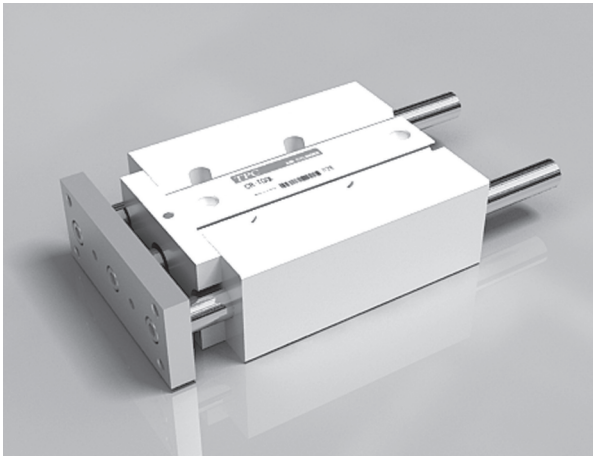


Series CR(CV)-AGL

Clean Series Compact Guide Cylinder

Bore Size : Ø12, Ø16, Ø20, Ø25, Ø32, Ø40, Ø50, Ø63



- 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.
- GUIDE ONE-BODY TYPE THAT REALIZES COLD HORIZONTAL LOAD, HIGH PRECISION AND PREVENTION OF ROTATION

How to Order

CR(CV) — AG L 20 — 75 — W4 ○

1 2 3 4 5 6 7

1 Clean Series

CR : Relief Port Type
CV : Vacuum Suction Type

2 Compact Cylinder with Guide

Magnet, Bumper, No lubrication
Are Standard Type

3 Bearing

L : Ball bush bearing

4 Bore Size

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

5 Stroke(mm)

12 : 10, 20, 30, 40, 50, 75, 100
16 : 10, 20, 30, 40, 50, 75, 100
20 : 20, 30, 40, 50, 75, 100
25 : 20, 30, 40, 50, 75, 100
32 : 25, 50, 75, 100, 125, 150

40 : 25, 50, 75, 100, 125, 150
50 : 25, 50, 75, 100, 125, 150
63 : 25, 50, 75, 100, 125, 150

6 Auto Switch

Blank : None
(cylinder with built-in magnet)
Reed Switch
- W4(W4, 2 or 3 lines
DC 24V, AC110V)
- W13(2 lines, DC 24V, AC110V)
Reed Switch
- W1H(3 lines, DC 24V)
* The standard length of lead wire is 0.5m
For length lead wire over 3m, L is added
to the end of part number.
ex) W13M, W1HL
(Ø12~25 : W13 and W1H are applied)
(Ø32~63 : W4 is applied)

7 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 5mm.
Ex) For AGL20~25, spacer with width of 5mm is installed in the cylinder of standard stroke AGL20~30.

Series CR(CV)-AGL

Caution of AGL CR(CV)

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

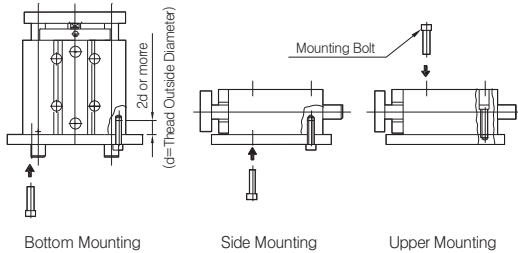
Mounting

Warning

Placing your hands or fingers between the plate and the body should be avoided. Be sure to prevent your hands or fingers from setting caught in the gap between the cylinder body and the plate when air is applied.

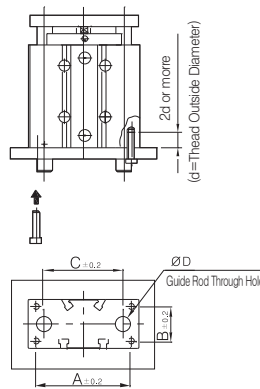
Caution

- Scratch or gouging the sliding portion of the piston rod and the guide rod should be avoided. Otherwise, this will cause the seals to become damaged, leading to air leaks.
- Being mounted on the bottom of the cylinder, the guide rod protrudes from the bottom at the retraction stroke end. Drill holes for the hexagon socket bolts used for mounting purposes, and relief holes for the guide rods. Also, for an application in which impacts such as those of a stopper are applied, be sure to check that the screw-in depth for the mounting bolts is more than 2d.



(Unit :mm)

Bore Size	A	B	C	D	Hex.cap screw for mounting
12	50	18	46	8	M4×0.7
16	56	22	50	10	M5×0.8
20	72	24	58	12	M5×0.8
25	82	30	68	15	M6×1.0
32	80	38	80	18	M8×1.25
40	90	38	90	18	M8×1.25
50	100	44	100	22	M10×1.5
63	110	44	110	22	M10×1.5

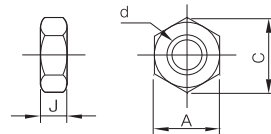


Specifications

Bore size	Ø12, Ø16, Ø20, Ø25, Ø32, Ø40, Ø50, Ø63	
Model	Relief Port Type	
	Vacuum Suction Type	
Action	Double acting, single rod(non-lubrication)	
Port Size	Ø12, Ø16	M5×0.8
	Ø20, Ø25, Ø32, Ø40,	Rc(PT) 1/8
	Ø50, Ø63	Rc(PT) 1/4
Fluid	Air	
Proof Pressure	1.5MPa(15.3kgf/cm ²)	
Max. Operation Pressure	1.0MPa(9.9kgf/cm ²)	
Min. Operation Pressure	Ø12, Ø16	0.12MPa(1.2kgf/cm ²)
	Ø20~Ø63	0.1MPa(1kgf/cm ²)
Ambient and Fluid Temperature · °C(°F)	-10°C~60°C (anti freezing)	
Cushion	Rubber Cushion Type Basic	
Stroke Tolerance	+1.5 0 mm	
Piston Speed	50~400mm/s	

Bore size(mm)	Non-Rotation Accuracy
12	±0.10°
16	
20	
25	±0.09°
32	
40	
50	±0.08°
63	

Hexagon Nut (Material:Rolled steel / Nickel plated)



No.	Bore Size(mm)	d	J	A	C
TC1P006-13B(Nickel)	12	M3×0.5	2.4	5.5	6.4
TC1P010-13B(Nickel)	16	M4×7.0	3.2	7	8.1
NTJ-015A(Nickel)	20	M5×8.0	4	8	9.2
NT-015A(Nickel)	25	M6×1.0	5	10	11.5
NT-02(Nickel)	32, 40	M8×1.25	5	13	15
M10×1.5(Nickel)	50, 63	M10×1.5	6	17	19.6

CLEAN

CR(CV)
ARD

CR(CV)
AQ2/ADQ2

CR(CV)
AX

CR(CV)
AGL

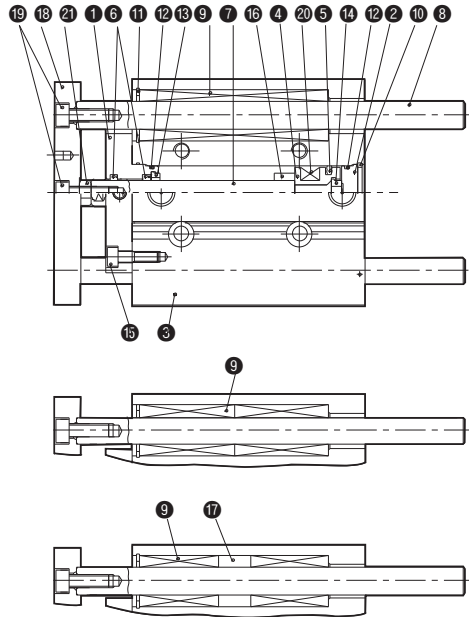
CR(CV)
NGQL

CR(CV)
NLCD

LOW SPEED
CYLINDER

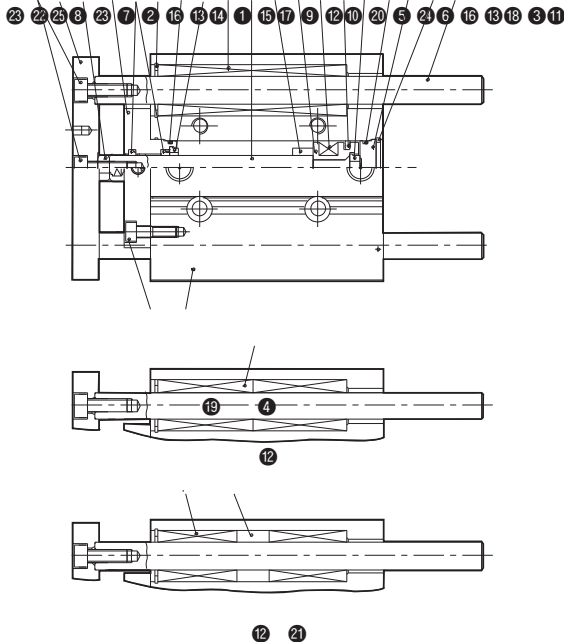
Series CR(CV)-AGL

Construction/Parts List : CR-AGL 12~40/CV-AGL 12~40



No	Description	Quantity	Material	Note
1	Rod cover	1	Aluminum Alloy	White aluminum
2	Head cover	1	Aluminum Alloy	White aluminum
3	Cylinder tube	1	Aluminum Alloy	
4	Piston	1	Aluminum Alloy	
5	Piston packing	1	NBR	
6	Rod packing	2 (1)	NBR	(When CV type, left side exclusion)
7	Piston rod	1	Stainless Steel	Hard chrome Plated
8	Guide rod-L	2	Bearing Steel	Hard chrome Plated
9	Ball bearing(Note1)	2 (4)	Bearing Steel	
10	Snap ring-A	1	Carbon Tool Steel	Nickel Plated
11	Snap ring-B	2	Carbon Tool Steel	Nickel Plated
12	Gasket	2	NBR	
13	Bumper "A"	1	Urethane	Rod Cover Mounting
14	Bumper "B"	1	Urethane	Piston Mounting
15	Mounting bolt	2	Stainless Steel	
16	Spacer(Note2)	(1)	Aluminum Alloy	
17	Guide spacer-L(Note3)	(2)	Aluminum Alloy	
18	Plate-L	1	Carbon Steel	Nickel Plated
19	Plate mounting bolt	3	Stainless Steel	
20	Magnet	1	Neodim	
21	Hex. nut	1	Carbon Steel	Nickel Plated

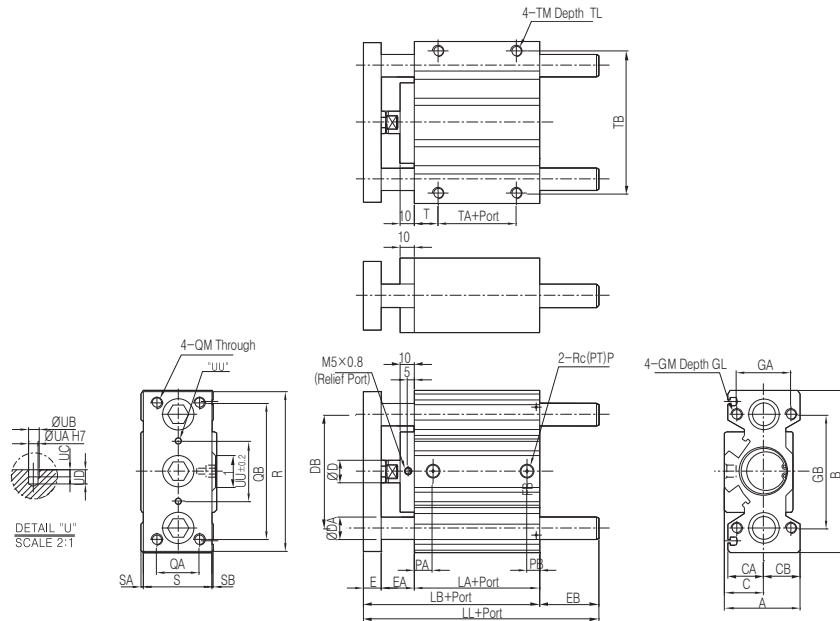
Construction/Parts List : CR-AGL 50, 63/CV-AGL 50, 63



No	Description	Quantity	Material	Note
1	Rod cover	1	Aluminum Alloy	White aluminum
2	Rod cover	1	Aluminum Alloy	White aluminum
3	Head cover	1	Aluminum Alloy	White aluminum
4	Cylinder tube	1	Aluminum Alloy	
5	Piston	1	Aluminum Alloy	
6	Piston packing	1	NBR	
7	Rod packing	1	NBR	
8	Rod packing	(1)	NBR	(When CV type, left side exclusion)
9	Bush	1	Lead bronze	
10	Piston rod	1	Stainless Steel	Hard chrome Plated
11	Guide rod-L	2	Bearing steel	Hard chrome Plated
12	Ball bearing	2 (4)	Bearing steel	
13	Snap ring-A	2	Carbon Tool Steel	
14	Snap ring-B(Note1)	2	Carbon Tool Steel	
15	Gasket	1	NBR	
16	Head cover gasket	2	NBR	
17	Bumper "A"	1	Urethane	Rod Cover Mounting
18	Bumper "B"	1	Urethane	Piston Mounting
19	Mounting bolt	2	Stainless Steel	
20	Spacer(Note1)	(1)	Aluminum Alloy	
21	Guide spacer-L(Note1)	(2)	Aluminum Alloy	
22	Plate-L	1	Carbon Steel	Nickel Plated
23	Plate mounting bolt	3	Stainless Steel	
24	Magnet	1	φ 12- φ 18: Neodim φ 20- φ 63: NBR+Ba Ferrite	
25	Hex. nut	1	Carbon Steel	Nickel Plated

Series CR(CV)-AGL

CR-AGL 32~63, CV-AGL 32~63



(Unit : mm)

Bore Size	A	B	C	CA	CB	D	DA	DB	E	EA	EB					T	TA	TB	GA	GB	GM	GL	LA	LB	I	
											25st	50st	75st	100st	125st											150st
32	53	114	27	25	26	16	16	80	12	25	5.4	42.4	47.4	47.4	67.4	67.4	16	5	100	38	80	M8×1.25	20	37.5	74.5	22
40	57	124	31	25	26	16	16	90	12	25	-	35.9	40.9	40.9	60.9	60.9	17	10	110	38	90	M8×1.25	20	44	81	22
50	69	140	39	29	30	20	20	100	16	28	3.9	45.9	50.9	50.9	70.9	70.9	17	10	124	44	100	M10×1.5	25	44	88	22
63	82	150	45.5	29	36.5	20	20	110	16	28	-	40.9	45.9	45.9	65.9	65.9	19	10	132	44	110	M10×1.5	25	49	93	31

Bore Size	LL						P	PA	PB	QA	QB	QM	R	S	SA	SB	TM	TL	UU	UA	UB	UC	UD
	25st	50st	75st	100st	125st	150st																	
32	79.9	116.9	121.9	121.9	141.9	141.9	1/8	12.5	9	30	96	M8×1.25	112	48	2	1	M8×1.25	11	42	4	4.5	3	6
40	-	116.9	121.9	121.9	141.9	141.9	1/8	14	10.5	30	106	M8×1.25	122	48	2	1	M8×1.25	11	50	4	4.5	3	6
50	91.9	133.9	138.9	138.9	158.9	158.9	1/4	14	11	40	120	M10×1.5	138	56	2	1	M10×1.5	12.5	56	5	6	4	8
63	-	133.9	138.9	138.9	158.9	158.9	1/4	16.5	13.5	50	130	M10×1.5	148	69	2	0	M10×1.5	15	66	5	6	4	8

Grooves

- Use grooves part "a" in the figure below of the cylinder body for firmly fixing.

