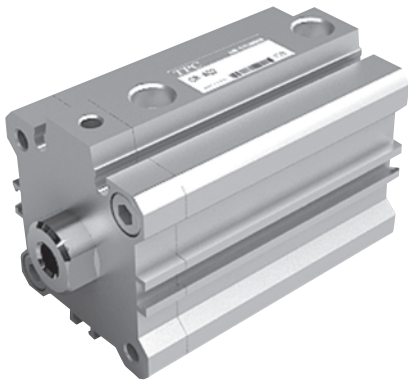


Series CR(CV)-AQ2/ADQ2

Clean Series Compact Cylinder(square tube)/Double Acting, Single Rod

Bore Size(mm) : $\phi 12$, $\phi 16$, $\phi 20$, $\phi 25$, $\phi 32$, $\phi 40$, $\phi 50$, $\phi 63$, $\phi 80$, $\phi 100$



- CYLINDER IN LOW PARTICLE GENERATION FOR CLEAN ROOM
- PISTON ROD IS MADE IN THE MATERIAL QUALITY OF STAINLESS STEEL TO ENHANCE RESISTANCE AGAINST MOISTURE AND OTHER CHEMICALS
- EXCLUSIVE GREASE USE, DUST GENERATION IS MINIMIZED WHEN CYLINDER IS ACTING
- SINCE THE TOTAL LENGTH IS COMPACT TYPE, IT SAVES THE INSTALLING SPACE. BEING USED FOR CLAMP OR CHUCK OF SMALL PARTS, IT FACILITATES COMPACT DESIGN OF VARIOUS TOOLS OR EXCLUSIVE EQUIPMENT

How to Order

CR(CV) — A D Q 2 B 20 — 30 D M — W4 ○

1
2
3
4
5
6
7
8
9

1 Clean Series

CR : Relief port type
CV : Vacuum suction type

2 Built-in Magnet

Blank : Without Magnet
D : Built-in Magnet

3 Mounting

B : $\phi 12$, $\phi 16$, $\phi 20$, $\phi 25$
Penetrating hole, common tap at both ends(standard)
 $\phi 32$, $\phi 40$, $\phi 50$, $\phi 63$
Penetrating hole(standard)

4 Bore Size

12 : 12mm	16 : 16mm
20 : 20mm	25 : 25mm
32 : 32mm	40 : 40mm
50 : 50mm	63 : 63mm
80 : 80mm	100 : 100mm

5 Stroke(mm)

Bore : 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

6 Action

D : Double acting

7 Feature of Body

Blank : Standard type
(female screw at the end of rod)
M : Male screw at the end of rod

8 Auto Switch

Blank : None
(cylinder with built-in magnet)
W8,W9(H,V) : compact auto switch($\phi 4$)
H : Horizontal type, V : Vertical type
※ W8, W9 type is basic for square tube of $\phi 12$ - $\phi 25$.

※ W4 type is basic for $\phi 32$ - $\phi 63$.
※ For length of lead wire over 3m, L is added to the end of part number.(W9HL)
※ For length of lead wire over 5m, please contact us.

9 Number of auto switches

Blank : 2 pcs
S : 1 pc
N : N pcs

! Cautions

* Production of middle stroke
By installing spacer in the cylinder of standard stroke, it is possible to produce middle stroke at every 3mm.
Ex) For AQ2B20-37D, spacer with width of 13mm is installed in the cylinder of standard stroke AQ2B20-50D.

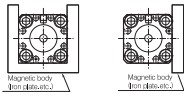
⚠ Cautions for AQ2 cylinder

This product is adapted in compliance with high purity. Please make sure to check the manual prior to selecting and using the product. Be sure to see the common cautions for clean room and actuator.

Mounting

⚠ Caution

- In event that the cylinder is adapted in an application where a magnetic material is placed in close contact around the cylinder as shown in the diagram on the right (including cases in which even one of the side is in close contact) unstable condition may occur in the operation of auto switches. So, be sure to check out TPC for this type of application.



- When installing and removing ($\phi 50$ or more), it is preferred to use an appropriate pair of pliers/tool for installing a C snap ring.
- Be sure that exercise caution is needed when using an appropriate pair of pliers (tool for installing a C snap ring) because the snap ring may be detached from the tip of the pliers and flying away, which could injure humans or damage the peripheral equipment. After the snap ring is installed, make sure that it is placed securely in the ring groove before supplying air.

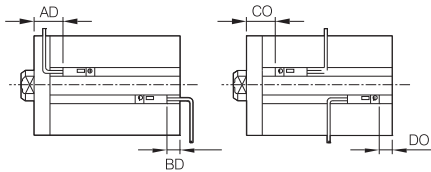
Precautions on handling

⚠ Caution

- Be sure to check all loads must be applied to piston rod in axial direction only. It is needed to install cylinder with accurate alignment.
- Loosen or detaching the hexagonal attaching bolt that fixes rod cover should be avoided. If no doing so, rod cover may spring out resulting in damaging human body or peripheral equipment.

Auto switch setting position

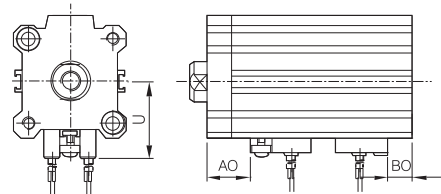
$\phi 12\sim 25$



(Unit : mm)

Bore Size	Sensing Position				Operation Range
	Rod Side		Head Side		
	AO	BO	CO	DO	
$\phi 12$	17	7	13.5	3.5	8
$\phi 16$	22	7.5	18.5	4	10
$\phi 20$	21	9.5	17.5	6.5	9
$\phi 25$	12.5	2.5	18	8	9.5

$\phi 32\sim 100$



(Unit : mm)

Bore Size	AO	BO	U
$\phi 32$	19.5	6.5	31.5
$\phi 40$	23.5	9	35
$\phi 50$	21.5	12	41
$\phi 63$	24	15	47.5
$\phi 80$	28	18.5	57.5
$\phi 100$	31.5	24.5	67.5

Specifications

Bore size	$\phi 12, \phi 16, \phi 20, \phi 25, \phi 32, \phi 40, \phi 50, \phi 63$	
Model	Relief port type,	
	Vacuum suction type	
Action	Double acting, single rod(non-lubrication)	
Port size	$\phi 12\sim \phi 25$	M5×0.8
	$\phi 32$	Rc(PT) 1/8(※M5×0.8 : 5st only)
	$\phi 40$	Rc(PT)1/8
	$\phi 50, \phi 63$	Rc(PT)1/4
Fluid	Air	
Proof pressure	1.5MPa(217psi)	
Max. operation pressure	1.0MPa(140psi)	
Min. operation pressure	0.05MPa(7psi)	
Ambient and fluid temperature : °C(°F)	-10°C~70°C(14~158°F)(anti freezing)	
Cushion	None	
Mounting	$\phi 12\sim \phi 25$: Through hole, common tap at both ends	
	$\phi 32\sim \phi 100$: Through hole	
Stroke tolerance	+1.0 0 mm	
Piston speed	50~400mm/s	

Minimum auto switch mountable stroke (mm)

No. of auto switch	Min. auto switch mountable stroke
With 1pc	5mm
With 2pcs	10mm

CLEAN

CR(CV)
ARD

CR(CV)
AQ2/ADQ2

CR(CV)
AX

CR(CV)
AGL

CR(CV)
NGQL

CR(CV)
NLCD

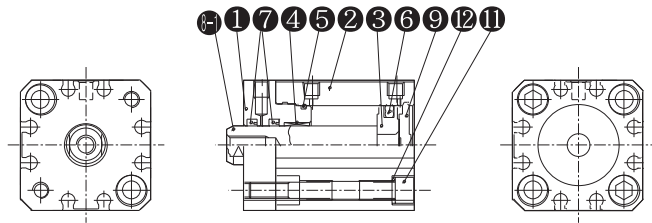
LOW SPEED
CYLINDER

Series CR(CV)-AQ2/ADQ2

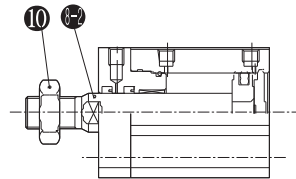
Construction/Parts List : Ø12~25

Standard Type : Ø12~25

Female screw at the end of rod type



Male screw at the end of rod type

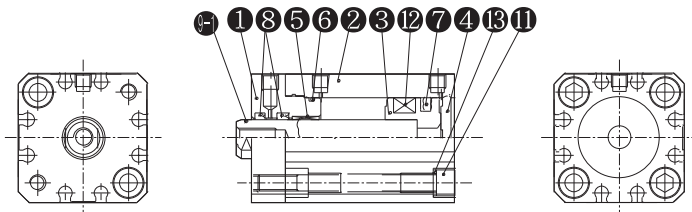


No.	Description	Quantity	Material	Note
1	Rod Cover	1	Aluminum Alloy	Hard White Aluminum
2	Cylinder Tube	1	Aluminum Alloy	
3	Piston	1	Aluminum Alloy	
4	Bush	1	Lead Bronze Casting	
5	Gasket	1	NBR	
6	Piston Packing	1	NBR	
7	Rod Packing	$\frac{2}{(1)}$	NBR	When CV type, left side exclusion

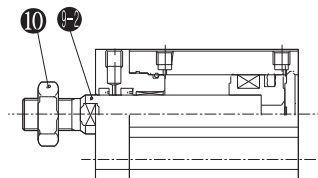
No.	Description	Quantity	Material	Note
8-1	Piston Rod	1	Stainless Steel	Hard chrome Plated, female screw type
8-2	Piston Rod	1	Stainless Steel	Hard chrome Plated, male screw type
9	End Plate	1	Aluminum Alloy	
10	Rod End Nut	1	Rolled Steel	Nickel Plated
11	Mounting Bolt	2	Carbon Tool Steel	Nickel Plated
12	Washer	2	Stainless Steel	Nickel Plated(plate washer)

With Auto Switch(Built-in Magnet) : Ø12~25

Female screw at the end of rod type



Male screw at the end of rod type

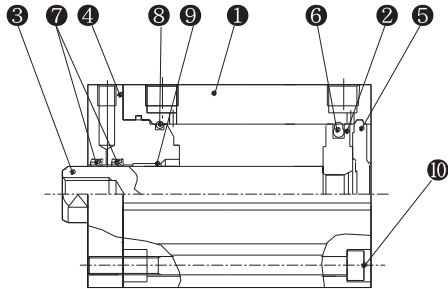
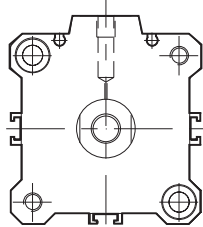


No.	Description	Quantity	Material	Note
1	Rod Cover	1	Aluminum Alloy	Hard White Aluminum
2	Cylinder Tube	1	Aluminum Alloy	
3	Piston	1	Aluminum Alloy	
4	End Plate	1	Aluminum Alloy	
5	Bush	1	Lead Bronze Casting	
6	Gasket	1	NBR	
7	Piston Packing	1	NBR	

No.	Description	Quantity	Material	Note
8	Rod Packing	$\frac{2}{(1)}$	NBR	When CV type, left side exclusion
9-1	Piston Rod	1	Stainless Steel	Hard chrome Plated, female screw type
9-2	Piston Rod	1	Stainless Steel	Hard chrome Plated, male screw type
10	Rod End Nut	1	Rolled Steel	Nickel Plated
11	Mounting Bolt	2	Carbon Tool Steel	Nickel Plated
12	Magnet	1	NBR+Ba Ferrite	
13	Washer	2	Stainless Steel	Nickel Plated(plate washer)

Construction/Parts List : Ø32, Ø40

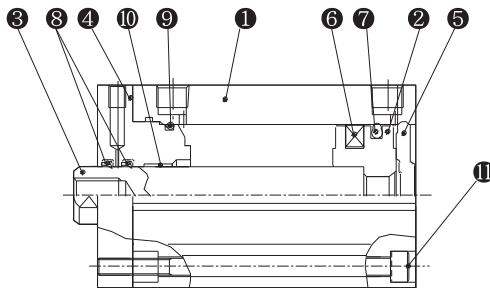
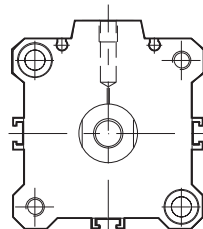
Standard Type : Ø32, Ø40



No.	Description	Quantity	Material	Note
1	Cylinder tube	1	Aluminum Alloy	Hard white aluminum
2	Piston	1	Aluminum Alloy	Chromate
3	Piston rod	1	Stainless Steel	Hard chrome Plated
4	Rod cover	1	Aluminum Alloy	Hard white aluminum
5	End plate	1	Aluminum Alloy	Hard white aluminum
6	Piston packing	1	NBR	

No.	Description	Quantity	Material	Note
7	Rod packing	(1~2)	NBR	When CV type, left side exclusion
8	Gasket	1	NBR	
9	Bush	1	Lead Bronze Casting	
10	Blanking plug	2	Alloy Steel	Nickel Plated
11	Spacer	(1)	Aluminum Alloy	55, 60, 65, 70, 80, 85, 90, 95 Stroke Only

With Auto Switch(Built-in Magnet) : Ø32, Ø40



No.	Description	Quantity	Material	Note
1	Cylinder tube	1	Aluminum Alloy	Hard white aluminum
2	Piston	1	Aluminum Alloy	Chromate
3	Piston rod	1	Stainless Steel	Hard chrome Plated
4	Rod cover	1	Aluminum Alloy	Hard white aluminum
5	End plate	1	Aluminum Alloy	Hard white aluminum
6	Magnet ring	1	NBR+Ba Ferrite	

No.	Description	Quantity	Material	Note
7	Piston packing	1	NBR	
8	Rod packing	(1~2)	NBR	When CV type, left side exclusion
9	Gasket	1	NBR	
10	Bush	1	Lead Bronze Casting	
11	Blanking plug	2	Alloy Steel	Nickel Plated
12	Spacer	(1)	Aluminum Alloy	55, 60, 65, 70, 80, 85, 90, 95 Stroke Only

CLEAN

CR(CV)
ARD

CR(CV)
AQ2/ADQ2

CR(CV)
AX

CR(CV)
AGL

CR(CV)
NGQL

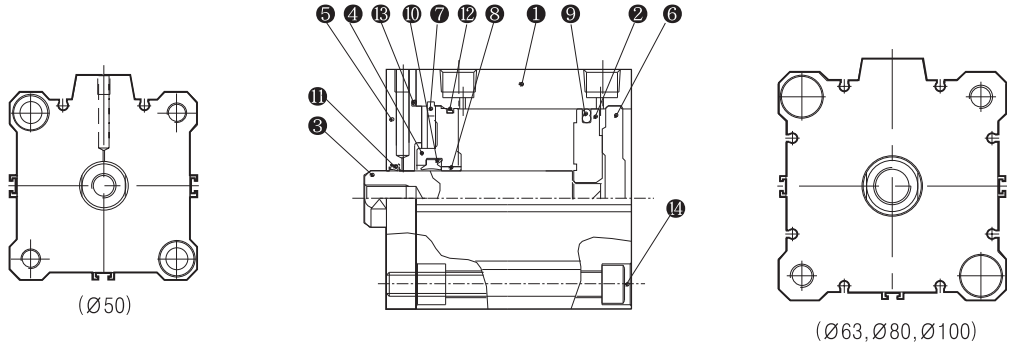
CR(CV)
NLCD

LOW SPEED
CYLINDER

Series CR(CV)-AQ2/ADQ2

Construction/Parts List : Ø50, Ø63, Ø80, Ø100

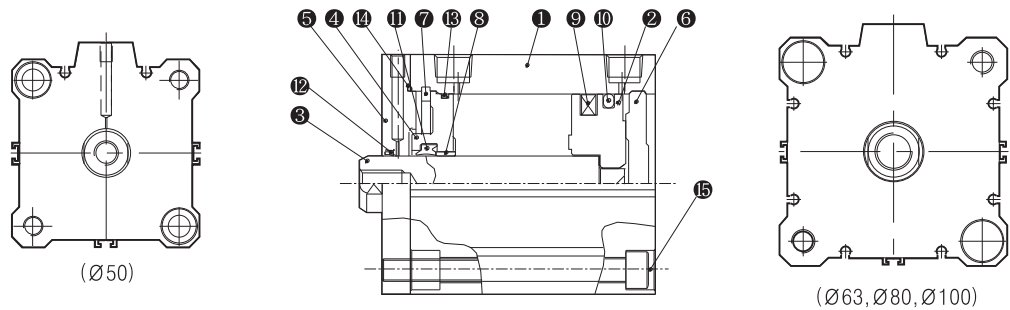
Standard Type : Ø50, Ø63, Ø80, Ø100



No.	Description	Quantity	Material	Note
1	Cylinder tube	1	Aluminum Alloy	Hard White Aluminum
2	Piston	1	Aluminum Alloy	Chromate
3	Piston rod	1	Stainless Steel	Hard Chrome Plated
4	Rod cover	1	Aluminum Alloy	Hard White Aluminum
5	Cover	1	Aluminum Alloy	Hard White Aluminum
6	End plate	1	Aluminum Alloy	Hard White Aluminum
7	Snap ring	1	Carbon Tool Steel	
8	Bush	1	Lead Bronze Casting	

No.	Description	Quantity	Material	Note
9	Piston packing	1	NBR	
10	Rod packing	1	NBR	
11	Mini_y packing	(1)	NBR	
12	Gasket	1	NBR	
13	Gasket	1	NBR	
14	Blanking plug	2	Alloy Steel	Nickel Plated
15	Spacer	(1)	Aluminum alloy	55,60,65,70,80,85,90,95 Stroke Only

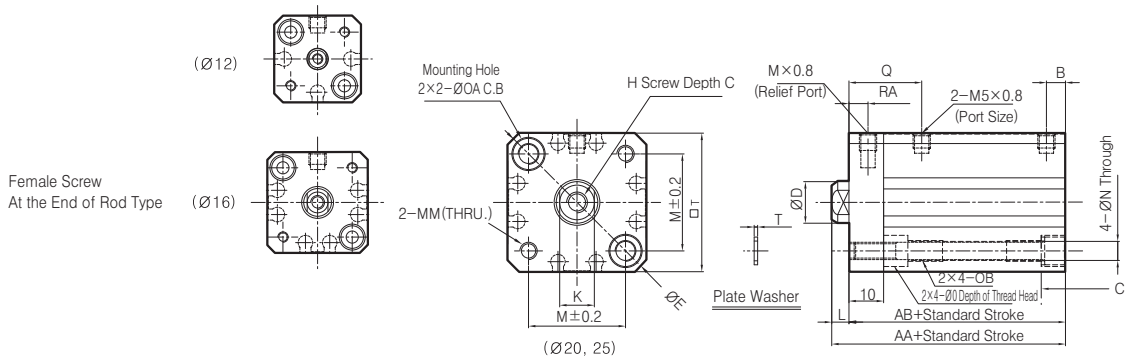
With Auto Switch(Built-in Magnet) : Ø50, Ø63, Ø80, Ø100



No.	Description	Quantity	Material	Note
1	Cylinder tube	1	Aluminum Alloy	Hard White Aluminum
2	Piston	1	Aluminum Alloy	Chromate
3	Piston rod	1	Stainless Steel	Hard Chrome Plated
4	Rod cover	1	Aluminum Alloy	Hard White Aluminum
5	Cover	1	Aluminum Alloy	Hard White Aluminum
6	End plate	1	Aluminum Alloy	Hard White Aluminum
7	Snap ring	1	Carbon Tool Steel	
8	Bush	1	Lead Bronze Casting	

No.	Description	Quantity	Material	Note
9	Magnet ring	1	NBR+Ba Ferrite	
10	Piston packing	1	NBR	
11	Rod packing	1	NBR	
12	Mini_y packing	(1)	NBR	
13	Gasket	1	NBR	
14	Gasket	1	NBR	
15	Blanking plug	2	Alloy Steel	Nickel Plated
16	Spacer	(1)	Aluminum alloy	55,60,65,70,80,85,90,95 Stroke Only

Standard Type(Through Hole, Common Tap At Both Ends)/CR-AQ2B12~25, CV-AQ2B12~25

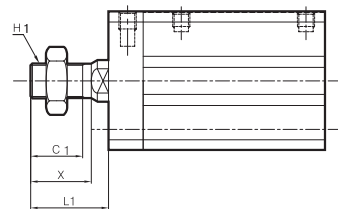


In the case of male screw at the end of rod type

(Unit : mm)

Bore Size	Stroke Range	H1	C1	D	L1
12	5~30	M5×0.8	9	10.5	14
16	5~30	M6×1.0	10	12	15.5
20	5~50	M8×1.25	12	14	18.5
25	5~50	M10×1.25	15	17.5	22.5

Male Screw At the End of Rod Type



* For the following bore / stroke sizes, through hole is thread over the entire length Ø12~5 stroke, Ø20/25~5/10 stroke.

Standard Type

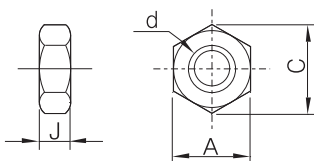
(Unit : mm)

Bore Size	Stroke Range	AA	AB	L	N	D	H	C	RA	Q	B	MM	T	O	OA	OB	E	M	QT	K
12	5~30	30.5	27	3.5	3.5	6	M3×0.5	6	5.5	17.5	5	M3×0.5	0.5	6.5 Depth 4	6.5	M4×0.7 DP 7	32	15.5	25	5
16	5~30	32	28.5	3.5	3.5	8	M4×0.7	8	5.5	18	5.5	M3×0.5	0.5	6.5 Depth 4	6.5	M4×0.7 DP 7	38	20	29	6
20	5~30	34	29.5	4.5	5.5	10	M5×0.8	7	5.5	20.5	5.5	M5×0.8	1	9 Depth 7	9	M6×1.0 DP 10	47	25.5	36	8
25	5~30	37.5	32.5	5	5.5	12	M6×1.0	12	5.5	21	5.5	M5×0.8	1	9 Depth 7	9	M6×1.0 DP 10	52	28	40	10

Mounting-nut at the end of rod

(Materials:Rolled steel/Nickel plating)

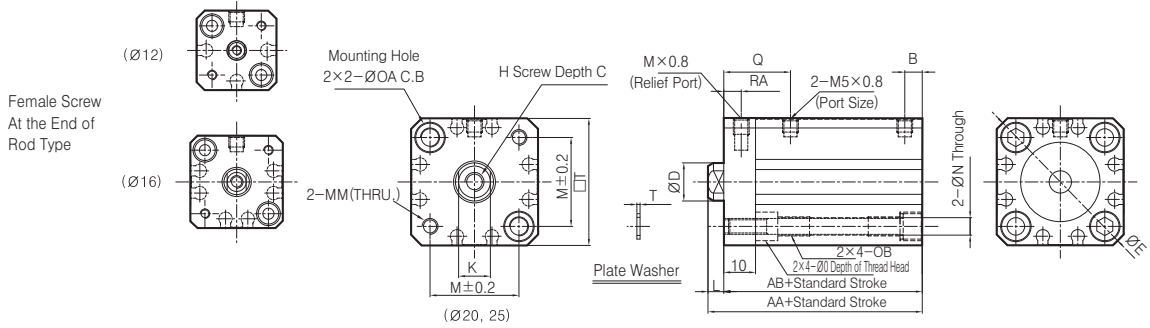
Model	Applicable Bore Size(mm)	d	J	A	C
NTJ-015A	12	M5×0.8	4	8	9.2
NT-015A	16	M6×1.0	5	10	11.5
NT-02	20	M8×1.25	5	13	15.0
NT-03	25	M10×1.25	6	17	19.6
NT-04	32, 40	M14×1.5	8	22	25.4
NT-05	50, 63	M18×1.5	11	27	31.2
NT-08	80	M22×1.5	13	32	37.0
NT-10	100	M26×1.5	16	41	47.3



- CLEAN
- CR(CV) ARD
- CR(CV) AQ2/ADQ2
- CR(CV) AX
- CR(CV) AGL
- CR(CV) NGQL
- CR(CV) NLCD
- LOW SPEED CYLINDER

Series CR(CV)-AQ2/ADQ2

Standard Type(Through Hole, Common Tap At Both Ends)/CR-ADQ2B12~25, CV-ADQ2B12~25



Female Screw
At the End of
Rod Type

Male Screw
At the End of Rod Type

In the case of male screw at the end of rod type
(Unit : mm)

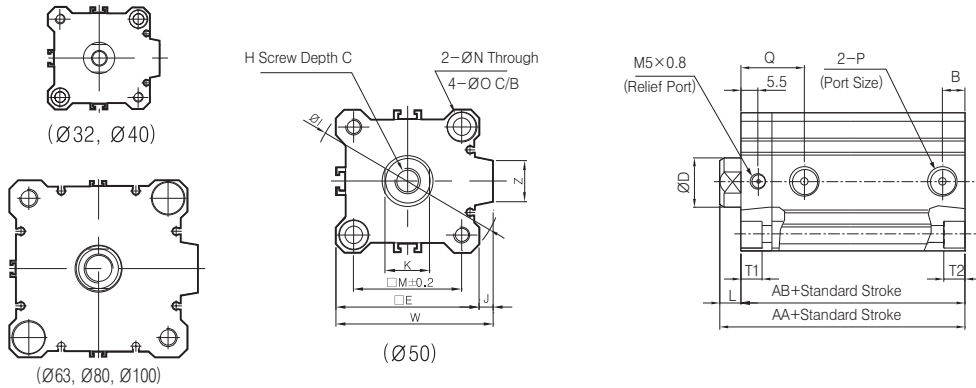
Bore Size	Stroke Range	H1	C1	D	L1
12	5~30	M5×0.8	9	10.5	14
16	5~30	M6×1.0	10	12	15.5
20	5~50	M8×1.25	12	14	18.5
25	5~50	M10×1.25	15	17.5	22.5

Standard Type

(Unit : mm)

Bore Size	Stroke Range	AA	AB	L	N	D	H	C	RA	Q	B	MM	T	O	OA	OB	E	M	□T	K	
12	5~30	41.5	38	3.5	3.5	6	M3×0.5	6	5.5	21	6.5	M3×0.5	0.5	6.5	□이 4	6.5	M4×0.7 DP 7	32	15.5	25	5
16	5~30	44	40.5	3.5	3.5	8	M4×0.7	8	5.5	21	5.5	M3×0.5	0.5	6.5	□이 4	6.5	M4×0.7 DP 7	38	20	29	6
20	5~50	46	41.5	4.5	5.5	10	M5×0.8	7	5.5	20.5	5.5	M5×0.8	1	9	□이 7	9	M6×1.0 DP 10	47	25.5	36	8
25	5~50	47.5	42.5	5	5.5	12	M6×1.0	12	5.5	21	5.5	M5×0.8	1	9	□이 7	9	M6×1.0 DP 10	52	28	40	10

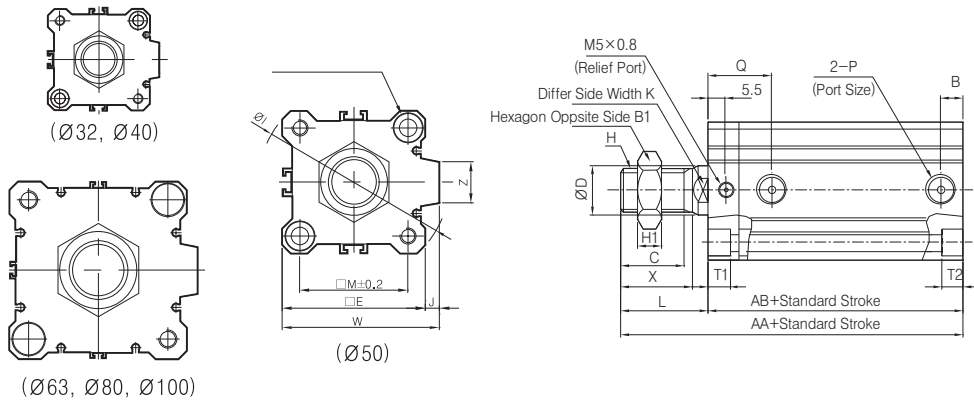
Standard Type(Through Hole)/CR-AQ2B32~100, CV-AQ2B32~100



(Unit : mm)

Bore Size	Stroke Range	AA	AB	C	D	E	B	H	I	J	K	L	M	N	O	P	Q	T1	T2	W	Z
32	5	40	33	13	16	45	5.5	M8×1.25	60	4.5	14	7	34	5.5	9	M5×0.8	21.5	7	7	49.5	14
	10~50						7.5									Rc(PT)1/8	20.5				
	75,100																				
40	5~50	46.5	39.5	13	16	52	8	M8×1.25	69	5	14	7	40	5.5	9	Rc(PT)1/8	21	6	7	57	14
	10~50	48.5	40.5																		
	75,100	58.5	50.5																		
50	10~50	48.5	40.5	15	20	64	10.5	M10×1.5	87	7	17	8	50	6.6	11	Rc(PT)1/4	20.5	18	8	71	22
	75,100	58.5	50.5																		
63	10~50	54	46	15	20	77	10.5	M10×1.5	103	7	17	8	60	9	14	Rc(PT)1/4	25	20.5	10.5	84	22
	75,100	64	56																		
80	10~50	63.5	53.5	21	25	98	12.5	M16×2.0	132	6	22	10	77	11	17.5	Rc(PT)3/8	26	23.5	13.5	104	26
	75,100	73.5	63.5																		
100	10~50	75	63	27	30	117	13	M20×2.5	156	6.5	27	12	94	11	17.5	Rc(PT)3/8	33	23.5	13.5	123.5	26
	75,100	85	73																		

Male Screw At The End of Rod Type



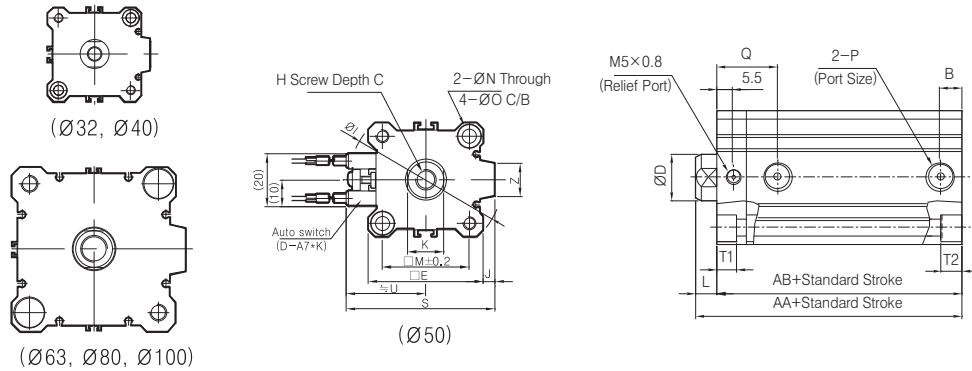
(Unit : mm)

Bore Size	Stroke Range	AA	AB	B1	C	D	E	B	H	H1	I	J	K	L	M	N	O	P	Q	T1	T2	W	X	Z
32	5	61.5	33	22	20.5	16	45	5.5	M14×1.5	8	60	4.5	14	28.5	34	5.5	9	M5×0.8	21.5	7	7	49.5	23.5	14
	10~50							7.5										Rc(PT)1/8	20.5					
	75,100																							
40	5~50	68	39.5	22	20.5	16	52	8	M14×1.5	8	69	5	14	28.5	40	5.5	9	Rc(PT)1/8	21	6	7	57	23.5	14
	10~50	74	40.5																					
	75,100	84	50.5																					
50	10~50	79.5	46	27	26	20	64	10.5	M18×1.5	11	87	7	17	33.5	50	6.6	11	Rc(PT)1/4	20.5	18	8	71	28.5	22
	75,100	89.5	56																					
63	10~50	97	53.5	27	26	20	77	10.5	M18×1.5	11	103	7	17	33.5	60	9	14	Rc(PT)1/4	25	20.5	10.5	84	28.5	22
	75,100	107	63.5																					
80	10~50	106.5	63	32	32.5	25	98	12.5	M22×1.5	13	132	6	22	43.5	77	11	17.5	Rc(PT)3/8	26	23.5	13.5	104	35.5	26
	75,100	116.5	73																					
100	10~50	106.5	63	41	32.5	30	117	13	M26×1.5	16	156	6.5	27	43.5	94	11	17.5	Rc(PT)3/8	33	23.5	13.5	123.5	35.5	26
	75,100	116.5	73																					

- CLEAN
- CR(CV) ARD
- CR(CV) AQ2/ADQ2
- CR(CV) AX
- CR(CV) AGL
- CR(CV) NGQL
- CR(CV) NLCD
- LOW SPEED CYLINDER

Series CR(CV)-AQ2/ADQ2

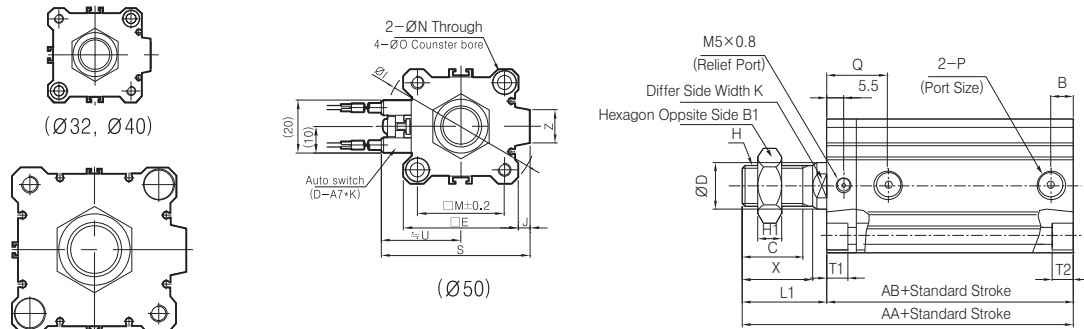
Standard Type(Through Hole)/CR-ADQ2B32~100, CV-ADQ2B32~100



(Unit : mm)

Bore Size	Stroke Range	AA	AB	C	D	E	B	H	I	J	K	L	M	N	O	P	Q	T1	T2	S	U	Z
32	5-50 75, 100	50	43	13	16	45	7.5	M8×1.25	60	4.5	14	7	34	5.5	9	Rc(PT)1/8	20.5	7	7	58.5	31.5	14
40	5-50 75, 100	56.5	49.5	13	16	52	8	M8×1.25	69	5	14	7	40	5.5	9	Rc(PT)1/8	21	6	7	66	35	14
50	10-50 75, 100	58.5	50.5	15	20	64	10.5	M10×1.5	87	7	17	8	50	6.6	11	Rc(PT)1/4	20.5	18	8	80	41	22
63	10-50 75, 100	64	56	15	20	77	10.5	M10×1.5	103	7	17	8	60	9	14	Rc(PT)1/4	25	20.5	10.5	93	47.5	22
80	10-50 75, 100	73.5	63.5	21	25	98	12.5	M16×2.0	132	6	22	10	77	11	17.5	Rc(PT)3/8	26	23.5	13.5	112.5	57.5	26
100	10-50 75, 100	85	73	27	30	117	13	M20×2.5	156	6.5	27	12	94	11	17.5	Rc(PT)3/8	33	23.5	13.5	132.5	67.5	26

Male Screw At The End of Rod Type

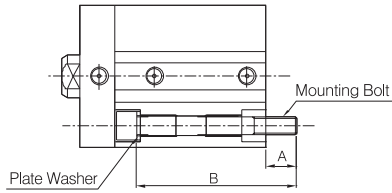


(Unit : mm)

Bore Size	Stroke Range	AA	AB	B1	C	D	E	B	H	H1	I	J	K	L	M	N	O	P	Q	T1	T2
32	5-50 75, 100	71.5	43	22	20.5	16	45	7.5	M14×1.5	8	60	4.5	14	28.5	34	5.5	9	Rc(PT)1/8	20.5	7	7
40	5-50 75, 100	78	49.5	22	20.5	16	52	8	M14×1.5	8	69	5	14	28.5	40	5.5	9	Rc(PT)1/8	21	6	7
50	10-50 75, 100	84	50.5	27	26	20	64	10.5	M18×1.5	11	87	7	17	33.5	50	6.6	11	Rc(PT)1/4	20.5	18	8
63	10-50 75, 100	89.5	56	27	26	20	77	10.5	M18×1.5	11	103	7	17	33.5	60	9	14	Rc(PT)1/4	25	20.5	10.5
80	10-50 75, 100	107	63.5	32	32.5	25	98	12.5	M22×1.5	13	132	6	22	43.5	77	11	17.5	Rc(PT)3/8	26	23.5	13.5
100	10-50 75, 100	116.5	73	41	32.5	30	117	13	M26×1.5	16	156	6.5	27	43.5	94	11	17.5	Rc(PT)3/8	33	23.5	13.5

Bore Size	Stroke Range	S	U	X	Z
32	5-50 75, 100	58.5	31.5	23.5	14
40	5-50 75, 100	66	35	23.5	14
50	10-50 75, 100	80	41	28.5	22
63	10-50 75, 100	93	47.5	28.5	22
80	10-50 75, 100	112.5	57.5	35.5	26
100	10-50 75, 100	132.5	67.5	35.5	26

AQ2 Standard Type Mounting Bolt : $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$



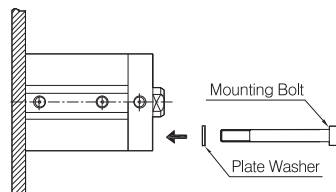
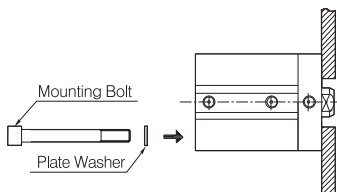
① Use the appropriate plate washer for mounting

② How to order : Specify the required bolts.

Ex) Bolt M3×0.5×35L 2EA

Mounting at Rod Side / Non-Auto Switch					
Model		A	B	Mounting Bolt	
CR-(CV-)	AQ2B12	6.5	-5D	35	M3×0.5×35L
			-10D	40	M3×0.5×40L
			-15D	45	M3×0.5×45L
			-20D	50	M3×0.5×50L
			-25D	55	M3×0.5×55L
			-30D	60	M3×0.5×60L
CR-(CV-)	AQ2B16	5	-5D	35	M3×0.5×35L
			-10D	40	M3×0.5×40L
			-15D	45	M3×0.5×45L
			-20D	50	M3×0.5×50L
			-25D	55	M3×0.5×55L
			-30D	60	M3×0.5×60L
CR-(CV-)	AQ2B20	6.7	-5D	35	M5×0.8×35L
			-10D	40	M5×0.8×40L
			-15D	45	M5×0.8×45L
			-20D	50	M5×0.8×50L
			-25D	55	M5×0.8×55L
			-30D	60	M5×0.8×60L
			-35D	65	M5×0.8×65L
			-40D	70	M5×0.8×70L
			-45D	75	M5×0.8×75L
			-50D	80	M5×0.8×80L
CR-(CV-)	AQ2B25	8.7	-5D	40	M5×0.8×40L
			-10D	45	M5×0.8×45L
			-15D	50	M5×0.8×50L
			-20D	55	M5×0.8×55L
			-25D	60	M5×0.8×60L
			-30D	65	M5×0.8×65L
			-35D	70	M5×0.8×70L
			-40D	75	M5×0.8×75L
			-45D	80	M5×0.8×80L
			-50D	85	M5×0.8×85L

Mounting at Head Side / Non-Auto Switch					
Model		A	B	Mounting Bolt	
CR-(CV-)	AQ2B12	6.5	-5D	25	M3×0.5×25L
			-10D	30	M3×0.5×30L
			-15D	35	M3×0.5×35L
			-20D	40	M3×0.5×40L
			-25D	45	M3×0.5×45L
			-30D	50	M3×0.5×50L
CR-(CV-)	AQ2B16	5	-5D	25	M3×0.5×25L
			-10D	30	M3×0.5×30L
			-15D	35	M3×0.5×35L
			-20D	40	M3×0.5×40L
			-25D	45	M3×0.5×45L
			-30D	50	M3×0.5×50L
CR-(CV-)	AQ2B20	6.7	-5D	25	M5×0.8×25L
			-10D	30	M5×0.8×30L
			-15D	35	M5×0.8×35L
			-20D	40	M5×0.8×40L
			-25D	45	M5×0.8×45L
			-30D	50	M5×0.8×50L
			-35D	55	M5×0.8×55L
			-40D	60	M5×0.8×60L
			-45D	65	M5×0.8×65L
			-50D	70	M5×0.8×70L
CR-(CV-)	AQ2B25	8.7	-5D	30	M5×0.8×30L
			-10D	35	M5×0.8×35L
			-15D	40	M5×0.8×40L
			-20D	45	M5×0.8×45L
			-25D	50	M5×0.8×50L
			-30D	55	M5×0.8×55L
			-35D	60	M5×0.8×60L
			-40D	65	M5×0.8×65L
			-45D	70	M5×0.8×70L
			-50D	75	M5×0.8×75L



CLEAN

CR(CV)
ARD

CR(CV)
AQ2/ADQ2

CR(CV)
AX

CR(CV)
AGL

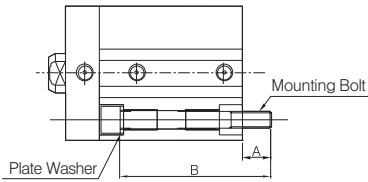
CR(CV)
NGQL

CR(CV)
NLCD

LOW SPEED
CYLINDER

Series CR(CV)-AQ2/ADQ2

AQ2 Auto Switch Attaching Bolt : $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$



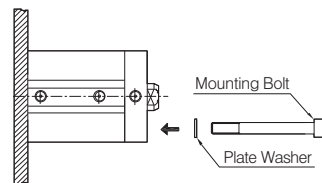
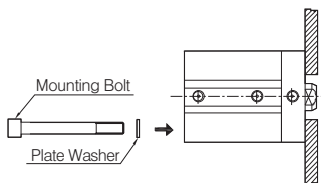
① Use the appropriate plate washer for mounting

② How to order : Specify the required bolts.

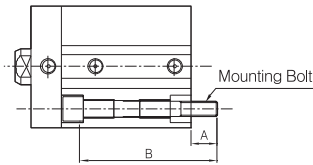
Ex) Bolt M3×0.5×35L 2EA

Mounting At Rod Side			
Model	A	B	Mounting Bolt
CR-(CV-)	ADQ2B12	5.5	-5D 45 M3×0.5×45L
			-10D 50 M3×0.5×50L
			-15D 55 M3×0.5×55L
			-20D 60 M3×0.5×60L
			-25D 65 M3×0.5×65L
			-30D 70 M3×0.5×70L
CR-(CV-)	ADQ2B16	8	-5D 50 M3×0.5×50L
			-10D 55 M3×0.5×55L
			-15D 60 M3×0.5×60L
			-20D 65 M3×0.5×65L
			-25D 70 M3×0.5×70L
			-30D 75 M3×0.5×75L
CR-(CV-)	ADQ2B20	9.7	-5D 50 M5×0.8×50L
			-10D 55 M5×0.8×55L
			-15D 60 M5×0.8×60L
			-20D 65 M5×0.8×65L
			-25D 70 M5×0.8×70L
			-30D 75 M5×0.8×75L
			-35D 80 M5×0.8×80L
			-40D 85 M5×0.8×85L
			-45D 90 M5×0.8×90L
			-50D 95 M5×0.8×95L
CR-(CV-)	ADQ2B25	8.7	-5D 50 M5×0.8×50L
			-10D 55 M5×0.8×55L
			-15D 60 M5×0.8×60L
			-20D 65 M5×0.8×65L
			-25D 70 M5×0.8×70L
			-30D 75 M5×0.8×75L
			-35D 80 M5×0.8×80L
			-40D 85 M5×0.8×85L
			-45D 90 M5×0.8×90L
			-50D 95 M5×0.8×95L

Mounting At Head Side			
Model	A	B	Mounting Bolt
CR-(CV-)	ADQ2B12	5.5	-5D 35 M3×0.5×35L
			-10D 40 M3×0.5×40L
			-15D 45 M3×0.5×45L
			-20D 50 M3×0.5×50L
			-25D 55 M3×0.5×55L
			-30D 60 M3×0.5×60L
CR-(CV-)	ADQ2B16	8	-5D 40 M3×0.5×40L
			-10D 45 M3×0.5×45L
			-15D 50 M3×0.5×50L
			-20D 55 M3×0.5×55L
			-25D 60 M3×0.5×60L
			-30D 65 M3×0.5×65L
CR-(CV-)	ADQ2B20	9.7	-5D 40 M5×0.8×40L
			-10D 45 M5×0.8×45L
			-15D 50 M5×0.8×50L
			-20D 55 M5×0.8×55L
			-25D 60 M5×0.8×60L
			-30D 65 M5×0.8×65L
			-35D 70 M5×0.8×70L
			-40D 75 M5×0.8×75L
			-45D 80 M5×0.8×80L
			-50D 85 M5×0.8×85L
CR-(CV-)	ADQ2B25	8.7	-5D 40 M5×0.8×40L
			-10D 45 M5×0.8×45L
			-15D 50 M5×0.8×50L
			-20D 55 M5×0.8×55L
			-25D 60 M5×0.8×60L
			-30D 65 M5×0.8×65L
			-35D 70 M5×0.8×70L
			-40D 75 M5×0.8×75L
			-45D 80 M5×0.8×80L
			-50D 85 M5×0.8×85L



AQ2 Standard Type Mounting Bolt : $\varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$



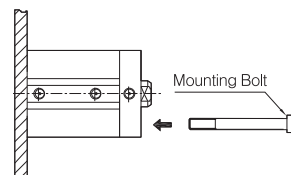
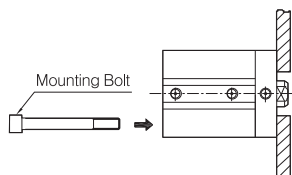
① Mounting : Through hole standard.

② How to order : Specify the required bolts.

Ex) Bolt M5×0.8×40L 2EA

Mounting at Rod Size / Non-Auto Switch					
Model	A	B	Mounting Bolt		
CR-(CV-)	AQ2B32	-5D	40 M5×0.8×40L		
		-10D	45 M5×0.8×45L		
		-15D	50 M5×0.8×50L		
		-20D	55 M5×0.8×55L		
		-25D	60 M5×0.8×60L		
		-30D	65 M5×0.8×65L		
		-35D	70 M5×0.8×70L		
		-40D	75 M5×0.8×75L		
		-45D	80 M5×0.8×80L		
		-50D	85 M5×0.8×85L		
		-75D	120 M5×0.8×120L		
		-100D	145 M5×0.8×145L		
		CR-(CV-)	AQ2B40	-5D	45 M5×0.8×45L
				-10D	50 M5×0.8×50L
-15D	55 M5×0.8×55L				
-20D	60 M5×0.8×60L				
-25D	65 M5×0.8×65L				
-30D	70 M5×0.8×70L				
-35D	75 M5×0.8×75L				
-40D	80 M5×0.8×80L				
-45D	85 M5×0.8×85L				
-50D	90 M5×0.8×90L				
-75D	125 M5×0.8×125L				
-100D	150 M5×0.8×150L				
CR-(CV-)	AQ2B50			-10D	55 M6×1.0×55L
				-15D	60 M6×1.0×60L
		-20D	65 M6×1.0×65L		
		-25D	70 M6×1.0×70L		
		-30D	75 M6×1.0×75L		
		-35D	80 M6×1.0×80L		
		-40D	85 M6×1.0×85L		
		-45D	90 M6×1.0×90L		
		-50D	95 M6×1.0×95L		
		-75D	130 M6×1.0×130L		
		-100D	155 M6×1.0×155L		
		CR-(CV-)	AQ2B63	-10D	60 M8×1.25×60L
				-15D	65 M8×1.25×65L
				-20D	70 M8×1.25×70L
-25D	75 M8×1.25×75L				
-30D	80 M8×1.25×80L				
-35D	85 M8×1.25×85L				
-40D	90 M8×1.25×90L				
-45D	95 M8×1.25×95L				
-50D	100 M8×1.25×100L				
-75D	135 M8×1.25×135L				
-100D	160 M8×1.25×160L				

Mounting at Head Side / Non-Auto Switch					
Model	A	B	Mounting Bolt		
CR-(CV-)	AQ2B32	-5D	40 M5×0.8×40L		
		-10D	45 M5×0.8×45L		
		-15D	50 M5×0.8×50L		
		-20D	55 M5×0.8×55L		
		-25D	60 M5×0.8×60L		
		-30D	65 M5×0.8×65L		
		-35D	70 M5×0.8×70L		
		-40D	75 M5×0.8×75L		
		-45D	80 M5×0.8×80L		
		-50D	85 M5×0.8×85L		
		-75D	120 M5×0.8×120L		
		-100D	145 M5×0.8×145L		
		CR-(CV-)	AQ2B40	-5D	50 M5×0.8×50L
				-10D	55 M5×0.8×55L
-15D	60 M5×0.8×60L				
-20D	65 M5×0.8×65L				
-25D	70 M5×0.8×70L				
-30D	75 M5×0.8×75L				
-35D	80 M5×0.8×80L				
-40D	85 M5×0.8×85L				
-45D	90 M5×0.8×90L				
-50D	95 M5×0.8×95L				
-75D	130 M5×0.8×130L				
-100D	155 M5×0.8×155L				
CR-(CV-)	AQ2B50			-10D	45 M6×1.0×45L
				-15D	50 M6×1.0×50L
		-20D	55 M6×1.0×55L		
		-25D	60 M6×1.0×60L		
		-30D	65 M6×1.0×65L		
		-35D	70 M6×1.0×70L		
		-40D	75 M6×1.0×75L		
		-45D	80 M6×1.0×80L		
		-50D	85 M6×1.0×85L		
		-75D	120 M6×1.0×120L		
		-100D	145 M6×1.0×145L		
		CR-(CV-)	AQ2B63	-10D	50 M8×1.25×50L
				-15D	55 M8×1.25×55L
				-20D	60 M8×1.25×60L
-25D	65 M8×1.25×65L				
-30D	70 M8×1.25×70L				
-35D	75 M8×1.25×75L				
-40D	80 M8×1.25×80L				
-45D	85 M8×1.25×85L				
-50D	90 M8×1.25×90L				
-75D	125 M8×1.25×125L				
-100D	150 M8×1.25×150L				



CLEAN

CR(CV)
ARD

CR(CV)
AQ2/ADQ2

CR(CV)
AX

CR(CV)
AGL

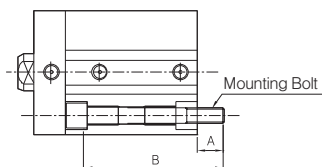
CR(CV)
NGQL

CR(CV)
NLCD

LOW SPEED
CYLINDER

Series CR(CV)-AQ2/ADQ2

AQ2 Auto Switch Attaching Bolt : $\varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$



① Mounting : Through hole standard.

② How to order : Specify the required bolts.

Ex) Bolt M5×0.8×40L 2EA

Mounting At Rod Side							
Bore Size	Stroke	A	B	Mounting Bolt			
CR-(CV-)	AQ2B32	9	50	M5×0.8×50L			
			-10D	55	M5×0.8×55L		
			-15D	60	M5×0.8×60L		
			-20D	65	M5×0.8×65L		
			-25D	70	M5×0.8×70L		
			-30D	75	M5×0.8×75L		
			-35D	80	M5×0.8×80L		
			-40D	85	M5×0.8×85L		
			-45D	90	M5×0.8×90L		
			-50D	95	M5×0.8×95L		
			-75D	120	M5×0.8×120L		
			-100D	145	M5×0.8×145L		
			CR-(CV-)	AQ2B40	7.5	55	M5×0.8×55L
-10D	60	M5×0.8×60L					
-15D	65	M5×0.8×65L					
-20D	70	M5×0.8×70L					
-25D	75	M5×0.8×75L					
-30D	80	M5×0.8×80L					
-35D	85	M5×0.8×85L					
-40D	90	M5×0.8×90L					
-45D	95	M5×0.8×95L					
-50D	100	M5×0.8×100L					
-75D	125	M5×0.8×125L					
-100D	150	M5×0.8×150L					
CR-(CV-)	AQ2B50	12.5				65	M6×1.0×65L
			-15D	70	M6×1.0×70L		
			-20D	75	M6×1.0×75L		
			-25D	80	M6×1.0×80L		
			-30D	85	M6×1.0×85L		
			-35D	90	M6×1.0×90L		
			-40D	95	M6×1.0×95L		
			-45D	100	M6×1.0×100L		
			-50D	105	M6×1.0×105L		
			-75D	130	M6×1.0×130L		
			-100D	155	M6×1.0×155L		
			CR-(CV-)	AQ2B63	14.5	70	M8×1.25×70L
						-15D	75
-20D	80	M8×1.25×80L					
-25D	85	M8×1.25×85L					
-30D	90	M8×1.25×90L					
-35D	95	M8×1.25×95L					
-40D	100	M8×1.25×100L					
-45D	105	M8×1.25×105L					
-50D	110	M8×1.25×110L					
-75D	135	M8×1.25×135L					
-100D	160	M8×1.25×160L					

Mounting At Head Side							
Bore Size	Stroke	A	B	Mounting Bolt			
CR-(CV-)	AQ2B32	9	50	M5×0.8×50L			
			-10D	55	M5×0.8×55L		
			-15D	60	M5×0.8×60L		
			-20D	65	M5×0.8×65L		
			-25D	70	M5×0.8×70L		
			-30D	75	M5×0.8×75L		
			-35D	80	M5×0.8×80L		
			-40D	85	M5×0.8×85L		
			-45D	90	M5×0.8×90L		
			-50D	95	M5×0.8×95L		
			-75D	120	M5×0.8×120L		
			-100D	145	M5×0.8×145L		
			CR-(CV-)	AQ2B40	11.5	60	M5×0.8×60L
-10D	65	M5×0.8×65L					
-15D	70	M5×0.8×70L					
-20D	75	M5×0.8×75L					
-25D	80	M5×0.8×80L					
-30D	85	M5×0.8×85L					
-35D	90	M5×0.8×90L					
-40D	95	M5×0.8×95L					
-45D	100	M5×0.8×100L					
-50D	105	M5×0.8×105L					
-75D	130	M5×0.8×130L					
-100D	160	M5×0.8×160L					
CR-(CV-)	AQ2B50	12.5				55	M6×1.0×55L
			-15D	60	M6×1.0×60L		
			-20D	65	M6×1.0×65L		
			-25D	70	M6×1.0×70L		
			-30D	75	M6×1.0×75L		
			-35D	80	M6×1.0×80L		
			-40D	85	M6×1.0×85L		
			-45D	90	M6×1.0×90L		
			-50D	95	M6×1.0×95L		
			-75D	120	M6×1.0×120L		
			-100D	145	M6×1.0×145L		
			CR-(CV-)	AQ2B63	14.5	60	M8×1.25×60L
						-15D	65
-20D	70	M8×1.25×70L					
-25D	75	M8×1.25×75L					
-30D	80	M8×1.25×80L					
-35D	85	M8×1.25×85L					
-40D	90	M8×1.25×90L					
-45D	95	M8×1.25×95L					
-50D	100	M8×1.25×100L					
-75D	125	M8×1.25×125L					
-100D	150	M8×1.25×150L					

