

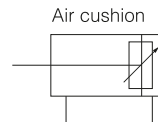


A new type of air cushion mechanism without cushion sleeve is designed. Compared with NCQ2 and NCQS, the total cylinder length increases by only a few millimeters, but the cushioning capacity increases by two times, and the repetition accuracy increases.

### Specifications

Bore size(mm)	20	25	32, 40	50, 63	80, 100
Fluid	Air (to be filtered by 40µm filter element)				
Action mode	Single rod double action				
Use pressure range	0.05~1.0MPa				
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)				
Rod end thread	Internal thread				
Stroke length tolerance (mm)	+1.0 0				
Piston speed	50~500mm/s				
Installation form	Through hole, screw hole at both ends, pedestal type, flange type, double earing type				
Pipe size	M5x0.8	1/8"	1/4"	3/8"	

### Symbol



### Ordering code

N R D Q		B		32		50		M9BV	
<b>Built in magnetic ring</b>		Blank		20 20mm		Blank		Blank	
D		Built-in magnetic ring		25 25mm		Rc, M5x0.8*		Without magnetic switch	
<b>Installation form</b>		B		32 32mm		TN NPT		* No built-in magnetic ring cylinder have no such item	
A		Through-hole (standard)		40 40mm		TF G		* Suitable for cylinder diameter Φ20, Φ25	
L		Both ends tapped type		50 50mm		<b>Stroke</b>		See the right table	
F		Foot type		63 63mm		Blank		2 pcs.	
G		Rod side flange type		80 80mm		M		1 pc.	
D		Head side flange type		100 100mm		Rod end female thread (Standard)		"n" pcs.	
D		Double clevis type				Rod end male thread			

\* Φ20, Φ25 through holes are common to both ends of the screw holes, expressed only by "B"

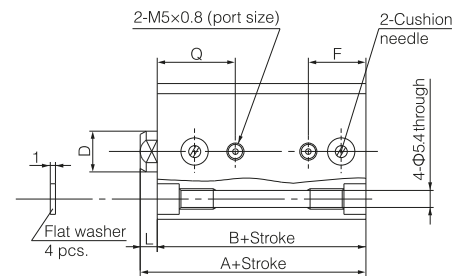
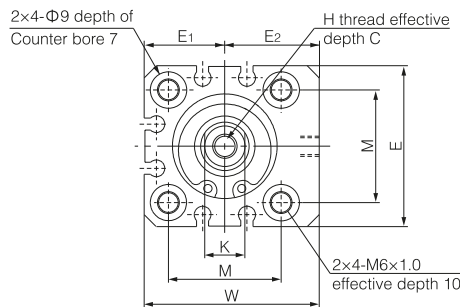
### Stroke/magnetic switch type table

Bore size (mm)	Standard stroke (mm)	*Magnetic switch type		
		Two wire contact control	Two wire contactless control	Three wire NPN
20,25	15,20,25,30,40,50	3C-D-A93(V)L	D-M9B (V)L	D-M9N (V)L
32,40	20,25,30,40,50,75,100	[A93 (V)L]	[M9B (V)L]	[M9N (V)L]
50,63	30,40,50,75,100			
80,100	40,50,75,100			

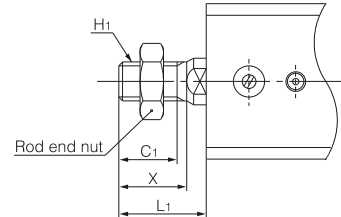
\* At the end of the model, the length of the attached conductor no: mark is 0.5m, L is 3m, Z is 5m, for example: M9N, M9NL.

### Dimensions

Φ20, Φ25 Installation form: through hole, screw hole at both ends



### Rod end male thread



### Rod end male thread

Bore size(mm)	C1	X	H1	L1
20	12	14	M8x1.25	18.5
25	15	17.5	M10x1.25	22.5

### Standard type

Bore size(mm)	Stroke range(mm)	A	B	C	D	E	E1	E2	F	H	K	L	M	Q	W
20	15~50	36.5	32	7	10	36	18	21	15.5	M5x0.8	8	4.5	25.5	21	39
25	15~50	41.5	36.5	12	12	40	20	23.5	17	M6x1.0	10	5	28	23	43.5

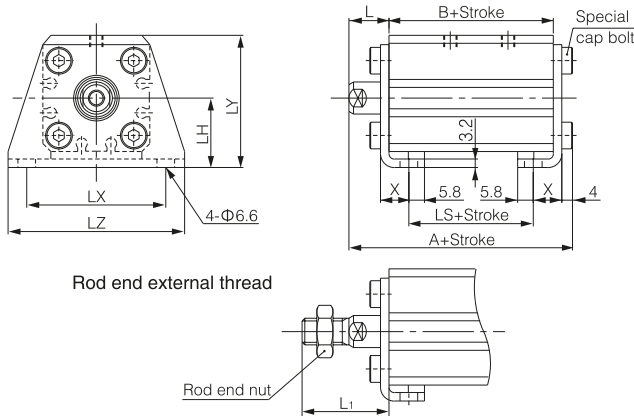
### Cylinder

SC
SC(Big)
SCT
SCF
SU
SUF
SI
SIF
DNC
QGB
QGBZ
NCQ2
NCQ2(Big)
NCQ2(Long)
NCQS
NCQM
<b>NRQ</b>
SDA
ADVU
ACE(AND)
MAL
MA
MI
NCM2
NCJ2
NCG1
NCJP
TD
TN(TDA)
NCXS
NCXSW
NMGP
NMGG
NCU
NCUJ
NCY3B
NCY3R
NCY1S
NCY1L
STM
NMXH
NMXS
NMXQ
NMHZ2
NMHC2
NMHL2
NMHY2
NMHT2
NMHW2
NMHF2
NMHS2
NMHS3
NMHS4
NMRHQ
NMSQ
NCRA1
NCRQ2
NCRB2
ACK
SRC
QCK
NCK1

Cylinder

- SC
- SC(Big)
- SCT
- SCF
- SU
- SUF
- SI
- SIF
- DNC
- QGB
- QGBZ
- NCQ2
- NCQ2(Big)
- NCQ2(Long)
- NCQS
- NCQM

Foot type: NRQL/NRDQL



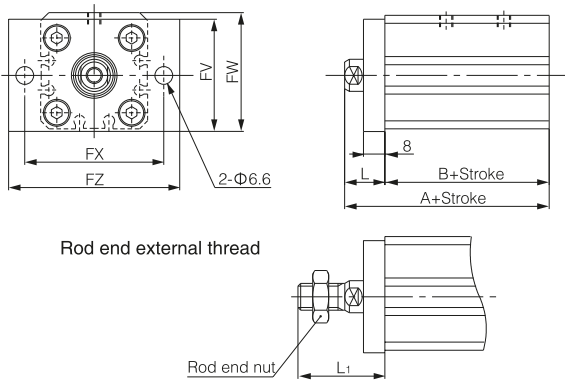
Foot type

Bore size (mm)	Installation type	Stroke range (mm)	A	LS	L	L <sub>1</sub>
20	NCQS-L020	15~50	53.7	20	14.5	28.5
25	NCQS-L025	15~50	58.7	21.5	15	32.5

Bore size(mm)	B	LH	LX	LY	LZ	X
20	32	24	48	45	62	9.2
25	36.5	26	52	49.5	66	10.7

(Dimensions A, LS, L, L<sub>1</sub> are different, other sizes are the same.)

Rod side flange type: NRQF/NRDQF



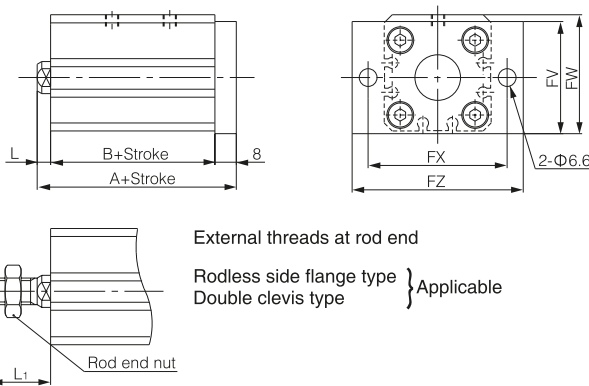
Rod side flange type

Bore size (mm)	Installation type	Stroke range (mm)	A	L	L <sub>1</sub>
20	NCQS-F020	15~50	46.5	14.5	28.5
25	NCQS-F025	15~50	51.5	15	32.5

Bore size(mm)	B	FV	FW	FX	FZ
20	32	39	40.5	48	60
25	36.5	42	44.5	52	64

(Dimensions A, L, L<sub>1</sub> are different, other sizes are the same.)

Rodless side flange type: NRQG/NRDQG



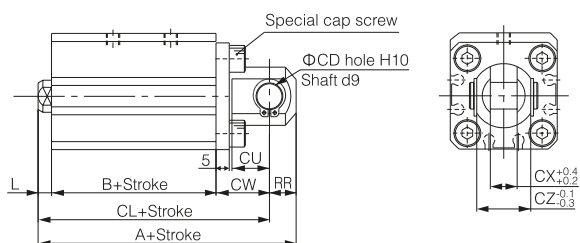
Rodless side flange type

Bore size(mm)	Installation type	Stroke range(mm)	A
20	NCQS-F020	15~50	44.5
25	NCQS-F025	15~50	49.5

Bore size(mm)	B	L	FV	FW	FX	FZ
20	32	4.5	39	40.5	48	60
25	36.5	5	42	44.5	52	64

(Dimension A is different, other sizes are the same.)

Double clevis type: NRQD/NRDQD



Double clevis type

Bore size(mm)	Installation type	Stroke range(mm)	A	CL
20	NCQS-D020	15~50	63.5	54.5
25	NCQS-D025	15~50	71.5	61.5

Bore size(mm)	B	L	L <sub>1</sub>	CD	CU	CW	CX	CZ	RR
20	32	4.5	18.5	8	12	18	8	16	9
25	36.5	5	22.5	10	14	20	10	20	10

(Dimensions A and CL are different, other sizes are the same.)

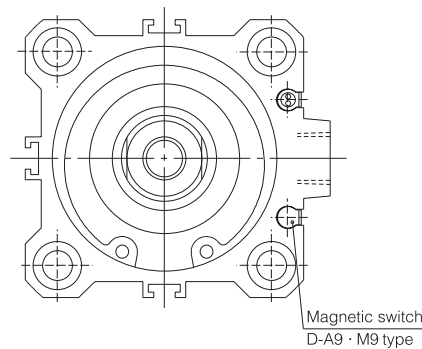
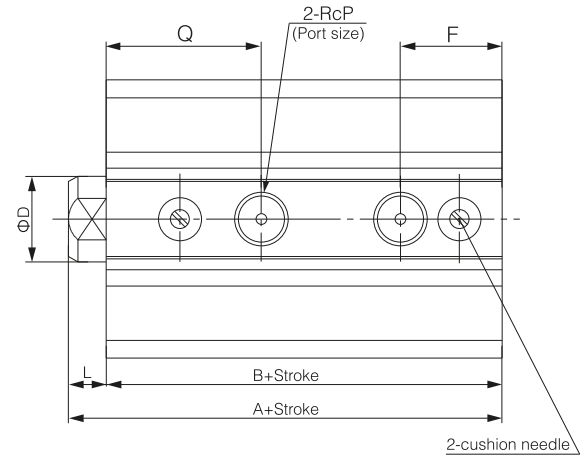
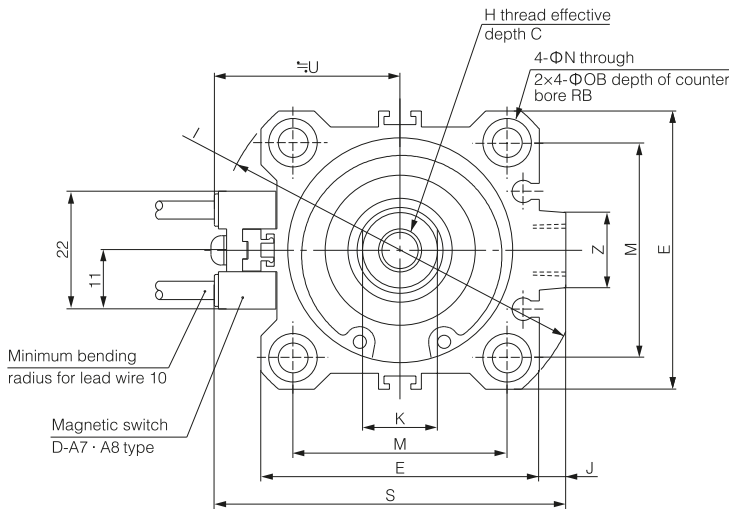
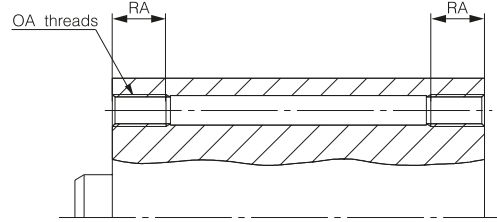
Φ32, Φ40, Φ50, Φ63, Φ80, Φ100

Standard type (through hole): NRQB/NRDQB

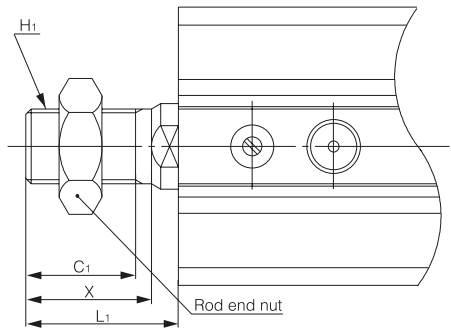
The occasion of screw holes at both ends

Bore size(mm)	OA	RA
32	M6×1.0	10
40	M6×1.0	10
50	M8×1.25	14
63	M10×1.5	18
80	M12×1.75	22
100	M12×1.75	22

Two End Screw Holes: NRQA/NRDQA



External threads at rod end



The occasion of rod end external thread

Bore size(mm)	C <sub>1</sub>	X	H <sub>1</sub>	L <sub>1</sub>
32	20.5	23.5	M14×1.5	28.5
40	20.5	23.5	M14×1.5	28.5
50	26	28.5	M18×1.5	33.5
63	26	28.5	M18×1.5	33.5
80	32.5	35.5	M22×1.5	43.5
100	32.5	35.5	M26×2.5	43.5

Standard type

Bore size(mm)	Stroke range(mm)	A	B	C	D	E	F	H	I	J	K	L	M	N	OB	P	Q	RB	S	U	Z
32	20~100	44	37	13	16	45	18.5	M8×1.25	60	4.5	14	7	34	5.5	9	1/8"	23	7	58.5	31.5	14
40	20~100	51	44	13	16	52	20	M8×1.25	69	5	14	7	40	5.5	9	1/8"	28	7	66	35	14
50	30~100	57.5	49.5	15	20	64	28.5	M10×1.5	86	7	17	8	50	6.6	11	1/4"	31.5	8	80	41	19
63	30~100	63	55	15	20	77	31	M10×1.5	103	7	17	8	60	9	14	1/4"	34	10.5	93	47.5	19
80	40~100	73.5	63.5	21	25	98	35.5	M16×2	132	6	22	10	77	11	17.5	3/8"	39	13.5	112.5	57.5	26
100	40~100	88	76	27	30	117	40	M20×2.5	156	6.5	27	12	94	11	17.5	3/8"	43	13.5	132.5	67.5	26

Cylinder

SC

SC(Big)

SCT

SCF

SU

SUF

SI

SIF

DNC

QGB

QGBZ

NCQ2

NCQ2(Big)

NCQ2(Long)

NCQS

NCQM

**NRQ**

SDA

ADVU

ACE(AND)

MAL

MA

MI

NCM2

NCJ2

NCG1

NCJP

TD

TN(TDA)

NCXS

NCXSW

NMGP

NMGG

NCU

NCUJ

NCY3B

NCY3R

NCY1S

NCY1L

STM

NMXH

NMXS

NMXQ

NMHZ2

NMHC2

NMHL2

NMHY2

NMHT2

NMHW2

NMHF2

NMHS2

NMHS3

NMHS4

NMRHQ

NMSQ

NCRA1

NCRQ2

NCRB2

ACK

SRC

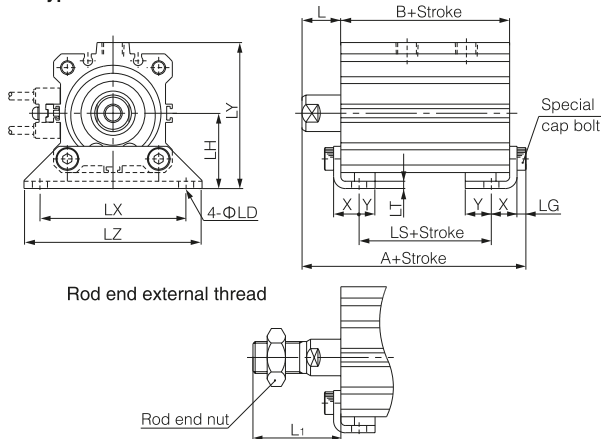
QCK

NCK1

Cylinder

- SC
- SC(Big)
- SCT
- SCF
- SU
- SUF
- SI
- SIF
- DNC
- QGB
- QGBZ
- NCQ2
- NCQ2(Big)
- NCQ2(Long)
- NCQS
- NCQM
- NRQ**
- SDA
- ADVU
- ACE(AND)
- MAL
- MA
- MI
- NCM2
- NCJ2
- NCG1
- NCJP
- TD
- TN(TDA)
- NCXS
- NCXSW
- NMGP
- NMGG
- NCU
- NCUJ
- NCY3B
- NCY3R
- NCY1S
- NCY1L
- STM
- NMXH
- NMXS
- NMXQ
- NMH22
- NMHC2
- NMHL2
- NMHY2
- NMHT2
- NMHW2
- NMHF2
- NMHS2
- NMHS3
- NMHS4
- NMRHQ
- NMSQ
- NCRA1
- NCRQ2
- NCRB2
- ACK
- SRC
- QCK
- NCK1

Foot type: NRQL/NRDQL

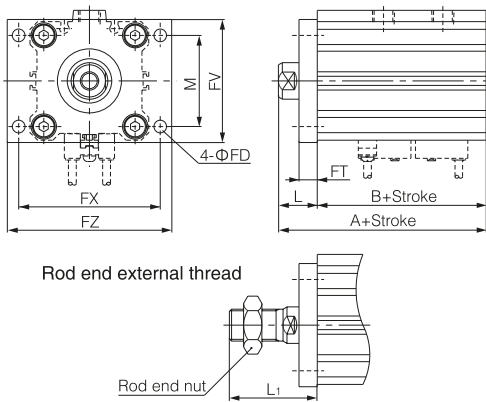


Foot type

Bore size (mm)	Installation type	Stroke range (mm)	A	B	LS	L	L1	LD
32	CQ-L032	20~100	61.2	37	21	17	38.5	6.6
40	CQ-L040	20~100	68.2	44	28	17	38.5	6.6
50	CQ-L050	30~100	75.7	49.5	26.5	18	43.5	9
63	CQ-L063	30~100	81.2	55	29	18	43.5	11
80	CQ-L080	40~100	95	63.5	33.5	20	53.5	13
100	CQ-L100	40~100	111	76	42	22	53.5	13

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

Rod side flange type: NRQF/NRDQF

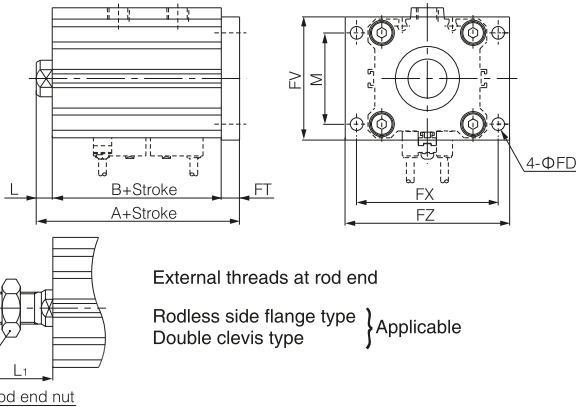


Rod side flange type

Bore size (mm)	Installation type	Stroke range (mm)	A	B	FD	FT	FV
32	CQ-F032	20~100	54	37	5.5	8	48
40	CQ-F040	20~100	61	44	5.5	8	54
50	CQ-F050	30~100	67.5	49.5	6.6	9	67
63	CQ-F063	30~100	73	55	9	9	80
80	CQ-F080	40~100	83.5	63.5	11	11	99
100	CQ-F100	40~100	98	76	11	11	117

Bore size(mm)	FX	FZ	L	L1	M
32	56	65	17	38.5	34
40	62	72	17	38.5	40
50	76	89	18	43.5	50
63	92	108	18	43.5	60
80	116	134	20	53.5	77
100	136	154	22	53.5	94

Rodless side flange type: NRQG/NRDQG



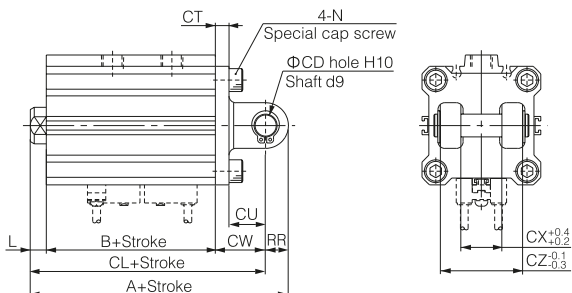
Rodless side flange type

Bore size (mm)	Installation type	Stroke range (mm)	A	L	L1
32	CQ-F032	20~100	52	7	28.5
40	CQ-F040	20~100	59	7	28.5
50	CQ-F050	30~100	66.5	8	33.5
63	CQ-F063	30~100	72	8	33.5
80	CQ-F080	40~100	84.5	10	43.5
100	CQ-F100	40~100	99	12	43.5

\* All dimensions but A, L and L1 are identical to those of the rod side flange type.

External threads at rod end  
Rodless side flange type } Applicable  
Double clevis type

Double clevis type: NRQD/NRDQD



Double clevis type

Bore size (mm)	Installation type	Stroke range (mm)	A	B	CL	CD	CT	CU
32	CQ-D032	20~100	74	37	64	10	5	14
40	CQ-D040	20~100	83	44	73	10	6	14
50	CQ-D050	30~100	99.5	49.5	85.5	14	7	20
63	CQ-D063	30~100	107	55	93	14	8	20
80	CQ-D080	40~100	129.5	63.5	111.5	18	10	27
100	CQ-D100	40~100	155	76	133	22	13	31

Bore size(mm)	CW	CX	CZ	L	L1	N	RR
32	20	18	36	7	28.5	M6×1.0	10
40	22	18	36	7	28.5	M6×1.0	10
50	28	22	44	8	33.5	M8×1.25	147
63	30	22	44	8	33.5	M10×1.5	14
80	38	28	56	10	43.5	M12×1.75	18
100	45	32	64	12	43.5	M12×1.75	22