side	18849	1884.9	3769.8	5654.7	7539.6	9424.5	11309.4	13194.3	15079.2	16964.1
200	40	Double acting Push side	31416	3141.6	6283.2	9424.8	12566.4	15708.0	18849.6	21991.2	25132.8	28274.4
		Double acting Pull side	30157	3015.7	6031.4	9047.1	12062.8	15078.5	18094.2	21109.9	24125.6	27141.3



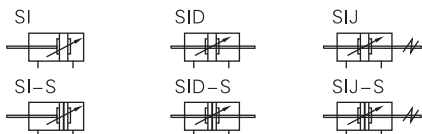
ISO15552 Standard cylinder

SI Series



SI

Symbol



Product feature

1. ISO15552 (original ISO6431) standard cylinder;
2. The piston seal is composed of two Y-shape one-way seal structure, which has compensation function, long service life and low start-up pressure;
3. The 米-shaped aluminum pipe without tie rod has good corrosion resistance;
4. The buffer adjustment of cylinder is smooth and steady;
5. Cylinders and accessories for installation with several specifications are optional.

Specification

Bore size(mm)	32	40	50	63	80	100	125	160	200	
Acting type	Double acting									
Fluid	Air(to be filtered by 40 μm filter element)									
Mounting type	SI	Basic FA FB CA CB CR LB TC FTC TCM1 TCM2								
	SID, SIJ	Basic FA LB TC FTC TCM1 TCM2								
Operating pressure	0.1~1.0MPa(15~145psi)(1.0~10.0bar)									
Proof pressure	1.5MPa(215psi)(15bar)									
Temperature °C	-20~80									
Speed range mm/s	30~800						30~500			
Stroke tolerance	0~250 ^{+1.0} ₀			251~1000 ^{+1.4} ₀			1001~1500 ^{+1.8} ₀			
Cushion type	Variable cushion									
Adjustable cushion stroke mm	27		30			36		40		50
Port size ①	1/8"		1/4"		3/8"		1/2"		3/4"	

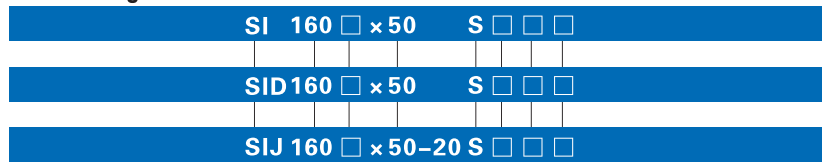
① PT thread, NPT thread and G thread are available.
Add) Refer to P419-442 for detail of sensor switch.

Stroke

Bore size (mm)	Standard stroke (mm)												Max. std stroke	Max. stroke									
32	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	1000	1800					
40	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	1200	1800		
50	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1200	1800
63	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1500	1800
80	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1500	1800
100	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1500	1800
125	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1500	1800
160	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1500	2000
200	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1500	2000

Note) Consult us for non-standard stroke.

Ordering code



Model

- SI: Double acting type
- SID: Double rod type
- SIJ: Adjustable stroke type

Bore size

32 40 50 63 80 100 125 160 200

Rod Material

- Blank: Medium carbon steel
- A: SUS420J2
- B: SUS304

Stroke

Refer to stroke table for details

Adjustable stroke

- 10: 10mm
- 20: 20mm
- 30: 30mm
- 40: 40mm
- 50: 50mm
- 75: 75mm
- 100: 100mm

Magnet

- Blank: Without magnet
- S: With magnet

Thread type

- Blank: PT
- T: NPT
- G: G

Seals Material

- Blank: TPU
- H: Viton
- N: NBR

Mounting type ①

Mounting type	Available series	Memo
Blank	SI	
LB	SID	
FA	SIJ	
FB		
CA	SI	
CB		
CR		Be used with CB
FTC	SI	Be used with TCM1
TC	SID	Be used with TCM2
	SIJ	

① Please refer to page 180~182 for accessory parts.



ISO1552 Standard cylinder

SI Series

Inner structure and material of major parts

SI

NO.	Item	Material
1	Rod nut	Carbon steel
2	Piston rod	Carbon steel with 20 μ m chrome plated or Stainless steel
3	Front cover packing	TPU
4	Front cover	Aluminum alloy
5	Bushing	Wear resistant material
6	Cushing O-ring	TPU
7	Barrel	Aluminum alloy
8	Rod O-ring	NBR
9	Piston	Aluminum alloy
10	Piston seal	TPU
11	Wear ring	Wear resistant material
12	Magnet	Plastic(Φ 100 or below)\Rubber(other)
13	Bolt	Carbon steel
14	Buffer gasket	TPU
15	Back cover	Aluminum alloy
16	Tie-rod nut	Carbon steel

Dimensions

SI

Bore size\Item	A	B	C	D	E	F	G	H	I	J	K
32	142	48	94	30	29	19	27.5	22	17	6	M10×1.25
40	159	54	105	35	33	21	32	24	17	7	M12×1.25
50	175	69	106	40	42	27	31	32	23	8	M16×1.5
63	190	69	121	45	42	27	33	32	23	8	M16×1.5
80	214	86	128	45	53	33	33	40	26	10	M20×1.5
100	229	91	138	55	55	36	37	40	26	10	M20×1.5
125	279	119	160	60	74	45	46	54	41	13.5	M27×2.0
160	332	152	180	65	94	58	50	72	55	18	M36×2.0
200	347	167	180	75	100	67	50	72	55	18	M36×2.0

Bore size\Item	L	N	O	P	Q	R	S	T	V	W	X	Y
32	M6	13	1/8"	5.5	6	6	47	32.5	12	10	3	30
40	M6	17	1/4"	6	7.5	8.5	53	38	16	13	3.5	35
50	M8	15.5	1/4"	7.5	6.5	9.5	65	46.5	20	17	3.5	40
63	M8	16.5	3/8"	7.5	7.5	11.5	75	56.5	20	17	4	45
80	M10	16.5	3/8"	9	7.5	13.5	95	72	25	22	4	45
100	M10	18.5	1/2"	9.5	8.5	13.5	115	89	25	22	4	55
125	M12	23	1/2"	14	12	14	140	110	32	27	4	60
160	M16	25	3/4"	15	12	20	180	140	40	36	4	65
200	M16	25	3/4"	15	12	20	220	175	40	36	5	75

Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

SID

Bore size\Item	A	A1	B	C	E	Z	J	K
32	190	188	48	94	29	27	6	M10X1.25
40	213	208	54	105	33	28	7	M12X1.25
50	244	231	69	106	42	29	8	M16X1.5
63	259	246	69	121	42	29	8	M16X1.5
80	300	282.5	86	128	53	35.5	10	M20X1.5
100	320	300.5	91	138	55	35.5	10	M20X1.5
125	398	366.5	119	160	74	42.5	13.5	M27X2.0
160	484	458	152	180	94	68	18	M36X2.0
200	514	482	167	180	100	68	18	M36X2.0

Remark:

- The dimensions of magnet type cylinder are the same as non-magnet type cylinder.
- The unmarked dimension is the same as SI standard type.

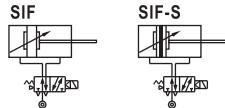


ISO1552 Standard cylinder

SIF Series(With valve)



Symbol



Product feature

1. For Standard Cylinders: use 4M210 valve for bore size 32, 40 & 50; 4M310 valve for bore size 63, 80 & 100mm;
2. Individually control, no need for extra solenoid valves;
3. Installation time & space saving; suitable for decentralise installation in large system.
4. Options of mounting accessories & easy installation.

Stroke

Bore size(mm)	Standard stroke (mm)	Mini. stroke	Max. std. stroke	Max. stroke
32	Standard type	50 75 80 100 125 150 160 175	50	1000
	With TC type	200 250 300 350 400 450 500		
40	Standard type	100 125 150 160 175 200 250	50	1200
	With TC type	300 350 400 450 500 600 700 800		
50	Standard type	50 75 80 100 125 150 160 175	50	1200
	With TC type	200 250 300 350 400 450 500		
63	Standard type	600 700 800 900 1000	50	1800
	With TC type	100 125 150 160 175 200		
80	Standard type	250 300 350 400 450 500	100	1500
	With TC type	600 700 800 900 1000		
100	Standard type	50 75 80 100 125 150 160 175	100	1800
	With TC type	200 250 300 350 400 450 500		

Note) Consult us for non-standard stroke.

Specification

Cylinder specification						
Bore size(mm)	32	40	50	63	80	100
Acting type	Double acting					
Fluid	Air(to be filtered by 40 μ m filter element)					
Mounting type	Basic FA FB CA CB CR LB TC FTC TCM1 TCM2					
Operating pressure	0.1~1.0MPa(15~145psi)(1.0~10.0bar)					
Proof pressure	1.5MPa(215psi)(15bar)					
Temperature °C	-20~80					
Speed range mm/s	30~800					
Stroke tolerance	0~250 ^{+1.0} ₀ 251~1000 ^{+1.4} ₀ 1001~1500 ^{+1.8} ₀					
Cushion type	Variable cushion					
Adjustable cushionstroke	27		30		36	
Port size	1/8"	1/4"		3/8"	1/2"	
PU tube size(ODXID)	Φ8 × Φ5			Φ10 × Φ6.5		
Solenoid valve specification						
Model	4M210-06 & 4M210-08		4M310-08 & 4M310-10			
Fluid	Air(to be filtered by 40 μ m filter element)					
Acting type	Internal piloted					
Port size ①	In=Exhaust=1/8" & In=1/4" Exhaust=1/8"		In=Exhaust=1/4" & In=PT3/8 Exhaust=1/4"			
Orifice size	4M210-06: 14.0mm ² (Cv=0.78) 4M210-08: 16.0mm ² (Cv=0.89)		4M310-08: 25.0mm ² (Cv=1.40) 4M310-10: 30.0mm ² (Cv=1.68)			
Valve type	5 port 2 position					
Operating pressure	0.15~0.8MPa(21~114psi)					
Proof pressure	1.5MPa(215psi)					
Temperature °C	-20~70					
Body material	Aluminum alloy					
Lubrication ②	Not required					
Max. frequency ③	5 cycle/sec		4 cycle/sec			
Coil specification						
Standard voltage	AC220V、AC110V、AC24V、DC24V、DC12V					
Scope voltage	AC: ±15% DC: ±10%					
Power consumption	AC: 3.5VA DC: 3.0W					
Protection	IP65(DIN40050)					
Temperature classification	B Class					
Electrical entry	Terminal, Grommet					
Activating time	0.05 sec and below					

① PT thread, NPT thread and G thread are available.

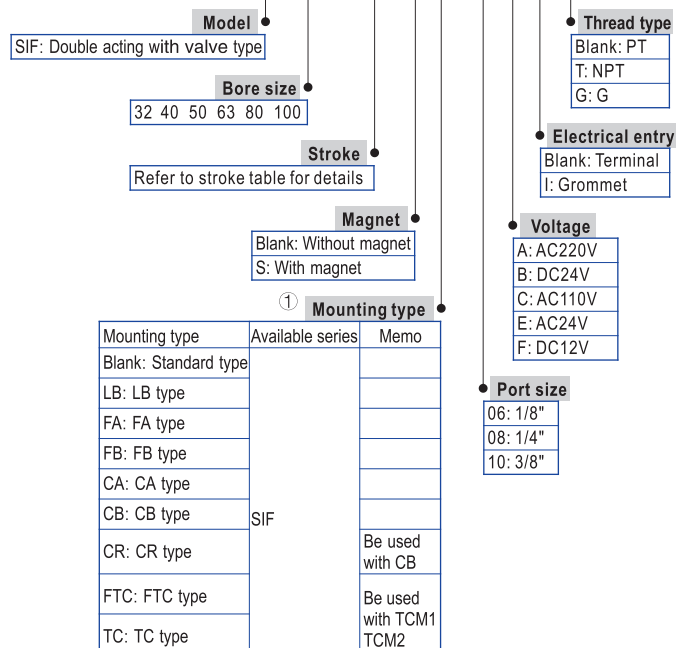
② It can't stop in the midway of lubricating. Lubricants like ISO VG32 or equivalent are recommended.

③ The maximum actuation frequency is in the no-load state.

Add) Refer to P419~442 for detail of sensor switch.

Ordering code

SIF 50 × 1000 S □ -06 A □ □



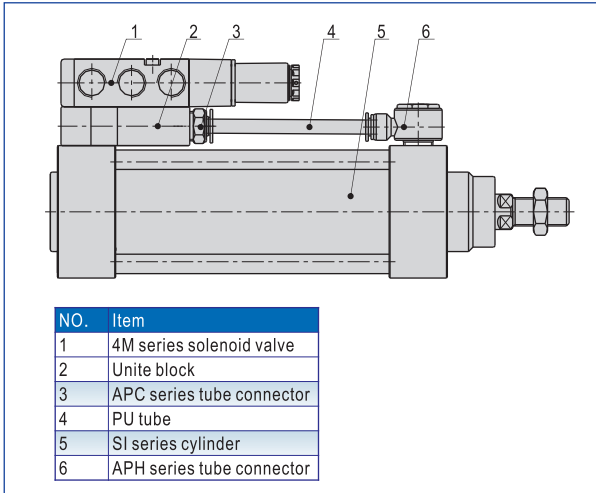
① Please refer to page 180~182 for accessory parts.



ISO1552 Standard cylinder

SIF Series(With valve)

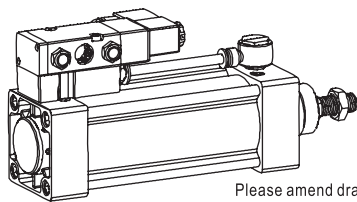
Main combination



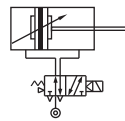
How to use

- Options for piston rod to retract or extend when solenoid coil is energized.
- Default factory setting will be piston rod to retract when energized (see Drawing one). Should you require piston rod to extend when energized, reposition the solenoid valves as shown in Drawing two.

Drawing one

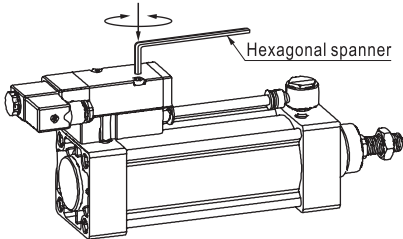


Pull when energized

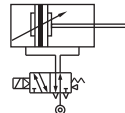


Please amend drawing of cylinder piston rod & cylinder symbol to extended position.

Drawing two



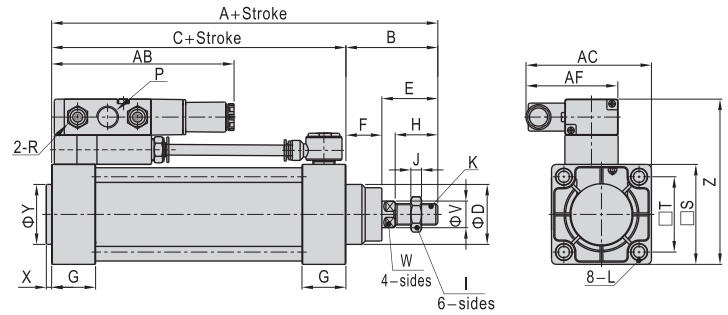
Push when energized



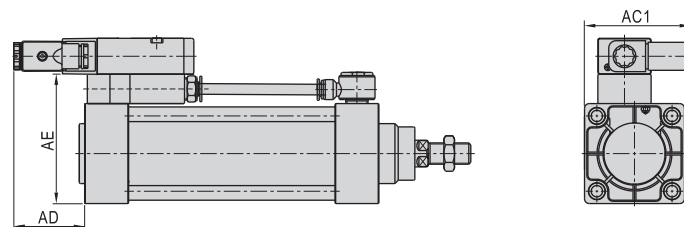
Attention Ensure that the seals between the mounting block & valve are placed correctly when repositioning the valve.

Dimensions

Pull when electrify



Push when electrify



Bore size\Item	A	AB	AC	AC1	AD	AE	AF	B	C	D	E	F	G	H	K
32	142	117.5	78.2	67.2	53.3	69	66.7	48	94	30	29	19	27.5	22	M10X1.25
40	159	120	81.7	69.7	50.8	75	66.7	54	105	35	33	21	32	24	M12X1.25
50	175	118.5	89.2	74.2	52.3	87	66.7	69	106	40	42	27	31	32	M16X1.5
63	190	137	94.2	79.2	53	97	69.2	69	121	45	42	27	33	32	M16X1.5
80	214	137	105.5	87.9	53	117	69.2	86	128	45	53	33	33	40	M20X1.5
100	229	137.5	117.7	95.7	52.5	137	69.2	91	138	55	55	36	37	40	M20X1.5

Bore size\Item	Compatible valve's type	P	R	L	S	I	J	T	V	W	X	Y	Z
32	4M210-06	1/8"	1/8"	M6 × 1.0	47	17	6	32.5	12	10	3	30	91
	4M210-08	1/4"	1/8"	M6 × 1.0	53	17	7	38	16	13	3.5	35	97
40	4M210-06	1/8"	1/8"	M6 × 1.0	53	17	7	38	16	13	3.5	35	97
	4M210-08	1/4"	1/8"	M6 × 1.0	65	23	8	46.5	20	17	3.5	40	109
50	4M210-06	1/8"	1/8"	M8 × 1.25	65	23	8	46.5	20	17	3.5	40	109
	4M210-08	1/4"	1/8"	M8 × 1.25	75	23	8	56.5	20	17	4	45	124
63	4M310-08	1/4"	1/4"	M8 × 1.25	75	23	8	56.5	20	17	4	45	124
	4M310-10	3/8"	1/4"	M8 × 1.25	95	26	10	72	25	22	4	45	144
80	4M310-08	1/4"	1/4"	M10 × 1.5	95	26	10	72	25	22	4	45	144
	4M310-10	3/8"	1/4"	M10 × 1.5	115	26	10	89	25	22	4	55	164
100	4M310-08	1/4"	1/4"	M10 × 1.5	115	26	10	89	25	22	4	55	164
	4M310-10	3/8"	1/4"	M10 × 1.5	137	26	10	109	25	22	4	65	184

Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.



SIF

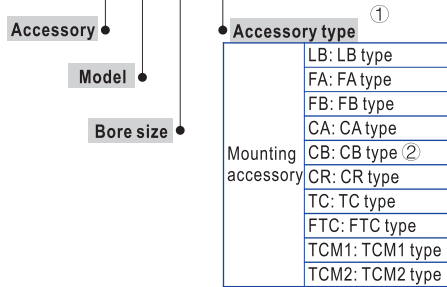
ISO1552 Standard cylinder



Accessories

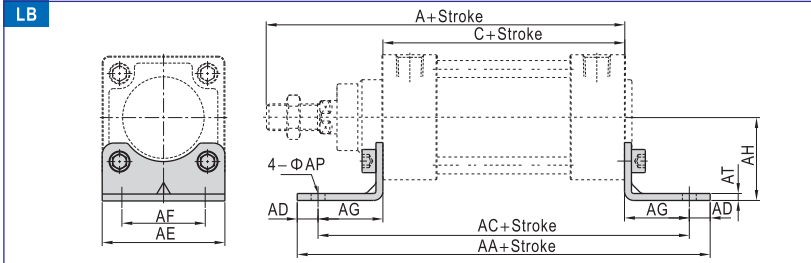
Ordering code

F-SI 50 FA



- ① Please refer to accessory list on P182 for selection and ordering information.
- ② CB is attached with relevant PIN.

Dimensions



Bore size\Item	A	C	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	142	94	158	142	8	47	32	24	32	7	3
40	159	105	179	161	9	53	36	28	36	9	3
50	175	106	190	170	10	65	45	32	45	9	3
63	190	121	209	185	12	75	50	32	50	9	3
80	214	128	248	210	19	95	63	41	63	12.5	4
100	229	138	266	228	19	115	75	45	71	14.5	4
125	279	160	290	250	20	140	90	45	90	16.5	8
160	332	180	340	300	20	180	115	60	115	18.5	8
200	347	180	380	320	30	220	135	70	135	24	9

SI Accessory selection

Cylinder model	SISIF		SID		SIJ	
	Standard	With magnet	Standard	With magnet	Standard	With magnet
LB	●	●	●	●	●	●
FA	●	●	●	●	●	●
FB	●	●	×	×	×	×
CA	●	●	×	×	×	×
CB	●	●	×	×	×	×
CR	●	●	×	×	×	×
TC	●	●	●	●	●	●
FTC	●	●	●	●	●	●
TCM1	●	●	●	●	●	●
TCM2	●	●	●	●	●	●
I	●	●	●	●	●	●
Y	●	●	●	●	●	●
U	●	●	●	●	●	●
F	●	●	●	●	●	●
CS1-B	×	●	×	●	×	●
DS1-B	×	●	×	●	×	●
CS1-F	×	●	×	●	×	●
DS1-F	×	●	×	●	×	●
CS1-U	×	●	×	●	×	●
DS1-U	×	●	×	●	×	●

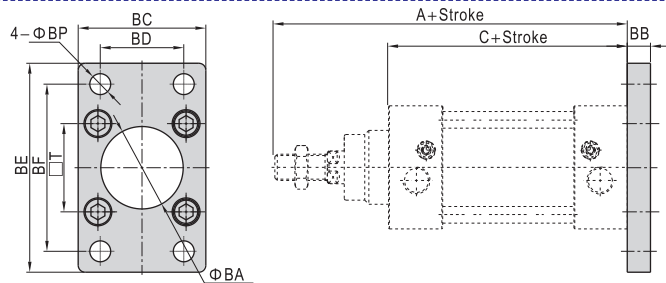
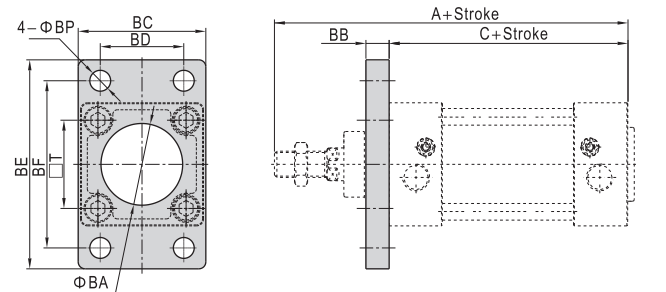
- ① Please refer to P415~418 for knuckle detail.
- ② Please refer to P419~442 for detail of sensor switch.

Material of accessories

Accessories	Mounting accessories								Knuckle				
	LB	FA	FB	CA	CB	CR	FTC	TCM1	TCM2	I	Y	F	U
32-100	○	●	◇	◇	◇	◇	■	■	●	□	□	□	□
125-200	□	□	□	□	□	□	□	□	●	□	□	□	□

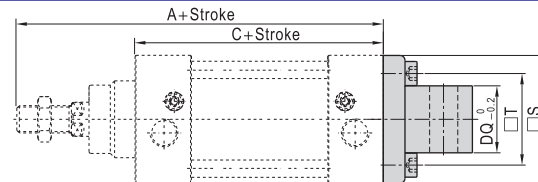
- — Aluminum alloy, ■ — Cast steel,
- — Low carbon steel, ◇ — Nodular cast iron, □ — Carbon steel.

FA/FB

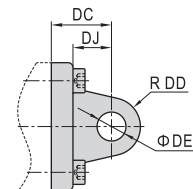


Bore size\Item	A	C	BA	BB	BC	BD	BE	BF	BP	T
32	142	94	30.5	10	47	32	80	64	7	32.5
40	159	105	35.5	10	53	36	90	72	9	38
50	175	106	40.5	12	65	45	108	90	9	46.5
63	190	121	45.5	12	75	50	118	100	9	56.5
80	214	128	45.5	16	95	63	150	126	12.5	72
100	229	138	55.5	16	115	75	176	150	14.5	89
125	279	160	60.5	20	139	90	218	180	16.5	110
160	332	180	65.5	20	180	115	280	230	18.5	140
200	347	180	75.5	25	220	135	320	270	24	175

CA



Bore size\Item	A	C	S	T	DC	DD	DE	DJ	DQ
32	142	94	47	32.5	22	9	10	13	25.8
40	159	105	52	38	25	10.5	12	16	27.8
50	175	106	64	46.5	27	11	12	17	31.7
63	190	121	74	56.5	32	13.5	16	22	39.7
80	214	128	94	72	36	14.5	16	22	49.7
100	229	138	113	89	41	17	20	27	59.7
125	279	160	139	110	50	22	25	33	69.7
160	332	180	180	140	55	30	30	35.5	89.7
200	347	180	220	175	60	30	30	37	89.7

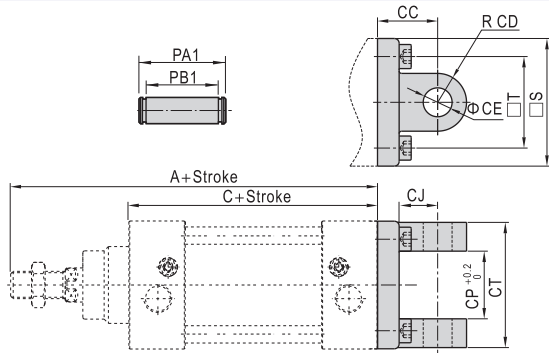


ISO1552 Standard cylinder



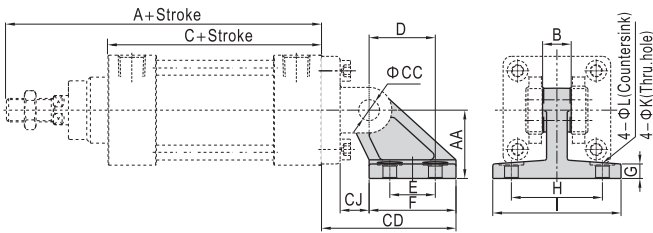
Accessories

CB



Bore size\Item	A	C	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T
32	142	94	22	9	10	13	26	45	51	45.5	47	32.5
40	159	105	25	10.5	12	16	28	52	59	52.5	52	38
50	175	106	27	11	12	17	32	60	67	60.5	64	46.5
63	190	121	32	13	16	22	40	70	77	70.5	74	56.5
80	214	128	36	14	16	22	50	90	97	90.5	94	72
100	229	138	41	17.5	20	27	60	110	119	110.5	113	89
125	279	160	50	21.5	25	33	70	130	139	130.5	139	110
160	332	180	55	30	30	35.5	90	170	181	170.5	180	140
200	347	180	60	30	30	36	90	170	181	170.5	220	175

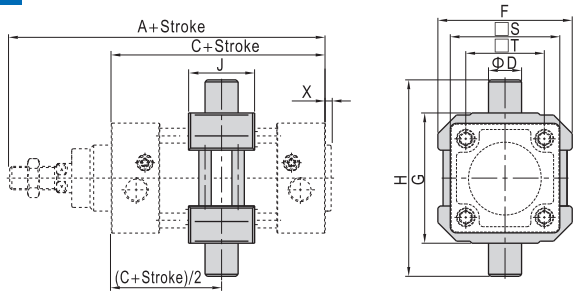
CR



Bore size\Item	A	AA	B	C	CC	CD	CJ	D	E	F	G	H	I	K	L
32	142	32	26	94	10	50	10	21	18	31	8	38	51	6.6	-
40	159	36	28	105	12	56	12	24	22	35	10	41	54	6.6	-
50	175	45	32	106	12	68	13	33	30	45	12	50	65	9	-
63	190	50	40	121	16	77	17	37	35	50	12	52	67	9	-
80	214	63	50	128	16	93	19	47	40	60	14	66	86	11	18
100	229	71	60	138	20	106	22	55	50	70	15	76	96	11	18
125	279	90	70	160	25	135	26	70	60	90	20	94	124	14	20
160	332	115	90	180	30	171	25	97	88	126	25	118	156	14	20
200	347	135	90	180	30	185	31	105	90	130	30	122	162	18	26

Note) CR can't be used alone, it must be used with CB.

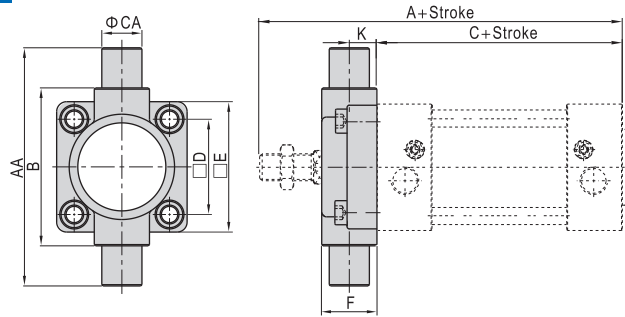
TC



Bore size\Item	A	C	D	F	G	H	J	S	X	T
32	142	94	12	52	50	74	22	47	3	32.5
40	159	105	16	65	63	95	28	53	3.5	38
50	175	106	16	75	75	107	28	65	3.5	46.5
63	190	121	20	90	90	130	30	75	4	56.5
80	214	128	20	112	110	150	32	95	4	72
100	229	138	25	135	132	182	38	115	4	89
125	279	160	25	170	160	210	40	140	4	110
160	332	180	32	210	200	264	50	180	4	140
200	347	180	32	255	250	314	50	220	5	175

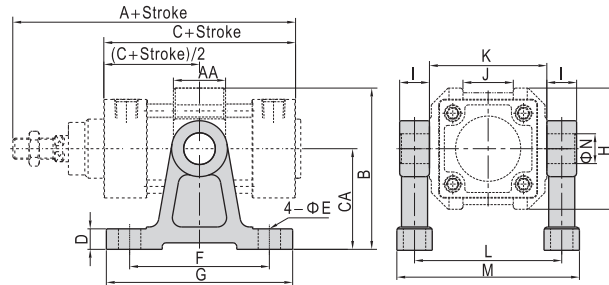
Note) The installation position of the accessories can not be adjusted arbitrarily.

FTC



Bore size\Item	A	C	AA	B	CA	D	E	F	K
32	142	94	74	50	12	32.5	46	19	10
40	159	105	95	63	16	38	52	21	10
50	175	106	107	75	16	46.5	64	26	12
63	190	121	130	90	20	56.5	74	28	12
80	214	128	150	110	20	72	94	31	16
100	229	138	182	132	25	89	114	35	16
125	279	160	210	160	25	110	139	43	20
160	332	180	264	200	32	140	179	56	20
200	347	180	314	250	32	175	218	64	20

TCM1



Bore size\Item	A	C	AA	B	CA	D	E	F	G	H	I	J	K	L	M	N
32	142	94	22	66	40	11	9	60	80	52	12	20	50	62	77	12
40	159	105	28	86.5	54	11	12	75	100	65	16	27	63	79	98	16
50	175	106	28	91.5	54	11	12	75	100	75	16	31	75	91	110	16
63	190	121	30	115	70	11	12	85	110	90	20	42	90	110	133	20
80	214	128	32	126	70	11	12	85	110	112	20	54	110	130	153	20
100	229	138	38	157.5	90	19	18	115	155	135	25	68	132	157	185	25
125	279	160	40	175	90	19	18	115	155	170	25	80	160	185	213	25
160	332	180	50	215	110	24	22	140	190	210	32	100	200	232	267	32
200	347	180	50	262.5	135	27	22	150	200	255	32	125	250	282	317	32

Note) The installation position of the accessories can not be adjusted arbitrarily.
When TCM1 be used with FTC, please refer to page 173.



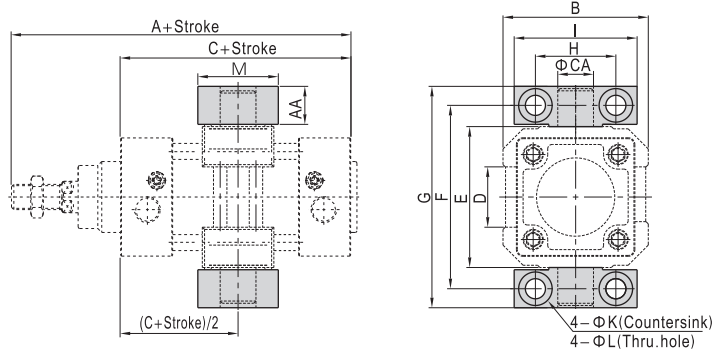
SI



ISO1552 Standard cylinder

Accessories

TCM2



Bore size\Item	A	AA	B	C	CA	D	E	F	G	H	I	K	L	M
32	142	14	52	94	12	20	50	66	80	32	46	11	7	30
40	159	17	65	105	16	27	63	82	99	36	55	15	9	36
50	175	17	75	106	16	31	75	94	111	36	55	15	9	36
63	190	20.5	90	121	20	42	90	113.5	134	42	65	18	11	40
80	214	20.5	112	128	20	54	110	133.5	154	42	65	18	11	40
100	229	24.5	135	138	25	68	132	159.5	184	50	75	20	14	50
125	279	24.5	170	160	25	80	160	187.5	212	50	75	20	14	50
160	332	30	210	180	32	100	200	234	264	60	92	26	18	60
200	347	30	255	180	32	125	250	284	314	60	92	26	18	60

Note) The installation position of the accessories can not be adjusted arbitrarily.
When TCM2 be used with FTC, please refer to page 173.

List for ordering code of accessories

Bore size	Accessories		Mounting accessory		
	LB		FA	FB	CA
32	F-SI32LB		F-SI32FA		F-SI32CA
40	F-SI40LB		F-SI40FA		F-SI40CA
50	F-SI50LB		F-SI50FA		F-SI50CA
63	F-SI63LB		F-SI63FA		F-SI63CA
80	F-SI80LB		F-SI80FA		F-SI80CA
100	F-SI100LB		F-SI100FA		F-SI100CA
125	F-SI125LB		F-SI125FA		F-SI125CA
160	F-SI160LB		F-SI160FA		F-SI160CA
200	F-SI200LB		F-SI200FA		F-SI200CA

Bore size	Accessories		Mounting accessory		
	CB		CR		TC
32	F-SI32CB		F-SI32CR		F-SI32TC
40	F-SI40CB		F-SI40CR		F-SI40TC
50	F-SI50CB		F-SI50CR		F-SI50TC
63	F-SI63CB		F-SI63CR		F-SI63TC
80	F-SI80CB		F-SI80CR		F-SI80TC
100	F-SI100CB		F-SI100CR		F-SI100TC
125	F-SI125CB		F-SI125CR		F-SI125TC
160	F-SI160CB		F-SI160CR		F-SI160TC
200	F-SI200CB		F-SI200CR		F-SI200TC

Bore size	Accessories		Mounting accessory		
	FTC		TCM1		TCM2
32	F-SI32FTC		F-SI32TCM1		F-SI32TCM2
40	F-SI40FTC		F-SI40TCM1		F-SI40TCM2
50	F-SI50FTC		F-SI40TCM1		F-SI40TCM2
63	F-SI63FTC		F-SI63TCM1		F-SI63TCM2
80	F-SI80FTC		F-SI63TCM1		F-SI63TCM2
100	F-SI100FTC		F-SI125TCM1		F-SI125TCM2
125	F-SI125FTC		F-SI125TCM1		F-SI125TCM2
160	F-SI160FTC		F-SI160TCM1		F-SI160TCM2
200	F-SI200FTC		F-SI200TCM1		F-SI160TCM2

Bore size	Accessories		Knuckle			
	I: I Knuckle	Y: Y Knuckle	F: F Knuckle	U: U Knuckle		
32	F-M10X125I	F-M10X125Y	F-M10X125F		F-M10X125U	
40	F-M12X125I	F-M12X125Y	F-M12X125F		F-M12X125U	
50	F-M16X150I	F-M16X150Y	F-M16X150F		F-M16X150U	
63	F-M16X150I	F-M16X150Y	F-M16X150F		F-M16X150U	
80	F-M20X150I	F-M20X150Y	F-M20X150F		F-M20X150U	
100	F-M20X150I	F-M20X150Y	F-M20X150F		F-M20X150U	
125	F-M27X200I	F-M27X200Y	-		F-M27X200U	
160	F-M36X200I	F-M36X200Y	-		F-M36X200U	
200	F-M36X200I	F-M36X200Y	-		F-M36X200U	

Bore size	Accessories		Sensor switch			
	CS1-B□	DS1-B□	CS1-F	DS1-F	CS1-U	DS1-U
32	CS1-B1	DS1-B1				
40	CS1-B1	DS1-B1				
50	CS1-B2	DS1-B2				
63	CS1-B2	DS1-B2				
80	CS1-B3	DS1-B3	CS1-F	DS1-F	CS1-U	DS1-U
100	CS1-B4	DS1-B4				
125	CS1-B5	DS1-B5				
160	CS1-B6	DS1-B6				
200	CS1-B7	DS1-B7				

