

COMPACT CYLINDER SERIES NCQ2



- ✓ Compact, light weight, space-saving design
- ✓ Magnetic Piston Option
- ✓ Single or double acting
- ✓ Non-rotating piston rod option
- ✓ Wide Range at Bore Sizes: Ø12 - 160mm

TECHNICAL SPECIFICATIONS

DOUBLE ACTING SINGLE ROD - SERIES NCQ2/CQ2

Model	Air Pressure	Air Hydraulic
Fluid	Air	Hydraulic Oil
Proof Pressure	1.5MPa / 217 PSI	
Max Operating Pressure	1MPa / 145PSI	
Ambient and Fluid Temp	15~160°F (at freezing temp, air must be dry)*	
Rubber Cushion	None	-
Rod End Thread	Female Thread (Standard)	
Rod End Thread Tolerance	JIS Class II	
Stroke Length Tolerance	0 ~ 0.1 mm	
Piston Speed	2 ~ 20 in/sec	0.002 ~ 8 in/sec

(50~500mm/s) 0.05~200mm/s)

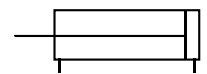
MINIMUM OPERATING PRESSURE

Bore Size	12	16	20	25	32	40	50	63	80	100
Air Pressure	10.15	10.15	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
Air Hydraulic	-	-	26.1	26.1	26.1	14.5	14.5	14.5	14.5	14.5

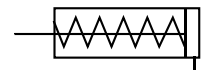
*Temperature Note: 15~160°F = -10~70°C



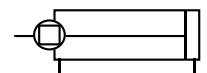
Double Acting /
Single Rod Type



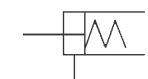
Single Acting
Spring Return Type



Non-Rotating
Piston Rod Type

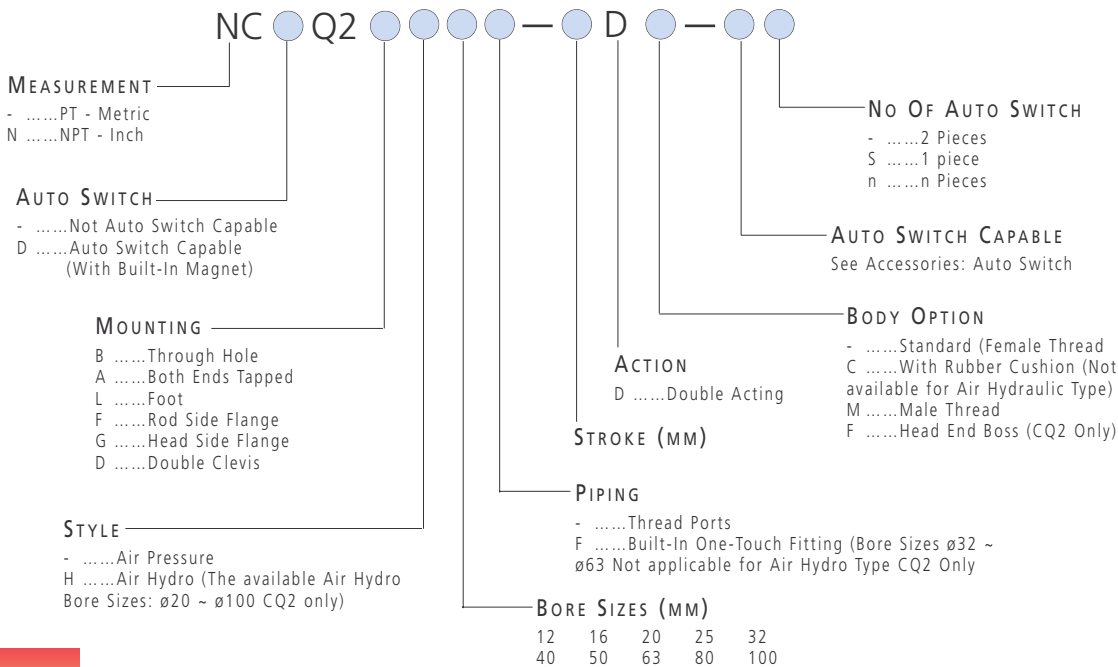


Single Acting
Spring Extended



HOW TO ORDER

NCQ2/CQ2 DOUBLE ACTING SINGLE ROD



HOW TO ORDER

DOUBLE ACTING SINGLE ROD - STANDARD STROKE

Bore Size	Air Pressure Type	Air Hydro Type
12, 16	5, 10, 15, 20, 25, 30	-
20, 25	5, 10, 15, 20, 25, 30, 35, 40, 45, 50	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
32, 40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
50, 63, 80 100	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

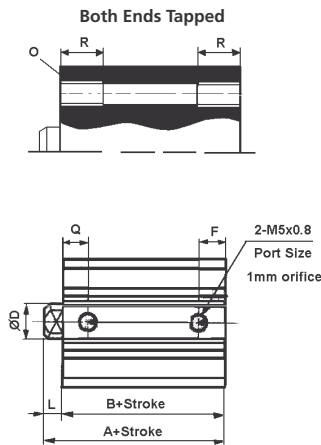
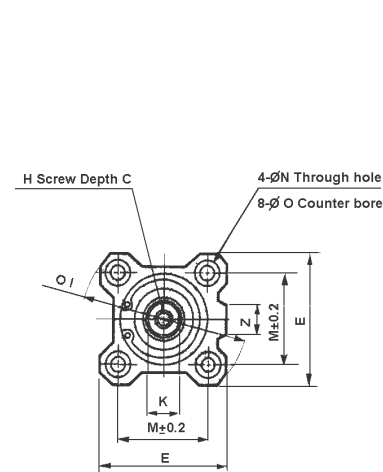
NOTE: FOR BORE SIZES 125, 140 & 160MM,
PLEASE REFER TO PAGE 1.116

DIMENSIONS
SEE FOLLOWING PAGES

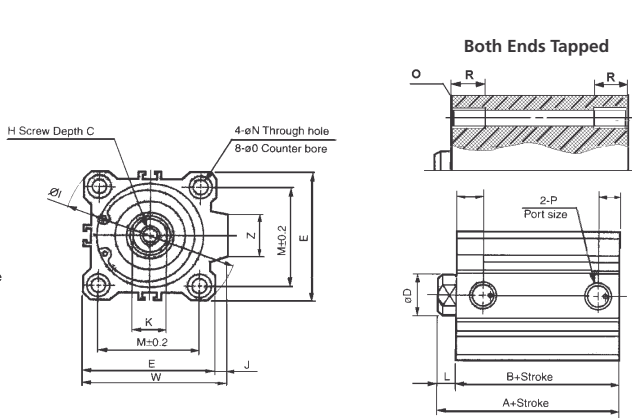




DIMENSIONS
THROUGH HOLE $\phi 12 \sim \phi 25$ SERIES (N)CQ2B



DIMENSIONS
THROUGH HOLE $\phi 32 \sim 100$ SERIES (N)CQ2B



DIMENSIONS
SERIES (N)CQ2A BOTH ENDS TAPPED

Bore Size mm	CQ2 (mm) O	NCQ2 (inch) O	R mm
12	M4x0.7	8-32UNC	7
16	M4x0.7	8-32UNC	7
20	M6x1.0	1/4-20UNC	10
25	M6x1.0	1/4-20UNC	10
32	M6x1.0	1/4-20UNC	10
40	M6x1.0	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18
80	M12x1.75	1/2-13UNC	22
100	M12x1.75	1/2-13UNC	22

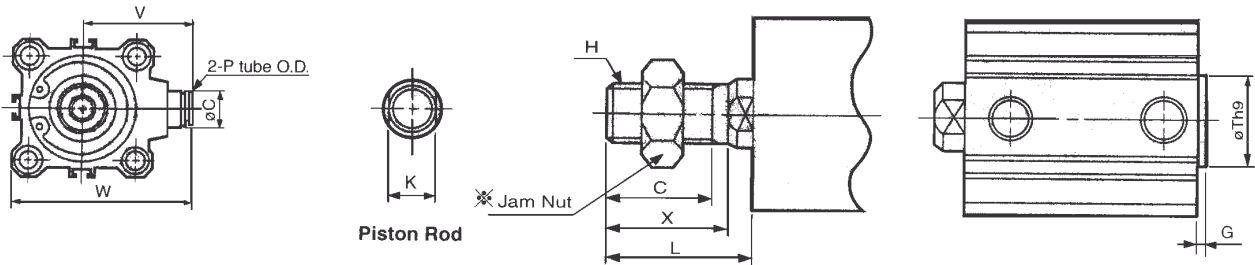
DIMENSIONS (MM)
SERIES (N)CQ2 STANDARD

Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	F	CQ2 H	NCQ2 H	i	J	K	L	M	N	O	P	Orifice	Q	W	Z
12	5~30	20.5	17	6	5.4	6	25	5	M3x0.5	8-32	32	-	5	3.5	15.5	3.5	6.5 Depth3.5	-	-	7.5	-	-
16	5~30	22	18.5	8	5.4	8	29	5.5	M4x0.7	8-32	38	-	6	3.5	20	3.5	6.5 Depth3.5	-	-	8	-	10
20	5~50	24	19.5	7	7	10	36	5.5	M5x0.8	10-32	47	-	8	4.5	25.5	5.5	9 Depth7	-	-	9	-	10
25	5~50	27.5	22.5	12	10	12	40	5.5	M6x1	1/4-28UNF	52	-	10	5	28	5.5	9 Depth7	-	-	11	-	10
32	5	30	23	13	13.3	16	45	5.5	M8x	5/16-24UNF	60	4.5	14	7	34	5.5	9 Depth7	M5x0.8	1.7	10.5	49.5	18
	10~50							7.5	1.25									1/8				
40	75, 100	40	33	13	18.3	16	52	8	M8x	3/8-24UNF	69	5	14	7	40	5.5	9 Depth7	1/8	2	11	57	18
	5~50	36.5	29.5						1.25													
50	10~50	38.5	30.5	15	17.6	20	64	10.5	M10x	1/2-20UNF	86	7	17	8	50	6.6	11 Depth8	1/4	2.2	10.5	71	22
	75, 100	48.5	40.5						1.5													
63	10~50	44	36	15	17.6	20	77	10.5	M10x	1/2-20UNF	103	7	17	8	60	9	14 Depth10.5	1/4	3	15	84	22
	75, 100	54	46						1.5													
80	10~50	53.5	43.5	21	24.3	25	98	12.5	M16x	5/8-18UNF	132	6	22	10	77	11	17.5 Depth13.5	3/8	4	16	104	26
	75, 100	63.5	53.5						2													
100	10~50	65	53	27	27	30	117	13	M20x	3/4-16UNF	156	6.5	27	12	94	11	17.5 Depth13.5	3/8	5	23	123.5	26
	75 100	75	63						2.5													

Note) The external dimensions of cylinder with rubber cushion are the same as those of the above standard
Note) For information regarding Mounting Positions: Foot Type, Rod Flange, Head Flange, Double Clevis, refer to CAT:N320

DIMENSIONS

WITHOUT AUTO SWITCH SERIES (N)CQ2 - PIPING & BODY OPTIONS



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
mm	mm	mm	mm	mm
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

NCQ2 MALE ROD END

Bore Size	X	H	L	K
mm	inch	mm	mm	mm
12	8	8-32UNC	11.5	5
16	8	8-32UNC	11.5	6
20	8	10-32UNF	12.5	8
25	9.5	1/4-28UNF	14.5	10
32	12.7	5/16-24UNF	19.7	14
40	16	3/8-24UNF	23	14
50	19.5	1/2-20UNF	27.5	17
63	19.5	1/2-20UNF	27.5	17
80	25.5	5/8-18UNF	35.5	22
100	28.5	3/4-16UNF	40.5	27

CQ2 MALE ROD END

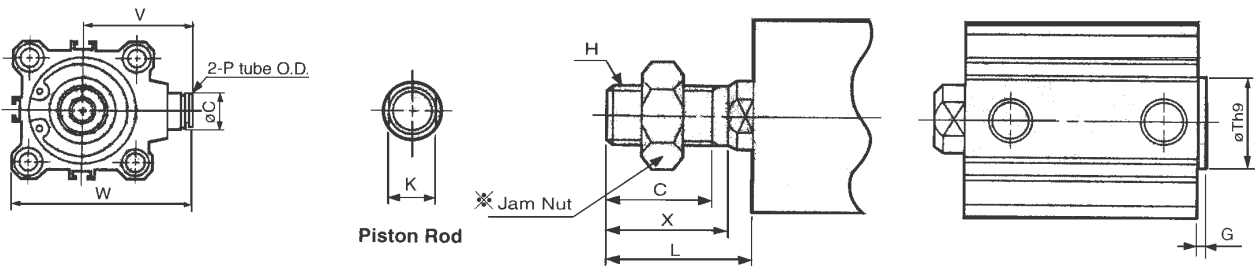
Bore Size	C	X	H	L	K
mm	mm	mm	mm	mm	mm
12	9	10.5	M5X0.8	14	5
16	10	12	M6X1	15.5	6
20	12	14	M8X1.25	18.5	8
25	15	17.5	M10X1.25	22.5	10
32	20.5	23.5	M14x1.5	28.5	14
40	20.5	23.5	M14x1.5	28.5	14
50	26	28.5	M18X1.5	33.5	17
63	26	28.5	M18X1.5	33.5	17
80	32.5	35.5	M22x1.5	43.5	22
100	32.5	35.5	M26X1.5	43.5	27

END BOSS (CQ2 ONLY)

Bore Size	G	Th9
mm	mm	mm
12	1.5	15 ^{-0.043-0}
16	1.5	20 ^{-0.052-0}
20	2	13 ^{-0.043-0}
25	2	15 ^{-0.043-0}
32	2	21 ^{-0.052-0}
40	2	28 ^{-0.052-0}
50	2	35 ^{-0.062-0}
63	2	35 ^{-0.062-0}
80	2	43 ^{-0.062-0}
100	2	59 ^{-0.074-0}

DIMENSIONS

WITH AUTO SWITCH SERIES (N)CDQ2 - PIPING & BODY OPTIONS



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
mm	mm	mm	mm	mm
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

NCQ2 MALE ROD END

Bore Size	X	H	L	K
mm	inch	mm	mm	mm
12	8	8-32UNC	11.5	5
16	8	8-32UNC	11.5	6
20	8	10-32UNF	12.5	8
25	9.5	1/4-28UNF	14.5	10
32	12.7	5/16-24UNF	19.7	14
40	16	3/8-24UNF	23	14
50	19.5	1/2-20UNF	27.5	17
63	19.5	1/2-20UNF	27.5	17
80	25.5	5/8-18UNF	35.5	22
100	28.5	3/4-16UNF	40.5	27

CQ2 MALE ROD END

Bore Size	C	X	H	L	K
mm	mm	mm	mm	mm	mm
12	9	10.5	M5X0.8	14	5
16	10	12	M6X1	15.5	6
20	12	14	M8X1.25	18.5	8
25	15	17.5	M10X1.25	22.5	10
32	20.5	23.5	M14x1.5	28.5	14
40	20.5	23.5	M14x1.5	28.5	14
50	26	28.5	M18X1.5	33.5	17
63	26	28.5	M18X1.5	33.5	17
80	32.5	35.5	M22x1.5	43.5	22
100	32.5	35.5	M26X1.5	43.5	27

END BOSS (CQ2 ONLY)

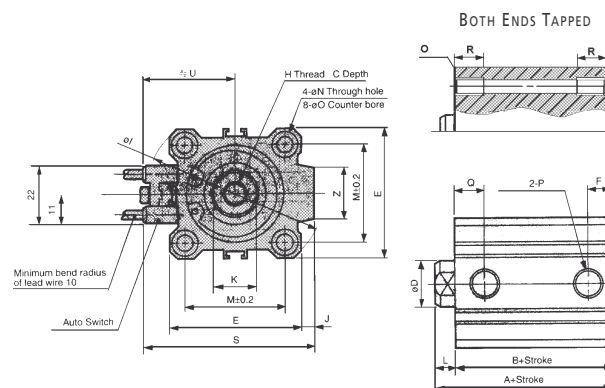
Bore Size	G	Th9
mm	mm	mm
12	1.5	15 ^{-0.043-0}
16	1.5	20 ^{-0.052-0}
20	2	13 ^{-0.043-0}
25	2	15 ^{-0.043-0}
32	2	21 ^{-0.052-0}
40	2	28 ^{-0.052-0}
50	2	35 ^{-0.062-0}
63	2	35 ^{-0.062-0}
80	2	43 ^{-0.062-0}
100	2	59 ^{-0.074-0}

Note) For other mounting positions and dimensions, refer to Cat:N320

Note) For information regarding Mounting Positions: Foot Type, Rod Flange, Head Flange, Double Clevis, refer to CAT:N320



THROUGH HOLE Ø32~Ø100 SERIES (N)CDQ2



SERIES (N)CDQ2A BOTH ENDS TAPPED

Bore Size	CQ2 (mm)	NCQ2 (inch)	R
mm	O	O	mm
12	M4x0.7	8-32UNC	7
16	M4x0.7	8-32UNC	7
20	M6x1.0	1/4-20UNC	10
25	M6x1.0	1/4-20UNC	10
32	M6x1.0	1/4-20UNC	10
40	M6x1.0	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18
80	M12x1.75	1/2-13UNC	22
100	M12x1.75	1/2-13UNC	22

STANDARD Ø12 ~ Ø100 SERIES (N)CDQ2

Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	F	CQ2 H	NCQ2 H	i	J	K	L	M	N	O	P	Orifice	Q	S	U	Z	V
12	5~30	31.5	28	6	5.4	6	32	6.5	M3x0.5	8-32	-	-	5	3.5	22	3.5	6.5 Depth3.5	-	-	11	35.5	19.5	-	25
16	5~30	34	30.5	8	5.4	8	38	5.5	M4x0.7	8-32	-	-	6	3.5	28	3.5	6.5 Depth3.5	-	-	10	41.5	25.5	-	29
20	5~50	36	31.5	7	7	10	47	5.5	M5x0.8	10-32	-	-	8	4.5	36	5.5	9 Depth7	-	-	10.5	48	24.5	-	36
25	5~50	37.5	32.5	12	10	12	52	5.5	M6x1	1/4-28UNF	-	-	10	5	40	5.5	9 Depth7	-	-	11	53.5	27.5	-	40
32	5~50 75, 100	40	33	13	13.3	16	45	7.5	M8x 1.25	5/16- 24UNF	60	4.5	14	7	34	5.5	9 Depth7	1/8	1.7	10.5	58.5	31.5	18	-
40	5~50 75, 100	46.5	39.5	13	18.3	16	52	8	M8x 1.25	3/8- 24UNF	69	5	14	7	40	5.5	9 Depth7	1/8	2	11	66	35	18	-
50	10~50 75, 100	48.5	40.5	15	17.6	20	64	10.5	M10x 1.5	1/2- 20UNF	86	7	17	8	50	6.6	11 Depth8	1/4	2.2	10.5	80	41	22	-
63	10~50 75, 100	54	46	15	17.6	20	77	10.5	M10x 1.5	1/2- 20UNF	103	7	17	8	60	9	14 Depth 10.5	1/4	3	15	93	47.5	22	-
80	10~50 75, 100	63.5	53.5	21	24.3	25	98	12.5	M16x 2	5/8- 18UNF	132	6	22	10	77	11	17.5 Depth 13.5	3/8	4	16	112.5	57.5	26	-
100	10~50 75 100	75	63	27	27	30	117	13	M20x 2.5	3/4- 16UNF	156	6.5	27	12	94	11	17.5 Depth 13.5	3/8	5	23	132.5	67.5	26	-

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TECHNICAL SPECIFICATIONS

DOUBLE ACTING DOUBLE ROD - SERIES NCQ2/CQ2

Model	Air Pressure	Air Hydraulic
Fluid	Air	Hydraulic Oil
Proof Pressure	1.52MPa / 217 PSI	
Max Operating Pressure	1 MPa / 145PSI	
Ambient and Fluid Temp	15~160°F (at freezing temp, air must be dry)*	
Rubber Cushion	None	-
Rod End Thread	Female Thread (Standard)	
Rod End Thread Tolerance	JIS Class II	
Stroke Length Tolerance	0 ~ 0.1 mm	
Piston Speed	2 ~ 20 in/sec (50 ~ 500mm/s)	0.002 ~ 8 in/sec (0.05 ~ 200mm/s)

*Temperature Note : 15~160°F = -10 ~70°C

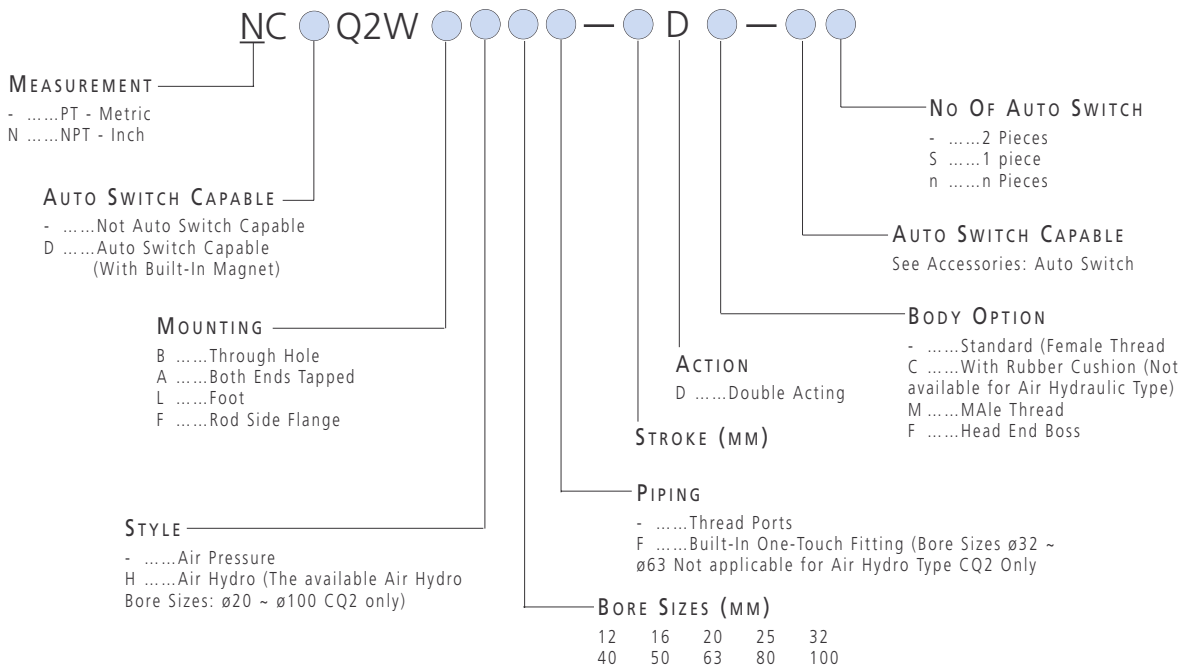
MINIMUM OPERATING PRESSURE

Bore Size	12	16	20	25	32	40	50	63	80	100
Air Pressure	10.15	10.15	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
Air Hydraulic	-	-	26.1	26.1	26.1	14.5	14.5	14.5	14.5	14.5

PSI

HOW TO ORDER

NCQ2W/CQ2W DOUBLE ACTING DOUBLE ROD



HOW TO ORDER

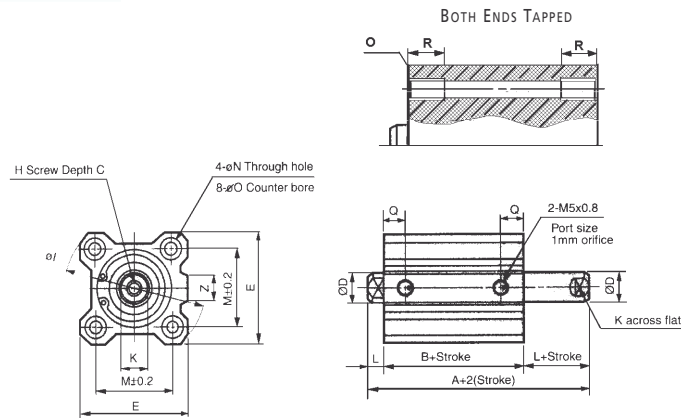
DOUBLE ACTING DOUBLE ROD - STANDARD STROKE

Bore Size	Air Pressure Type	Air Hydro Type
12, 16	5, 10, 15, 20, 25, 30	-
20, 25	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25,
32, 40	35, 40, 45, 50, 75, 100	30, 35, 40, 45, 50
50, 63, 80 100	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	10, 15, 20, 25, 30, 35, 40, 45, 50



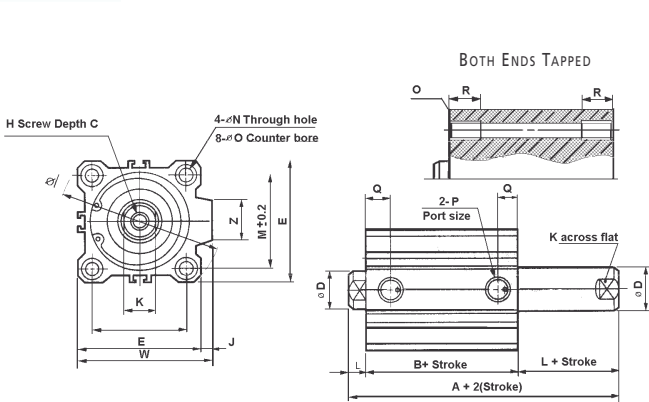
DIMENSIONS

THROUGH HOLE $\phi 12 \sim \phi 25$ SERIES (N)CQ2W



DIMENSIONS

THROUGH HOLE $\phi 32 \sim \phi 100$ SERIES (N)CQ2W



DIMENSIONS

SERIES (N)CQ2WA BOTH ENDS TAPPED

Bore Size	CQ2 O	NCQ2 (inch) O	R
12	M4x0.7	8-32UNC	7
16	M4x0.7	8-32UNC	7
20	M6x1.0	1/4-20UNC	10
25	M6x1.0	1/4-20UNC	10
32	M6x1.0	1/4-20UNC	10
40	M6x1.0	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18
80	M12x1.75	1/2-13UNC	22
100	M12x1.75	1/2-13UNC	22

DIMENSIONS (MM)

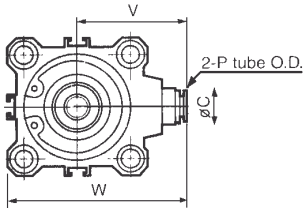
DOUBLE ACTING DOUBLE ROD SERIES (N)CQ2W

Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	CQ2 H	NCQ2 H	i	J	K	L	M	N	O	P	Orifice	Q	W	Z
12	5~30	32.2	25.2	6	5.4	6	25	M3x0.5	8-32	32	-	5	3.5	15.5	3.5	6.5 Depth3.5	-	-	10	-	-
16	5~30	33	26	8	5.4	8	29	M4x0.7	8-32	38	-	6	3.5	20	3.5	6.5 Depth3.5	-	-	10	-	10
20	5~50	35	26	7	7	10	36	M5x0.8	10-32	47	-	8	4.5	25.5	5.5	9 Depth7	-	-	9.5	-	10
25	5~50	39	29	12	10	12	40	M6x1	1/4-28UNF	52	-	10	5	28	5.5	9 Depth7	-	-	11	-	10
32	5	44.5	30.5	13	13.3	16	45	M8x1.25	5/16x24UNF	60	4.5	14	7	34	5.5	9 Depth7	M5x0.8	1.7	12.5	49.5	18
	10~50																1/8				
40	5~50	54	40	13	18.3	16	52	M8x1.25	3/8x24UNF	69	5	14	7	40	5.5	9 Depth7	1/8	2	14	57	18
50	10~50	56.5	40.5	15	17.6	20	64	M10x1.5	1/2x20UNF	86	7	17	8	50	6.6	11 Depth8	1/4	2.2	14	71	22
63	10~50	58	42	15	17.6	20	77	M10x1.5	1/2x20UNF	103	7	17	8	60	9	14 Depth 10.5	1/4	3	15.5	84	22
80	10~50	71	51	21	24.3	25	98	M16x2	5/8x18UNF	132	6	22	10	77	11	17.5 Depth 13.5	3/8	4	18	104	26
100	10~50	84.5	60.5	27	27	30	117	M20x2.5	3/4x16UNF	156	6.5	27	12	94	11	17.5 Depth 13.5	3/8	5	22	123.5	26

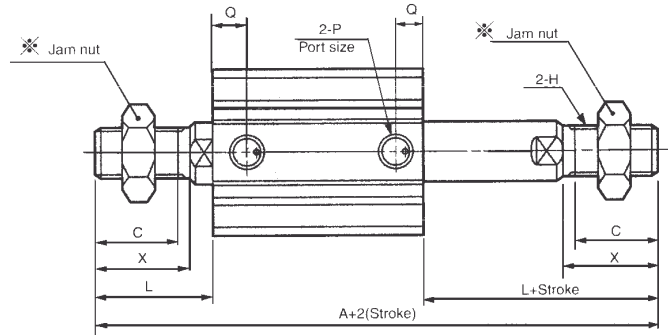
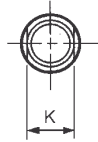
Note) The external dimensions of cylinder with rubber cushion are the same as those of the above standard

DIMENSIONS

DOUBLE ACTING DOUBLE ROD SERIES (N)CQ2W



Piston Rod



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

Note) For more information regarding Mounting Positions: Foot Type, Rod Side Flange, refer to CAT:N320

NCQ2 MALE ROD END

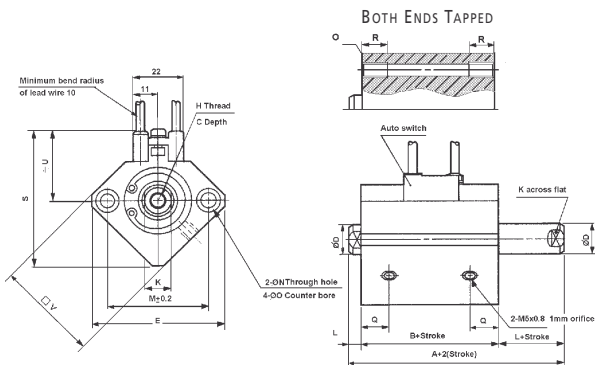
Bore Size	X	H	L	K	A
	mm	inch	mm	mm	mm
12	8	8-32UNC	11.5	5	48.2
16	8	8-32UNC	11.5	6	49
20	8	10-32UNF	12.5	8	51
25	9.5	1/4-28UNF	14.5	10	58
32	12.7	5/16-24UNF	19.7	14	69.9
40	16	3/8-24UNF	23	14	86
50	19.5	1/2-20UNF	27.5	17	95.5
63	19.5	1/2-20UNF	27.5	17	97
80	25.5	5/8-18UNF	35.5	22	122
100	28.5	3/4-16UNF	40.5	27	141.5

CQ2 MALE ROD END

Bore Size	C	X	H	L	K	A
	mm	mm	mm	mm	mm	mm
12	9	10.5	M5X0.8	14	5	53.2
16	10	12	M6X1	15.5	6	57
20	12	14	M8X1.25	18.5	8	63
25	15	17.5	M10X1.25	22.5	10	74
32	20.5	23.5	M14X1.5	28.5	14	87.5
40	20.5	23.5	M14X1.5	28.5	14	97
50	26	28.5	M18X1.5	33.5	17	107.5
63	26	28.5	M18X1.5	33.5	17	109
80	32.5	35.5	M22X1.5	43.5	22	138
100	32.5	35.5	M26X1.5	43.5	27	147.5

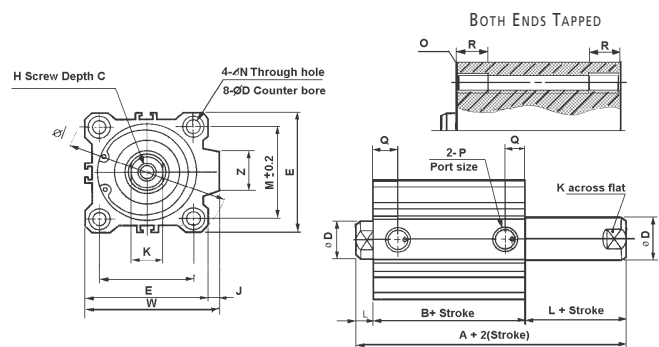
DIMENSIONS

THROUGH HOLE Ø12 ~ Ø25 SERIES (N)CDQ2WB



DIMENSIONS

THROUGH HOLE Ø32 ~ Ø100 SERIES (N)CDQ2WB



BOTH ENDS TAPPED (N)CDQ2WA (MM)

Bore Size	CQ2 (mm)	NCQ2 (in)	R
12	M4x0.7	8-32UNC	7
16	M4x0.7	8-32UNC	7
20	M6x1	1/4-20UNC	10
25	M6x1	1/4-20UNC	10
32	M6x1	1/4-20UNC	10
40	M6x1	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18
80	M12x1.75	1/2-13UNC	22
100	M12x1.75	1/2-13UNC	22

SEE DIMENSIONS ON NEXT PAGE



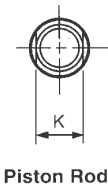
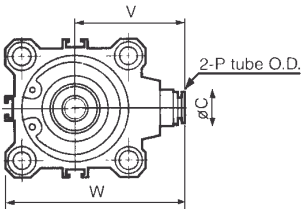


DIMENSIONS (MM)
STANDARD Ø12 ~ Ø100 SERIES (N)CDQ2W

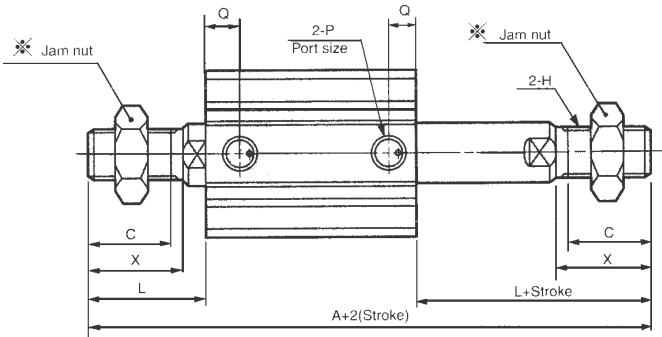
Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	CQ2 H	NCQ2 H	i	J	K	L	M	N	O	P	Orifice	Q	S	U	V	Z
12	5~30	39.4	32.4	6	5.4	6	32	M3x0.5	8-32	-	-	5	3.5	22	3.5	6.5 Depth3.5	-	-	10.5	35.5	19.5	25	-
16	5~30	43	36	8	5.4	8	38	M4x0.7	8-32	-	-	6	3.5	28	3.5	6.5 Depth3.5	-	-	10	41.5	22.5	29	-
20	5~50	47	38	7	7	10	47	M5x0.8	10-32	-	-	8	4.5	36	5.5	9 Depth7	-	-	10.5	48	24.5	36	-
25	5~50	49	39	12	10	12	52	M6x1	1/4-28UNF	-	-	10	5	40	5.5	9 Depth7	-	-	11	53.5	27.5	40	-
32	5~50	54.5	40.5	13	13.3	16	45	M8x1.25	5/16-24UNF	60	4.5	14	7	34	5.5	9 Depth7	1/8	1.7	12.5	58.5	31.5	-	18
40	5~50	64	50	13	18.3	16	52	M8x1.25	3/8-24UNF	69	5	14	7	40	5.5	9 Depth7	1/8	2	14	66	35	-	18
50	10~50	66.5	50.5	15	17.6	20	64	M10x1.5	1/2-20UNF	86	7	17	8	50	6.6	11 Depth8	1/4	2.2	14	80	41	-	22
63	10~50	68	52	15	17.6	20	77	M10x1.5	1/2-20UNF	103	7	17	8	60	9	14 Depth 10.5	1/4	3	15.5	93	47.5	-	22
80	10~50	81	61	21	24.3	25	98	M16x2	5/8-18UNF	132	6	22	10	77	11	17.5 Depth 13.5	3/8	4	18	112.5	57.5	-	26
100	10~50	94.5	70.5	27	27	30	117	M20x2.5	3/4-16UNF	156	6.5	27	12	94	11	17.5 Depth 13.5	3/8	5	22	132.5	67.5	-	26

Note) The external dimensions of cylinder with rubber cushion are the same as those of the above standard

DIMENSIONS
WITH AUTO SWITCH SERIES (N)CDQ2W - PIPING & BODY OPTIONS



Piston Rod



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
mm	mm	mm	mm	mm
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

NCQ2 MALE ROD END

Bore Size	X	H	L	K	A
mm	mm	inch	mm	mm	mm
12	8	8-32UNC	11.5	5	55.4
16	8	8-32UNC	11.5	6	59
20	8	10-32UNF	12.5	8	63
25	9.5	1/4-28UNF	14.5	10	68
32	12.7	5/16-24UNF	19.7	14	79.9
40	16	3/8-24UNF	23	14	96
50	19.5	1/2-20UNF	27.5	17	105.5
63	19.5	1/2-20UNF	27.5	17	107
80	25.5	5/8-18UNF	35.5	22	132
100	28.5	3/4-16UNF	40.5	27	151.5

CQ2 MALE ROD END

Bore Size	C	X	H	L	K	A
mm	mm	mm	mm	mm	mm	mm
12	9	10.5	M5X0.8	14	5	60.4
16	10	12	M6X1	15.5	6	67
20	12	14	M8X1.25	18.5	8	75
25	15	17.5	M10X1.25	22.5	10	84
32	20.5	23.5	M14x1.5	28.5	14	97.5
40	20.5	23.5	M14x1.5	28.5	14	107
50	26	28.5	M18X1.5	33.5	17	117.5
63	26	28.5	M18X1.5	33.5	17	119
80	32.5	35.5	M22x1.5	43.5	22	148
100	32.5	35.5	M26X1.5	43.5	27	157.5

Note) For information regarding Mounting Positions: Foot Type, Rod Side Flange, refer to CAT:N320

TECHNICAL SPECIFICATIONS

SINGLE ACTING SINGLE ROD - SERIES NCQ2/CQ2

Fluid	Air
Proof Pressure	1.5MPa / 217 PSI
Max Operating Pressure	1MPa / 145PSI
Ambient and Fluid Temp	-10~70°C (at freezing temp, air must be dry) 15~160°F
Rubber Cushion	None
Rod End Thread	Female Thread (Standard)
Rod End Thread Tolerance	JIS Class II
Stroke Length Tolerance	0 ~ 0.1 mm
Mounting	Through Hole (Standard)
Piston Speed	50~500mm/s / 2 ~ 20 in/sec

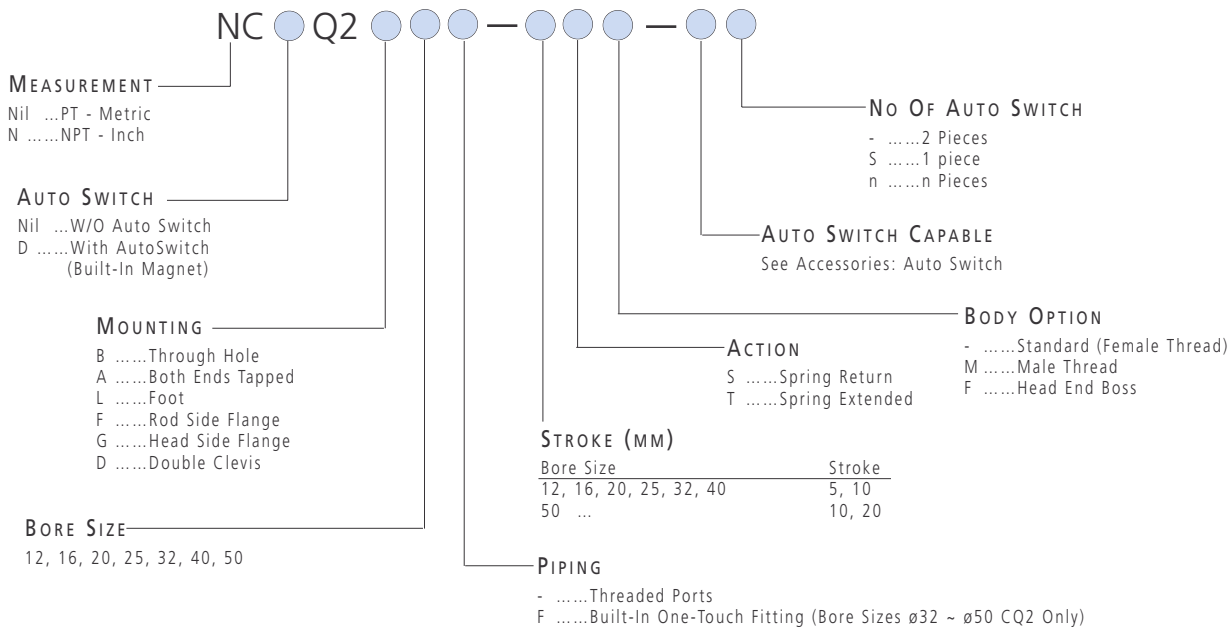
MINIMUM OPERATING PRESSURE

1MPa = 145PSI

Bore Size	12	16	20	25	32	40	50
Min Operating Pressure (PSI)	36	36	26	26	25	22	18

HOW TO ORDER

NCQ2/CQ2 SINGLE ACTING SINGLE ROD



HOW TO ORDER

SINGLE ACTING SINGLE ROD - STANDARD STROKE

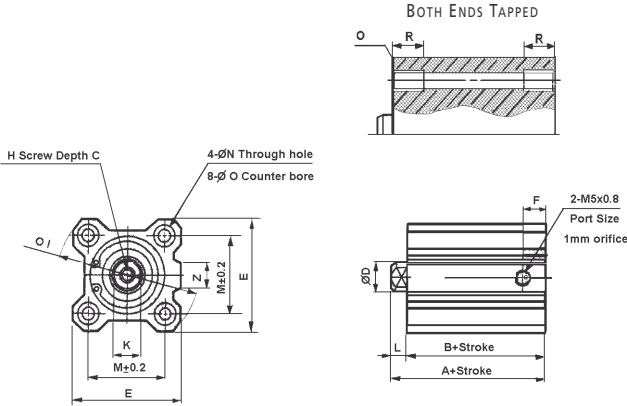
Bore Size	Stroke
12, 16, 20, 25, 32, 40	5, 10
50	10, 20

MORE DIMENSIONS
SEE NEXT PAGE



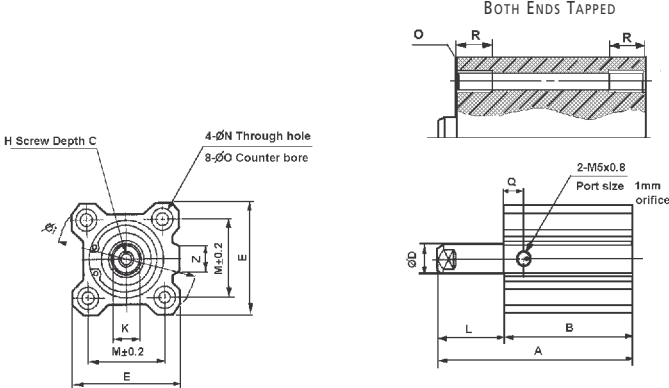
DIMENSIONS
SPRING RETURN

THROUGH HOLE $\phi 12 \sim \phi 25$ SERIES (N)CQ2B-S



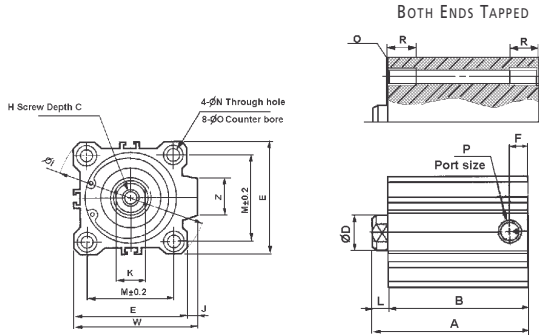
DIMENSIONS
SPRING EXTENDED

THROUGH HOLE $\phi 12 \sim \phi 25$ SERIES (N)CQ2B-T



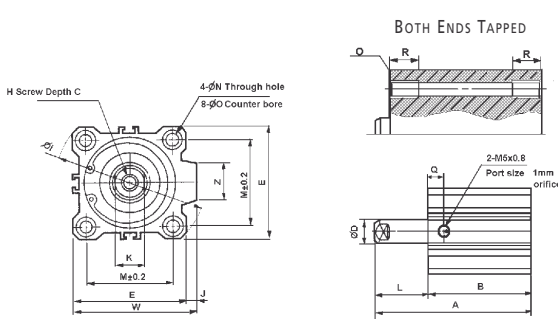
DIMENSIONS
SPRING RETURN

THROUGH HOLE $\phi 32 \sim \phi 50$ SERIES (N)CQ2B-S



DIMENSIONS
SPRING EXTENDED

THROUGH HOLE $\phi 32 \sim \phi 50$ SERIES (N)CQ2B-T



DIMENSIONS (mm)

SINGLE ACTING SINGLE ROD SERIES (N)CQ2B-S

Bore Size	Stroke (mm)	A			B			CQ2		D	E
		5st	10st	20st	5st	10st	20st	C	C		
12	5, 10	25.5	30.5	-	22	27	-	6	5.4	6	25
16	5, 10	27	32	-	23.5	28.5	-	8	5.4	8	29
20	5, 10	29	34	-	24.5	29.5	-	7	7	10	36
25	5, 10	32.5	37.5	-	27.5	32.5	-	12	10	12	40
32	5, 10	35	40	-	28	33	-	13	13.3	16	45
40	5, 10	41	46.5	-	34.5	39.5	-	13	18.3	16	52
50	10, 20	-	48.5	58.5	-	40.5	50.5	15	17.6	20	64

DIMENSIONS (mm)

SERIES (N)CQ2B-T

Bore Size	Stroke (mm)	A			L			Q		
		5st	10st	20st	5st	10st	20st	5st	10st	20st
12	5, 10	30.5	40.5	-	8.5	13.5	-	-	7.5	-
16	5, 10	32	42	-	8.5	13.5	-	-	8	-
20	5, 10	34	44	-	9.5	14.5	-	-	9	-
25	5, 10	37.5	47.5	-	10	15	-	-	11	-
32	5, 10	40	50	-	12	17	-	11.5	10.5	-
40	5, 10	46.5	56.5	-	12	17	-	11	11	-
50	10, 20	-	58.5	78.5	-	18	28	-	10.5	10.5

Bore Size	Stroke (mm)	F			CQ2 (mm)		NCQ2	i	J	K	L	M	N	O	P			Orifice	W	Z
		5st	10st	20st	H	H									5st	10st	20st			
12	5, 10	-	5	-	M3x0.5	8-32	32	-	5	3.5	15.5	3.5	6.5	Depth3.5	-	-	-	-	-	-
16	5, 10	-	5.5	-	M4x0.7	8-32	38	-	6	3.5	20	3.5	6.5	Depth3.5	-	-	-	-	10	-
20	5, 10	-	5.5	-	M5x0.8	10-32	47	-	8	4.5	25.5	5.5	9	Depth7	-	-	-	-	10	-
25	5, 10	-	5.5	-	M6x1	1/4-28UNF	52	-	10	5	28	5.5	9	Depth7	-	-	-	-	10	-
32	5, 10	5.5	7.5	-	M8x1.25	5/16-24UNF	60	4.5	14	7	34	5.5	9	Depth7	M5x0.8	1/8	-	1.7	49.5	18
40	5, 10	8	8	-	M8x1.25	3/8-24UNF	69	5	14	7	40	5.5	9	Depth7	1/8	1/8	-	2	57	18
50	10, 20	-	10.5	10.5	M10x1.5	1/2-20UNF	86	7	17	8	50	6.6	11	Depth8	-	1/4	1/4	2.2	71	22

Note) Except for A, L & Q, all other dimensions apply to both Spring Return and Spring Extend

DIMENSIONS (MM)

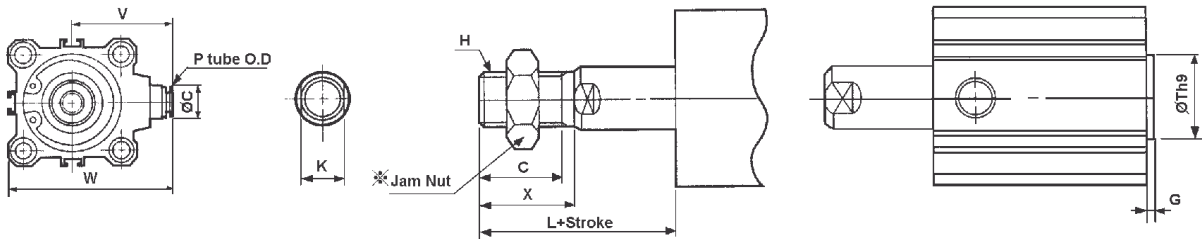
SINGLE ACTING SINGLE ROD BOTH ENDS TAPPED SERIES (N)CDQ2A
SPRING RETURN / EXTENDED

BOTH ENDS TAPPED (N)CDQ2A

Bore Size	CQ2 (mm)	NCQ2 (in)	R
12	M4x0.7	8-32UNC	7
16	M4x0.7	8-32UNC	7
20	M6x1	1/4-20UNC	10
25	M6x1	1/4-20UNC	10
32	M6x1	1/4-20UNC	10
40	M6x1	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14

DIMENSIONS

SINGLE ACTING SINGLE ROD SERIES (N)CQ2 - PIPING & BODY OPTIONS
SPRING RETURN / EXTENDED



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
mm	mm	mm	mm	mm
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82

NCQ2 MALE ROD END

Bore Size	X	H	L	K
mm	inch	mm	mm	mm
12	8	8-32UNC	11.5	5
16	8	8-32UNC	11.5	6
20	8	10-32UNF	12.5	8
25	9.5	1/4-28UNF	14.5	10
32	12.7	5/16-24UNF	19.7	14
40	16	3/8-24UNF	23	14
50	19.5	1/2-20UNF	27.5	17

CQ2 MALE ROD END

Bore Size	C	X	H	L	K
mm	mm	mm	mm	mm	mm
12	9	10.5	M5X0.8	14	5
16	10	12	M6X1	15.5	6
20	12	14	M8X1.25	18.5	8
25	15	17.5	M10X1.25	22.5	10
32	20.5	23.5	M14x1.5	28.5	14
40	20.5	23.5	M14x1.5	28.5	14
50	26	28.5	M18X1.5	33.5	17

END BOSS (CQ2 ONLY)

Bore Size	G	Th9
mm	mm	mm
12	1.5	15 ^{+0.043-0}
16	1.5	20 ^{+0.052-0}
20	2	13 ^{+0.043-0}
25	2	15 ^{+0.043-0}
32	2	21 ^{+0.052-0}
40	2	28 ^{+0.052-0}
50	2	35 ^{+0.062-0}

Note) For information regarding Mounting Positions: Foot Type, Rod Side Flange, Head Side Flange, Double Clevis, refer to CAT:N320

DIMENSIONS

WITH AUTO SWITCH SPRING RETURN / EXTENDED

SINGLE ACTING SINGLE ROD BOTH ENDS TAPPED SERIES (N)CDQ2A

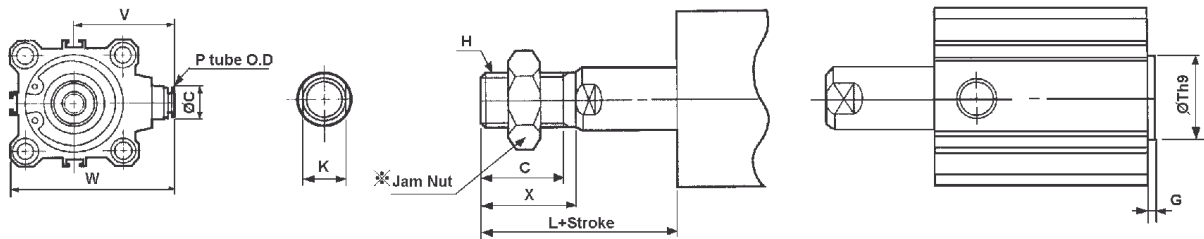
BOTH ENDS TAPPED (N)CDQ2A

Bore Size	CQ2 (mm)	NCQ2 (in)	R
12	M4x0.7	8-32UNC	7
16	M4x0.7	8-32UNC	7
20	M6x1	1/4-20UNC	10
25	M6x1	1/4-20UNC	10
32	M6x1	1/4-20UNC	10
40	M6x1	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18
80	M12x1.75	1/2-13UNC	22
100	M12x1.75	1/2-13UNC	22

DIMENSIONS

WITH AUTO SWITCH SPRING RETURN / EXTENDED

SINGLE ACTING SINGLE ROD SERIES (N)CDQ2 - PIPING & BODY OPTIONS



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
mm	mm	mm	mm	mm
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82

NCQ2 MALE ROD END

Bore Size	X	H	L	K
mm	inch	mm	mm	mm
12	8	8-32UNC	11.5	5
16	8	8-32UNC	11.5	6
20	8	10-32UNF	12.5	8
25	9.5	1/4-28UNF	14.5	10
32	12.7	5/16-24UNF	19.7	14
40	16	3/8-24UNF	23	14
50	19.5	1/2-20UNF	27.5	17

CQ2 MALE ROD END

Bore Size	C	X	H	L	K
mm	mm	mm	mm	mm	mm
12	9	10.5	M5X0.8	14	5
16	10	12	M6X1	15.5	6
20	12	14	M8X1.25	18.5	8
25	15	17.5	M10X1.25	22.5	10
32	20.5	23.5	M14x1.5	28.5	14
40	20.5	23.5	M14x1.5	28.5	14
50	26	28.5	M18X1.5	33.5	17

END BOSS (CQ2 ONLY)

Bore Size	G	Th9
mm	mm	mm
12	1.5	15 ^{-0.043-0}
16	1.5	20 ^{-0.052-0}
20	2	13 ^{-0.043-0}
25	2	15 ^{-0.043-0}
32	2	21 ^{-0.052-0}
40	2	28 ^{-0.052-0}
50	2	35 ^{-0.062-0}

Note) For information regarding Mounting Positions: Foot Type, Rod Side Flange, Head Side Flange, Double Clevis, refer to CAT:N320



TECHNICAL
SPECIFICATIONS
NON-ROTATING

DOUBLE ACTING SINGLE ROD - SERIES NCQ2K/CQ2K

Model	Air Pressure (Non-Lube)
Fluid	Air
Proof Pressure	1.5MPa / 217 PSI
Max Operating Pressure	1MPa / 145PSI
Ambient and Fluid Temp	-10~70°C / 15~160°F
Rubber Cushion	None / ø12WSwitches must have Rubber Cushion
Rod End Thread	Female Thread (Standard)
Rod End Thread Tolerance	JIS Class II
Stroke Length Tolerance	0 ~ 0.1 mm
Mounting	Through Hole (Standard)
Piston Speed	50 ~ 500mm/s / 2 ~ 20 in/sec

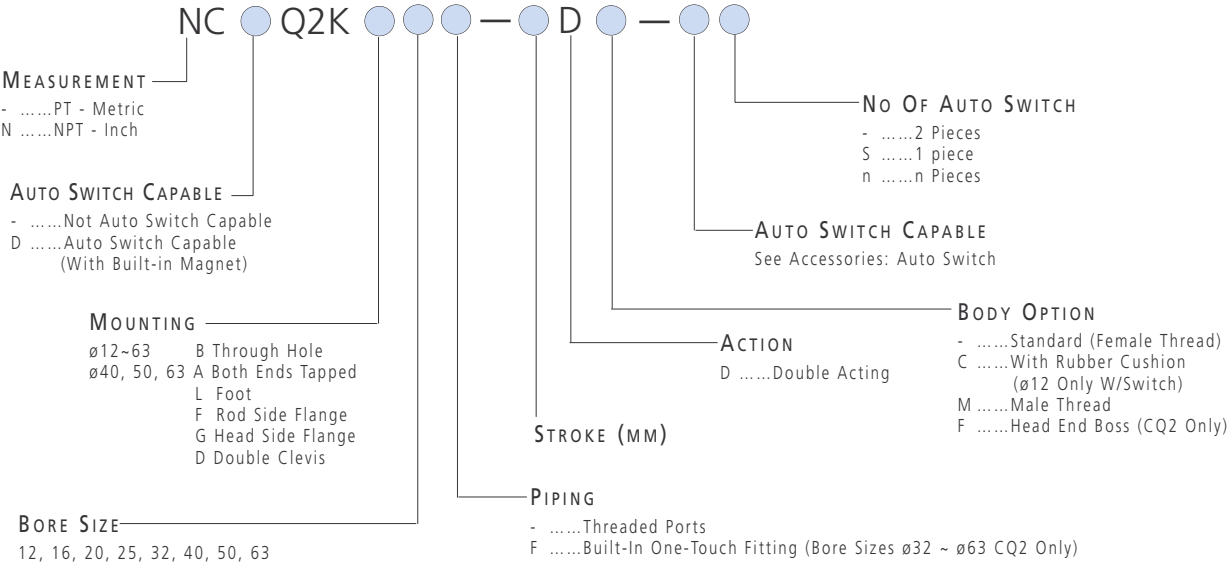
MINIMUM
OPERATING
PRESSURE

1MPa = 145PSI

Bore Size	12	16	20	25	32	40	50	63
Min Operating Pressure (PSI)	10.15	10.15	7.25	7.25	7.25	7.25	7.25	7.25

HOW TO
ORDER

NCQ2K/CQ2K NON-ROTATING DOUBLE ACTING SINGLE ROD



HOW TO
ORDER

NON-ROTATING DOUBLE ACTING SINGLE ROD - STANDARD STROKE

Bore Size	Stroke
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, 63	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

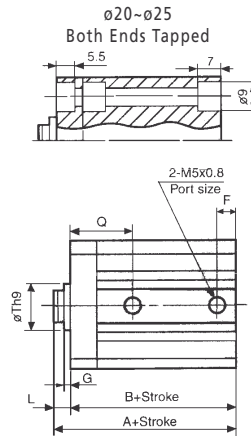
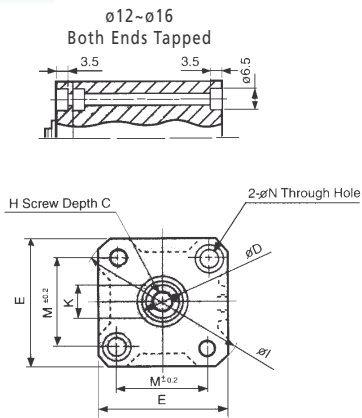
MORE DIMENSIONS
SEE NEXT PAGE



FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT, REQUEST
CATALOG REFERENCE
E210 & N320

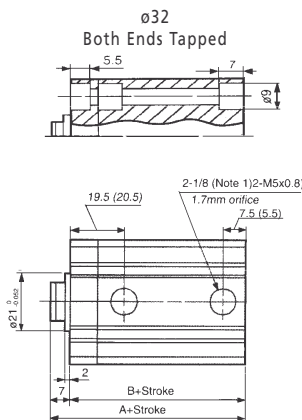
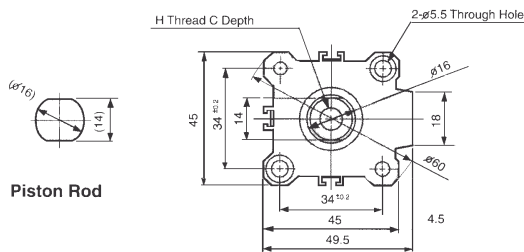
DIMENSIONS

THROUGH HOLE $\phi 12 \sim \phi 25$ SERIES (N)CQ2KB



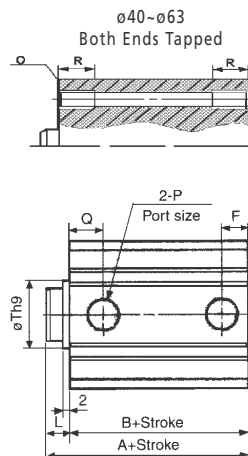
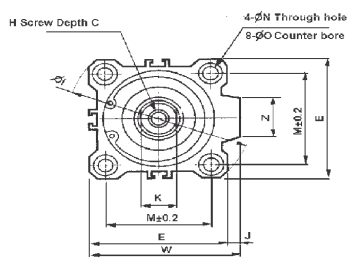
DIMENSIONS

THROUGH HOLE $\phi 32$ SERIES (N)CQ2KB



DIMENSIONS

THROUGH HOLE $\phi 40 \sim \phi 63$ SERIES (N)CQ2KB





DIMENSIONS (mm)
NON-ROTATING
DOUBLE ACTING SINGLE ROD BOTH ENDS TAPPED SERIES (N)CQ2KA

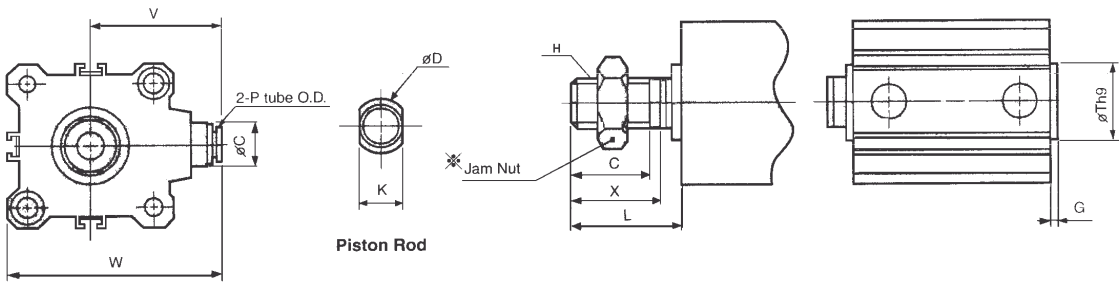
BOTH ENDS TAPPED (N)CQ2KA

Bore Size	CQ2 (mm) O	NCQ2 (in) O	R
40	M6x1	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18

DIMENSIONS
NON-ROTATING DOUBLE ACTING SINGLE ROD
SERIES (N)CQ2K STANDARD

Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	F	G	CQ2 H	NCQ2 H	i	J	K	L	M	N	O	P	Orifice	Q	Th9	W	Z
12	5~30	25.5	22	6	5.4	6	25	5	1.5	M3x0.5	8-32	32	-	5.2	3.5	15.5	3.5	-	-	-	12.5	15 ^{+0.043-0}	-	-
16	5~30	27	23.5	8	5.4	8	29	5.5	1.5	M4x0.7	8-32	38	-	6	3.5	20	3.5	-	-	-	13	20 ^{+0.052-0}	-	-
20	5~30	32	27.5	7	7	10	36	5.5	5.5	M5x0.8	10-32	47	-	8	4.5	25.5	5.5	-	-	-	17	13 ^{+0.043-0}	-	-
25	5~30	35.5	30.5	12	10	12	40	5.5	2	M6x1	1/4-28UNF	52	-	10	5	28	5.5	-	-	-	19	15 ^{+0.043-0}	-	-
40	5~50	36.5	29.5	13	18.3	16	52	8	2	M8x1.25	3/8-24UNF	69	5	14	7	40	5.5	9 Depth7	1/8	2	11	28 ^{+0.052-0}	57	18
	75, 100	46.5	39.5																					
50	5~50	38.5	30.5	15	17.6	20	64	10.5	2	M10x1.5	1/2-20UNF	86	7	18	8	50	6.6	11 Depth8	1/4	2.2	10.5	35 ^{+0.062-0}	71	22
	75, 100	48.5	40.5																					
63	10~50	44	36	15	17.6	20	77	10.5	2	M10x1.5	1/2-20UNF	103	7	18	8	60	9	14 Depth10.5	1/4	3	15	35 ^{+0.062-0}	84	22
	75, 100	54	46																					

DIMENSIONS
DOUBLE ACTING SINGLE ROD SERIES (N)CQ2K - PIPING & BODY OPTIONS



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

NCQ2 MALE ROD END

Bore Size	X	H	L	K
12	8	8-32UNC	11.5	5.2
16	8	8-32UNC	11.5	6
20	8	10-32UNF	12.5	8
25	9.5	1/4-28UNF	16.5	10
32	12.7	5/16-24UNF	17.7	14
40	16	3/8-24UNF	21	14
50	19.5	1/2-20UNF	23.5	18
63	19.5	1/2-20UNF	23.5	18

CQ2 MALE ROD END

Bore Size	C	X	H	L	K
12	9	10.5	M5X0.8	14	5
16	10	12	M6X1	15.5	6
20	12	14	M8X1.25	18.5	8
25	15	17.5	M10X1.25	22.5	10
32	20.5	23.5	M14x1.5	28.5	14
40	20.5	23.5	M14x1.5	28.5	14
50	26	28.5	M18X1.5	33.5	18
63	26	28.5	M18X1.5	33.5	18

END BOSS (CQ2 ONLY)

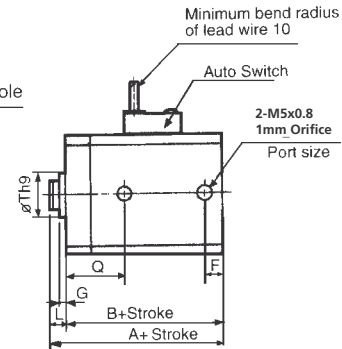
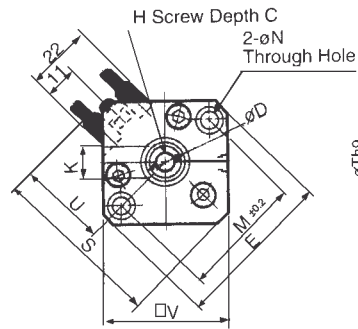
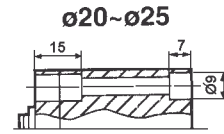
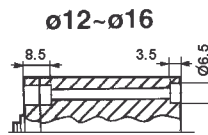
Bore Size	G	Th9
12	1.5	15 ^{+0.043-0}
16	1.5	20 ^{+0.052-0}
20	2	13 ^{+0.043-0}
25	2	15 ^{+0.043-0}
32	2	21 ^{+0.052-0}
40	2	28 ^{+0.052-0}
50	2	35 ^{+0.062-0}
63	2	35 ^{+0.062-0}

Note) For information regarding Mounting Positions: Foot Type, Rod Side Flange, Head Side Flange, Double Clevis, refer to CAT:N320

DIMENSIONS

WITH AUTO SWITCH

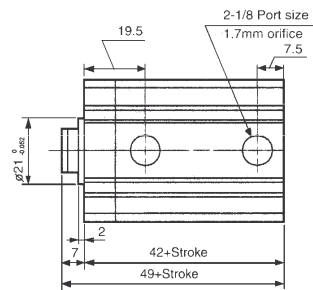
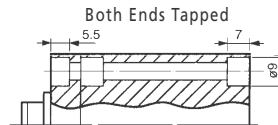
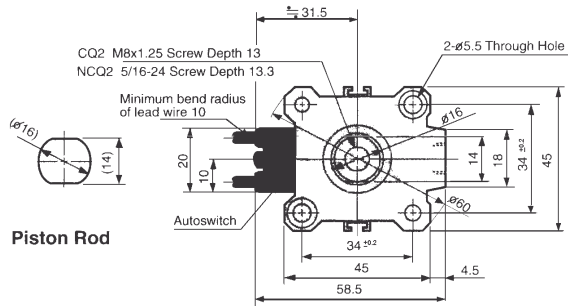
THROUGH HOLE $\varnothing 12 \sim \varnothing 25$ SERIES (N)CDQ2KB



DIMENSIONS

WITH AUTO SWITCH

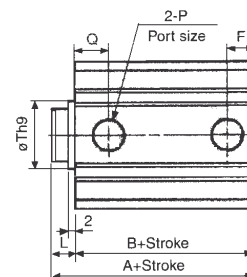
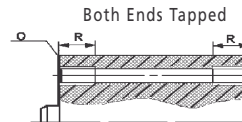
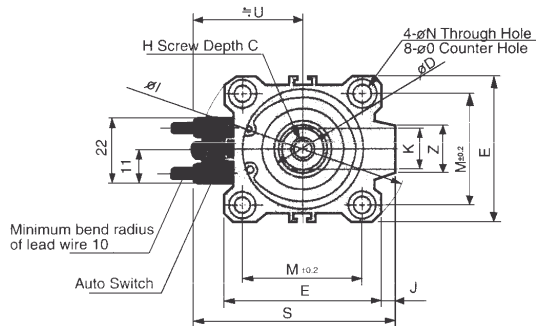
THROUGH HOLE Ø32 SERIES (N)CDQ2KB



DIMENSIONS

WITH AUTO SWITCH

THROUGH HOLE $\varnothing 40 \sim \varnothing 63$ SERIES (N)CDQ2KB



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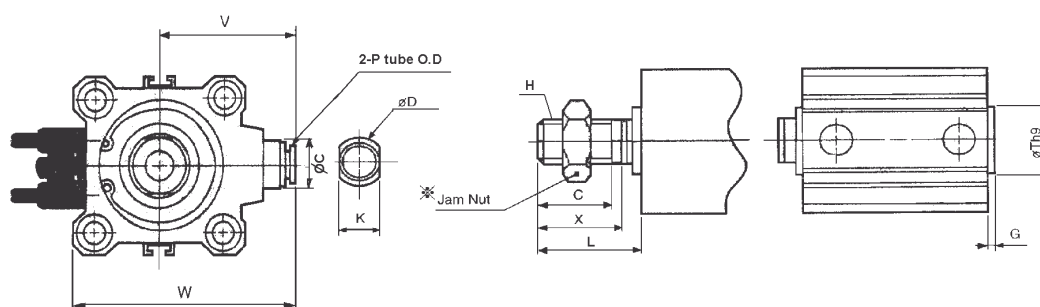
FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT, REQUEST
CATALOG REFERENCE
E210 & N320

DOUBLE ACTING SINGLE ROD BOTH ENDS TAPPED SERIES (N)CDQ2KA

Bore Size	CQ2 (mm)	NCQ2 (in)	R
12	M4x0.7	8-32UNC	7
16	M4x0.7	8-32UNC	7
20	M6x1	1/4-20UNC	10
25	M6x1	1/4-20UNC	10
32	M6x1	1/4-20UNC	10
40	M6x1	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18

WITH AUTO SWITCH SERIES (N)CDO2K STANDARD

DOUBLE ACTING SINGLE ROD SERIES (N)CDQ2 - PIPING & BODY OPTIONS



Bore Size	C mm	P mm	V mm	W mm
32	13	6	38	60.5
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

Bore Size	X mm	H inch	L mm	K mm
12	8	8-32UNC	11.5	5
16	8	8-32UNC	11.5	6
20	8	10-32UNF	12.5	8
25	9.5	1/4-28UNF	14.5	10
32	12.7	5/16-24UNF	19.7	14
40	16	3/8-24UNF	23	14
50	19.5	1/2-20UNF	27.5	17
63	19.5	1/2-20UNF	27.5	17

Bore	C	X	H	L	K
Size	mm	mm	mm	mm	mm
12	9	10.5	M5X0.8	14	5
16	10	12	M6X1	15.5	6
20	12	14	M8X1.25	18.5	8
25	15	17.5	M10X1.25	22.5	10
32	20.5	23.5	M14x1.5	28.5	14
40	20.5	23.5	M14x1.5	28.5	14
50	26	28.5	M18X1.5	33.5	17
63	26	28.5	M18X1.5	33.5	17

Bore Size	G mm	Th9 mm
12	1.5	15 ^{+0.043-0}
16	1.5	20 ^{+0.052-0}
20	2	13 ^{+0.043-0}
25	2	15 ^{+0.043-0}
32	2	21 ^{+0.052-0}
40	2	28 ^{+0.052-0}
50	2	35 ^{+0.062-0}
63	2	35 ^{+0.062-0}

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TECHNICAL SPECIFICATIONS NON-ROTATING

DOUBLE ACTING DOUBLE ROD - SERIES (N)CQ2KW

Model	Air Pressure (Non-Lube)
Fluid	Air
Proof Pressure	1.5MPa / 217 PSI
Max Operating Pressure	1MPa / 145PSI
Ambient and Fluid Temp	-10~70°C / 15~160°F
Rubber Cushion	None / ø12W Switches must have Rubber Cushion
Rod End Thread	Female Thread (Standard)
Rod End Thread Tolerance	JIS Class II
Stroke Length Tolerance	0 ~ 0.1 mm
Mounting	Through Hole (Standard)
Piston Speed	50~500mm/s / 2 ~ 20 in/sec

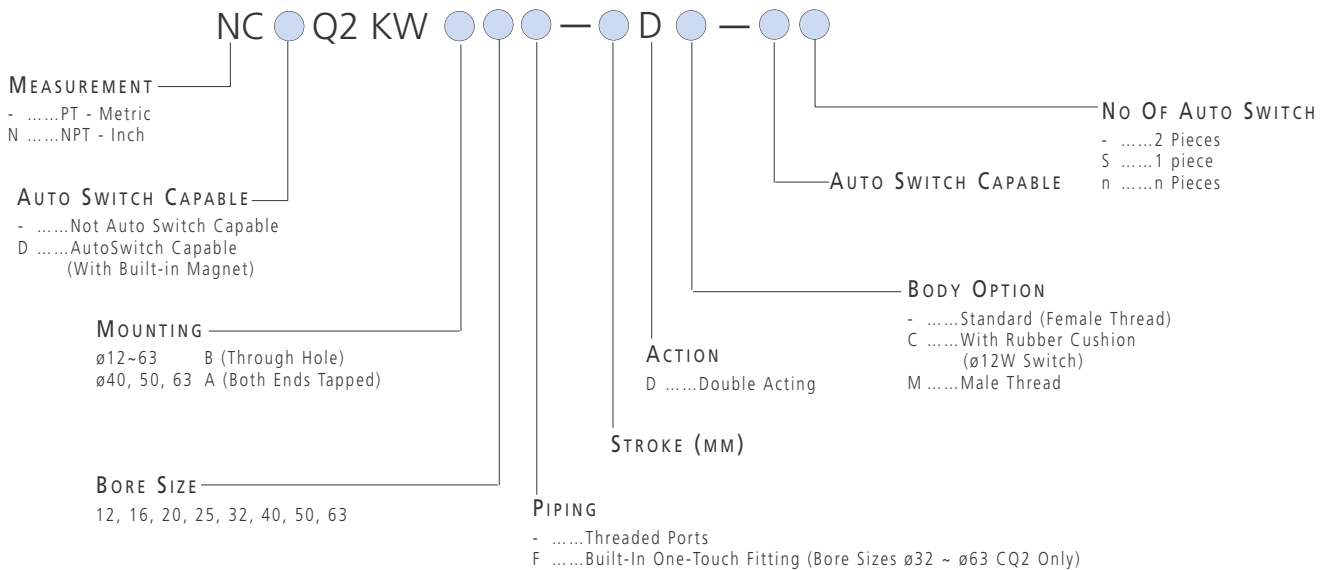
MINIMUM OPERATING PRESSURE

1MPa = 145PSI

Bore Size	12	16	20	25	32	40	50	63
Min Operating Pressure (PSI)	10.15	10.15	7.25	7.25	7.25	7.25	7.25	7.25

HOW TO ORDER

(N)CQ2KW NON-ROTATING DOUBLE ACTING DOUBLE ROD



HOW TO ORDER

NON-ROTATING DOUBLE ACTING DOUBLE ROD - STANDARD STROKE

Bore Size	Stroke
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, 63	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

TECHNICAL SPECIFICATIONS NON-ROTATING

DOUBLE ACTING DOUBLE ROD TOLERANCE

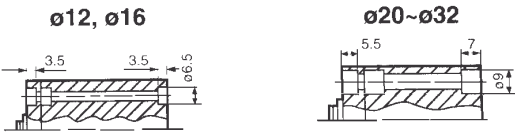
Bore Size	Accuracy
12,	±2°
16, 20, 25	±1°
32, 40, 50, 63	±0.8°

MORE DIMENSIONS
SEE NEXT PAGE

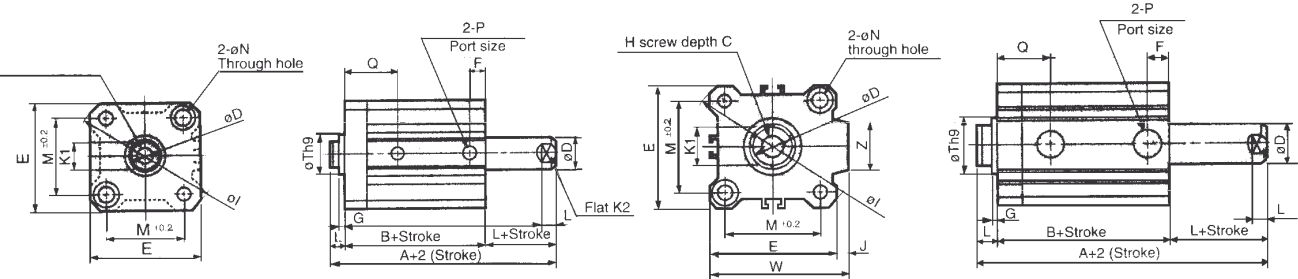




DIMENSIONS (MM)
THROUGH HOLE $\phi 12 \sim \phi 32$ SERIES (N)CQ2KWB

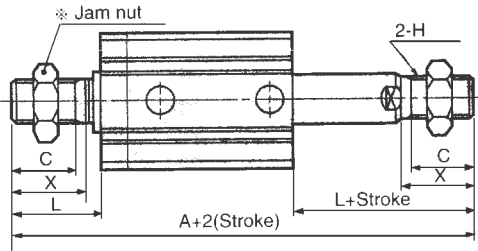
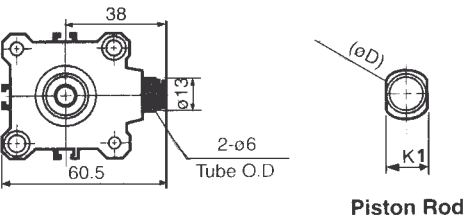


$\phi 12 \sim \phi 25$ $\phi 32$



Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	F	CQ2 H	NCQ2 H	i	J	K1	K2	L	M	N	P	Orifice	Q	Th9	W	Z
12	5~30	37.2	30.2	6	5.4	6	25	10	M3x0.5	8-32	32	-	5.2	5	3.5	15.5	3.5	M5x0.8	1	15	15 ^{+0.043-0}	-	-
16	5~30	38	31	8	5.4	8	29	10	M4x0.7	8-32	38	-	6	6	3.5	20	3.5	M5x0.8	1	15	20 ^{+0.052-0}	-	-
20	5~50	43	34	7	7	10	36	9.5	M5x0.8	10-32	47	-	8	8	4.5	25.5	5.5	M5x0.8	1	17.5	13 ^{+0.043-0}	-	-
25	5~50	47	37	12	10	12	40	11	M6x1	1/4-28UNF	52	-	10	10	5	28	5.5	M5x0.8	1	19	15 ^{+0.043-0}	-	-
32	5	53.5	39.5	13	13.3	16	45	12.5	M8x1.25	5/16-24UNF	60	4.5	14	14	7	34	5.5	M5x0.8	1.7	21.5	21 ^{+0.052-0}	49.5	18
	10~50																	1/8					

DIMENSIONS
ONE TOUCH FITTING $\phi 32$ SERIES (N)CQ2KWB



NCQ2 MALE ROD END

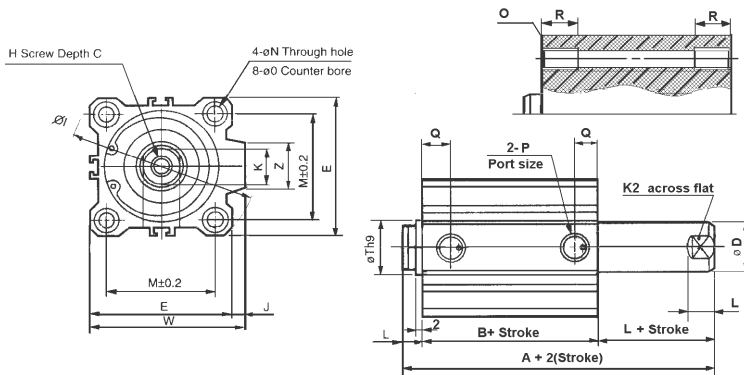
Bore Size	X mm	H inch	L mm	K1 mm	A mm
12	8	8-32UNC	11.5	5.2	53.2
16	8	8-32UNC	11.5	6	54
20	8	10-32UNF	12.5	8	59
25	9.5	1/4-28UNF	14.5	10	66
32	12.7	5/16-24UNF	19.7	14	78.9

CQ2 MALE ROD END

Bore Size	C mm	X mm	H mm	L mm	K1 mm	A mm
12	9	10.5	M5X0.8	14	5.2	58.2
16	10	12	M6X1	15.5	6	62
20	12	14	M8X1.25	18.5	8	71
25	15	17.5	M10X1.25	22.5	10	82
32	20.5	23.5	M14x1.5	28.5	14	96.5

DIMENSIONS (MM)

THROUGH HOLE $\phi 40 \sim \phi 63$ SERIES (N)CQ2KWB



DIMENSIONS (MM)

BOTH ENDS TAPPED SERIES (N)CQ2KWA

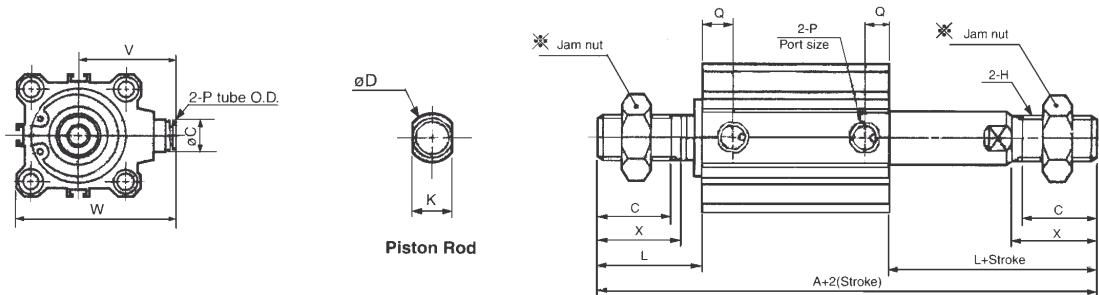
BOTH ENDS TAPPED (N)CQ2KWA

Bore Size	CQ2 (mm)	NCQ2 (in)	R
40	M6x1	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18

Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	CQ2 H	NCQ2 H	i	J	K	K2	L	M	N	O	P	Orifice	Q	Th9	W	Z
40	5~50	54	40	13	18.3	16	52	M8x1.25	3/8-24UNF	69	5	14	14	7	40	5.5	9 Depth7	1/8	2	14	28 ^{-0.052-0}	57	18
50	10~50	56.5	40.5	13	17.6	20	64	M10x1.5	1/2x20UNF	86	7	18	17	8	50	6.6	11 Depth8	1/4	2.2	14	35 ^{-0.062-0}	71	22
63	10~50	58	42	15	17.6	20	77	M10x1.5	1/2x20UNF	103	7	18	17	8	60	9	14Depth10.5	1/4	3	15.5	35 ^{-0.062-0}	84	22

DIMENSIONS

DOUBLE ACTING DOUBLE ROD SERIES (N)CQ2KWB



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

NCQ2 MALE ROD END

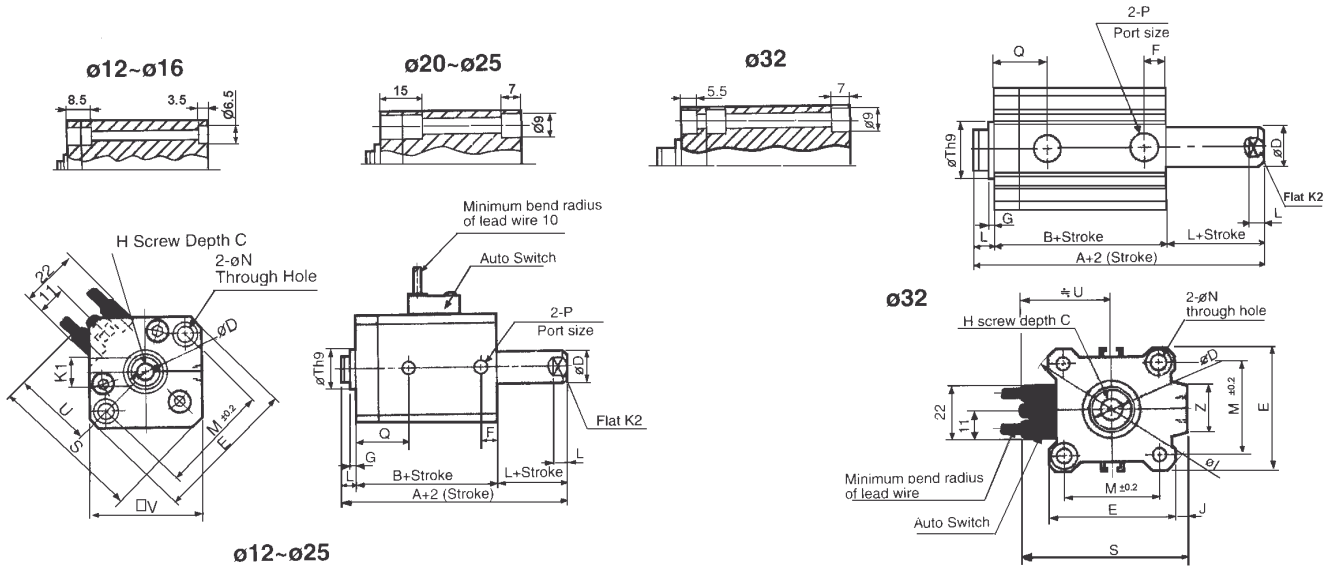
Bore Size	X	H	L	K	A
40	16	3/8-24UNF	23	14	86
50	19.5	1/2-20UNF	27.5	18	95.5
63	19.5	1/2-20UNF	27.5	18	97

CQ2 MALE ROD END

Bore Size	C	X	H	L	K	A
40	20.5	23.5	M14x1.5	28.5	14	97
50	26	28.5	M18x1.5	33.5	18	107.5
63	26	28.5	M18x1.5	33.5	18	109

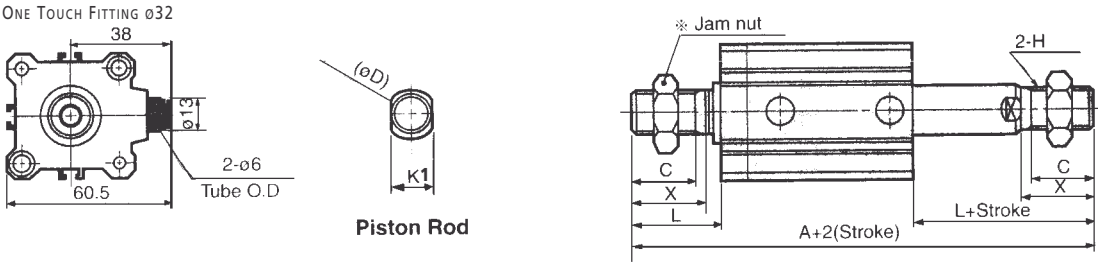


DIMENSIONS (MM)
WITH AUTO SWITCH
THROUGH HOLE $\phi 12 \sim \phi 32$ SERIES (N)CDQ2KWB



Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	F	CQ2 H	NCQ2 H	i	J	K2	L	M	N	P*	Q	S	Th9	U	V	Z
12	5~30	44.4	37.4	6	5.4	6	32	10.5	M3x0.5	8-32	-	-	5	3.5	22	3.5	M5x0.8	15.5	35.5	15 ^{-0.043-0}	19.5	25	-
16	5~30	48	41	8	5.4	8	38	10	M4x0.7	8-32	-	-	6	3.5	28	3.5	M5x0.8	15	41.5	20 ^{-0.052-0}	22.5	29	-
20	5~50	55	46	7	7	10	47	10.5	M5x0.8	10-32	-	-	8	4.5	36	5.5	M5x0.8	18.5	48	13 ^{-0.043-0}	24.5	36	-
25	5~50	57	47	12	10	12	52	11	M6x1	1/4-28UNF	-	-	10	5	40	5.5	M5x0.8	19	53.5	15 ^{-0.043-0}	27.5	40	-
32	5~50	63.5	49.5	13	13.3	16	45	12.5	M8x1.25	5/16-24UNF	60	4.5	14	7	34	5.5	1/8	21.5	58.5	21 ^{-0.052-0}	31.5	-	18

DIMENSIONS
DOUBLE ACTING DOUBLE ROD (N)CDQ2KWB



NCQ2 MALE ROD END

Bore Size	X mm	H inch	L mm	K1 mm	A mm
12	8	8-32UNC	11.5	5.2	53.2
16	8	8-32UNC	11.5	6	54
20	8	10-32UNF	12.5	8	59
25	9.5	1/4-28UNF	14.5	10	66
32	12.7	5/16-24UNF	19.7	14	78.9

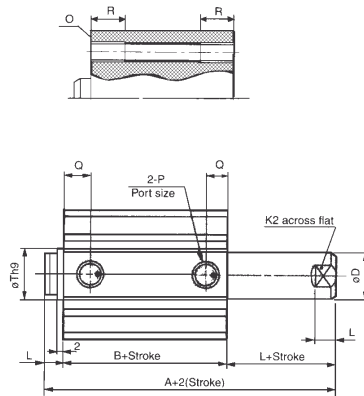
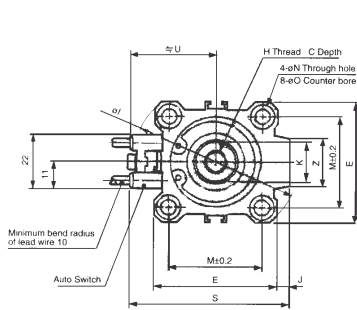
CQ2 MALE ROD END

Bore Size	C mm	X mm	H mm	L mm	K1 mm	A mm
12	9	10.5	M5X0.8	14	5.2	58.2
16	10	12	M6X1	15.5	6	62
20	12	14	M8X1.25	18.5	8	71
25	15	17.5	M10X1.25	22.5	10	82
32	20.5	23.5	M14x1.5	28.5	14	96.5

DIMENSIONS (mm)

WITH AUTO SWITCH

THROUGH HOLE $\phi 40 \sim \phi 63$ SERIES (N)CDQ2KWB



DIMENSIONS (mm)

WITH AUTO SWITCH NON-ROTATING

DOUBLE ACTING SINGLE ROD BOTH ENDS TAPPED SERIES (N)CDQ2KWA

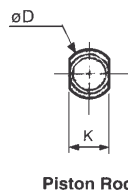
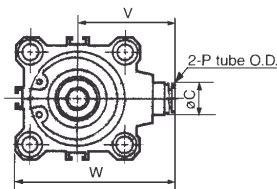
BOTH ENDS TAPPED

Bore Size	CQ2 (mm)	NCQ2 (in)	R
40	M6x1	1/4-20UNC	10
50	M8x1.25	5/16-18UNC	14
63	M10x1.5	7/16-14UNC	18

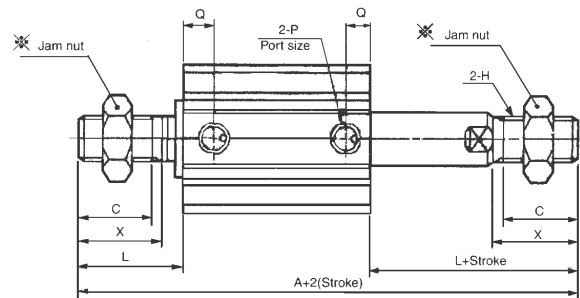
Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	CQ2 H	NCQ2 H	i	J	K	K2	L	M	N	O	P*	Q	S	Th9	U	Z
40	5~50	64	50	13	18.3	16	52	M8x1.25	3/8-24UNF	69	5	14	14	7	40	5.5	9 Depth7	1/8	14	66	28 ^{+0.052-0}	35	18
50	10~50	66.5	50.5	15	17.6	20	64	M10x1.5	1/2-20UNF	86	7	18	17	8	50	6.6	11 Depth8	1/4	14	80	35 ^{+0.062-0}	41	22
63	10~50	68	52	15	17.6	20	77	M10x1.5	1/2-20UNF	103	7	18	17	8	60	9	14 Depth10.5	1/4	15.5	93	35 ^{+0.062-0}	47.5	22

DIMENSIONS

DOUBLE ACTING DOUBLE ROD SERIES (N)CDQ2KWB



Piston Rod



ONE TOUCH FITTINGS

Bore Size	C	P	V	W
mm	mm	mm	mm	mm
40	13	6	42	68
50	16	8	50	82
63	16	8	56.5	95

NCQ2 MALE ROD END

Bore Size	X	H	L	K	A
mm	mm	inch	mm	mm	mm
40	16	3/8-24UNF	23	14	96
50	19.5	1/2-20UNF	27.5	18	105.5
63	19.5	1/2-20UNF	27.5	18	107

CQ2 MALE ROD END

Bore Size	C	X	H	L	K	A
mm	mm	mm	mm	mm	mm	mm
40	20.5	23.5	M14x1.5	28.5	14	107
50	26	28.5	M18x1.5	33.5	18	117.5
63	26	28.5	M18x1.5	33.5	18	119

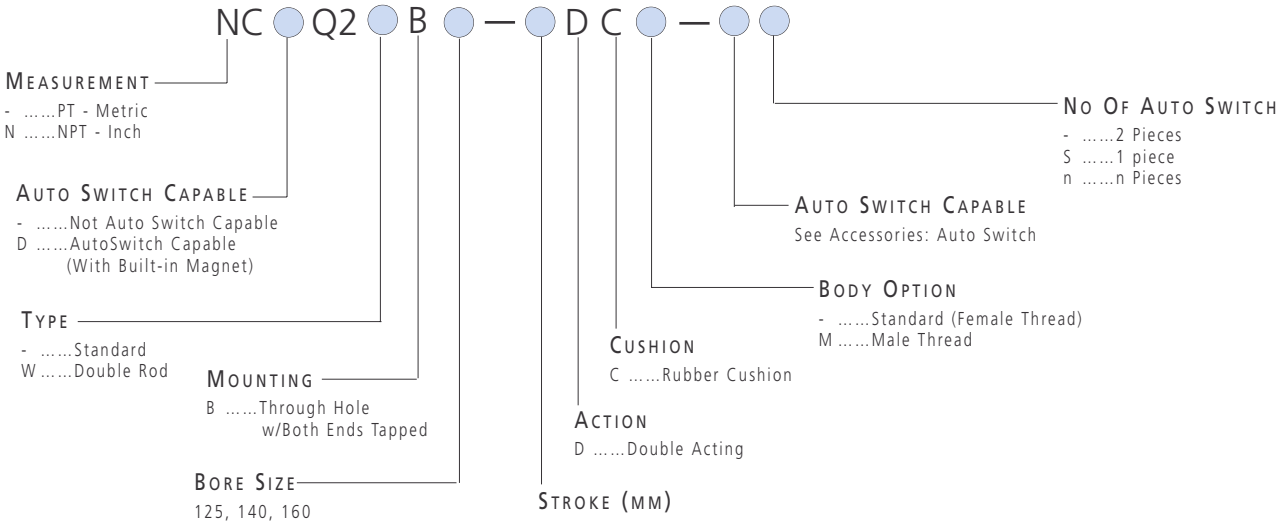
TECHNICAL
SPECIFICATIONS

LARGE BORE COMPACT CYLINDER STANDARD
DOUBLE ACTING SINGLE / DOUBLE ROD - SERIES (N)C(D)Q2(W)B

Fluid	Air	
Proof Pressure	1.5MPa / 217 PSI	
Max Operating Pressure	1MPa / 145PSI	
Ambient and Media Temp	W/O Auto Switch	15~160°F (at freezing temp; air must be dry) -10~70°C
	W/Auto Switch	15~140°F (at freezing temp; air must be dry) -10~60°C
Cushion	Rubber Cushion	
Rod End Thread	Female Thread (Standard)	
Piston Speed	50~500mm/s / 2 ~ 20 in/sec	

How To
ORDER

(N)C(D)Q2(W)B LARGE BORE STANDARD DOUBLE ACTING SINGLE / DOUBLE ROD



How To
ORDER

LARGE BORE DOUBLE ACTING SINGLE / DOUBLE ROD STANDARD STROKE

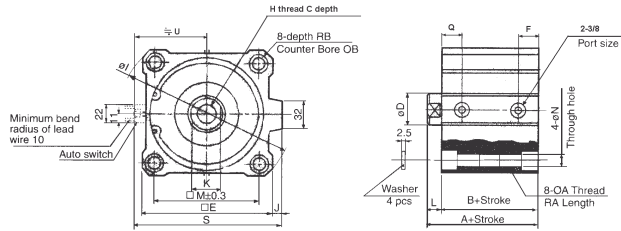
Bore Size	Stroke
125	10, 20, 30, 40, 45,
140	50, 75, 100, 125, 150,
160	175, 200, 250, 300

MORE DIMENSIONS
SEE NEXT PAGE

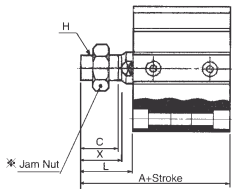


DIMENSIONS (MM)

LARGE BORE STANDARD DOUBLE ACTING SINGLE ROD SERIES (N)CQ2



Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	F	CQ2 H	NCQ2 H	i	J	K	L	M	N	CQ2 OA	NCQ2 OA	OB	Q	RA	RB	S	U	Orifice
125	10,20,30,40,	99	83	30	30	36	142	24.5	M22x2.5	3/4-16	190	11	32	16	114	12.5	M14x2	9/16-12	21.2	24.5	25	18.4	163	81	6
140	50,75,100,	99	83	30	30	36	158	24.5	M22x2.5	3/4-16	210	10	32	16	128	12.5	M14x2	9/16-12	21.2	24.5	25	18.4	178	89	7
160	125,150,175, 200,250,300	108	91	33	33	40	178	27.5	M24x3	3/4-16	238	10	36	17	144	14.5	M16x2	5/8-11	24.2	27.5	28	21.2	198	99	8



CQ2 MALE ROD END

Bore Size	A	C	H	L	X
mm	mm	mm	mm	mm	mm
125	141	42	M30x1.5	58	45
140	141	42	M30x1.5	58	40
160	155	47	M36x1.5	64	50

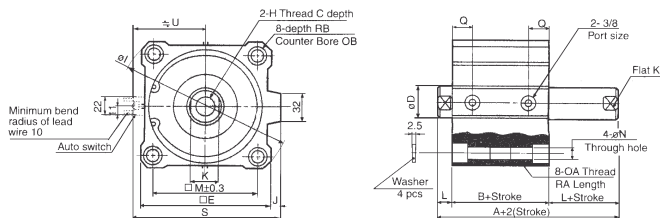
NCQ2 MALE ROD END

Bore Size	A	C	H	L	X
mm	mm	mm	inch	mm	mm
125	141	42	1-1/4"-12	58	45
140	141	42	1-1/4"-12	58	45
160	155	47	1-3/8"-12	64	50

Note) Dimensions are the same for Standard and Switch Capable

DIMENSIONS (MM)

LARGE BORE STANDARD DOUBLE ACTING DOUBLE ROD SERIES (N)CQ2W



Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	F	CQ2 H	NCQ2 H	i	J	K	L	M	N	CQ2 OA	NCQ2 OA	OB	Q	RA	RB	S	U	Orifice
125	10,20,30,40,	115	83	30*	30	36	142	24.5	M22x2.5	3/4-16	190	11	32	16	114	12.5	M14x2	9/16-12	21.2	24.5	25	18.4	163	81	6
140	50,75,100,	115	83	30*	30	36	158	24.5	M22x2.5	3/4-16	210	10	32	16	128	12.5	M14x2	9/16-12	21.2	24.5	25	18.4	178	89	7
160	125,150,175, 200,250,300	125	91	33*	33	40	178	27.5	M24x3	3/4-16	238	10	36	17	144	14.5	M16x2	5/8-11	24.2	27.5	28	21.2	198	99	8

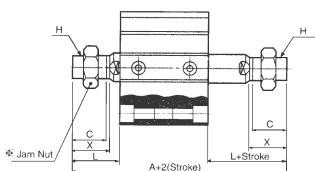
CQ2
C

*(22.5)

*(22.5)

*(26.5)

Note) Thread Depth
for 10 Stroke



CCQ2 MALE ROD END

Bore Size	A	C	H	L	X
mm	mm	mm	mm	mm	mm
125	199	42	M30x1.5	58	45
140	199	42	M30x1.5	58	40
160	219	47	M36x1.5	64	50

NCQ2 MALE ROD END

Bore Size	A	C	H	L	X
mm	mm	mm	inch	mm	mm
125	199	42	1-1/4"-12	58	45
140	199	42	1-1/4"-12	58	45
160	219	47	1-3/8"-12	64	50

Note) Dimensions are the same for Standard and Switch Capable

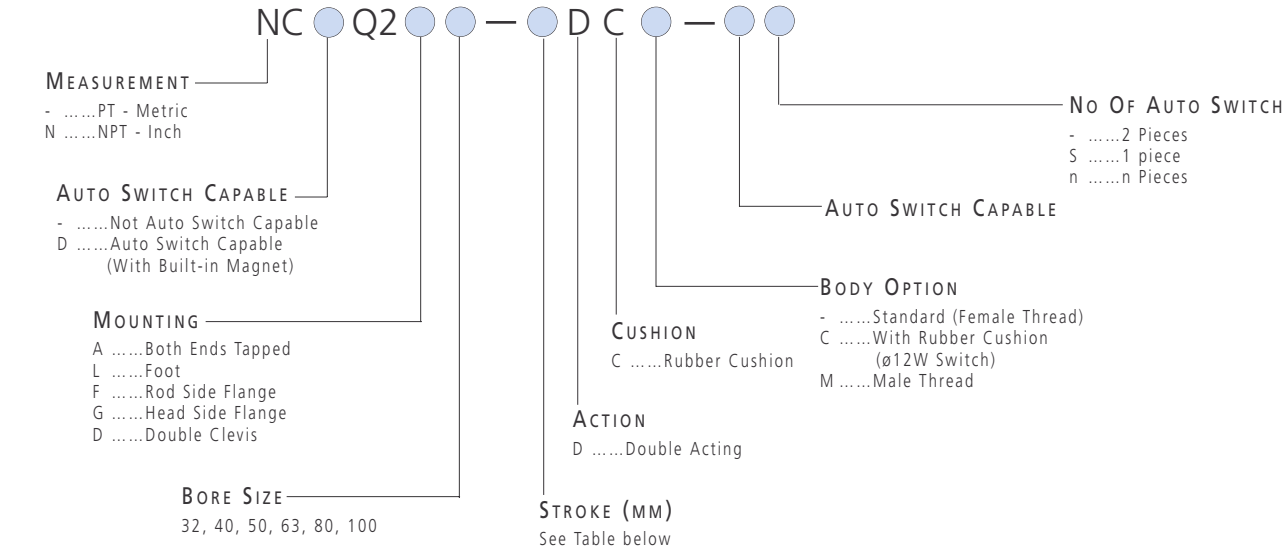
TECHNICAL
SPECIFICATIONS

LONG STROKE COMPACT CYLINDER STANDARD
DOUBLE ACTING SINGLE ROD - SERIES (N)C(D)Q2

Fluid	Air	
Proof Pressure	1.5MPa / 217 PSI	
Max Operating Pressure	1MPa / 145PSI	
Ambient and Media Temp	W/O Auto Switch	15~160°F (at freezing temp; air must be dry) -10~70°C
	W/Auto Switch	15~140°F (at freezing temp; air must be dry) -10~60°C
Cushion	Rubber Cushion	
Rod End Thread	Female Thread (Standard)	
Rod End Thread Tolerance	JIS Class II	
Piston Speed	50~500mm/s / 2 ~ 20 in/sec	

How To
ORDER

(N)C(D)Q2 LONG STROKE STANDARD DOUBLE ACTING SINGLE ROD

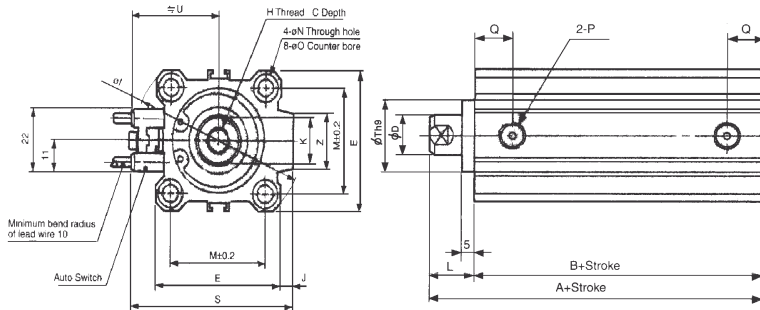


How To
ORDER

LONG STROKE DOUBLE ACTING SINGLE ROD STANDARD STROKE

Bore Size	Stroke
32, 40, 50, 63, 80, 100	125, 150, 175, 200, 250, 300

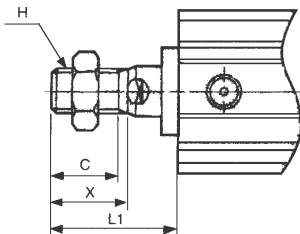
DIMENSIONS (MM) LONG STROKE SERIES (N)CDQ2



Note)
Dimensions
are the
same for
Standard
and Switch
Capable

Bore Size	Stroke (mm)	A	B	CQ2 C	NCQ2 C	D	E	CQ2 H	NCQ2 H	i	J	K	L	M	CQ2 O	NCQ2 O	P*	Q	R	S	Th9	U	Z
32		62.5	45.5	13	13.3	16	45	M8x1.25	5/16-24UNF	60	4.5	14	17	34	M6x1	1/4-20UNF	1/8	12.5	10	58.5	22 ^{-0.052-0}	31.5	18
40	125, 150	72	55	13	18.3	16	52	M8x1.25	3/8-24UNF	69	5	14	17	40	M6x1	1/4-20UNF	1/8	14	10	66	28 ^{-0.052-0}	35	18
50	175, 200	73.5	55.5	15	17.6	20	64	M10x1.5	1/2-20UNF	86	7	17	18	50	M8x1.25	5/16-18UNF	1/4	14	14	80	35 ^{-0.062-0}	41	22
63	250, 300	75	57	15	17.6	20	77	M10x1.5	1/2-20UNF	103	7	17	18	60	M10x1.5	7/16-14UNF	1/4	16.5	18	93	35 ^{-0.062-0}	47.5	22
80		86	66	21	24.3	25	98	M16x2	5/8-18UNF	132	6	22	20	77	M12x1.75	1/2-13UNF	3/8	19	22	112.5	43 ^{-0.062-0}	57.5	26
100		97.5	75.5	27	27	30	117	M20x2.5	3/4-16UNF	156	6.5	27	22	94	M12x1.75	1/2-13UNF	3/8	23	22	132.5	59 ^{-0.074-0}	67.5	26

DIMENSIONS LONG STROKE SERIES (N)CDQ2



NCQ2 MALE ROD END

Bore Size	X mm	H inch	L1 mm
32	12.7	5/16-24UNF	29.7
40	16	3/8-24UNF	33
50	19.5	1/2-20UNF	37.5
63	19.5	1/2-20UNF	37.5
80	25.5	5/8-18UNF	45.5
100	28.5	3/4-16UNF	50.5

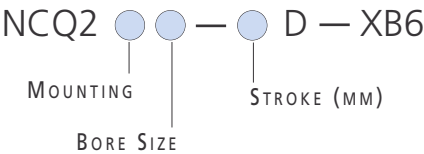
CQ2 MALE ROD END

Bore Size	C mm	X mm	H mm	L1 mm
32	20.5	23.5	M14x1.5	38.5
40	20.5	23.5	M14x1.5	38.5
50	26	28.5	M18x1.5	43.5
63	26	28.5	M18x1.5	43.5
80	32.5	35.5	M22x1.5	53.5
100	32.5	35.5	M26x1.5	53.5

Note) Dimensions are the same for Standard and Switch Capable



ACCESSORIES
SERIES NCQ2/CQ2
HIGH TEMPERATURE RESISTANT CYLINDER - XB6 OPTION

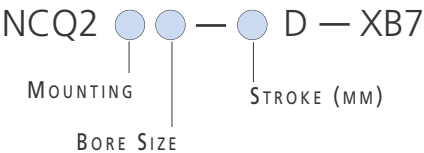


Note) Major dimensions are the same as those of the Double Acting Single Rod or Double Rod

TECHNICAL SPECIFICATIONS
SERIES (N)CQ2
HIGH TEMPERATURE RESISTANT CYLINDER - XB6 OPTION

Bore Size	ø12, 16, 20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Temperature	150°C / 300°F
Action	Double Acting
Lubrication	Non-Lube
Material	Seal - FluoroRubber
Auto Switch Capable	No

ACCESSORIES
SERIES NCQ2/CQ2
LOW TEMPERATURE RESISTANT CYLINDER - XB7 OPTION

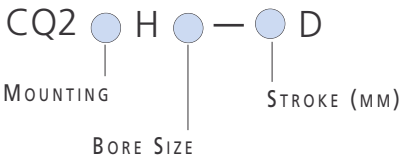


Note) Major dimensions are the same as those of the Double Acting Single Rod

TECHNICAL SPECIFICATIONS
SERIES (N)CQ2
LOW TEMPERATURE RESISTANT CYLINDER - XB7 OPTION

Bore Size	ø12, 16, 20, 25, 32, 40
Fluid	Air
Temperature	-50°C / -58°F
Action	Double Acting
Lubrication	Non-Lube
Material	Seal - Low Nitrile Rubber
Auto Switch Capable	No

ACCESSORIES
SERIES CQ2
AIR HYDRO CYLINDER - OPTION

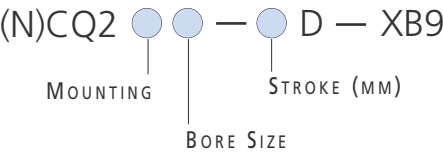


Note) Major dimensions are the same as those of the Double Acting Single Rod or Double Rod

TECHNICAL SPECIFICATIONS
SERIES CQ2
AIR HYDRO CYLINDER - OPTION

Bore Size	ø20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Action	Double Acting
Proof Pressure	1.5MPa / 213 PSI
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	0.18MPa / 26 PSI
Auto Switch Capable	Yes

ACCESSORIES
SERIES NCQ2/CQ2
LOW SPEED CYLINDER - XB9 OPTION



Note) Major dimensions are the same as those of the Double Acting Single Rod or Double Rod

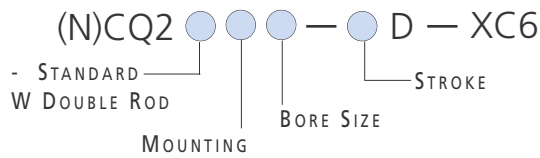
TECHNICAL SPECIFICATIONS
SERIES (N)CQ2
LOW SPEED CYLINDER - XB9 OPTION

Bore Size	ø12, 16, 20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Action	Double Acting
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	0.05MPa / 7 PSI
Piston Velocity	10 ~ 50mm/s / 0.4 ~ 2 in/sec
Auto Switch Capable	Yes

ACCESSORIES

SERIES NCQ2/CQ2

STAINLESS STEEL PISTON ROD - XC6 OPTION



Note) Major dimensions are the same as those of the Double Acting Single Rod or Double Rod

TECHNICAL

SPECIFICATIONS

SERIES (N)CQ2

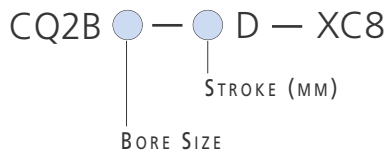
STAINLESS STEEL PISTON ROD - XC6 OPTION

Bore Size	ø12, 16, 20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Action	Double Acting
Lubrication	Non-Lube
Material	303 or 304 Stainless

ACCESSORIES

SERIES CQ2

ADJUSTABLE STROKE CYLINDER / EXTEND TYPE - XC8 OPTION



Note) For more information, refer to CAT:N320 & E210

TECHNICAL

SPECIFICATIONS

SERIES CQ2

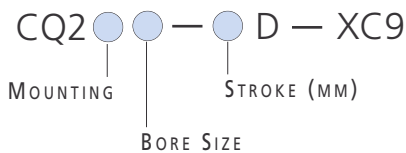
ADJUSTABLE STROKE CYLINDER / EXTEND TYPE - XC8 OPTION

Bore Size	ø12, 16, 20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Action	Double Acting
Lubrication	Non-Lube
Stroke Adjustment System	Adjusting Bolt
Stroke Adjustment Range	10mm
Auto Switch Capable	Yes

ACCESSORIES

SERIES CQ2

ADJUSTABLE STROKE CYLINDER / RETRACT TYPE - XC9 OPTION



Note) For more information, refer to CAT:N320 & E210

TECHNICAL

SPECIFICATIONS

SERIES CQ2

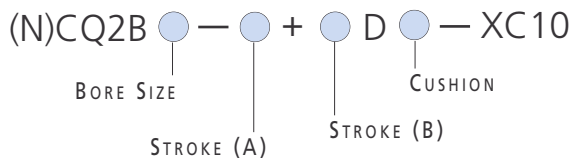
ADJUSTABLE STROKE CYLINDER / RETRACT TYPE - XC9 OPTION

Bore Size	ø12, 16, 20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Action	Double Acting
Lubrication	Non-Lube
Stroke Adjustment System	Adjusting Bolt
Stroke Adjustment Range	10mm
Auto Switch Capable	Yes

ACCESSORIES

SERIES NCQ2/CQ2

DUAL STROKE CYLINDER / DOUBLE ROD TYPE - XC10 OPTION



Note) For more information, refer to CAT:N320 & E210

TECHNICAL

SPECIFICATIONS

SERIES (N)CQ2

DUAL STROKE CYLINDER / DOUBLE ROD TYPE - XC10 OPTION

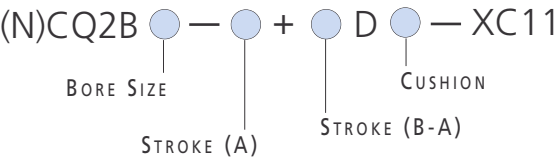
Bore Size	ø12, 16, 20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Action	Double Acting
Lubrication	Non-Lube
Cushion	Rubber Cushion Available



ACCESSORIES

SERIES NCQ2/CQ2

DUAL STROKE CYLINDER / SINGLE ROD TYPE - XC11 OPTION



Note) For more information, refer to CAT:N320 & E210

TECHNICAL

SPECIFICATIONS

SERIES (N)CQ2

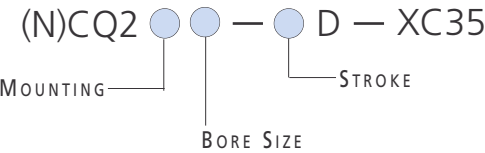
DUAL STROKE CYLINDER / SINGLE ROD TYPE - XC11 OPTION

Bore Size	ø12, 16, 20, 25, 32, 40, 50, 63, 80, 100
Fluid	Air
Action	Double Acting
Lubrication	Non-Lube
Cushion	Rubber Cushion Available

ACCESSORIES

SERIES NCQ2/CQ2

COIL SCRAPER - XC35 OPTION



Note) For more information, refer to CAT:N320 & E210

TECHNICAL

SPECIFICATIONS

SERIES (N)CQ2

COIL SCRAPER - XC35 OPTION

Bore Size	ø32, 40, 50, 63, 80, 100
Fluid	Air

ACCESSORIES

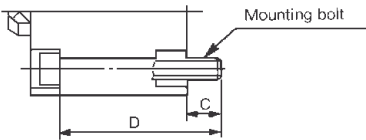
MOUNTING KITS SERIES NCQ2/CQ2

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

ACCESSORIES

MOUNTING BOLT FOR SERIES NCQ2/CQ2

Thread	Pitch
M3	0.5
M5	0.8
M6	1
M8	1.25
M10	1.5



Note) For dimensions and types, refer to CAT:N320

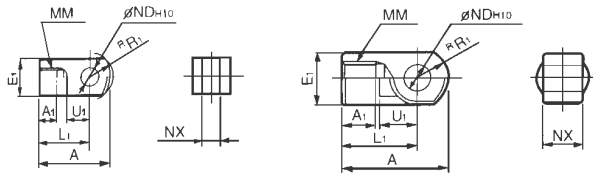
Note) * If Foot Bracket is required for a cylinder, order a pair
Note)** The Double Clevis is packaged with Clevis Pin and Snap Ring



ACCESSORIES (MM)

SERIES NCQ2/CQ2

SINGLE ROD CLEVIS (ROD EYE)



CQ2 SINGLE ROD CLEVIS

Part No	Bore Size	A	A ₁	E ₁	L ₁	MM	R ₁	U ₁	ND _{H10}	NX
I-G012	12	21.5	6	□10	16	M5x0.8	6.3	7	5 ^{0-0.048}	5 ^{-0.4 - -0.2}
I-Z015	16	32	8	□12	25	M6x1	8.1	14	5 ^{0-0.058}	6.4 ^{-0.3 - -0.1}
I-G02	20	34	8.5	□16	25	M8x1.25	10.3	11.5	8 ^{0-0.058}	8 ^{-0.4 - -0.2}
I-G03	25	41	10.5	□20	30	M10x1.25	12.8	14	10 ^{0-0.058}	10 ^{-0.4 - -0.2}
I-G04	32, 40	42	14	□22	30	M14x1.5	12	14	10 ^{0-0.058}	18 ^{-0.5 - -0.3}
I-G05	50, 63	56	18	□28	40	M18x1.5	16	20	14 ^{0-0.070}	22 ^{-0.5 - -0.3}
I-G08	80	71	21	□38	50	M22x1.5	21	27	18 ^{0-0.070}	28 ^{-0.5 - -0.3}
I-G10	100	79	21	□44	55	M26x1.5	24	31	22 ^{0-0.084}	32 ^{-0.5 - -0.3}

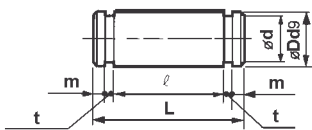
NCQ2 SINGLE ROD CLEVIS

Part No	Bore Size	A	A ₁	E ₁	L ₁	MM	R ₁	U ₁	ND _{H10}	NX
RCS-01	12	21.5	6	□10	16	8-32UNC	6.3	7	3/16 ^{0-0.002}	5 ^{-0.4 - -0.2}
RCS-015	16	32	6	□12	25	8-32UNC	12	14	3/16 ^{0-0.002}	6.4 ^{-0.3 - -0.1}
RCS-02	20	34	6	□16	25	10-32UNF	10.3	11.5	5/16 ^{0-0.002}	8 ^{-0.4 - -0.2}
RCS-025	25	41	8	□20	30	1/4-28UNF	18	14	3/8 ^{0-0.002}	10 ^{-0.4 - -0.2}
RCS-03	32	42	16	□22	30	5/16-24UNF	12	14	3/8 ^{0-0.002}	18 ^{-0.5 - -0.3}
RCS-04	40	42	11	□22	30	3/8-24UNF	12	14	3/8 ^{0-0.002}	18 ^{-0.5 - -0.3}
RCS-05	50, 63	56	18	□28	40	1/2-20UNF	16	20	1/2 ^{0-0.003}	22 ^{-0.5 - -0.3}
RCS-08	80	71	21	□38	50	5/8-18UNF	21	27	3/4 ^{0-0.003}	28 ^{-0.5 - -0.3}
RCS-10	100	79	21	□44	55	3/4-16UNF	24	31	7/8 ^{0-0.003}	32 ^{-0.5 - -0.3}

ACCESSORIES

SERIES NCQ2/CQ2

DOUBLE ROD CLEVIS PIN



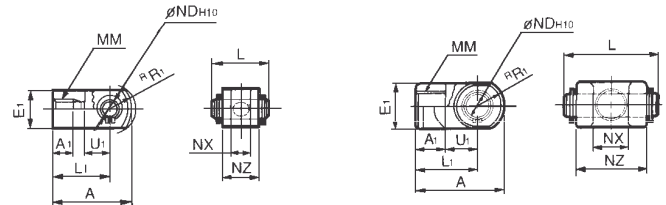
CQ2 DOUBLE ROD CLEVIS PIN

Part No	Bore Size	Dd9	L	d	ℓ	m	t	Snap Ring
IY-G012	12	5 ^{0.06 - -0.03}	14.6	4.8	10.2	1.5	0.7	Axial C Style 5
IY-J015	16	5 ^{0.06 - -0.03}	16.6	4.8	12.2	1.5	0.7	Axial C Style 5
IY-G02	20	8 ^{-0.076 - -0.04}	21	7.6	16.2	1.5	0.9	Axial C Style 5
IY-G03	25	10 ^{-0.076 - -0.04}	25.6	9.6	20.2	1.55	1.15	Axial C Style 5
IY-G04	32, 40	10 ^{-0.076 - -0.04}	41.6	9.6	36.2	1.55	1.15	Axial C Style 5
IY-G05	50, 63	14 ^{-0.093 - -0.05}	50.6	13.4	44.2	2.05	1.15	Axial C Style 5
IY-G08	80	18 ^{-0.093 - -0.05}	64	17	56.2	2.55	1.35	Axial C Style 5
IY-G10	100	22 ^{-0.117 - -0.065}	72	21	64.2	2.55	1.35	Axial C Style 5

ACCESSORIES (MM)

SERIES NCQ2/CQ2

DOUBLE ROD CLEVIS (ROD EYE)



CQ2 DOUBLE ROD CLEVIS

Part No	Bore Size	A	A ₁	E ₁	L ₁	MM	R ₁	U ₁	ND _{H10}	NX	NZ	L	PIN Part #
Y-G012	12	21.5	6	□10	16	M5x0.8	6.3	7	5 ^{0-0.048}	5 ^{-0.4 - -0.2}	10	14.6	IY-G012
Y-Z015A	16	28	11	□12	21	M6x1	8.1	10	5 ^{0-0.048}	6.5 ^{-0.3 - -0.1}	12	16.6	IY-J015
Y-G02	20	34	8.5	□16	25	M8x1.25	10.3	11.5	8 ^{0-0.058}	8 ^{-0.4 - -0.2}	16	21	IY-G02
Y-G03	25	41	10.5	□20	30	M10x1.25	12.8	14	10 ^{0-0.058}	10 ^{-0.4 - -0.2}	20	25.6	IY-G03
Y-G04	32, 40	42	16	□22	30	M14x1.5	12	14	10 ^{0-0.058}	18 ^{-0.5 - -0.3}	36	41.6	IY-G04
Y-G05	50, 63	56	20	□28	40	M18x1.5	16	20	14 ^{0-0.070}	22 ^{-0.5 - -0.3}	44	50.6	IY-G05
Y-G08	80	71	23	□38	50	M22x1.5	21	27	18 ^{0-0.070}	28 ^{-0.5 - -0.3}	56	64	IY-G08
Y-G10	100	79	24	□44	55	M26x1.5	24	31	22 ^{0-0.084}	32 ^{-0.5 - -0.3}	64	72	IY-G10

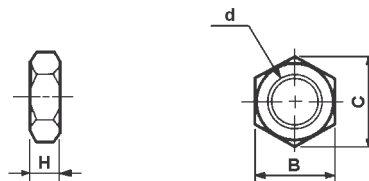
NCQ2 DOUBLE ROD CLEVIS

Part No	Bore Size	A	A ₁	E ₁	L ₁	MM	R ₁	U ₁	ND _{H10}	NX	NZ	L
RCD-01	12	21.5	6	□10	16	8-32UNC	6.3	7	3/16 ^{0-0.002}	5 ^{-0.4 - -0.2}	10	14.6
RCD-015	16	28	6	□12	21	8-32UNC	12	10	3/16 ^{0-0.002}	6.4 ^{-0.3 - -0.1}	12	16.6
RCD-02	20	34	6	□16	25	10-32UNF	10.3	11.5	5/16 ^{0-0.002}	8 ^{-0.4 - -0.2}	16	21
RCD-025	25	41	8	□20	30	1/4-28UNF	18	14	3/8 ^{0-0.002}	10 ^{-0.4 - -0.2}	20	25.6
RCD-03	32	42	16	□22	30	5/16-24UNF	12	14	3/8 ^{0-0.002}	18 ^{-0.5 - -0.3}	36	41.6
RCD-04	40	42	16	□22	30	3/8-24UNF	12	14	3/8 ^{0-0.002}	18 ^{-0.5 - -0.3}	36	41.6
RCD-05	50, 63	56	20	□28	40	1/2-20UNF	16	20	1/2 ^{0-0.003}	22 ^{-0.5 - -0.3}	44	50.6
RCD-08	80	71	23	□38	50	5/8-18UNF	21	27	3/4 ^{0-0.003}	28 ^{-0.5 - -0.3}	56	64
RCD-10	100	79	24	□44	55	3/4-16UNF	24	31	7/8 ^{0-0.003}	32 ^{-0.5 - -0.3}	64	72

ACCESSORIES

SERIES NCQ2/CQ2

JAM NUT



CQ2 JAM NUT

Part No	Bore Size	d	H	B	C
NTJ-015A	12	M5x0.8	4	8	9.2
NT-015A	16	M6x1	5	10	11.5
NT-02	20	M8x1.25	5	13	15
NT-03	25	M10x1.25	6	17	19.6
NT-04	32, 40	M14x1.5	8	22	25.4
NT-05	50, 63	M18x1.5	11	27	31.2
NT-08	80	M22x1.5	13	32	37
NT-10	100	M26x1.5	16	41	47.3
NT-12	125, 140	M30x1.5	18	46	53.1
NT-16	160	M36x1.5	21	55	63.5



ACCESSORIES
AUTO SWITCH SPECIFICATIONS

Note: Pre-wired Switches with 3/4 Pin Connectors available, please consult SMC Customer Service

Type	Auto Switch		Indicator Light	Wire (Output Type)	Load Voltage		
	Perpendicular Entry	Inline Entry			DC		AC
Reed Switch	-	D-A76H	Yes	3 Wire	-	5V	-
	D-A72	D-A72H		2 Wire	-	-	200V
	D-A73	D-A73H			24V	-	100V
	D-A80	D-A80H	No		24V/48V/100V AC/DC		
	D-A73C	-	Yes		24V	-	-
	D-A80C	-	No		24V	-	24V
	D-A79W	-	Yes		24V	-	-
	-	D-A90	No	2 Wire	24V/48V/100V AC/DC		
	-	D-A93	Yes	2 Wire	24V	-	100V
	-	D-A96	Yes	3 Wire	48V	-	-
Solid State Switch	D-F7NV	D-F79	Yes	3 Wire NPN	24V	5V, 12V	-
	D-F7PV	D-F7P		3 Wire PNP		-	
	D-F7BV	D-J79		2 Wire		-	
	D-J79C	-		3 Wire NPN	24V	5V, 12V	
	D-F7N WV	D-F79W				-	
	-	D-F7PW				-	
	D-F7B WV	D-J79W		2 Wire		-	
	-	D-F7BAL		3 Wire NPN	24V	5V, 12V	
	-	D-F7NTL				-	
	-	D-F79F				-	
	-	D-F7LF		4 Wire NPN		-	
	-	D-F9N		3 Wire	28V or less	-	
	-	D-F9P			-	-	
	-	D-F9B		2 Wire	24V	-	

ACCESSORIES
SERIES NCQ2/CQ2
DOUBLE ROD CLEVIS PIN

NCQ2 DOUBLE ROD CLEVIS PIN								
Part No	Bore Size	D	L	d	l	m	t	
PS-01	12	4.77 ^{+0.06 -0.03}	14	4.45	10.2	1.44	0.46	
PS-015	16	4.77 ^{+0.06 -0.03}	16	4.45	12.2	1.44	0.46	
PS-02	20	7.94 ^{+0.076 -0.04}	21	7.37	16.2	1.66	0.74	
PS-03	25	9.53 ^{+0.076 -0.04}	25	8.94	20.2	1.66	0.74	
PS-04	32, 40	9.53 ^{+0.076 -0.04}	41	8.94	36.2	1.66	0.74	
PS-05	50, 63	12.7 ^{+0.076 -0.05}	50	11.89	44.2	1.9	1	
PS-08	80	19.05 ^{+0.117 -0.065}	64	17.89	56.2	2.73	1.17	
PS-10	100	22.23 ^{+0.117 -0.065}	72	20.85	64.2	2.73	1.17	

ACCESSORIES
SERIES NCQ2/CQ2
JAM NUT

NCQ2 JAM NUT					
Part No	Bore Size	d	H	B	C
JM-01	12	8-32UNC	3.3	8.7	10
JM-02	16	10-32UNF	3.3	9.5	11
JM-025	20	1/4-28UNF	4.1	11.2	13
JM-03	25	5/16-24UNF	4.8	12.7	14.7
JM-04	32, 40	3/8-24UNF	5.6	14.3	16.5
JM-05	50, 63	1/2-20UNF	7.9	19.1	22
JM-08	80	5/8-18UNF	9.7	23.8	27.4
JM-10	100	3/4-16UNF	10.7	28.7	33

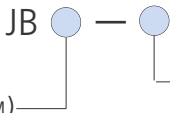
Note) Jam Nut included when Option "M" is ordered



FLOATING JOINT
COMPACT CYLINDER EXCLUSIVE
SERIES JB

- ✓ Compact for (N)CQ2 Compact Cylinders up to 100mm
- ✓ Absorbs both Angular and Eccentric Misalignment
- ✓ Reduces Mounting Time of Actuator
- ✓ Long Life - Dust-tight Cover
- ✓ Do not use for Rotation because of Non-Rotating Shaft Coupling

How To
ORDER
NCQ2/CQ2 DOUBLE ACTING SINGLE ROD



APPLICABLE CYLINDER BORE (MM)	
Mark	Applicable Cylinder Bore (mm)
12	12
16	16
20	20
25	25
40	32 • 40
63	50 • 63
80	80
100	100

NOMINAL SCREW THREAD DESIGNATION	
Nominal Screw Thread Designation	Nominal Screw Thread Designation Of Applicable Cylinder
3-050	M3x0.5
4-070	M4x0.7
5-080	M5x0.8
6-100	M6x1
8-125	M8x1.25
10-150	M10x1.5
16-200	M16x2
20-250	M20x2.5