

TN Series Dual Rod Cylinder



1. Ordering Code :

TN	-	25	x	50	-	S
↑		↑		↑		↑
Model		Bore		Stroke		Blank: Without magnet S: Magnet inside
TN: Double-shaft double action type		10mm 16mm 20mm 25mm 32mm		10~200mm		

2.Characteristics:

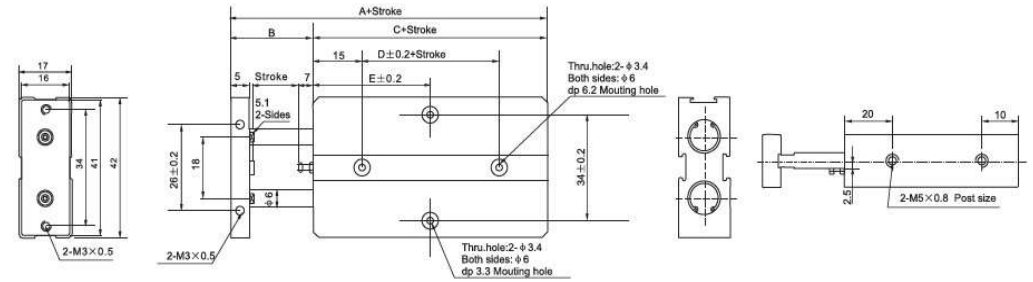
- 1) Small size and light weight.
- 2) Double shaft can bear higher side loads and no rotation.
- 3) There are more mounting holes on the fixed board
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

3.Specification:

Bore(mm)	10	16	20	25	32
Motion Pattern	Double action				
Working Medium	Air				
Operating Voltage Range	1~9kgf/cm ²				
Ensured Pressure Resistance	10.5kgf/cm ²				
Operating Temperature Range	-5~+70℃				
Operating Speed Range	100~500mm/s				
Adjustable Stroke	-10~0mm				
Cushion Type	Adjustable Cushion				
Non-rotating Precision	0.4℃		0.3℃		
Port Size	M5×0.8				G1/8"

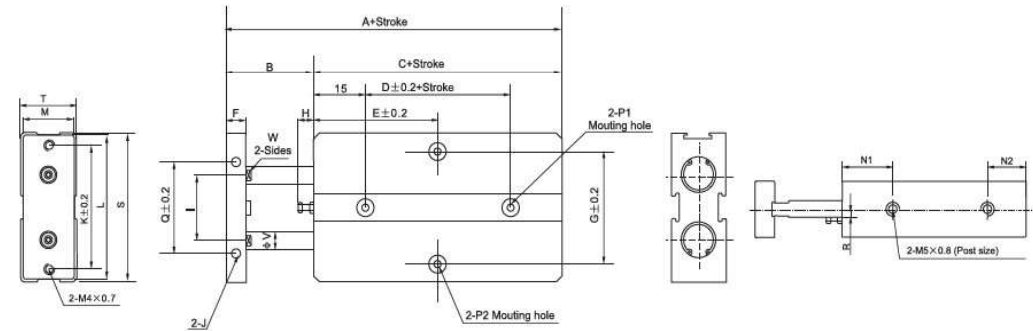
4. Overall and Dimension Sheet:

(Φ10)



Bore size Item	A	B	C	D	E						
	10	20	30	40	50	60	70				
10	63	12	51	10	30	30	35	40	45	50	55

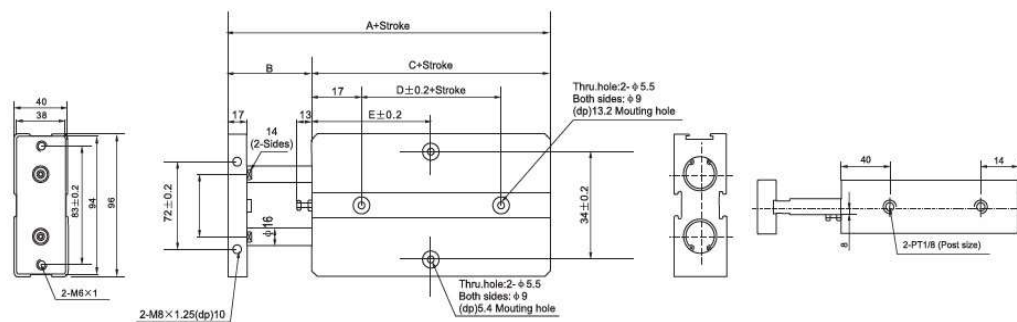
(Φ16~Φ25)



Bore size Item	A	B	C	D	E											F	G	H	I	
	10	20	30	40	50	60	70	80	90	100	125	150	8	47	6	24				
16	68	15	53	20	30	35	40	45	50	55	60	65	70	75	87.5	100	8	47	6	24
20	78	20	58	20	35	35	40	45	50	55	60	65	70	75	87.5	100	10	55	9	28
25	81	19	62	30	40	40	45	50	55	60	65	70	75	80	92.5	105	10	66	8	34

Bore size/Item	J	K	L	M	N1	N2	P1		P2		Q	R	S	T	V	W
	M4×0.7/dp 5	47	53	20	22	11	Both sides: φ7.5(dp) 7.2mm Thru.hole: φ4.5		Both sides: φ8(dp) 4.4mm Thru.hole: φ4.5		34	3	54	21	8	6.1
20	M4×0.7/dp 5	55	61	24	25	12	Both sides: φ7.5(dp) 7.2mm Thru.hole: φ4.5		Both sides: φ8(dp) 4.4mm Thru.hole: φ4.5		44	3.5	62	25	10	8.1
25	M4×0.7/dp 6	66	72	29	27	12	Both sides: φ7.5(dp) 7.2mm Thru.hole: φ4.5		Both sides: φ8(dp) 4.4mm Thru.hole: φ4.5		56	7	73	30	12	10.2

(Φ2)



Bore size Item	E															
	A	B	C	D	10	20	30	40	50	60	70	80	90	100	125	150
32	108	30	78	35	45	50	55	60	65	70	75	80	85	90	102.5	115

MSQ Series Rotary Table



1. Ordering Code :

MSQ	B	-	20	A	-	M9N
↑	↑		↑	↑		↑
Model	B:Basic type		Size code	A:with adjustable angle screw		Magnet switch type
Rotary table with magnet inside	A:High precision		10~200	B:with shock absorber		M9N M9B M9P

2.Characteristics:

- 1) Magnetic ring inside, can be used for magnetic switch.
- 2) Better design for free installation.
- 3) Range for adjustable angle can be 0~190°
- 4) Ball rolling bearing guarantee high precision.
- 5) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 6) Needn't lubricate on piston rod by oil

3.Specification:

Bore(mm)	10	20	30	50	70	100	200
Fluid	Air(non-lube)						
Max.pressure	With adjustment bole	1Mpa(10.2kgf/cm²)					
	R:With Shock Absorber	0.6 MPa (6.1 kgf/cm²)注/Note					
Min.pressure	Basic type	0.1 Mpa(1.0kgf/cm²)					
	High precision type	0.2 Mpa		0.1 Mpa			
Ambient and fluid temperature	0~60℃(No freezing)						
Cushion	With adjustment bole	Rubber bumper					
	R:With Shock Absorber	Shock absorber					
Angle adjustment range	0~190℃						
Maximum rotation	190℃						
Piston bore	φ15	φ18	φ21	φ25	φ28	φ32	φ40
Port size	End ports	M5×0.8		RC1/8"			
	Side ports	M5×0.8					

■ Note:The maximum operating pressure of the actuator is restricted by the maximum allowable thrust of the shock absorber.

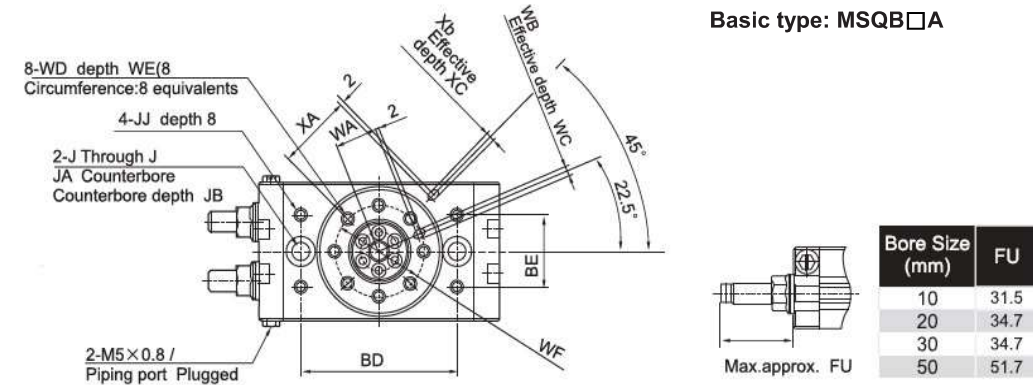
Allowable Kinetic Energy and Rotation Time Adjustment Range:

Size	Allowable kinetic energy(mJ)		Rotation time adjustment range for stable operation (s/90°)	
	With adjustment bolt	With internal shock absorber	With adjustment bolt	With internal shock absorber ^(Note)
10mm	7	39		
20mm	25	116	0.2 to 1.0	0.2 to 0.7
30mm	48	116		
50mm	81	294		
70mm	240	1100	0.2 to 1.5	
100mm	320	1600	0.2 to 2.0	0.2 to 1.0
200mm	560	2900	0.2 to 2.5	

■ Note:Be careful if a type with internal absorber is used below the minimum speed,the energy absorption ability will decrease drastically.

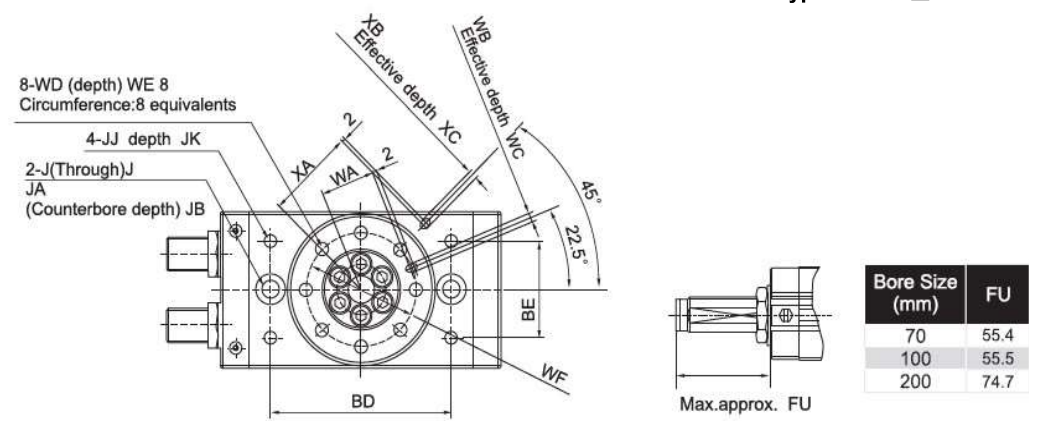
4. Overall and Dimension Sheet:

1) $\Phi 10, \Phi 20, \Phi 30, \Phi 50$



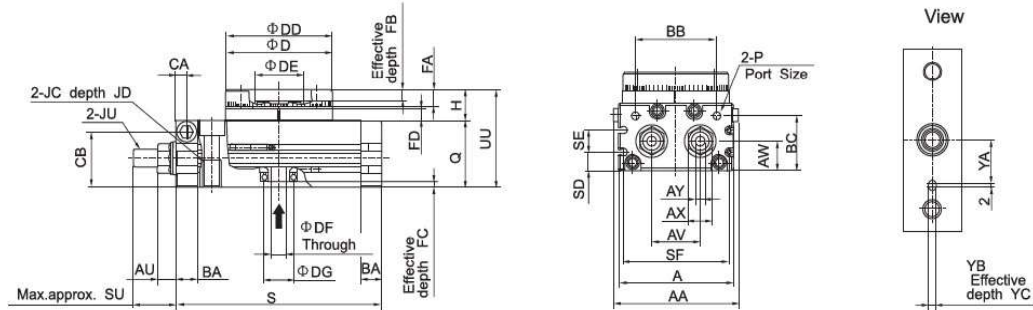
Basic type: MSQB□A

2) $\Phi 70, \Phi 100, \Phi 200$



Basic type: MSQB□A

With internal shock absorber type: MSQB□R

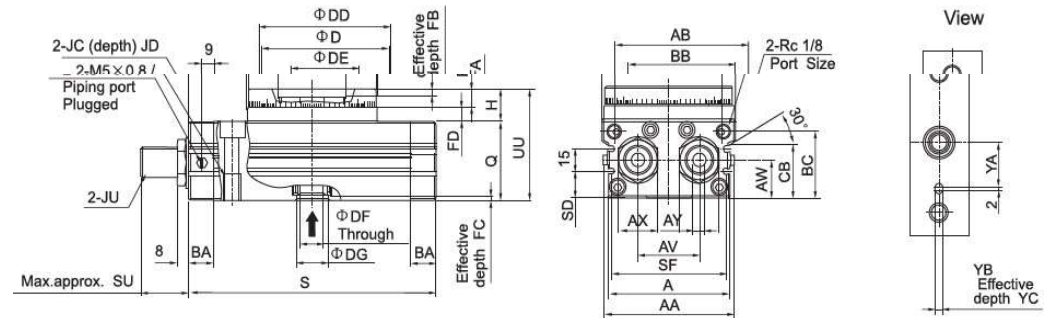


Bore size(mm)	AA	A	AU	AV	AW	AX	AY	BA	BB	BC	BD	BE	CA	CB	D	DD	DE	DF
10	55.4	50	8.6	20	15.5	12	4	9.5	34.5	27.8	60	27	4.5	28.5	46h9	46h9	20H9	5
20	70.8	65	10.6	27.5	16	14	5	12	46	30	67	34	6	30.5	60h9	61h9	28H9	9
30	75.4	70	10.6	29	18.5	14	5	12	50	32	84	37	6.5	33.5	65h9	67h9	32H9	9
50	85.4	80	14	38	22	19	6	15.5	63	37.5	100	50	10	37.5	75h9	77h9	35H9	10

Bore size(mm)	DG	FA	FB	FC	FD	H	J	JA	JB	JC	JD	JJ	JU	P
10	15H9	8	4	3	4.5	13	6.8	11	6.6	M8x1.25	12	M5x0.8	M8x1	M5x0.8
20	17H9	10	6	2.5	6.5	17	8.6	14	8.5	M10x1.5	15	M6x1	M10x1	M5x0.8
30	22H9	10	4.5	3	6.5	17	8.6	14	8.5	M10x1.5	15	M6x1	M10x1	Rc 1/8
50	26H9	12	5	3	7.5	20	10.5	18	10.5	M12x1.75	18	M8x1.25	M14x1.5	Rc 1/8

Bore size(mm)	Q	S	SD	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC	
10	34	92	9	13	45	17.7	47	15	3H9	3.5	M5x0.8	8	32	27	3H9	3.5	19	3H9	3.5
20	37	117	10	12	60	25	54	20.5	4H9	4.5	M6x1	10	43	36	4H9	4.5	24	4H9	4.5
30	40	127	11.5	14	65	25	57	23	4H9	4.5	M6x1	10	48	39	4H9	4.5	28	4H9	4.5
50	46	152	14.5	15	75	31.4	66	26.5	5H9	5.5	M8x1.25	12	55	45	5H9	5.5	33	5H9	5.5

With internal shock absorber type: MSQB□R



Bore size(mm)	AA	AB	A	AV	AW	AX	AY	BA	BB	BC	BD	BE	CB	D	DD	DE
70	90	92	84	42	25.5	27	8	17	75	44.5	110	57	36	88h9	90h9	46H9
100	101	102	95	50	29.5	27	8	17	85	50.5	130	66	42	98h9	100h9	56H9
200	119	120	113	60	36.5	36	10	24	103	65.5	150	80	57	116h9	118h9	64H9

Bore size(mm)	DF	DG	FA	FB	FC	FD	H	J	JA	JB	JC	JD	JJ	JK	JU
70	16	22H9	12.5	5	3.5	6	22	10.4	17.5	10.5	M12x1.75	18	M8x1.25	10	M20x1.5
100	19	24H9	14.5	6	3.5	12	27	10.4	17.5	10.5	M12x1.75	18	M8x1.25	10	M20x1.5
200	24	32H9	16.5	9	5.5	15	32	14.2	20	12.5	M16x2	25	M12x1.75	13	M27x1.5

Bore size(mm)	Q	S	SD	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC
70	53	170	18	79	34.2	75	32.5	5H9	5.5	M8x1.25	12.5	67	54	5H9	3.5	39	5H9	3.5
100	59	189	22	90	34.3	86	37.5	6H9	6.5	M10x1.55	14.5	77	59	6H9	4.5	49	6H9	4.5
200	74	240	29	108	40.2	106	44	8H9	8.5	M12x1.75	16.5	90	69	8H9	4.5	54	8H9	6.5

CRA1 Series Gear-rack pendular cylinder



1. Ordering Code :

C	□	RA1	B	S	U	50	-	90	□
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With or without magnet
 Blank: Without magnet inside
 D: With Magnet inside

Mounting type:
 B: Standard type
 L: Foot mounting type
 F: Flange type (for $\Phi 30$ without flange)

Shaft type
 S: Single shaft
 W: Double shaft
 T: Single round shaft
 Y: Double shaft with key
 X: Single shaft with four chamfers
 Z: Double shaft with four chamfers

Angle adjustable type
 Blank: Without angle adjustable
 U: with angle adjustable unit (Max. angle adjustable range: 90degree)
 *Note: Without angle adjustable unit for $\Phi 30$

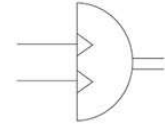
Bore of rotary actuator
 30: $\Phi 30$ mm 50: $\Phi 50$ mm 63: $\Phi 63$ mm
 80: $\Phi 80$ mm 100: $\Phi 100$ mm

Rotating angle range
 90: 90 degree 100: 100 degree
 180: 180 degree 190: 190 degree

Cushion
 Blank: With air cushion
 C: With air cushion
 *Note: without air cushion for Angle adjustable type and $\Phi 30$ actuator

2.Characteristics:

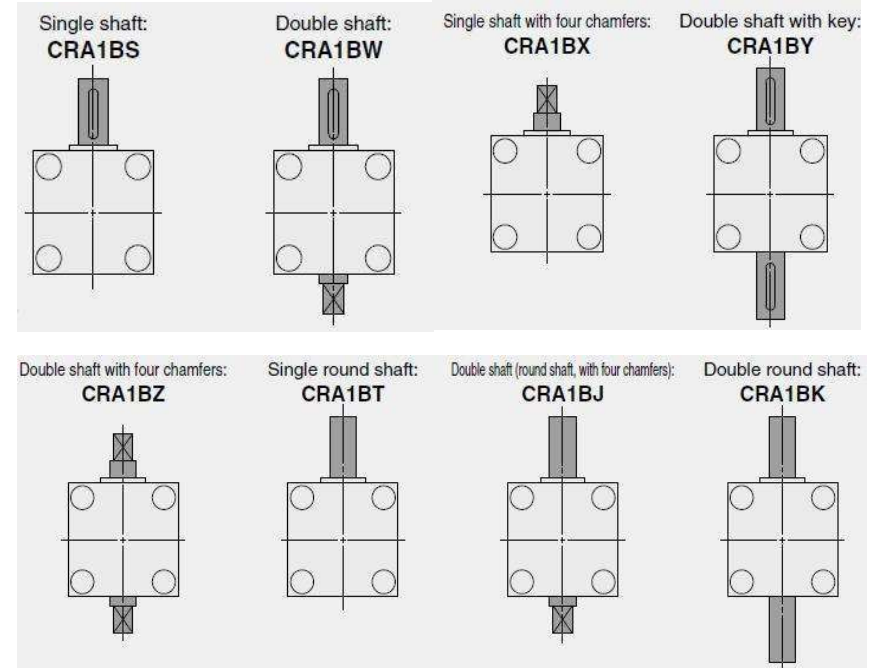
- 1) Compact, lightweight
- 2) Flexible mounting: Top, bottom, or side mounting is possible.
- 3) Front or side ported is selectable.
- 4) With air cushion, Easy adjustment of cushion valve
- 5) With auto switch (CRA1 series: M9N, M9P, M9B etc.)



3. Reed switches type:

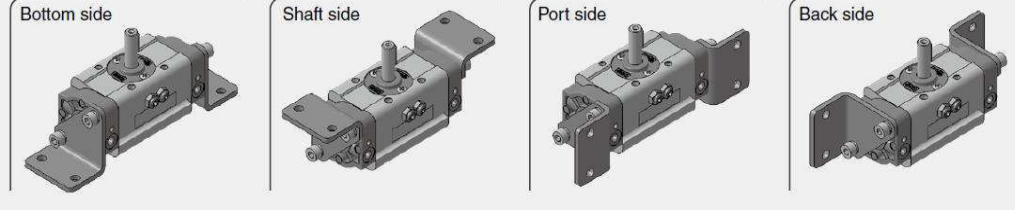
Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○	IC circuit
				2-wire				M9BV	M9B	●	●	●	○	○	—
	Diagnosis indication (2-color indicator)			3-wire (NPN)	5 V, 12 V	—	M9NwV	M9Nw	●	●	●	○	○	IC circuit	
				3-wire (PNP)			M9PwV	M9Pw	●	●	●	○	○	IC circuit	
				2-wire			M9BwV	M9Bw	●	●	●	○	○	—	
Water resistant (2-color indicator)	3-wire (NPN)	5 V, 12 V	—	M9NAV ^{*1}	M9NA ^{*1}	○	○	○	○	○	IC circuit				
	3-wire (PNP)			M9PAV ^{*1}	M9PA ^{*1}	○	○	●	○	○	IC circuit				
	2-wire			M9BAV ^{*1}	M9BA ^{*1}	○	○	●	○	○	—				
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	5 V	100 V 100 V or less	A96V	A96	●	—	●	—	—	IC circuit
				No				2-wire	12 V	A93V ^{*2}	A93	●	●	●	—
								A90V	A90	●	—	●	—	—	IC circuit

4. Many variations of shaft type:



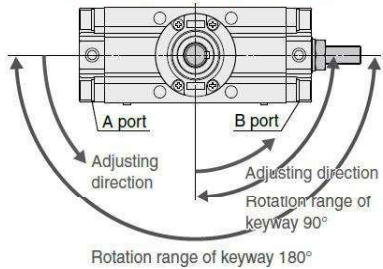
5. Mounting suitable for operating conditions is possible:

Foot bracket can be mounted at a desired position. (Foot bracket is included in the rotary actuator at shipment.)



6. Angle adjustable type:

Angle can be adjusted to a desired level in a range of up to 90°.

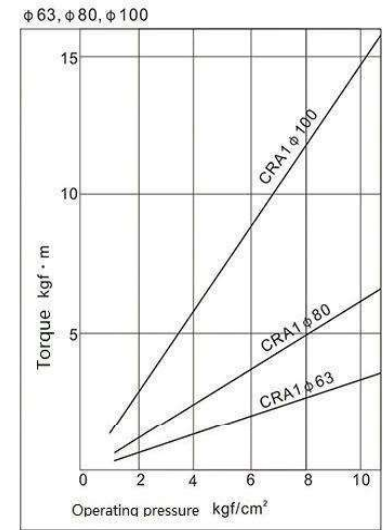
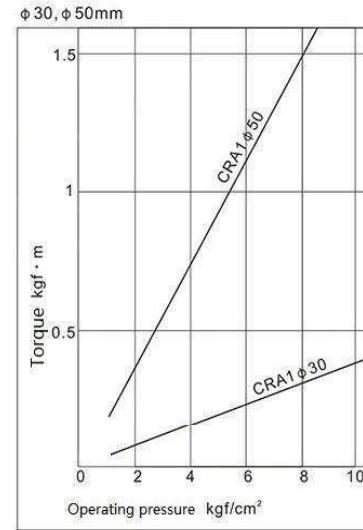


7. Specification:

Bore (mm) of rotary actuator	30	50	63	80	100	
Fluid	Compressed air					
Max. operating pressure	1.0 MPa					
Min. operating pressure	0.1 Mpa					
Ambient and fluid temperature	0°C ~ 60°C (no freezing)					
Cushion	Not attached, Air cushion					
Backlash	None	Within 1°				
Tolerance in rotating angle	-	0 to + 4°				
Lubrication	Not need (or ISOVG32)					
Allowable kinetic energy (J)	With cushion	0.01	0.05	0.12	0.16	0.54
	Without cushion	-	0.98	1.5	2.0	2.9
Rotating time range (s)	0.2 ~ 1	0.2 ~ 2	0.2 ~ 3	0.2 ~ 4	0.2 ~ 5	
Port size	M5x0.8	1/8"PT	1/8"PT	1/4"PT	3/8"PT	

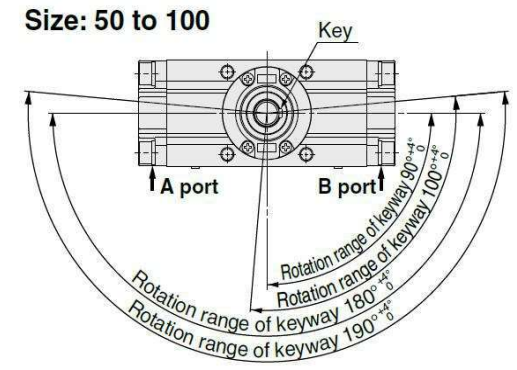
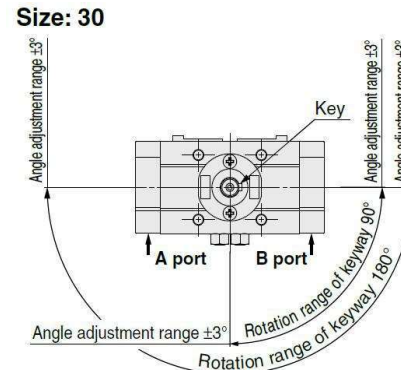
8. Effective Torque(N.m):

Size	Operating pressure [MPa]									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
30	0.38	0.76	1.14	1.53	1.91	2.29	2.67	3.05	3.44	3.82
50	1.85	3.71	5.57	7.43	9.27	11.2	13.0	14.9	16.7	18.5
63	3.44	6.88	10.4	13.8	17.2	20.6	24.0	27.5	31.0	34.4
80	6.34	12.7	19.0	25.3	31.7	38.0	44.4	50.7	57.0	63.4
100	14.9	29.7	44.6	59.4	74.3	89.1	104	119	133	149



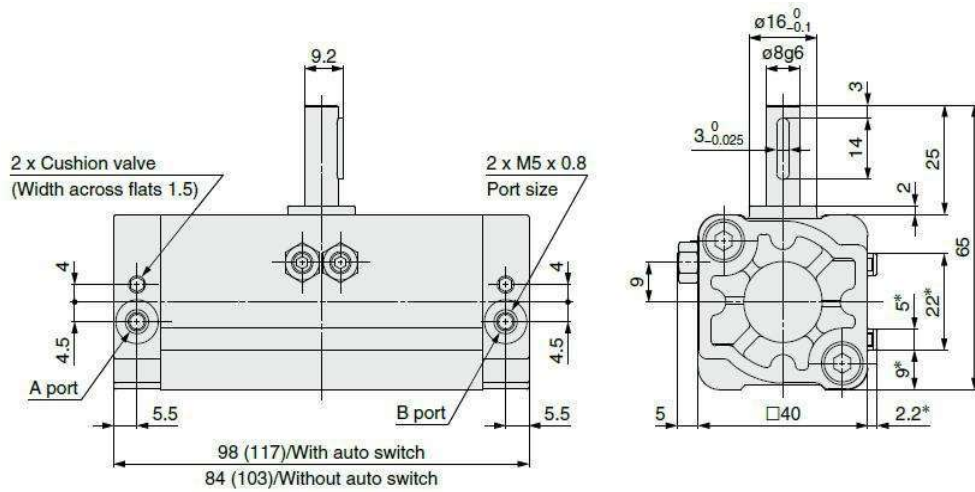
9. Rotating range of keyway:

The shaft rotates clockwise when the pressure is applied from the A port while it rotates counterclockwise when the pressure is applied from the B port

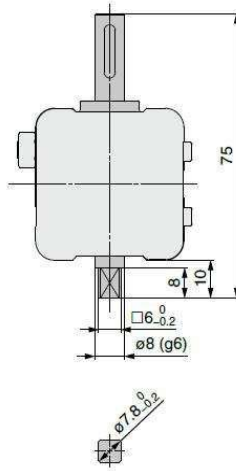
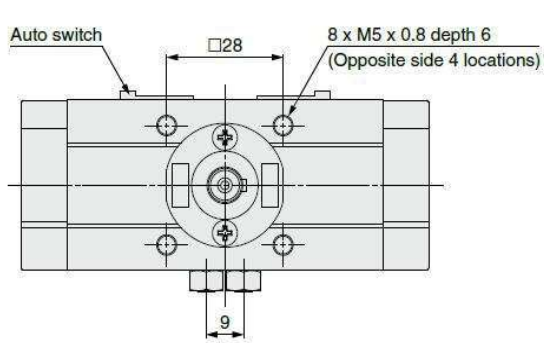


10. Overall and Dimension Sheet (Basic type):

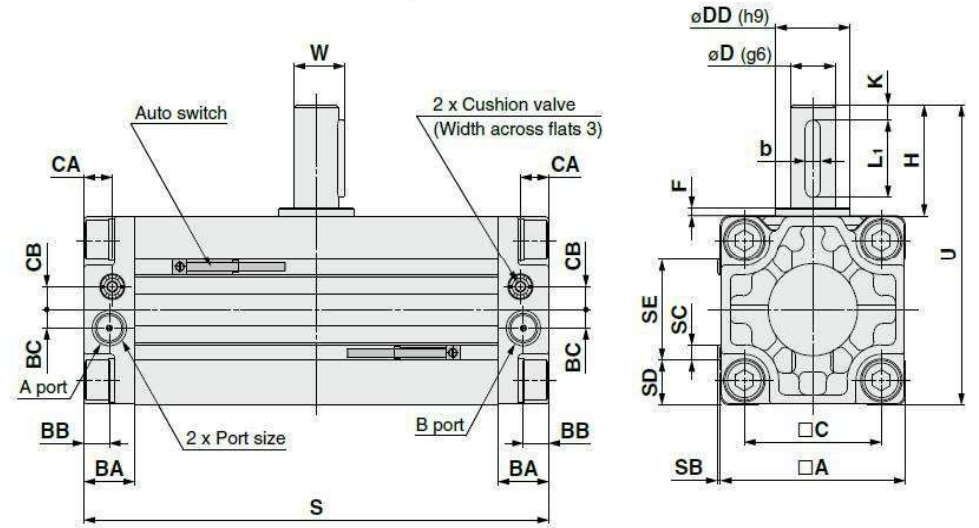
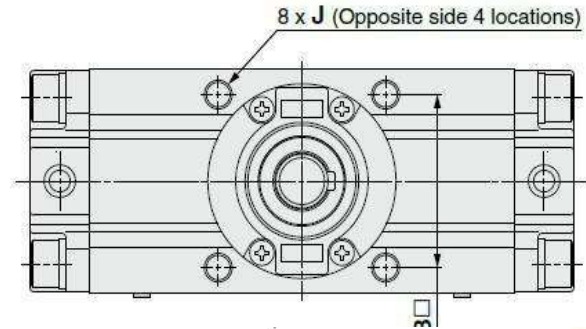
Bore : $\Phi 30$



Double shaft:
C□RA1BW



Bore : $\Phi 50, \Phi 63, \Phi 80, \Phi 100$



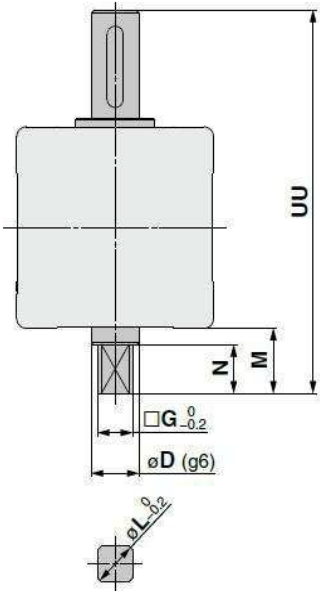
Size	Note 1) Port size	A	B	C	D (g6)	DD (h9)	F	H	J	K	With auto switch				Without auto switch	U	W	BA	BB	BC	★ CA	★ CB	Note 2) Key dimensions		
											S	SB	SC	SD	SE								S	b	L1
50	Rc1/8	62	48	46	15	25	2.5	36	M8 x 1.25 depth 8	5	156 (189)	1.5	5	14.5	33	144 (177)	98	17	17	8.5	6	9.5	7.5	5 ⁰ _{-0.090}	25
63	Rc1/8	76	60	57	17	30	2.5	41	M10 x 1.5 depth 12	5	175 (213.5)	1.5	5	21.5	33	163 (201.5)	117	19.5	20	10	7	11	8	6 ⁰ _{-0.090}	30
80	Rc1/4	92	72	70	20	35	3	50	M12 x 1.75 depth 13	5	199 (243)	1.5	5	29.5	33	186 (230)	142	22.5	23.5	12	8	13	9	6 ⁰ _{-0.090}	40
100	Rc3/8	112	85	85	25	40	4	60	M12 x 1.75 depth 14	5	259 (325)	1.5	5	39.5	33	245 (311)	172	28	25	12.5	8	14	10	8 ⁰ _{-0.098}	45

Note 1) In addition to Rc, G, NPT and NPTF are also available.

Note 2) A parallel key is included in the same package, (but not assembled).

★ For model with air cushion

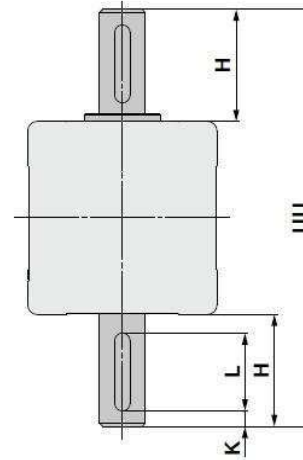
Double shaft: C□RA1BW



∅D is the shaft dimension.
Note) Other dimensions are the same as the single shaft type.

Size	D (g6)	G	M	N	UU	L
50	15	11	20	15	118	14
63	17	13	22	17	139	16
80	20	15	25	20	167	19
100	25	19	30	25	202	24

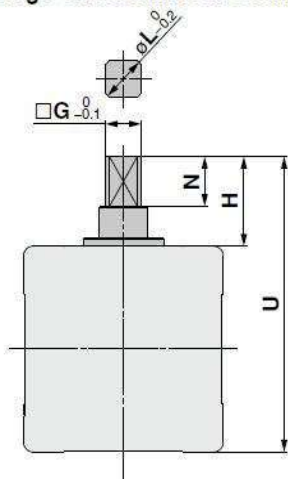
Double shaft with key: C□RA1BY



Size	H	K	UU	L
30	25	3	90	14
50	36	5	134	25
63	41	5	158	30
80	50	5	192	40
100	60	5	232	45

Note) Dimension parts different from the standard conform to the general tolerance.

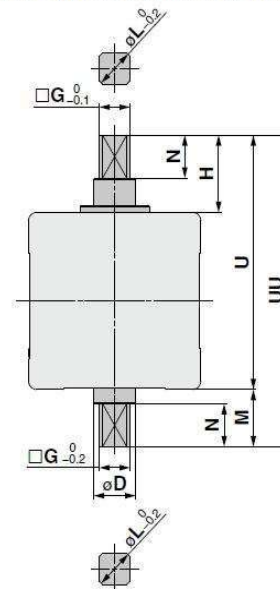
Single shaft with four chamfers: C□RA1BX



Size	G	H	N	U	L
30	6	13	8	53	7.8
50	11	27	15	89	14
63	13	29	17	105	16
80	15	38	20	130	19
100	19	44	25	156	24

Note) Dimension parts different from the standard conform to the general tolerance.

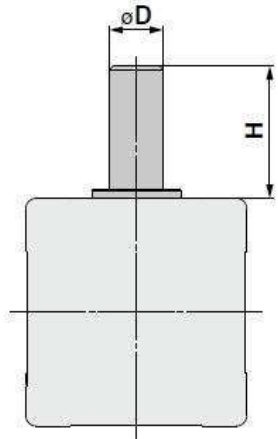
Double shaft with four chamfers: C□RA1BZ



Size	D (g6)	G	H	M	N	U	UU	L
30	8	6	13	10	8	53	63	7.8
50	15	11	27	20	15	89	109	14
63	17	13	29	22	17	105	127	16
80	20	15	38	25	20	130	155	19
100	25	19	44	30	25	156	186	24

Note) Dimension parts different from the standard conform to the general tolerance.

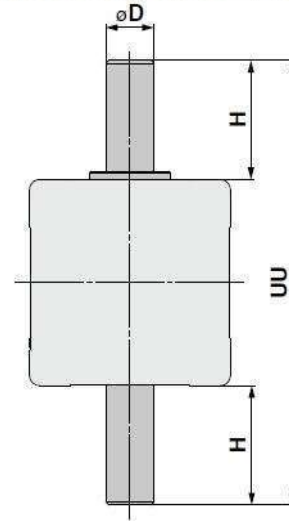
Single round shaft: C□RA1BT



Size	D (g6)	H
30	8	25
50	15	36
63	17	41
80	20	50
100	25	60

Note) Dimension parts different from the standard conform to the general tolerance.

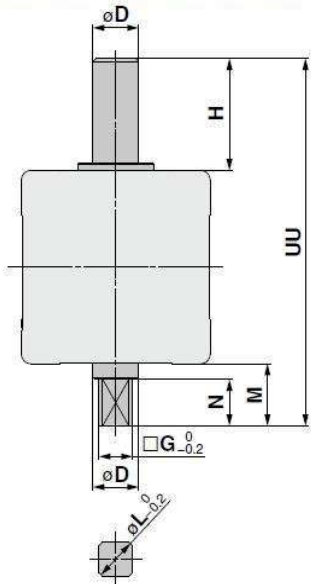
Double round shaft: C□RA1BK



Size	D (g6)	H	UU
30	8	25	90
50	15	36	134
63	17	41	158
80	20	50	192
100	25	60	232

Note) Dimension parts different from the standard conform to the general tolerance.

Double shaft (round shaft, with four chamfers): C□RA1BJ

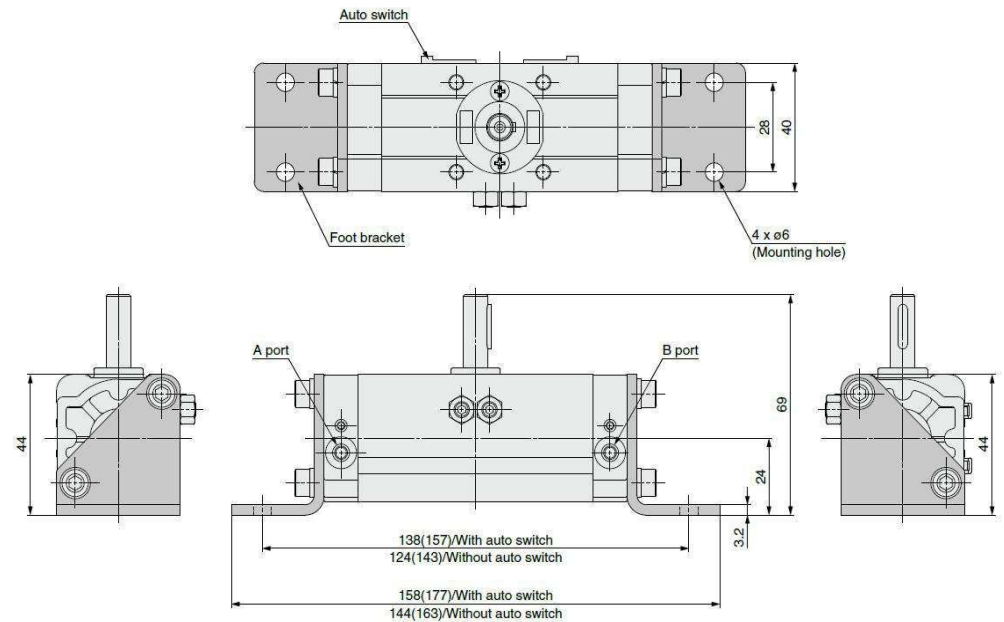


Size	D (g6)	G	H	M	N	UU	L
30	8	6	25	10	8	75	7.8
50	15	11	36	20	15	118	14
63	17	13	41	22	17	139	16
80	20	15	50	25	20	167	19
100	25	19	60	30	25	202	24

Note) Dimension parts different from the standard conform to the general tolerance.

11. Overall and Dimension Sheet (Foot type) :

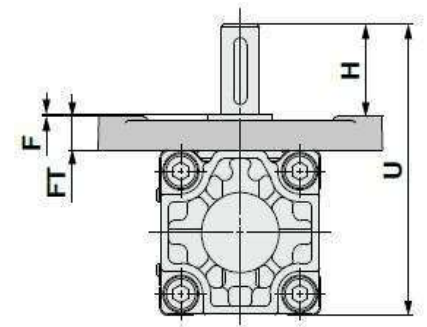
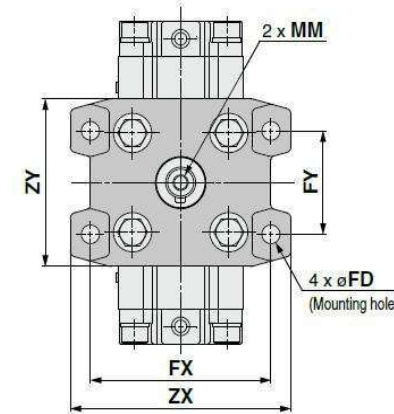
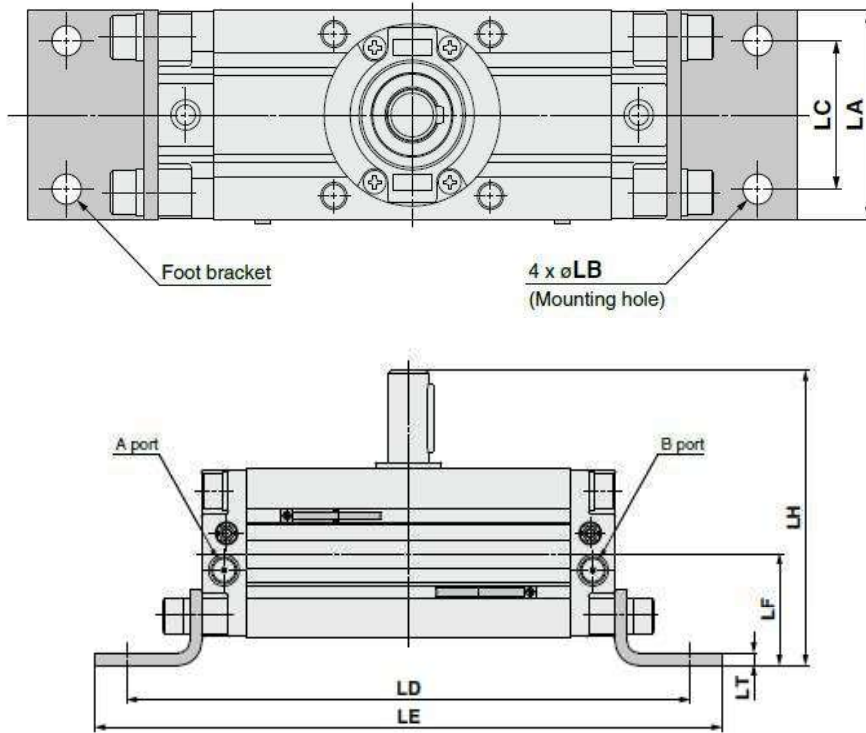
Bore : □30



Bore : $\Phi 50, \Phi 63, \Phi 80, \Phi 100$

12. Overall and Dimension Sheet (Flange type):

Single shaft: C□RA1FS



Note) Other dimensions are the same as the basic type

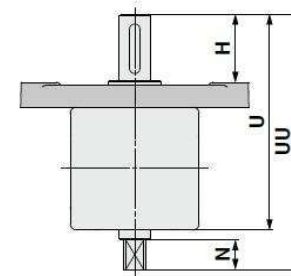
Size	F	H	MM	U	FD
50	4	39	M6 x 1.0 depth 12	114	9
63	5	45	M6 x 1.0 depth 12	136	11.5
80	5	55	M8 x 1.25 depth 16	165	13.5
100	5	60	M10 x 1.5 depth 20	190	13.5

Size	FT	FX	FY	ZX	ZY
50	13	90	50	110	81
63	15	105	59	130	101
80	18	130	76	160	119
100	18	150	92	180	133

Note) Other dimensions are the same as the basic type. [mm]

Size	LA	LB	LC	With auto switch		Without auto switch		LF	LH	LT
				LD	LE	LD	LE			
50	62	9	44	212 (245)	236 (269)	200 (233)	224 (257)	41	108	4.5
63	76	11	55	247 (285.5)	275 (313.5)	235 (273.5)	263 (301.5)	48	127	5
80	92	13	67	287 (331)	329 (373)	274 (318)	316 (360)	58	154	6
100	112	13	87	347 (413)	389 (455)	333 (399)	375 (441)	73.5	189.5	6

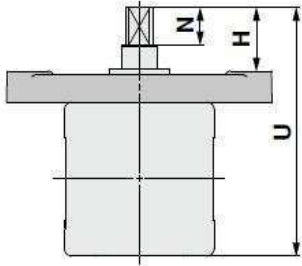
Double shaft: C□RA1FW



Note) Other dimensions are the same as the single shaft type. [mm]

Size	H	N	U	UU
50	39	15	114	134
63	45	17	136	158
80	55	20	165	190
100	60	25	190	220

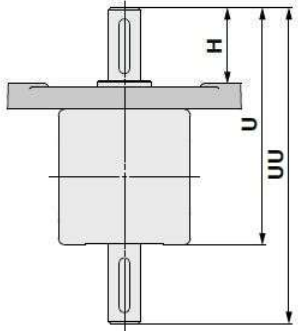
Single shaft with four chamfers: C□RA1FX



Note) Other dimensions are the same as the single shaft type. [mm]

Size	H	N	U
50	30	15	105
63	33	17	124
80	43	20	153
100	44	25	174

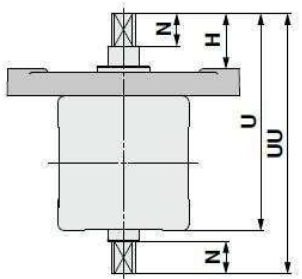
Double shaft with key: C□RA1FY



Note) Other dimensions are the same as the single shaft type. [mm]

Size	H	U	UU
50	39	114	150
63	45	136	177
80	55	165	215
100	60	190	250

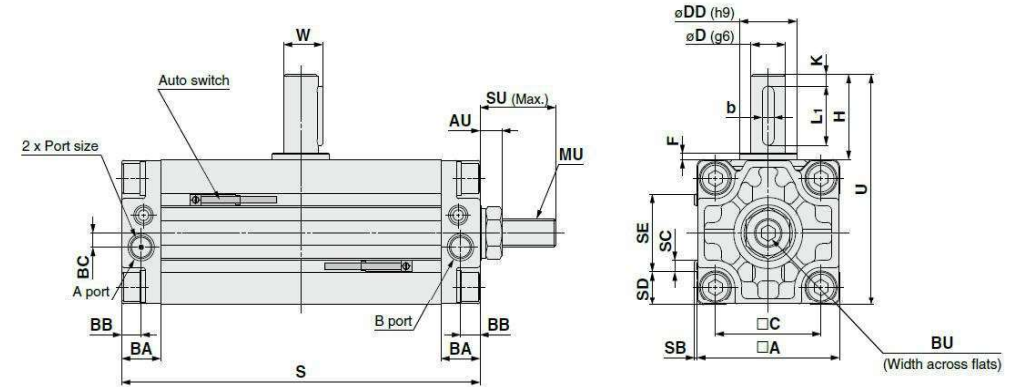
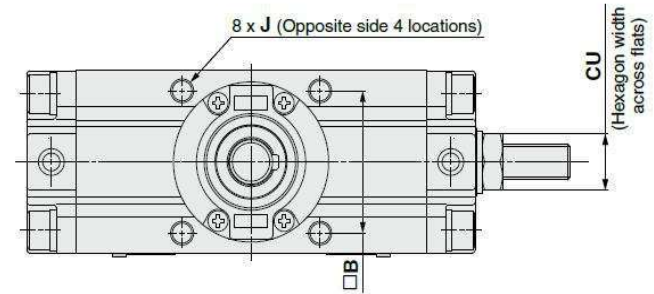
Double shaft with four chamfers: C□RA1FZ



Note) Other dimensions are the same as the single shaft type. [mm]

Size	H	N	U	UU
50	30	15	105	125
63	33	17	124	146
80	43	20	153	178
100	44	25	174	204

13. Overall and Dimension Sheet (Angle adjustable type):



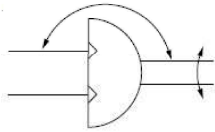
Size	Note 1) Port size	A	B	C	D (g6)	DD (h9)	F	H	J	K	With auto switch					Without auto switch	U	W	BA	BB	BC
											S	SB	SC	SD	SE	S					
50	Rc1/8	62	48	46	15	25	2.5	36	M8 x 1.25 depth 8	5	156 (189)	1.5	5	14.5	33	144 (177)	98	17	17	8.5	6
63	Rc1/8	76	60	57	17	30	2.5	41	M10 x 1.5 depth 12	5	175 (213.5)	1.5	5	21.5	33	163 (201.5)	117	19.5	20	10	7
80	Rc1/4	92	72	70	20	35	3	50	M12 x 1.75 depth 13	5	199 (243)	1.5	5	29.5	33	186 (230)	142	22.5	23.5	12	8
100	Rc3/8	112	85	85	25	40	4	60	M12 x 1.75 depth 14	5	259 (325)	1.5	5	39.5	33	245 (311)	172	28	25	12.5	8

Size	AU	BU	CU	SU	MU	Key Note 2) dimensions	
						b	L1
50	9.5	6	19	33	M12 x 1.75	5 ⁰ _{-0.030}	25
63	10.5	6	22	35.5	M14 x 2	6 ⁰ _{-0.030}	30
80	12.5	8	24	44	M16 x 2	6 ⁰ _{-0.030}	40
100	14.5	10	30	56	M20 x 2.5	8 ⁰ _{-0.036}	45

The dimensions of the shaft type (W: Double shaft, X: Single shaft with four chamfers, Y: Double shaft with key, Z: Double shaft with four chamfers, T: Single round shaft, J: Double shaft (round shaft, with four chamfers), K: Double round shaft), foot type, and flange type are the same as the standard type.

Note 1) In addition to Rc, G, NPT and NPTF are also available.
 Note 2) A parallel key is included in the same package, (but not assembled).

CRQ2 Series Compact Rotary Actuator Rack&Pinion Type



1.Ordering Code :

C RQ2 B S 20 - 90

With or without magnet
 Blank: Without magnet inside
 D: With Magnet inside

Mounting type:
 B: Standard type

Shaft type
 S: Single shaft
 W: Double shaft

Bore of rotary actuator
 10: Φ10mm 15: Φ15mm 20: Φ20mm
 30: Φ30mm 40: Φ40mm

Rotating angle range
 90: 90 degree
 180: 180 degree

Cushion
 Blank: With air cushion
 C: With air cushion
 *Note: without air cushion for Φ10, Φ15 actuator

2.Characteristics:

- 1) Compact, lightweight
- 2) Flexible mounting: Top, bottom, or side mounting is possible.
- 3) Front or side ported is selectable.
- 4) With air cushion, Easy adjustment of cushion valve
- 5) With auto switch (CRQ2 series: M9N, M9P,M9B etc)

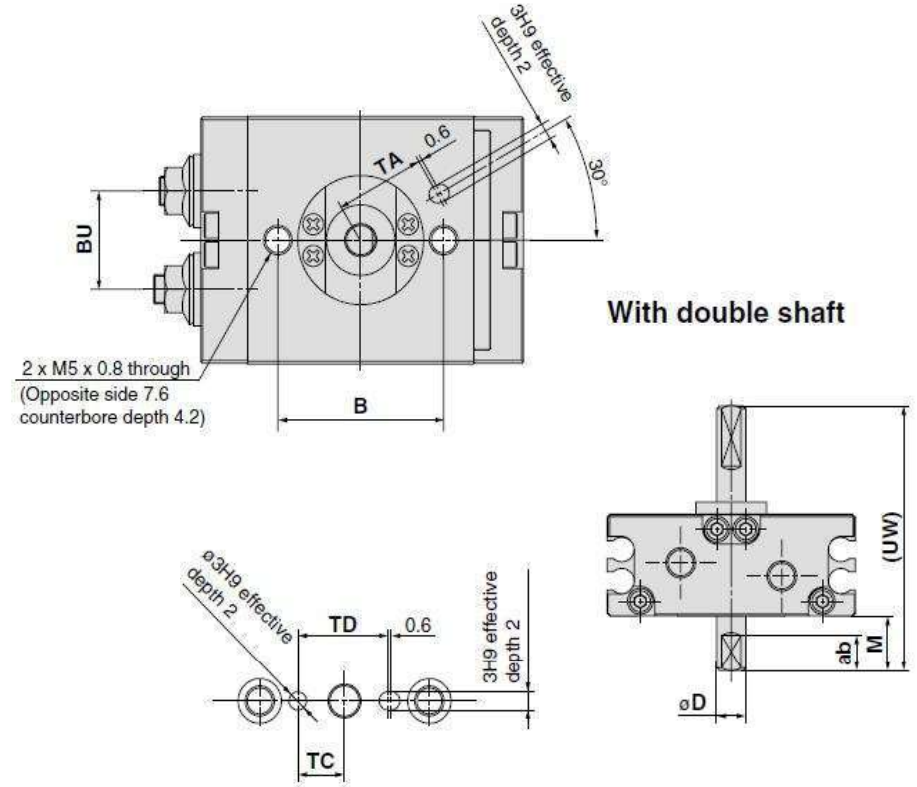
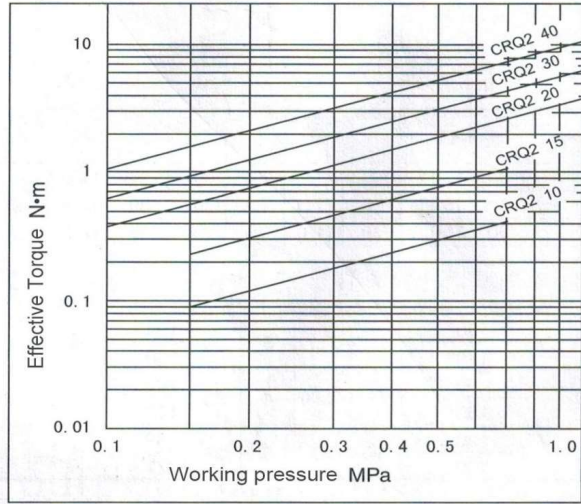
3. Reed switches type:

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Ni)	1 (M)	3 (L)	5 (Z)			
Solid state auto switch	—	Grommet	No	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○	
				2-wire				M9BV	M9B	●	●	●	○	○	
				3-wire (NPN)				M9NWW	M9NWN	●	●	●	○	○	
				3-wire (PNP)				M9PWW	M9PWN	●	●	●	○	○	
				2-wire				M9BWW	M9BWN	●	●	●	○	○	
	Diagnosis indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NAV*1	M9NA*1	○	○	●	○	○	IC circuit
				3-wire (PNP)				M9PAV*1	M9PA*1	○	○	●	○	○	
				2-wire				M9BAV*1	M9BA*1	○	○	●	○	○	
				2-wire				M9BAV*1	M9BA*1	○	○	●	○	○	
Water resistant (2-color indicator)	Grommet	No	3-wire (NPN equivalent)	24 V	12 V	100 V or less	A96V	A96	●	—	●	—	—	IC circuit	
			2-wire				A93V*2	A93	●	●	●	●	—		—
Read auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	12 V	100 V or less	A90V	A90	●	—	●	—	IC circuit	
				2-wire				A90V	A90	●	—	●	—		—

4.Specification:

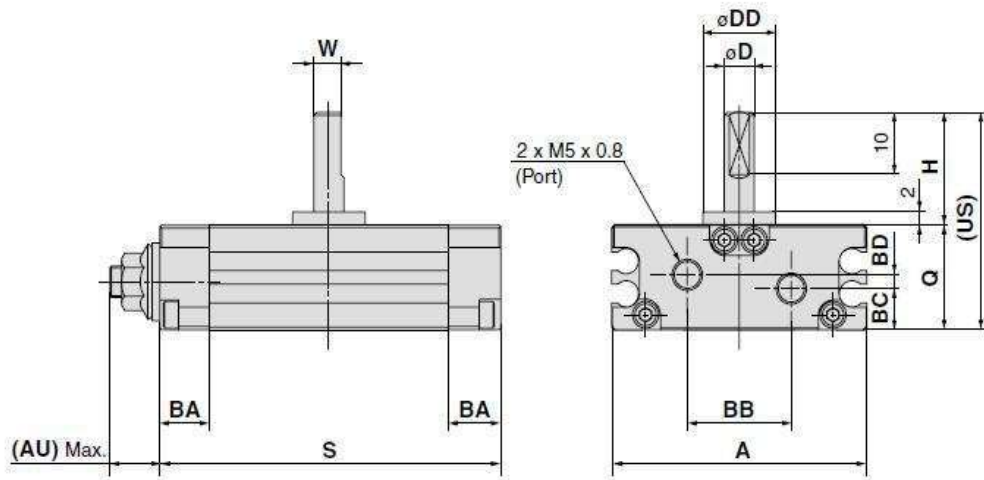
Bore (mm) of rotary actuator	10	15	20	30	40
Fluid	Compressed air				
Action type	Double acting				
Max. operating pressure	0.7 MPa		1.0 MPa		
Min. operating pressure	0.15 MPa		0.1 MPa		
Ambient and fluid temperature	0°C ~ 60°C (no freezing)				
Cushion	Pad cushion		Not attached, Air cushion		
Tolerance in rotating angle	-5 ° to + 5 °				
Lubrication	Not need (or ISOVG32)				
Effective Torque (N.m)	0.3	0.75	1.8	3.1	5.3
Allowable kinetic energy (J)	None	—	0.025	0.048	0.081
	Pad cushion	0.25x10 ⁻³	0.25x10 ⁻³	—	—
	Air cushion	—	—	0.12	0.25
Rotating time range (s)	0.2 ~ 0.7		0.2 ~ 1.0		
Port size	M5x0.8		1/8"PT		

5. Effective Torque(N.m):



6. Overall and Dimension Sheet:

Bore: $\Phi 10, \Phi 15$



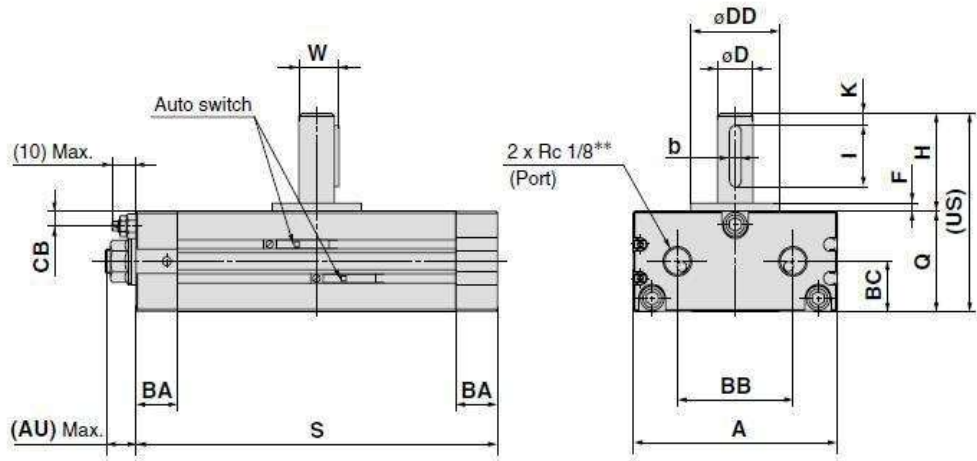
Size	Rotating angle	A	AU*	B	BA	BB	BC	BD	BU	D (g6)	DD (h9)	H
10	90°, 180°, 360°	42	(8.5)	29	8.5	17	6.7	2.2	16.7	5	12	18
15	90°, 180°, 360°	53	(9.5)	31	9	26.4	10.6	—	23.1	6	14	20

Size	Rotating angle	W	Q	S	US	UW	ab	M	TA	TC	TD
10	90°	4.5	17	56	35	44	6	9	15.5	8	15.4
	180°			69							
	360°			97							
15	90°	5.5	20	65	40	50	7	10	16	9	17.6
	180°			82							
	360°			116							

* AU dimension is not the dimension at the time of shipment, since its dimension is for adjustment parts.

S: Upper 90°, Middle 180°, Lower 360°

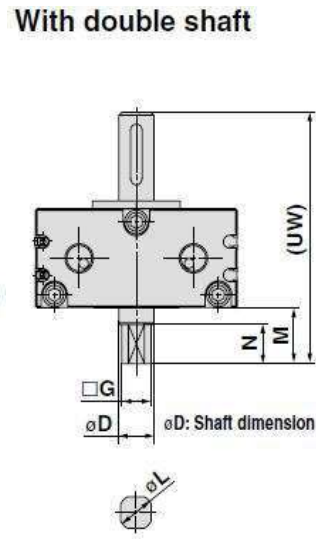
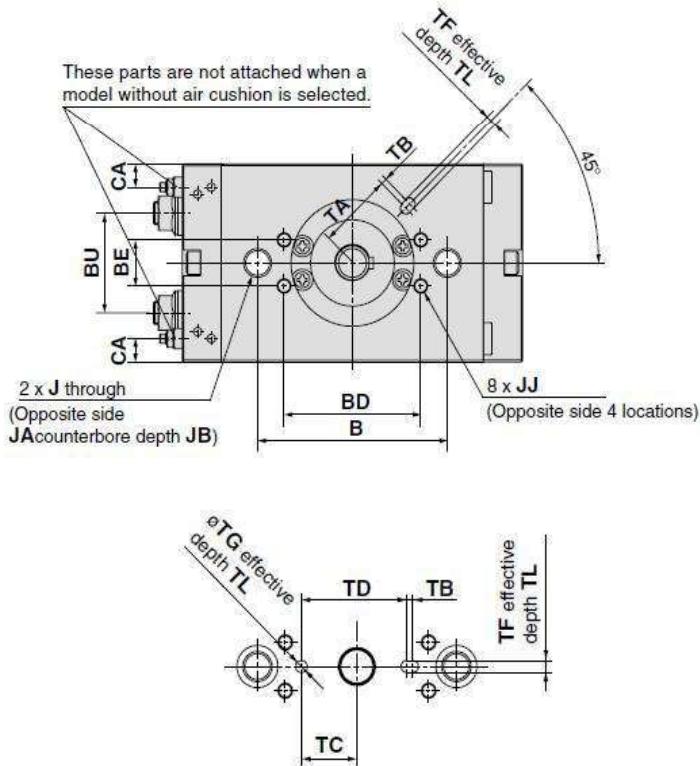
Bore : $\Phi 20, \Phi 30, \Phi 40$



Size	Rotating angle	A	AU*	B	BA	BB	BC	BD	BE	BU	CA	CB	D (g6)	DD (h9)	F	H	J	JA	JB
20	90°, 180°, 360°	63	(11)	50	14	34	14.5	—	—	30.4	7	4.7	10	25	2.5	30	M 8 x 1.25	11	6.5
30	90°, 180°, 360°	69	(11)	68	14	39	16.5	49	16	34.7	8.1	4.9	12	30	3	32	M10 x 1.5	14	8.5
40	90°, 180°, 360°	78	(13)	76	16	47	18.5	55	16	40.4	8.3	5.2	15	32	3	36	M10 x 1.5	14	8.6

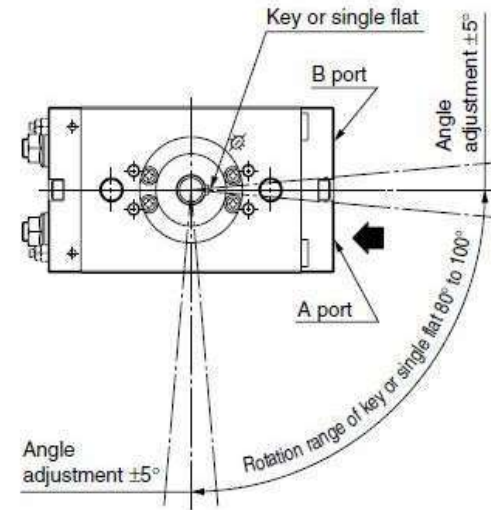
Size	Rotating angle	JJ	K	Q	S	W	Key dimensions		US	TA	TB	TC	TD	TF (H9)	TG (H9)	TL	UW	G	M	N	L
							b	I													
20	90°	—	—	—	104	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	180°	—	3	29	130	11.5	4 ⁰ _{-0.03}	20	59	24.5	1	13.5	27	4	4	2.5	74	8 ⁰ _{-0.1}	15	11	9.6 ⁰ _{-0.1}
	360°	—	—	—	180	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	90°	—	—	—	122	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	180°	M5 x 0.8 depth 6	4	33	153	13.5	4 ⁰ _{-0.03}	20	65	27	2	19	36	4	4	2.5	83	10 ⁰ _{-0.1}	18	13	11.4 ⁰ _{-0.1}
	360°	—	—	—	216	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	90°	—	—	—	139	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	180°	M6 x 1 depth 7	5	37	177	17	5 ⁰ _{-0.03}	25	73	32.5	2	20	39.5	5	5	3.5	93	11 ⁰ _{-0.1}	20	15	14 ⁰ _{-0.1}
	360°	—	—	—	253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* AU dimension is not the dimension at the time of shipment, since its dimension is for adjustment parts.
 ** In addition to Rc 1/8, G 1/8, NPT 1/8, NPTF 1/8 are also available. S: Upper 90°, Middle 180°, Lower 360°

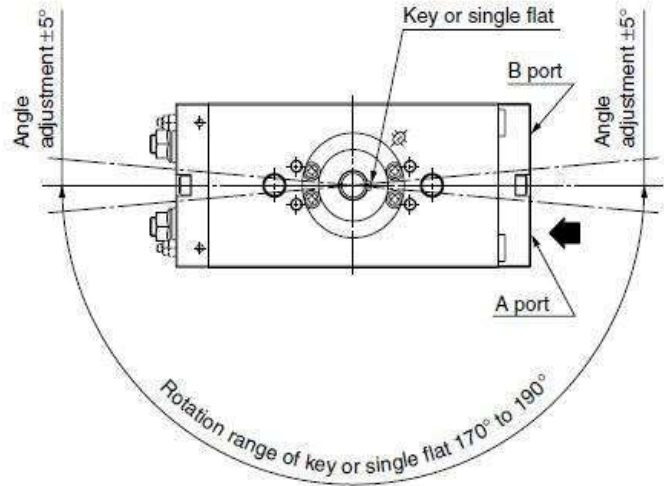


7. Rotation range:

Rotating angle: 90°



Rotating angle: 180°



Magnetically Coupled Rodless Cylinder

a) CY1B Series Type Rodless Cylinder



1. Ordering Code :

C Y 1 **B** **10** - **50**

Rodless cylinder type:

B: Basic type or Standard type

Bore of rodless cylinder

6: Φ6mm 10: Φ10mm 15: Φ15mm 20: Φ20mm
 25: Φ25mm 32: Φ32mm 40: Φ40mm 50: Φ50mm
 63: Φ63mm

Stroke of rodless cylinder

Refer to the standard stroke table shown below

2.Characteristics:

- 1) Save space, lightweight and has a wide range of applications.
- 2) Can be used in diversified environments because there is no external leakage
- 3) Long strokes available
- 4) NPT thread and G thread are available as standard

3.Specification:

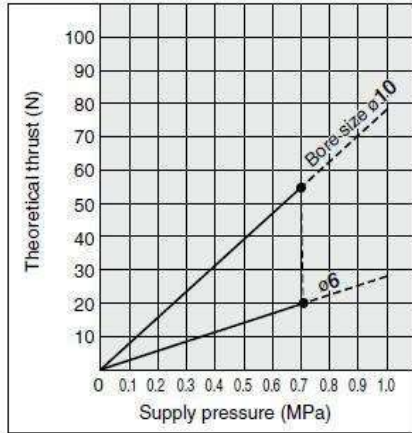
Bore size (mm)	6	10	15	20	25	32	40	50	63
Fluid	Air								
Proof pressure	1.05 MPa								
Max. operating pressure	0.7 MPa								
Min. operating pressure	0.16	0.16	0.16	0.16	0.15	0.14	0.12	0.12	0.12
Ambient and fluid temperature	-10 to 60°C (No freezing)								
Piston speed	50 to 500 mm/s								
Cushion	Rubber bumper								
Lubrication	Not required (Non-lube)								
Stroke length tolerance (mm)	0 to 250 st: $+1.0_0$, 251 to 1000 st: $+1.4_0$, 1001 st to: $+1.8_0$								
Mounting orientation	Horizontal, Inclined, Vertical (Note)								
Mounting nut (2 pcs.)	Standard equipment (accessory)								
Magnet holding force (N)	19.6	53.9	137	231	363	588	922	1471	2256

4. Standard Stroke:

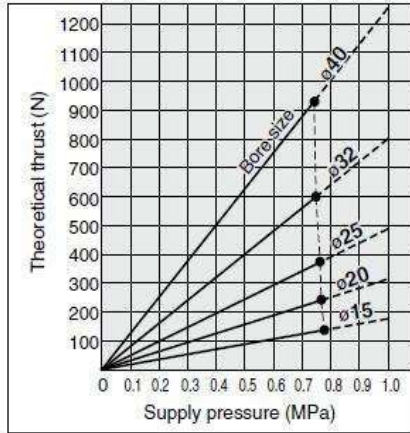
Bore size (mm)	Standard stroke (mm)	Maximum available stroke (mm)
6	50, 100, 150, 200	300
10	50, 100, 150, 200, 250, 300	500
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	1000
20	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	1500
25		3000
32		3000
40	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000	3000
50		5000
63		5000

5.Theoretical cylinder thrust:

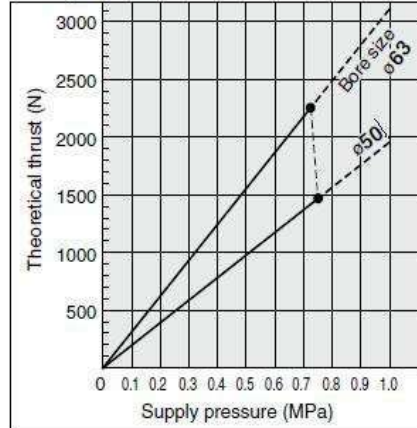
ø6, ø10



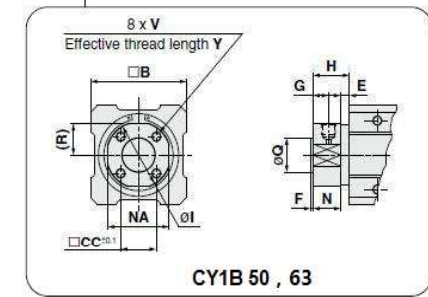
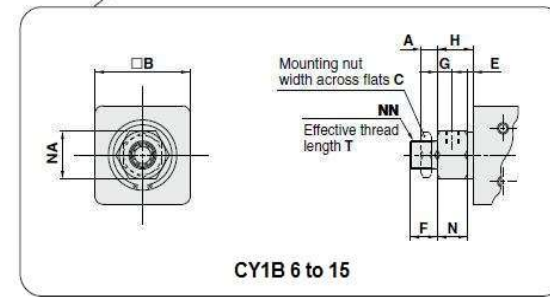
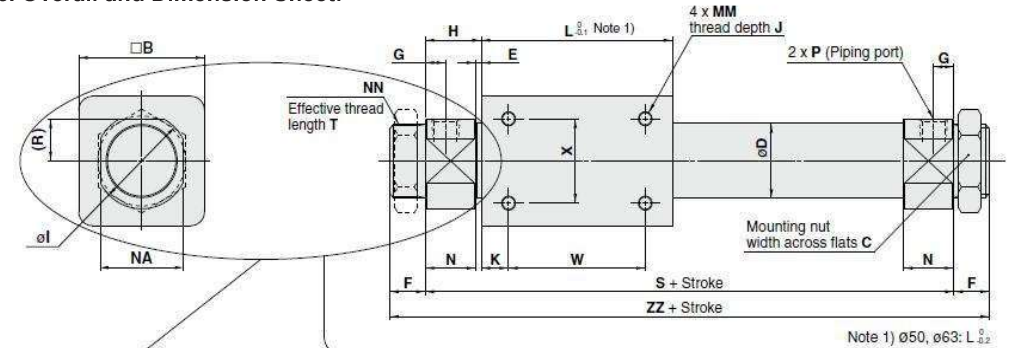
ø15, ø20, ø25, ø32, ø40



ø50, ø63

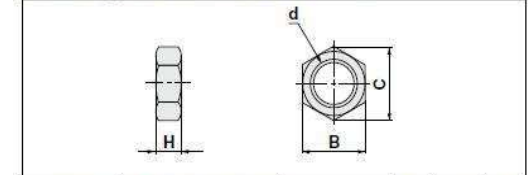


6. Overall and Dimension Sheet:



Model	A	B	C	CC	D	E	F	G	H	I	J	K	L	MM	N	NA	NN	Q	R	S	T	V
CY1B6	4	17	8	—	7.6	4	9	5	14	—	4.5	5	35	M3 x 0.5	10	14	M10 x 1	—	—	63	6.5	—
CY1B10	4	25	14	—	12	1.5	9	5	12.5	—	4.5	4	38	M3 x 0.5	11	14	M10 x 1	—	—	63	7.5	—
CY1B15	4	35	14	—	17	2	10	5.5	13	—	6	11	57	M4 x 0.7	11	17	M10 x 1	—	—	83	8	—
CY1B20	8	36	26	—	22.8	2	13	8	20	28	6	8	66	M4 x 0.7	15	24	M20 x 1.5	—	—	106	10	—
CY1B25	8	46	32	—	27.8	2	13	8	20.5	34	8	10	70	M5 x 0.8	15	30	M26 x 1.5	—	—	111	10	—
CY1B32	8	60	32	—	35	2	16	9	22	40	8	15	80	M6 x 1	17	36	M26 x 1.5	—	—	124	13	—
CY1B40	10	70	41	—	43	3	16	11	29	50	10	16	92	M6 x 1	21	46	M32 x 2	—	—	150	13	—
CY1B50	—	86	—	32	53	8	2	14	33	58.2	12	25	110	M8 x 1.25	25	55	—	30 ^{+0.007} _{-0.007}	—	176	—	M8 x 1.25
CY1B63	—	100	—	38	66	8	2	14	33	72.2	12	26	122	M8 x 1.25	25	69	—	32 ^{+0.007} _{-0.007}	—	188	—	M10 x 1.5

Mounting Nut/Included in the package (2 pcs).



Part no.	Applicable bore size (mm)	d	H	B	C
SNJ-006B	6	M6 x 1.0	4	8	9.2
SNJ-016B	10, 15	M10 x 1.0	4	14	16.2
SN-020B	20	M20 x 1.5	8	26	30
SN-032B	25, 32	M26 x 1.5	8	32	37
SN-040B	40	M32 x 2.0	10	41	47.3

Note) Mounting nuts are not available for ø50 and ø63.

b) CY1R Series Direct Mount Type Rodless Cylinder



1. Ordering Code :

C Y 1 R □ 25 - 300 □ M9BW

Rodless cylinder type:
R: Direct mount type

Piping type:
Blank: Both sides piping type
G: Centralized piping type
Type G (centralized piping) is not available for ø6.

Bore size:
6: Φ6mm 10: Φ10mm 15: Φ15mm 20: Φ20mm
25: Φ25mm 32: Φ32mm 40: Φ40mm 50: Φ50mm
63: Φ63mm

Stroke of rodless cylinder
Refer to the standard stroke table shown below

Switch rail:
Blank: With switch rail
N: Without switch rail

Auto switch type
Blank: Without auto switch (Built-in magnet)

2.Characteristics:

- 1) Save space, lightweight and has a wide range of applications.
- 2) Can be used in diversified environments because there is no external leakage
- 3) Long strokes available
- 4) NPT thread and G thread are available as standard

3. Applicable auto switch:

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage			Auto switch model	Lead wire length (m)				Pre-wired connector	Applicable load		
					DC	AC			0.5 (Nil)	1 (M)	3 (L)	5 (Z)				
Solid state auto switch	—	Grommet	No	3-wire (NPN)	24 V	5 V, 12 V	—	M9N	●	●	●	○	○	IC circuit	Relay, PLC	
				3-wire (PNP)				M9P	●	●	●	○	○			
	2-wire			M9B				●	●	●	○	○				
	3-wire (NPN)			M9NW				●	●	●	○	○				
	3-wire (PNP)			M9PW				●	●	●	○	○				
	2-wire			M9BW				●	●	●	○	○				
	Water resistant (2-color display)	Grommet	No	3-wire (NPN)	24 V	5 V, 12 V	—	M9NA*1	○	○	●	○	○	IC circuit	Relay, PLC	
				3-wire (PNP)				M9PA*1	○	○	●	○	○			
				2-wire				M9BA*1	○	○	●	○	○			
				2-wire				M9BA*1	○	○	●	○	○			
Reed auto switch	—	Grommet	Yes	3-wire (NPN equiv.)	24 V	5 V, 12 V	100 V 100 V or less	A96	●	—	●	—	—	IC circuit	Relay, PLC	
				2-wire				A93	●	●	●	●	—			—
								A90	●	—	●	—	—			—

4.Specification:

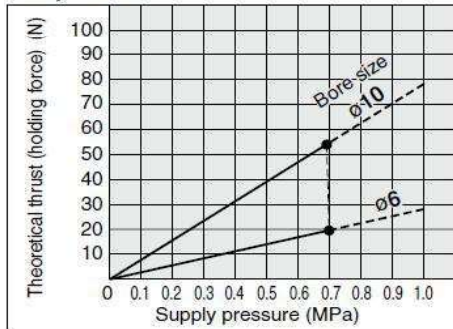
Bore size (mm)	6	10	15	20	25	32	40	50	63
Fluid	Air								
Proof pressure	1.05 MPa								
Max. operating pressure	0.7 MPa								
Min. operating pressure	0.16	0.16	0.16	0.16	0.15	0.14	0.12	0.12	0.12
Ambient and fluid temperature	-10 to 60°C (No freezing)								
Piston speed	50 to 500 mm/s								
Cushion	Rubber bumper								
Lubrication	Not required (Non-lube)								
Stroke length tolerance (mm)	0 to 250 st: $+1.0_0$, 251 to 1000 st: $+1.4_0$, 1001 st to: $+1.8_0$								
Mounting orientation	Horizontal, Inclined, Vertical ^{Note)}								
Mounting nut (2 pcs.)	Standard equipment (accessory)								
Magnet holding force (N)	19.6	53.9	137	231	363	588	922	1471	2256

5. Standard Stroke:

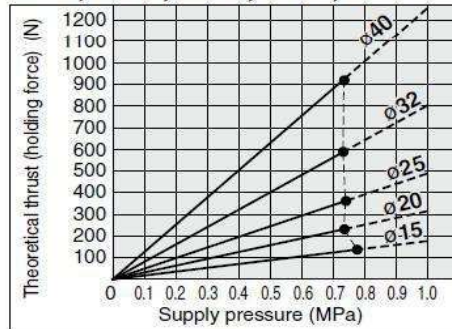
Bore size (mm)	Standard stroke (mm)	Max. stroke without switch (mm)	Max. stroke with switch (mm)
6	50, 100, 150, 200	300	300
10	50, 100, 150, 200, 250, 300	500	500
15	50, 100, 150, 200, 250, 300 350, 400, 450, 500	1000	750
20	100, 150, 200, 250, 300, 350 400, 450, 500, 600, 700, 800	1500	1000
25			1200
32			2000
40			
50			
63			

6.Theoretical cylinder thrust:

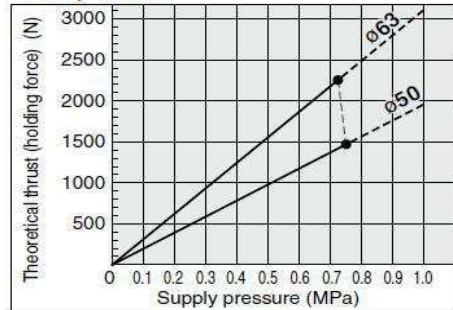
ø6, ø10



ø15, ø20, ø25, ø32, ø40

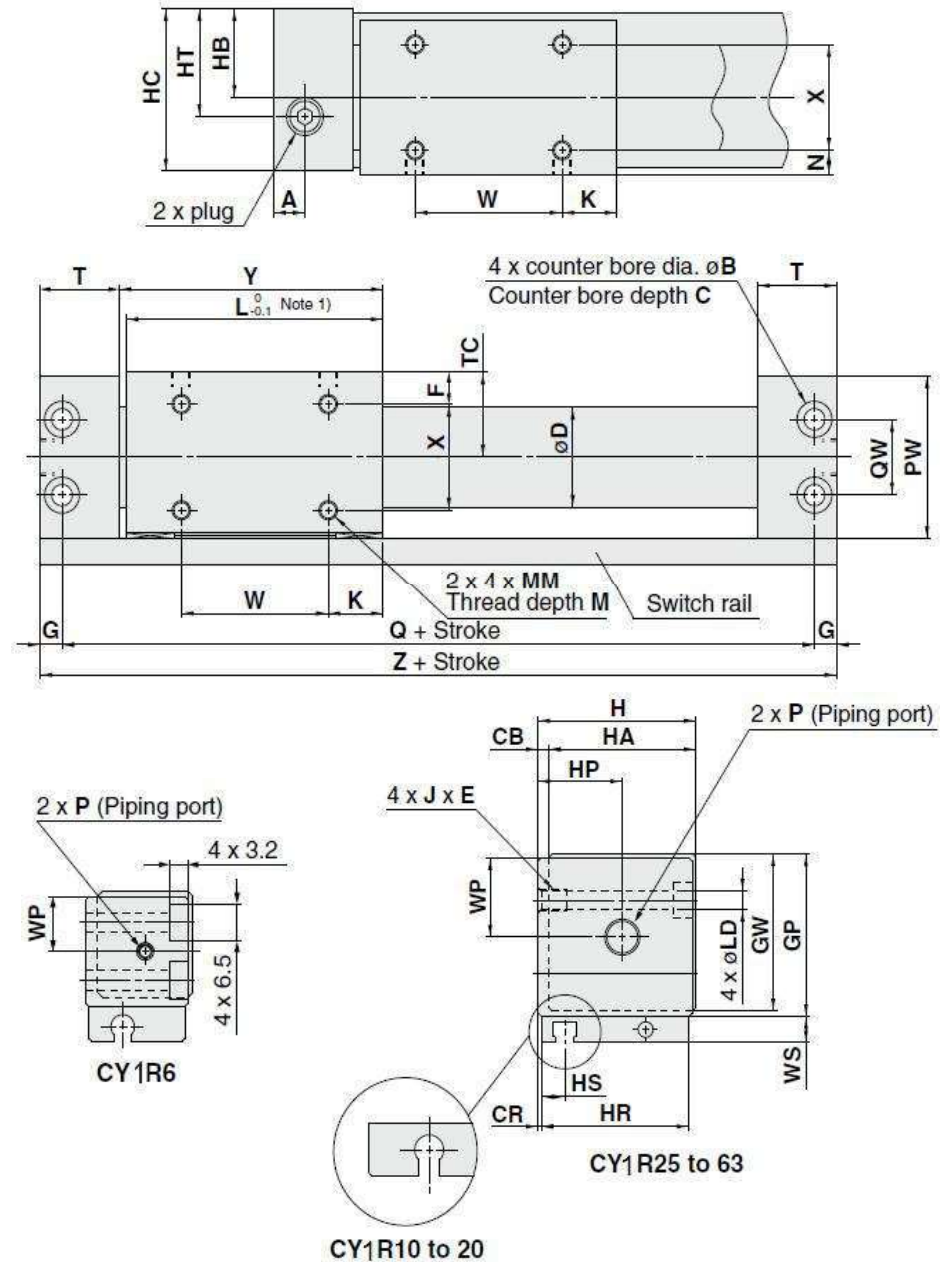


ø50, ø63



7. Overall and Dimension Sheet:

Both sides piping type(CY1R): $\Phi 6 \sim \Phi 63$

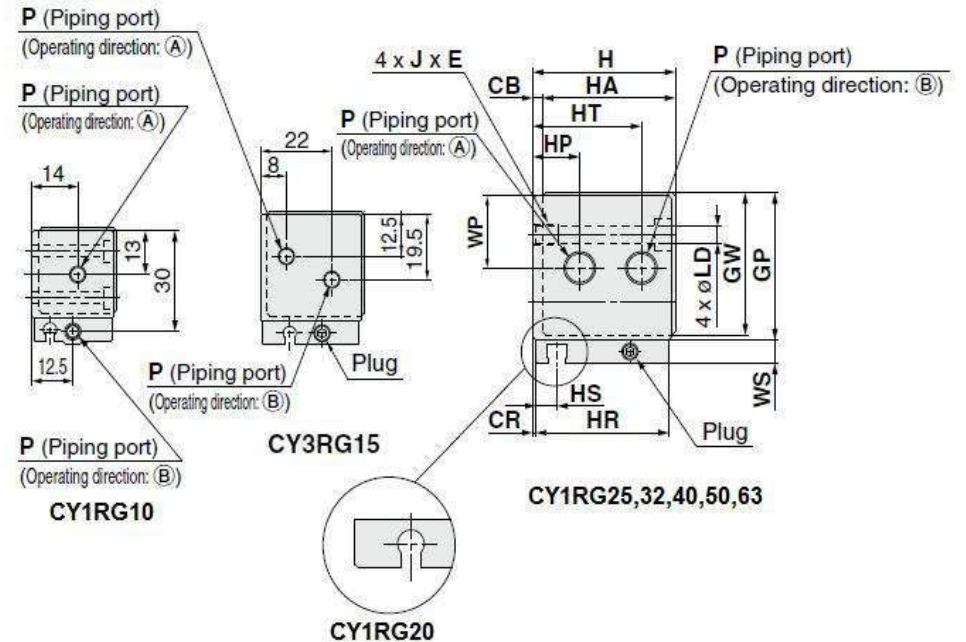
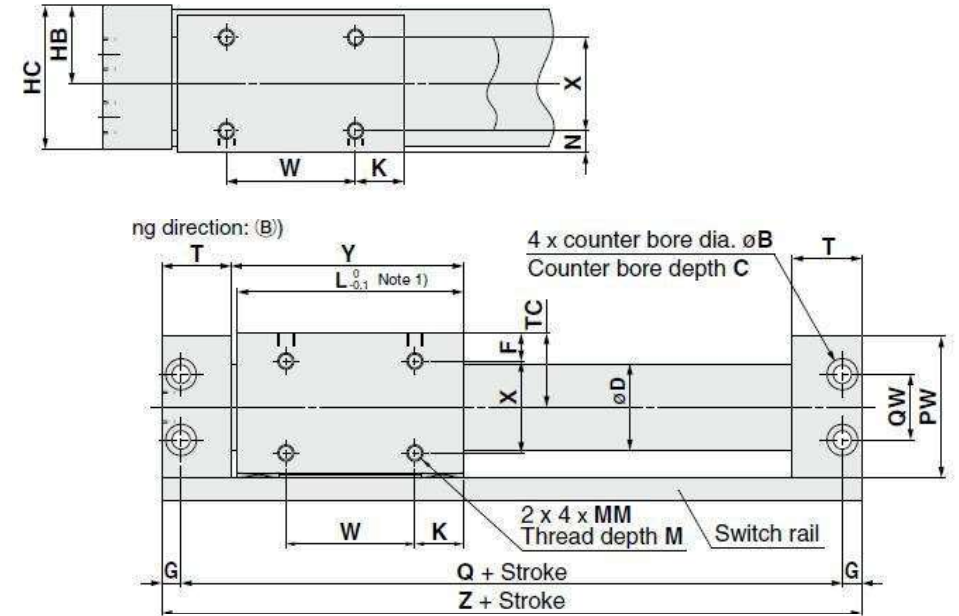


Centralized piping type(CY1RG): $\phi 10 \sim \phi 63$

Model	A	B	C	CB	CR	D	F	G	GP	GW	H	HA	HB	HC	HP	HR	HS	HT	J x E	K
CY1R6	9	6.5	3.2	2	0.5	7.6	5.5	4	20	18.5	19	17	10.5	18	9	17	6	7	M4 x 0.7 x 6	7
CY1R10	9	6.5	3.2	2	0.5	12	6.5	4	27	25.5	26	24	14	25	14	24	5	14	M4 x 0.7 x 6	9
CY1R15	10.5	8	4.2	2	0.5	17	8	5	33	31.5	32	30	17	31	17	30	8.5	17	M5 x 0.8 x 7	14
CY1R20	9	9.5	5.2	3	1	22.8	9	6	39	37.5	39	36	21	38	24	36	7.5	24	M6 x 1 x 8	11
CY1R25	8.5	9.5	5.2	3	1	27.8	8.5	6	44	42.5	44	41	23.5	43	23.5	41	6.5	23.5	M6 x 1 x 8	15
CY1R32	10.5	11	6.5	3	1.5	35	10.5	7	55	53.5	55	52	29	54	29	51	7	29	M8 x 1.25 x 10	13
CY1R40	10	11	6.5	5	2	43	13	7	65	63.5	67	62	36	66	36	62	8	36	M8 x 1.25 x 10	15
CY1R50	14	14	8.2	5	2	53	17	8.5	83	81.5	85	80	45	84	45	80	9	45	M10 x 1.5 x 15	25
CY1R63	15	14	8.2	5	3	66	18	8.5	95	93.5	97	92	51	96	51	90	9.5	51	M10 x 1.5 x 15	24

Model	L	LD	M	MM	N	PW	Q	QW	T	TC	W	WP	WS	X	Y	Z
CY1R6	34	3.5	3.5	M3 x 0.5	3.5	19	64	10	17.5	10.5	20	9.5	6	10	35.5	72
CY1R10	38	3.5	4	M3 x 0.5	4.5	26	68	14	17.5	14	20	13	8	15	39.5	76
CY1R15	53	4.3	5	M4 x 0.7	6	32	84	18	19	17	25	16	7	18	54.5	94
CY1R20	62	5.4	5	M4 x 0.7	7	38	95	17	20.5	20	40	19	7	22	64	107
CY1R25	70	5.4	6	M5 x 0.8	6.5	43	105	20	21.5	22.5	40	21.5	7	28	72	117
CY1R32	76	7	7	M6 x 1	8.5	54	116	26	24	28	50	27	7	35	79	130
CY1R40	90	7	8	M6 x 1	11	64	134	34	26	33	60	32	7	40	93	148
CY1R50	110	8.6	10	M8 x 1.25	15	82	159	48	30	42	60	41	10	50	113	176
CY1R63	118	8.6	10	M8 x 1.25	16	94	171	60	32	48	70	47	10	60	121	188

Model	P (Piping port)		
	NII	TN	TF
CY1R6	M5 x 0.8	—	—
CY1R10	M5 x 0.8	—	—
CY1R15	M5 x 0.8	—	—
CY1R20	Rc 1/8	NPT 1/8	G 1/8
CY1R25	Rc 1/8	NPT 1/8	G 1/8
CY1R32	Rc 1/8	NPT 1/8	G 1/8
CY1R40	Rc 1/4	NPT 1/4	G 1/4
CY1R50	Rc 1/4	NPT 1/4	G 1/4
CY1R63	Rc 1/4	NPT 1/4	G 1/4



(mm)

Model	B	C	CB	CR	D	F	G	GP	GW	H	HA	HB	HC	HP	HR	HS	HT	J x E	K	L
CY1RG10	6.5	3.2	2	0.5	12	6.5	4	27	25.5	26	24	14	25	—	24	5	—	M4 x 0.7 x 6	9	38
CY1RG15	8	4.2	2	0.5	17	8	5	33	31.5	32	30	17	31	—	30	8.5	—	M5 x 0.8 x 7	14	53
CY1RG20	9.5	5.2	3	1	22.8	9	6	39	37.5	39	36	21	38	11	36	7.5	28	M6 x 1 x 8	11	62
CY1RG25	9.5	5.2	3	1	27.8	8.5	6	44	42.5	44	41	23.5	43	14.5	41	6.5	33.5	M6 x 1 x 8	15	70
CY1RG32	11	6.5	3	1.5	35	10.5	7	55	53.5	55	52	29	54	20	51	7	41	M8 x 1.25 x 10	13	76
CY1RG40	11	6.5	5	2	43	13	7	65	63.5	67	62	36	66	25	62	8	50	M8 x 1.25 x 10	15	90
CY1RG50	14	8.2	5	2	53	17	8.5	83	81.5	85	80	45	84	32	80	9	56	M10 x 1.5 x 15	25	110
CY1RG63	14	8.2	5	3	66	18	8.5	95	93.5	97	92	51	96	35	90	9.5	63.5	M10 x 1.5 x 15	24	118

Model	LD	M	MM	N	PW	Q	QW	T	TC	W	WP	WS	X	Y	Z
CY1RG10	3.5	4	M3 x 0.5	4.5	26	68	14	17.5	14	20	13	8	15	39.5	76
CY1RG15	4.3	5	M4 x 0.7	6	32	84	18	19	17	25	16	7	18	54.5	94
CY1RG20	5.4	5	M4 x 0.7	7	38	95	17	20.5	20	40	19	7	22	64	107
CY1RG25	5.4	6	M5 x 0.8	6.5	43	105	20	21.5	22.5	40	21.5	7	28	72	117
CY1RG32	7	7	M6 x 1	8.5	54	116	26	24	28	50	27	7	35	79	130
CY1RG40	7	8	M6 x 1	11	64	134	34	26	33	60	32	7	40	93	148
CY1RG50	8.6	10	M8 x 1.25	15	82	159	48	30	42	60	41	10	50	113	176
CY1RG63	8.6	10	M8 x 1.25	16	94	171	60	32	48	70	47	10	60	121	188

Model	P (Piping port)		
	Nil	TN	TF
CY1RG10	M5 x 0.8	—	—
CY1RG15	M5 x 0.8	—	—
CY1RG20	Rc 1/8	NPT 1/8	G 1/8
CY1RG25	Rc 1/8	NPT 1/8	G 1/8
CY1RG32	Rc 1/8	NPT 1/8	G 1/8
CY1RG40	Rc 1/4	NPT 1/4	G 1/4
CY1RG50	Rc 1/4	NPT 1/4	G 1/4
CY1RG63	Rc 1/4	NPT 1/4	G 1/4

c) CY1S Series Slider Type (Slide bearing) Rodless Cylinder



1. Ordering Code :

CY1
S
□
25
-
300
□
Z
M9BW

Slider type: S
 S: Slide bearing

Piping type: □
 Blank: Bilateral piping type
 G: Centralized piping type

Bore size: 25
 6: Φ6mm 10: Φ10mm 15: Φ15mm 20: Φ20mm
 25: Φ25mm 32: Φ32mm 40: Φ40mm

Stroke of rodless cylinder: 300
 Refer to the standard stroke table shown below

Stopper type: □
 Blank: Bumper bolt (resin tipped), Mounted on both sides
 B: Shock absorber/Adjustment bolt (metal ended): Mounted on both sides
 BS: Shock absorber/Adjustment bolt (metal ended):Plate A side
 Bumper bolt (resin tipped):Plate B side or C side

Auto switch type: □
 Blank: Without auto switch (Built-in magnet)
 *Note: without air cushion for Φ10, Φ15 actuator

2.Characteristics:

- 1) Reduced in weight
- 2) Reduced in length
- 3) Lube-retainers are mounted on the internal and external surfaces of the cylinder tube to maintain the lubrication.
- 4) Adjustment bolt improves stroke accuracy/repeatability. Stroke position can be maintained with the adjustment bolt positioned next to the shock absorber, so stroke adjustment is not necessary.
- 5) NPT thread and G thread are available as standard

3.Specification:

Bore size (mm)	6	10	15	20	25	32	40
Fluid	Air						
Proof pressure	1.05 MPa						
Maximum operating pressure	0.7 MPa						
Minimum operating pressure	0.18 MPa						
Ambient and fluid temperature	-10 to 60°C (No freezing)						
Piston speed*	50 to 400 mm/s						
Cushion	Rubber bumper/Shock absorber						
Lubrication	Non-lube						
Stroke length tolerance (mm)	0 to 250 st: $^{+1.0}_0$, 251 to 1000 st: $^{+1.4}_0$, 1001st or longer: $^{+1.8}_0$						
Magnetic holding force (N)	19.6	53.9	137	231	363	588	922

4. Standard Stroke:

Bore size (mm)	Standard stroke (mm)	Maximum manufacturable stroke (mm)
6	50, 100, 150, 200	300
10	50, 100, 150, 200, 250, 300	500
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	750
20	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	1000
25		1500
32		1500
40	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000	1500

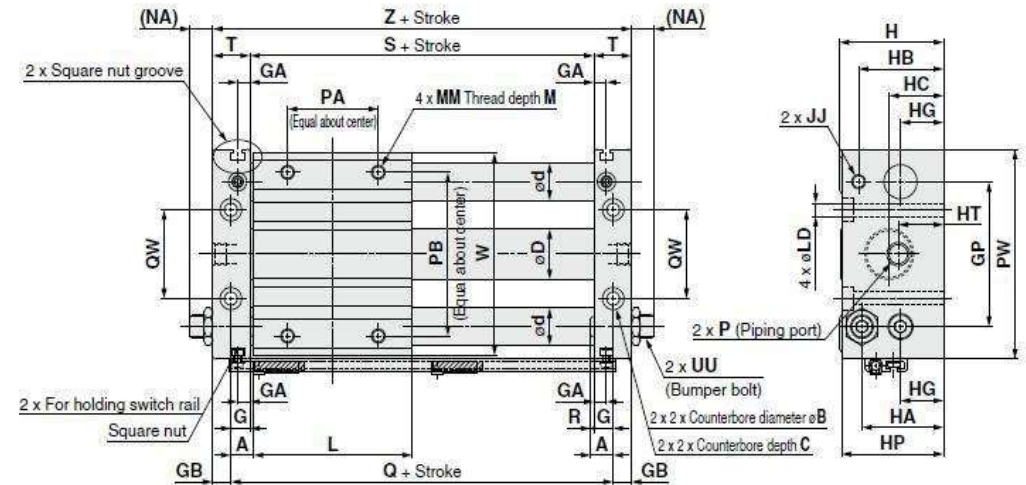
5. Shock absorber specification:

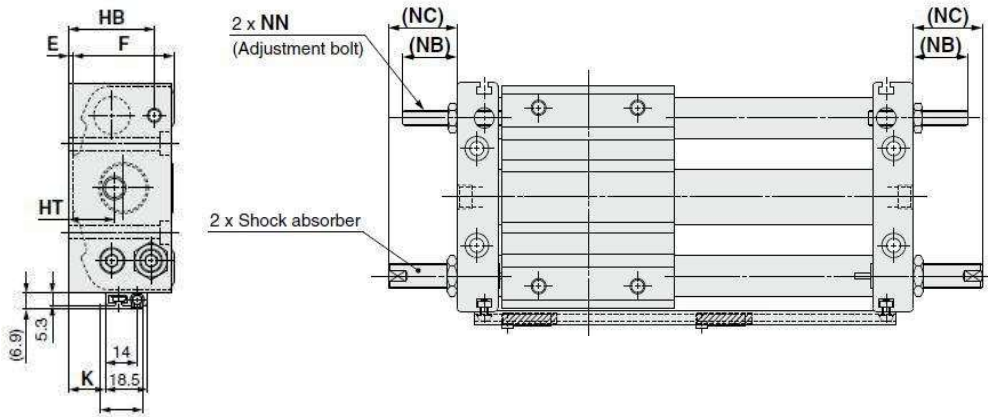
Applicable cylinder	CY1S□6	CY1S□10	CY1S□15	CY1S□20	CY1S□25	CY1S□32	CY1S□40
Shock absorber model	RJ0604	RJ0806H	RJ0806L	RJ1007L	RJ1412L	RJ2015H	RJ2015L
Max. absorbed energy (J)	0.5	1		3	10	30	
Stroke absorption (mm)	4	6		7	12	15	
Collision speed (m/s)	0.05 to 1	0.05 to 2	0.05 to 1	0.05 to 1	0.05 to 1	0.05 to 2	0.05 to 1
Max. operating frequency (cycle/min)	80	80		70	45	25	
Max. allowable thrust (N)	150	245		422	814	1961	
Ambient temperature (°C)	-10 to 60°C (No freezing)						

(Note) The maximum absorbed energy and maximum operating frequency was measured at ordinary temperature (approximately 20 to 25°C.)

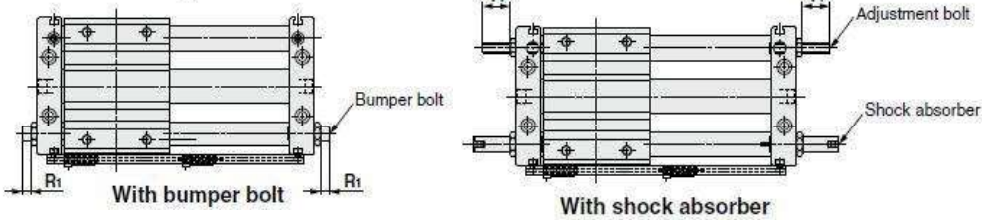
6. Overall and Dimension Sheet:

Bilateral piping type(CY1S)

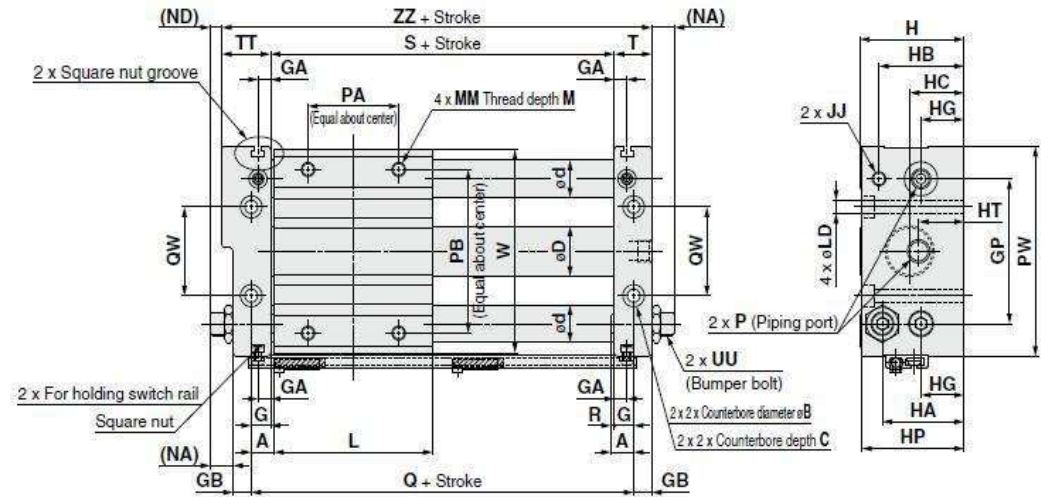




Amount of stroke adjustment



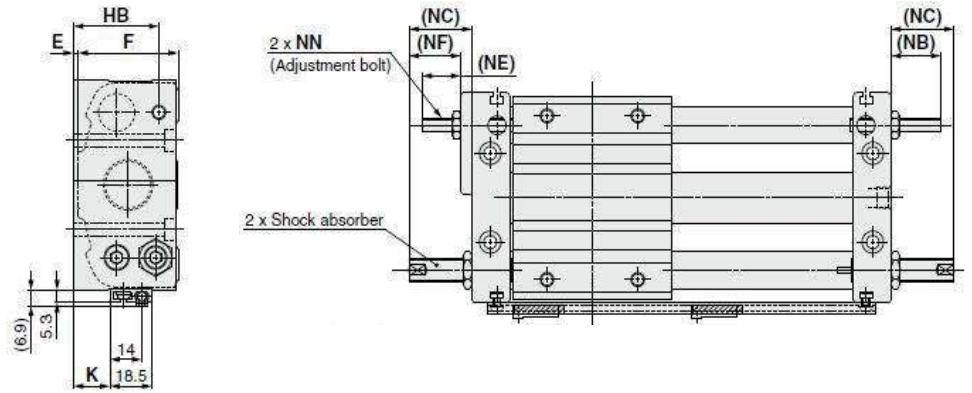
Centralized piping type(CY1SG)



Model	A	B	C	D	d	E	F	G	GA	GB	GP	H	HA	HB	HC	HG	HP	HT	JJ	K	L	LD	M	MM	NA	NB	NC
CY1S6-Z	6	6.5	3.3	7.8	8	2	25	5	5	5	30	27	20.5	20.5	15.5	8	26	15.5	M4 x 0.7	3	40	3.5	6	M4 x 0.7	11	14	19
CY1S10-Z	7.5	8	4.4	12	10	2.5	31.5	6.5	5	6	40	34	25	27	17	13.5	33	17	M4 x 0.7	6	45	4.6	6	M4 x 0.7	10.5	16.5	28
CY1S15-Z	7.5	9.5	5.4	16.6	12	2	38	6.5	5	6	52	40	28	29.5	20.5	15	39	20.5	M4 x 0.7	11	60	5.8	8	M5 x 0.8	10.5	16.5	28
CY1S20-Z	10	9.5	5.4	21.6	16	2	44	8.5	5.5	8	62	46	36	37.5	24	19	45	20	M6 x 1	16	70	5.8	10	M6 x 1	10.5	22	28
CY1S25-Z	10	11	6.5	26.4	16	2	52	8.5	5.5	8	70	54	40.5	40.5	27.5	21.5	53	21	M6 x 1	20	70	7	10	M6 x 1	12.5	22	49
CY1S32-Z	12.5	14	8.6	33.6	20	2	64	9.5	5.5	9	86	66	50	50	33	26	64	24	M8 x 1.25	26	85	9	12	M8 x 1.25	11.5	23.5	52
CY1S40-Z	12.5	14	8.6	41.8	25	2	74	10.5	5.5	10	104	76	55.5	55.5	38	27	74	27	M8 x 1.25	28	95	9	12	M8 x 1.25	10.5	22.5	51

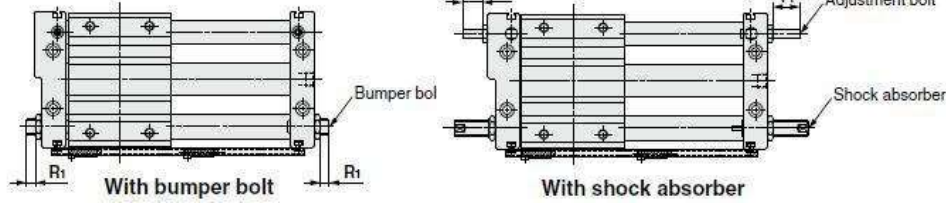
Model	NN	P			PA	PB	PW	Q	QW	R	R1	Bumper bolt adjustable range Both sides Rh x 2	S	T	UU	W	Y1	Adjustment bolt adjustable range Both sides Y1 x 2	Z	Shock absorber
		NH	TN	TF																
CY1S6-Z	M4 x 0.7	M3x0.5	—	—	25	25	49	52	16	1	7.5	15	42	10	M6 x 0.75	46	11.5	23	62	RJ0604N
CY1S10-Z	M4 x 0.7	M5x0.8	—	—	25	38	61	60	24	1	5.5	11	47	12.5	M8 x 1	58	14	28	72	RJ0806HN
CY1S15-Z	M4 x 0.7	M5x0.8	—	—	30	50	76	75	30	1	5.5	11	62	12.5	M8 x 1	73	14	28	87	RJ0806LN
CY1S20-Z	M6 x 1	Rc1/8	NPT1/8	G1/8	40	70	90	90	38	1.5	4.5	9	73	16.5	M10 x 1	87	18.5	37	106	RJ1007LN
CY1S25-Z	M6 x 1	Rc1/8	NPT1/8	G1/8	40	70	99	90	42	1.5	4.5	9	73	16.5	M14 x 1.5	96	18.5	37	106	RJ1412LN
CY1S32-Z	M8 x 1.25	Rc1/8	NPT1/8	G1/8	40	75	119	110	50	3	5.5	11	91	18.5	M20 x 1.5	116	18.5	37	128	RJ2015HN
CY1S40-Z	M8 x 1.25	Rc1/4	NPT1/4	G1/4	65	105	142	120	64	2	4.5	9	99	20.5	M20 x 1.5	139	17.5	35	140	RJ2015LN

Note) The above figures show the product with auto switches. Auto switch and switch spacer are shipped together with the product, but not assembled.



d) CY1L Series Slider Type (Ball bushing bearing) Rodless Cylinder

Amount of stroke adjustment



1. Ordering Code :

C Y 1 L 25 - 300 □ A73

Slider type:

L: Ball bushing bearing

Bore size:

6: Φ6mm 10: Φ10mm 15: Φ15mm 20: Φ20mm
 25: Φ25mm 32: Φ32mm 40: Φ40mm

Stroke of rodless cylinder:

Refer to the standard stroke table shown below

Stopper type:

Blank: Bumper bolt (resin tipped), Mounted on both sides
 B: Shock absorber/Adjustment bolt (metal ended): Mounted on both sides
 BS: Shock absorber/Adjustment bolt (metal ended):Plate A side
 Bumper bolt (resin tipped):Plate B side or C side

Auto switch type

Blank: Without auto switch (Built-in magnet)

Model	(mm)																	NA	NB	NC	ND	NE							
	A	B	C	D	d	E	F	G	GA	GB	GP	H	HA	HB	HC	HG	HP						HT	JJ	K	L	LD	M	MM
CY1SG6-Z	6	6.5	3.3	7.6	8	2	25	5	5	5	30	27	20.5	20.5	15.5	8	26	15.5	M4 x 0.7	3	40	3.5	6	M4 x 0.7	11	14	19	7	10
CY1SG10-Z	7.5	8	4.4	12	10	2.5	31.5	6.5	5	6	40	34	25	27	17	13.5	33	17	M4 x 0.7	6	45	4.6	6	M4 x 0.7	10.5	16.5	28	6.5	12.5
CY1SG15-Z	7.5	9.5	5.4	16.6	12	2	38	6.5	5	6	52	40	28	29.5	20.5	15	39	20.5	M4 x 0.7	11	60	5.8	8	M5 x 0.8	10.5	16.5	28	5.5	11.5
CY1SG20-Z	10	9.5	5.4	21.6	16	2	44	8.5	5.5	8	62	46	36	37.5	24	19	45	20	M6 x 1	16	70	5.8	10	M6 x 1	10.5	22	28	5.5	17
CY1SG25-Z	10	11	6.5	26.4	16	2	52	8.5	5.5	8	70	54	40.5	40.5	27.5	21.5	53	21	M6 x 1	20	70	7	10	M6 x 1	12.5	22	49	7.5	17
CY1SG32-Z	12.5	14	8.6	33.6	20	2	64	9.5	5.5	9	86	66	50	50	33	26	64	24	M8 x 1.25	26	85	9	12	M8 x 1.25	11.5	23.5	52	5.5	17.5
CY1SG40-Z	12.5	14	8.6	41.6	25	2	74	10.5	5.5	10	104	76	55.5	55.5	38	27	74	27	M8 x 1.25	28	95	9	12	M8 x 1.25	10.5	22.5	51	4.5	16.5

Model	NF	NN	P			PA	PB	PW	Q	QW	R	R1	Bumper bolt adjustable range (both sides: R1 x 2)	S	T	TT	UU	W	Y1	Y2	Adjustment bolt adjustable range (both sides: Y1 - Y2)	ZZ	Shock absorber
			NII	TN	TF																		
CY1SG6-Z	15	M4 x 0.7	M3 x 0.5	—	—	25	25	49	52	16	1	7.5	15	42	10	14	M6 x 0.75	46	11.5	7.5	19	66	RJ0804N
CY1SG10-Z	24	M4 x 0.7	M5 x 0.8	—	—	25	38	61	60	24	1	5.5	11	47	12.5	16.5	M8 x 1	58	14	10	24	76	RJ0806HN
CY1SG15-Z	23	M4 x 0.7	M5 x 0.8	—	—	30	50	76	75	30	1	5.5	11	62	12.5	17.5	M8 x 1	73	14	9	23	92	RJ0806LN
CY1SG20-Z	23	M6 x 1	Rc1/8	NPT1/8	G1/8	40	70	90	90	38	1.5	4.5	9	73	16.5	21.5	M10 x 1	87	18.5	13.5	32	111	RJ1007LN
CY1SG25-Z	44	M6 x 1	Rc1/8	NPT1/8	G1/8	40	70	99	90	42	1.5	4.5	9	73	16.5	21.5	M14 x 1.5	96	18.5	13.5	32	111	RJ1412LN
CY1SG32-Z	46	M8 x 1.25	Rc1/8	NPT1/8	G1/8	40	75	119	110	50	3	5.5	11	91	18.5	24.5	M20 x 1.5	116	18.5	12.5	31	134	RJ2015HN
CY1SG40-Z	45	M8 x 1.25	Rc1/4	NPT1/4	G1/4	65	105	142	120	64	2	4.5	9	99	20.5	26.5	M20 x 1.5	139	17.5	11.5	29	146	RJ2015LN

Note) The above figures show the product with auto switches. Auto switch and switch spacer are shipped together with the product, but not assembled.

2.Characteristics:

- 1) Hollow shafts are used, and centralization of ports on one side makes piping easy.
- 2) Auto switches can be mounted through the use of special switch rails.
- 3) Impacts at stroke end due to high speed use can be absorbed, and fine adjustment of the stroke is possible.
- 4) NPT thread and G thread are available as standard

3.Specification:

Bore size (mm)	6	10	15	20	25	32	40	
Fluid	Air							
Proof pressure	1.05 MPa							
Maximum operating pressure	0.7 MPa							
Minimum operating pressure	0.18 MPa							
Ambient and fluid temperature	-10 to 60°C (No freezing)							
Piston speed *	50 to 500 mm/s							
Cushion	Rubber bumper/Shock absorber							
Lubrication	Not required (Non-lube)							
Stroke length tolerance (mm)	0 to 250 st: $^{+1.0}_0$, 251 to 1000 st: $^{+1.4}_0$, 1001 st and up: $^{+1.8}_0$							
Holding force (N)	Type H	19.6	53.9	137	231	363	588	922
	Type L	-	-	81.4	154	221	358	569
Standard equipment	Auto switch mounting rail							

4. Standard Stroke:

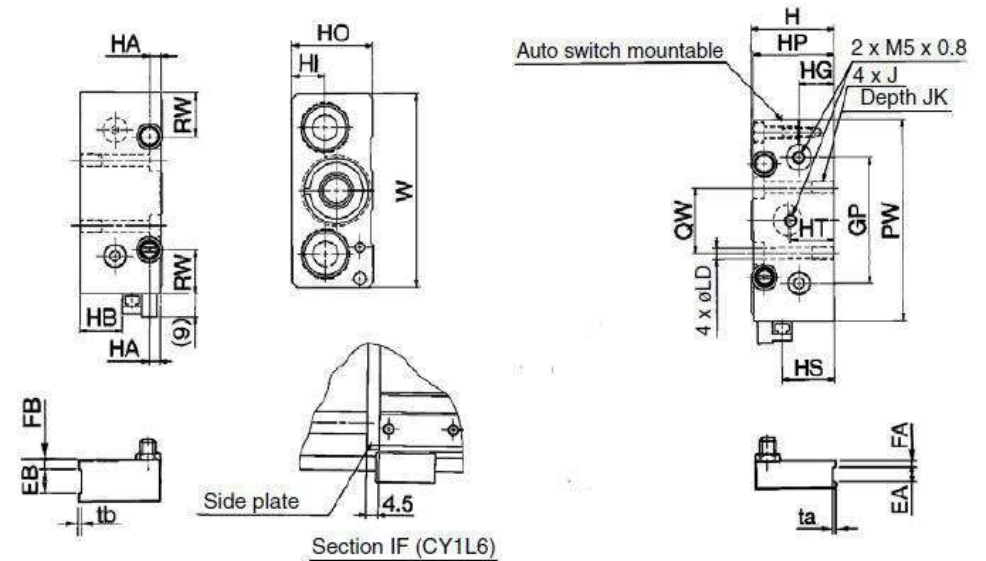
Bore size (mm)	Standard stroke (mm)	Maximum available stroke (mm)
6	50, 100, 150, 200	300
10	50, 100, 150, 200, 250, 300	500
15	50, 100, 150, 200, 250, 300, 350 400, 450, 500	750
20	100, 150, 200, 250, 300, 350 400, 450, 500, 600, 700, 800	1000
25		1500
32		1500
40	100, 150, 200, 250, 300, 350 400, 450, 500, 600, 700, 800 900, 1000	1500

5. Shock absorber specification:

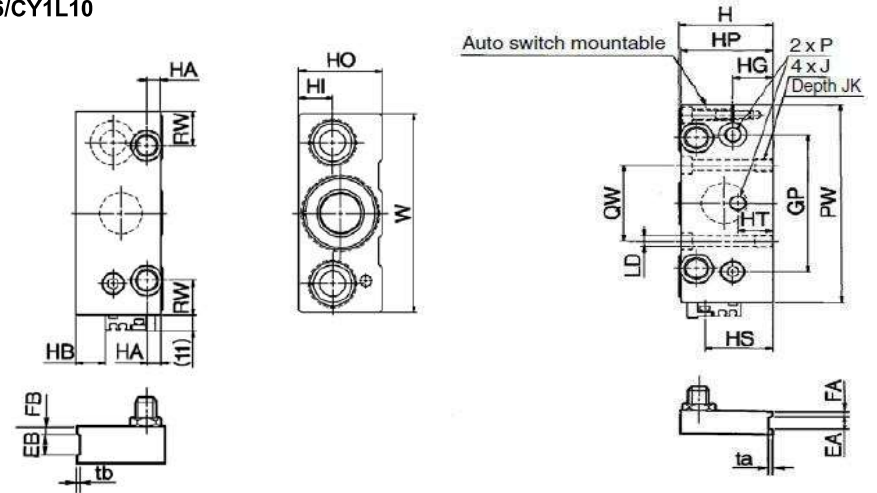
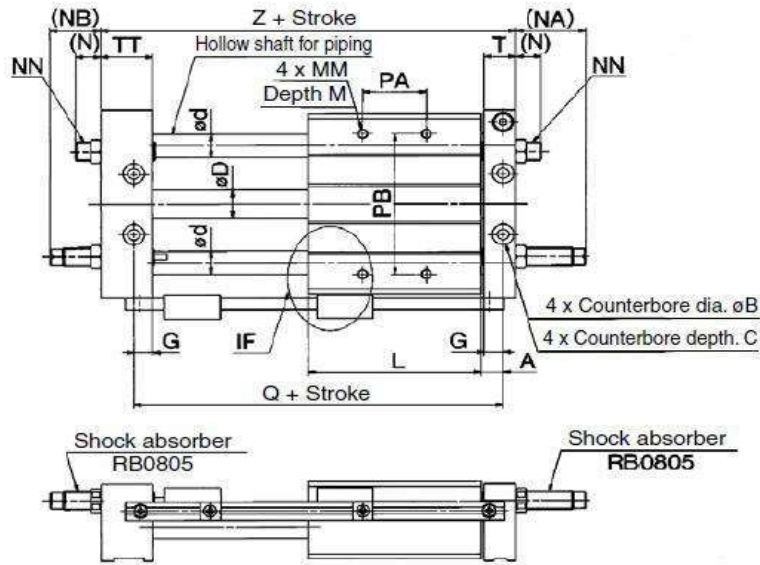
Applicable rodless cylinder	6 CY1L10 15	CY1L20	CY1L25	CY1L ³² ₄₀	
Shock absorber model	RB0805	RB1006	RB1411	RB2015	
Maximum energy absorption: (J)	0.98	3.92	14.7	58.8	
Stroke absorption: (mm)	5	6	11	15	
Collision speed: (m/s)	0.05 to 5				
Max. operating frequency: (cycle/min) *	80	70	45	25	
Ambient temperature range	-10 to 80 °C				
Spring force: (N)	Extended	1.96	4.22	6.86	8.34
	Retracted	3.83	6.18	15.3	20.50

6. Overall and Dimension Sheet:

CY1L6/CY1L10



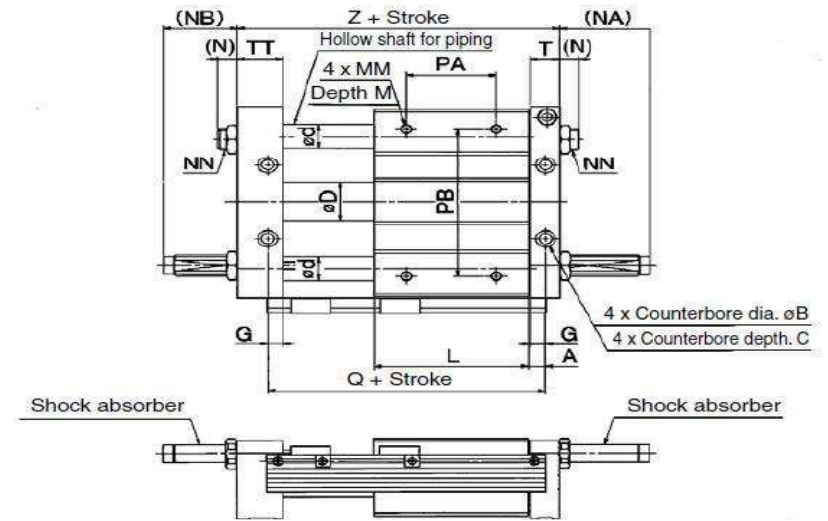
CY1L6/CY1L10



(mm)

Model	A	B	C	D	d	EA	EB	FA	FB	G	GP	H	HA	HB	HG	HI	HO	HP	HS	HT	J	JK
CY1L6	7	6.5	3	7.6	8	—	—	—	—	6	36	27	5	10	11	9	25	26	14	16	M4 x 0.7	6.5
CY1L10	8.5	8	4	12	10	6	12	3	5	7.5	50	34	6	17.5	14.5	13.5	33	33	21.5	18	M5 x 0.8	9.5

Model	L	LD	M	MM	(N)	(NA)	(NB)	NN	PA*	PB	PW	Q	QW	RW	T	TT	ta	tb	W	Z
CY1L6	40	3.5	6	M4 x 0.7	11	30	24	M8 x 1.0	24	40	60	54	20	12	10	16	—	—	56	68
CY1L10	68	4.3	8	M4 x 0.7	10.5	27	19	M8 x 1.0	30	60	80	85	26	17.5	12.5	20.5	0.5	1.0	77	103



(mm)

Model	A	B	C	D	d	EA	EB	FA	FB	G	GP	H	HA	HB	HG	HI	HO	HP	HS	HT	J	JK	L	LD
CY1L15	7.5	9.5	5	16.6	12	6	13	3	6	6.5	65	40	6.5	4	16	14	38	39	25	16	M6 x 1.0	9.5	75	5.6
CY1L20	9.5	9.5	5.2	21.6	16	—	—	—	—	8.5	80	46	9	10	18	16	44	45	31	20	M6 x 1.0	10	86	5.6
CY1L25	9.5	11	6.5	26.4	16	8	14	4	7	8.5	90	54	9	18	23	21	52	53	39	20	M8 x 1.25	10	86	7
CY1L32	10.5	14	8	33.6	20	8	16	5	7	9.5	110	66	12	26.5	26.5	24.5	64	64	47.5	25	M10 x 1.5	15	100	9.2
CY1L40	11.5	14	8	41.6	25	10	20	5	10	10.5	130	78	12	35	30.5	28.5	76	74	56	30	M10 x 1.5	15	136	9.2

Model	M	MM	(N)	(NA)	(NB)	NN	P	PA*	PB	PW	Q	QW	RW	T	ta	tb	TT	W	Z	Shock absorber
CY1L15	8	M5 x 0.8	8.5	27	17	M8 x 1.0	M5 x 0.8	45	70	95	90	30	15	12.5	0.5	1.0	22.5	92	112	RB0805
CY1L20	10	M6 x 1.0	10.5	29	20	M10 x 1.0	Rc 1/8	50	90	120	105	40	28	16.5	—	—	25.5	117	130	RB1006
CY1L25	10	M6 x 1.0	12.5	49	40	M14 x 1.5	Rc 1/8	60	100	130	105	50	22	16.5	0.5	1.0	25.5	127	130	RB1411
CY1L32	12	M8 x 1.25	13.5	52	42	M20 x 1.5	Rc 1/8	70	120	160	121	60	33	18.5	0.5	1.0	28.5	157	149	RB2015
CY1L40	12	M8 x 1.25	12.5	51	36	M20 x 1.5	Rc 1/4	90	140	190	159	84	35	20.5	1.0	1.0	35.5	187	194	

STMB, STMS Series Slide Bearing Cylinder



1. Ordering Code :

STM	B	-	16	x	50
↑	↑		↑		↑
Model	Mounting Type		Bore		Stroke
STM: Sliding type	B: Body fixed type S: Sliding Block fixed		10mm 16mm 20mm 25mm		0~250mm

2.Characteristics:

- 1) Double cylinder structure with high precision and dual output force.
- 2) No rotation.
- 3) Better performance against side loads.
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

3.Specification:

Bore(mm)	10	16	20	25
Motion Pattern				Double action
Working Medium				Air
Operating Temperature Range				-5~+70°C
Operating VoltageRange				1.0~9.0kgf/cm ²
Ensured Pressure Resistance				13.5Mpa
Operating Speed Range				50~200mm/s
Buffer Type				Shock Absorter
Lubrication				NO
Non-rotating Precision		±0.1*		±0.05*
Port size		M5×0.8		G1/8"

4. Stroke:

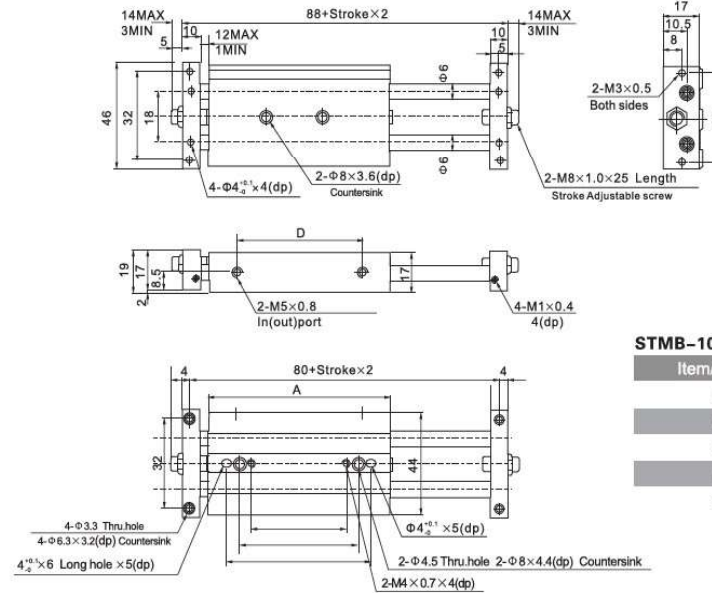
Bore size (mm)	Standard stroke (mm)									
10	25	50	75	100						
16	25	50	75	100	125	150	175	200		
20	25	50	75	100	125	150	175	200	250	
25	25	50	75	100	125	150	175	200	250	

5. Theoretical thrust:

Bore size	Rod size (mm)	Pressure area (cm ²)	Operating pressure(Kgf/mm ²)								
			1	2	3	4	5	6	7	8	9
10mm	6	0.50	0.48	0.95	1.43	1.9	2.38	2.85	3.43	3.8	4.28
16mm	8	1.51	1.43	2.87	4.30	5.74	7.17	8.61	10.04	11.48	12.91
20mm	10	2.36	2.24	4.48	6.73	8.97	11.21	13.45	15.69	17.94	20.18
25mm	12	3.78	3.51	7.18	10.77	14.36	17.96	21.55	25.14	28.73	32.32

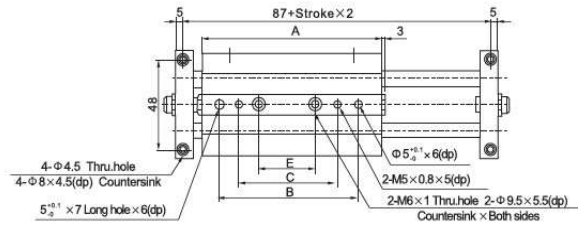
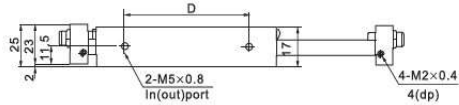
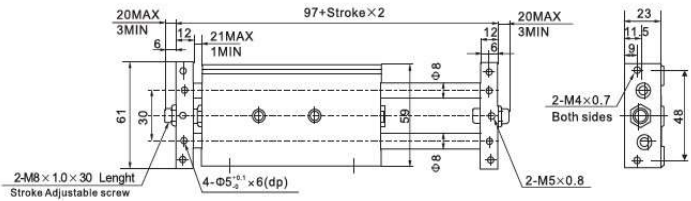
6. Overall and Dimension Sheet:

1) STMB (Body Fixed Type)



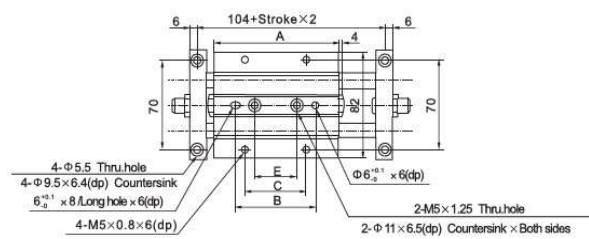
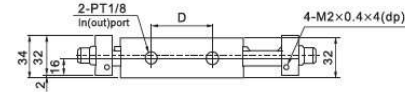
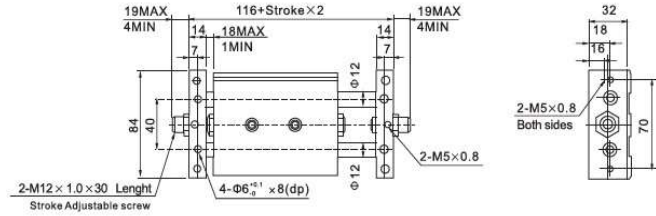
STMB-10

Item/Stroke	25	50	75	100
A	81	106	131	156
B	65	85	85	85
C	35	60	60	60
D	46	71	96	121
E	15	40	40	40



STMB-16

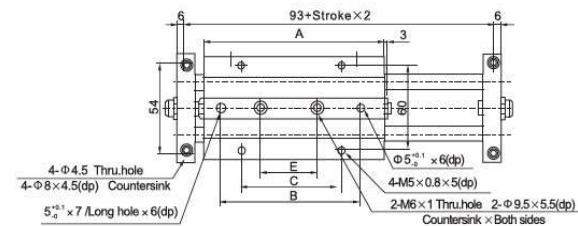
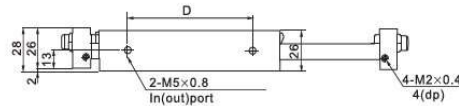
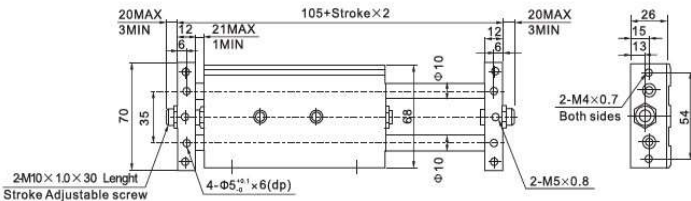
Item/ Stroke	25	50	75	100	125	150	175	200
A	86	111	136	161	186	211	236	261
B	55	70	105	130	150	150	150	150
C	-	-	75	100	120	120	120	120
D	48	73	98	123	148	173	198	223
E	25	50	45	70	90	90	90	90



STMB-25

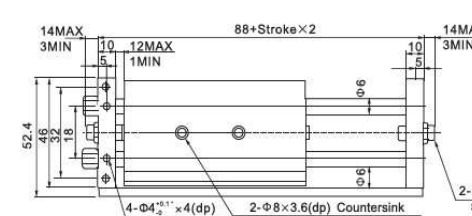
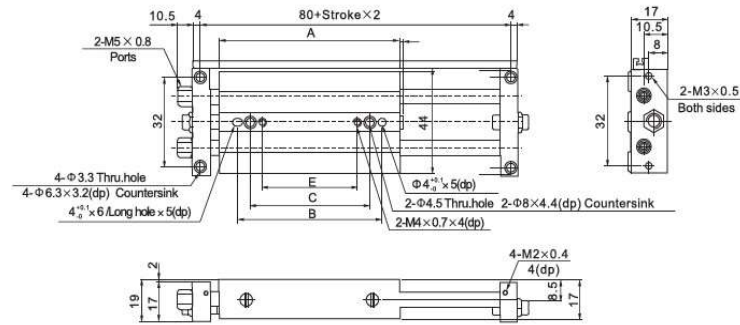
Item/ Stroke	25	50	75	100	125	150	175	200	250
A	101	126	151	176	201	226	251	276	326
B	65	90	115	140	140	140	140	140	140
C	50	50	75	100	100	100	100	100	100
D	50	75	100	125	150	175	200	225	175
E	35	45	45	70	95	100	100	100	100

2) STMS (Sliding Block Fixed Type)



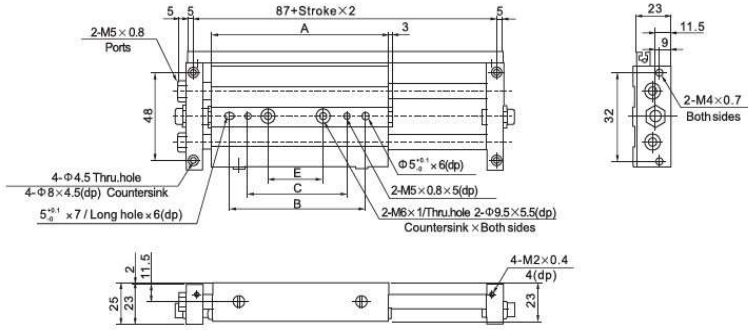
STMB-20

Item/ Stroke	25	50	75	100	125	150	175	200	250
A	94	119	144	169	194	219	244	269	319
B	60	85	110	135	150	150	150	150	150
C	50	50	75	100	120	120	120	120	120
D	53	78	103	128	153	178	203	228	278
E	35	45	45	70	90	90	90	90	90



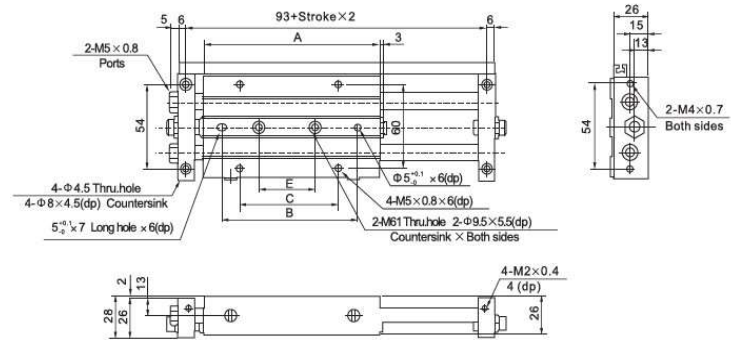
STMS-10

Item/ Stroke	25	50	75	100
A	81	106	131	156
B	65	85	85	85
C	35	60	60	121
E	15	40	40	40



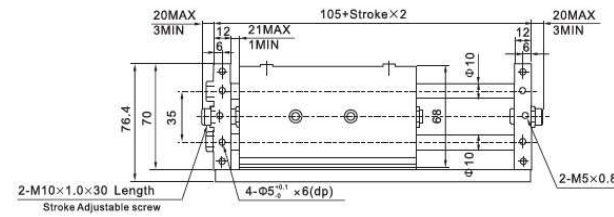
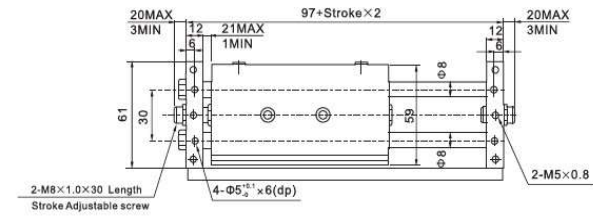
STMS-16

Item/ Stroke	25	50	75	100	125	150	175	200
A	86	111	136	161	186	211	236	261
B	55	70	105	130	150	150	150	150
C	-	-	75	100	120	120	120	120
E	25	50	45	70	90	90	90	90



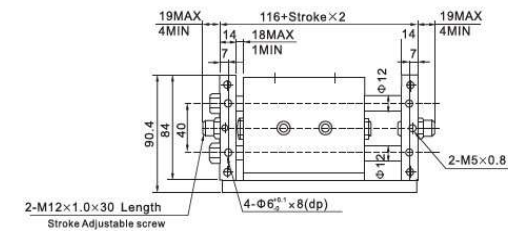
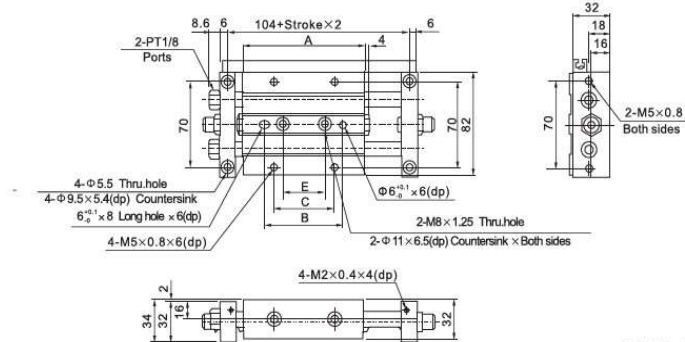
STMS-25

Item/ Stroke	25	50	75	100	125	150	175	200	250
A	101	126	151	176	201	226	251	276	326
B	65	90	115	140	140	140	140	140	140
C	50	50	75	100	100	100	100	100	100
E	35	45	45	70	95	100	100	100	100



STMS-20

Item/ Stroke	25	50	75	100	125	150	175	200	250
A	94	119	144	169	194	219	244	269	319
B	60	85	110	135	150	150	150	150	150
C	50	50	75	100	120	120	120	120	120
E	35	45	45	70	90	90	90	90	90



MBB Series Standard Cylinder (SMC standard)



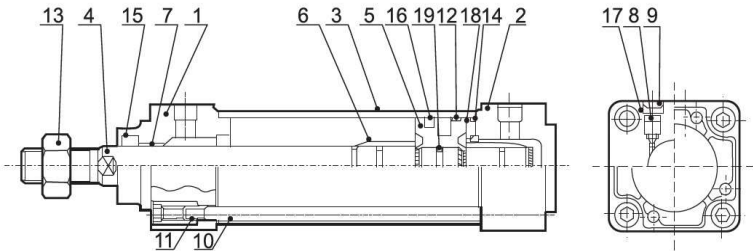
1. Ordering Code :

MBB	-	50	x	50	-	S
↑		↑		↑		↑
Model		Bore		Stroke		Blank: Without magnet S: With magnet inside
Double action type		32mm 40mm 50mm 63mm 80mm 100mm		25~750mm		

2.Characteristics:

- 1) This series of cylinder conforms to: SMC standard
- 2) There is an adjustable buffers at the terminals of the cylinder except for mounted cushion.
- 3) Different mounting type can be selected.
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

3. Internal Structure:



NO	Designation	NO	Designation	NO	Designation
1	Front cover	6	Buffer ring	11	Tie rod nut
2	Back Cover	7	Bearing	12	Wear ring
3	Barrel	8	Cushion Screw	13	Piston rod nut
4	Piston rod	9	Cushion Seal	17	Buffer seal ring
5	Piston	10	Tie rod	19	Piston O-ring

4.Specification:

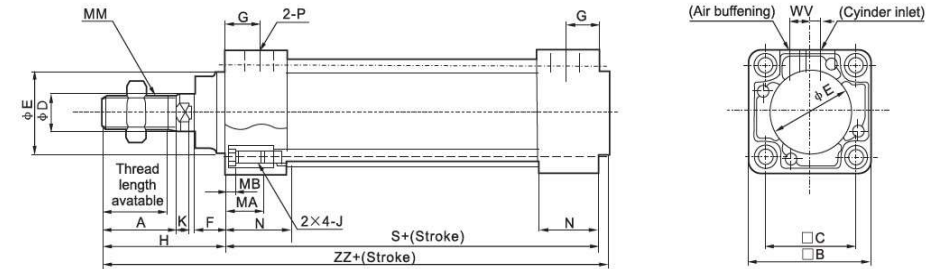
Bore (mm)						
Bore (mm)	32	40	50	63	80	100
Action	Double Action					
Applicable medium	Filtered Air					
Pressure range	0.1~1.0 MPa					
Proof pressure	1.5 MPa					
Temperature range	-5□~70□					
Speed range	50~1000 mm/s					
Cushion style	Adjustable Air Buffer					
Stroke tolerance	0~250 ⁺¹⁰ , 251~1000 ⁻¹⁴ , 1001~1500 ⁻¹⁸					
Port size	G1/8	G1/4	G3/8	G1/2		

5. Stroke:

Bore (mm)		Standard Stroke
Bore (mm)		
32		25,50,75,100,125,150,175,200,250,300,350,400,450,500
40		25,50,75,100,125,150,175,200,250,300,350,400,450,500
50		25,50,75,100,125,150,175,200,250,300,350,400,450,500,600
63		25,50,75,100,125,150,175,200,250,300,350,400,450,500,600
80		25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,750
100		25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,750

6. Overall and Dimension Sheet:

Φ32~Φ100



Diameter	Stroke range	Thread length available	A	□B	□C	ΦD	ΦE	F	G	MA	MB	J	K	MM	N	P	S	V	W	H	ZZ
32	~500	19.5	22	46	32.5	12	30	13	13	16	4	M6×1.0	6	M10×1.25	27	1/8	84	4	6.5	47	135
40	~500	27	30	52	38	16	35	13	14	16	4	M6×1.0	6	M14×1.5	27	1/4	84	4	9	51	139
50	~600	32	35	65	46.5	20	40	14	15.5	16	5	M8×1.25	7	M18×1.5	31.5	1/4	94	5	10.5	58	156
63	~600	32	35	75	56.5	20	45	14	16.5	16	5	M8×1.25	7	M18×1.5	31.5	3/8	94	9	12	58	156
80	~750	37	40	95	72	25	45	20	19	16	5	M10×1.5	10	M22×1.5	38	3/8	114	11.5	14	72	190
100	~750	37	40	114	89	30	55	20	19	16	5	M10×1.5	10	M26×1.5	38	1/2	114	17	15	72	190

CA1 Series Standard Cylinder



1. Ordering Code:

CA1B - 40 x 100
 ↑ ↑ ↑
Model **Bore** **Stroke**
 CA1B: Normal type 40mm 25~750mm
 CDA1B: with magnet inside 50mm
 63mm
 80mm
 100mm

2.Characteristics:

- 1) Pulling level enhance the strength of the cylinder
- 2) There is an adjustable buffers at the terminals of the cylinder except for mounted cushion.
- 3) With magnet ring inside the cylinder.
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

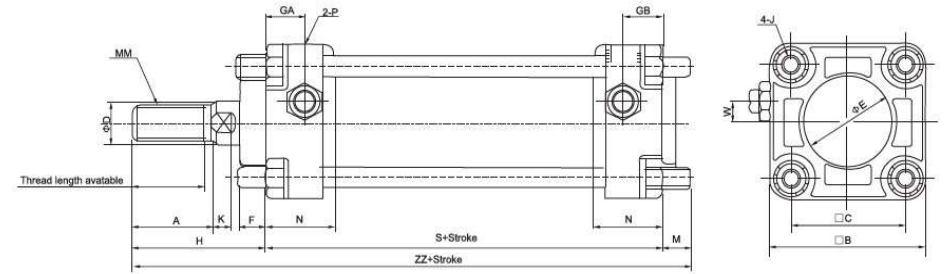
3. Specification:

Bore (mm)	40	50	63	80	100
Action	Double Action				
Applicable medium	Filered Air				
Pressure range	0.1~1.0 MPa				
Proof pressure	1.5 MPa				
Temperature range	5°C~60°C				
Speed range	50~500 mm/s				
Cushion style	Adjustable Air Buffer				
Stroke tolerance	0~250 ⁺¹⁰ , 251~1000 ⁺¹⁴ , 1001~1500 ⁺¹⁸				
Port size	G1/4	G3/8	G1/2		

4. Stroke:

Bore (mm)	Standard Stroke
40	25,50,75,100,125,150,175,200,250,300,350,400,450,500
50	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600
63	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600
80	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,750
100	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,750

5. Overall and Dimension Sheet:



Diameter	Stroke range	Thread length available	A	B	C	φD	φE	F	GA	GB	J	K	M	MM	N	P	S	W	H	ZZ
40	-500	27	30	60	44	16	32	10	15	15	M8×1.25	6	11	M14×1.5	27	1/4	84	8	51	146
50	-600	32	35	70	52	20	40	10	17	17	M8×1.25	7	11	M18×1.5	30	3/8	90	0	58	159
63	-600	32	35	85	64	20	40	10	17	17	M10×1.25	7	14	M18×1.5	31	3/8	98	0	58	170
80	-750	37	40	102	78	25	52	14	21	21	M12×1.75	11	17	M22×1.5	37	1/2	116	0	71	204
100	-750	37	40	116	92	30	52	14	21	21	M12×1.75	11	17	M26×1.5	40	1/2	126	0	72	215

RSQ Series Stopper Cylinder



1. Ordering Code:

RSQ - B - 40 x 15 - D R
 ↑ ↑ ↑ x ↑ ↑ ↑ ↑
Model **Installation** **Bore** **Stroke** **Action** **Rod end type**

RSQ: Normal type B: hole 12mm 10~30mm D: double action Blank: round bar type(Φ20~Φ50)
 RSDQ: with magnet inside A: Internal thread on both ends 16mm S: single action K: chamfered type(Φ20~Φ50)
 20mm with spring return L: level type with shock absorber (Φ32~Φ50)
 32mm T: single action with spring extent B: level type with adjustable shock absorber (Φ32~Φ50)
 40mm C: level type with adjustable shock absorber, cancel cap (Φ32~Φ50)
 50mm D: level type with adjustable shock absorber, lock mechanism(Φ32~Φ50)
 E: level type with adjustable shock absorber, cancel cap&lock(Φ32~Φ50)

2. Characteristics:

- 1) Small size and light weight.
- 2) Flexible and precision.
- 3) There are more mounting holes on the fixed board
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

3. Specification:

Bore (mm)	12	16	20	32	40	50
Motion Pattern	Double Action,Single Action					
Applicable medium	Filered Air					
Pressure range	0.1~1.0 MPa					
Proof pressure	1.5 MPa					
Temperature range	-10°C~70°C with auto switch No freezing +60°C					
Lubrication	Not required					
Buffering	Rubber bumper					
Stroke tolerance	0~1.4mm					
Mounting	Through-hole,Tapped common on both ends					
Port size	M5x0.8			1/8"PT		

4. Model instruction:

Bore size (mm)		12	16	20	32	40	50
Mounting	Through-hole	●*	●	●	●	●	●
	Both ends tapped style		●	●	●	●	●
Built-in magnet		●	●	●	●	●	●
Piping	Screw-in type	M5×0.8			Rc 1/8		
	Built-in One-touch fittings	-			φ 6/4		φ 8/6
Action		Double acting Single acting(Single extend),Double acting with spring loaded					
Rod end configuration	Round bar		●			●	
	Chamfered		●			●	
	Roller type		●			●	
	Lever type		-			●	

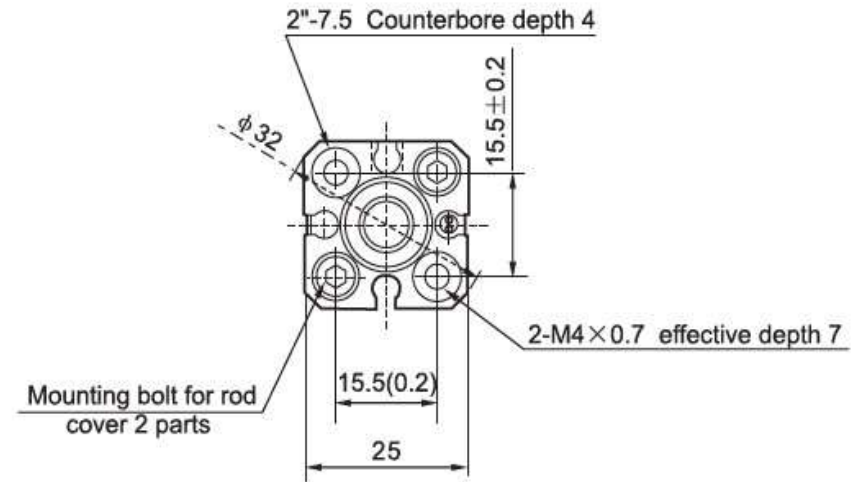
Φ 12 tubes can have both through-hole and tap mountings in the same tube.

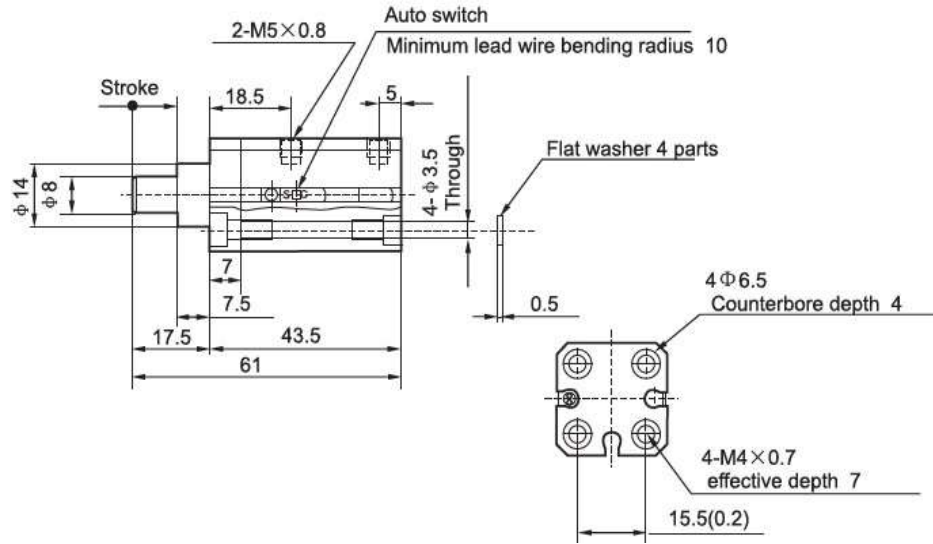
5. Standard Stroke:

Bore size (mm)	Rod end configuration		
	Round bar,Chamfered type	Roller type	Lever type with shock absorber
12	10	10	-
16	10,15	10,15	-
20			
32	10,15,20	10,15,20	10,15,20
40			
50	20,25,30	20,25,30	20,25,30

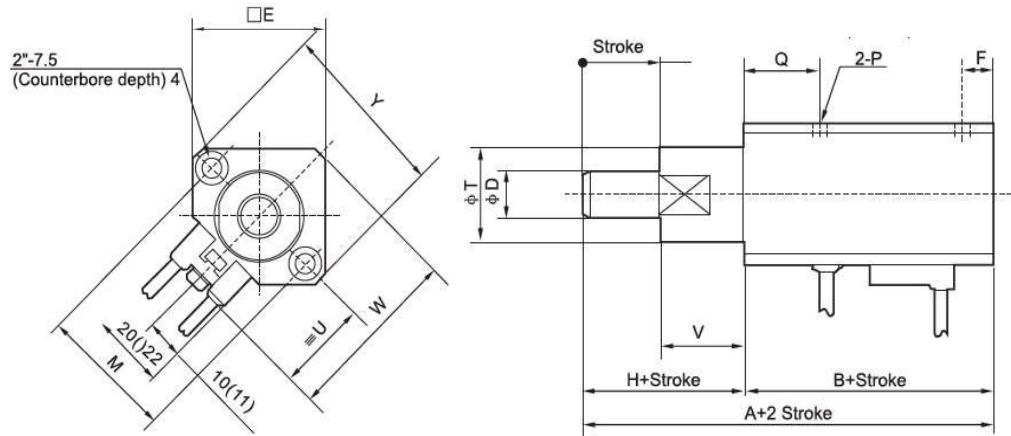
6. Overall and Dimension Sheet:

1) RSQB12-10□ (Bore: Φ12) Basic Type





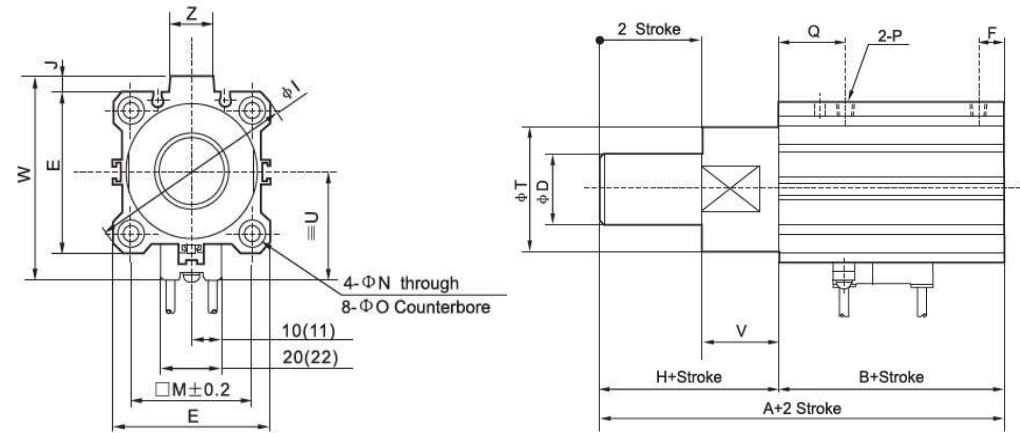
2) RSQB16/20-□ (Bore: Φ16,Φ20) Basic Type



Bore size (mm)	A	B	D	E	F	G	H	I	M	N	O Counterbore	P	Q	T	U	V	W	Y	Z	
16	59.5	41.5	10	29	6	3	18	-	28	3.5	6.5 depth 4	M5×0.8	17	20	22.5	18	41.5	38	-	
20	67	45	12	36	8	4	22	-	36	5.5	9 depth 7	Rc 1/8	20	24	24.5	22	48	47	-	
32	68	48	20	45	7.5	8	20	60	4.5	34	5.5	9 depth 7	Rc 1/8	20	36	31.5	20	58.5	-	14
40	80.5	52.5	25	52	8	10	28	69	5	40	5.5	9 depth 7	Rc 1/8	24.5	44	35	28	66	-	14
50	82	54	25	64	8	10	28	86	7	50	6.6	11 depth 8	Rc 1/8	24.5	56	41	28	80	-	19

Note1)Dimensions without auto switch are the same as drawing above.
 Note2)These figures show the dimensions when equipped with D-A 73 or D-A 80 auto switches.
 Note3)These figures show the piston rod extended.

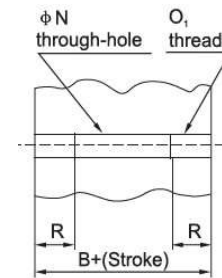
3) RSQB32/40/50-□ (Bore: Φ32,Φ40,Φ50) Basic Type



Bore size (mm)	A	B	D	E	F	G	H	I	M	N	O Counterbore	P	Q	T	U	V	W	Y	Z	
16	59.5	41.5	10	29	6	3	18	-	28	3.5	6.5 depth 4	M5×0.8	17	20	22.5	18	41.5	38	-	
20	67	45	12	36	8	4	22	-	36	5.5	9 depth 7	Rc 1/8	20	24	24.5	22	48	47	-	
32	68	48	20	45	7.5	8	20	60	4.5	34	5.5	9 depth 7	Rc 1/8	20	36	31.5	20	58.5	-	14
40	80.5	52.5	25	52	8	10	28	69	5	40	5.5	9 depth 7	Rc 1/8	24.5	44	35	28	66	-	14
50	82	54	25	64	8	10	28	86	7	50	6.6	11 depth 8	Rc 1/8	24.5	56	41	28	80	-	19

Note1)Dimensions without auto switch are the same as drawing above.
 Note2)These figures show the dimensions when equipped with D-A 73 or D-A 80 auto switches.
 Note3)These figures show the piston rod extended.

4) RSQA (Bore: Φ16,Φ20,Φ32,Φ40,Φ50) Internal thread on both ends type



Screw mounting style:Both ends tapped style (mm)

Modle	B	N	Q1	R
RS□QA16	41.5	3.5	M4×0.7	7
RS□QA20	45	5.5	M6×1	10
RS□QA32	48	5.5	M6×1	10
RS□QA40	52.5	5.5	M6×1	10
RS□QA50	54	6.6	M8×1.25	14