Parker
Pneumatic

Tie Rod Type Cylinder / AL-Tube

GDC Series

GDC Series

Φ40, Φ50, Φ63, Φ80, Φ100, Φ125, Φ150

Standard GDC	Double Rod SGB	Valve Mounted VGI
		

Bore Size	GDC	SGB	VGI
Φ40	○	○	-
Φ50	○	○	○
Φ63	○	○	○
Φ80	○	○	○
Φ100	○	○	○
Φ125	○	○	-
Φ150	○	○	-

Cushion Type

Air Cushion	○	○	○

Mounting Type

Standard	○	○	○
Foot	○	○	○
Flange	○	○	○
Trunnion	○	○	○
CA Clevis	○	○	–
CB Clevis	○	○	–

Switch Model

CL-D-A54	○	○	○

Accessories

Standard : Rod unt, Mounting nut
Option : I Knuckle, Y Knuckle

Order-made cylinder

● Three-position cylinder ● Four-position cylinder ● Tandem cylinder ●Adjustable stroke cylinder

Tie Rod Type Cylinder(AL Tube)

GDC Series / Standard

Φ40, Φ50, Φ63, Φ80, Φ100, Φ125, Φ150

ORDER KEY

GDC ① LB ② 40 ③ ☐ ④ - 200 ⑤ Y ⑥ - A54 ⑦ - 2 ⑧

1. Series

GDC	Tie rod type

GDCN : Φ125, non-magnetic type

2. Mounting

Blank	Noe mounting
LB	Foot
FH	Head Flange
FC	Cap Flange
TH	Head Trunnion
TC	Cap Trunnion
TM	Center Trunnion
TDH	Head Trunnion Hole
TDC	Cap Trunnion Hole
TDM	Center Trunnion Hole
TSH	Head Trunnion Screw
TSC	Cap Trunnion Screw
TSM	Center Trunnion Screw
CA	CA Clevis
CB	CB clevis

3. Bore Size(mm)

40	Φ40
50	Φ50
63	Φ63
80	Φ80
100	Φ100
125	Φ125
150	Φ150

4. Cylinder Type

Blank	Standard
P	Oilless

5. Cylinder Stroke(mm)

Refer to the Table of Standard stroke

6. Rod Option

Blank	No option
I	I Knuckle
Y	Y Knuckle
J	Bellows
C	Coil scraper

7. Type of Switch

Blank	No switch
A54	CL-D-A54

8. Number of Switch

2	2 units
1	1 unit
n	n units

Model No. of Mounting

Bore Size(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150
Foot	GLB40	GLB50	GLB63	GLB80	GLB100	GLB125	GLB150
Flange	GFH40	GFH50	GFH63	GFH80	GFH100	GFH125	GFH150
Trunnion	GTM40	GTM50	GTM63	GTM80	GTM100	GTM125	GTM150
Trunnion Hole	GTDM40	GTDM50	GTDM63	GTDM80	GTDM100	GTDM125	GTDM150
Tuunnion Screw	GTSM40	GTSM50	GTSM63	GTSM80	GTSM100	GTSM125	GTSM150
CA Clevis	GCA40	GCA50	GCA63	GCA80	GCA100	GCA125	GCA150
CB Clevis	GCB40	GCB50	GCB63	GCB80	GCB100	GCB125	GCB150

Standard(AL Tube)

Specfication

Bore Size(mm)	Unit	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150
Fluid		Air						
Pressure Range	MPa(bar)	0.1~0.9(1.0~9.0)						
Proof Pressure	MPa(bar)	1.5(15)						
Temperature Range	℃	5~60						
Piston Speed Range	mm/s	50~500						
Cushion		Air cushion						
Stroke Allowance		~250 : $^{+1.0}_{0}$ 251~1000 : $^{+1.5}_{0}$, 1000V : $^{+2.0}_{0}$						
Mounting		Foot, Flange, Clevis, Trunnion						

Standard Stroke

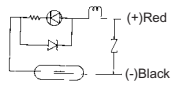
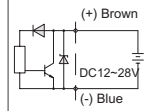
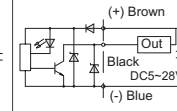
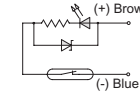
Bore Size (mm)	Standard Stroke (mm)														Max. Storke
	25	50	75	100	125	150	175	200	250	300	350	400	450	500	
Φ40	○	○	○	○	○	○	○	○	○	○	○	○	○	○	800
Φ50	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,200
Φ63	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,200
Φ80	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,500
Φ100	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,500
Φ125	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,500
Φ150	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,500

Theoretical Output

(Unit : N)

Bore Size (mm)	Rod dia (mm)	Direction of rod	Operation Pressure (MPa)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Φ 40	Φ 16	Extended	251	377	502	628	754	879	1,005	1,130
		Retracted	211	317	422	528	633	739	844	950
Φ 50	Φ 20	Extended	393	589	785	981	1,178	1,374	1,570	1,766
		Retracted	330	495	659	824	989	1,154	1,319	1,484
Φ 63	Φ 20	Extended	623	935	1,246	1,558	1,869	2,181	2,493	2,804
		Retracted	560	840	1,121	1,401	1,681	1,961	2,241	2,521
Φ 80	Φ 25	Extended	1,005	1,507	2,010	2,512	3,014	3,517	4,019	4,522
		Retracted	907	1,360	1,813	2,267	2,720	3,173	3,627	4,080
Φ 100	Φ 30	Extended	1,570	2,355	3,140	3,925	4,710	5,495	6,280	7,065
		Retracted	1,429	2,143	2,857	3,572	4,286	5,000	5,715	6,429
Φ 125	Φ 24	Extended	2,453	3,680	4,906	6,133	7,359	8,586	9,813	11,039
		Retracted	2,261	3,391	4,522	5,652	6,782	7,913	9,043	10,174
Φ 150	Φ 40	Extended	3,533	5,299	7,065	8,831	10,598	12,364	14,130	15,896
		Retracted	3,281	4,922	6,563	8,203	9,844	11,485	13,125	14,766

Specification of Switch

Model No.								
	Reed type	Leed wire(1.5m)	CL-D-A54					
	Solid state type	Leed wire(1m)			CL-D-J591	CL-D-F591		
		Leed wire(3m)			CL-D-J593	CL-D-F593		
		Leed wire(5m)			CL-D-J595	CL-D-F595		
	B contact						CL-D-B54	
Load voltage			DC24V	AC110V / AC220V	DC 24V	DC 24V	DC 24V	AC 110V
Load current			5~100 mA	5~40 mA / 5~20 mA	5~20 mA	0.1~40 mA	5~40 mA	5~20 mA
Internal voltage drop			2.4V less		5V less	0.5V less	3V less	3V less
Wiring method			2 wire		2 wire	3 wire(NPN)	2 wire	
Insulation resistance			50MΩ(500V MEGA)		100MΩ(500V MEGA)			
Temperature range			0 ~ 60℃					
Protection grade			IP67(IEC stadard)					
Indicatior lamp			Red LED (turn on at "ON")					
Internal circuit								
Application			Relay, PLC					

Min. Stroke with CL Type Switch

Model No.	Number of Switch	Except Trunnion type	Trunnion Type						
CL-D-A54	2ea (both side) 1ea (same side)	10:(Φ40~100)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150
		20:(Φ125~150)	90	95	100	115	120	125	135
	n ea(same side)	$10+55\ \frac{(n-2)}{2}$ Φ40~100 n=2,4,6,8...	$90+55\ \frac{(n-2)}{2}$ n=4,8,12, 16...	$95+55\ \frac{(n-2)}{2}$ n=4,8,12, 16...	$100+55\ \frac{(n-2)}{2}$ n=4,8,12, 16...	$115+55\ \frac{(n-2)}{2}$ n=4,8,12, 16...	$120+55\ \frac{(n-2)}{2}$ n=4,8,12, 16...	$125+55\ \frac{(n-2)}{2}$ n=4,8,12, 16...	$135+55\ \frac{(n-2)}{2}$ n=4,8,12, 16...
		$20+55\ \frac{(n-2)}{2}$ Φ125~150 n=2,4,6,8...							

Weight

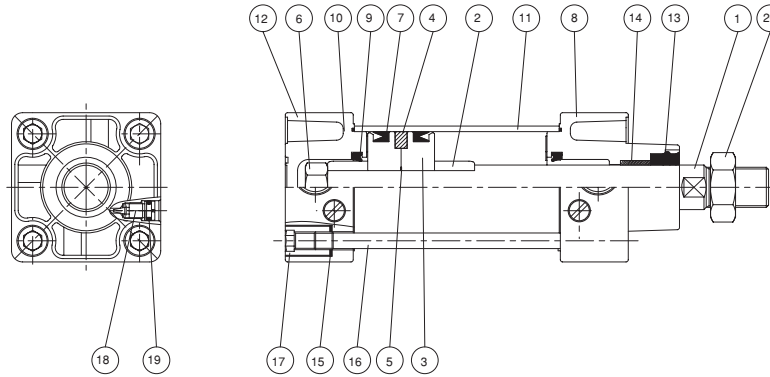
(Unit : kg)

GDC/ Standard		Φ40	Φ50	Φ63	Φ80	Φ100
Basic		0.8	1.3	1.52	0.74	3.92
Foot		0.96	1.52	1.82	3.34	4.68
Flange		0.92	1.48	1.78	3.16	4.6
CA Clevis		1.14	1.84	2.38	4.32	6.34
CB Clevis		1.1	1.8	2.34	4.14	6.16
Trunnion		1.24	1.96	2.64	4.32	6.78
Add per 50 Stroke		0.18	0.24	0.3	0.44	0.6
Option	I Knuckle	0.16	0.24	0.24	0.52	0.72
	Y Knuckle	0.26	0.34	0.34	0.74	0.98

Standard(AL Tube)

Construction & Part List

Double Acting



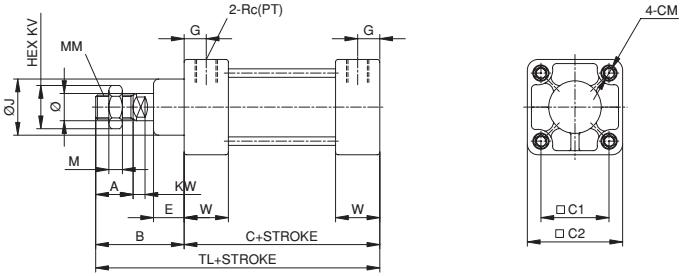
No	Part No.	Material
1	Piston Rod	Carbon Steel
2	Slip Ring	Carbon Steel
3	Piston	AL
4	Magnet	Plastic
5	O-Ring	NBR
6	Hex Nut	Carbon Steel
7	Piston Packing	NBR
8	Head Cover	AL
9	Cushion Packing	Urethan
10	O-Ring	NBR

No	Part No.	Material
11	Tube	AL
12	Rod Cover	AL
13	Rod Seal & Wiper	NBR
14	Rod Bush	-
15	Washer	Carbon Steel
16	Tie Rod	Carbon Steel
17	Nut	Carbon Steel
18	Cushion Needle	Carbon Steel
19	O-Ring	NBR
20	Hex Nut	Carbon Steel

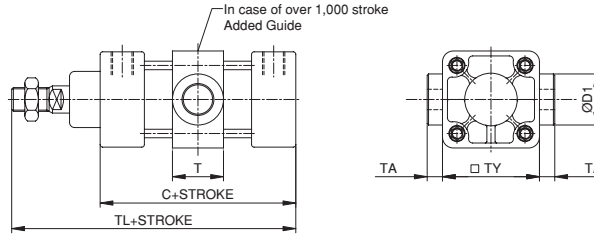
Dimension

Standard / ϕ40~ϕ100

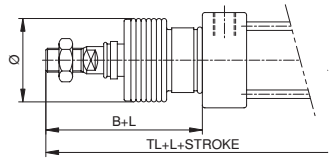
(Unit : mm)



With Guide



With Bellows



Ø	A	B	C		C1	C2	CM	ØD	ØD1	E	G	ØJ
			- 1000	1000 -								
40	22	52	90	-	40	56	M6x1.0	16	-	18	13	33
50	28	63	104	134	48	67	M8x1.25	20	30	23	13.5	40
63	28	63	104	134	59	78	M8x1.25	20	30	23	13.5	40
80	36	79	113	146	74	98	M12x1.75	25	40	28	15	45
100	45	95	124	162	90	116	M12x1.75	30	45	33	17	50

Ø	KV	KW	M	MM	Rc(PT)	T	TA	TL		TY	W
								- 1000	1000 -		
40	25	7	8	M14x1.5	1/4	-	-	142	-	57	26
50	31	10	11	M18x1.5	3/8	30	8.5	167	197	73	31
63	31	10	11	M18x1.5	3/8	35	9	167	197	86	31
80	37	11	13	M22x1.5	1/2	40	13.5	192	225	107	34
100	44	13	16	M26x1.5	1/2	45	10	219	257	130	36

With Bellows

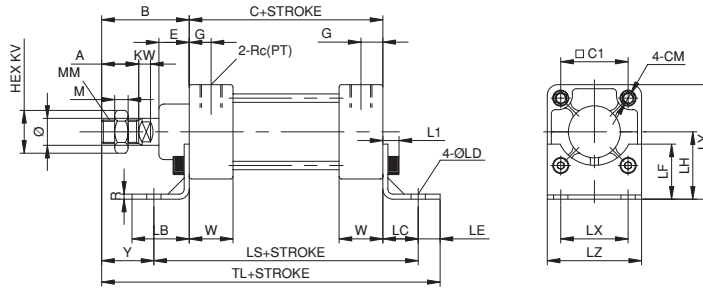
Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	142	49	40	70	100	130	160	-	-	-	-	-
50	63	167	49	40	70	100	130	160	190	-	-	-	-
63	63	167	49	40	70	100	130	160	190	-	-	-	-
80	79	192	60	40	70	100	130	160	190	220	250	280	-
100	95	219	60	40	70	100	130	160	190	220	250	280	310

Standard(AL Tube)

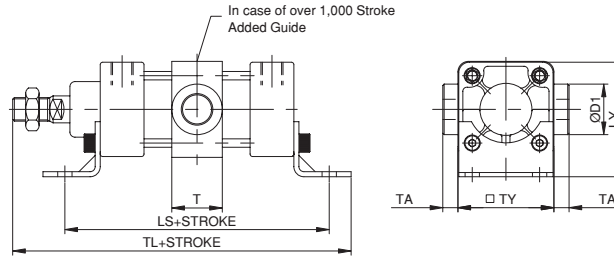
Dimension

Standard-Foot mounting type / Φ40~Φ100 (Unit : mm)

LB



With Guide



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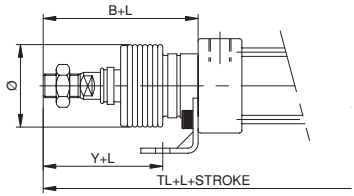


Ø	A	B	C		C1	CM	ØD	ØD1	E	G	KV	KW	L1	LB	LC	ØLD	LE	LF
			- 1000	1000 -														
40	22	52	90	-	40	M6x1.0	16	-	18	13	25	7	9	34	21	8.5	13	30
50	28	63	104	134	48	M8x1.25	20	30	23	13.5	31	10	11	38	23	10.5	15	30
63	28	63	104	134	59	M8x1.25	20	30	23	13.5	31	10	11.5	41	25	10.5	16	40
80	36	79	113	146	74	M12x1.75	25	40	28	15	37	11	16	50	34	13	16	45
100	45	95	124	162	90	M12x1.75	30	45	33	17	44	13	16	56	40	15	16	50

Ø	LH	LS		LX	LX	LY	LZ	M	MM	R	Rc(PT)	T	TA	TL		TY	W	Y
		- 1000	1000 -											- 1000	1000 -			
40	40	132	-	40	40	68	56	8	M14x1.5	3	1/4	-	-	176	-	57	26	31
50	45	150	180	45	45	78.5	67	11	M18x1.5	3	3/8	30	8.5	205	235	73	31	40
63	53	154	184	60	60	92	78	11	M18x1.5	3.5	3/8	35	9	208	238	86	31	38
80	63	181	214	71	71	112	98	13	M22x1.5	4	1/2	40	13.5	242	275	107	34	45
100	75	204	242	85	85	133	116	16	M26x1.5	4	1/2	45	10	275	313	130	36	55

With Bellows

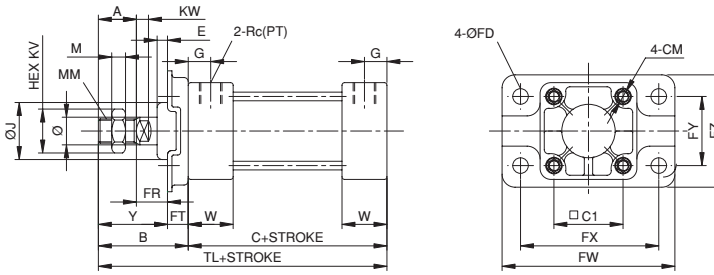
Ø	B	Y	TL	X	L									
					~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	31	176	49	40	70	100	130	160	-	-	-	-	-
50	63	40	205	49	40	70	100	130	160	190	-	-	-	-
63	63	38	208	49	40	70	100	130	160	190	-	-	-	-
80	79	45	242	60	40	70	100	130	160	190	220	250	280	-
100	95	55	275	60	40	70	100	130	160	190	220	250	280	310

Dimension

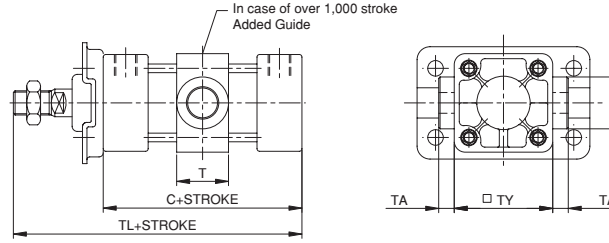
Standard - Flange mounting type /Φ40~Φ100

(Unit : mm)

FH



With Guide



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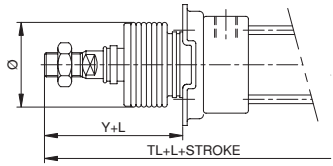


Ø	A	B	C		C1	CM	Ø	ØD1	E	ØFD	FR	FT	FW	FX	FY
			- 1000	1000 -											
40	22	52	90	-	40	M6x1.0	16	-	6	9	18	12	100	80	40
50	28	63	104	134	48	M8x1.25	20	30	9	11	21	14	112	90	45
63	28	63	104	134	59	M8x1.25	20	30	9	11	21	14	135	112	60
80	36	79	113	146	74	M12x1.75	25	40	10	13	25	18	160	132	71
100	45	95	124	162	90	M12x1.75	30	45	13	16	30	20	180	150	85

Ø	FZ	G	ØJ	KV	KW	M	MM	Rc(PT)	T	TA	TL		TY	W	Y
											- 1000	1000 -			
40	65	13	33	25	7	8	M14x1.5	1/4	-	-	142	-	57	26	40
50	78	13.5	40	31	10	11	M18x1.5	3/8	30	8.5	167	197	73	31	49
63	92	13.5	40	31	10	11	M18x1.5	3/8	35	9	167	197	86	31	49
80	114	15	45	37	11	13	M22x1.5	1/2	40	13.5	192	225	107	34	61
100	128	17	50	44	13	16	M26x1.5	1/2	45	10	219	257	130	36	75

Withe Bellows

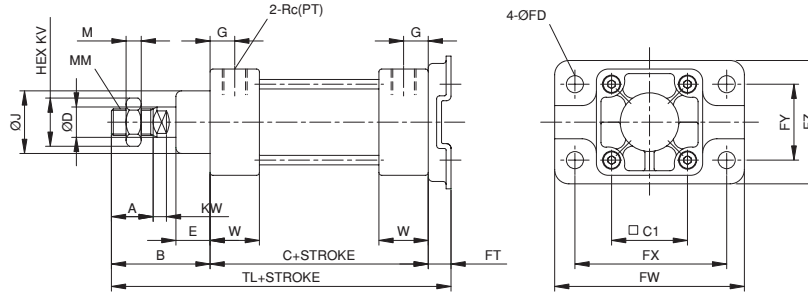
Ø	Y	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	40	142	49	40	70	100	130	160	-	-	-	-	-
50	49	167	49	40	70	100	130	160	190	-	-	-	-
63	49	167	49	40	70	100	130	160	190	-	-	-	-
80	61	192	60	40	70	100	130	160	190	220	250	280	-
100	75	219	60	40	70	100	130	160	190	220	250	280	310

Standard(AL Tube)

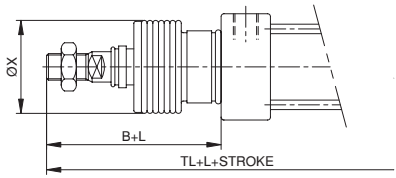
Dimension

Standard - Flange mounting type / Φ40~Φ100 (Unit : mm)

FC



With Bellows



Ø	A	B	C	C1	ØD	E	ØF	FT	FW	FX	FY
40	22	52	90	40	16	18	9	12	100	80	40
50	28	63	104	48	20	23	11	14	112	90	45
63	28	63	104	59	20	23	11	14	135	112	60
80	36	79	113	74	25	28	13	18	160	132	71
100	45	95	124	90	30	33	16	20	180	150	85

Ø	FZ	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W
40	65	13	33	25	7	8	M14x1.5	1/4	154	26
50	78	13.5	40	31	10	11	M18x1.5	3/8	181	31
63	92	13.5	40	31	10	11	M18x1.5	3/8	181	31
80	114	15	45	37	11	13	M22x1.5	1/2	210	34
100	128	17	50	44	13	16	M26x1.5	1/2	239	36

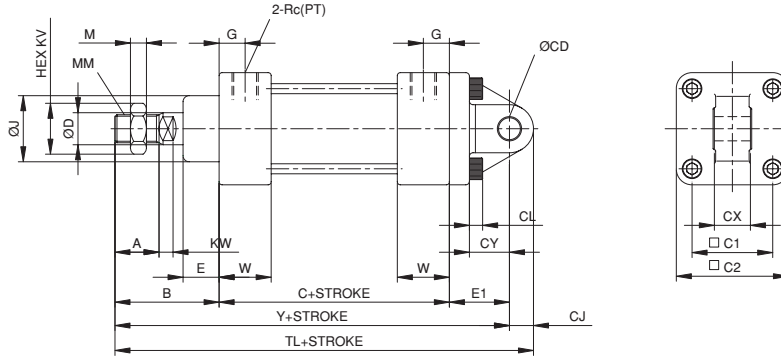
With Bellows

Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	154	49	40	70	100	130	160	-	-	-	-	-
50	63	181	49	40	70	100	130	160	190	-	-	-	-
63	63	181	49	40	70	100	130	160	190	-	-	-	-
80	79	210	60	40	70	100	130	160	190	220	250	280	-
100	95	239	60	40	70	100	130	160	190	220	250	280	310

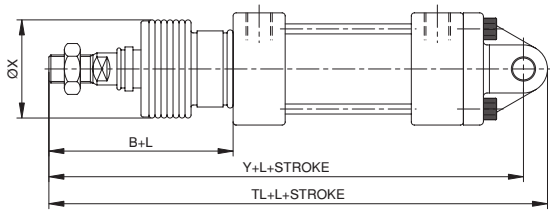
Dimension

Standard - Clevis mounting type / ϕ40~ϕ100 (Unit : mm)

CA



With Bellows



Ø	A	B	C	C1	C2	ØCD	CJ	CL	CX	CY	ØD	E
40	22	52	90	40	56	12.1	12	6	18	20	16	18
50	28	63	104	48	67	12.1	12	8	18	25	20	23
63	28	63	104	59	78	16.1	16	8	22	30	20	23
80	36	79	113	74	98	20.1	20	12	28	35	25	28
100	45	95	124	90	116	25.1	25	12	32	40	30	33

Ø	E1	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W	Y
40	30	13	33	25	7	8	M14x1.5	1/4	184	26	172
50	37	13.5	40	31	10	11	M18x1.5	3/8	216	31	204
63	44	13.5	40	31	10	11	M18x1.5	3/8	227	31	211
80	51	15	45	37	11	13	M22x1.5	1/2	263	34	243
100	58	17	50	44	13	16	M26x1.5	1/2	302	36	277

With Bellows

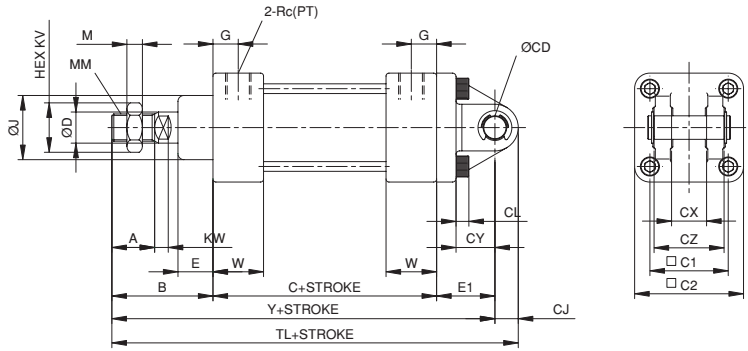
Ø	B	X	Y	TL	L									
					~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	49	172	184	40	70	100	130	160	-	-	-	-	-
50	63	49	204	216	40	70	100	130	160	190	-	-	-	-
63	63	49	211	227	40	70	100	130	160	190	-	-	-	-
80	79	60	243	263	40	70	100	130	160	190	220	250	280	-
100	95	60	277	302	40	70	100	130	160	190	220	250	280	310

Standard(AL Tube)

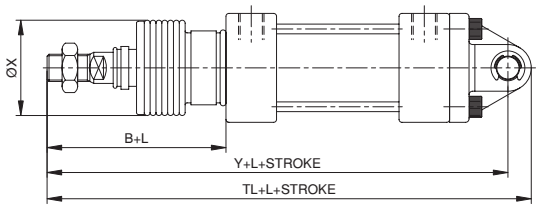
Dimension

Standard - Clevis mounting type / Φ40~Φ100 (Unit : mm)

CB



With Bellows



	A	B	C	C1	C2	ØCD	CJ	CL	CX	CY	CZ	ØD	E
40	22	52	90	40	56	12.1	12	6	18	20	36	16	18
50	28	63	104	48	67	12.1	12	8	18	25	36	20	23
63	28	63	104	59	78	16.1	16	8	22	30	44	20	23
80	36	79	113	74	98	20.1	20	12	28	35	56	25	28
100	45	95	124	90	116	25.1	25	12	32	40	64	30	33

	E1	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W	Y
40	30	13	33	25	7	8	M14x1.5	1/4	184	26	172
50	37	13.5	40	31	10	11	M18x1.5	3/8	216	31	204
63	44	13.5	40	31	10	11	M18x1.5	3/8	227	31	211
80	51	15	45	37	11	13	M22x1.5	1/2	263	34	243
100	58	17	50	44	13	16	M26x1.5	1/2	302	36	277

With Bellows

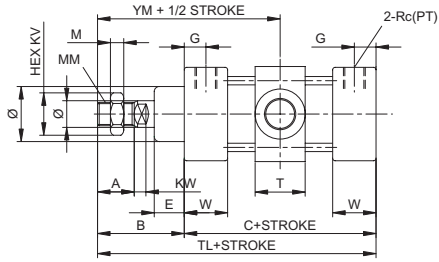
	B	X	Y	TL	L									
					~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	49	172	184	40	70	100	130	160	-	-	-	-	-
50	63	49	204	216	40	70	100	130	160	190	-	-	-	-
63	63	49	211	227	40	70	100	130	160	190	-	-	-	-
80	79	60	243	263	40	70	100	130	160	190	220	250	280	-
100	95	60	277	302	40	70	100	130	160	190	220	250	280	310

Dimension

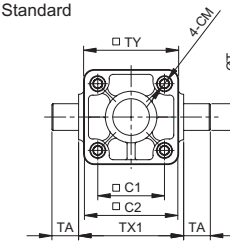
Standard - Trunnion mounting type/ϕ40~ϕ100

(Unit : mm)

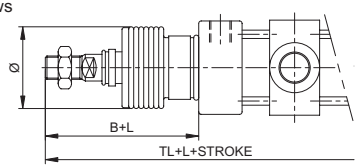
TM



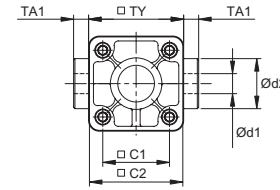
Standard



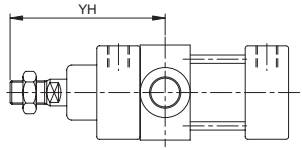
With Bellows



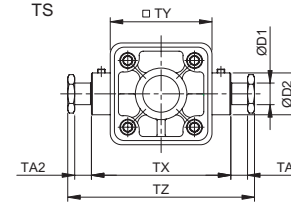
TD



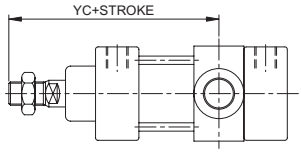
TH



TS



TC



Ø	C1	C2	T	TY	T type(Standard)			TD type			TS type				
					TA	ØT	TX1	Ød1	Ød2	TA1	ØD1	ØD2	TA2	TX	TZ
40	40	56	30	57	16	16	63	-	-	-	-	-	-	-	-
50	48	67	30	73	18	18	80	12	30	8.5	15.5	30	12	100	134
63	59	78	35	86	20	20	90	14	30	9	19.5	35	12	125	159
80	74	98	40	107	25	25	112	20	40	13.5	25.5	40	12	140	176
100	90	116	45	130	32	32	140	20	45	10	29.5	45	14	180	220

	A	B	C	CM	Ø	E	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W	YC	YH	YM
40	22	52	90	M6x1.0	16	18	13	33	25	7	8	M14x1.5	1/4	142	26	101	93	97
50	28	63	104	M8x1.25	20	23	13.5	40	31	10	11	M18x1.5	3/8	167	31	121	109	115
63	28	63	104	M8x1.25	20	23	13.5	40	31	10	11	M18xP1.5	3/8	167	31	118.5	111.5	115
80	36	79	113	M12x1.75	25	28	15	45	37	11	13	M22x1.5	1/2	192	34	138	133	135.5
100	45	95	124	M12x1.75	30	33	17	50	44	13	16	M26x1.5	1/2	219	36	160.5	153.5	157

With Bellows

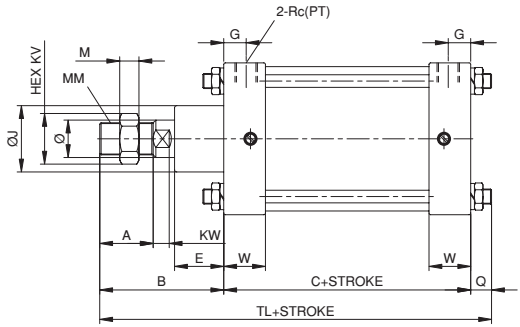
Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	142	49	40	70	100	130	160	-	-	-	-	-
50	63	167	49	40	70	100	130	160	190	-	-	-	-
63	63	167	49	40	70	100	130	160	190	-	-	-	-
80	79	192	60	40	70	100	130	160	190	220	250	280	-
100	95	219	60	40	70	100	130	160	190	220	250	280	310

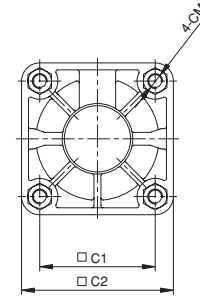
Standard(AL tube)

Dimension

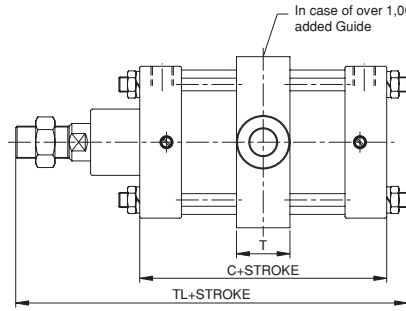
Standard / ϕ125

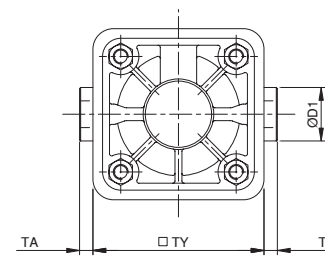
(Unit : mm)



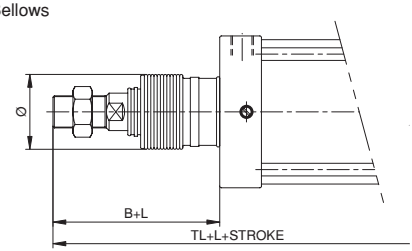


With Guide





With Bellows



Ø	A	B	C				C1	C2	CM	ØD	ØD1	E	G	ØJ
			Without Magnet		With Magnet									
			-1000	1000 -	- 1000	1000 -								
125	50	116	131	166	138	180	108	142	M14x1.5	35	50	46	21	62

Ø	KV	KW	M	MM	Q	Rc(PT)	T	TL				TA	TY	W
								Without Magnet		With Magnet				
								- 1000	1000 -	- 1000	1000 -			
125	41	15	18	M30x1.5	19.5	1/2	50	266.5	301.5	273.5	315.5	12.5	160	39

With Bellows

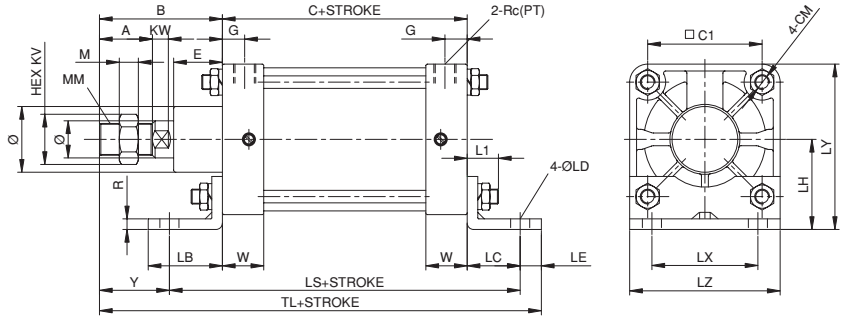
Ø	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	266.5	273.5	70	40	70	100	130	160	190	220	250	280	310

Dimension

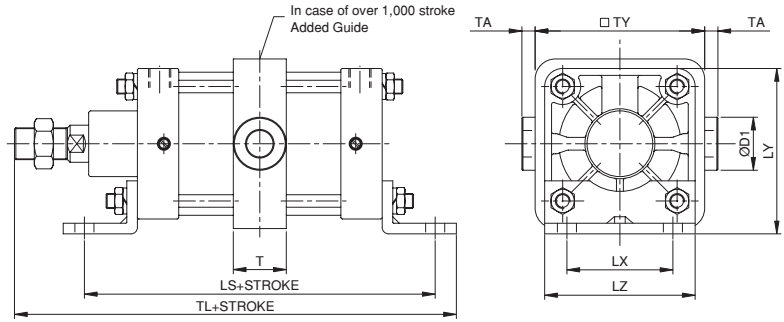
Standard-Foot mounting type/Φ125

(Unit : mm)

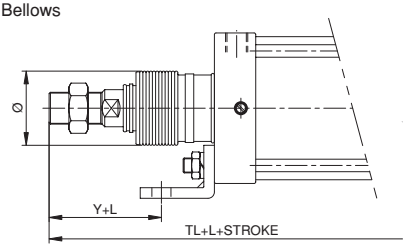
LB



With Guide



With Bellows



Ø	A	B	C				C1	CM	ØD	ØD	E	G	ØJ	KV	KW	L1	LB	LC	ØL	LE	LH
			Without Magnet		With Magnet																
			-1000	1000-	-1000	1000-															
125	50	116	131	166	138	180	108	M14x1.5	35	50	46	21	62	41	15	70	29.5	50	18	20	85

Ø	LS				LX	LY	LZ	M	MM	R	Rc(PT)	T	TA	TL				TY	W	Y
	Without Magnet		With Magnet											Without Magnet		With Magnet				
	-1000	1000-	-1000	1000-										-1000	1000-	-1000	1000-			
125	231	266	238	280	100	156	142	18	M30x1.5	10	1/2	50	12.5	317	352	324	366	160	39	66

With Bellows

Ø	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	317	324	70	40	70	100	130	160	190	220	250	280	310

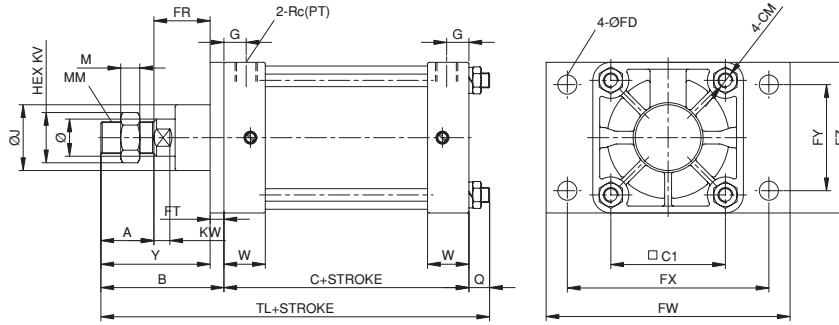
Standard(AL tube)

Dimension

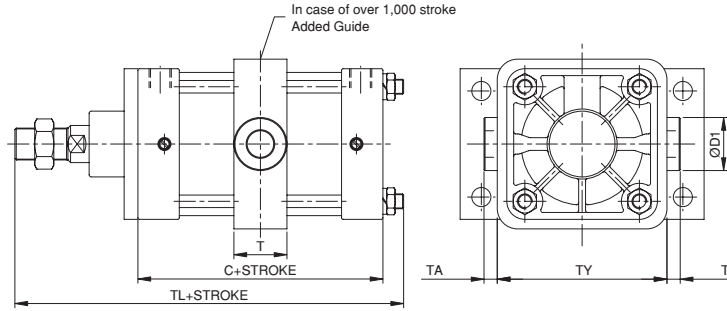
Standard - Flange mounting type /Φ125

(Unit : mm)

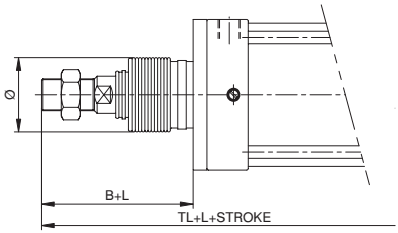
FH



With Guide



With Bellows



Ø	A	B	C				C1	CM	ØD	ØD	E	ØF	FR	FT	FW	FX	FY	FZ
			Without Magnet		With Magnet													
			-1000	1000 -	- 1000	1000 -												
125	50	116	131	166	138	180	108	M14x1.5	35	50	46	18	53	13	230	190	100	142

Ø	G	ØJ	KV	KW	M	MM	Q	Rc(PT)	T	TA	TL				TY	W	Y
											Without Magnet		With Magnet				
											-1000	1000-	-1000	1000-			
125	21	62	41	15	18	M30x1.5	19.5	1/2	50	12.5	266.5	301.5	273.5	315.5	160	39	103

With Bellows

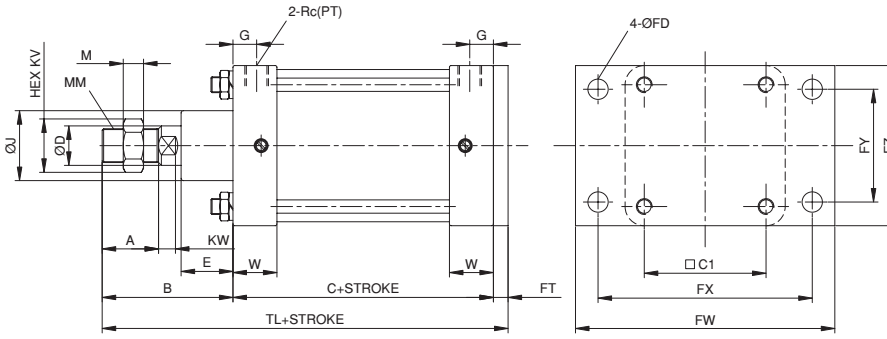
Ø	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	266.5	273.5	70	40	70	100	130	160	190	220	250	280	310

Dimension

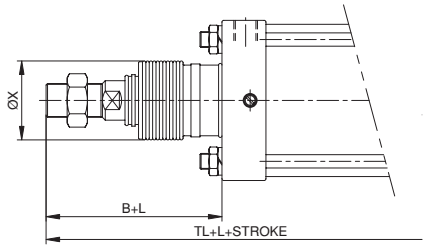
Standard - Flange mounting type / ϕ125

(Unit : mm)

FC



With Bellows



Ø	A	B	C		C1	ØD	E	ØFD	FT	FW	FX	FY
			Without Magnet	With Magnet								
125	50	116	131	138	108	35	46	18	13	230	190	100

Ø	FZ	G	ØJ	KV	KW	M	MM	Rc(PT)	TL		W
									Without Magnet	With Magnet	
125	142	21	62	41	15	18	M30x1.5	1/2	260	267	39

With Bellows

Ø	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	260	267	70	40	70	100	130	160	190	220	250	280	310

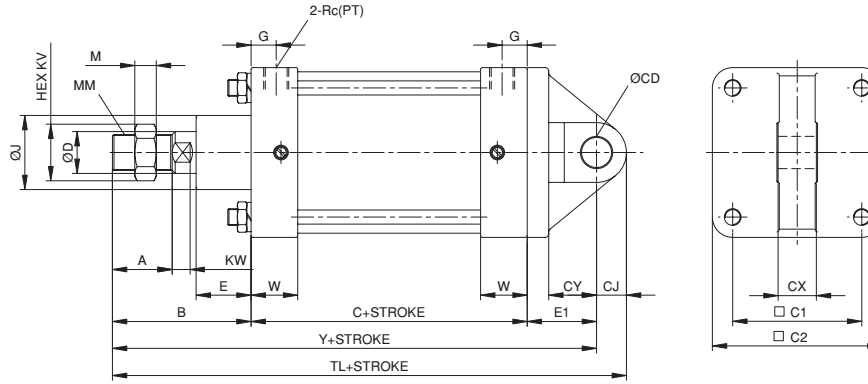
Standard(AL tube)

Dimension

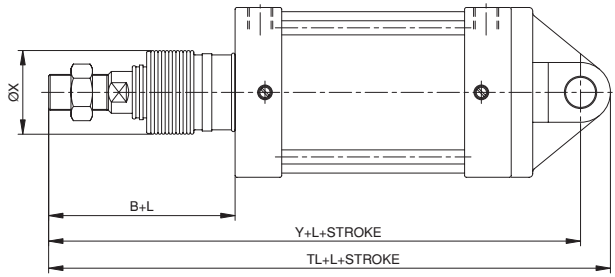
Standard-Clevis mounting type / Φ125

(Unit : mm)

CA



With Bellows



	A	B	C		C1	C2	ØCD	CJ	CX	CY	ØD	E	E1	G
			Without Magnet	With Magnet										
125	50	116	131	138	108	142	25.1	25	32	40	35	46	58	21

	Ø	KV	KW	M	MM	Rc(PT)	TL		W	Y	
							Without Magnet	With Magnet		Wthout Magnet	With Magnet
125	62	41	15	18	M30x1.5	1/2	330	337	39	305	312

With Bellows

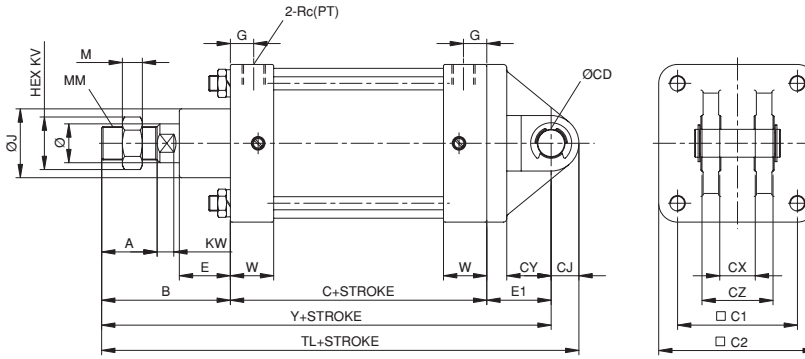
	B	TL		X	L									
		Without Magnet	With Magnet		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
125	116	330	337	70	40	70	100	130	160	190	220	250	280	310

Dimension

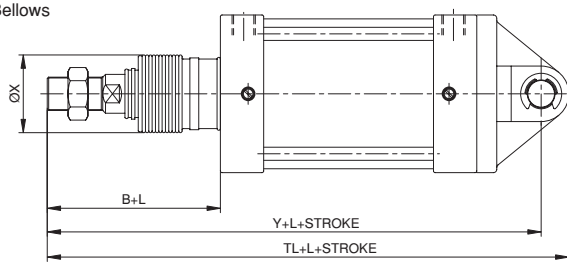
Standard-Clevis mounting type / Φ125

(Unit : mm)

CB



With Bellows



	A	B	C		C1	C2	ØCD	CJ	CX	CY	CZ	ØD	E	E1	G
			Without Magnet	With Magnet											
125	50	116	131	138	108	142	25.1	25	32	40	64	35	46	58	21

	ØJ	KV	KW	M	MM	Rc(PT)	TL		W	Y	
							Without Magnet	With Magnet		Without Magnet	With Magnet
125	62	41	15	18	M30x1.5	1/2	330	337	39	305	312

With Bellows

	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	330	337	70	40	70	100	130	160	190	220	250	280	310

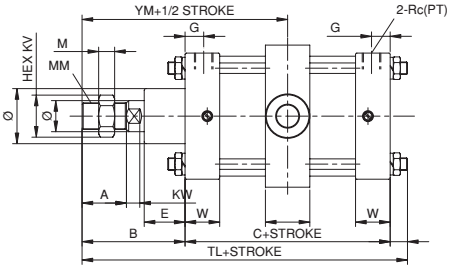
Standard(AL tube)

Dimension

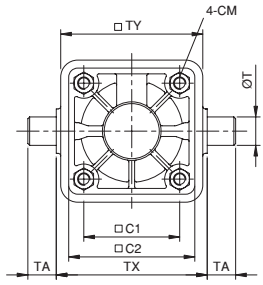
Standard-Trunnion mounting type / ϕ125

(Unit : mm)

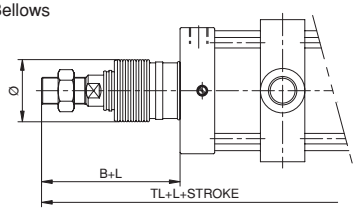
TM



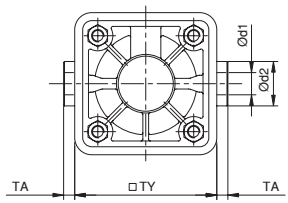
T



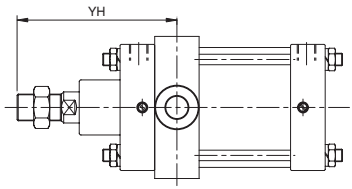
With Bellows



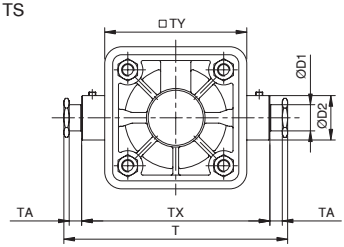
TD



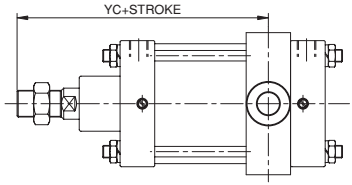
TH



TS



TC



Ø	C1	C2	T	TY	T type(Standard)			TD type		
					TA	ØTD	TX1	Ød1	Ød2	TA1
125	108	142	50	160	32	32	170	25	50	12.5

Ø	TS type				
	ØD1	ØD2	TA2	TX	TZ
125	29.5	50	14	212	252

Ø	A	B	C		CM	ØD	E	G	ØJ	KV	KW	M	MM
			Without Magnet	With Magnet									
125	50	116	131	138	M14x1.5	35	46	21	62	41	15	18	M30x1.5

Ø	Rc(PT)	TL		W	YC		YH	YM	
		Without Magnet	With Magnet		Without Magnet	With Magnet		Without Magnet	With Magnet
125	1/2	266.5	273.5	39	183	190	180	181.5	185

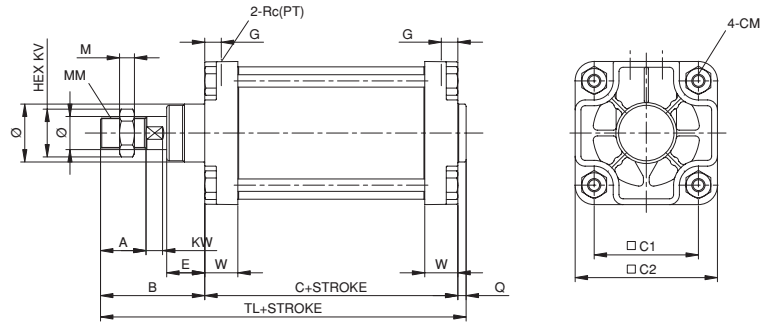
With Bellows

Ø	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	266.5	273.5	70	40	70	100	130	160	190	220	250	280	310

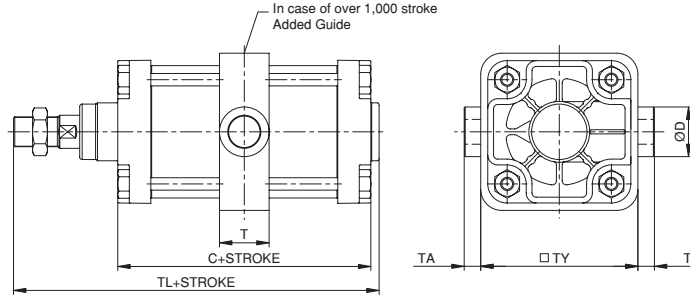
Dimension

Standard / ϕ150

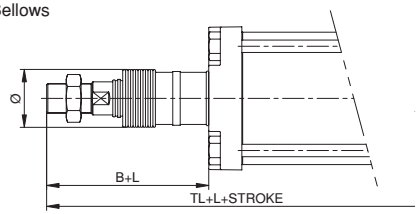
(Unit : mm)



With Guide



With Bellows



Ø	A	B	C		C1	C2	CM	Ø	ØD1	E	G	ØJ
			- 1000	1000 -								
150	55	126	156	203	126	173	M16x2.0	40	60	46	20	70

Ø	KV	KW	M	MM	Q	Rc(PT)	T	TA	TL		TY	W
									- 1000	1000 -		
150	50	20	18	M36x1.5	10	3/4	60	20	292	339	190	40

With Bellows

Ø	B	TL	X	L									
				~100	101~ 200	201~ 300	301~ 400	401~ 500	501~ 600	601~ 700	701~ 800	801~ 900	901~ 1000
150	126	292	70	40	70	100	130	160	190	220	250	280	310

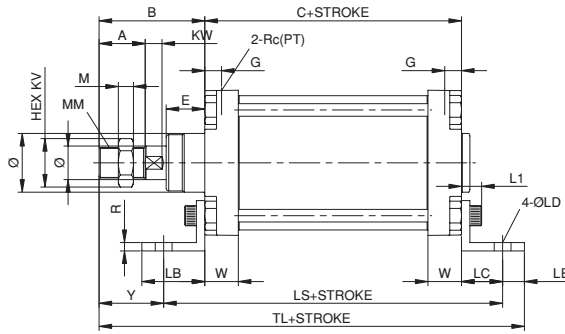
Standard(AL tube)

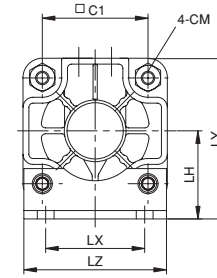
Dimension

Standard / ϕ150

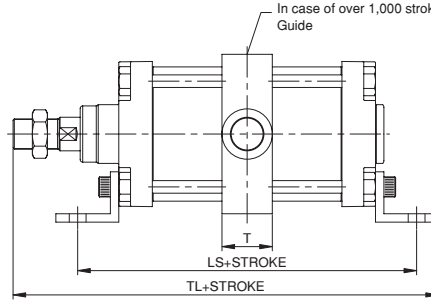
(Unit : mm)

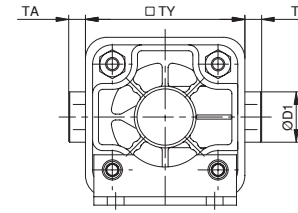
LB



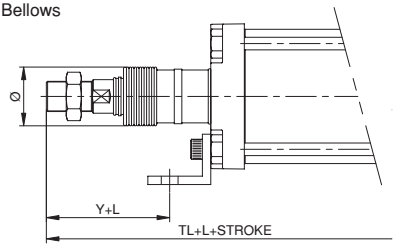


With Guide





With Bellows



Ø	A	B	C		C1	CM	Ø	ØD	E	G	ØJ	KV	KW	L1	LB	LC	LE
			- 1000	1000 -													
150	55	126	156	203	126	M16x2.0	40	60	46	20	70	50	20	26	75	49	26

Ø	LH	LS		LX	LY	LZ	M	MM	R	Rc(PT)	T	TA	TL		TY	W	Y
		- 1000	1000-										- 1000	1000 -			
150	105	254	301	118	191.5	173	18	M36x1.5	10	3/4	60	20	357	404	190	40	77

With Bellows

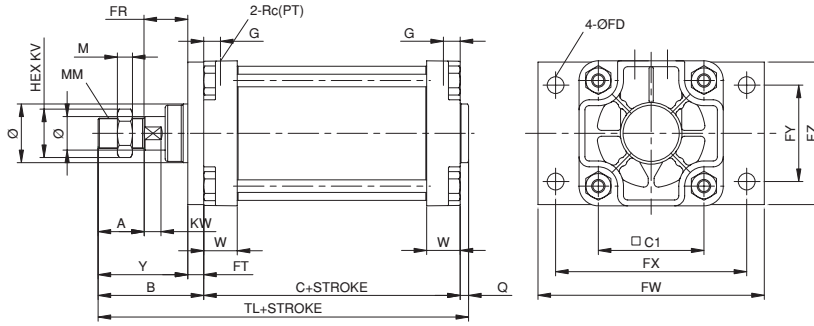
Ø	B	Y	TL	X	L									
					~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	77	357	70	40	70	100	130	160	190	220	250	280	310

Dimension

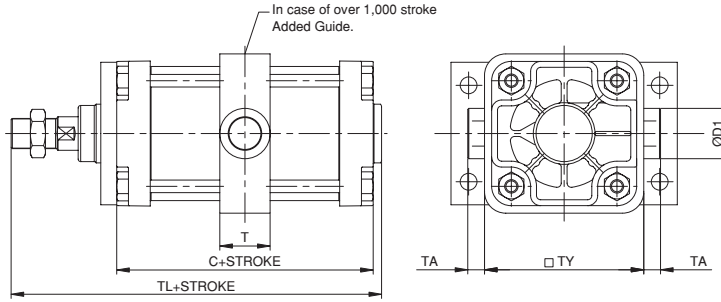
Standard - Flange mounting type / Φ150

(Unit : mm)

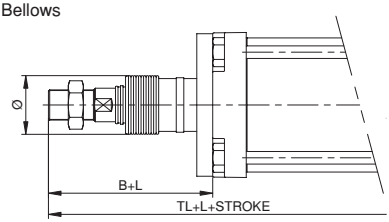
FH



With Guide



With Bellows



Ø	A	B	C		C1	CM	ØD	ØD1	E	ØFD	FR	FT	FW	FX	FY	FZ
			- 1000	1000 -												
150	55	126	156	203	126	M16x2.0	40	60	46	20	52	19	270	228	115	170

Ø	G	ØJ	KV	KW	M	MM	Q	Rc(PT)	T	TA	TL		TY	W	Y
											- 1000	1000 -			
150	20	70	50	20	18	M36x1.5	10	3/4	60	20	292	339	190	40	107

With Bellows

Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	292	70	40	70	100	130	160	190	220	250	280	310

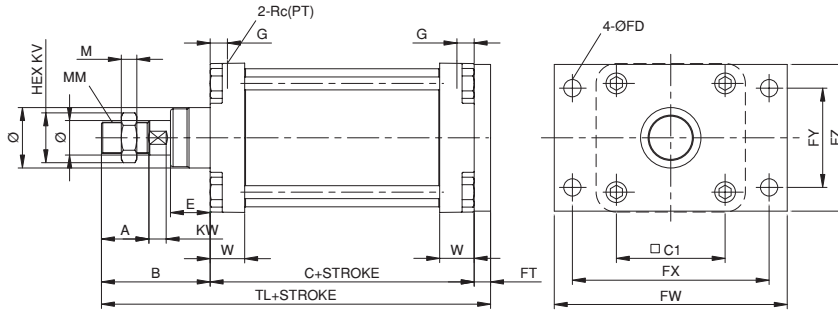
Standard(AL tube)

Dimension

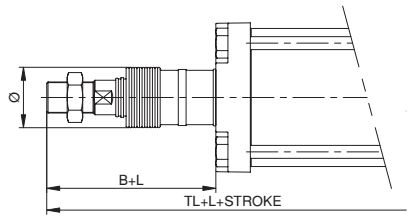
Standard - Flange mounting type / Φ150

(Unit : mm)

FC



With Bellows



Ø	A	B	C	C1	CM	ØD	E	ØF	FT	FW	FX
150	55	126	156	126	M16x2.0	40	46	20	19	270	228

Ø	FY	FZ	G	Ø	KV	KW	M	MM	Rc(PT)	TL	W
150	115	170	20	70	50	20	18	M36x1.5	3/4	301	40

Wiht Bellows

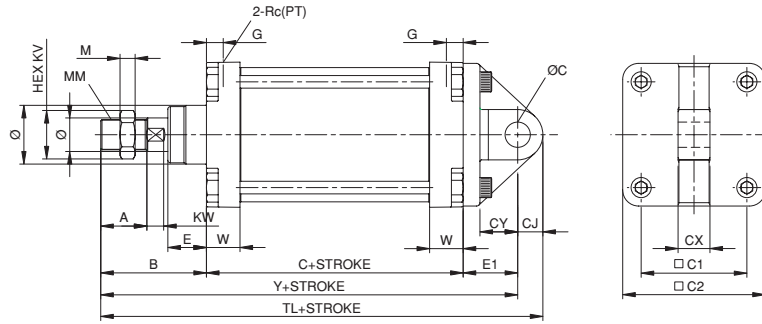
Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	301	70	40	70	100	130	160	190	220	250	280	310

Dimension

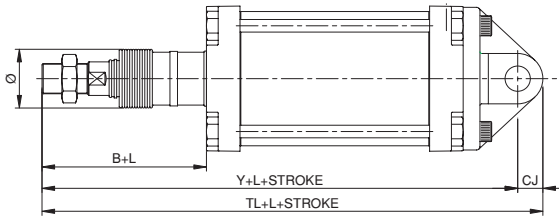
Standard - Clevis mounting type / Φ150

(Unit : mm)

CA



With Bellows



Ø	A	B	C	C1	C2	ØCD	CJ	CX	CY	Ø	E	E1
150	55	126	156	126	173	30.1	30	38	45	40	46	65

Ø	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W	Y
150	20	70	50	20	18	M36x1.5	3/4	377	40	347

With Bellows

Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	377	70	40	70	100	130	160	190	220	250	280	310

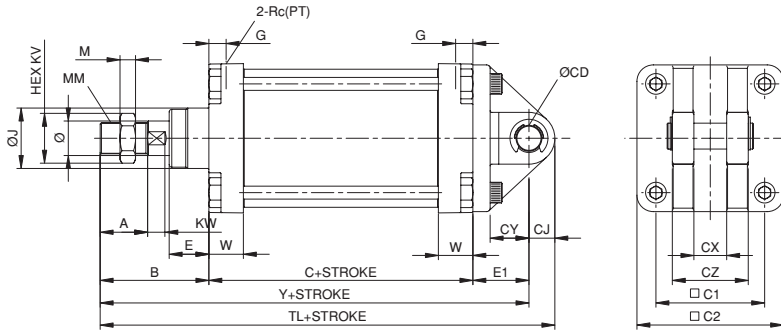
Standard(AL tube)

Dimension

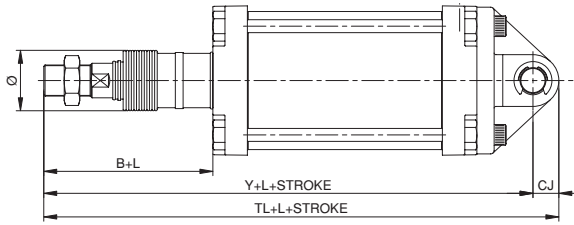
Standard-Clevis mounting type / Φ150

(Unit : mm)

CB



With Bellows



Ø	A	B	C	C1	C2	ØCD	CJ	CX	CY	CZ	Ø	E
150	55	126	156	126	173	30.1	30	38	45	88	40	46

Ø	E1	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W	Y
150	65	20	70	50	20	18	M36x1.5	3/4	377	40	347

With Bellows

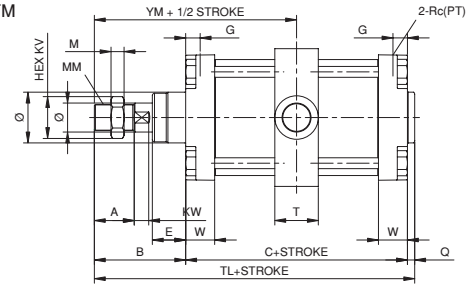
Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	377	70	40	70	100	130	160	190	220	250	280	310

Dimension

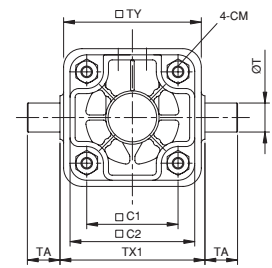
Standard-Trunnion mounting type / ϕ150

(Unit : mm)

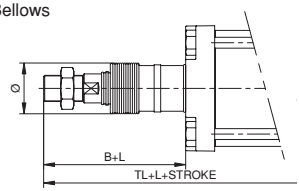
TM



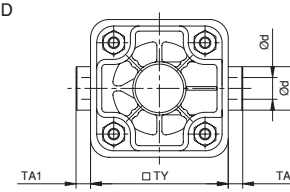
T



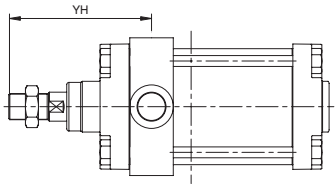
Bellows



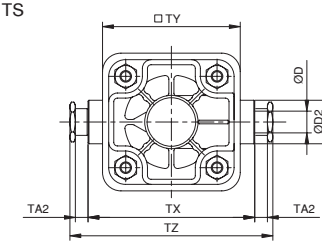
TD



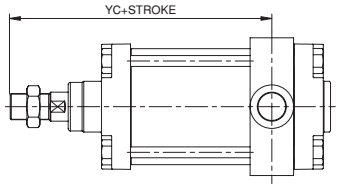
TH



TS



TC



Ø	C1	C2	T	TY	T type(Standard)			TD type		
					TA	ØT	TX1	Ød1	Ød2	TA1
150	126	173	60	190	45	40	200	30	60	12.5

Ø	TS type				
	ØD	ØD	TA2	TX	TZ
150	39.5	60	17	247	303

Ø	A	B	C	CM	ØD	E	G	Ø	KV	KW
150	55	126	156	M16x2.0	40	46	20	70	50	20

Ø	M	MM	Q	Rc(PT)	TL	W	YC	YH	YM
150	18	M36x1.5	10	3/4	292	40	212	196	204

With Bellows

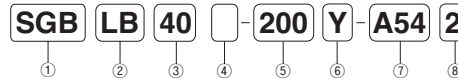
Ø	B	TL	X	L										
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	292	70	40	70	100	130	160	190	220	250	280	310

Tie Rod Type Cylinder(AL Tube)

SGB Series / Double Rod Cylinder

Φ40, Φ50, Φ63, Φ80, Φ100, Φ125, Φ150

ORDER KEY



1. Series

SGB	Double Rod

2. Mounting

Blank	No mounting
LB	Foot
FH	Head Flange
TM	Center Trunnion
TH	Head Trunnion
TDM	Center Trunnion Hole
TDH	Head Trunnion Hole
TSM	Center Trunnion Screw
TSH	Head Trunnion Screw

3. Bore Size(mm)

40	Φ40
50	Φ50
63	Φ63
80	Φ80
100	Φ100
125	Φ125
150	Φ150

4. Cylinder Type

Blank	Standard
P	Oilless

5. Cylinder Stroke

Refer to the Table of standard sroke

6. Rod Option

Blank	No option
I	I Knuckle
Y	Y Knuckle
J	Bellows
C	Coil Scraper

7. Type of Switch

None	No Switch
A54	CL-D-A54

8. Number of Switch

2	2 units
1	1 unit
n	n units

Model No of Mounting

Bore Size (mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150
Foot	GLB-40	GLB-50	GLB-63	GLB-80	GLB-100	GLB-125	GLB-150
Flange	GFH-40	GFH-50	GFH-63	GFH-80	GFH-100	GFH-125	GFH-150
Trunnion	GTM-40	GTM-50	GTM-63	GTM-80	GTM-100	GTM-125	GTM-150
Trunnion Hole	GTDM-40	GTDM-50	GTDM-63	GTDM-80	GTDM-100	GTDM-125	GTDM-150
Trunnion Screw	GTSM-40	GTSM-50	GTSM-63	GTSM-80	GTSM-100	GTSM-125	GTSM-150

Specification

Bore size(mm)	Unit	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150
Fluid		Air						
Pressure Range	Mpa(bar)	0.1~0.9(1.0~9.0)						
Proof Pressure	Mpa(bar)	1.5(15)						
Temperature Range	℃	5~60						
Piston Speed Range	mm/s	50~500						
Cushion		Air cushion						
Stroke Allowance		~250 : $^{+1.0}_{0}$ 251~1000 : $^{+1.5}_{0}$, 1000V : $^{+2.0}_{0}$						
Mounting		Foot, Flange, Trunnion						

Standard stroke

Bore Size	Stroke (mm)													
(mm)	25	50	75	100	125	150	175	200	250	300	350	400	450	500
Φ40	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Φ50	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Φ63	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Φ80	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Φ100	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Φ125	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Φ150	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Theoretical Output

(Unit : N)

Bore Size (mm)	Rod Dia (mm)	Operating Pressure (MPa)							
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Φ 40	Φ 16	211	317	422	528	633	739	844	950
Φ 50	Φ 20	330	495	659	824	989	1,154	1,319	1,484
Φ 63	Φ 20	560	840	1,121	1,401	1,681	1,961	2,241	2,521
Φ 80	Φ 25	907	1,360	1,813	2,267	2,720	3,173	3,627	4,080
Φ 100	Φ 30	1,429	2,143	2,857	3,572	4,286	5,000	5,715	6,429
Φ 125	Φ 24	2,261	3,391	4,522	5,652	6,782	7,913	9,043	10,174
Φ 150	Φ 40	3,281	4,922	6,563	8,203	9,844	11,485	13,125	14,766

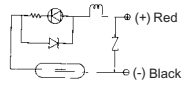
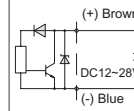
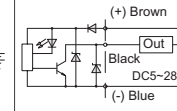
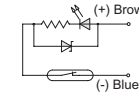
Weight

(Unit : kg)

SGB/Double Rod		Φ40	Φ50	Φ63	Φ80	Φ100
Standard		0.92	1.5	1.75	3.14	4.42
Foot		1.08	1.72	2.05	3.74	5.18
Flange		1.04	1.68	2.01	3.56	5.1
Trunnion		1.36	2.16	2.87	4.72	7.28
Add Per 50mm Stroke		0.26	0.36	0.43	0.63	0.87
Option	I Knuckle	0.16	0.24	0.24	0.52	0.72
	Y Knuckle	0.26	0.34	0.34	0.74	0.98

Double Rod Type (AL Tube)

Specification of Switch

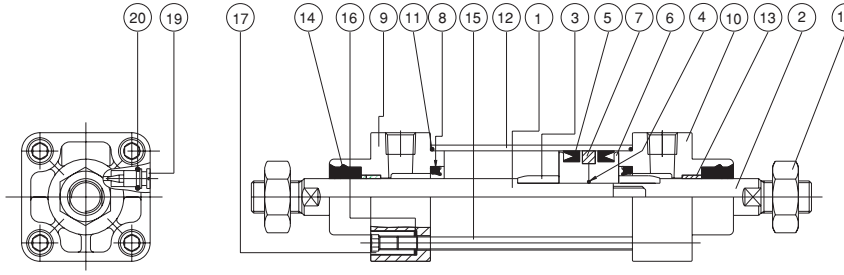
Model No.									
	Reed type	Leed wire(1.5m)	CL-D-A54						
	Solid state type	Leed wire(1m)				CL-D-J591	CL-D-F591		
		Leed wire(3m)				CL-D-J593	CL-D-F593		
		Leed wire(5m)				CL-D-J595	CL-D-F595		
	B contact							CL-D-B54	
Load voltage			DC24V	AC110V	AC220V	DC 24V	DC 24V	DC 24V	AC 110V
Load current			5~100 mA	5~40 mA	5~20 mA	5~20 mA	0.1~40 mA	5~40 mA	5~20 mA
Internal voltage drop			2.4V less			5V less	0.5V less	3V less	3V less
Wiring method			2 wire			2 wire	3 wire(NPN)	2 wire	
Insulation resistance			50MΩ(500V MEGA)			100MΩ(500V MEGA)			
Temperature range			0 ~ 60℃						
Protection grade			IP67(IEC stadard)						
Indicatior lamp			Red LED (turn on at "ON")						
Internal circuit									
Application			Relay, PLC						

Min. Stroke with CL Type Switch

Model No.	Number of Switch	Except Trunnion type	Trunnion type						
CL-D-A54	2ea (both side)	10:(Φ40~100)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150
	1ea (same side)	20:(Φ125~150)	90	95	100	115	120	125	135
	n ea(same side)	10+55 $\frac{(n-2)}{2}$ Φ40~100 n=2,4,6,8...	90+55 $\frac{(n-2)}{2}$ n=4,8,12, 16...	95+55 $\frac{(n-2)}{2}$ n=4,8,12, 16...	100+55 $\frac{(n-2)}{2}$ n=4,8,12, 16...	115+55 $\frac{(n-2)}{2}$ n=4,8,12, 16...	120+55 $\frac{(n-2)}{2}$ n=4,8,12, 16...	125+55 $\frac{(n-2)}{2}$ n=4,8,12, 16...	135+55 $\frac{(n-2)}{2}$ n=4,8,12, 16...
		20+55 $\frac{(n-2)}{2}$ Φ125~150 n=2,4,6,8...							

Construction & Part List

Double Acting



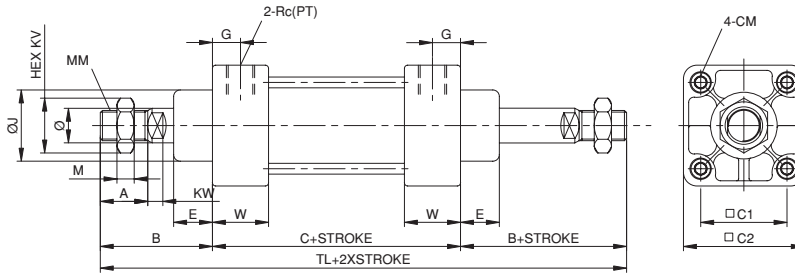
NO	Part No.	Material
1	Piston Rod -A	Carbon Steel
2	Piston Rod -B	Carbon Steel
3	Slip Ring	Steel
4	O-Ring	NBR
5	Piston Packing	NBR
6	Piston	AL-
7	Magnet	Urethan
8	Cushion Packing	AL
9	Head	AL
10	Head	

NO	Part No.	Material
11	O-Ring	NBR
12	Tube	AL
13	Rod Bush	
14	Rod Seal & Wiper	NBR/Urethan
15	Tie Rod	Steel
16	Washer	Steel
17	Nut	Carbon Steel
18	Hex Nut	Carbon Steel
19	Cushion Needle	Brass
20	O-Ring	NBR

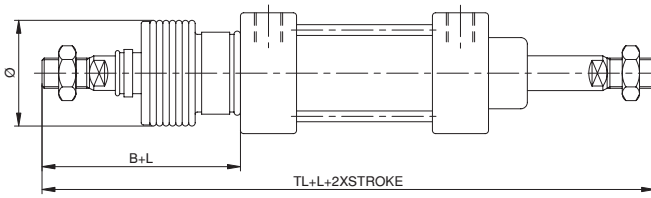
Double Rod Type (AL Tube)

Dimension

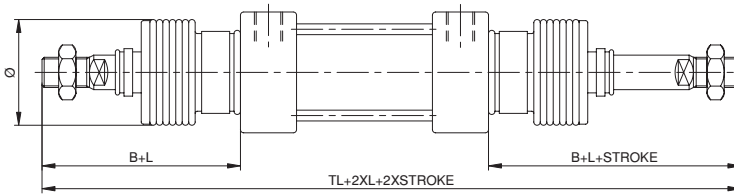
Double Rod / Φ40~Φ100 (Unit : mm)



Single Bellows



Double Bellows



	A	B	C	C1	C2	CM	Ø	E	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W
40	22	52	90	40	56	M6x1.0	16	18	13	33	25	7	8	M14x1.5	1/4	194	26
50	28	63	104	48	67	M8x1.25	20	23	13.5	40	31	10	11	M18x1.5	3/8	230	31
63	28	63	104	59	78	M8x1.25	20	23	13.5	40	31	10	11	M18x1.5	3/8	230	31
80	36	79	113	74	98	M12x1.75	25	28	15	45	37	11	13	M22x1.5	1/2	271	34
100	45	95	124	90	116	M12x1.75	30	33	17	50	44	13	16	M26x1.5	1/2	314	36

With Bellows

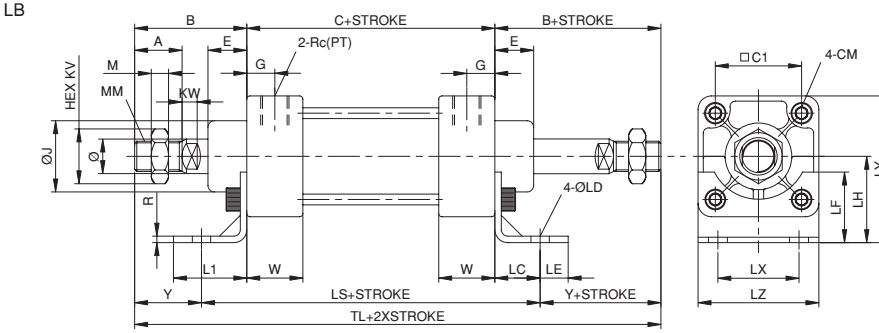
	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	194	49	40	70	100	130	160	-	-	-	-	-
50	63	230	49	40	70	100	130	160	190	-	-	-	-
63	63	230	49	40	70	100	130	160	190	-	-	-	-
80	79	271	60	40	70	100	130	160	190	220	250	280	-
100	95	314	60	40	70	100	130	160	190	220	250	280	310

Dimension

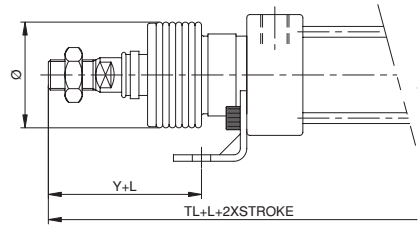
Double Rod-Foot mounting type / Φ40~Φ100

(Unit : mm)

LB



Single Bellows



Ø	A	B	C	C1	CM	ØD	E	G	KV	KW	L1	LC	ØLD	LE
40	22	52	90	40	M6x1.0	16	18	13	25	7	34	21	8.5	13
50	28	63	104	48	M8x1.25	20	23	13.5	31	10	38	23	10.5	15
63	28	63	104	59	M8x1.25	20	23	13.5	31	10	41	25	10.5	16
80	36	79	113	74	M12x1.75	25	28	15	37	11	50	34	13	16
100	45	95	124	90	M12x1.75	30	33	17	44	13	56	40	15	16

Ø	LF	LH	LS	LX	LY	LZ	M	MM	R	Rc(PT)	TL	W	Y
40	30	40	132	40	68	56	8	M14x1.5	3	1/4	194	26	31
50	30	45	150	45	78.5	67	11	M18x1.5	3	3/8	230	31	40
63	40	53	154	60	92	78	11	M18x1.5	3.5	3/8	230	31	38
80	45	63	181	71	112	98	13	M22x1.5	4	1/2	271	34	45
100	50	75	204	85	133	116	16	M26x1.5	4	1/2	314	36	55

With Bellows

Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	194	49	40	70	100	130	160	-	-	-	-	-
50	63	230	49	40	70	100	130	160	190	-	-	-	-
63	63	230	49	40	70	100	130	160	190	-	-	-	-
80	79	271	60	40	70	100	130	160	190	220	250	280	-
100	95	314	60	40	70	100	130	160	190	220	250	280	310

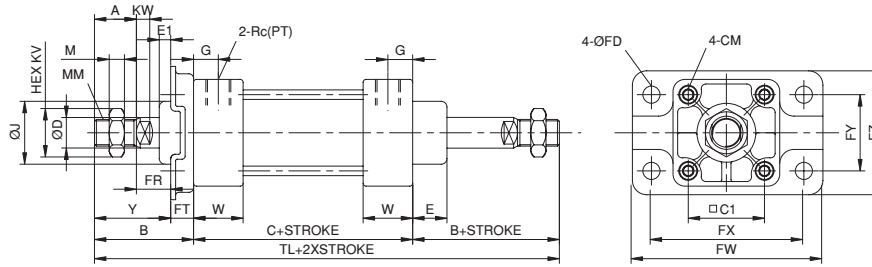
Double Rod Type (AL Tube)

Dimension

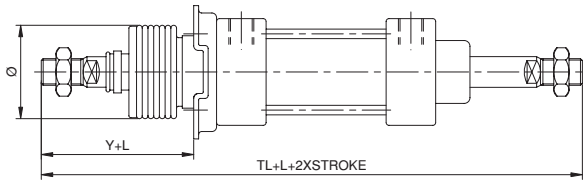
Double Rod-Flange mounting type / Φ40~Φ100

(Unit : mm)

FH



Single Bellows



Ø	A	B	C	C1	CM	ØD	E	E1	ØFD	FR	FT	FW	FX
40	22	52	90	40	M6x1.0	16	18	6	9	18	12	100	80
50	28	63	104	48	M8x1.25	20	23	9	11	21	14	112	90
63	28	63	104	59	M8x1.25	20	23	9	11	21	14	135	112
80	36	79	113	74	M12x1.75	25	28	10	13	25	18	160	132
100	45	95	124	90	M12x1.75	30	33	13	16	30	20	180	150

Ø	FY	FZ	G	ØJ	KV	KW	M	MM	Q	Rc(PT)	TL	W	Y
40	40	65	13	33	25	7	8	M14x1.5	5	1/4	194	26	40
50	45	78	13.5	40	31	10	11	M18x1.5	6	3/8	230	31	49
63	60	92	13.5	40	31	10	11	M18x1.5	6	3/8	230	31	49
80	71	114	15	44	37	11	13	M22x1.5	7	1/2	271	34	61
100	85	128	17	50	44	13	16	M26x1.5	8	1/2	314	36	75

Wiht Bellows

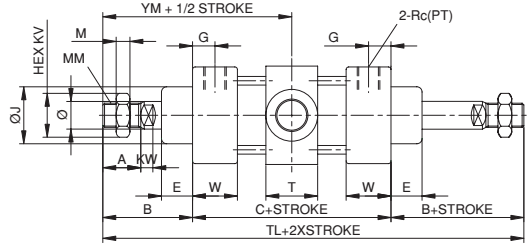
Ø	Y	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	40	194	49	40	70	100	130	160	-	-	-	-	-
50	49	230	49	40	70	100	130	160	190	-	-	-	-
63	49	230	49	40	70	100	130	160	190	-	-	-	-
80	61	271	60	40	70	100	130	160	190	220	250	280	-
100	75	314	60	40	70	100	130	160	190	220	250	280	310

Dimension

Doule Rod - Trunnion mounting type / Φ40~Φ100

(Unit : mm)

TM



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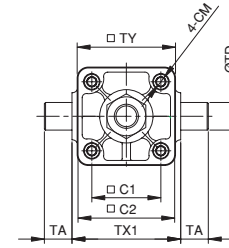
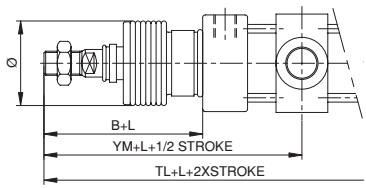
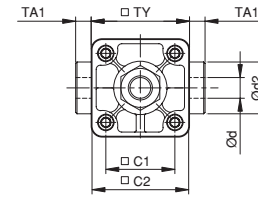


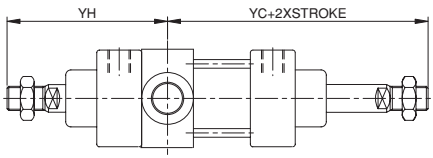
Single Bellows



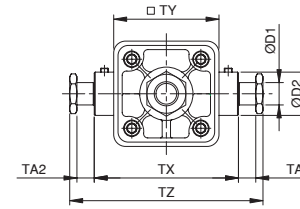
TD



TH



TS



Ø	A	B	C	CM	ØD	E	G	ØJ	KV	KW	M	MM	Rc(PT)	TL	W	YC	YH	YM
40	22	52	90	M6x1.0	16	18	13	33	25	7	8	M14x1.5	1/4	194	26	101	93	97
50	28	63	104	M8x1.25	20	23	13.5	40	31	10	11	M18x1.5	3/8	230	31	121	109	115
63	28	63	104	M8x1.25	20	23	13.5	40	31	10	11	M18xP1.5	3/8	230	31	118.5	111.5	115
80	36	79	113	M12x1.75	25	28	15	45	37	11	13	M22x1.5	1/2	271	34	138	133	135.5
100	45	95	124	M12x1.75	30	33	17	50	44	13	16	M26x1.5	1/2	314	36	160.5	153.5	157

Ø	C1	C2	T	TY	T type(Standard)			TD type			TS type				
					TA	ØT	TX1	Ød	Ød	TA1	ØD	ØD	TA2	TX	TZ
40	40	56	30	57	16	16	63	-	-	-	-	-	-	-	-
50	48	67	30	73	18	18	80	12	30	8.5	15.5	30	12	100	134
63	59	78	35	86	20	20	90	14	30	9	19.5	35	12	125	159
80	74	98	40	107	25	25	112	20	40	13.5	25.5	40	12	140	176
100	90	116	45	130	32	32	140	20	45	10	29.5	45	14	180	220

With Bellows

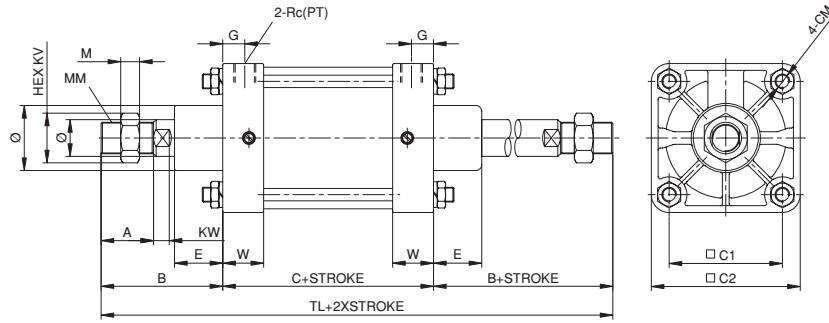
Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
40	52	194	49	40	70	100	130	160	-	-	-	-	-
50	63	230	49	40	70	100	130	160	190	-	-	-	-
63	63	230	49	40	70	100	130	160	190	-	-	-	-
80	79	271	60	40	70	100	130	160	190	220	250	280	-
100	95	314	60	40	70	100	130	160	190	220	250	280	310

Double Rod Type (AL Tube)

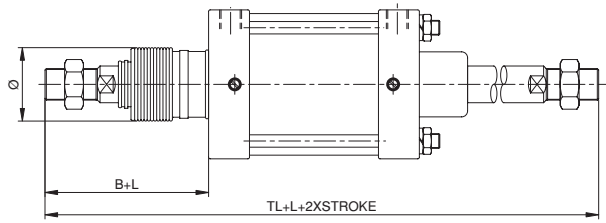
Dimension

Double Rod / ϕ125

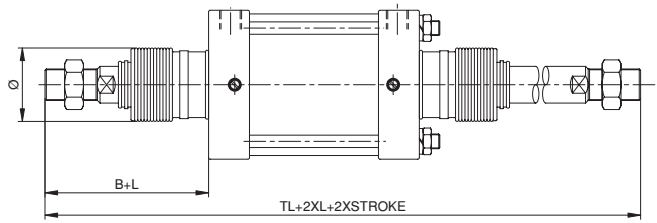
(Unit : mm)



Single Bellows



Double Bellows



Ø	A	B	C		C1	C2	CM	ØD	E	G
			Without Magnet	With Magnet						
125	50	116	131	138	108	142	M14x1.5	35	46	21

Ø	ØJ	KV	KW	M	MM	Rc(PT)	TL		W
							Without Magnet	With Magnet	
125	62	41	15	18	M30x1.5	1/2	363	370	39

With Bellows

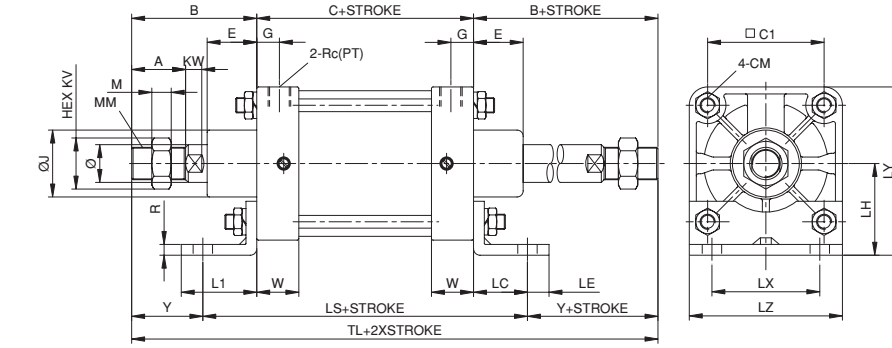
Ø	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	363	370	70	40	70	100	130	160	190	220	250	280	310

Dimension

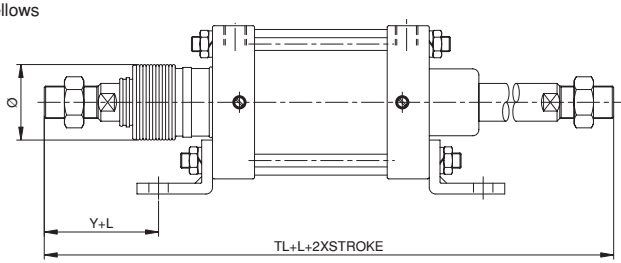
Double Rod - Foot mounting type / ϕ125

(Unit : mm)

LB



Single Bellows



	A	B	C		C1	CM	ØD	E	G	ØJ	KV	KW	L1	LC	LE	LH
			Without Magnet	With Magnet												
125	50	116	131	138	108	M14x1.5	35	46	21	62	41	15	70	50	20	85

	LS		LX	LY	LZ	M	MM	R	Rc(PT)	TL		W	Y
	Without Magnet	With Magnet								Without Magnet	With Magnet		
125	231	238	100	156	142	18	M30x1.5	10	1/2	363	370	39	66

With Bellows

	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	363	370	70	40	70	100	130	160	190	220	250	280	310

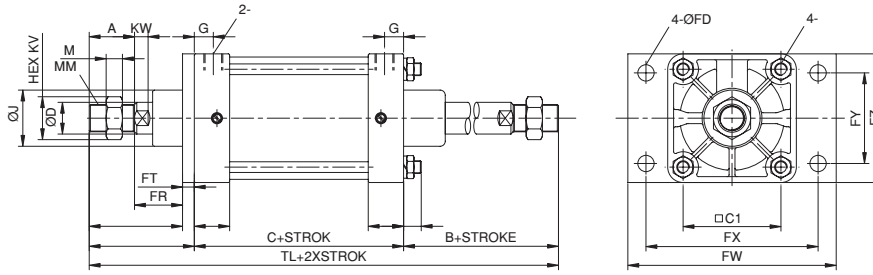
Double Rod Type (AL Tube)

Dimension

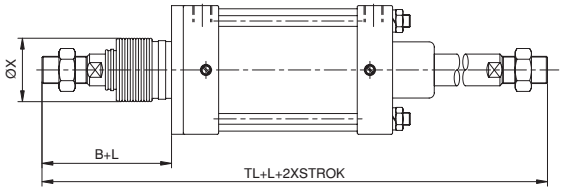
Double Rod - Flange mounting type / Φ125

(Unit : mm)

FH



Single Bellows



Ø	A	B	C		C1	CM	ØD	E	ØF	FR	FT	FW	FX	FY	FZ
			Without Magnet	With Magnet											
125	50	116	131	138	108	M14x1.5	35	46	18	53	13	230	190	100	142

Ø	G	ØJ	KV	KW	M	MM	Q	Rc(PT)	TL		W	Y
									Without Magnet	With Magnet		
125	21	62	41	15	18	M30x1.5	19.5	1/2	363	370	39	103

With Bellows

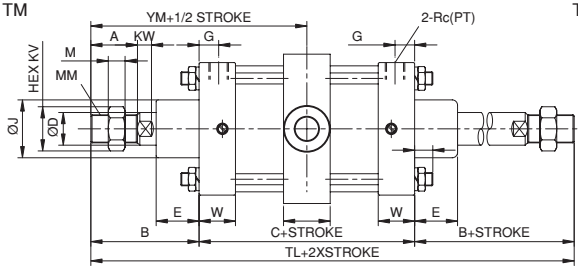
Ø	B	TL		X	L								
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	363	370	70	40	70	100	130	160	190	220	250	280	310

Dimension

Double Rod - Trunnion mounting type / Φ125

(Unit : mm)

TM



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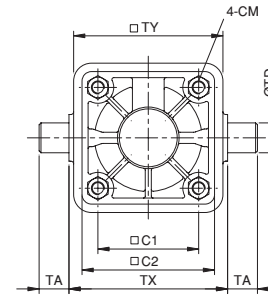
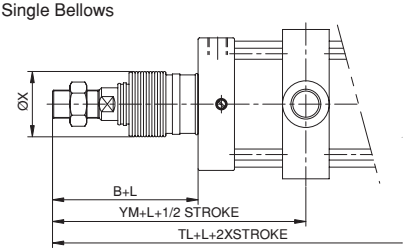
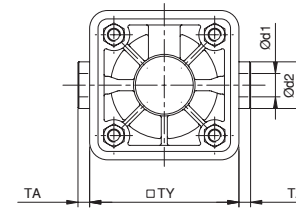


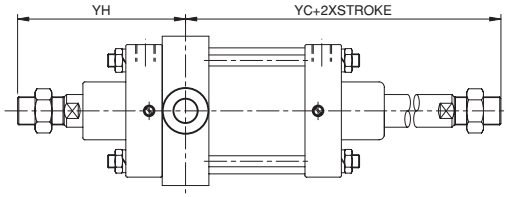
Single Bellows



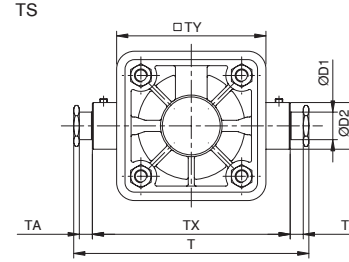
TD



TH



TS



Ø	A	B	C		CM	ØD	E	G	ØJ	KV	KW	M	MM	Rc(PT)	W	YH
			without Magnet	With Magnet												
125	50	116	131	138	M14x1.5	35	46	21	62	41	15	18	M30x1.5	1/2	39	180

Ø	TL		YC		YM	
	Without Magnet	With Magnet	Without Magnet	With Magnet	Without Magnet	With Magnet
125	363	370	183	190	181.5	185

Ø	C1	C2	T	TY	T type(Standard)			TD type			TS type				
					TA	ØT	TX1	Ød1	Ød2	TA1	ØD1	ØD	TA2	TX	TZ
125	108	142	50	160	32	32	170	25	50	12.5	29.5	50	14	212	252

With Bellows

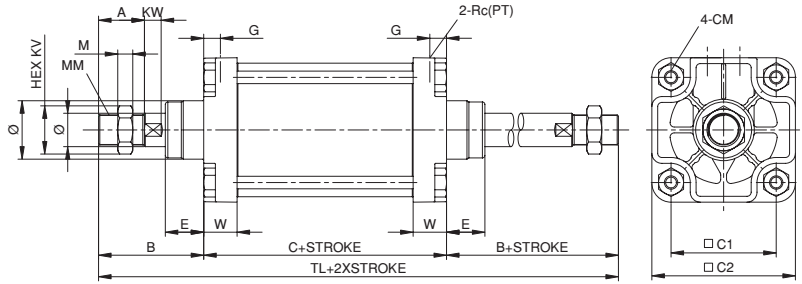
Ø	B	TL		X	L									
		Without Magnet	With Magnet		~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
125	116	363	370	70	40	70	100	130	160	190	220	250	280	310

Double Rod Type (AL Tube)

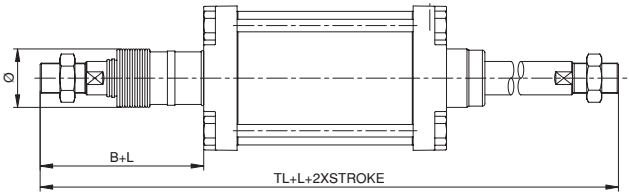
Dimension

Double Rod /Φ150

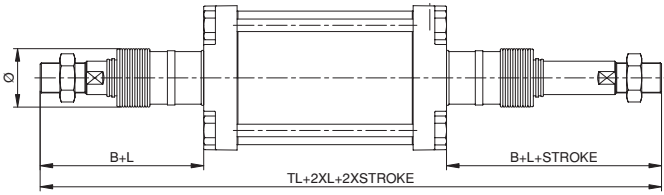
(Unit : mm)



Single Bellows



Double Bellows



Ø	A	B	C	C1	C2	CM	Ø	E	G
150	55	126	156	126	173	M16x2.0	40	46	20

Ø	ØJ	KV	KW	M	MM	Q	Rc(PT)	TL	W
150	70	50	20	18	M36x1.5	10	3/4	408	40

With Bellows

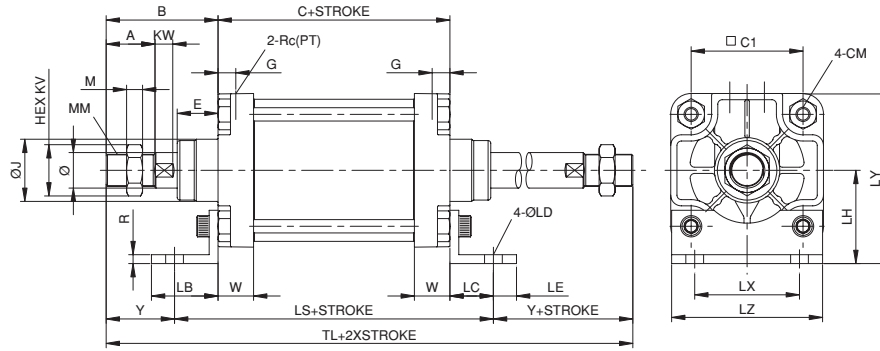
Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	292	70	40	70	100	130	160	190	220	250	280	310

Dimension

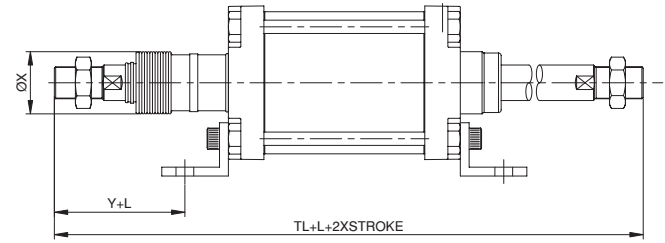
Double Rod - Foot mounting type/Φ150

(Unit : mm)

LB



Single Bellows



Ø	A	B	C	C1	CM	Ø	E	G	Ø	KV	KW	LB	LC
150	55	126	156	126	M16x2.0	40	46	20	70	50	20	75	49

Ø	LE	LH	LS	LX	LY	LZ	M	MM	R	Rc(PT)	TL	W	Y
150	26	105	254	118	191.5	173	18	M36x1.5	10	3/4	408	40	77

With Bellows

Ø	B	Y	TL	X	L									
					~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	77	408	70	40	70	100	130	160	190	220	250	280	310

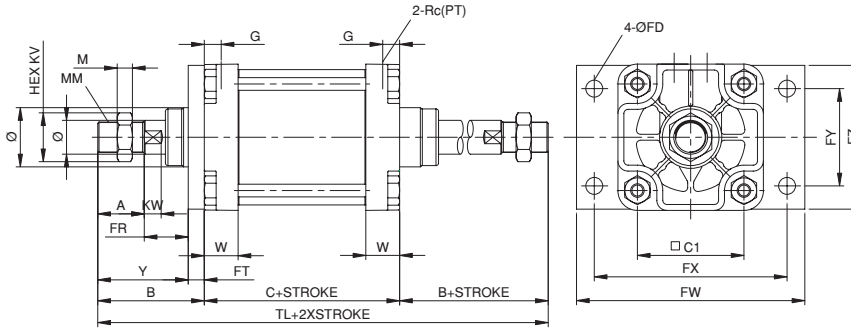
Double Rod Type (AL Tube)

Dimension

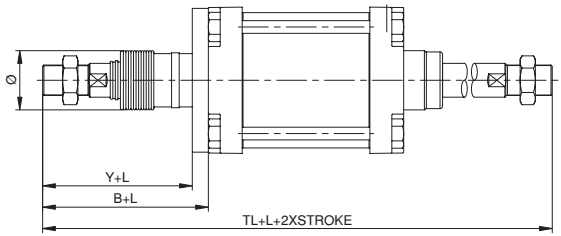
Double Rod - Flange mounting type / Φ150

(Unit : mm)

FH



Single Bellows



Ø	A	B	C	C1	CM	Ø	E	ØF	FR	FT	FW	FX
150	55	126	156	126	M16x2.0	40	46	20	52	19	270	228

Ø	FY	FZ	G	Ø	KV	KW	M	MM	Rc(PT)	TL	W	Y
150	115	170	20	70	50	20	18	M36x1.5	3/4	408	40	107

With Bellows

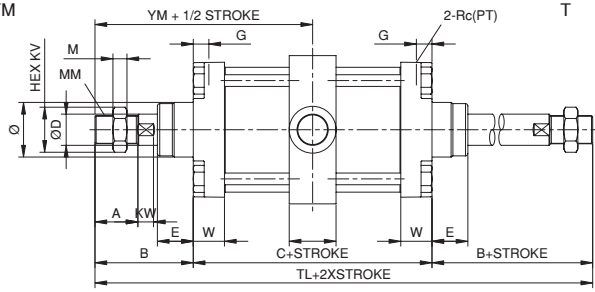
Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	408	70	40	70	100	130	160	190	220	250	280	310

Dimension

Double Rod-Trunnion mounting type / Φ150

(Unit : mm)

TM



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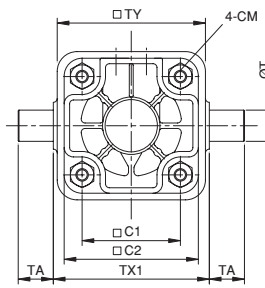
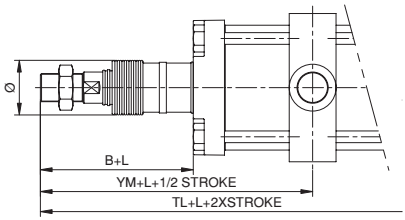


Single Bellows



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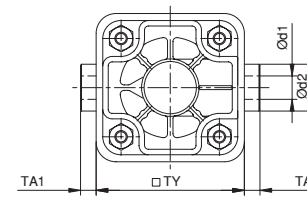
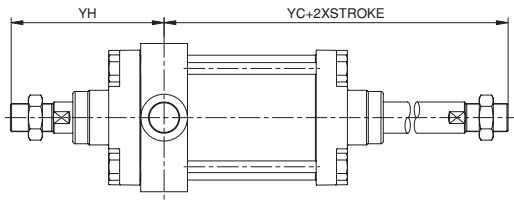
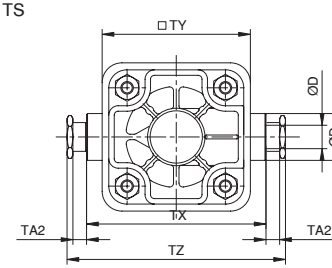




TS



Ø	A	B	C	CM	Ø	E	G	Ø	KV
150	55	126	156	M16x2.0	40	46	20	70	50

Ø	KW	M	MM	Rc(PT)	TL	W	YC	YH	YM
150	20	18	M36x1.5	3/4	408	40	212	196	204

Ø	C1	C2	T	TY	T type(Standard)			TD type			TS type				
					TA	ØT	TX1	Ød	Ød	TA1	ØD1	ØD2	TA2	TX	TZ
150	126	173	60	190	45	40	200	30	60	12.5	39.5	60	17	247	303

With Bellows

Ø	B	TL	X	L									
				~100	101~200	201~300	301~400	401~500	501~600	601~700	701~800	801~900	901~1000
150	126	408	70	40	70	100	130	160	190	220	250	280	310

Tie Rod Type Cylinedr(AL Tube)

VG□ Series / Valve mounted Cylinder

Φ50, Φ63, Φ80, Φ100

ORDER KEY

VG□ LB 50 P - 200 1 - Y - A54 - S

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

1. Series

VGI	Retracted
VGO	Extended
VGD	Double Solenoid

2. Mounting

Blank	No Mounting
LB	Foot
FH	Head Flange
FC	Cap Flange
TH	Head Trunnion
TC	Cap Trunnion
TM	Center Trunnion
TDH	Head Trunion Hole
TDC	Cap Trunnion Hole
TDM	Center Trunnion Hole
TSH	Head Trunnion Screw
TSC	Cap Trunnion Screw
TSM	Cap Trunnion Screw

3. Bore Size(mm)

50	Φ50
63	Φ63
80	Φ80
100	Φ100

4. Cylinder Type

Blank	Standard
P	Oilless

5. Cylinder Strocke

Refer to th tavle of standard stroke

6. Valve Voltage

1	AC 110V
2	AC 220V
3	DC 24V

7. Rod Option

Blank	No Option
I	I Knuckle
Y	Y Knuckle
J	Bellows
C	Coil Screper

8. Switch Type

Blank	No Switch
A54	CL-D-A54

9. Number of Switch

2	2 Units
1	1 Unit
n	n Units

Model No. of Mounting

Bore size (mm)	Φ50	Φ63	Φ80	Φ100
Foot	GLB-50	GLB-63	GLB-80	GLB-100
Flange	GFH-50	GFH-63	GFH-80	GFH-100
Trunnion	GTM-50	GTM-63	GTM-80	GTM-100
Trunnion Hole	GTDM-50	GTDM-63	GTDM-80	GTDM-100
Trunnion Screw	GTSM-50	GTSM-63	GTSM-80	GTSM-100

Specification

Bore Size(mm)	Unit	Φ50	Φ63	Φ80	Φ100
Acting		Double			
Pressure Range	MPa(bar)	0.2~0.9(2.0~9.0)			
Proof Pressure	MPa(bar)	1.5(15.0)			
Temperature Range	℃	5~60			
Piston speed range	mm/s	50~500			
Cushion		Air Cushion			
Stroke Length Allowance		~250 : $^{+1.0}_{0}$ 251~1000 : $^{+1.5}_{0}$, 1000V : $^{+2.0}_{0}$			
Mounting		Foot, Flange, Trunnion			

Solenoid Valve			SV5201(Single)	SV5221(Double)
Effective Area		mm^2	17.0(0.92 Cv)	
Rated voltage		V	AC110V, 220V, DC24V	
Temperature Range		℃	less than 60℃	
Voltage Drop			±10%	
Power Consumption	AC 110V	VA	16	
	AC 220V	VA	16	
	DC 24V	W	8.5	

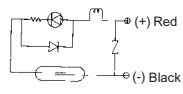
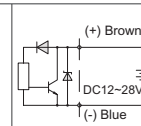
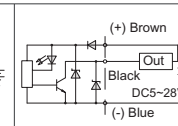
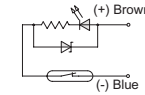
Standard Stroke

Bore Size (mm)	Standard Stroke (mm)														Max. Stroke
	25	50	75	100	125	150	175	200	250	300	350	400	450	500	
Φ 50	○	○	○	○	○	○	○	○	○	○	○	○	○	○	500
Φ 63	○	○	○	○	○	○	○	○	○	○	○	○	○	○	500
Φ 80	○	○	○	○	○	○	○	○	○	○	○	○	○	○	500
Φ100	○	○	○	○	○	○	○	○	○	○	○	○	○	○	500

Valve mounted type(AL Tube)

Φ50, Φ63, Φ80, Φ100

Specification of Switch

Model No.									
	Reed type	Leed wire(1.5m)	CL-D-A54						
	Solid state type	Leed wire(1m)				CL-D-J591	CL-D-F591		
		Leed wire(3m)				CL-D-J593	CL-D-F593		
		Leed wire(5m)				CL-D-J595	CL-D-F595		
	B contact							CL-D-B54	
Load voltage			DC24V	AC110V	AC220V	DC 24V	DC 24V	DC 24V	AC 110V
Load current			5~100 mA	5~40 mA	5~20 mA	5~20 mA	0.1~40 mA	5~40 mA	5~20 mA
Internal voltage drop			2.4V less			5V less	0.5V less	3V less	3V less
Wiring method			2 wire			2 wire	3 wire(NPN)	2 wire	
Insulation resistance			50MΩ(500V MEGA)			100MΩ(500V MEGA)			
Temperature range			0 ~ 60℃						
Protection grade			IP67(IEC stadard)						
Indicatior lamp			Red LED (turn on at "ON")						
Internal circuit									
Application			Relay, PLC						

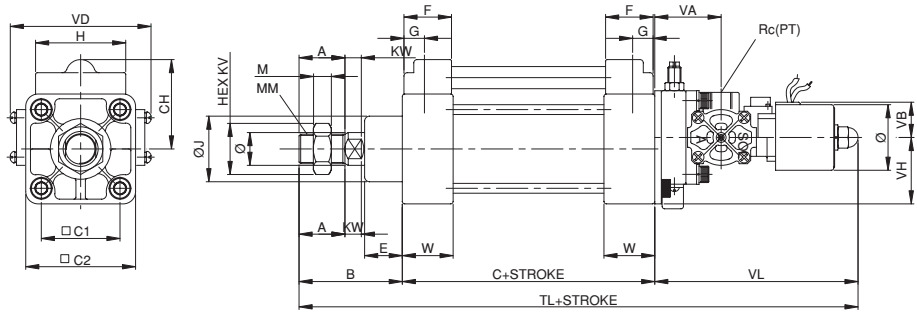
Min. stroke with CL Type switch

Model No.	Number of Switch	Except Trunnion type	Trunnion type						
CL-D-A54	2ea (both side) 1ea (same side)	10:(Φ40~100)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150
		20:(Φ125~150)	90	95	100	115	120	125	135
	n ea(same side)	10+55 $\frac{(n-2)}{2}$ Φ40~100 n=2,4,6,8...	90+55 $\frac{(n-2)}{2}$ n=4,8,12,16...	95+55 $\frac{(n-2)}{2}$ n=4,8,12,16...	100+55 $\frac{(n-2)}{2}$ n=4,8,12,16...	115+55 $\frac{(n-2)}{2}$ n=4,8,12,16...	120+55 $\frac{(n-2)}{2}$ n=4,8,12,16...	125+55 $\frac{(n-2)}{2}$ n=4,8,12,16...	135+55 $\frac{(n-2)}{2}$ n=4,8,12,16...
		20+55 $\frac{(n-2)}{2}$ Φ125~150 n=2,4,6,8...							

Dimension

Valve mounted / Φ50~Φ100

(Unit : mm)



Ø	A	B	C	C1	C2	CH	CM	ØD	E	F	G	H	ØJ
50	28	63	104	48	67	54.5	M8x1.25	20	23	29	13.5	47	40
63	28	63	104	59	78	60	M8x1.25	20	23	29	13.5	47	40
80	36	79	113	74	98	70	M12x1.75	25	28	33	15	58	45
100	45	95	124	90	116	79	M12x1.75	30	33	33	17	58	50

Ø	KV	KW	M	MM	Rc(PT)	TL	ØV	VA	VB	VD	VH	VL	W
50	31	10	11	M18x1.5	1/4	296	40	45.5	21.5	80	40.5	129	31
63	31	10	11	M18x1.5	1/4	296	40	45.5	21.5	80	55.5	129	31
80	37	11	13	M22x1.5	1/4	321	40	45.5	21.5	80	63	129	34
100	44	13	16	M26x1.5	1/4	348	40	45.5	21.5	80	73.5	129	36

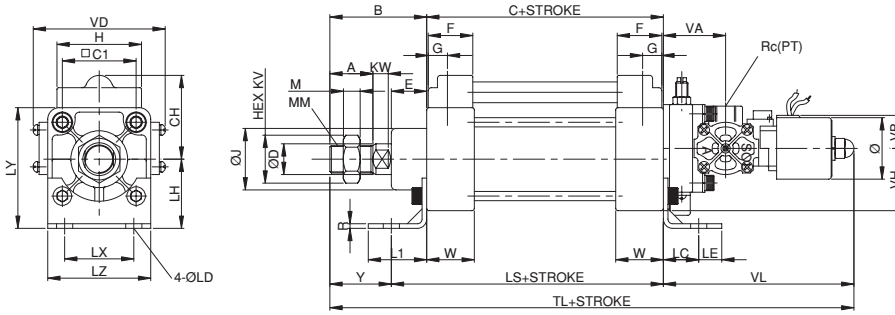
Valve Mounted Type(AL Tube)

Dimension

Valve mounted - Foot mounting type / Φ50~Φ100

(Unit : mm)

LB



Ø	A	B	C	C1	CH	CM	ØD	E	F	G	H
50	28	63	104	48	54.5	M8x1.25	20	23	29	13.5	47
63	28	63	104	59	60	M8x1.25	20	23	29	13.5	47
80	36	79	113	74	70	M12x1.75	25	28	33	15	58
100	45	95	124	90	79	M12x1.75	30	33	33	17	58

Ø	ØJ	KV	KW	L1	LC	ØLD	LE	LH	LS	LX	LY	LZ
50	40	31	10	38	23	10.5	15	45	150	45	78.5	67
63	40	31	10	41	25	10.5	16	53	154	60	92	78
80	45	37	11	50	34	13	16	63	181	71	112	98
100	50	44	13	56	40	15	16	75	204	85	133	116

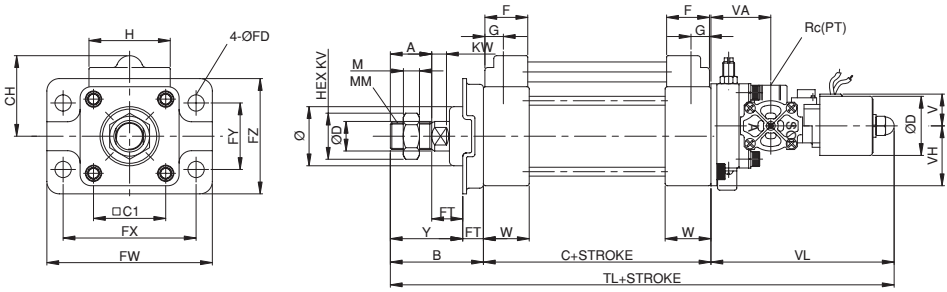
Ø	M	MM	Rc(PT)	R	TL	ØV	VA	VB	VD	VH	VL	W
50	11	M18x1.5	1/4	3	296	40	45.5	21.5	80	40.5	129	31
63	11	M18x1.5	1/4	3.5	296	40	45.5	21.5	80	55.5	129	31
80	13	M22x1.5	1/4	4	321	40	45.5	21.5	80	63	129	34
100	16	M26x1.5	1/4	4	348	40	45.5	21.5	80	73.5	129	36

Dimension

Valve mounted - Flange mounting type / Φ50~Φ100

(Unit : mm)

FH



Ø	A	B	C	C1	CH	CM	ØD	F	ØF	FR	FT	FW	FX	FY	FZ
50	28	63	104	48	54.5	M8x1.25	20	29	11	21	14	112	90	45	78
63	28	63	104	59	60	M8x1.25	20	29	11	21	14	135	112	60	92
80	36	79	113	74	70	M12x1.75	25	33	13	25	18	160	132	71	114
100	45	95	124	90	79	M12x1.75	30	33	16	30	20	180	150	85	128

Ø	G	H	ØJ	KV	KW	M	MM	Rc(PT)	TL	ØV	VA	VB	VH	VL	W
50	13.5	47	40	31	10	11	M18x1.5	1/4	296	40	45.5	21.5	40.5	129	31
63	13.5	47	40	31	10	11	M18x1.5	1/4	296	40	45.5	21.5	55.5	129	31
80	15	58	45	37	11	13	M22x1.5	1/4	321	40	45.5	21.5	63	129	34
100	17	58	50	44	13	16	M26x1.5	1/4	348	40	45.5	21.5	73.5	129	36

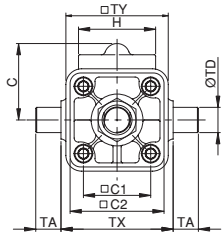
Valve Mounted Type(AL Tube)

Dimension

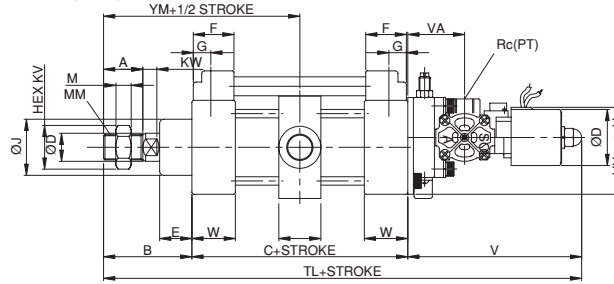
Valve mounted - Trunnion mounting type /Φ50~Φ100

(Unit : mm)

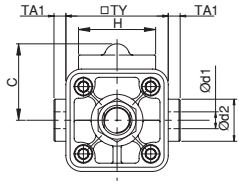
T



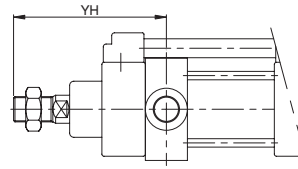
TM, TSM, TDM



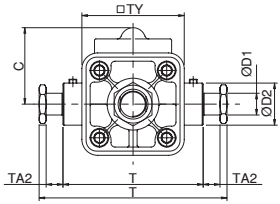
TD



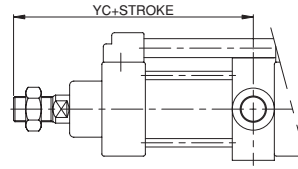
TH, TDM, TSH



TS



TC, TDC, TSC



Ø	A	B	C	C1	C2	CH	CM	ØD	Ød1	Ød2	ØD1	ØD2	E	F
50	28	63	104	48	67	54.5	M8x1.25	20	12	30	15.5	30	23	29
63	28	63	104	59	78	60	M8x1.25	20	14	30	19.5	35	23	29
80	36	79	113	74	98	70	M12x1.75	25	20	40	25.5	40	28	33
100	45	95	124	90	116	79	M12x1.75	30	20	45	29.5	45	33	33

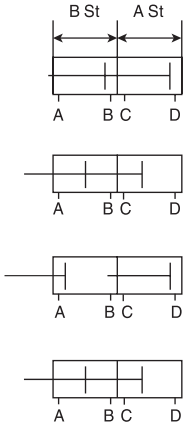
Ø	G	H	ØJ	KV	KW	MM	M	Rc(PT)	T	TA	TL	TA1	TA2	ØTD
50	13.5	47	40	31	10	M18x1.5	11	1/4	30	18	296	8.5	12	18
63	13.5	47	40	31	10	M18x1.5	11	1/4	35	20	296	9	12	20
80	15	58	44	37	11	M22x1.5	13	1/4	40	25	321	13.5	12	25
100	17	58	50	44	13	M26x1.5	16	1/4	45	32	348	10	14	32

Ø	TX1	TX	TY	TZ	ØV	VA	VB	VH	VL	W	YC	YH	YM
50	80	100	73	134	40	45.5	21.5	40.5	129	31	121	109	115
63	90	125	86	159	40	45.5	21.5	55.5	129	31	118.5	111.5	115
80	112	140	107	176	40	45.5	21.5	63	129	34	138	133	135.5
100	140	180	130	220	40	45.5	21.5	73.5	129	36	160.5	153.5	157

Tie Rod Type Cylinder(AL Tube)

SGT Series / Three-Position

Φ40, Φ50, Φ63, Φ80, Φ100, Φ125



- When air pressure is supplied from port A, the piston rod retracted for both strokes A and B
- When air pressure is supplied from port B and D, the piston rod moves as in stroke A.
- When air pressure is supplied from port B, the piston rod moves as in stroke B.
- When air pressure is supplied from port A, and C, the output is doubled only for stroke A

※Stroke A is extended stroke, stroke B is total extended stroke.
ex) SGT40-100-200-ST : extends total 200mm

ORDER KEY

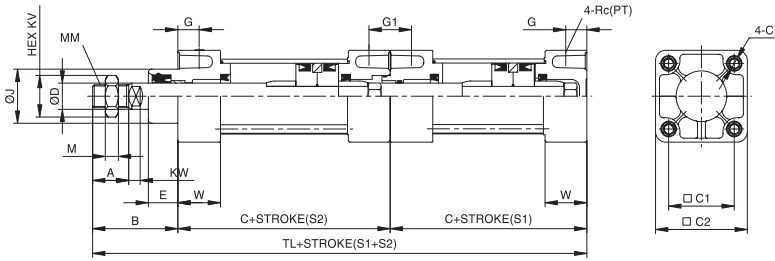
SGT | LB | 40 — 100 — 200 — Y
① ② ③ ④ ⑤ ⑥

1. Cylinder Type
SGT : Three-Position
2. Mounting
3. Bore Size(mm)
Φ40~Φ125
4. Cylinder Stroke A(mm)
5. Cylinder Stroke B(mm)
6. Rod Option

Specifications

Acting	Unit	Double
Fluid		Air
Pressure Range	MPa(bar)	0.1 ~ 1(1.0~10)
Proof Pressure	MPa(bar)	1.5(15)
Temperature Range	℃	0 ~ 60
Piston Speed Range	mm/s	50 ~ 500
Mounting		Foot, Flange, Trunnion, Clevis

Construction & Dimensions / Φ40~Φ125



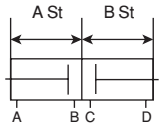
	A	B	C		C1	C2	CM	ØD	E	G
			Without Magnet	With Magnet						
40	22	52	90		40	56	M6x1.0	16	18	13
50	28	63	104		48	67	M8x1.25	20	23	13.5
63	28	63	104		59	78	M8x1.25	20	23	13.5
80	36	79	113		74	98	M12x1.75	25	28	15
100	45	95	124		90	116	M12x1.75	30	33	17
125	50	116	131	138	108	142	M14x1.5	35	46	21

Ø	G1	ØJ	KV	KW	M	MM	Rc(PT)	TL		W
								Without Magnet	With Magnet	
40	26	33	25	7	8	M14x1.5	1/4	232		26
50	27	40	31	10	11	M18x1.5	3/8	271		31
63	27	40	31	10	11	M18x1.5	3/8	271		31
80	30	45	37	11	13	M22x1.5	1/2	305		34
100	34	50	44	13	16	M26x1.5	1/2	343		36
125	42	62	47	15	18	M30x1.5	1/2	378	392	39

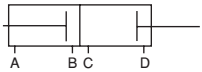
Tie Rod Type Cylinder(AL Tube)

SGF Series / Four-Position

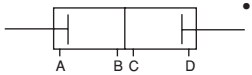
Φ40, Φ50, Φ63, Φ80, Φ100, Φ125



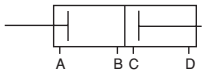
- When air pressure is supplied from port A, D, the piston rod is retracted.



- When air pressure is supplied from port A, C, the piston rod is retracted as in stroke A and extended as in stroke B.



- When air pressure is supplied from port B, C, the piston rod is moves as in both strokes extended.



- When air pressure is supplied from port B, D, the piston rod is extended as in stroke A and retracted as in stroke B

ORDER KEY

SGF | LB | 40 — 100 — 200 — Y

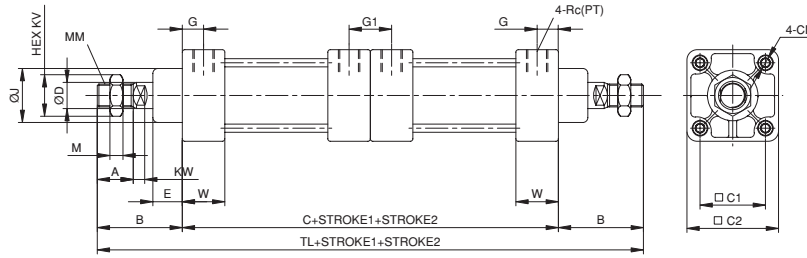
① ② ③ ④ ⑤ ⑥

1. Cylinder model
   SGF : Four-position
2. Mounting
3. Bore size(mm)
   Φ40~Φ125
4. Cylinder stroke A(mm)
5. Cylinder stroke B(mm)
6. Rod Option

Specification

Actiong	Unit	Double
Fulid		Air
Pressure Range	MPa(bar)	0.1 ~ 1(1.0~10)
Proof Pressure	MPa(bar)	1.5(15)
Temperature Range	℃	0 ~ 60
Piston Speed Range	mm/s	50 ~ 500
Mounting		Foot, Flange, Trunnion, Clevis

Construction & Dimensions / Φ40~Φ125



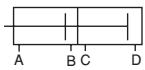
	A	B	C		C1	C2	CM	ØD	E	G
			Without Magnet	With Magnet						
40	22	52	180		40	56	M6x1.0	16	18	13
50	28	63	208		48	67	M8x1.25	20	23	13.5
63	28	63	208		59	78	M8x1.25	20	23	13.5
80	36	79	226		74	98	M12x1.75	25	28	15
100	45	95	244		90	116	M12x1.75	30	33	17
125	50	116	262	276	108	142	M14x1.5	35	46	21

Ø	G1	ØJ	KV	KW	M	MM	Rc(PT)	TL		W
								Without Magnet	With Magnet	
40	26	33	25	7	8	M14x1.5	1/4	284		26
50	27	40	31	10	11	M18x1.5	3/8	334		31
63	27	40	31	10	11	M18x1.5	3/8	334		31
80	30	45	37	11	13	M22x1.5	1/2	384		34
100	34	50	44	13	16	M26x1.5	1/2	438		36
125	42	62	47	15	18	M30x1.5	1/2	494	508	39

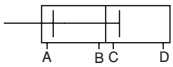
Tie Rod Type Cylinder(AL Tube)

SGD Series / Tandem Cylinder

Φ40, Φ50, Φ63, Φ80, Φ100, Φ125



• When air pressure is supplied to A, C port, The rod is retracted and double output is obtained.



• When air pressure is supplied to B, D port, The rod is extended and double output is obtained.

ORDER KEY

SGD | LB | 40 — 100 — Y

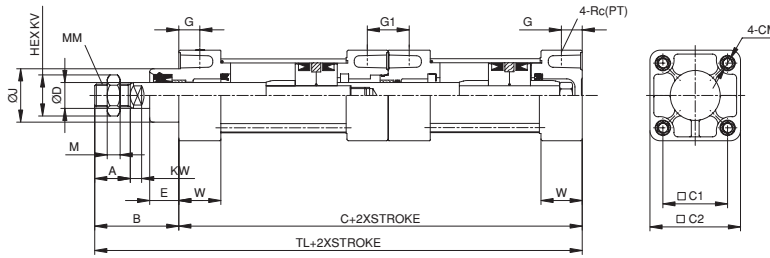
① ② ③ ④ ⑤

1. Cylinder Model
   SGD : Tandem Cylinder
2. Mounting
3. Bore Size(mm)
   Φ40~Φ125
4. Cylinder Stroke A(mm)
5. Rod Option

Specification

Actiong	Unit	Double
Fulide		Air
Pressure Range	MPa(bar)	0.1 ~ 1(1.0~10)
Proof Pressure	MPa(bar)	1.5(15)
Temperature	℃	0 ~ 60
Piston Speed Range	mm/s	50 ~ 500
Mounting		Foot, Flange, Trunnion, Clevis

Construction & Dimensions



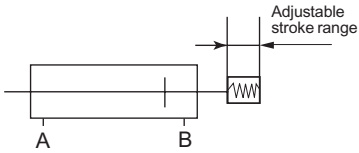
Ø	A	B	C		C1	C2	CM	ØD	E	G
			Without Magnet	With Magnet						
40	22	52	180		40	56	M6x1.0	16	18	13
50	28	63	208		48	67	M8x1.25	20	23	13.5
63	28	63	208		59	78	M8x1.25	20	23	13.5
80	36	79	226		74	98	M12x1.75	25	28	15
100	45	95	248		90	116	M12x1.75	30	33	17
125	50	116	262	276	108	142	M14x1.5	35	46	21

Ø	G1	ØJ	KV	KW	M	MM	Rc(PT)	TL		W
								Without Magnet	With Magnet	
40	26	33	25	7	8	M14x1.5	1/4	232		26
50	27	40	31	10	11	M18x1.5	3/8	271		31
63	27	40	31	10	11	M18x1.5	3/8	271		31
80	30	45	37	11	13	M22x1.5	1/2	305		34
100	34	50	44	13	16	M26x1.5	1/2	343		36
125	42	62	47	15	18	M30x1.5	1/2	378	392	39

Tie Rod Type Cylinder(AL Tube)

SGR Series / Adjustable stroke Cylinder

Φ40, Φ50, Φ63, Φ80, Φ100, Φ125



- On the end where the rod is extended, the stroke is adjustable within a range of 5 to 100mm.
  Stroke adjustment is accomplished with the stopper fitted on the rod end.

ORDER KEY

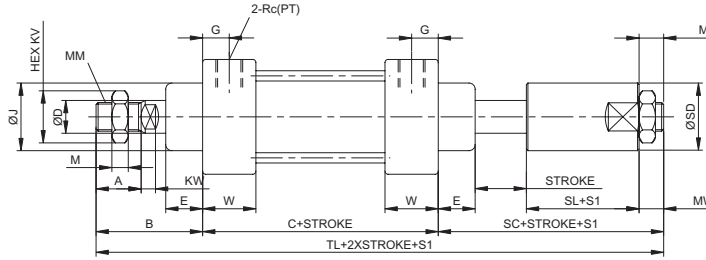
SGR ① — LB ② — 40 ③ — 100 ④ — Y ⑤ — 50 ⑥

1. Cylinder Model
   SGR : Adjustable Stroke
2. Mounting
3. Bore Size(mm)
   Φ40~Φ150
4. Cylinder Stroke(mm)
5. Rod Option
6. Adjustable Stroke

Specification

Actiong	Unit	Double
Fulide		Air
Pressure range	MPa(bar)	0.1 ~ 1(1.0~10)
Proof pressure	MPa(bar)	1.5(15)
Temperature range	℃	0 ~ 60
Piston speed range	mm/s	50 ~ 500
Mounting		Foot, Flange, Trunnion, Clevis

Construction & Dimensions / Φ40~Φ100



Ø	A	B	C	ØD	E	G	ØJ	KV	KW	M
40	22	52	90	16	18	13	33	25	7	8
50	28	63	104	20	23	13.5	40	31	10	11
63	28	63	104	20	23	13.5	40	31	10	11
80	36	79	113	25	28	15	45	37	11	13
100	45	95	124	30	33	17	50	44	13	16

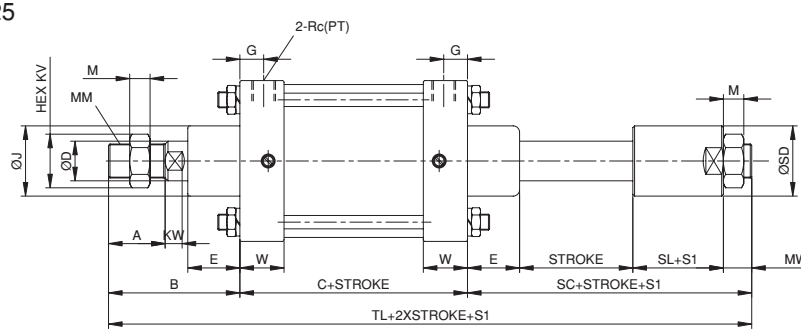
Ø	MM	MW	Rc(PT)	SC	ØSD	SL	TL	W
40	M14x1.5	12	1/4	60	33	30	202	26
50	M18x1.5	15	3/8	72	40	34	239	31
63	M18x1.5	15	3/8	72	40	34	239	31
80	M22x1.5	20	1/2	89	44	41	281	34
100	M26x1.5	22	1/2	102	50	47	321	36

Dimension

Adjustable Stroke

(Unit : mm)

ϕ125

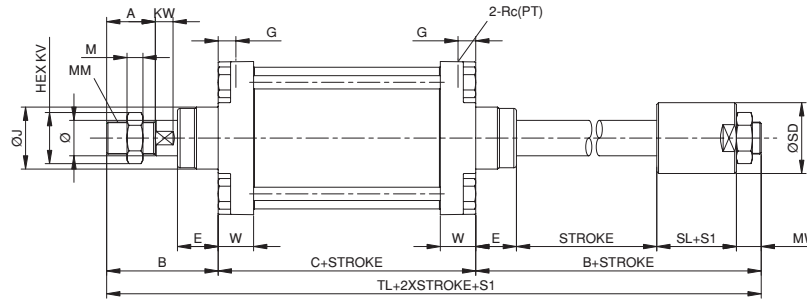


Ø	A	B	C		Ø	E	G	Ø	KV	KW	M
			Without Magnet	With Magnet							
125	50	116	131	138	35	46	21	62	41	15	18

Ø	MM	MW	Rc(PT)	SC	ØS	SL	TL		W
							Without Magnet	With Magnet	
125	M30x1.5	25	1/2	126	62	55	373	380	39

S1 : Adjustable range

ϕ150



Ø	A	B	C	C1	C2	CM	Ø	E	G	ØJ	KV
150	55	126	156	126	173	M16x2.0	40	46	20	70	50

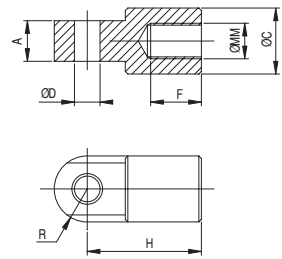
Ø	KW	M	MM	MW	Rc(PT)	SC	ØSD	SL	TL	W
150	20	18	M36x1.5	28	3/4	139	80	65	421	40

S1 : Adjustable range

Assessory

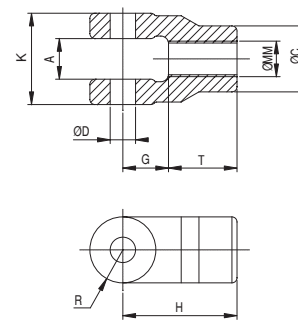
Rod Option

I Knuckle



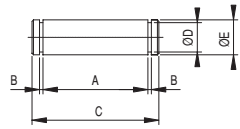
Ø	A	ØC	ØD	F	R	H	ØMM
40	16	26	10.1	20	13	45	M14x1.5
50,63	20	30	12.1	22	15	50	M18x1.5
80	28	40	18.1	25	20	60	M22x1.5
100	32	46	20.1	25	23	67	M26x1.5
125	35	50	26.1	30	25	70	M30x1.5
150	38	58	30.1	40	29	85	M36x1.5

Y Knuckle



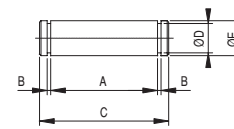
Ø	A	ØC	ØD	G	H	K	R	T	ØMM
40	16	26	10.1	18	45	36	13	27	M14x1.5
50,63	20	30	12.1	20	55	42	15	35	M18x1.5
80	28	38	18.1	23	60	60	20	37	M22x1.5
100	32	43	20.1	32	67	65	23	35	M26x1.5
125	35	48	26.1	34	70	80	25	36	M30x1.5
150	38	56	30.1	37	85	84	29	48	M36x1.5

Y Knuckle Pin



Ø	A	B	C	D	E	Stop ring
40	36.3	1	44	8	10	E type 8
50	42.3	1.2	50	10	12	10
63	42.3	1.2	50	10	12	10
80	60.3	1.8	70	15	18	15
100	65.3	1.8	75	15	20	15
125	80.3	1.8	90	19	26	19
150	84.4	2.2	95	24	30	24

Clevis Pin



Ø	A	B	C	D	E	Stop ring
40	36.3	1.2	44	10	12	E type 10
50	36.3	1.2	44	10	12	10
63	44.3	1.2	52	12	16	12
80	56.3	1.8	66	15	20	15
100	64.3	1.8	74	19	25	19
125	64.3	1.8	74	19	25	19
150	88.4	2.0	100	24	30	24

Parker
Pneumatic

Tie Rod Type Cylicder / Steel-Tube

GDCN Series

Tie Rod Type Cylinder(Steel tube)

Bore : Φ150, Φ180, Φ200, Φ250

GDCN	SGBN
	

Bore Size	GDCN	SGBN
Φ 150	○	○
Φ 180	○	○
Φ 200	○	○
Φ 250	○	○

Cushion

Air cushion	○	○

Mounting

Standard	○	○
Foot	○	○
Flange	○	○
Trunnion	○	○
CA Clevis	○	-
CB Clevis	○	-

Accessories

Standard : Rod Nut, Mounting Nut
Option : I kuckle, Y knuckle

Order-made Cylinder

●Adjustable stroke cylinder

Tie Rod Type Cylinder(Steel Tube)

GDCN Series / Standard

ϕ150, ϕ180, ϕ200, ϕ250

ORDER KEY

GDCN - LB 150 [ ] - 200 Y

① ② ③ ④ ⑤ ⑥

1. Series

GDCN	Tie rod type

2. Mounting

Blank	No Mounting
LB	Foot
FH	Head Flange
FC	Cap Flange
TH	Head Trunnion
TC	Cap Trunnion
TM	Center Trunnion
TDH	Head Trunnion Hole
TDC	Cap Trunnion Hole
TDM	Center trunnion Hole
CA	CA Clevis
CB	CB Clevis

3. Bore Size(mm)

150	ϕ150
180	ϕ180
200	ϕ200
250	ϕ250

4. Cylinder Type

Blank	Standard
P	Oilless

5. Cylinder Stroke(mm)

Refer to the Table of Standard stroke

6. Rod end Option

Blank	No Option
I	I Knuckle
Y	Y Knuckle
J	Bellows
C	Coil scraper

Note) except ϕ250

Model No of Mounting

Bord size (mm)	ϕ150	ϕ180	ϕ200	ϕ250
Foot	GLB-150	GLB-180	GLB-200	GLB-2500
Flange	GFH-150	GFH-180	GFH-200	GFH-250
Trunnion	GTM-150	GTM-180	GTM-200	GTM-250
Trunnion Hole	GTDM-150	GTDM-180	GTDM-200	GTDM-250
CA Clevis	GCA-150	GCA-180	GCA-200	GCA-250
CB Clevis	GCB-150	GCB-180	GCB-200	GCB-250

Standard(Steel tube)

Φ150, Φ180, Φ200, Φ250

Specification

Bore size(mm)	Unit	Φ150	Φ180	Φ200	Φ250
Fluid		Air			
Pressure range	MPa(bar)	0.1~0.9(1.0~9.0)			
Proof pressure	MPa(bar)	1.5(15)			
Temperature range	℃	5~60			
Piston speed range	mm/s	50~500			
Cushion		Air cushion			
Stroke allowance		~250 : $^{+1.0}_{0}$ 251~1000 : $^{+1.5}_{0}$, 1000V : $^{+2.0}_{0}$			
Mounting		Foot, Flange			

Standard Stroke

Bore size (mm)	Standard stroke (mm)														Max. Stroke
	25	50	75	100	125	150	175	200	250	300	350	400	450	500	
Φ150	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,200
Φ180	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,200
Φ200	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,200
Φ250	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1,200

Theoretical Output

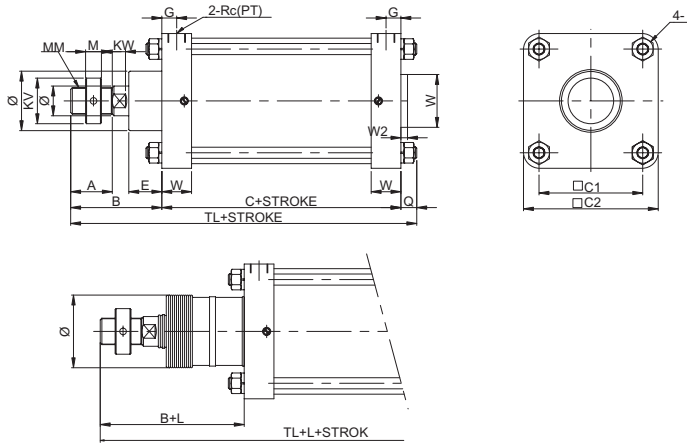
(Unit : N)

Bore size (mm)	Rod dia (mm)	Direction	Operating Pressure (MPa)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Φ150	Φ 40	Extended	3,533	5,299	7,065	8,831	10,598	12,364	14,130	15,896
		Retrated	3,281	4,922	6,563	8,203	9,844	11,485	13,125	14,766
Φ180	Φ 45	Extended	5,087	7,630	10,174	12,717	15,260	17,804	20,347	22,891
		Retrated	4,769	7,153	9,538	11,922	14,307	16,691	19,076	21,460
Φ200	Φ 50	Extended	6,280	9,420	12,560	15,700	18,840	21,980	25,120	28,260
		Retrated	5,888	8,831	11,775	14,719	17,663	20,606	23,550	26,494
Φ250	Φ 60	Extended	9,813	14,719	19,625	24,531	29,438	34,344	39,250	44,156
		Retrated	9,247	13,871	18,495	23,118	27,742	32,366	c36,989	41,613

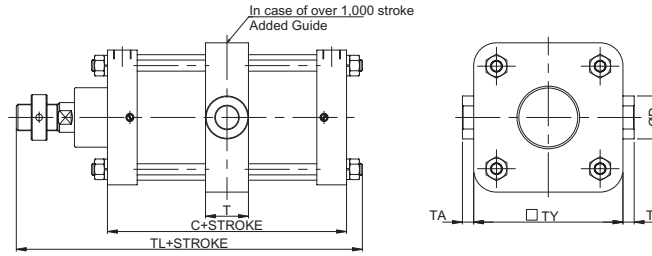
Dimension

Standard / ϕ150~ϕ250

(Unit : mm)



With Guide



	A	B	C		C1	C2	CM	ØD	ØD1	E	G	ØJ	KV	ØKV
			- 1000	1000 -										
150	55	126	144	184	132	170	M16x1.5	40	60	46	20	80	50	-
180	63	138	162	210	157	204	M18x1.5	45	65	50	22.5	90	-	69
200	80	165	180	230	178	228	M20x1.5	50	70	60	25	100	-	78
250	100	205	206	278	218	272	M24x1.5	60	75	75	25	115	-	90

Ø	KW	M	MM	Q	Rc(PT)	T	TA	TL		TY	W	W1	W2
								- 1000	1000 -				
150	20	18	M36x1.5	21	3/4	60	20	291	331	190	40	80	10
180	20	24	M40x1.5	24	3/4	65	17	324	372	226	45	90	10
200	20	25	M45x1.5	25	1	70	20	370	420	250	50	100	15
250	25	30	M55x2.0	30	1	80	25	441	513	310	50	115	20

With Bellows

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	291	331	70	40	70	100	130	160	190	220	250	280	310

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	324	372	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	370	420	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	441	513	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

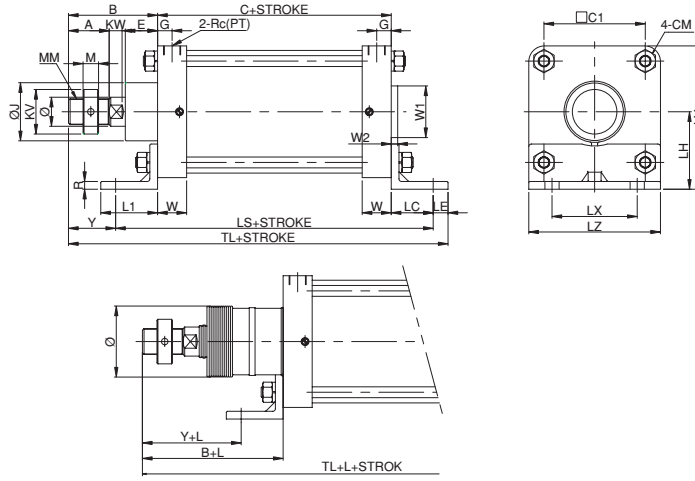
Standard(Steel tube)

Dimension

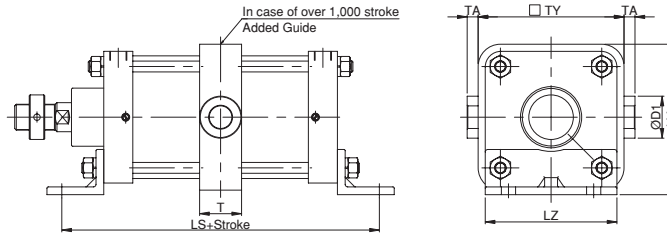
Standard - Foot mounting type /Φ150~Φ250

(Unit : mm)

LB



With Guide



Ø	A	B	C		C1	CM	ØD	ØD	E	G	ØJ	KV	ØKV	KW	L1	LC	LE	LH
			- 1000	1000 -														
150	55	126	144	184	132	M16x1.5	40	60	46	20	80	50	-	20	75	55	20	105
180	63	138	162	210	157	M18x1.5	45	65	50	22.5	90	-	69	20	88	65	23	120
200	80	165	180	230	178	M20x1.5	50	70	60	25	100	-	78	20	100	75	25	135
250	100	205	206	278	218	M24x1.5	60	75	75	25	115	-	90	25	103	75	28	160

Ø	LS		LX	LY	LZ	M	MM	R	Rc(PT)	T	TA	TL		TY	W	W1	W2	Y
	-1000	1001-										- 1000	1000 -					
150	254	294	118	190	170	18	M36x1.5	10	3/4	60	20	345	385	190	48	80	10	71
180	292	340	132	222	204	24	M40x1.5	12	3/4	65	17	388	436	226	45	90	10	73
200	330	380	170	249	228	25	M45x1.5	14	1	70	20	445	495	250	50	100	15	90
250	356	428	200	296	272	30	M55x2.0	16	1	80	25	514	586	310	50	115	20	130

With Bellows

Ø	B	Y	TL		X	L									
			- 1000	1000 -		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	71	345	385	70	40	70	100	130	160	190	220	250	280	310

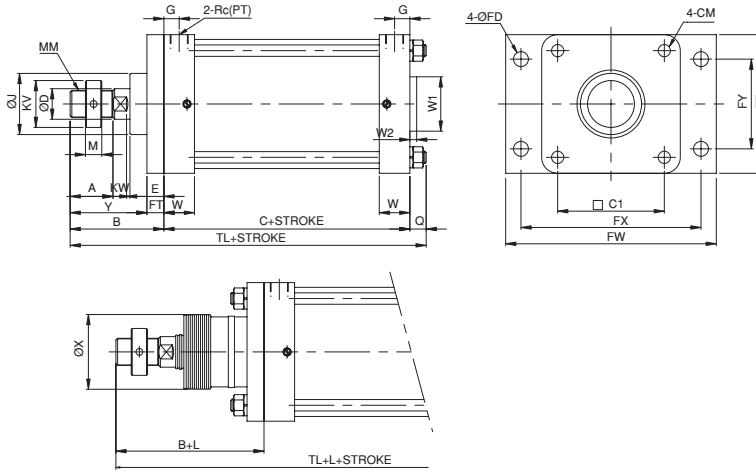
	B	Y	TL		X	L									
			- 1000	1000 -		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	73	388	436	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	90	445	495	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	130	514	586	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

Dimension

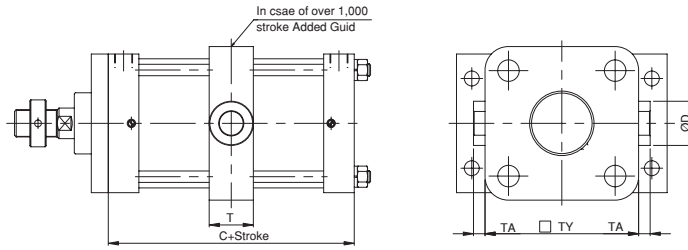
Standard - Flange mounting type / Φ150~Φ250

(Unit : mm)

FH



With Guide



Ø	A	B	C		C1	CM	ØD	ØD1	E	FT	FW	FX	FY	FZ	G	ØJ
			- 1000	1000 -												
150	55	126	144	184	132	M16x1.5	40	60	46	19	270	228	115	170	20	80
180	63	138	162	210	157	M18x1.5	45	65	50	25	310	265	132	204	22.5	90
200	80	165	180	230	178	M20x1.5	50	70	60	25	320	275	178	228	25	100
250	100	205	206	278	218	M24x1.5	60	75	75	25	382	330	220	272	25	115

Ø	KV	ØKV	KW	M	MM	Q	Rc(PT)	T	TA	TL		TY	W	W1	W2	Y
										-1000	1001-					
150	50	-	20	18	M36x1.5	21	3/4	60	20	291	331	190	40	80	10	107
180	-	69	20	24	M40x1.5	24	3/4	65	17	324	372	226	45	90	10	113
200	-	78	20	25	M45x1.5	25	1	70	20	370	420	250	50	100	15	140
250	-	90	25	30	M55x2.0	30	1	80	25	441	513	310	50	115	20	180

With Bellows

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	292	331	70	40	70	100	130	160	190	220	250	280	310

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	324	372	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	370	420	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	441	513	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

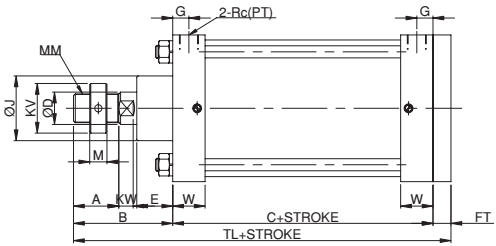
Standard(Steel tube)

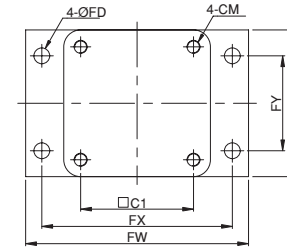
Dimension

Standard - Flange mounting type / Φ150~Φ250

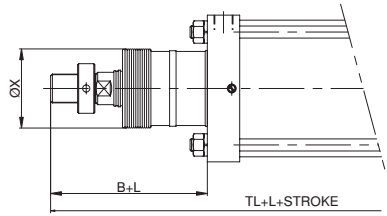
(Unit : mm)

FC





With Bellows



Ø	A	B	C	C1	CM	ØD	E	ØF	FT	FW	FX	FY	FZ
150	55	126	144	132	M16x1.5	40	46		19	270	228	115	170
180	63	138	162	157	M18x1.5	45	25	22	25	310	265	132	204
200	80	165	180	178	M20x1.5	50	35	22	25	320	275	178	228
250	100	205	206	218	M24x1.5	60	50	26	25	382	330	220	272

Ø	G	ØJ	KV	ØK	KW	M	MM	Rc(PT)	TL		W	Y
									-1000	1001-		
150	20	80	50	-	20	18	M36x1.5	3/4	291	331	40	107
180	22.5	90	-	69	20	24	M40x1.5	3/4	324	372	45	325
200	25	100	-	78	20	25	M45x1.5	1	370	420	50	370
250	25	115	-	90	25	30	M55x2.0	1	441	513	50	436

With Bellows

Ø	B	TL		X	L									
		-1000	1001-		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	291	331	70	40	70	100	130	160	190	220	250	280	310

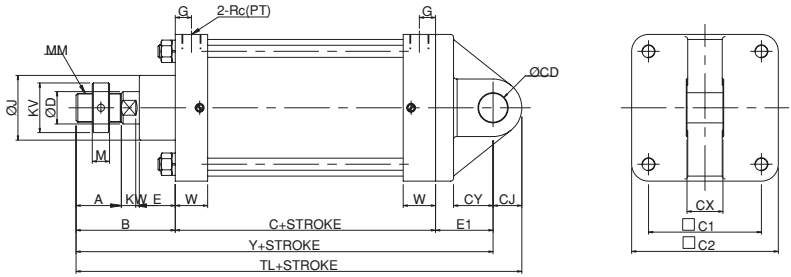
Ø	B	TL		X	L									
		-1000	1001-		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	324	372	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	370	420	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	441	513	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

Dimension

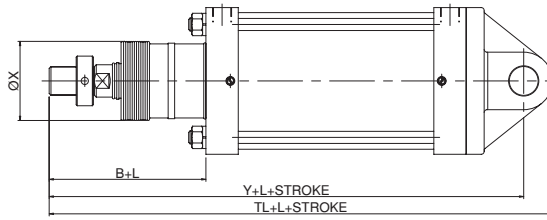
Standard - Clevis mounting type /Φ150~Φ250

(Unit : mm)

CA



With Bellows



Ø	A	B	C	C1	C2	ØC	CJ	CX	CY	ØD	E	E1	G
150	55	126	144	132	170	30.1	30	38	45	40	46	65	20
180	63	138	162	157	204	40.1	40	50	55	45	50	80	22.5
200	80	165	180	178	228	45	48	55	65	50	60	95	25
250	100	205	206	218	249	50.1	55	60	75	60	75	110	25

Ø	ØJ	KV	ØK	KW	M	MM	Rc(PT)	TL	W	Y
150	80	50	-	20	18	M36x1.5	3/4	365	40	335
180	90	-	69	20	24	M40x1.5	3/4	420	45	380
200	100	-	78	20	25	M45x1.5	1	488	50	440
250	115	-	90	25	30	M55x2.0	1	576	50	521

With Bellows

Ø	B	TL	X	L									
				-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	365	70	40	70	100	130	160	190	220	250	280	310

Ø	B	TL	X	L									
				-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	420	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	488	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	576	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

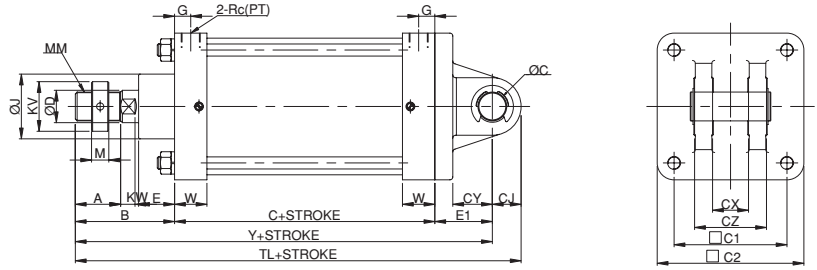
Standard(Steel tube)

Dimension

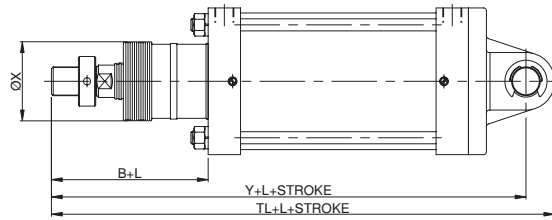
Standard-Clevis mounting type / ϕ150~ϕ250

(Unit : mm)

CB



With Bellows



Ø	A	B	C	C1	C2	ØCD	CJ	CX	CY	CZ	ØD	E
150	55	126	144	132	170	30.1	30	38	45	88	40	46
180	63	138	162	157	204	40.1	40	50	55	100	45	50
200	80	165	180	178	228	45	48	55	65	135	50	60
250	100	205	206	218	249	50.1	55	60	75	155	60	75

Ø	E1	G	ØJ	KV	ØK	KW	M	MM	Rc(PT)	TL	W	Y
150	65	20	80	50	-	20	18	M36x1.5	3/4	365	40	335
180	80	22.5	90	-	69	20	24	M40x1.5	3/4	420	45	380
200	95	25	100	-	78	20	25	M45x1.5	1	488	50	440
250	110	25	115	-	90	25	30	M55x2.0	1	576	50	521

With Bellows

Ø	B	TL	X	L									
				-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	365	70	40	70	100	130	160	190	220	250	280	310

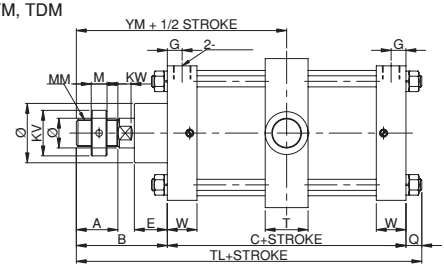
Ø	B	TL	X	L									
				-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	420	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	488	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	576	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

Dimesion

Standard-Trunnion mounting type/Φ150~Φ250

(Unit : mm)

TM, TDM



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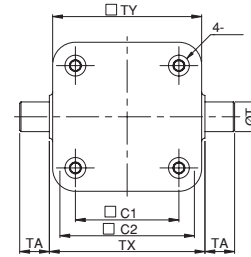
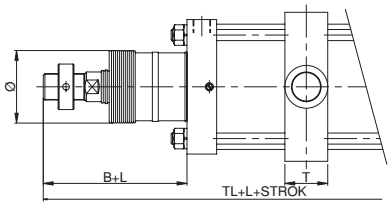
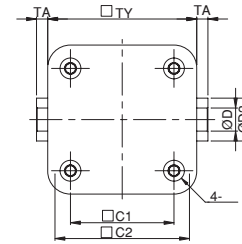


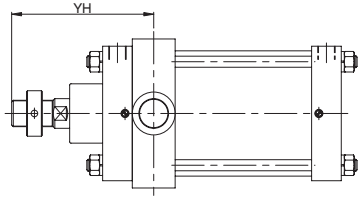
With Bellows



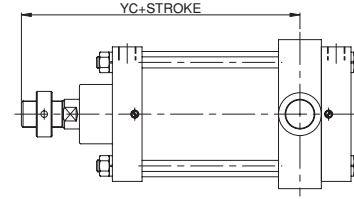
TD



TH, TDH



TC, TDC



Ø	A	B	C	CM	ØD	E	G	ØJ	KV	ØKV	KW	M	MM	Q	Rc(PT)
150	55	126	144	M16x1.5	40	46	20	80	50	-	20	18	M36x1.5	21	3/4
180	63	138	162	M18x1.5	45	50	22.5	90	-	69	20	24	M40x1.5	24	3/4
200	80	165	180	M20x1.5	50	60	25	100	-	78	20	25	M45x1.5	25	1
250	100	205	206	M24x1.5	60	75	25	115	-	90	25	30	M55x2.0	30	1

Ø	C1	C2	ØD1	ØD2	T	TA	TA1	ØTD	TX	TY	TL	W	YC	YH	YM
150	132	170	30	60	60	45	20	40	200	190	291	40	200	196	198
180	157	204	35	65	65	45	17	45	236	226	324	45	222.5	215.5	219
200	178	228	40	70	70	55	20	55	260	250	370	50	260	250	255
250	218	272	45	75	80	60	25	60	320	310	441	50	321	295	308

With Bellows

	B	TL	X	L									
				-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	291	70	40	70	100	130	160	190	220	250	280	310

Ø	B	TL	X	L									
				-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	324	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	370	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	441	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

Tie Rod Type Cylinder (Steel tube)

SGBN Series / Double Rod Cylinder

Φ150, Φ180, Φ200, Φ250

ORDER KEY

SGBN - LB 150 [ ] - 200 Y

① ② ③ ④ ⑤ ⑥

1. Series

SGBN	Double Rod

2. Mounting

Blank	No mounting
LB	Foot
FH	Head Flange
TM	Center Trunnion
TH	Head Trunnion
TDM	Center Trunnion Hole
TDH	Heand Trunnion Hole

3. Bore size(mm)

150	Φ150
180	Φ180
200	Φ200
250	Φ250

4. Cylinder type

Blank	Standard
N	Oilless

5. Cylinder stroke(mm)

Refer to the Table of Standard Stroke

6. Rod Option

Blank	No Option
I	I Knuckle
Y	Y Knuckle
J	Belloss
C	Coil Scraper

Note) except Φ250

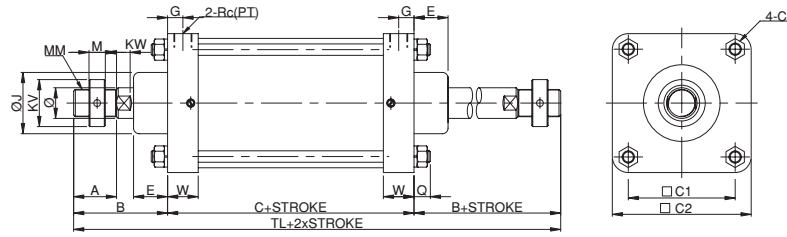
Model No of Mounting

Bore Size (mm)	Φ150	Φ180	Φ200	Φ250
Foot	GLB-150	GLB-180	GLB-200	GLB-250
Flange	GFH-150	GFH-180	GFH-200	GFH-250
Trunnion	GTM-150	GTM-180	GTM-200	GTM-250
Trunnion Hole	GTDM-150	GTDM-180	GTDM-200	GTDM-250

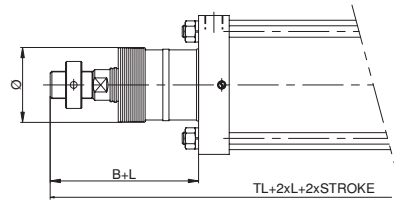
Dimension

Double Rod / Φ150~Φ250

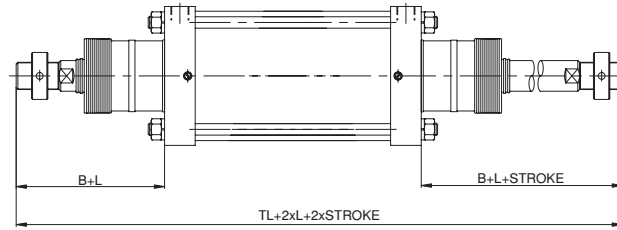
(Unit : mm)



Single Bellows



Double Bellows



	A	B	C		C1	C2	CM	ØD	E	G	ØJ
			- 1000	1000 -							
150	55	126	144	184	132	170	M16x1.5	40	46	20	80
180	63	138	162	210	157	204	M18x1.5	45	50	22.5	90
200	80	165	180	230	178	228	M20x1.5	50	60	25	100
250	100	205	206	278	218	272	M24x1.5	60	75	25	115

Ø	KV	ØKV	KW	M	MM	Q	Rc(PT)	TL		W
								- 1000	1000 -	
150	50	-	20	18	M36x1.5	21	3/4	396	436	40
180	-	69	20	24	M40x1.5	24	3/4	438	486	45
200	-	78	20	25	M45x1.5	25	1	510	560	50
250	-	90	25	30	M55x2.0	30	1	616	688	50

With Bellows

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	396	436	70	40	70	100	130	160	190	220	250	280	310

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1000 -
180	138	438	486	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	510	560	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	616	688	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

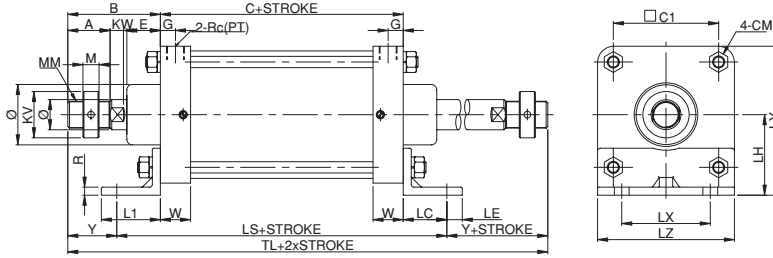
Double Rod Type(Steel Tube)

Dimension

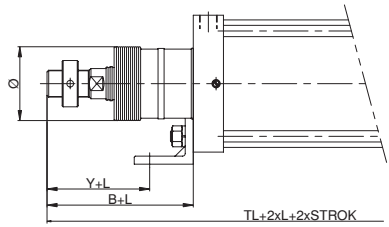
Double Rod - Foot mounting type / Φ150~Φ250

(Unit : mm)

LB



Single Bellows



	A	B	C		C1	CM	ØD	E	G	ØJ	KV	ØKV	KW	L1	LC
			- 1000	1000 -											
150	55	126	144	184	132	M16x1.5	40	46	20	80	50	-	20	75	55
180	63	138	162	210	157	M18x1.5	45	50	22.5	90	-	69	20	88	65
200	80	165	180	230	178	M20x1.5	50	60	25	100	-	78	20	100	75
250	100	205	206	278	218	M24x1.5	60	75	25	115	-	90	25	103	75

Ø	LE	LH	LS		LX	LY	LZ	M	MM	R	Rc(PT)	TL		W	Y
			- 1000	1000 -								- 1000	1000 -		
150	20	105	254	294	118	190	170	18	M36x1.5	10	3/4	396	436	40	71
180	23	120	292	340	132	222	204	24	M40x1.5	12	3/4	438	486	45	73
200	25	135	330	380	170	249	228	25	M45x1.5	14	1	510	560	50	90
250	28	160	356	428	200	296	272	30	M55x2.0	16	1	616	688	50	130

With Bellows

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
150	126	396	436	70	40	70	100	130	160	190	220	250	280	310

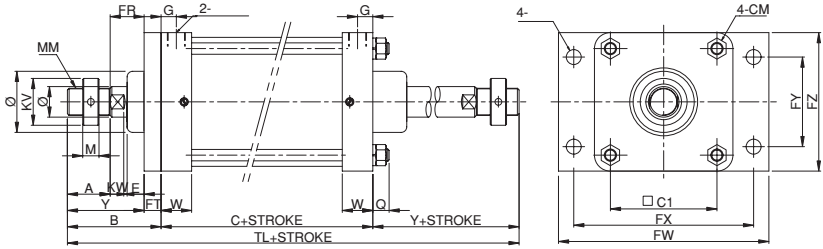
Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	438	486	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	510	560	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	616	688	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

Dimension

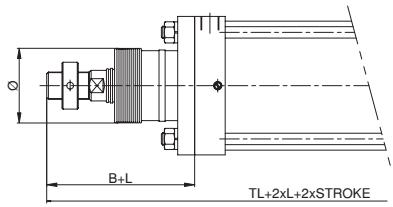
Double Rod - Flange mounting type / Φ150~Φ250

(Unit : mm)

FH



Single Bellows



Ø	A	B	C		C1	CM	ØD	E	FT	FW	FX	FY	FZ	G
			- 1000	1000 -										
150	55	126	144	184	132	M16x1.5	40	46	19	270	228	115	170	20
180	63	138	162	210	157	M18x1.5	45	50	25	310	265	132	204	22.5
200	80	165	180	230	178	M20x1.5	50	60	25	320	275	178	228	25
250	100	205	206	278	218	M24x1.5	60	75	25	382	330	220	272	25

Ø	ØJ	KV	ØK	KW	M	MM	Q	Rc(PT)	T	TA	TL		TY	W	Y
											- 1000	1000 -			
150	80	50	-	20	18	M36x1.5	21	3/4	60	20	396	436	190	40	107
180	90	-	69	20	24	M40x1.5	24	3/4	65	17	438	486	226	45	113
200	100	-	78	20	25	M45x1.5	25	1	70	20	510	560	250	50	140
250	115	-	90	25	30	M55x2.0	30	1	80	25	616	688	310	50	180

With Bellows

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
150	126	396	436	70	40	70	100	130	160	190	220	250	280	310	-

Ø	B	TL		X	L								
		- 1000	1000 -		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	438	486	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	510	560	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	616	688	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

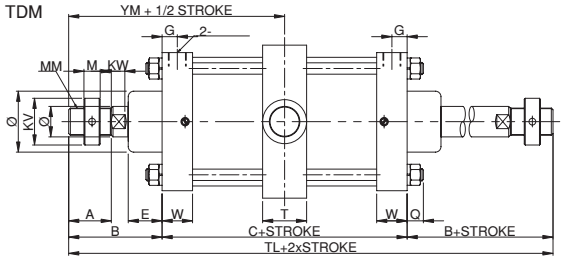
Double Rod Type(Steel Tube)

Dimension

Double Rod - Trunnion mounting type / ϕ150~ϕ250

(Unit : mm)

TM, TDM



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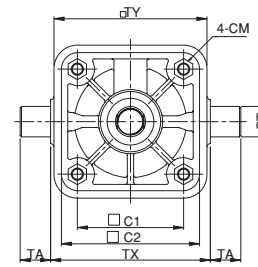
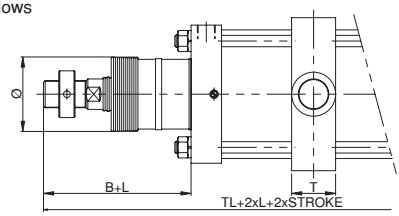
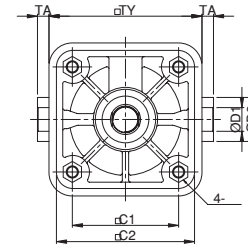


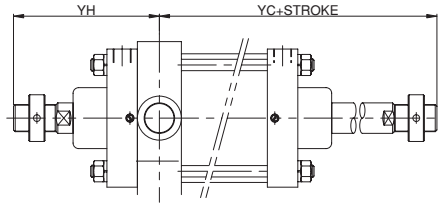
With Bellows



TD



TH, TDH



Ø	A	B	C		CM	ØD	E	G	ØJ	KV	ØKV	KW	M	MM	Q	Rc(PT)
			- 1000	1000 -												
150	55	126	144	184	M16x1.5	40	46	20	80	50	-	20	18	M36xP1.5	21	3/4
180	63	138	162	210	M18x1.5	45	50	22.5	90	-	69	20	24	M40xP1.5	24	3/4
200	80	165	180	230	M20x1.5	50	60	25	100	-	78	20	25	M45xP1.5	25	1
250	100	205	206	278	M24x1.5	60	75	25	115	-	90	25	30	M55xP2.0	30	1

Ø	TL		W	YC	YH	YM	C1	C2	ØD	ØD2	T	TA	TA1	ØTD	TX	TY
	1000~	-1000														
150	396	436	40	200	196	198	132	170	30	60	60	45	20	40	200	190
180	438	486	45	222.5	215.5	219	157	204	35	65	65	45	17	45	236	226
200	510	560	50	260	250	255	178	228	40	70	70	55	20	55	260	250
250	616	688	50	321	295	308	218	272	45	75	80	60	25	60	320	310

With Bellows

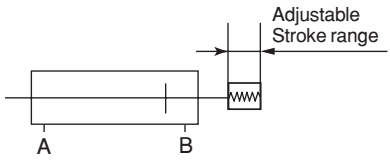
Ø	B	TL		X	L										
		- 1000	1000 -		-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
150	126	396	436	70	40	70	100	130	160	190	220	250	280	310	-

Ø	B	TL		X	L									
		- 1000	1000 -		-100	101-250	251-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-
180	138	438	486	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
200	165	510	560	110	40	80	110	140	170	200	230	250	280	20+STROKE/3.5
250	205	616	688	130	40	80	110	140	170	200	230	250	280	20+STROKE/3.5

Tie Rod Cylinder(Steel tube)

SGRN Series / Adjustable Stroke Cylinder

Φ150, Φ180, Φ200, Φ250



On the end where the rod is extended, the Stroke is adjustable within a range of 5 to 100mm.
Stroke adjustment is accmplished with the stopper fitted on the rod end.

ORDER KEY

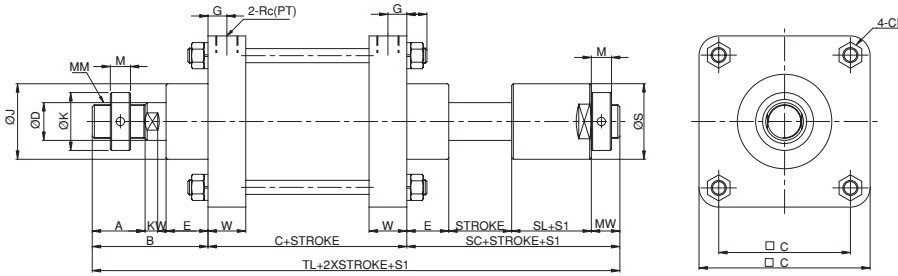
SGRN | LB | 150 — 100 — Y — 50
① ② ③ ④ ⑤ ⑥

1. Cylinder model
SGRN : Adjustable stroke
2. Mounting
3. Bore size(mm)
Φ150~Φ250
4. Cylinder stroke(mm)
5. Rod option
6. Adjustable Stroke

Specifications

Acting	Unit	Double
Fluid		Air
Pressure range	MPa(bar)	0.1 ~ 1(1.0~10.0)
Proof Pressure	MPa(bar)	1.5(15.0)
Temperature range	℃	0 ~ 60
Cushion	mm/s	50 ~ 500
Mounting		Foot, Flange, Trunnion, Clevis

Construction & Dimensions / Φ150~Φ250



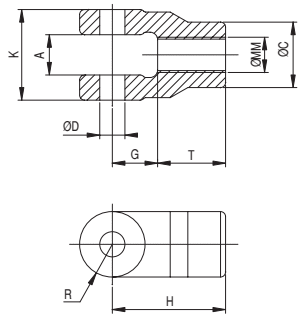
Ø	A	B	C		C1	C2	CM	ØD	E	G	ØJ	KV	ØK	KW
			Without Magnet	With Magnet										
150	55	126	144	-	132	170	M16x1.5	40	46	20	80	44	-	15
180	63	138	162	-	157	204	M18x1.5	45	50	22.5	90	-	69	20
200	80	165	180	-	178	228	M20x1.5	50	60	25	100	-	78	20
250	100	205	206	-	218	272	M24x1.5	60	75	25	115	-	90	25

Ø	M	MM	MW	Q	Rc(PT)	SC	ØS	SL	TL		W
									Without Magnet	With Magnet	
150	18	M36x1.5	28	20.5	3/8	139	80	65	409	-	40
180	24	M40x1.5	34	24	3/8	154	90	70	454	-	45
200	25	M45x1.5	38	25	1/2	173	100	75	518	-	50
250	30	M55x2.0	45	30	1/2	210	115	90	621	-	50

Accessory

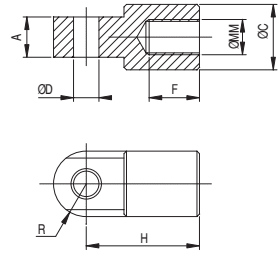
Rod Option

I Knuckle



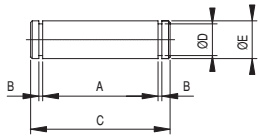
Ø	A	ØC	ØD	G	H	K	R	T	ØMM
150	38	56	30.1	37	85	84	29	48	M36x1.5
180	45	62	30.1	40	90	93	32	50	M40x1.5
200	55	70	35.1	45	100	110	36	55	M45x1.5
250	60	76	40.1	55	130	125	40	75	M55x2

Y Knuckle



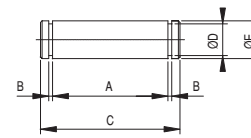
Ø	A	ØC	ØD	F	R	H	ØMM
150	38	58	30.1	40	29	85	M36x1.5
180	45	64	30.1	45	32	90	M40x1.5
200	55	72	35.1	55	36	100	M45x1.5
250	60	80	40.1	65	40	130	M55x2

Y Knuckle Pin



Ø	A	B	C	D	E	Stop ring	
150	84.4	2.2	95	24	30		24
180	93.4	2.2	106	24	30		24
200	110.4	1.8	124	33.3	35	C type 35	
250	125.4	2.0	140	38	40	C type 40	

Clevis Pin



Ø	A	B	C	D	E	Stop ring	
150	88.4	2.0	100	24	30		24
180	100.4	2.0	112	38	40	C type 40	
200	135.4	2.0	148	42.5	45		45
250	155.4	2.2	170	47	50		50