

Compact Cylinder: Standard Type **Series CQ2**

Double Acting, Single Rod



JIS Symbol
Double acting,
Single rod



JIS Symbol
With boss in
head side



Standard Stroke

Pneumatic

Bore size (mm)	Standard stroke (mm)
12, 16	5, 10, 15, 20, 25, 30
20, 25	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
32, 40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
50 to 100	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

• When stroke exceeds the standard range, refer to page 7-6-121.

Air-hydro

Bore size (mm)	Standard stroke (mm)
20, 25	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
32, 40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
50, 63, 80, 100	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

Mounting Bracket Part No.

Bore size (mm)	Foot ⁽⁴⁾	Flange	Double clevis ⁽⁵⁾
12	CQ-L012	CQ-F012	CQ-D012
16	CQ-L016	CQ-F016	CQ-D016
20	CQ-L020	CQ-F020	CQ-D020
25	CQ-L025	CQ-F025	CQ-D025
32	CQ-L032	CQ-F032	CQ-D032
40	CQ-L040	CQ-F040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050
63	CQ-L063	CQ-F063	CQ-D063
80	CQ-L080	CQ-F080	CQ-D080
100	CQ-L100	CQ-F100	CQ-D100

Note 4) When ordering foot bracket, order 2 pieces per cylinder.

Note 5) Parts belonging to each bracket are as follows. Foot, Flange: Body mounting bolt/Double clevis: Clevis pin, Type C snap ring for axis, body mounting bolt

Type

Bore size (mm)		12	16	20	25	32	40	50	63	80	100	
Pneumatic	Mounting	Through-hole (Standard)	●	●	●	●	●	●	●	●	●	
		Both ends tapped style	●	●	●	●	●	●	●	●	●	
	Built-in magnet		●	●	●	●	●	●	●	●	●	
	Piping	Screw-in type	M5 x 0.8	M5 x 0.8	M5 x 0.8	M5 x 0.8	M5 x 0.8 ⁽¹⁾ Rc 1/8	Rc 1/8	Rc 1/4	Rc 1/4	Rc 3/8	Rc 3/8
		Built-in One-touch fittings		—	—	—	—	ø6/4 ⁽²⁾	ø6/4	ø8/6	ø8/6	—
	Rod end male thread		●	●	●	●	●	●	●	●	●	●
	With rubber bumper		●	●	●	●	●	●	●	●	●	●
With boss in head side		●	●	●	●	●	●	●	●	●	●	
Air-hydro	Mounting	Through-hole (Standard)	—	—	●	●	●	●	●	●	●	
		Both ends tapped style	—	—	●	●	●	●	●	●	●	
	Built-in magnet		—	—	●	●	●	●	●	●	●	
	Piping	Screw-in type	—	—	M5 x 0.8	M5 x 0.8	M5 x 0.8 ⁽¹⁾ Rc 1/8	Rc 1/8	Rc 1/4	Rc 1/4	Rc 3/8	Rc 3/8
		Rod end male thread		—	—	●	●	●	●	●	●	●
With boss in head side		—	—	●	●	●	●	●	●	●		

Note 1) In the case of without auto switch, M5 x 0.8 is used for 5 stroke only.

Note 2) In the case of built-in fitting, the 5 mm stroke with ø32 bore is the same external dimensions as 10 mm stroke.

Specifications

Type	Pneumatic (Non-lube)	Air-hydro
Fluid	Air	Turbine oil ⁽³⁾
Proof pressure	1.5 MPa	
Maximum operating pressure	1.0 MPa	
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)	
Rubber bumper	None	—
Rod end thread	Female thread	
Rod end thread tolerance	JIS class 2	
Stroke length tolerance	+1.0 0	
Mounting	Through-hole	
Piston speed	50 to 500 mm/s	5 to 50 mm/s

Note 3) For caution on handling, refer to page 7-13-6.

* For applications involving lateral loads, refer to anti-lateral load type on page 7-13-132.

Minimum Operating Pressure

Bore size (mm)	12	16	20	25	32	40	50	63	80	100
Pneumatic (Non-lube)	0.07		0.05							
Air-hydro	—		0.18				0.10			

Manufacture of Intermediate Stroke

Description	Spacer is installed in the standard stroke body.	Exclusive body (-XB10)
Part no.	Refer to "How to Order" for the standard model no. on page 7-6-2.	Suffix "-XB10" to the end of standard model no. on page 7-6-2.
Description	Dealing with intermediate stroke by the 1 mm interval is available by using spacer with standard stroke cylinder.	Dealing with the stroke by the 1 mm interval by using an exclusive body with the specified stroke.
Stroke range	Bore size	Bore size
	Stroke range	Stroke range
Example	Part No.: CQ2B50-57D 18 mm width spacer is installed in the standard CQ2B50-75D. B dimension is 115.5 mm.	Part no. CQ2B50-57D-XB10 Makes 57 stroke tube. B dimension is 97.5 mm.



• Air-hydro type is excluded.

• In the case of spacer type, intermediate stroke with damper for ø40 to ø100, it can be manufactured by 5 mm intervals in 5 mm and 55 to 95 mm.

• In the case of an exclusive body with ø32 to ø100 (-XB10) with the stroke length exceeding 50 mm, the reference values of the longitudinal dimension will be changed. Calculate length dimensions by deducting from those of 75 or 100 mm stroke models.

• Regarding the long stroke which exceeds the stroke range, refer to page 7-6-121 for the long stroke type of either CQ2 or CQS.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

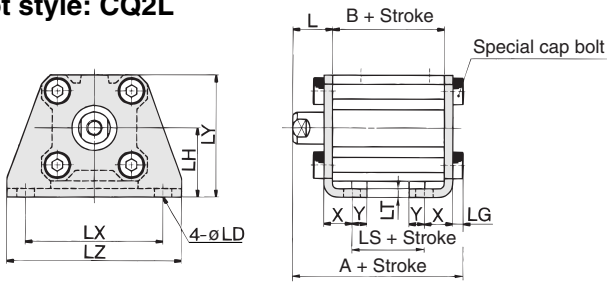
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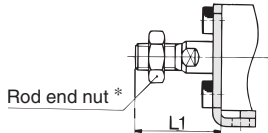
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Compact Cylinder: Standard Type Double Acting, Single Rod Series CQ2

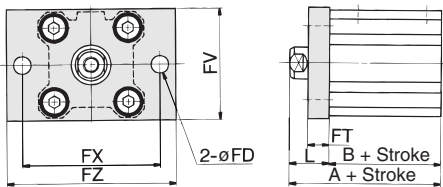
Foot style: CQ2L



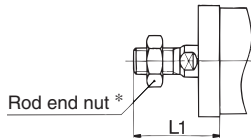
Rod end male thread



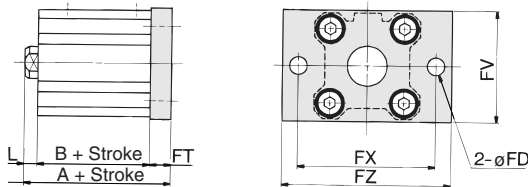
Rod side flange style: CQ2F



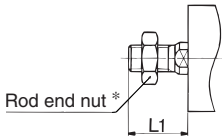
Rod end male thread



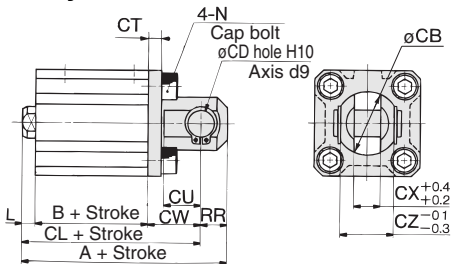
Head side flange style: CQ2G



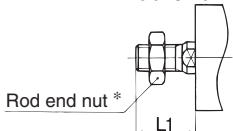
Rod end male thread



Double clevis style: CQ2D



Rod end male thread



Foot Style

Bore size (mm)	Stroke range (mm)	A	B	L	L1	LD	LG	LH	LS	LT	LX	LY	LZ	X	Y
12	5 to 30	35.3	17	13.5	24	4.5	2.8	17	5	2	34	29.5	44	8	4.5
16	5 to 30	36.8	18.5	13.5	25.5	4.5	2.8	19	6.5	2	38	33.5	48	8	5
20	5 to 50	41.2	19.5	14.5	28.5	6.6	4	24	7.5	3.2	48	42	62	9.2	5.8
25	5 to 50	44.7	22.5	15	32.5	6.6	4	26	7.5	3.2	52	46	66	10.7	5.8

Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	Stroke range (mm)	A	B	FD	FT	FV	FX	FZ	L	L1
12	5 to 30	30.5	17	4.5	5.5	25	45	55	13.5	24
16	5 to 30	32	18.5	4.5	5.5	30	45	55	13.5	25.5
20	5 to 50	34	19.5	6.6	8	39	48	60	14.5	28.5
25	5 to 50	37.5	22.5	6.6	8	42	52	64	15	32.5

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Stroke range (mm)	A	L	L1
12	5 to 30	26	3.5	14
16	5 to 30	27.5	3.5	15.5
20	5 to 50	32	4.5	18.5
25	5 to 50	35.5	5	22.5

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Flange bracket material: Carbon steel

Double Clevis Style

Bore size (mm)	Stroke range (mm)	A	B	CB	CD	CL	CT	CU	CW	CX	CZ	L	L1	N	RR
12	5 to 30	40.5	17	12	5	34.5	4	7	14	5	10	3.5	14	M4 x 0.7	6
16	5 to 30	43	18.5	14	5	37	4	10	15	6.5	12	3.5	15.5	M4 x 0.7	6
20	5 to 50	51	19.5	20	8	42	5	12	18	8	16	4.5	18.5	M6 x 1.0	9
25	5 to 50	57.5	22.5	24	10	47.5	5	14	20	10	20	5	22.5	M6 x 1.0	10

Double clevis bracket material: Carbon steel

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.
** Clevis pin and snap ring are shipped together.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

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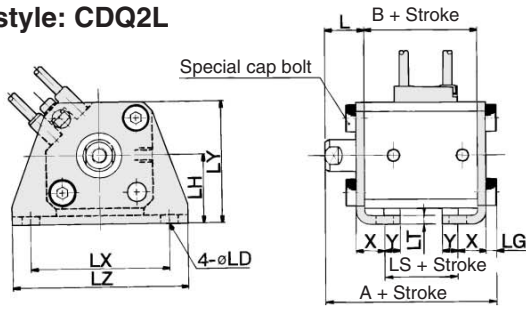
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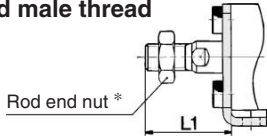
Compact Cylinder with Auto Switch: Standard Type **Series CDQ2**

Double Acting, Single Rod

Foot style: CDQ2L



Rod end male thread

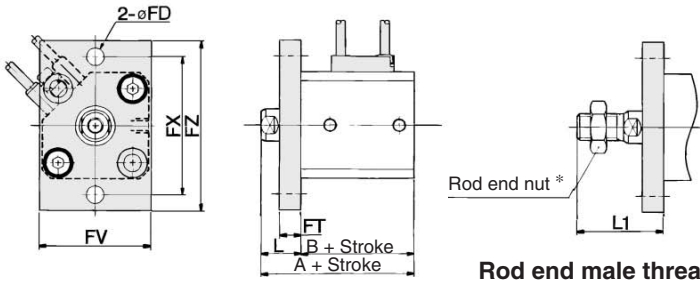


Foot Style

Bore size (mm)	Stroke range (mm)	A	B	L	L1	LD	LG	LH	LS	LT	LX	LY	LZ	X	Y
12	5 to 30	46.3	28	13.5	24	4.5	2.8	17	16	2	34	29.5	44	8	4.5
16	5 to 30	48.8	30.5	13.5	25.5	4.5	2.8	19	18.5	2	38	33.5	48	8	5
20	5 to 50	53.2	31.5	14.5	28.5	6.6	4	24	19.5	3.2	48	42	62	9.2	5.8
25	5 to 50	54.7	32.5	15	32.5	6.6	4	26	17.5	3.2	52	46	66	10.7	5.8

Foot bracket material: Carbon steel

Rod side flange style: CDQ2F



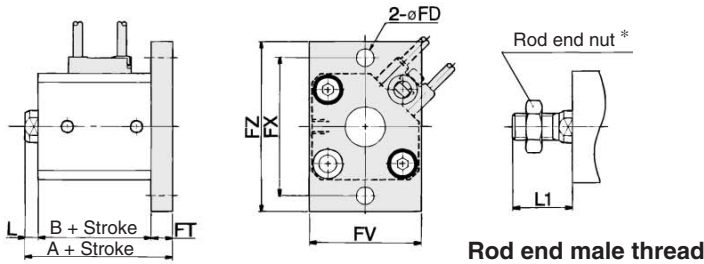
Rod end male thread

Rod Side Flange Style

Bore size (mm)	Stroke range (mm)	A	B	FD	FT	FV	FX	FZ	L	L1
12	5 to 30	41.5	28	4.5	5.5	25	45	55	13.5	24
16	5 to 30	44	30.5	4.5	5.5	30	45	55	13.5	25.5
20	5 to 50	46	31.5	6.6	8	39	48	60	14.5	28.5
25	5 to 50	47.5	32.5	6.6	8	42	52	64	15	32.5

Flange bracket material: Carbon steel

Head side flange style: CDQ2G



Rod end male thread

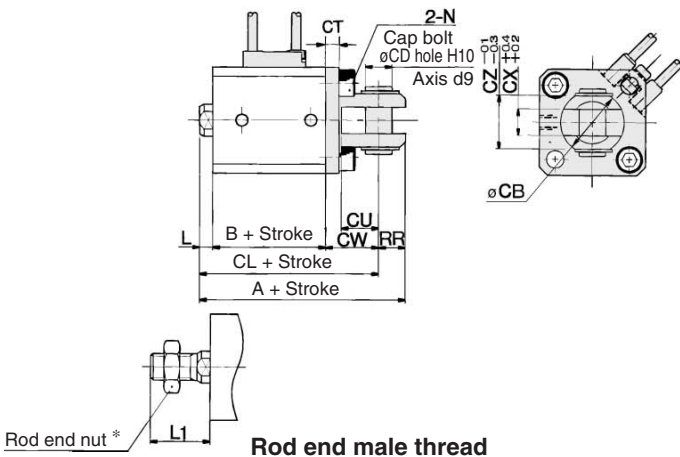
Head Side Flange Style

Bore size (mm)	Stroke range (mm)	A	L	L1
12	5 to 30	37	3.5	14
16	5 to 30	39.5	3.5	15.5
20	5 to 50	44	4.5	18.5
25	5 to 50	45.5	5	22.5

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Flange bracket material: Carbon steel

Double clevis style: CDQ2G



Rod end male thread

Double Clevis Style

Bore size (mm)	Stroke range (mm)	A	B	CB	CD	CL	CT	CU	CW	CX	CZ	L	L1	N	RR
12	5 to 30	51.5	28	12	5	45.5	4	7	14	5	10	3.5	14	M4 x 0.7	6
16	5 to 30	55	30.5	14	5	49	4	10	15	6.5	12	3.5	15.5	M4 x 0.7	6
20	5 to 50	63	31.5	20	8	54	5	12	18	8	16	4.5	18.5	M6 x 1.0	9
25	5 to 50	67.5	32.5	24	10	57.5	5	14	20	10	20	5	22.5	M6 x 1.0	10

Double clevis bracket material: Carbon steel

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.
** Clevis pin and snap ring are shipped together.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

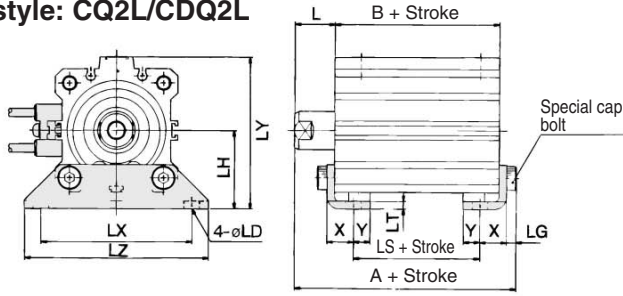
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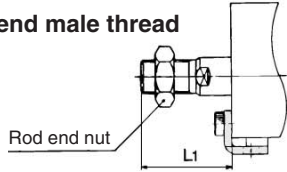
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Compact Cylinder: Standard Type Double Acting, Single Rod Series **CQ2/CDQ2**

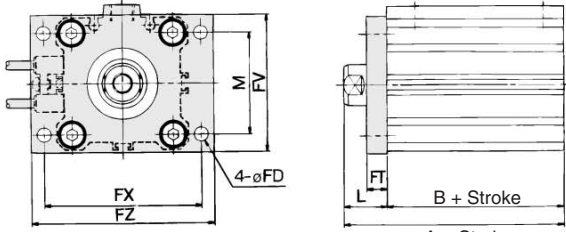
Foot style: CQ2L/CDQ2L



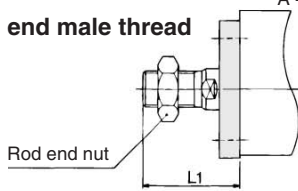
Rod end male thread



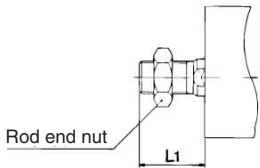
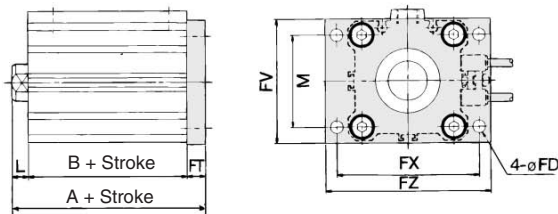
Rod side flange style: C□Q2F



Rod end male thread



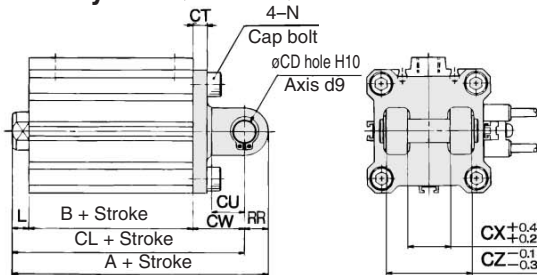
Head side flange style: CD2G/CDQ2G



Applicable to { Head side flange style
Double clevis style

Rod end male thread

Double clevis style: CQ2D/CPQ2D



Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			L	L1	LD	LG	LH	LT	LX	LY
		A	B	LS	A	B	LS								
32	5 to 50	47.2	23	7	57.2	33	17	17	38.5	6.6	4	30	3.2	57	57
	75, 100	57.2	33	17											
40	5 to 50	53.7	29.5	13.5	63.7	39.5	23.5	17	38.5	6.6	4	33	3.2	64	64
	75, 100	63.7	39.5	23.5											
50	10 to 50	56.7	30.5	7.5	66.7	40.5	17.5	18	43.5	9	5	39	3.2	79	78
	75, 100	66.7	40.5	17.5											

Foot bracket material: Carbon steel

Bore size (mm)	LZ	X	Y
32	71	11.2	5.8
40	78	11.2	7
50	95	14.7	8

Rod Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		FD	FT	FV	FX	FZ	L	L1	M
		A	B	A	B								
32	5 to 50	40	23	50	33	5.5	8	48	56	65	17	38.5	34
	75, 100	50	33										
40	5 to 50	46.5	29.5	56.5	39.5	5.5	8	54	62	72	17	38.5	40
	75, 100	56.5	39.5										
50	10 to 50	48.5	30.5	58.5	40.5	6.6	9	67	76	89	18	43.5	50
	75, 100	58.5	40.5										

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch	With auto switch	L	L1
		A	A		
32	5 to 50	38	48	7	28.5
	75, 100	48			
40	5 to 50	44.5	54.5	7	28.5
	75, 100	54.5			
50	10 to 50	47.5	57.5	8	33.5
	75, 100	57.5			

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Flange bracket material: Carbon steel

Double Clevis Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			CD	CT	CU	CW	CX	CZ	L	L1
		A	B	CL	A	B	CL								
32	5 to 50	60	23	50	70	33	60	10	5	14	20	18	36	7	28.5
	75, 100	70	33	60											
40	5 to 50	68.5	29.5	58.5	78.5	39.5	68.5	10	6	14	22	18	36	7	28.5
	75, 100	78.5	39.5	68.5											
50	10 to 50	80.5	30.5	66.5	90.5	40.5	76.5	14	7	20	28	22	44	8	33.5
	75, 100	90.5	40.5	76.5											

Double clevis bracket material: Cast iron

Bore size (mm)	N	RR
32	M6 x 1.0	10
40	M6 x 1.0	10
50	M8 x 1.25	14

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.
** Clevis pin and snap ring are shipped together.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

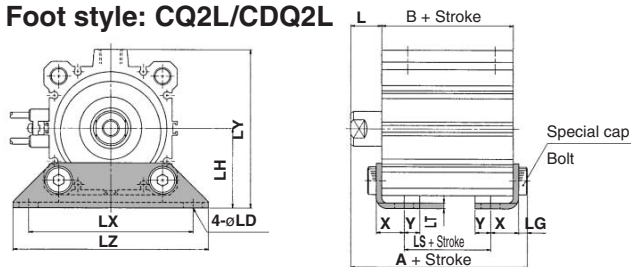
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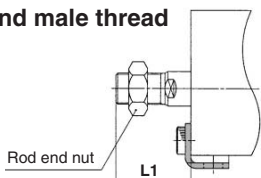
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Compact Cylinder: Standard Type Double Acting, Single Rod Series **CQ2/CDQ2**

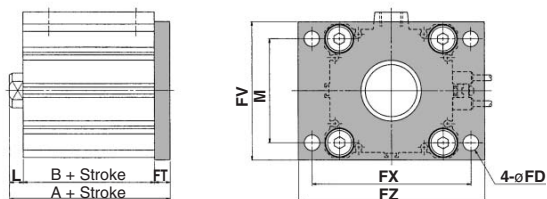
Foot style: CQ2L/CDQ2L



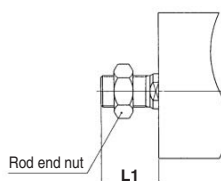
Rod end male thread



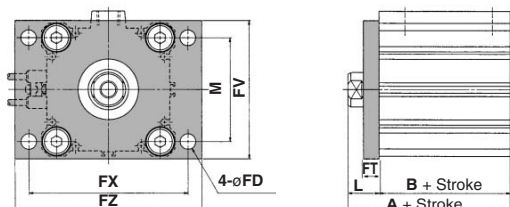
Head side flange style: CQ2G/CDQ2G



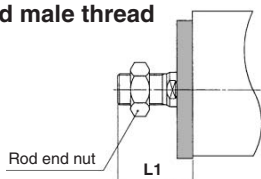
Rod end male thread



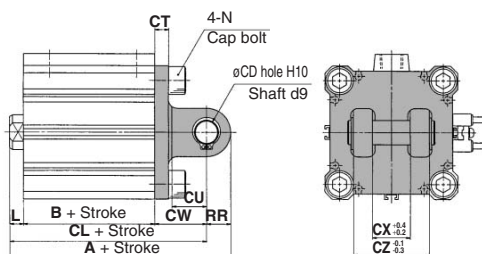
Rod side flange style: CQ2F/CDQ2F



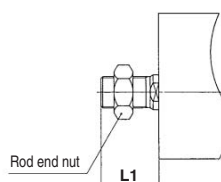
Rod end male thread



Double clevis style: CQ2D/CDQ2D



Rod end male thread



Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			L	L1	LD	LG	LH	LT
		A	B	LS	A	B	LS						
63	10 to 50	62.2	36	10	72.2	46	20	18	43.5	11	5	46	3.2
	75, 100	72.2	46	20	85	53.5	23.5	20	53.5	13	7	59	4.5
80	10 to 50	75	43.5	13.5	85	53.5	23.5	20	53.5	13	7	59	4.5
	75, 100	85	53.5	23.5	98	63	29	22	53.5	13	7	71	6

Foot bracket material: Carbon steel

Bore size (mm)	Stroke range (mm)	LX	LY	LZ	X	Y
63	10 to 50	95	91.5	113	16.2	9
	75, 100	118	114	140	19.5	11
80	10 to 50	118	114	140	19.5	11
	75, 100	137	136	162	23	12.5

Rod Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		FD	FT	FV	FX	FZ	L	L1	M
		A	B	A	B								
63	10 to 50	54	36	64	46	9	9	80	92	108	18	43.5	60
	75, 100	64	46	73.5	53.5	11	11	99	116	134	20	53.5	77
80	10 to 50	63.5	43.5	73.5	53.5	11	11	99	116	134	20	53.5	77
	75, 100	73.5	53.5	85	63	11	11	117	136	154	22	53.5	94

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		L	L1
		A	B	A	B		
63	10 to 50	53	63	8	33.5	8	33.5
	75, 100	63	74.5	10	43.5		
80	10 to 50	64.5	74.5	10	43.5	10	43.5
	75, 100	74.5	86	12	43.5		

Flange bracket material: Carbon steel

Double Clevis Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		CD	CL	CT	CU	CW	CX	CZ	L
		A	B	A	B								
63	10 to 50	88	36	98	46	14	84	8	20	30	22	44	8
	75, 100	98	46	119.5	53.5	18	101.5	10	27	38	28	56	10
80	10 to 50	109.5	43.5	119.5	53.5	18	101.5	10	27	38	28	56	10
	75, 100	119.5	53.5	142	63	22	120	13	31	45	32	64	12

Double clevis bracket material: Cast iron

Bore size (mm)	Stroke range (mm)	L1	N	RR
75, 100	43.5	M12 x 1.75	18	
80	10 to 50	43.5	M12 x 1.75	18
	75, 100	43.5	M12 x 1.75	22

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.
* Clevis pin and set ring are shipped together.

- CUJ
- CU
- CQS
- CQM
- CQ2**
- RQ
- MU
- D-
- X
- 20-
- Data

Compact Cylinder: Standard Type Double Acting, Double Rod Series CQ2W



Made to Order Specifications (For details, refer to page 7-10-1.)

Symbol	Specifications
-XA□	Change of rod end shape
-XB6	Heat resistant cylinder (150°C) w/o auto switch only
-XB7	Cold resistant cylinder w/o auto switch only
-XB9	Low speed cylinder (10 to 50 mm/s)
-XB10	Intermediate stroke (Using exclusive body)
-XB13	Low speed cylinder (5 to 50 mm/s)
-XC6	Piston rod and rod end nut made of stainless steel
-XC18	NPT finish piping port
-XC35	With coil scraper, $\phi 32$ to 100 only
-XC36	With boss in rod side
-X293	Same full length dimension as Series CQ1W
-X144	Change of port location
-X235	Change of piston rod end of double rod cylinder
-X271	Fluoro rubber for seals

Mounting Bracket Part No.

Bore size (mm)	Foot ⁽⁴⁾	Flange
12	CQ-L012	CQ-F012
16	CQ-L016	CQ-F016
20	CQ-L020	CQ-F020
25	CQ-L025	CQ-F025
32	CQ-L032	CQ-F032
40	CQ-L040	CQ-F040
50	CQ-L050	CQ-F050
63	CQ-L063	CQ-F063
80	CQ-L080	CQ-F080
100	CQ-L100	CQ-F100

Note 4) Order two foot brackets per cylinder.
 Note 5) Parts belonging to each bracket are as follows.
 Foot or Flange style: Body mounting bolt

Minimum Operating Pressure

(MPa)

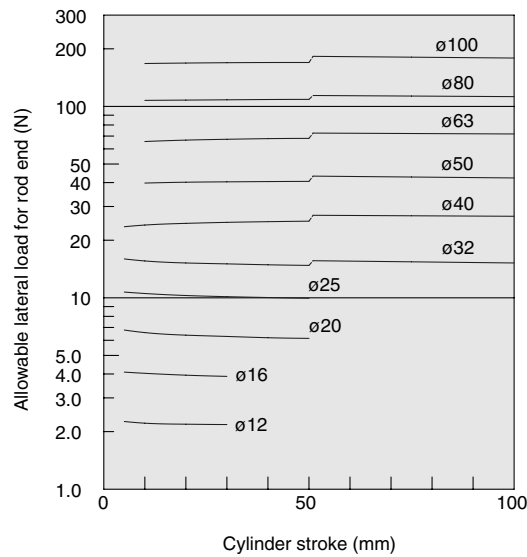
Bore size (mm)	12	16	20	25	32	40	50	63	80	100
Pneumatic (Non-lube)	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Air-hydro	—	—	0.18	0.18	0.18	0.10	0.10	0.10	0.10	0.10

Allowable Kinetic Energy

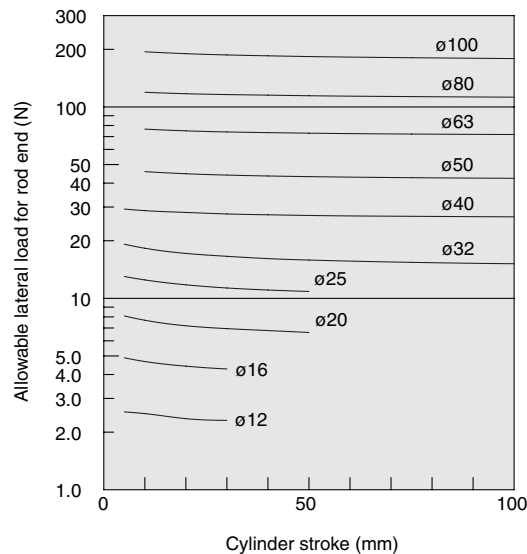
(J)

Bore size (mm)	12	16	20	25	32	40	50	63	80	100
Standard	0.022	0.038	0.055	0.09	0.15	0.26	0.46	0.77	1.36	2.27
With rubber bumper	0.043	0.075	0.11	0.18	0.29	0.52	0.91	1.54	2.71	4.54

Allowable Lateral Load at Rod End



Allowable lateral load for rod end (Double rod, without switch)



Allowable lateral load for rod end (Double rod, with switch)

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

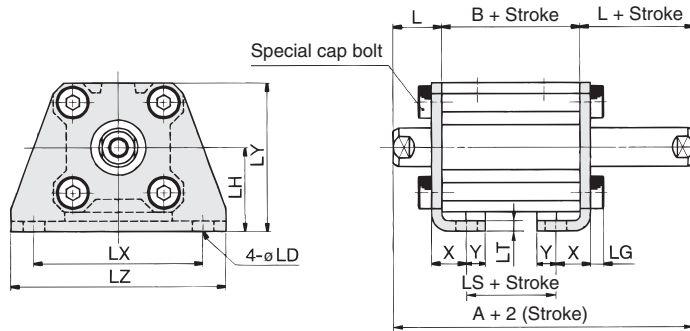
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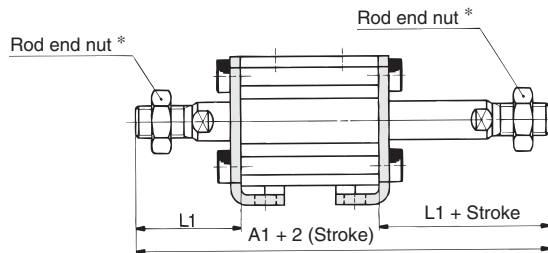
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Compact Cylinder: Standard Type Double Acting, Double Rod Series **CQ2W**

Foot style: CQ2WL



Rod end male thread



Rod End Male Thread

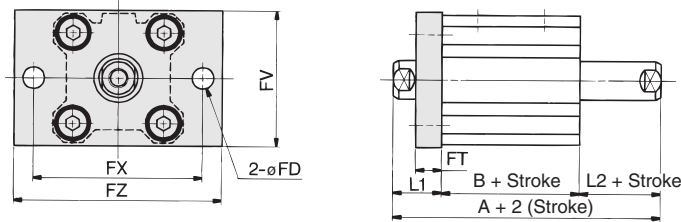
Bore size (mm)	A1	L1
12	73.2	24
16	77	25.5
20	83	28.5
25	94	32.5

Foot Style

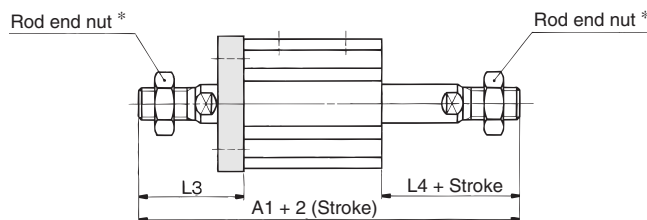
Bore size (mm)	Stroke range (mm)	A	B	L	LD	LG	LH	LS	LT	LX	LY	LZ	X	Y
12	5 to 30	52.2	25.2	13.5	4.5	2.8	17	13.2	2	34	29.5	44	8	4.5
16	5 to 30	53	26	13.5	4.5	2.8	19	14	2	38	33.5	48	8	5
20	5 to 50	55	26	14.5	6.6	4	24	14	3.2	48	42	62	9.2	5.8
25	5 to 50	59	29	15	6.6	4	26	14	3.2	52	46	66	10.7	5.8

Foot bracket material: Carbon steel

Flange style: CQ2WF



Rod end male thread



Rod End Male Thread

Bore size (mm)	A1	L3	L4
12	63.2	24	14
16	67	25.5	15.5
20	73	28.5	18.5
25	84	32.5	22.5

Flange Style

Bore size (mm)	Stroke range (mm)	A	B	FD	FT	FV	FX	FZ	L1	L2
12	5 to 30	42.2	25.2	4.5	5.5	25	45	55	13.5	3.5
16	5 to 30	43	26	4.5	5.5	30	45	55	13.5	3.5
20	5 to 50	45	26	6.6	8	39	48	60	14.5	4.5
25	5 to 50	49	29	6.6	8	42	52	64	15	5

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

Flange bracket material: Carbon steel

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

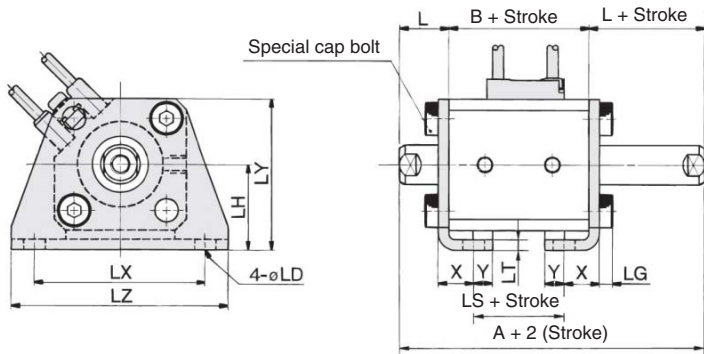
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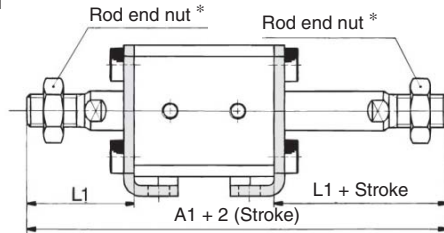
Data

Compact Cylinder: Standard Type Double Acting, Double Rod Series CQ2W

Foot style: CDQ2WL



Rod end male thread



Rod End Male Thread

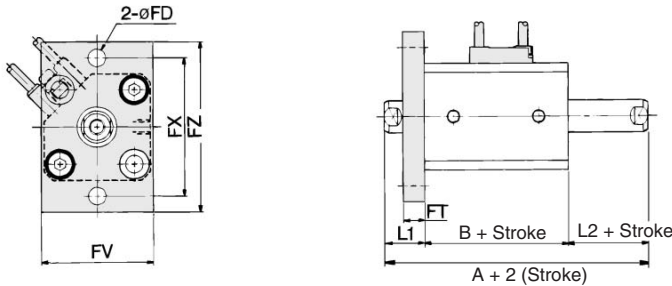
Bore size (mm)	A1	L1
12	80.4	24
16	87	25.5
20	95	28.5
25	104	32.5

Foot Style

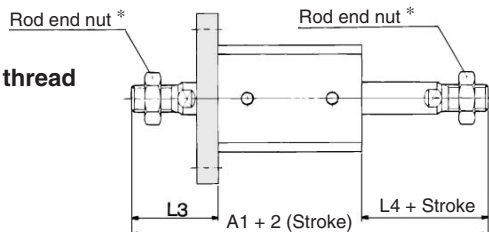
Bore size (mm)	Stroke range (mm)	A	B	L	LD	LG	LH	LS	LT	LX	LY	LZ	X	Y
12	5 to 30	59.4	32.4	13.5	4.5	2.8	17	20.4	2	34	29.5	44	8	4.5
16	5 to 30	63	36	13.5	4.5	2.8	19	24	2	38	33.5	48	8	5
20	5 to 50	67	38	14.5	6.6	4	24	26	3.2	48	42	62	9.2	5.8
25	5 to 50	69	39	15	6.6	4	26	24	3.2	52	46	66	10.7	5.8

Foot bracket material: Carbon steel

Flange style: CDQ2WF



Rod end male thread



Rod End Male Thread

Bore size (mm)	A1	L3	L4
12	70.4	24	14
16	77	25.5	15.5
20	85	28.5	18.5
25	94	32.5	22.5

Flange Style

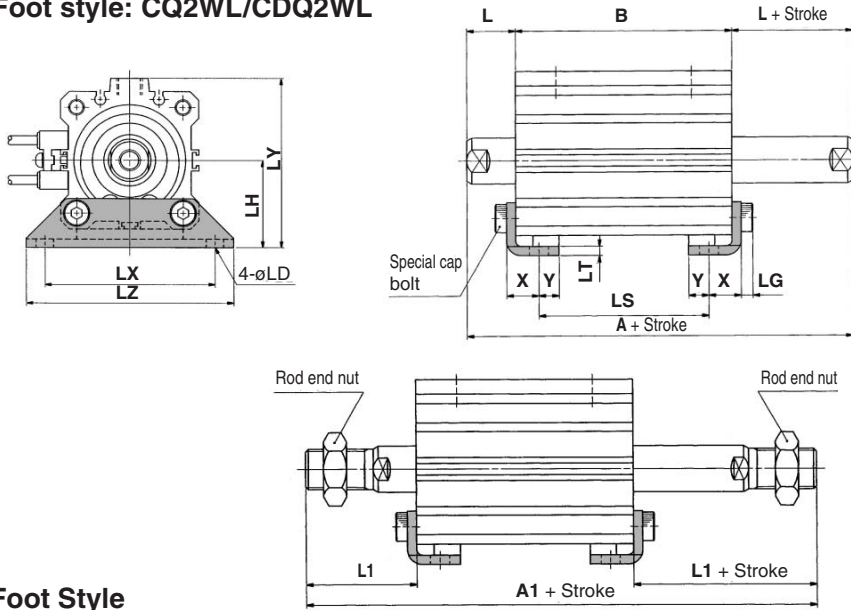
Bore size (mm)	Stroke range (mm)	A	B	FD	FT	FV	FX	FZ	L1	L2
12	5 to 30	49.4	32.4	4.5	5.5	25	45	55	13.5	3.5
16	5 to 30	53	36	4.5	5.5	30	45	55	13.5	3.5
20	5 to 50	57	38	6.6	8	39	48	60	14.5	4.5
25	5 to 50	59	39	6.6	8	42	52	64	15	5

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

Flange bracket material: Carbon steel

Compact Cylinder: Standard Type Double Acting, Double Rod Series **CQ2W/CDQ2W**

Foot style: CQ2WL/CDQ2WL



Rod End Male Thread

Bore size (mm)	Without auto switch			With auto switch			L1
	A1			A1			
	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	
32	107.5 + Stroke	192.5	217.5	117.5 + Stroke	192.5	217.5	38.5
40	117 + Stroke	202	227	127 + Stroke	202	227	38.5
50	127.5 + Stroke	212.5	237.5	137.5 + Stroke	212.5	237.5	43.5

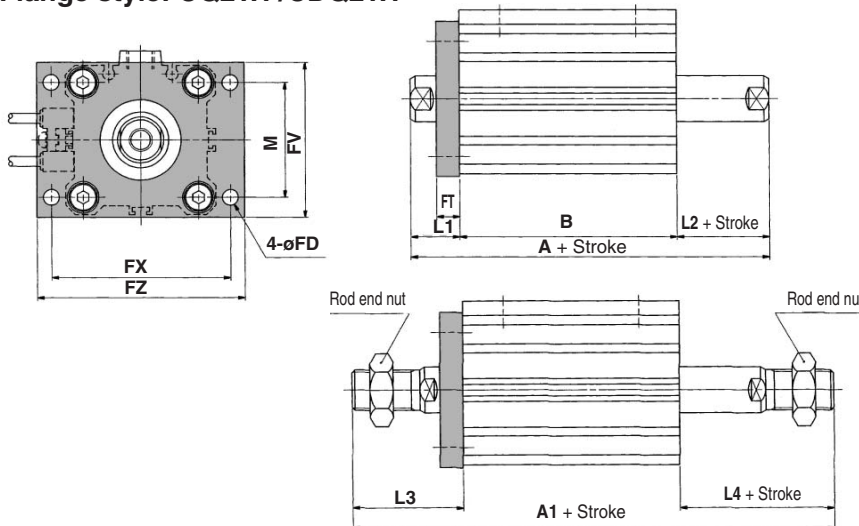
Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch									With auto switch								
		A			B			LS			A			B			LS		
		50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100
32	5 to 50, 75, 100	64.5 + Stroke	149.5	174.5	30.5 + Stroke	115.5	140.5	14.5 + Stroke	99.5	124.5	74.5 + Stroke	149.5	174.5	40.5 + Stroke	115.5	140.5	24.5 + Stroke	99.5	124.5
40	5 to 50, 75, 100	74 + Stroke	159	184	40 + Stroke	125	150	24 + Stroke	109	134	84 + Stroke	159	184	50 + Stroke	125	150	34 + Stroke	109	134
50	10 to 50, 75, 100	76.5 + Stroke	161.5	186.5	40.5 + Stroke	125.5	150.5	17.5 + Stroke	102.5	127.5	86.5 + Stroke	161.5	186.5	50.5 + Stroke	125.5	150.5	27.5 + Stroke	102.5	127.5

Foot bracket material: Carbon steel

Bore size (mm)	L	LD	LG	LH	LT	LX	LY	LZ	X	Y
32	17	6.6	4	30	3.2	57	57	71	11.2	5.8
40	17	6.6	4	33	3.2	64	64	78	11.2	7
50	18	9	5	39	3.2	79	78	95	14.7	8

Flange style: CQ2WF/CDQ2WF



Rod End Male Thread

Bore size (mm)	Without auto switch			With auto switch			L3	L4
	A1			A1				
	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100		
32	97.5 + Stroke	182.5	207.5	107.5 + Stroke	182.5	207.5	38.5	28.5
40	107 + Stroke	202.5	217	117 + Stroke	192	217	38.5	28.5
50	117.5 + Stroke	204	227.5	127.5 + Stroke	202.5	227.5	43.5	33.5

Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch									With auto switch									FD	FT	FV	FX	FZ	L1	L2	M
		A			B			A			B																
		50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100														
32	5 to 50, 75, 100	54.5 + Stroke	139.5	164.5	30.5 + Stroke	115.5	140.5	64.5 + Stroke	139.5	164.5	40.5 + Stroke	115.5	140.5	5.5	8	48	56	65	17	7	34						
40	5 to 50, 75, 100	64 + Stroke	149	174	40 + Stroke	125	150	74 + Stroke	149	174	50 + Stroke	125	150	5.5	8	54	62	72	17	7	40						
50	10 to 50, 75, 100	66.5 + Stroke	151.5	176.5	40.5 + Stroke	125.5	150.5	76.5 + Stroke	151.5	176.5	50.5 + Stroke	125.5	150.5	6.6	9	67	76	89	18	8	50						

Flange bracket material: Carbon steel

Note) When obtaining the full length dimension of 50 stroke or less, it requires to add the stroke twice.
Example) Full length dimension = A + Stroke = (● + Stroke) + Stroke

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

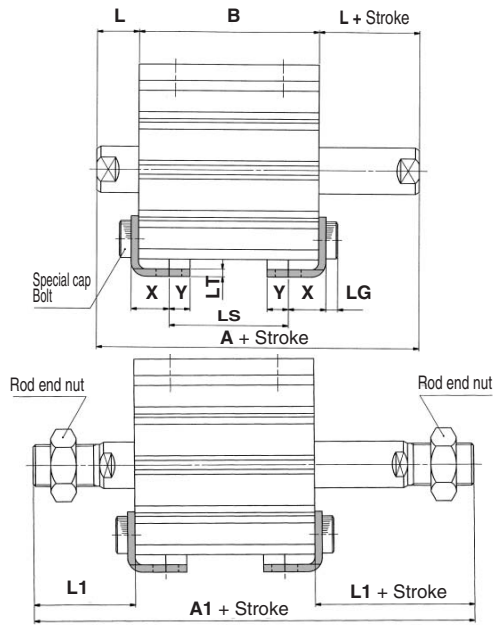
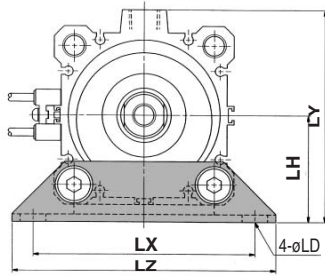
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20-

Data

Compact Cylinder: Standard Type Double Acting, Double Rod Series **CQ2W/CDQ2W**

Foot style: CQ2W/CDQ2WL



Rod End Male Thread

Bore size (mm)	Without auto switch			With auto switch			L1
	A1			A1			
	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	
63	129 + Stroke	214	239	139 + Stroke	214	239	43.5
80	158 + Stroke	243	268	168 + Stroke	243	268	53.5
100	167.5 + Stroke	252.5	277	177.5 + Stroke	252.5	277.5	53.5

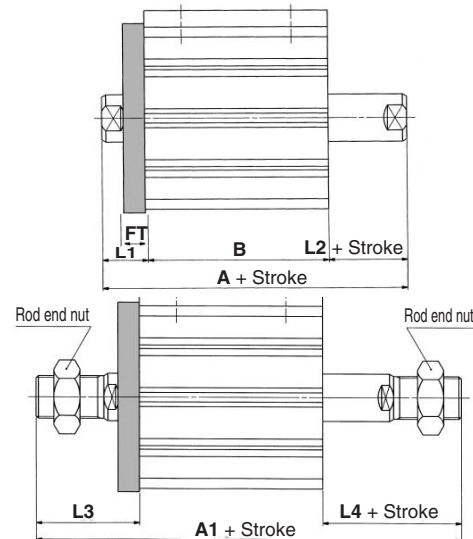
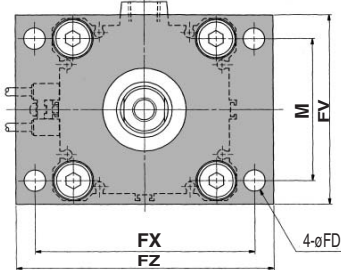
Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch									With auto switch								
		A			B			LS			A			B			LS		
		50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100
63	5 to 50, 75, 100	78 + Stroke	163	188	42 + Stroke	127	152	16 + Stroke	101	126	88 + Stroke	163	188	52 + Stroke	127	152	26 + Stroke	101	126
80	5 to 50, 75, 100	91 + Stroke	176	201	51 + Stroke	136	161	21 + Stroke	106	131	101 + Stroke	176	201	61 + Stroke	136	161	31 + Stroke	106	131
100	10 to 50, 75, 100	104.5 + Stroke	189.5	214.5	60.5 + Stroke	145.5	170.5	26.5 + Stroke	111.5	136.5	114.5 + Stroke	189.5	214.5	70.5 + Stroke	145.5	170.5	36.5 + Stroke	111.5	136.5

Foot bracket material: Carbon steel

Bore size (mm)	L	LD	LG	LH	LT	LX	LY	LZ	X	Y
63	18	11	5	46	3.2	95	91.5	113	16.2	9
80	20	13	7	59	4.5	118	114	140	19.5	11
100	22	13	7	71	6	137	136	162	23	12.5

Flange style: CQ2WF/CDQ2WF



Rod End Male Thread

Bore size (mm)	Without auto switch			With auto switch			L3	L4
	A1			A1				
	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100		
63	119 + Stroke	204	229	129 + Stroke	204	229	43.5	33.5
80	148 + Stroke	233	258	158 + Stroke	233	258	53.5	43.5
100	157.5 + Stroke	242.5	267.5	167.5 + Stroke	242.5	267.5	53.5	43.5

Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch									With auto switch										
		A			B			A			B			FD	FT	FV	FX	FZ	L1	L2	M
		50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100	50 st or less	55 to 75	80 to 100								
32	10 to 50, 75, 100	68 + Stroke	153	178	42 + Stroke	127	152	78 + Stroke	153	178	52 + Stroke	127	152	9	9	80	92	108	18	8	60
40	10 to 50, 75, 100	81 + Stroke	166	191	51 + Stroke	136	161	91 + Stroke	166	191	61 + Stroke	136	161	11	11	99	116	134	20	10	77
50	10 to 50, 75, 100	94.5 + Stroke	179.5	204.5	60.5 + Stroke	145.5	170.5	104.5 + Stroke	179.5	204.5	70.5 + Stroke	145.5	170.5	11	11	117	136	154	22	12	94

Flange bracket material: Carbon steel

Note) When obtaining the full length dimension of 50 stroke or less, it requires to add the stroke twice.
Example) Full length dimension = A + Stroke = (● + Stroke) + Stroke

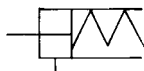
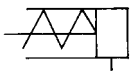
Compact Cylinder: Standard Type Single Acting, Single Rod, Spring Return/Extend Series CQ2



JIS Symbol

Single acting,
Spring return

Single acting,
Spring extend



⚠ Precautions

Be sure to read before handling.
For Safety Instructions and Actuator Precautions, refer to pages 7-13-3 to 7-13-6.

⚠ Caution

Snap Ring Installation/Removal

- For installation and removal, use an appropriate pair of pliers (tool for installing a type C snap ring).
- Even if a proper plier (tool for installing type C snap ring) is used, it is likely to inflict damage to a human body or peripheral equipment, as a snap ring may be flown out of the tip of a plier (tool for installing a type C snap ring). Be much careful with the popping of a snap ring. Besides, be certain that a snap ring is placed firmly into the groove of rod cover before supplying air at the time of installment.

Mounting Bracket Part No.

Bore size (mm)	Foot (2)	Flange	Double (3) clevis
12	CQ-L012	CQ-F012	CQ-D012
16	CQ-L016	CQ-F016	CQ-D016
20	CQ-L020	CQ-F020	CQ-D020
25	CQ-L025	CQ-F025	CQ-D025
32	CQ-L032	CQ-F032	CQ-D032
40	CQ-L040	CQ-F040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050

Note 2) When ordering foot bracket, order 2 pieces per cylinder.

Note 3) Parts belonging to each bracket are as follows.

Foot, Flange/Body mounting bolt, Double clevis/Clevis pin, Type C snap ring for axis, Body mounting bolt

Type

Bore size (mm)		12	16	20	25	32	40	50	
Pneumatic	Mounting	Through-hole (Standard)	●	●	●	●	●	●	
		Both ends tapped style	●	●	●	●	●	●	
	Built-in magnet		●	●	●	●	●	●	
	Piping	Screw-in type	M5 x 0.8	M5 x 0.8	M5 x 0.8	M5 x 0.8	M5 x 0.8 Rc 1/8 (Note)	Rc 1/8	Rc 1/4
		Built-in One-touch fittings	—	—	—	—	ø6/4	ø6/4	ø8/6
	Rod end male thread		●	●	●	●	●	●	●
With boss in head side		●	●	●	●	●	●	●	

Note) In the case of without auto switch, M5 x 0.8 is used for 5 stroke only.

Specifications

Type	Pneumatic (Non-lube)
Fluid	Air
Proof pressure	1.5 MPa
Maximum operating pressure	1.0 MPa
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)
Rubber bumper	None
Rod end thread	Female thread
Rod end thread tolerance	JIS Class 2
Stroke length tolerance	+1.0 0
Mounting	Through-hole
Piston speed	50 to 500 mm/s

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

-X

20-

Data

Standard Stroke

Bore size (mm)	Standard stroke
12, 16, 20 25, 32, 40	5, 10
50	10, 20

Manufacture of Intermediate Stroke (Single acting, Spring retract type is excluded.)

Description	Spacer is installed in the standard stroke body.	
Part no.	Refer to "How to Order" for the standard model no. on page 7-6-42.	
Description	Dealing with the stroke by the 1 mm interval is available by installing spacer with standard stroke cylinder.	
Stroke range	Bore size	Stroke range
	12 to 40	1 to 9
	50	1 to 19
Example	Part no.: CQ2B20-3T CQ2B20-5T with 2 mm width spacer inside. B dimension is 24.5 mm.	

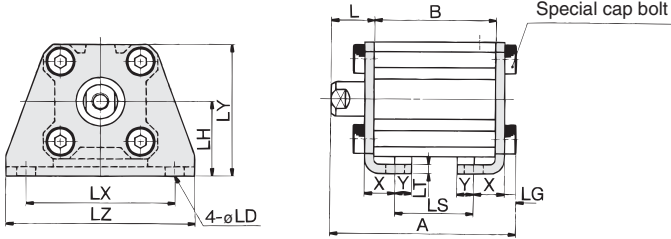
Allowable Kinetic Energy

(J)

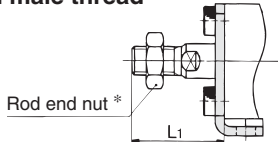
Bore size (mm)	12	16	20	25	32	40	50
Allowable kinetic energy	0.022	0.038	0.055	0.09	0.15	0.26	0.46

Compact Cylinder: Standard Type Single Acting, Single Rod, Spring Return/Extend **Series CQ2**

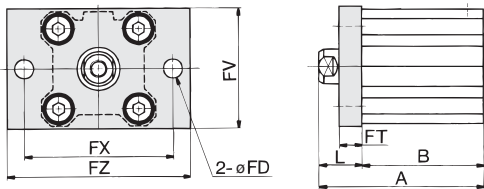
Foot style: CQ2L



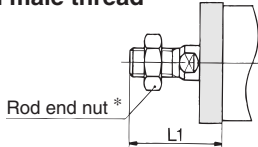
Rod end male thread



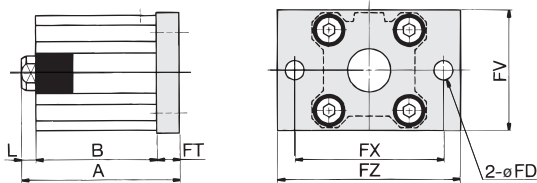
Rod side flange style: CQ2F



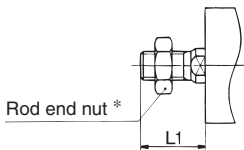
Rod end male thread



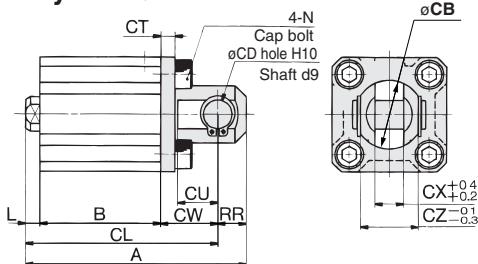
Head side flange style: CQ2G



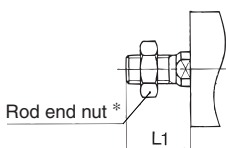
Rod end male thread



Double clevis style: CQ2D



Rod end male thread



Foot Style

Bore size (mm)	A		B		L	L1	LD	LG	LH	LS		LT	LX	LY	LZ	X	Y
	5 st	10 st	5 st	10 st						5 st	10 st						
12	40.3	45.3	22	27	13.5	24	4.5	2.8	17	10	15	2	34	29.5	44	8	4.5
16	41.8	46.8	23.5	28.5	13.5	25.5	4.5	2.8	19	11.5	16.5	2	38	33.5	48	8	5
20	46.2	51.2	24.5	29.5	14.5	28.5	6.6	4	24	12.5	17.5	3.2	48	42	62	9.2	5.8
25	49.7	54.7	27.5	32.5	15	32.5	6.6	4	26	12.5	17.5	3.2	52	46	66	10.7	5.8

Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	A		B		FD	FT	FV	FX	FZ	L	L1
	5 st	10 st	5 st	10 st							
12	35.5	40.5	22	27	4.5	5.5	25	45	55	13.5	24
16	37	42	23.5	28.5	4.5	5.5	30	45	55	13.5	25.5
20	39	44	24.5	29.5	6.6	8	39	48	60	14.5	28.5
25	42.5	47.5	27.5	32.5	6.6	8	42	52	64	15	32.5

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	A		L	L1
	5 st	10 st		
12	31	36	3.5	14
16	32.5	37.5	3.5	15.5
20	37	42	4.5	18.5
25	40.5	45.5	5	22.5

Flange bracket material: Carbon steel

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Double Clevis Style

Bore size (mm)	A		B		CB	CD	CL		CT	CU	CW	CX	CZ	L	L1	N	RR
	5 st	10 st	5 st	10 st			5 st	10 st									
12	45.5	50.5	22	27	12	5	39.5	44.5	4	7	14	5	10	3.5	14	M4 x 0.7	6
16	48	53	23.5	28.5	14	5	42	47	4	10	15	6.5	12	3.5	15.5	M4 x 0.7	6
20	56	61	24.5	29.5	20	8	47	52	5	12	18	8	16	4.5	18.5	M6 x 1.0	9
25	62.5	67.5	27.5	32.5	24	10	52.5	57.5	5	14	20	10	20	5	22.5	M6 x 1.0	10

Double clevis bracket material: Carbon steel

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

** Clevis pin and snap ring are shipped together.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

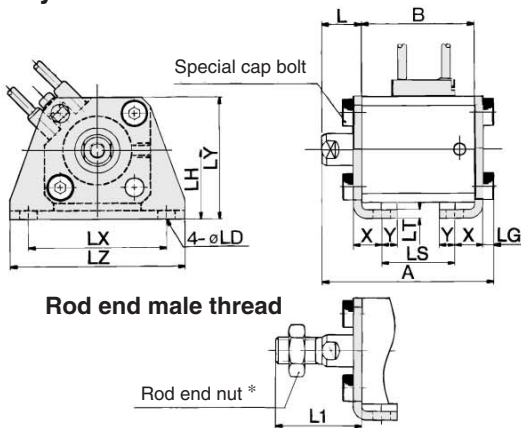
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Data

Compact Cylinder: Standard Type Single Acting, Single Rod, Spring Return/Extend **Series CDQ2**

Foot style: CDQ2L

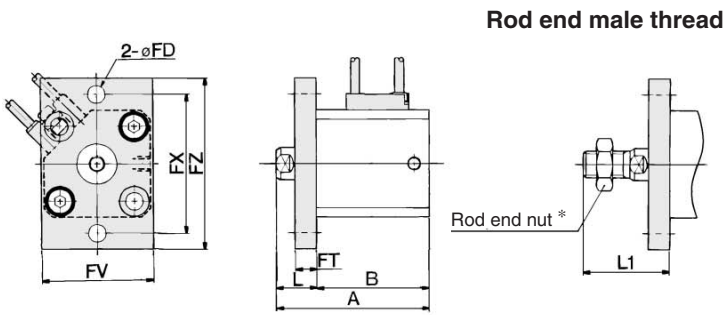


Foot Style

Bore size (mm)	A		B		L	L1	LD	LG	LH	LS		LT	LX	LY	LZ	X	Y
	5 st	10 st	5 st	10 st						5 st	10 st						
12	51.3	56.3	33	38	13.5	24	4.5	2.8	17	21	26	2	34	29.5	44	8	4.5
16	53.8	58.8	35.5	40.5	13.5	25.5	4.5	2.8	19	23.5	28.5	2	38	33.5	48	8	5
20	58.2	63.2	36.5	41.5	14.5	28.5	6.6	4	24	24.5	29.5	3.2	48	42	62	9.2	5.8
25	59.7	64.7	37.5	42.5	15	32.5	6.6	4	26	22.5	27.5	3.2	52	46	66	10.7	5.8

Foot bracket material: Carbon steel

Rod side flange style: CDQ2F

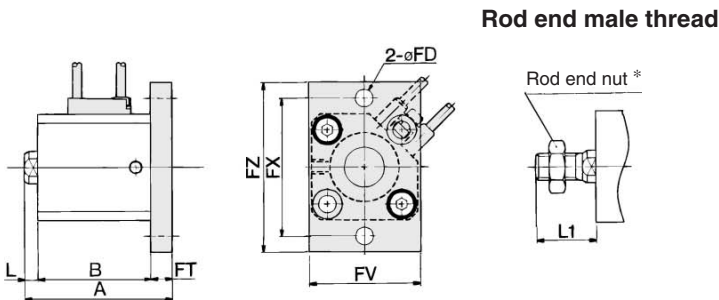


Rod Side Flange Style

Bore size (mm)	A		B		FD	FT	FV	FX	FZ	L	L1
	5 st	10 st	5 st	10 st							
12	46.5	51.5	33	38	4.5	5.5	25	45	55	13.5	24
16	49	54	35.5	40.5	4.5	5.5	30	45	55	13.5	25.5
20	51	56	36.5	41.5	6.6	8	39	48	60	14.5	28.5
25	52.5	57.5	37.5	42.5	6.6	8	42	52	64	15	32.5

Flange bracket material: Carbon steel

Head side flange style: CDQ2G



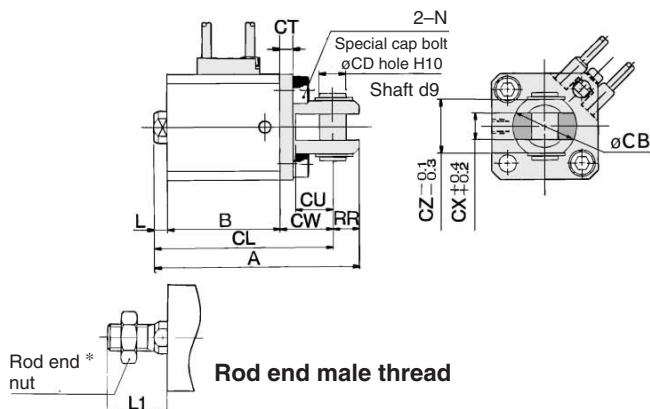
Head Side Flange Style

Bore size (mm)	A		L	L1
	5 st	10 st		
12	46.4	51.4	3.5	14
16	44.5	49.5	3.5	15.5
20	49	54	4.5	18.5
25	50.5	55.5	5	22.5

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Flange bracket material: Carbon steel

Double clevis style: CDQ2A



Double Clevis Style

Bore size (mm)	A		B		CB	CD	CL		CT	CU	CW	CX	CZ	L	L1	N	RR
	5 st	10 st	5 st	10 st			5 st	10 st									
12	56.5	61.5	33	38	12	5	50.5	55.5	4	7	14	5	10	3.5	14	M4 x 0.7	6
16	60	65	35.5	40.5	14	5	54	59	4	10	15	6.5	12	3.5	15.5	M4 x 0.7	6
20	68	73	36.5	41.5	20	8	59	64	5	12	18	8	16	4.5	18.5	M6 x 1.0	9
25	72.5	77.5	37.5	42.5	24	10	62.5	67.5	5	14	20	10	20	5	22.5	M6 x 1.0	10

Double clevis bracket material: Carbon steel

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.
** Clevis pin and snap ring are shipped together.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

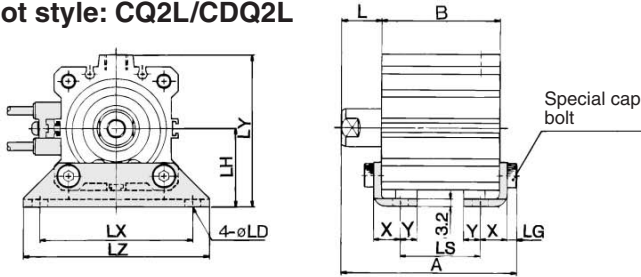
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20-

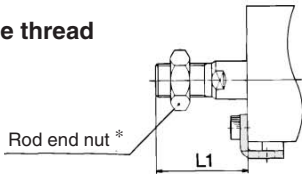
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Compact Cylinder: Standard Type Single Acting, Single Rod, Spring Return/Extend **Series CQ2/CDQ2**

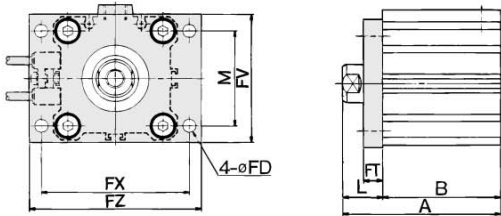
Foot style: CQ2L/CDQ2L



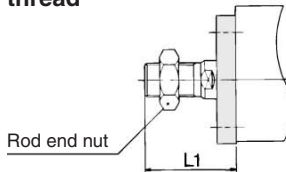
Rod end male thread



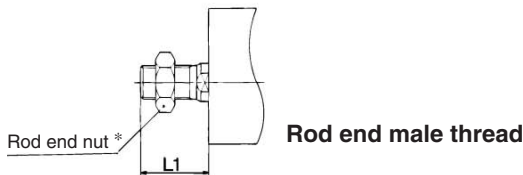
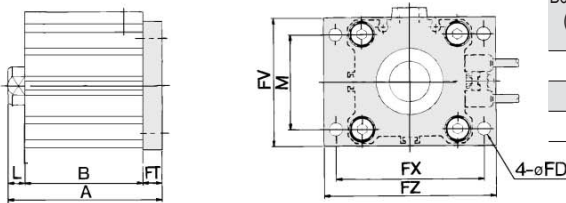
Rod side flange style: CQ2F/CDQ2F



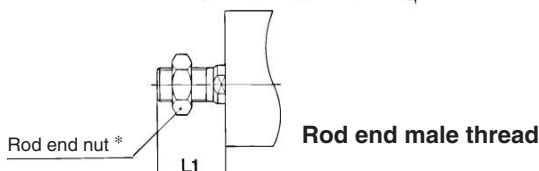
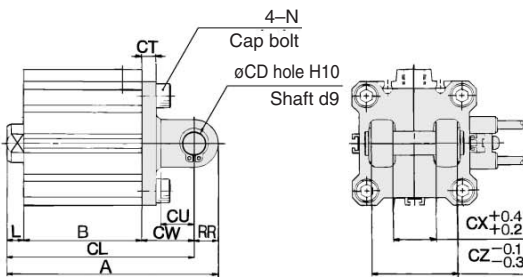
Rod end male thread



Head side flange style: CQ2G/CDQ2G



Head side flange style: CQ2D/CDQ2D



Foot Style

Bore size (mm)	Without auto switch									With auto switch								
	A			B			LS			A			B			LS		
	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st
32	52.5	57.2	—	28	33	—	12	17	—	62.2	67.2	—	38	43	—	22	27	—
40	58.7	63.7	—	34.5	39.5	—	18.5	23.5	—	68.7	73.7	—	44.5	49.5	—	28.5	33.5	—
50	—	66.7	76.7	—	40.5	50.5	—	17.5	27.5	—	76.7	86.7	—	50.5	60.5	—	27.5	37.5

Bore size (mm)	L	L1	LD	LG	LH	LX	LY	LZ	X	Y
32	17	38.5	6.6	4	30	57	57	71	11.2	5.8
40	17	38.5	6.6	4	33	64	64	78	11.2	7
50	18	43.5	9	5	39	79	78	95	14.7	8

Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	Without auto switch						With auto switch					
	A			B			A			B		
	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st
32	45	50	—	28	33	—	55	60	—	38	43	—
40	51.5	56.5	—	34.5	39.5	—	61.5	66.5	—	44.5	49.5	—
50	—	58.5	68.5	—	40.5	50.5	—	68.5	78.5	—	50.5	60.5

Bore size (mm)	FD	FT	FV	FX	FZ	L	L1	M
32	5.5	8	48	56	65	17	38.5	34
40	5.5	8	54	62	72	17	38.5	40
50	6.6	9	67	76	89	18	43.5	50

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Without auto switch			With auto switch			L	L1
	A			B				
	5 st	10 st	20 st	5 st	10 st	20 st		
32	43	48	—	53	58	—	7	28.5
40	49.5	54.5	—	59.5	64.5	—	7	28.5
50	—	57.5	67.5	—	67.5	77.5	8	33.5

Flange bracket material: Carbon steel

Double Clevis Style

Bore size (mm)	Without auto switch									With auto switch								
	A			B			CL			A			B			CL		
	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st
32	65	70	—	28	33	—	55	60	—	75	80	—	38	43	—	65	70	—
40	73.5	78.5	—	39.5	39.5	—	63.5	68.5	—	83.5	88.5	—	44.5	49.5	—	73.5	78.5	—
50	—	90.5	100.5	—	40.5	50.5	—	76.5	86.5	—	100.5	110.5	—	50.5	60.5	—	86.5	96.5

Bore size (mm)	CD	CT	CU	CW	CX	CZ	L	L1	N	RR
32	10	5	14	20	18	36	7	28.5	M6 x 1.0	10
40	10	6	14	22	18	36	7	28.5	M6 x 1.0	10
50	14	7	20	28	22	44	8	33.5	M8 x 1.25	14

Double clevis bracket material: Cast iron

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.



** Clevis pin and snap ring are attached.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

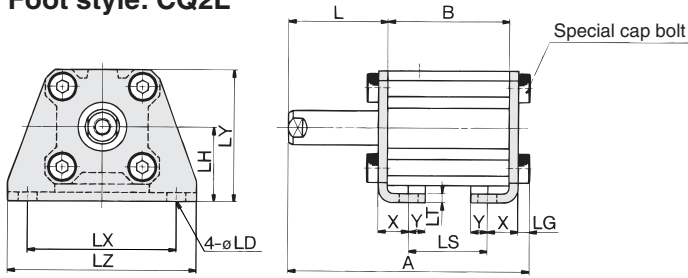
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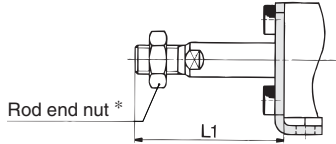
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Compact Cylinder: Standard Type Single Acting, Single Rod, Spring Return/Extend Series CQ2

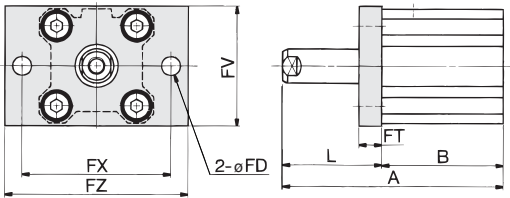
Foot style: CQ2L



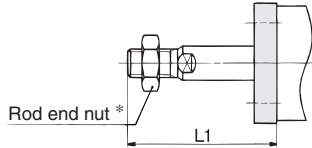
Rod end male thread



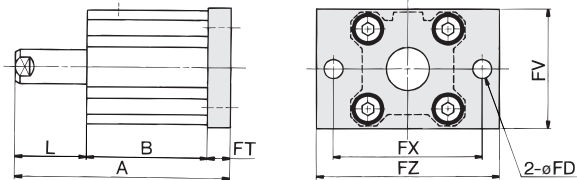
Rod side flange style: CQ2F



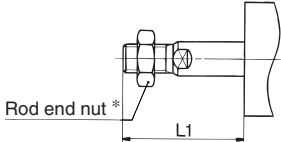
Rod end male thread



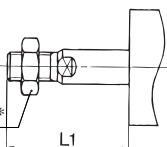
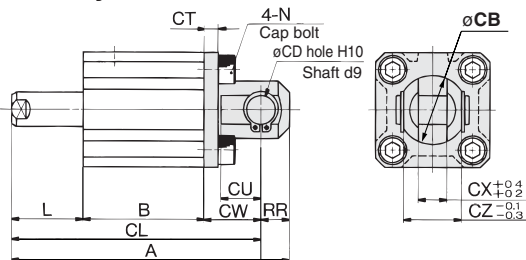
Head side flange style: CQ2G



Rod end male thread



Double clevis style: CQ2D



Rod end male thread

Foot Style

Bore size (mm)	A		B		L		L1		LD	LG	LH	LS		LT	LX	LY	LZ	X	Y
	5 st	10 st	5 st	10 st	5 st	10 st	5 st	10 st				5 st	10 st						
12	45.3	55.3	22	27	18.5	23.5	29	34	4.5	2.8	17	10	15	2	34	29.5	44	8	4.5
16	46.8	56.8	23.5	28.5	18.5	23.5	30.5	35.5	4.5	2.8	19	11.5	16.5	2	38	33.5	48	8	5
20	51.2	61.2	24.5	29.5	19.5	24.5	33.5	38.5	6.6	4	24	12.5	17.5	3.2	48	42	62	9.2	5.8
25	54.7	64.7	27.5	32.5	20	25	37.5	42.5	6.6	4	26	12.5	17.5	3.2	52	46	66	10.7	5.8

Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	A		B		FD	FT	FV	FX	FZ	L		L1	
	5 st	10 st	5 st	10 st						5 st	10 st	5 st	10 st
12	40.5	50.5	22	27	4.5	5.5	25	45	55	18.5	23.5	29	34
16	42	52	23.5	28.5	4.5	5.5	30	45	55	18.5	23.5	30.5	35.5
20	44	54	24.5	29.5	6.6	8	39	48	60	19.5	24.5	33.5	38.5
25	47.5	57.5	27.5	32.5	6.6	8	42	52	64	20	25	37.5	42.5

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	A		L		L1	
	5 st	10 st	5 st	10 st	5 st	10 st
12	36	46	8.5	13.5	19	24
16	37.5	47.5	8.5	13.5	20.5	25.5
20	42	52	9.5	14.5	23.5	28.5
25	45.5	55.5	10	15	27.5	32.5

Flange bracket material: Carbon steel

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Double Clevis Style

Bore size (mm)	A		B		CB	CD	CL		CT	CU	CW	CX	CZ	L		L1		N	RR
	5 st	10 st	5 st	10 st			5 st	10 st						5 st	10 st				
12	50.5	60.5	22	27	12	5	44.5	54.5	4	7	14	5	10	8.5	13.5	19	24	M4 x 0.7	6
16	53	63	23.5	28.5	14	5	47	57	4	10	15	6.5	12	8.5	13.5	20.5	25.5	M4 x 0.7	6
20	61	71	24.5	29.5	20	8	52	62	5	12	18	8	16	9.5	14.5	23.5	28.5	M6 x 1.0	9
25	67.5	77.5	27.5	32.5	24	10	57.5	67.5	5	14	20	10	20	10	15	27.5	32.5	M6 x 1.0	10

Double clevis bracket material: Carbon steel



* For details about the rod end nut and accessory brackets, refer to page 7-6-20.
** Clevis pin and snap ring are attached.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

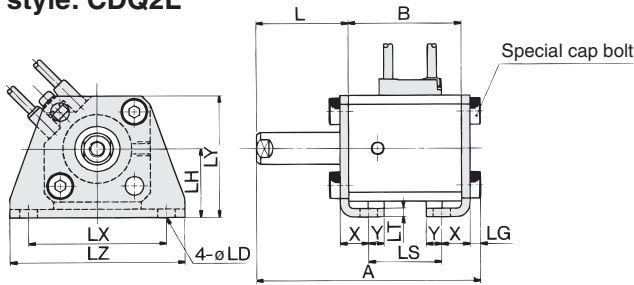
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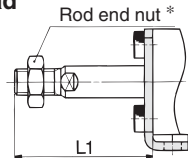
Data

Compact Cylinder: Standard Type Single Acting, Single Rod, Spring Return/Extend **Series CDQ2**

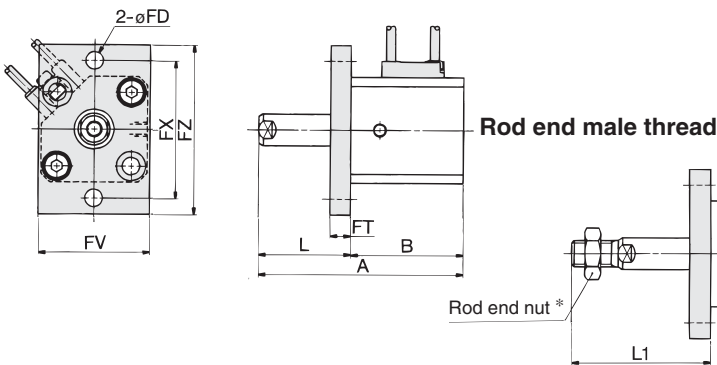
Foot style: CDQ2L



Rod end male thread



Rod side flange style: CDQ2F



Foot Style

Bore size (mm)	A		B		L		L1		LD	LG	LH	LS		LT	LX	LY	LZ	X	Y
	5 st	10 st	5 st	10 st	5 st	10 st	5 st	10 st				5 st	10 st						
12	60.7	70.7	37.4	42.4	18.5	23.5	29	34	4.5	2.8	17	25.4	30.4	2	34	29.5	44	8	4.5
16	58.8	68.8	35.5	40.5	18.5	23.5	30.5	35.5	4.5	2.8	19	23.5	28.5	2	38	33.5	48	8	5
20	63.2	73.2	36.5	41.5	19.5	24.5	33.5	38.5	6.6	4	24	24.5	29.5	3.2	48	42	62	9.2	5.8
25	64.7	74.7	37.5	42.5	20	25	37.5	42.5	6.6	4	26	22.5	27.5	3.2	52	46	66	10.7	5.8

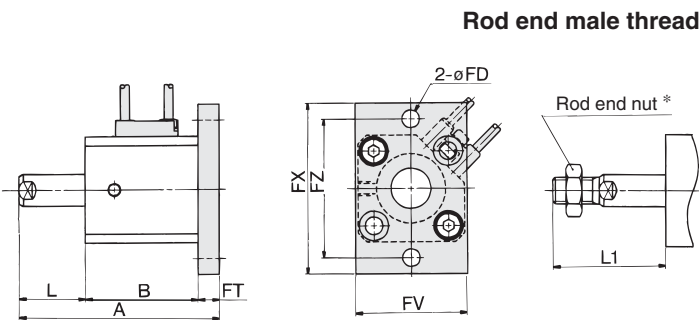
Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	A		B		FD	FT	FV	FX	FZ	L		L1	
	5 st	10 st	5 st	10 st						5 st	10 st	5 st	10 st
12	55.9	65.9	37.4	42.4	4.5	5.5	25	45	55	18.5	23.5	29	34
16	54	64	35.5	40.5	4.5	5.5	30	45	55	18.5	23.5	30.5	35.5
20	56	66	36.5	41.5	6.6	8	39	48	60	19.5	24.5	33.5	38.5
25	57.5	67.5	37.5	42.5	6.6	8	42	52	64	20	25	37.5	42.5

Flange bracket material: Carbon steel

Head side flange style: CDQ2G



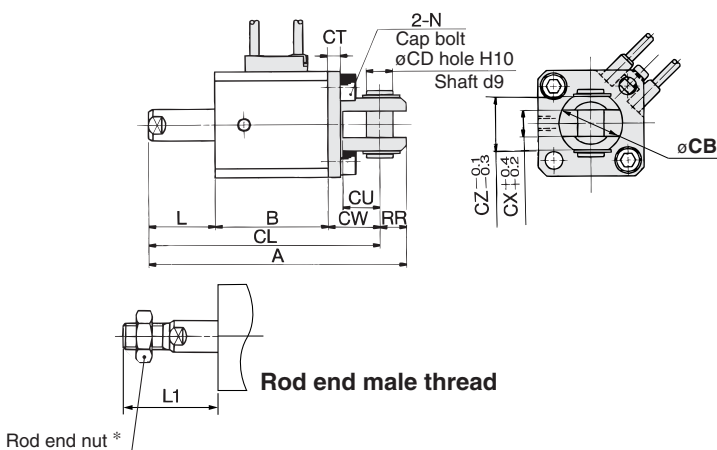
Head Side Flange Style

Bore size (mm)	A		L		L1	
	5 st	10 st	5 st	10 st	5 st	10 st
12	51.4	61.4	8.5	13.5	19	24
16	49.5	59.5	8.5	13.5	20.5	25.5
20	54	64	9.5	14.5	23.5	28.5
25	55.5	65.5	10	15	27.5	32.5

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Flange bracket material: Carbon steel

Double clevis style: CDQ2D



Double Clevis Style

Bore size (mm)	A		B		CB	CD	CL		CT	CU	CW	CX	CZ	L	
	5 st	10 st	5 st	10 st			5 st	10 st						5 st	10 st
12	65.9	75.9	37.4	42.4	12	5	59.9	69.9	4	7	14	5	10	8.5	13.5
16	65	75	35.5	40.5	14	5	59	69	4	10	15	6.5	12	8.5	13.5
20	73	83	36.5	41.5	20	8	64	74	5	12	18	8	16	9.5	14.5
25	77.5	87.5	37.5	42.5	24	10	67.5	77.5	5	14	20	10	20	10	15

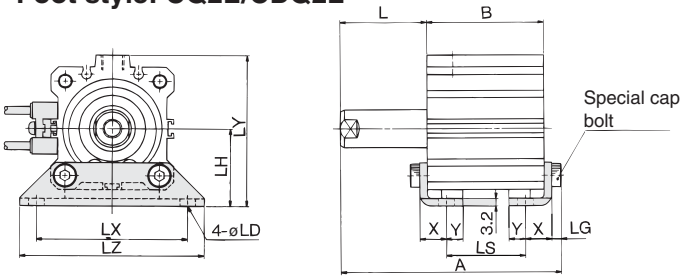
* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

** Clevis pin and snap ring are shipped together.

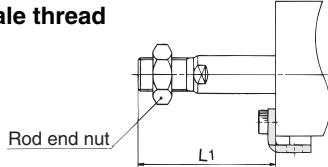
Double clevis bracket material: Carbon steel

Compact Cylinder: Standard Type Single Acting, Single Rod, Spring Return/Extend **Series CQ2/CDQ2**

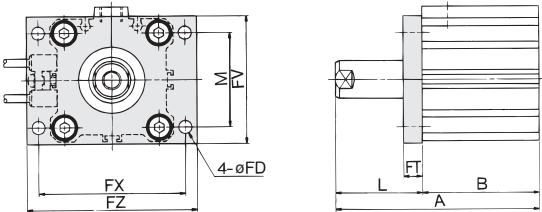
Foot style: CQ2L/CDQ2L



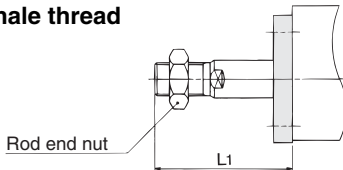
Rod end male thread



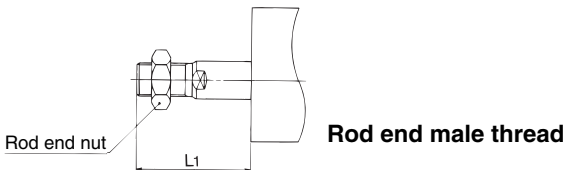
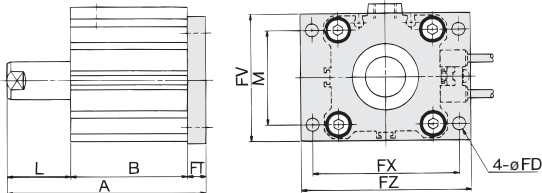
Rod side flange style: CQ2F/CDQ2F



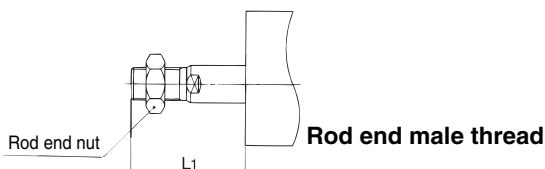
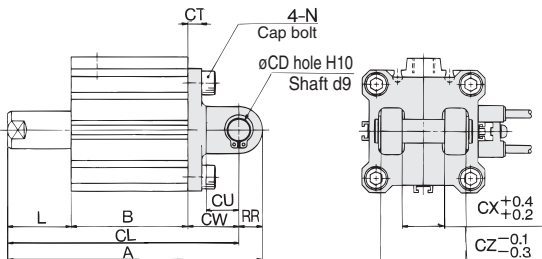
Rod end male thread



Head side flange style: CQ2G/CDQ2G



Double clevis style: CQ2D/CDQ2D



Foot Style

Bore size (mm)	Without auto switch									With auto switch								
	A			B			LS			A			B			LS		
	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st
32	57.2	67.2	—	28	33	—	12	17	—	67.2	77.2	—	38	43	—	22	27	—
40	63.7	73.7	—	34.5	39.5	—	18.5	23.5	—	73.7	83.7	—	44.5	49.5	—	28.5	33.5	—
50	—	76.7	96.7	—	40.5	50.5	—	17.5	27.5	—	86.7	106.7	—	50.5	60.5	—	27.5	37.5

Bore size (mm)	L			L1			LD	LG	LH	LX	LY	LZ	X	Y
	5 st	10 st	20 st	5 st	10 st	20 st								
	32	22	27	—	43.5	48.5								
40	22	27	—	43.5	48.5	—	6.6	4	33	64	64	78	11.2	7
50	—	28	38	—	53.5	63.5	9	5	39	79	78	95	14.7	8

Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	Without auto switch						With auto switch						FD	FT	FV	FX	FZ
	A			B			A			B							
	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st					
32	50	60	—	28	33	—	60	70	—	38	43	—	5.5	8	45	56	65
40	56.5	66.5	—	34.5	39.5	—	66.5	76.5	—	44.5	49.5	—	5.5	8	54	62	72
50	—	68.5	88.5	—	40.5	50.5	—	78.5	98.5	—	50.5	60.5	6.6	9	67	76	89

Bore size (mm)	L			L1			M
	5 st	10 st	20 st	5 st	10 st	20 st	
	32	22	27	—	43.5	48.5	
40	22	27	—	43.5	48.5	—	40
50	—	28	38	—	53.5	63.5	50

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Without auto switch			With auto switch			L			L1					
	A			B			5 st			10 st			20 st		
	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st			
32	48	58	—	58	68	—	12	17	—	33.5	38.5	—			
40	45.5	64.5	—	64.5	74.5	—	12	17	—	33.5	38.5	—			
50	—	67.5	87.5	—	77.5	97.5	—	18	28	—	43.5	53.5			

Flange bracket material: Carbon steel

(* Dimensions except A, L and L1 are the same as rod side flange style.)

Double Clevis Style

Bore size (mm)	Without auto switch									With auto switch								
	A			B			CL			A			B			CL		
	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st	5 st	10 st	20 st
32	70	80	—	28	33	—	60	70	—	80	90	—	38	43	—	70	80	—
40	78.5	88.5	—	34.5	39.5	—	68.5	78.5	—	88.5	98.5	—	44.5	49.5	—	78.5	88.5	—
50	—	100.5	120.5	—	40.5	50.5	—	86.5	106.5	—	110.5	130.5	—	50.5	60.5	—	96.5	116.5

Bore size (mm)	CD	CT	CU	CW	CX	CZ	L			L1		
							5 st	10 st	20 st	5 st	10 st	20 st
							32	10	5	14	20	18
40	10	6	14	22	18	36	12	17	—	33.5	38.5	—
50	14	7	20	28	22	44	—	18	28	—	43.5	53.5

Double clevis bracket material: Cast iron



* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

** Clevis pin and snap ring are shipped together.

Series CQ2K



Made to Order Specifications (For details, refer to page 7-10-1.)

Symbol	Specifications
-XA□	Change of rod end shape
-XB10	Intermediate stroke (Using exclusive body)
-XC8	Adjustable stroke cylinder/Adjustable extension type
-XC9	Adjustable stroke cylinder/Adjustable retraction type
-XC10	Dual stroke cylinder/Double rod type
-XC11	Dual stroke cylinder/Single rod type
-XC18	NPT finish piping port

Theoretical Output

(N)

Bore size (mm)	Operating direction	Operating pressure (MPa)			Bore size (mm)	Operating direction	Operating pressure (MPa)		
		0.3	0.5	0.7			0.3	0.5	0.7
12	IN	25	42	59	32	IN	181	302	422
	OUT	34	57	79		OUT	241	402	563
16	IN	45	75	106	40	IN	317	528	739
	OUT	60	101	141		OUT	377	628	880
20	IN	71	118	165	50	IN	495	825	1150
	OUT	94	157	220		OUT	589	982	1370
25	IN	113	189	264	63	IN	841	1400	1960
	OUT	147	245	344		OUT	935	1560	2180

Mounting Bracket Part No.

Bore size (mm)	Foot (3)	Flange	Double clevis
40	CQ-L040	CQ-F040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050
63	CQ-L063	CQ-F063	CQ-D063



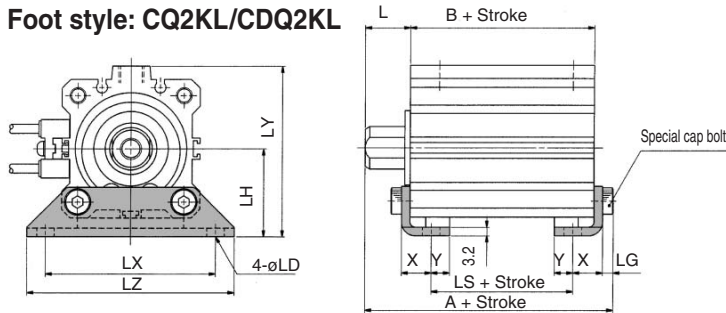
Note 3) Order two foot brackets per cylinder.

Note 4) Parts belonging to each bracket are as follows.

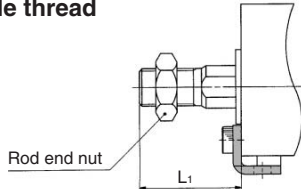
Foot or Flange style/Body mounting bolt, Double clevis style: Clevis pin, Type C snap ring for axis/Body mounting bolt.

Compact Cylinder: Non-rotating Rod Type Double Acting, Single Rod Series CQ2K/CDQ2K

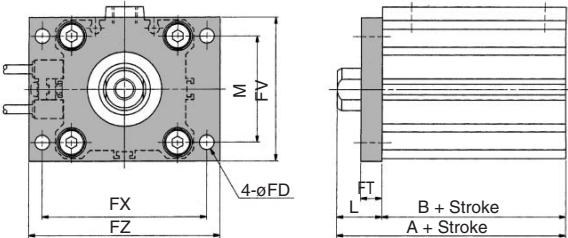
Foot style: CQ2KL/CDQ2KL



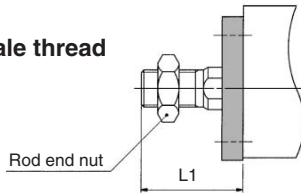
Rod end male thread



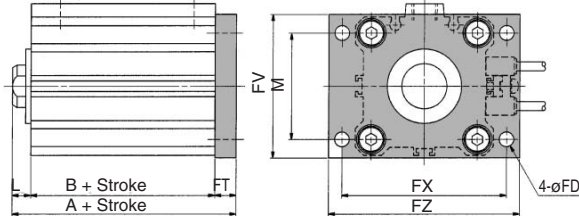
Rod side flange style: CQ2KF/CDQ2KF



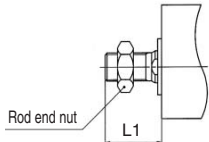
Rod end male thread



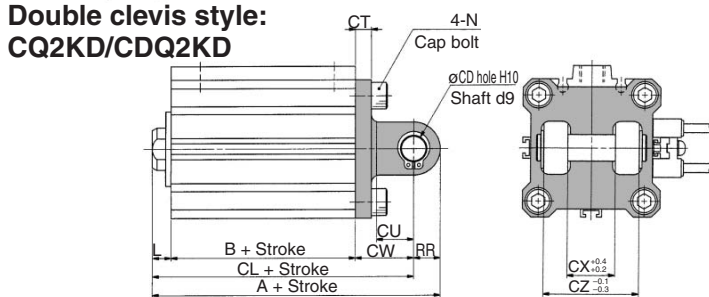
Head side flange style: CQ2KG/CDQ2KG



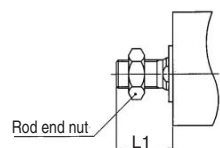
Rod end male thread



Double clevis style: CQ2KD/CDQ2KD



Rod end male thread



Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			L	L1	LD	LG	LH	LX	LY
		A	B	LS	A	B	LS							
40	5 to 50	53.7	29.5	13.5	63.7	39.5	23.5	17	38.5	6.6	4	33	64	64
	75, 100	63.7	39.5	23.5										
50	10 to 50	56.7	30.5	7.5	66.7	40.5	17.5	18	43.5	9	5	39	79	78
	75, 100	66.7	40.5	17.5										
63	10 to 50	62.2	36	10	72.2	46	20	18	43.5	11	5	46	95	91.5
	75, 100	72.2	46	20										

Bore size (mm)	LZ	X	Y
40	78	11.2	7
50	95	14.7	8
63	113	16.2	9

Foot bracket material:
Carbon steel

Rod Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		FD	FT	FV	FX	FZ	L	L1	M
		A	B	A	B								
40	5 to 50	46.5	29.5	56.5	39.5	5.5	8	54	62	72	17	38.5	40
	75, 100	56.5	39.5										
50	10 to 50	48.5	30.5	58.5	40.5	6.6	9	67	76	89	18	43.5	50
	75, 100	58.5	40.5										
63	10 to 50	54	36	64	46	9	9	80	92	108	18	43.5	60
	75, 100	64	46										

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch	With auto switch	L	L1
		A	A		
40	5 to 50	44.5	54.5	7	28.5
	75, 100	54.5			
50	10 to 50	47.5	57.5	8	33.5
	75, 100	57.5			
63	10 to 50	53	63	8	33.5
	75, 100	63			

* Dimensions except A, L and L1 are the same as rod side flange style.

Flange bracket material: Carbon steel

Double Clevis Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			CD	CT	CU	CW	CX	CZ	L	L1
		A	B	CL	A	B	CL								
40	5 to 50	68.5	29.5	58.5	78.5	39.5	68.5	10	6	14	22	18	36	7	28.5
	75, 100	78.5	39.5	68.5											
50	10 to 50	80.5	30.5	66.5	90.5	40.5	76.5	14	7	20	28	22	44	8	33.5
	75, 100	90.5	40.5	76.5											
63	10 to 50	88	36	74	98	46	84	14	8	20	30	22	44	8	33.5
	75, 100	98	46	84											

Double clevis bracket material: Carbon steel



* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

** Clevis pin and snap ring are shipped together.

Series CQ2KW

Theoretical Output

(N)

Bore size (mm)	Operating pressure (MPa)			Bore size (mm)	Operating pressure (MPa)		
	0.3	0.5	0.7		0.3	0.5	0.7
12	25	42	59	32	181	302	422
16	45	75	106	40	317	528	739
20	71	118	165	50	495	825	1150
25	113	189	264	63	841	1400	1960

Mounting Bracket Part No.

Bore size (mm)	Foot ⁽¹⁾	Flange
40	CQ-L040	CQ-F040
50	CQ-L050	CQ-F050
63	CQ-L063	CQ-F063



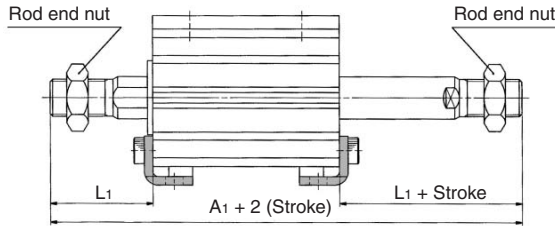
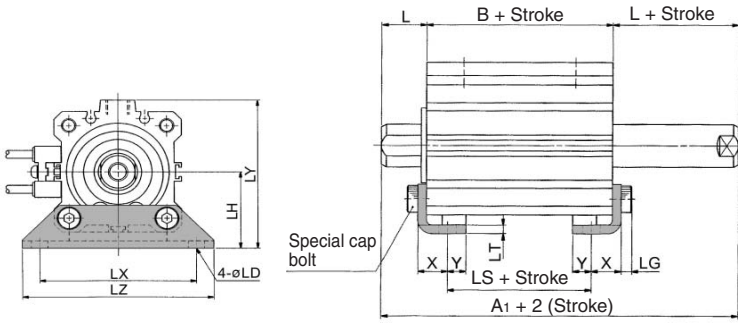
Note 1) When ordering foot bracket, order 2 pieces per cylinder.

Note 2) Parts belonging to each bracket are as follows.

Compact Cylinder: Non-rotating Rod Type Double Acting, Double Rod Series CQ2KW/CDQ2KW

Dimensions: $\phi 40$ to $\phi 63$

Foot style: CQ2KWL/CDQ2KWL



Rod End Male Thread

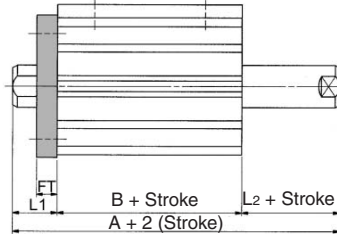
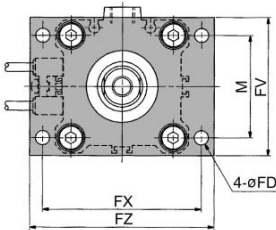
Bore size (mm)	Without auto switch	With auto switch	L ₁
	A ₁	A ₁	
40	117	127	38.5
50	127.5	137.5	43.5
63	129	139	43.5

Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			L	LD	LG	LH	LT	LX	LY	LZ	X	Y
		A	B	LS	A	B	LS										
40	5 to 50	74	40	24	84	50	34	17	6.6	4	33	3.2	64	68	78	11.2	7
	75,100	84	50	34	84	50	34	17	6.6	4	33	3.2	64	68	78	11.2	7
50	10 to 50	76.5	40.5	17.5	86.5	50.5	27.5	18	9	5	39	3.2	79	78	95	14.7	8
	75,100	86.5	50.5	27.5	86.5	50.5	27.5	18	9	5	39	3.2	79	78	95	14.7	8
63	10 to 50	78	42	16	88	52	26	18	11	5	46	3.2	95	91.5	113	16.2	8
	75,100	88	52	26	88	52	26	18	11	5	46	3.2	95	91.5	113	16.2	8

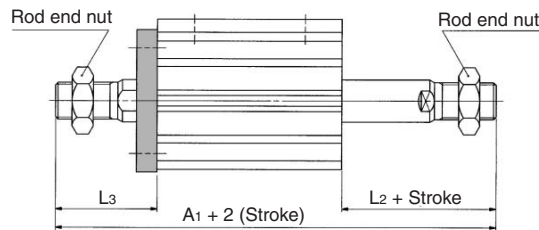
Foot bracket material: Carbon steel


Flange style: CQ2KWF/CDQ2KWL



Rod End Male Thread


Bore size (mm)	Without auto switch	With auto switch	L ₃	L ₄
	A ₁	A ₁		
40	107	117	38.5	28.5
50	117.5	127.5	43.5	33.5
63	119	129	43.5	33.5



 Auto switch shown above is D-A73 type and D-A80 type. For the auto switch mounting position and its mounting height, refer to page 7-6-83.

Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		FD	FT	FV	FX	FZ	L ₁	L ₂	M
		A	B	A	B								
40	5 to 50	64	40	74	50	5.5	8	54	62	72	17	7	40
	75,100	74	50	74	50	5.5	8	54	62	72	17	7	40
50	10 to 50	66.5	40.5	76.5	50.5	6.6	9	67	76	89	18	8	50
	75,100	76.5	50.5	76.5	50.5	6.6	9	67	76	89	18	8	50
63	10 to 50	68	42	78	52	9	9	80	92	108	18	8	60
	75,100	78	52	78	52	9	9	80	92	108	18	8	60

 * For details about the rod end nut and accessory brackets, refer to page 7-6-20. Flange bracket material: Carbon steel

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

-X

20-

Data

Compact Cylinder: Long Stroke Type Double Acting, Single Rod Series CQ2

Copper-free (For CRT manufacturing process)

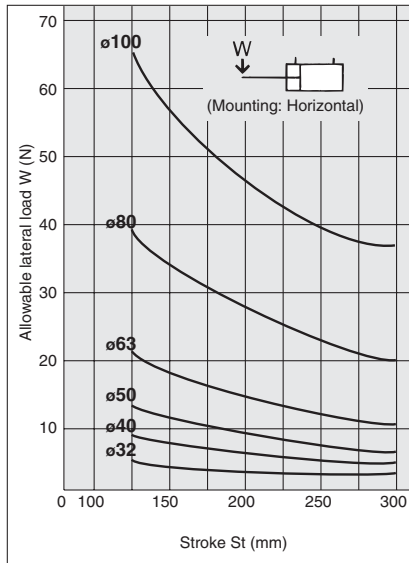
20 — CQ2A Bore size — Stroke DC(M)
 • Copper-free • $\phi 32, \phi 40, \phi 50, \phi 63, \phi 80, \phi 100$

To prevent the influence of copper ions or halogen ions during CRT manufacturing processes, copper and fluorine materials are not used in the component parts.

Specifications

Action	Double acting, Single rod
Bore size (mm)	32, 40, 50, 63, 80, 100
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa
Rubber bumper	With (Standard equipment)
Piping	Screw-in piping
Piston speed	50 to 500 mm/S
Mounting	Both ends tapped style
Auto switch	Mountable

Allowable Lateral Load at Rod End



Mounting Bracket Part No.

Bore size (mm)	Foot (2)	Flange	Double clevis
32	CQ-L032	CQ-F032	CQ-D032
40	CQ-L040	CQ-F040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050
63	CQ-L063	CQ-F063	CQ-D063
80	CQ-L080	CQ-F080	CQ-D080
100	CQ-L100	CQ-F100	CQ-D100

Note 2) When ordering foot bracket, order 2 pieces per cylinder.

Note 3) Parts belonging to each bracket are as follows.

Foot or Flange style: Body mounting bolt, Double clevis/Clevis pin, Body mounting bolt, C shape snap ring for axis.



Theoretical Output

Bore size (mm)	Operating direction	Operating pressure (MPa)			Bore size (mm)	Operating direction	Operating pressure (MPa)		
		0.3	0.5	0.7			0.3	0.5	0.7
32	IN	181	302	422	63	IN	841	1402	1962
	OUT	241	402	563		OUT	935	1559	2182
40	IN	317	528	739	80	IN	1361	2268	3175
	OUT	377	628	880		OUT	1508	2513	3519
50	IN	495	825	1155	100	IN	2144	3574	5003
	OUT	589	982	1374		OUT	2356	3927	5498

Weight

Without Auto Switch (g)

Bore size (mm)	Cylinder stroke (mm)					
	125	150	175	200	250	300
32	754	859	965	1070	1279	1490
40	945	1063	1180	1298	1535	1770
50	1469	1650	1832	2007	2376	2739
63	1810	2018	2227	2438	2851	3268
80	3120	3456	3793	4127	4801	5474
100	4956	5374	5790	6020	7042	7875

Built-in Magnet (g)

Bore size (mm)	Cylinder stroke (mm)					
	125	150	175	200	250	300
32	763	868	974	1079	1288	1499
40	959	1077	1194	1312	1549	1784
50	1484	1665	1847	2022	2391	2754
63	1834	2042	2251	2462	2875	3292
80	3144	3480	3817	4151	4825	5498
100	4994	5412	5828	6058	7080	7913

Additional Weight (g)

Bore size (mm)		32	40	50	63	80	100
Rod end male thread	Male thread	26	27	53	53	120	175
	Nut	17	17	32	32	49	116
Foot style (Including mounting bolt)		147	159	253	356	685	1123
Rod side flange style (Including mounting bolt)		165	198	348	534	1017	1309
Head side flange style (Including mounting bolt)		165	198	348	534	1017	1309
Double clevis style (Including pin, snap ring, bolt)		151	196	393	554	1109	1887

Calculation: (Example) CQ2D32-200DCM
 • Cylinder weight: CQ2A32-200DC..... 1070 g
 • Option weight: Rod end male thread..... 43 g
 Double clevis style..... 151 g
 1264 g

Add the weight of auto switches and mounting brackets when auto switches are mounted.

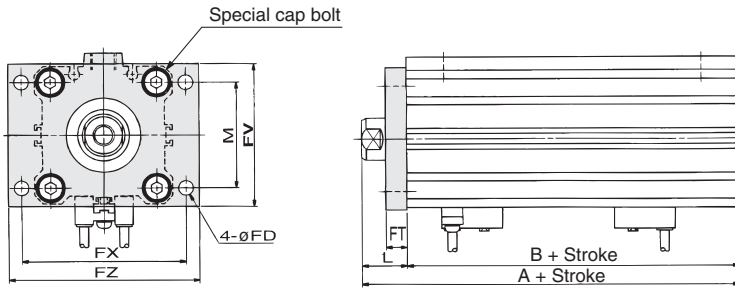
Auto Switch Mounting Bracket Weight

Mounting bracket part no.	Applicable bore size(mm)	Weight (g)
BQ-2	32 to 100	1.5

For the auto switch weight, refer to page 7-9-1.

Compact Cylinder: Long Stroke Type Double Acting, Single Rod Series **CQ2**

Rod side flange style: C□Q2F



Rod Side Flange Style

Bore size (mm)	A	B	FD	FT	FV	FX	FZ	L	L1	M
32	62.5	45.5	5.5	8	48	56	65	17	38.5	34
40	72	55	5.5	8	54	62	72	17	38.5	40
50	73.5	55.5	6.6	9	67	76	89	18	43.5	50

Flange bracket material: Carbon steel

CUJ

CU

CQS

CQM

CQ2

RQ

MU

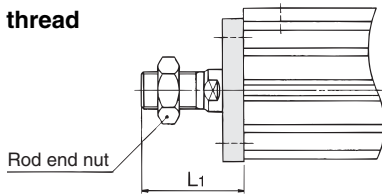
D-

-X

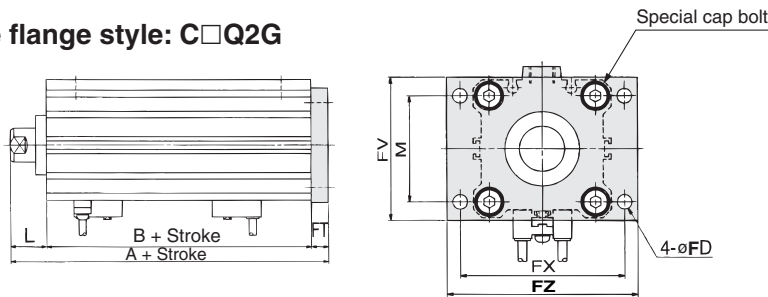
20-

Data

Rod end male thread



Head side side flange style: C□Q2G

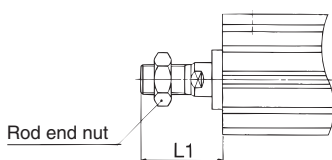


Head Side Flange Style

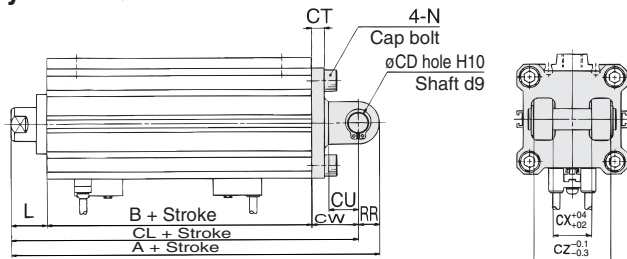
Bore size (mm)	A
32	70.5
40	80
50	82.5

Flange bracket material: Carbon steel
* Dimensions except A are the same as rod side flange style.

Rod end male thread



Double clevis style: C□Q2D



Double Clevis Style

Bore size (mm)	A	B	CD	CL	CT	CU	CW	CX	CZ
32	92.5	45.5	10	82.5	5	14	20	18	36
40	104	55	10	94	6	14	22	18	36
50	115.5	55.5	14	101.5	7	20	28	22	44

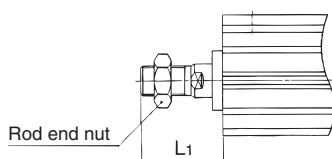
Bore size (mm)	L	L1	N	RR
32	17	38.5	M6 x 1.0	10
40	17	38.5	M6 x 1.0	10
50	18	43.5	M8 x 1.25	14

Double clevis bracket material: Cast iron

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

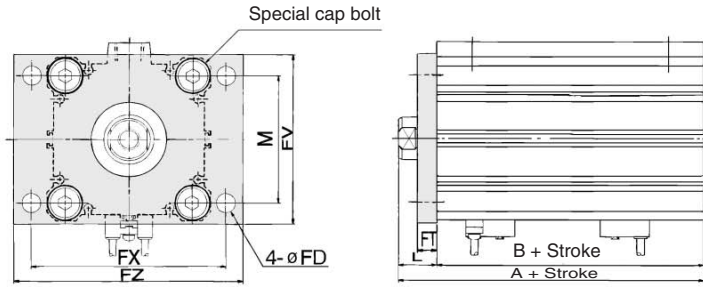
** Clevis pin and snap ring are shipped together.

Rod end male thread



Compact Cylinder: Long Stroke Type Double Acting, Single Rod Series CQ2

Rod side flange style: C□Q2F

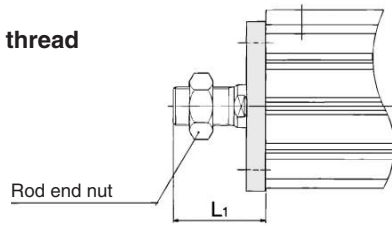


Rod Side Flange Style

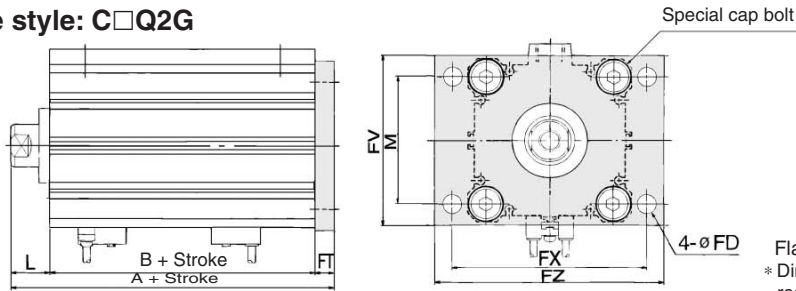
Bore size (mm)	A	B	FD	FT	FV	FX	FZ	L	L1	M
63	75	57	9	9	80	92	108	18	43.5	60
80	86	66	11	11	99	116	134	20	53.5	77
100	97.5	75.5	11	11	117	136	154	22	53.5	94

Flange bracket material: Carbon steel

Rod end male thread



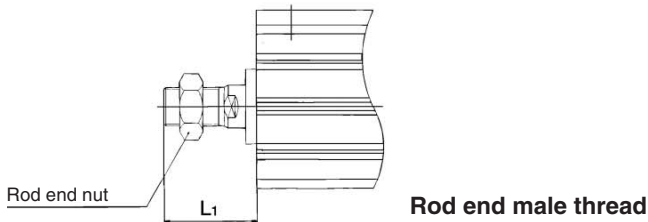
Head side flange style: C□Q2G



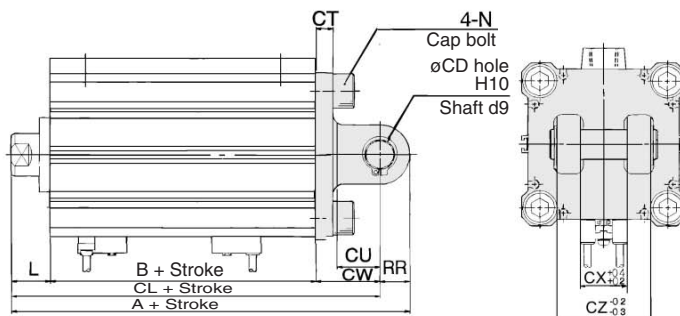
Head Side Flange Style

Bore size (mm)	A
63	84
80	97
100	108.5

Flange bracket material: Carbon steel
* Dimensions except A are the same as rod side flange style.



Double clevis style: C□Q2D



Double Clevis Style

Bore size (mm)	A	B	CD	CL	CT	CU	CW	CX	CZ
63	119	57	14	105	8	20	30	22	44
80	142	66	18	124	10	27	38	28	56
100	164.5	75.5	22	142.5	13	31	45	32	64

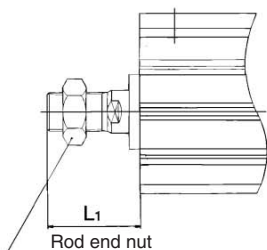
Bore size (mm)	L	L1	N	RR
63	18	43.5	M10 x 1.5	14
80	20	53.5	M12 x 1.75	18
100	22	53.5	M12 x 1.75	22

Double clevis bracket material: Cast iron

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

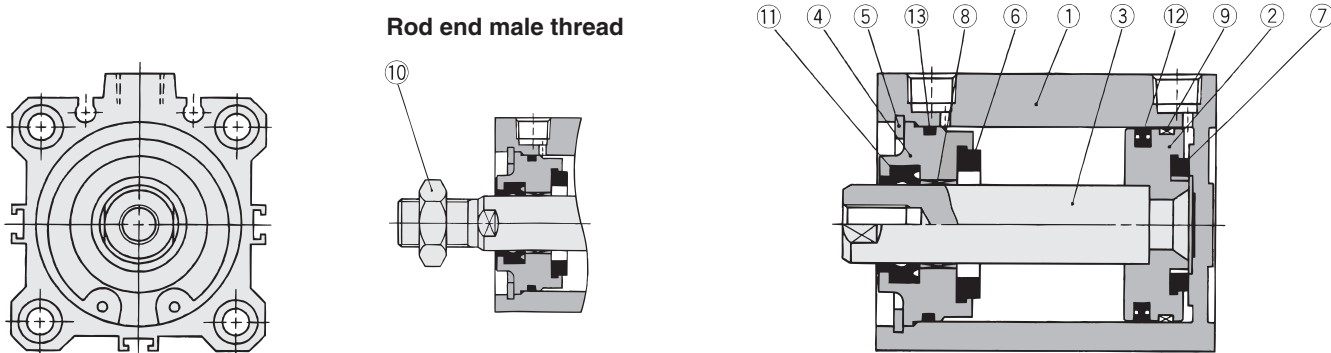
** Clevis pin and snap ring are attached.

Rod end male thread



Compact Cylinder: Anti-lateral Load Type Double Acting, Single Rod Series CQ2

Construction



Component Parts

No.	Description	Material	Note
①	Cylinder tube	Aluminum alloy	Hard anodized
②	Piston	Aluminum alloy	Chromated
③	Piston rod	Carbon steel	Hard chrome plated
④	Collar	Aluminum alloy	Anodized
⑤	Snap ring	Carbon tool steel	Phosphate coated
⑥	Bumper A	Urethane	
⑦	Bumper B	Urethane	
⑧	Bushing	Phosphor bronze alloy	
⑨	Wear ring	Resin	
⑩	Rod end nut	Carbon steel	Nickel plated
⑪	Rod seal	NBR	
⑫	Piston seal	NBR	
⑬	Tube gasket	NBR	

Replacement Parts: Seal Kit

Bore size (mm)	Kit no.	Contents
32	CQ2B32-PS	Set of left nos. ⑪, ⑫, ⑬
40	CQ2B40-PS	
50	CQ2B50-PS	
63	CQ2B63-PS	
80	CQ2B80-PS	
100	CQ2B100-PS	

* Seal kit includes ⑪, ⑫, ⑬. Order the seal kit, based on each bore size.

Mounting Bracket Part No.

Bore size (mm)	Foot (1)	Flange	Double clevis
32	CQ-L032	CQ-F032	CQ-D032
40	CQ-L040	CQ-F040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050
63	CQ-L063	CQ-F063	CQ-D063
80	CQ-L080	CQ-F080	CQ-D080
100	CQ-L100	CQ-F100	CQ-D100

Note 1) Order two foot brackets per cylinder.
 Note 2) Parts belonging to each bracket are as follows: Foot, Flange/Body mounting bolt, Double clevis/Clevis pin, C shape snap ring for axis, Body mounting bolt.

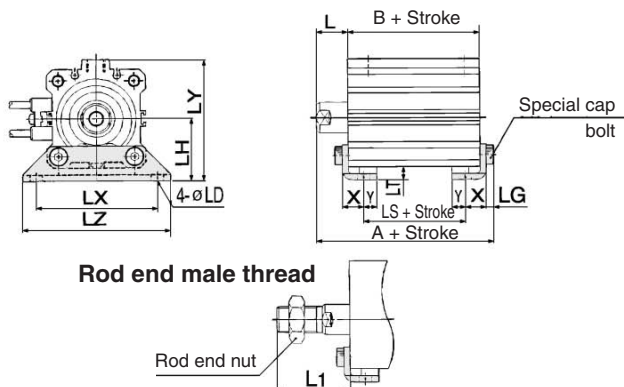
Auto Switch Mounting Bracket Part No.

Bore size (mm)	Mounting bracket part no.	Note	Applicable auto switch	
			Reed switch	Solid state switch
32, 40 50, 63 80, 100	BQ-2	<ul style="list-style-type: none"> Switch mounting screw (M3 x 0.5 x 10 ℓ) Switch spacer Switch mounting nut 	D-A7□/A80 D-A73C/A80C D-A7□H/A80H D-A79W	D-F7□/J79 D-F7□V D-J79C D-F7□W/J79W D-F7□WV D-F7BAL/F7BAVL D-F79F
40 to 100	BQP1-050	<ul style="list-style-type: none"> Switch mounting bracket Switch mounting nut Hexagon socket head cap bolt (M3 x 0.5 x 14/ spring washer 2 pcs.) Round head Phillips screw (M3 x 0.5 x 16/ spring washer 2 pcs.) 	—	D-P5DWL

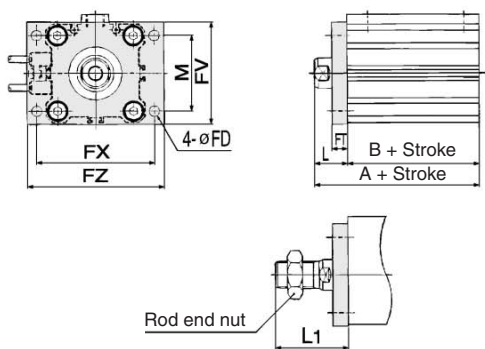
CUJ
 CU
 CQS
 CQM
CQ2
 RQ
 MU
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 -X
 20-
 Data

Compact Cylinder: Anti-lateral Load Type Double Acting, Single Rod Series **CQ2/CDQ2**

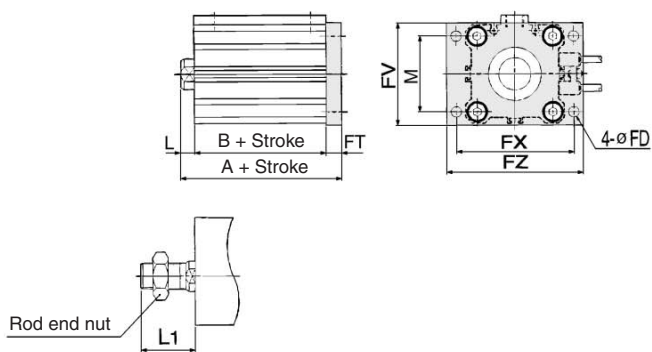
Foot style: CQ2LS/CDQ2LS



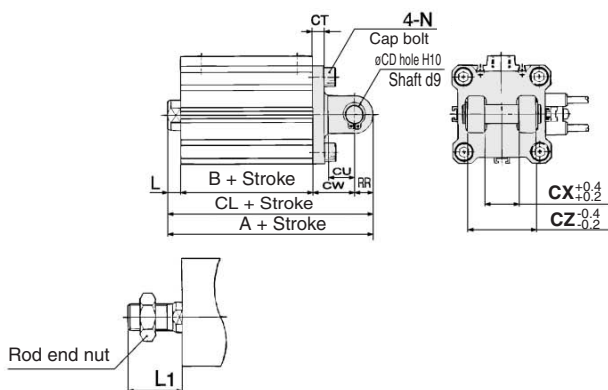
Rod side flange style: CQ2FS/CDQ2FS



Head side flange style: CQ2GS/CDQ2GS



Double clevis style: CQ2DS/CDQ2DS



Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			L	L1	LD
		A	B	LS	A	B	LS			
32	5 to 50	57.2	33	17	67.2	43	27	17	38.5	6.6
	75, 100	67.2	43	27						
40	5 to 50	63.7	39.5	23.5	73.7	49.5	33.5	17	38.5	6.6
	75, 100	73.7	49.5	33.5						
50	10 to 50	66.7	40.5	17.5	76.7	50.5	27.5	18	43.5	9
	75, 100	76.7	50.5	27.5						

Bore size (mm)	Stroke range (mm)	LG	LH	LT	LX	LY	LZ	X	Y
32	5 to 50	4	30	3.2	57	57	71	11.2	5.8
	75, 100								
40	5 to 50	4	33	3.2	64	64	78	11.2	7
	75, 100								
50	10 to 50	5	39	3.2	79	78	95	14.7	8
	75, 100								

Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		FD	FT	FV	FX	FZ
		A	B	A	B					
32	5 to 50	50	33	60	43	5.5	8	48	56	65
	75, 100	60	43							
40	5 to 50	56.5	39.5	66.5	49.5	5.5	8	54	62	72
	75, 100	66.5	49.5							
50	10 to 50	58.5	40.5	68.5	50.5	6.6	9	67	76	89
	75, 100	68.5	50.5							

Bore size (mm)	Stroke range (mm)	L	L1	M
32	5 to 50	17	38.5	34
	75, 100			
40	5 to 50	17	38.5	40
	75, 100			
50	10 to 50	18	43.5	50
	75, 100			

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch	With auto switch	L	L1
		A	A		
32	5 to 50	48	58	7	28.5
	75, 100	58			
40	5 to 50	54.5	64.5	7	28.5
	75, 100	64.5			
50	10 to 50	57.5	67.5	8	33.5
	75, 100	67.5			

Flange bracket material: Carbon steel

(* Dimensions except A, L and L1 are same as rod side flange style.)

Double Clevis Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			CD	CT	CU
		A	B	CL	A	B	CL			
32	5 to 50	70	33	60	80	43	70	10	5	14
	75, 100	80	43	70						
40	5 to 50	78.5	39.5	68.5	88.5	49.5	78.5	10	6	14
	75, 100	88.5	49.5	78.5						
50	10 to 50	90.5	40.5	76.5	100.5	50.5	86.5	14	7	20
	75, 100	100.5	50.5	86.5						

Bore size (mm)	Stroke range (mm)	CW	CX	CZ	L	L1	N	RR
32	5 to 50	20	18	36	7	28.5	M6 x 1.0	10
	75, 100							
40	5 to 50	22	18	36	7	28.5	M6 x 1.0	10
	75, 100							
50	10 to 50	28	22	44	8	33.5	M8 x 1.25	14
	75, 100							

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.

* Clevis pin and set ring are shipped together.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

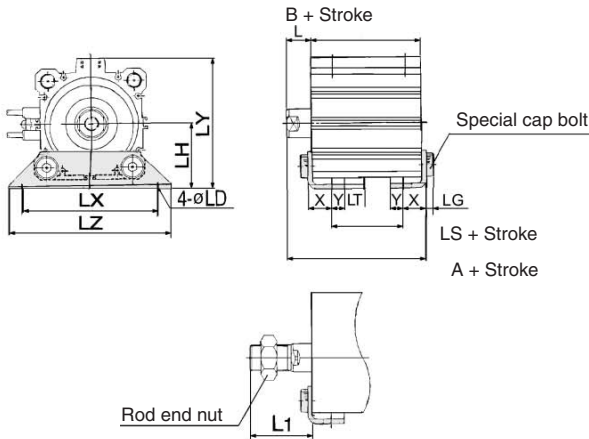
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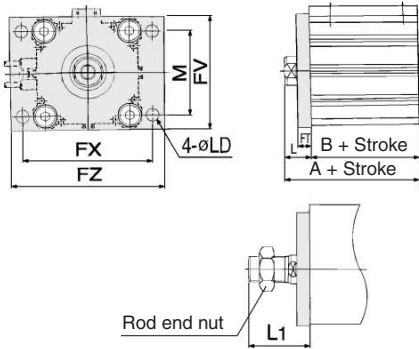
Data

Compact Cylinder: Anti-lateral Load Type Double Acting, Single Rod Series **CQ2/CDQ2**

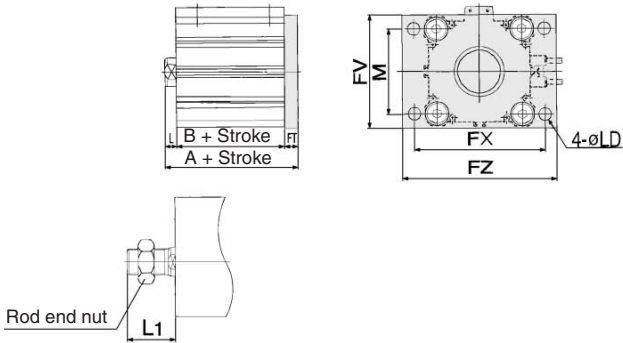
Foot style: CQ2LS/CDQ2LS



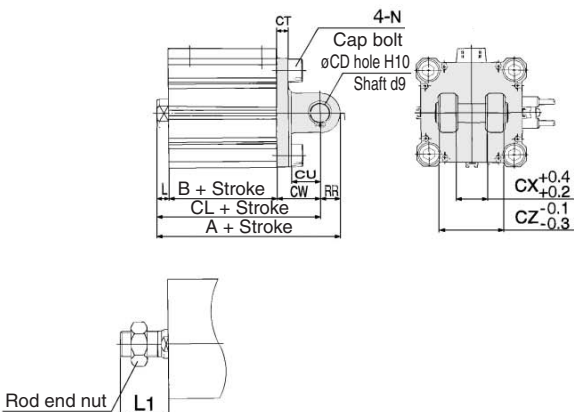
Rod side flange style: CQ2FS/CDQ2FS



Head side style: CQ2GS/CDQ2GS



Double clevis style: CQ2DS/CDQ2DS



Foot Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			L	L1	LD
		A	B	LS	A	B	LS			
63	10 to 50	72.2	46	20	82.2	56	30	18	43.5	11
	75, 100	82.2	56	30						
80	10 to 50	85	53.5	23.5	95	63.5	33.5	20	53.5	13
	75, 100	95	63.5	33.5						
100	10 to 50	98	63	29	108	73	39	22	53.5	13
	75, 100	108	73	39						

Bore size (mm)	Stroke range (mm)	LG	LH	LT	LX	LY	LZ	X	Y
63	10 to 50	5	46	3.2	95	91.5	113	16.2	9
	75, 100								
80	10 to 50	7	59	4.5	118	114	140	19.5	11
	75, 100								
100	10 to 50	7	71	6	137	136	162	23	12.5
	75, 100								

Foot bracket material: Carbon steel

Rod Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch		FD	FT	FV	FX	FZ
		A	B	A	B					
63	10 to 50	64	46	74	56	9	9	80	92	108
	75, 100	74	56							
80	10 to 50	73.5	53.5	83.5	63.5	11	11	99	116	134
	75, 100	83.5	63.5							
100	10 to 50	85	63	95	73	11	11	117	136	154
	75, 100	95	73							

Bore size (mm)	Stroke range (mm)	L	L1	M
63	10 to 50	18	43.5	60
	75, 100			
80	10 to 50	20	53.5	77
	75, 100			
100	10 to 50	22	53.5	94
	75, 100			

Flange bracket material: Carbon steel

Head Side Flange Style

Bore size (mm)	Stroke range (mm)	Without auto switch		With auto switch	
		A	A	L	L1
63	10 to 50	63	73	8	33.5
	75, 100	73			
80	10 to 50	74.5	84.5	10	43.5
	75, 100	84.5			
100	10 to 50	86	96	12	43.5
	75, 100	96			

(* Dimensions except A, L and L1 are same as rod side flange style.)
Flange bracket material: Carbon steel

Double Clevis Style

Bore size (mm)	Stroke range (mm)	Without auto switch			With auto switch			CD	CT	CU
		A	B	CL	A	B	CL			
63	10 to 50	98	46	84	108	56	94	14	8	20
	75, 100	108	56	94						
80	10 to 50	119.5	53.5	101.5	129.5	63.5	111.5	18	10	27
	75, 100	129.5	63.5	111.5						
100	10 to 50	142	63	120	152	73	130	22	13	31
	75, 100	152	73	130						

Bore size (mm)	Stroke range (mm)	CW	CX	CZ	L	L1	N	RR
63	10 to 50	30	22	44	8	33.5	M10 x 1.5	14
	75, 100							
80	10 to 50	38	28	56	10	43.5	M12 x 1.75	18
	75, 100							
100	10 to 50	45	32	64	12	43.5	M12 x 1.75	22
	75, 100							

* For details about the rod end nut and accessory brackets, refer to page 7-6-20.
* Clevis pin and set ring are shipped together.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

-X

20-

Data

Compact Cylinder with End Lock Series CBQ2



Cylinder Specifications

Fluid	Air
Proof pressure	1.5 MPa
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.15 MPa *
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)
Lubrication	Non-lube
Cushion	Rubber bumper on both ends (Standard)
Rod end thread tolerance	JIS Class 2
Stroke length tolerance	$\begin{matrix} +1.0 \\ 0 \end{matrix}$
Piston speed	50 to 500 mm/s

* 0.05 MPa except for the lock unit.

Lock Specifications

Lock position	Head end, Rod end							
Holding force (Max.) (N)	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
	215	330	550	860	1340	2140	3450	5390
Pressure for unlocking	0.15 MPa or less							
Backlash	2 mm or less							
Manual release	Non-lock type, Lock type							

Standard Stroke

Bore size (mm)	Standard stroke (mm)
20 to 63	10, 15, 20, 25, 50, 75, 100
80, 100	25, 50, 75, 100

Manufacture of Intermediate Stroke

Description	Spacer is installed in the standard stroke body.	
Part no.	Refer to "How to Order" for the standard model no. on page 7-6-142.	
Description	Dealing with the stroke by the 5 mm interval is available by installing spacer with standard stroke cylinder.	
Stroke range	Bore size (mm)	Stroke range
	20 to 100	5 to 95
Example	Part no.: CBQ2B40-45DC-HL CBQ2B40-50DC-HL with 5 mm width spacer inside.	

Mounting Bracket Part No.

Bore size (mm)	⁽¹⁾		⁽²⁾
	Foot	Flange	Double clevis
20	CQS-L020	CQS-F020	CQS-D020
25	CQS-L025	CQS-F025	CQS-D025
32	CQ-L032	CQ-F032	CQ-D032
40	CQ-L040	CQ-F040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050
63	CQ-L063	CQ-F063	CQ-D063
80	CQ-L080	CQ-F080	CQ-D080
100	CQ-L100	CQ-F100	CQ-D100

Note 1) When ordering foot bracket, order 2 pieces per cylinder.

Note 2) Parts belonging to each bracket are as follows. Foot or Flange style: Body mounting bolt, Double clevis style: Clevis pin, snap ring retainer, body mounting bolt.

Note 3) Clevis pin and snap ring are included with the double clevis style.

CUJ

CU

CQS

CQM

CQ2

RQ

MU

D-

-X

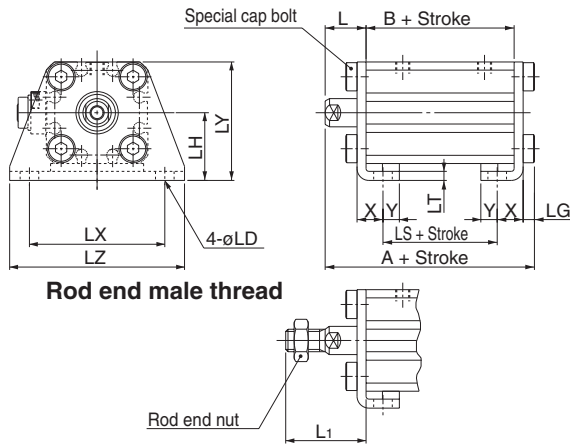
20-

Data

Compact Cylinder with End Lock Series **CBQ2**

Dimensions: $\phi 20$, $\phi 25$

Foot style: CBQ2L/CDBQ2L

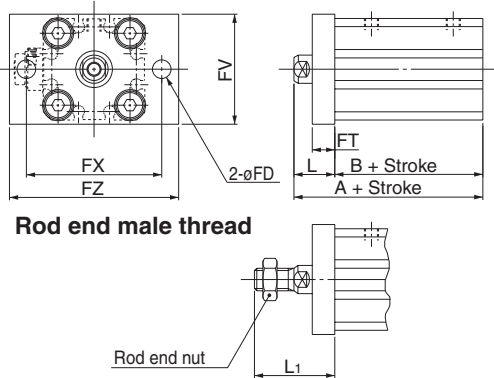


Foot Style

Bore size (mm)	Standard stroke	With head end lock			With rod end lock		
		A	B	LS	A	B	LS
20	10, 15, 20, 25	82.7	61	49	76.2	54.5	42.5
	50, 75, 100	87.7	66	54	87.7	66	54
25	10, 15, 20, 25	86.2	64	49	79.7	57.5	42.5
	50, 75, 100	91.2	69	54	91.2	69	54

Bore size (mm)	Standard stroke	L	L ₁	LD	LG	LH	LT	LX	LY	LZ	X	Y
		20	10, 15, 20, 25, 50, 75, 100	14.5	28.5	6.6	4	24	3.2	48	42	62
25	10, 15, 20, 25, 50, 75, 100	15	32.5	6.6	4	26	3.2	52	46	66	10.7	5.8

Rod side flange style: CBQ2F/CDBQ2F

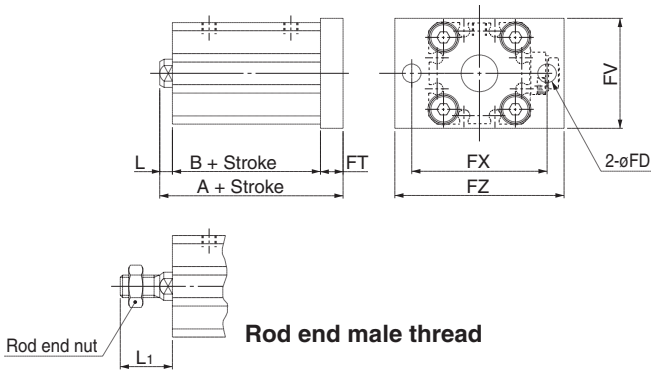


Rod Side Flange Style

Bore size (mm)	Standard stroke	With head end lock		With rod end lock	
		A	B	A	B
20	10, 15, 20, 25	75.5	61	69	54.5
	50, 75, 100	80.5	66	80.5	66
25	10, 15, 20, 25	79	64	72.5	57.5
	50, 75, 100	84	69	84	69

Bore size (mm)	Standard stroke	FD	FT	FV	FX	FZ	L	L ₁
		20	10, 15, 20, 25, 50, 75, 100	6.6	8	39	48	60
25	10, 15, 20, 25, 50, 75, 100	6.6	8	42	52	64	15	32.5

Head side flange style: CBQ2G/CDBQ2G

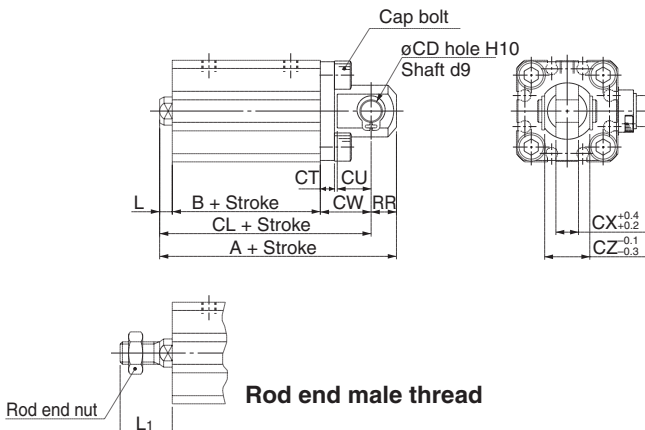


Head Side Flange Style

Bore size (mm)	Standard stroke	With head end lock				With rod end lock			
		A	B	L	L ₁	A	B	L	L ₁
20	10, 15, 20, 25	73.5	61	4.5	18.5	67	54.5	4.5	18.5
	50, 75, 100	88.5	66	14.5	28.5	88.5	66	14.5	28.5
25	10, 15, 20, 25	77	64	5	22.5	70.5	57.5	5	22.5
	50, 75, 100	92	69	15	32.5	92	69	15	32.5

Bore size (mm)	Standard stroke	FD	FT	FV	FX	FZ
		20	10, 15, 20, 25, 50, 75, 100	6.6	8	39
25	10, 15, 20, 25, 50, 75, 100	6.6	8	42	52	64

Double clevis style: CBQ2D/CDBQ2D



Double Clevis Style

Bore size (mm)	Standard stroke	With head end lock					With rod end lock				
		A	B	CL	L	L ₁	A	B	CL	L	L ₁
20	10, 15, 20, 25	92.5	61	83.5	4.5	18.5	86	54.5	77	4.5	18.5
	50, 75, 100	107.5	66	98.5	14.5	28.5	107.5	66	98.5	14.5	28.5
25	10, 15, 20, 25	99	64	89	5	22.5	92.5	57.5	82.5	5	22.5
	50, 75, 100	114	69	104	15	32.5	114	69	104	15	32.5

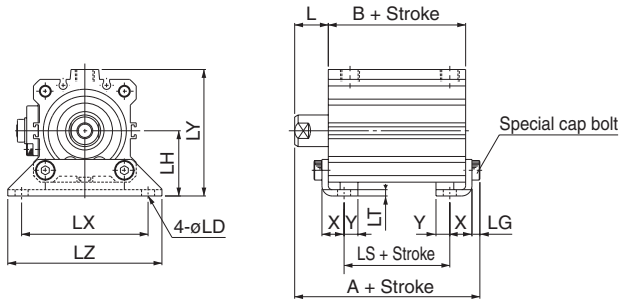
Bore size (mm)	Standard stroke	CD	CT	CU	CW	CX	CZ	RR
		20	10, 15, 20, 25, 50, 75, 100	8	5	12	18	8
25	10, 15, 20, 25, 50, 75, 100	10	5	14	20	10	20	10

CUJ
CU
CQS
CQM
CQ2
RQ
MU
D-
-X
20-
Data

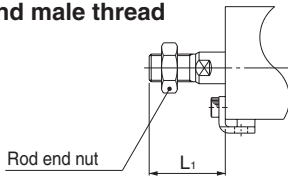
Compact Cylinder with End Lock Series **CBQ2**

Dimensions: $\varnothing 32$ to $\varnothing 100$

Foot style: CBQ2L/CDBQ2L



Rod end male thread



Foot Style

Bore size (mm)	Standard stroke	With head end lock			With rod end lock			L	L ₁	LD
		A	B	LS	A	B	LS			
32	10, 15, 20, 25 50, 75, 100	89.7	65.5	49.5	82.2	58	42	17	38.5	6.6
40		99.2	75	59	88.7	64.5	48.5	17	38.5	6.6
50		101.7	75.5	52.5	91.7	65.5	42.5	18	43.5	9
63	25, 50 75, 100	103.2	77	51	97.2	71	45	18	43.5	11
80		142.5	111	81	135	103.5	73.5	20	53.5	13
100	25, 50	155.5	120.5	86.5	148	113	79	22	53.5	13
	75, 100	160.5	125.5	91.5	160.5	125.5	91.5			

Bore size (mm)	Standard stroke	LG	LH	LT	LX	LY	LZ	X	Y
32	10, 15, 20, 25 50, 75, 100	4	30	3.2	57	57	71	11.2	5.8
40		4	33	3.2	64	64	78	11.2	7
50		5	39	3.2	79	78	95	14.7	8
63	25, 50, 75, 100	5	46	3.2	95	91.5	113	16.2	9
80		7	59	4.5	118	114	140	19.5	11
100		7	71	6	137	136	162	23	12.5

CUJ

CU

CQS

CQM

CQ2

RQ

MU

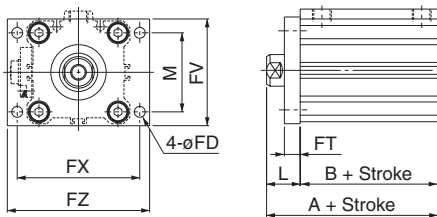
D-

-X

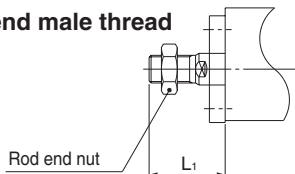
20-

Data

Rod side flange style: CBQ2F/CDBQ2F



Rod end male thread



Rod Side Flange Style

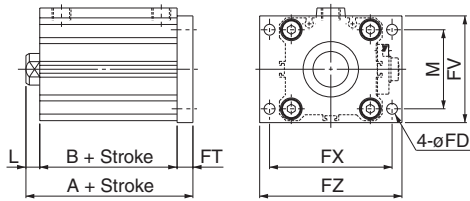
Bore size (mm)	Standard stroke	With head end lock		With rod end lock		FD	FT	FV	FX	FZ
		A	B	A	B					
32	10, 15, 20, 25 50, 75, 100	82.5	65.5	75	58	5.5	8	48	56	65
40		92	75	81.5	64.5	5.5	8	54	62	72
50		93.5	75.5	83.5	65.5	6.6	9	67	76	89
63		95	77	89	71	9	9	80	92	108
80	25, 50	131	111	123.5	103.5	11	11	99	116	134
	75, 100	136	116	136	116					
100	25, 50	142.5	120.5	135	113	11	11	117	136	154
	75, 100	147.5	125.5	147.5	125.5					

Bore size (mm)	Standard stroke	L	L ₁	M
32	10, 15, 20, 25 50, 75, 100	17	38.5	34
40		17	38.5	40
50		18	43.5	50
63		18	43.5	60
80	25, 50, 75, 100	20	53.5	77
100		22	53.5	94

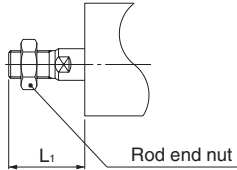
Series CBQ2

Dimensions: $\phi 32$ to $\phi 100$

Head side flange style: CBQ2G/CDBQ2G



Rod end male thread

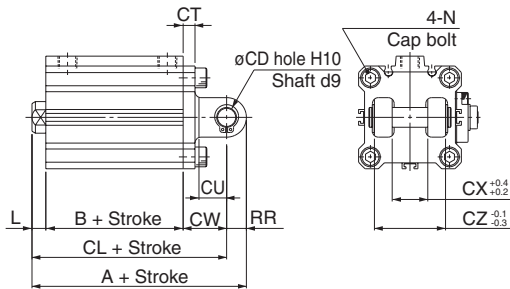


Head Side Flange Style

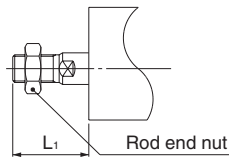
Bore size (mm)	Standard stroke	With head end lock				With rod end lock			
		A	B	L	L ₁	A	B	L	L ₁
32	10, 15, 20, 25 50, 75, 100	80.5	65.5	7	28.5	73	58	7	28.5
40		90	75	7	28.5	79.5	64.5	7	28.5
50		92.5	75.5	8	33.5	82.5	65.5	8	33.5
63	25, 50 75, 100	94	77	8	33.5	88	71	8	33.5
80		132	111	10	43.5	124.5	103.5	10	43.5
100	25, 50	147	116	20	53.5	147	116	20	53.5
	75, 100	143.5	120.5	12	43.5	136	113	12	43.5
100	25, 50	158.5	125.5	22	53.5	158.5	125.5	22	53.5
	75, 100	158.5	125.5	22	53.5	158.5	125.5	22	53.5

Bore size (mm)	Standard stroke	M	FD	FT	FV	FX	FZ
32	10, 15, 20, 25, 50, 75, 100	34	5.5	8	48	56	65
40		40	5.5	8	54	62	72
50		50	6.6	9	67	76	89
63		60	9	9	80	92	108
80		77	11	11	99	116	134
100		94	11	11	117	136	154

Double clevis style: CBQ2D/CDBQ2D



Rod end male thread



Double Clevis Style

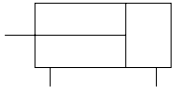
Bore size (mm)	Standard stroke	With head end lock			With rod end lock			CD	CT	CU	L	L ₁
		A	B	CL	A	B	CL					
32	10, 15, 20, 25 50, 75, 100	102.5	65.5	92.5	95	58	85	10	5	14	7	28.5
40		114	75	104	103.5	64.5	93.5	10	6	14	7	28.5
50		125.5	75.5	111.5	115.5	65.5	101.5	14	7	20	8	33.5
63	25, 50 75, 100	129	77	115	123	71	109	14	8	20	8	33.5
80		177	111	159	169.5	103.5	151.5	18	10	27	10	43.5
100	25, 50	192	116	174	192	116	174	18	10	27	20	53.5
	75, 100	199.5	120.5	177.5	192	113	170	22	13	31	12	43.5
100	25, 50	214.5	125.5	192.5	214.5	125.5	192.5	22	13	31	22	53.5
	75, 100	214.5	125.5	192.5	214.5	125.5	192.5	22	13	31	22	53.5

Bore size (mm)	Standard stroke	CW	CX	CZ	N	RR
32	10, 15, 20, 25 50, 75, 100	20	18	36	M6 x 1.0	10
40		22	18	36	M6 x 1.0	10
50		28	22	44	M8 x 1.25	14
63	25, 50 75, 100	30	22	44	M10 x 1.5	14
80		38	28	56	M12 x 1.75	18
100	45	32	64	M12 x 1.75	22	

Low Speed Cylinder Double Acting, Single Rod Series CQ2X



JIS Symbol
Double acting,
Single rod



Specifications

Bore size (mm)		32	40	50	63	80	100
Model		Pneumatic (Non-lube)					
Fluid		Air					
Proof pressure		1.5 MPa					
Maximum operating pressure		1.0 MPa					
Ambient and fluid temperature		Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)					
Piping	Screw-in type	Note)					
		M5 x 0.8	Rc 1/8	Rc 1/4	Rc 1/4	Rc 3/8	Rc 3/8
		Rc 1/8					
Rubber bumper		None					
Rod end thread		Female thread					
Rod end thread tolerance		JIS Class 2					
Stroke length tolerance		+1.0 0					
Mounting		Through-hole					
Piston speed		0.5 to 300 mm/s					

Note) Only 5 stroke comes with M5 x 0.8 in the case of no auto switch.

Minimum Operating Pressure

Bore size (mm)	32	40	50	63	80	100
Min. operating pressure (MPa)	0.025			0.01		

Standard Stroke

Bore size (mm)	Standard stroke (mm)
32, 40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
50, 63, 80, 100	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

• Manufacturing of Intermediate stroke
Intermediate strokes by the 1 mm interval are available by using spacers with standard stroke cylinders. But, as for ø40 to ø100 with damper, please consult with SMC separately.
Example) 18 mm width spacer is installed in the standard cylinder CQ2XB40-75D to make CQ2XB40-57D.

⚠ Precautions

Be sure to read before handling. For Safety Instructions and Actuator Precautions, refer to pages 10-24-3 to 10-24-6.

Snap Ring Installation/Removal

⚠ Caution

- For installation and removal, use an appropriate pair of pliers (tool for installing a type C snap ring).
- Even if a proper plier (tool for installing type C snap ring) is used, it is likely to inflict damage to a human body or peripheral equipment, as a snap ring may be flown out of the tip of a plier (tool for installing a type C snap ring). Be much careful with the popping of a snap ring. Besides, be certain that a snap ring is placed firmly into the groove of rod cover before supplying air at the time of installment.

Maintenance

⚠ Caution

1. Replacement parts/Seal kit

Order it in accordance with the bore size.

Bore size (mm)	Kit no.	Contents
32	CQ2X32-PS	Piston seal: 1 pc.
40	CQ2X40-PS	Rod seal: 1 pc.
50	CQ2X50-PS	
63	CQ2X63-PS	Gasket: 1 pc.
80	CQ2X80-PS	
100	CQ2X100-PS	Grease pack (10 g): 1 pc.

Pneumatic Circuit

- Pressure supplied to cylinder should be set affordably. When the operating pressure is low, low speed operation may not be stable depending on a load condition. Besides, the maximum speed may be restricted depending on a pneumatic circuit, or operating pressure.

2. Grease pack

When maintenance requires only grease, use the following part numbers to order.

Grease pack
GR-L-005 (5 g)
GR-L-010 (10 g)
GR-L-150 (150 g)

Mounting Bracket Part No.

Bore size (mm)	Foot ⁽¹⁾	Flange	Double clevis ⁽³⁾
32	CQ-L032	CQ-F032	CQ-D032
40	CQ-L040	CQ-F040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050
63	CQ-L063	CQ-F063	CQ-D063
80	CQ-L080	CQ-F080	CQ-D080
100	CQ-L100	CQ-F100	CQ-D100

Note 1) When ordering foot bracket, order 2 pieces per cylinder.

Note 2) Parts belonging to each bracket are as follows.

Foot or Flange: Body mounting bolts
Double clevis: Clevis pin, Type C snap ring for shaft, Body mounting bolts

Note 3) For double clevis style, clevis pin and snap ring are shipped together.

RE_B^A

REC

C□X

C□Y

MQ_M^Q

RHC

MK(2)

RS_G^Q

RS_A^H

RZQ

MI_S^W

CEP1

CE1

CE2

ML2B

C₅-S

CV

MVGQ

CC

RB

J

D-

-X

20-

Data