

Series CR/CV Clean Cylinder

Bore size : CR/CV-

ARD ϕ 50, ϕ 63

AQ2 ϕ 12, ϕ 16, ϕ 20, ϕ 25, ϕ 32,
 ϕ 40, ϕ 50, ϕ 63

AX ϕ 20, ϕ 16, ϕ 32, ϕ 40

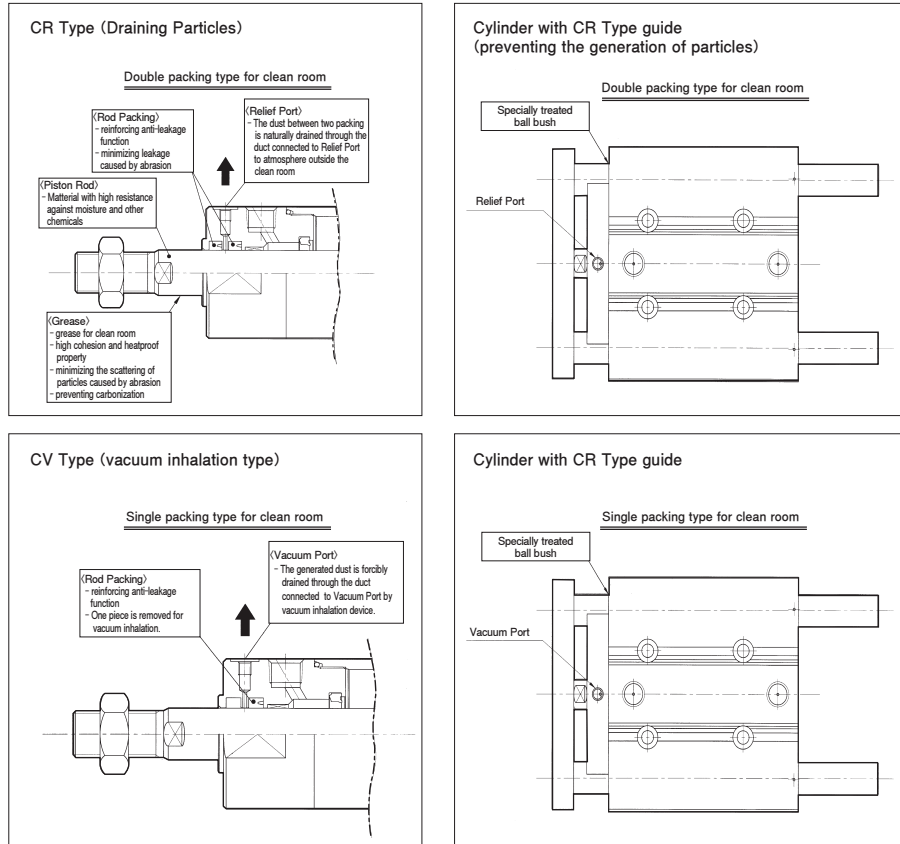
AGL ϕ 12, ϕ 16, ϕ 20, ϕ 32, ϕ 40,
 ϕ 50, ϕ 63

NLCD ϕ 8, ϕ 16, ϕ 20, ϕ 25, ϕ 32



- Separated purity use in accordance with the level of particle generation.
- Preventing particle from flowing into clean room.
- Realizing high purity environment.
- Compact and light weight of clean system.

Introduction of Clean Series Cylinder



Division	Grease	Cylinder Structure	Bearing in the Guide Part	Material of Guide Part	Main Series
CR type	In the family line of fluorine	Couple packing open to atmosphere	-	-	ARD,AQ2,AX,NLCD
CV type	In the family line of fluorine	Single packing vacuum inhalation	-	-	
Cylinder with CR type	In the family line of fluorine	Couple packing open to atmosphere	Ball bush bearing	SUS440C+surface treatment	AGL
Cylinder with CV type	In the family line of fluorine	Single packing vacuum inhalation	Ball bush bearing	SUS440C+surface treatment	

Series Clean AX (ϕ 20,25,32,40)



Series Clean AQ2 (ϕ 12,16,20,25,32,40,50,63)



Series Clean NLCD (ϕ 8,16,20,25,32)



Series Clean ARD (ϕ 50,63)



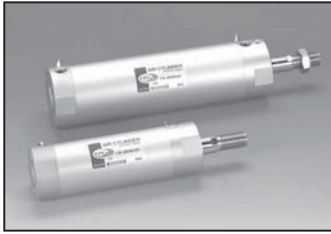
Series Clean AGL (ϕ 12,16,20,32,40,50,63)



Clean Series Round Cylinder (Round Cylinder)

Series CR(CV)ARD

Bore size : ϕ 50, ϕ 63



- Low particle generation for clean room applications
- Stainless steel piston rod(resistant to moisture and other chemicals)

How to Order

CR(CV) — ARD B A 50 — 150 — W5

1
 2
 3
 4
 5
 6
 7
 8

- | | | |
|--|---|---|
| <p>1 Clean Series
CR : Relief Port Type
CV : Vacuum Suction Type</p> <p>2 Round Cylinder
magnet, bumper, no lubrication type standard</p> <p>3 Attaching Type
B : basic type
※ For foot and flange type, please contact us.</p> | <p>4 Cushion(Rubber cushion is basically provided.)
Blank : rubber cushion
A : air cushion</p> <p>5 Bore size
50 : 50mm
63 : 63mm</p> <p>6 Cylinder Stroke(mm)
Please refer to the table of cylinder stroke.</p> | <p>7 Sorts of Auto Switch
- auto switch with contacting points
- band attaching type(grommet)
: W5
※ The length of lead wire is 0.5m (standard).
For 3m, L is added to the end of part number.
ex)W5L</p> <p>8 Symbols of Auto Switch
Blank : 2 pieces attached
s : 1piece attached
n : n pieces attached</p> |
|--|---|---|

Specifications

Bore size	ϕ 50, ϕ 63
Models	Relief Port Type, Vacuum Suction Type
Operation Type	Double Acting Single Rod(Non-Lubrication)
Port Size	Rc(PT) 1/4
Fluid	Air
Proof Pressure	1.5MPa(217.6psi)
Max. Operation Pressure	1.0MPa(140.8psi)
Min. Operation Pressure	0.05MPa(7.1psi)
Ambient and Fluid Temperature · °C(°F)	-10°C~70°C(14~158°F)(Anti Freezing)
Cushion	Rubber/Air Cushion
Thread Tolerance	KS class 2
Stroke Tolerance	~300 ^{+1.4} ₀ mm
Piston Speed	50~400mm/s

Table of cylinder stroke/air pressure(no lubrication type)

(Unit:mm)

Bore Size	Cylinder Stroke
50, 63	20~300

※ For long stroke, please contact us for confirmation.

Minimum auto switch mountable stroke(mm)

Type of Auto Switch	Number of Auto Switch		
	With 2pcs		With 1pc
	Different Orientation	Same Orientation	
W5	15	50	10

- ACP/ UACP
- APM
- AS
- AX
- AM
- AM2
- AL/ ALX
- AQ/ UAQ
- ADQCP
- AQ2/ UADQ2
- AG/ UAG
- NGQ/ UNGQ
- AJ/ AJM
- ABK
- NSK
- GX/ AGX
- NDM
- ADR
- AMR/ UAMR
- NST
- AST
- ASTH
- NF
- NLCD
- NLCS
- TCRL
- NP
- ARD/ UARD
- NR
- ASL
- SB
- SAH
- CR/ CV**
- CR/ CV-AQ2,ADQ2
- CR/ CV-AX
- CR/ CV-NLCD
- CR/ CV-AGL
- DR100
- RS
- DV1000/ 3000/4000
- DS300 DS2000

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

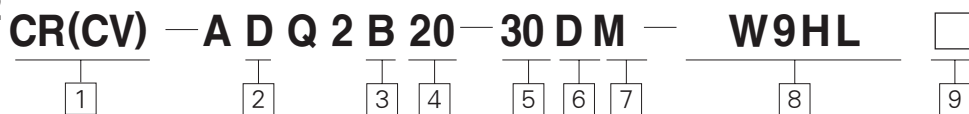
How to Order

Series CR(CV)AQ2, ADQ2

Bore Size : ϕ 12, ϕ 16, ϕ 20, ϕ 25,
 ϕ 32, ϕ 40, ϕ 50, ϕ 63
 ϕ 80, ϕ 100



- Low particle generation for clean room applications
- Stainless steel piston rod(resistant to moisture and otehr chemicals)



1 Clean Series

CR : Relief Port Type
CV : Vacuum Suction Type

2 Attaching Auto Switch

Blank : basic type
D : attaching auto switch(built-in magnet)

3 Attaching Type

B : ϕ 12, ϕ 16, ϕ 20, ϕ 25
Penetrating hole, common tap at both ends(standard)
 ϕ 32, ϕ 40, ϕ 50, ϕ 63, ϕ 80, ϕ 100
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 Cylinder Stroke(mm)

Please refer to the table of cylinder stroke.

6 Operating Type

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 Sorts of Auto Switch

Blank : non-auto switch
(cylinder with built-in magnet)
W***:compact auto switch(ϕ 4)
※ W*** type is basic for square tube of ϕ 12~ ϕ 25.
※ For length of lead wire over 3m, L is added to the end of part number. ex)W4L
※ For length of lead wire over 5m, please contact us.

9 Symbols of Auto Switch

Blank : 2 pieces attached
S : 1 pieces attached
n : n pieces attached

Specifications

Bore Size	ϕ 12, ϕ 16, ϕ 20, ϕ 25, ϕ 32, ϕ 40, ϕ 50, ϕ 63, ϕ 80, ϕ 100	
Models	Relief Port Type,	
	Vacuum Suction Type	
Operation Type	Double Acting, Single Rod(Non-Lubrication)	
Port Size	ϕ 12~ ϕ 25	M5×0.8
	ϕ 32	Rc(PT) 1/8(※M5×0.8 : 5st only)
	ϕ 40	Rc(PT) 1/8
	ϕ 50, ϕ 63	Rc(PT) 1/4
	ϕ 80, ϕ 100	Rc(PT) 3/8
Fluid	Air	
Proof Pressure	1.5MPa(217.6psi)	
Max. Operation Pressure	1.0MPa(140.8psi)	
Min. Operation Pressure	0.05MPa(7.1psi)	
Ambient and Fluid Temperature · °C(°F)	-10°C~70°C(14~158°F)(Anti Freezing)	
Cushion	None	
	ϕ 12~ ϕ 25 : Through Hole, Common tap at both ends	
Mounting	ϕ 32~ ϕ 100 : Through Hole	
Stroke Tolerance	$^{+1.0}_0$ mm	
Piston Speed	50~400mm/s	

Table of standard stroke/air pressure(no lubrication type)

(Unit:mm)

Bore Size	Cylinder 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
80, 100	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

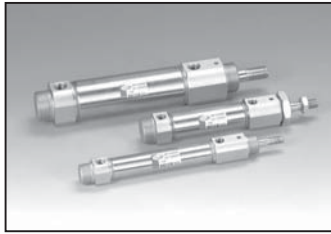
⚠ Cautions

※ 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.

**Clean Series Air Cylinder
/ Double Motion, Single Rod**

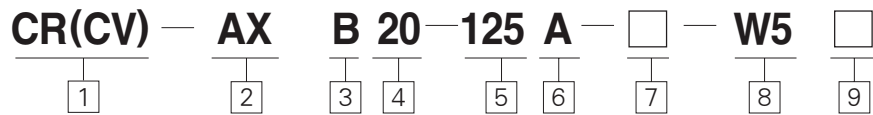
Series CR(CV)AX

Bore Size : ϕ 20, ϕ 25, ϕ 32, ϕ 40



- Low particle generation for clean room applications
- Stainless steel piston rod(resistant to moisture and otehr chemicals)

How to Order



- 1 Clean Series**
CR : Relief Port Type
CV : Vacuum Suction Type
 - 2 Air Cylinder(double Acting, single rod)**
basic type : built-in magnet
 - 3 Attaching Type**
B : basic type
L : foot type in the axial direction
F : type of flange at the rod side
G : type of flange at the head side
BZ : basic type of boss-cut
FZ : flange type boss-cut
 - 4 Bore Size**
20 : 20mm 25 : 25mm
32 : 32mm 40 : 40mm
 - 5 Cylinder Stroke(mm)**
Please refer to the table of cylinder stroke.
 - 6 Cushion**
Blank : rubber cushion type
A : air cushion type
※ For boss-cut, only rubber cushion type is available.
 - 7 Series**
Blank : standard type
XC16 : Palpitation is impossible.
 - 8 Sorts of Auto Switch**
no symbol : no auto switch (cylinder with built-in magnet) auto switch with contacting point
- band attaching type(grommet)
- W5
- ※ 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)W5L
※ For length lead wire over 5m, please contact us.
- 9 Symbols of Auto Switch**
Blank : 2 pieces attached
S : 1 piece attached
n : n pieces attached

Specifications

Bore size	ϕ 20, ϕ 25, ϕ 32, ϕ 40
Models	Relief Port Type,
	Vacuum Suction Type
Operation Type	Double Acting, Single Rod(Non-Lubrication)
Port Size	ϕ 20, 25, 32
	ϕ 40
Fluid	Air
Proof Pressure	1.5MPa(217.6psi)
Max. Operation Pressure	1.0MPa(140.8psi)
Min. Operation Pressure	0.05MPa(7.1psi)
Ambient and Fluid Temperature · °C(°F)	-10°C~70°C(14~158°F)(Anti Freezing)
Cushion	Rubber, Air Cushion
Stroke Tolerance	$^{+1.4}_0$ mm
Piston Speed	50~400mm/s

Table of standard strokt/air pressure(no lubrication type)
(Unit:mm)

Bore Size	Cylinder stroke
20,25,32,40	25,50,75,100,125,150,175,200,250,300

Band to attach auto switch/parts number

Type of Auto Switch	Inner diameter of tube(mm)			
	20	25	32	40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

Bracket/parts number

Bore Size	20	25	32	40
foot in the axial direction	TCM-L020B	TCM-L032B	TCM-L040B	
Flange	TCM-F020B	TCM-F032B	TCM-F040B	
clevis with 1 spire	TCM-C020B	TCM-C032B	TCM-C040B	
clevis with 2 spire	TCM-D020B	TCM-D032B	TCM-D040B	
Trunnion(attaching nut)	TCM-T020B	TCM-T032B	TCM-T040B	

※ Foot must be ordered in 2 units for 1 cylinder.

- ACP/ UACP
- APM
- AS
- AX
- AM
- AM2
- AL/ ALX
- AQ/ UAQ
- ADQCP
- AQ2/ UADQ2
- AG/ UAG
- NGQ/ UNGQ
- AJ/ AJM
- ABK
- NSK
- GX/ AGX
- NDM
- ADR
- AMR/ UAMR
- NST
- AST
- ASTH
- NF
- NLCD
- NLCS
- TCRL
- NP
- ARD/ UARD
- NR
- ASL
- SB
- SAH
- CR/ CV
- CR/ CV-AQ2,ADQ2
- CR/ CV-AX
- CR/ CV-NLCD
- CR/ CV-AGL
- DR100
- RS
- DV1000/ 3000/4000
- DS300
- DS2000

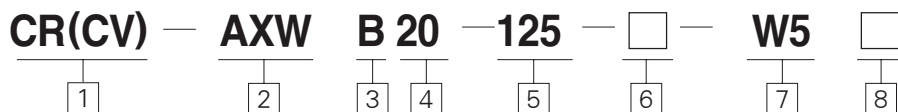
Clean Air Small Cylinder / Double Acting, Double Rod Series CR(CV)AXW

Bore Size : ϕ 20, ϕ 25, ϕ 32, ϕ 40



- 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.
- Compact appearance and lightweight, easy installation.

How to Order



1 Clean Series

CR : Relief Port Type
CV : Vacuum Suction Type

2 Air Cylinder(double acting, double rod)

basic type : built-in magnet

3 Attaching Type

B : basic type
L : foot type in the axial direction
F : type of flange at the rod side

4 Bore Size

20 : 20mm 25 : 25mm
32 : 32mm 40 : 40mm

5 Cylinder Stroke(mm)

Please refer to the table of cylinder stroke.

6 Cushion

Blank : rubber cushion type
A : air cushion type
XC16 : Palpitation is impossible.

7 Sorts of Auto Switch

no symbol : no auto switch
(cylinder with built-in magnet)
auto switch with contacting point
- band attaching type(grommet)
- W5
※ The standard length of lead wire is 0.5m

※ For length lead wire over 3m, L is added to the end of part number.
※ For length lead wire over 5m, please contact us.

8 Symbols of Auto Switch

Blank : 2 pieces attached
S : 1 piece attached
n : n pieces attached

Specifications

Bore size		ϕ 20, ϕ 25, ϕ 32, ϕ 40
Models		Relief Port Type, Vacuum Suction Type
Operation Type		Double Acting, Double Rod(Non-Lubrication)
Port Size	ϕ 20, 25, 32	Rc(PT) 1/8
	ϕ 40	Rc(PT) 1/4
Fluid		Air
Proof Pressure		1.5MPa(217.6psi)
Max. Operation Pressure		1.0MPa(140.8psi)
Min. Operation Pressure		0.05MPa(7.1psi)
Ambient and Fluid Temperature · °C(°F)		-10°C~70°C(14~158°F)(Anti Freezing)
Cushion		Rubber, Air Cushion
Stroke Tolerance		$^{+1.4}_0$ mm
Piston Speed		50~400mm/s

Table of standard stroke/air pressure(no lubrication type)

(Unit: mm)

Bore Size	Cylinder stroke
20,25,32,40	25,50,75,100,125,150,175,200,250,300

Bracket/parts number

Bore Size	20	25	32	40
foot in the axial direction	TCM-L020B	TCM-L032B	TCM-L040B	
Flange	TCM-F020B	TCM-F032B	TCM-F040B	
Trunnion(attaching nut)	TCM-T020B	TCM-T032B	TCM-T040B	

※ Foot must be ordered in 2 units for 1 cylinder.

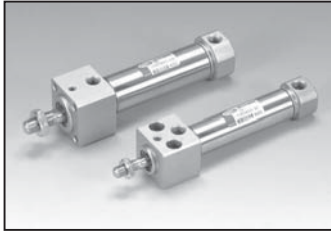
Band to attach auto switch/parts number

Type of auto switch	Inner diameter of tube(mm)			
	20	25	32	40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

**Clean Series Air Cylinder
/ Direct Mount Cylinder**

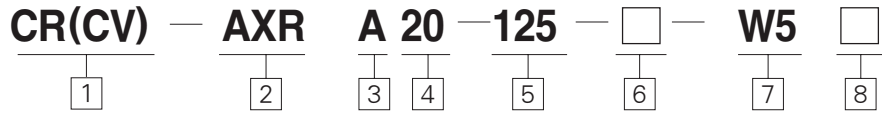
Series CR(CV)AXR

Bore Size : ϕ 20, ϕ 25, ϕ 32, ϕ 40



- 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.
- Adjustable stroke available.

How to Order



- Clean series**
CR : Relief Port Type
CV : Vacuum Suction Type
 - Air Cylinder(double acting, single rod)**
basic type : built-in magnet
 - Attaching Type**
A : bottom side mounting
B : front side mounting
 - Bore Size**
20 : 20mm 25 : 25mm
32 : 32mm 40 : 40mm
 - Cylinder Stroke(mm)**
Please refer to the table of cylinder stroke.
 - Cushion**
Blank : rubber cushion type
XC16 : Palpitation is impossible.
 - Sorts of Auto Switch**
Blank : no auto switch
(cylinder with built-in magnet)
auto switch with contacting point
- band attaching type(grommet)
- W5
※ The standard length of lead wire is 0.5m
※ For length lead wire over 3m, L
- is added to the end of part number.
※ For length lead wire over 5m, please contact us.
- Symbols of Auto Switch**
Blank : 2 pieces attached
S : 1 pieces attached
n : n pieces attached

Specifications

Bore size	ϕ 20, ϕ 25, ϕ 32, ϕ 40	
Models	Relief Port Type, Vacuum Suction Type	
Operation Type	Double Acting, Single Rod(Non-Lubrication)	
Port Size	ϕ 20, 25, 32	Rc(PT) 1/8
	ϕ 40	Rc(PT) 1/4
Fluid	Air	
Proof Pressure	1.5MPa(217.6psi)	
Max. Operation Pressure	1.0MPa(140.8psi)	
Min. Operation Pressure	0.05MPa(7.1psi)	
Ambient and Fluid Temperature · °C(°F)	-10°C~70°C (14~158°F) (Anti Freezing)	
Cushion	Rubber Cushion	
Stroke Tolerance	$^{+1.4}_0$ mm	
Piston Speed	50~400mm/s	
Attaching Type	Bottom side mounting, Front side mounting	

Table of standard stroke/air pressure(no lubrication type)
(Unit:mm)

Bore Size	Cylinder stroke
20,25,32,40	25,50,75,100,125,150,175,200,250,300

Band to attach auto switch/parts number

Type of Auto Switch	Bore Size(mm)			
	20	25	32	40
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

- ACP/
UACP
- APM
- AS
- AX
- AM
- AM2
- AL/
ALX
- AQ/
UAQ
- ADQCP
- AQ2/
UADQ2
- AG/
UAG
- NGQ/
UNGQ
- AJ/
AJM
- ABK
- NSK
- GX/
AGX
- NDM
- ADR
- AMR/
UAMR
- NST
- AST
- ASTH
- NF
- NLCD
- NLCS
- TCRL
- NP
- ARD/
UARD
- NR
- ASL
- SB
- SAH
- CR/
CV
- CR/
CV-AQ2,ADQ2
- CR/
CV-AX**
- CR/
CV-NLCD
- CR/
CV-AGL
- DR100
- RS
- DV1000/
3000/4000
- DS300
DS2000

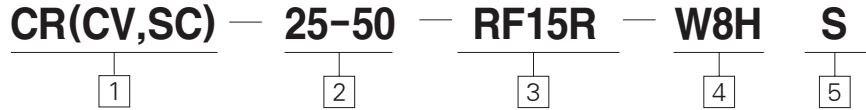
Clean Series Table
Series CR(CV,SC)NLCD

Bore size : ϕ 25, ϕ 32



- Low particle generation for clean room applications
- Stainless steel piston rod(resistant to moisture and other chemicals)

How to Order



1 New Linear Cylinder Double Rod
 CR : Relief Port Type
 CV : Vacuum Suction Type
 (※ ϕ 32 : Semi clean type only)

2 Bore size(ϕ mm)-Stroke(mm)
 ϕ 8 : 10, 20, 30, 40, 50, 75,
 ϕ 16: 10, 20, 30, 40, 50, 75, 100, 125
 ϕ 20: 10, 20, 30, 40, 50, 75, 100, 125, 150
 ϕ 25: 10, 20, 30, 40, 50, 75, 100, 125, 150
 ϕ 32: 30, 75, 100

3 Adjuster Option
 1) Rubber Damper
 RF : Front Side
 RB : Rear Side

R : Both Side(RF+RB)
 Adjustable Range : 5, 15, 25mm
 ex) RF15, RB15, R15
 ※ NLOD6: Unable 25mm
 ※ Blank: 5mm ex) RF, RB, R
 2) Shock-absorber Attached
 SF : Front Side
 SB : Rear Side
 S : Both Side(SF+SB)
 ※ NLCD32 : unable shock-absorber

4 Type of Auto Switch
 Blank : Without Auto Switch
 W4 : Reed Switch
 W8V : Reed Switch(Vertical Type)
 W8H : Reed Switch(Horizontal Type)

W9H : Solid State Switch(Horizontal Type)
 W9V : Solid State Switch(Vertical Type)
 W9HN : Solid State Switch(3 Wire, NPN)
 W9HP : Solid State Switch(3 Wire, PNP)
 ※ Standard auto switch lead wire length is 1m. 3m leads available on all models by adding a "L" suffix to the part number.
 (ex: W8HL, W9VL)

5 Number of Auto Switch
 Blank : 2pcs
 S : 1pc
 n : npc

Specifications

Bore size	ϕ 8, ϕ 16, ϕ 20, ϕ 25, ϕ 32
Type	Relief Port Type, Vacuum Suction Type Semi-Clean Type
Operation	Double Acting
Port Size	Rc(PT) 1/4
Operating Pressure	1.5~7.1kgf/cm ² (0.15~0.7MPa)
Proof Pressure	10.7kgf/cm ² (1.05MPa)
Ambient and Fluid Temperature · °C(°F)	-10°C~60°C
Piston Speed	50~500mm/s
Lubrication	Non-Lub
Auto Switch(Optional)	Existing Plug : DC(24V) / AC(110V) Non Plug : DC(24V)
Stroke Tolerance	⁺¹ ₀ mm
Option(Stroke Adjust)	Bolt+Damper(Front Side / Both Side) / Shock-Absorber

Table of standard stroke/air pressure(no lubrication type)

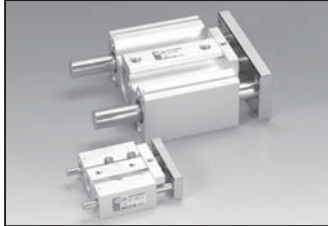
(Unit:mm)

Bore Size	Cylinder stroke
8	10, 20, 30, 40, 50, 75
16	10, 20, 30, 40, 50, 75, 100, 125
20, 25	10, 20, 30, 40, 50, 75, 100, 125, 150
32	30, 75, 100

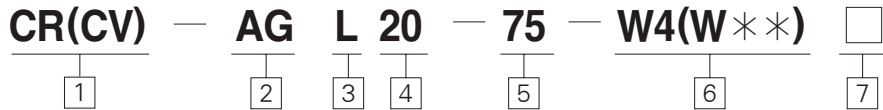
**Clean Series Compact
Guide Cylinder**

Series CR(CV)AGL

Bore size : ϕ 12, ϕ 16, ϕ 20, ϕ 25,
 ϕ 32, ϕ 40, ϕ 50, ϕ 63



- Low particle generation for clean room applications.
- Stainless steel piston rod(resistant to moisture and otehr chemicals)



- 1 Clean Series**
CR : Relief Port Type
CV : Vacuum Suction Type
- 2 Compact Cylinder with Guide magnet, bumper, no lubrication basic feature of the type**
- 3 Sort of Bearing**
L : ball bush bearing
- 4 Bore Size**
12 : 12mm 16 : 16mm
20 : 20mm 25 : 25mm
- 5 Cylinder Stroke(mm)**
Please refer to the table of cylinder stroke.
- 6 Sorts of Auto Switch**
Blank : no auto switch (cylinder with built-in magnet) auto switch with contacting point
- W4(W4 in 2 or 3 lines DC 24V, AC110V)
- W13(2 lines, DC 24V, AC110V) auto switch with contacting point
- 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
(ϕ 12~25 : W13M and W1H are applied.)
(ϕ 32~63 : W4 is applied.)
- 7 Symbols of Auto Switch**
Blank : 2 pieces attached
S : 1 piece attached

Specifications

Bore size	ϕ 12, ϕ 16, ϕ 20, ϕ 25, ϕ 32, ϕ 40, ϕ 50, ϕ 63	
Models	Relief Port Type, Vacuum Suction Type	
Operation Type	Double Acting, Single Rod(Non-Lubrication)	
Port Size	ϕ 12, ϕ 16	M5×0.8
	ϕ 20, ϕ 25, ϕ 32, ϕ 40 ϕ	Rc(PT) 1/8
	50, ϕ 63	Rc(PT) 1/4
Fluid	Air	
Proof Pressure	1.5MPa(217.6psi)	
Max. Operation Pressure	1.0MPa(140.8psi)	
Min. Operation Pressure	ϕ 12, ϕ 16	0.12MPa(17.40psi)
	ϕ 20~ ϕ 63	0.1MPa(14.50psi)
Ambient and Fluid Temperature · °C(°F)	-10°C~60°C(14~140°F)(Anti Freezing)	
Cushion	Rubber Cushion Type	
Stroke Tolerance	$^{+1.5}_0$ mm	
Piston Speed	50~400mm/s	

Bore Size(mm)	Non-Rotating Accuracy
12	±0.10°
16	
20	
25	±0.09°
32	
40	±0.08°
50	
63	
	±0.06°

Table of standard stroke/air pressure(no lubrication type)

(Unit:mm)

Bore Size	Cylinder stroke
12, 16	10, 20, 30, 40, 50, 75, 100
20, 25	20, 30, 40, 50, 75, 100
32, 40, 50, 63	25, 50, 75, 100, 125, 150

⚠ 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 AGL, spacer with width of 5mm is installed in the cylinder of standard stroke AGL20-30.

- ACP/ UACP
- APM
- AS
- AX
- AM
- AM2
- AL/ ALX
- AQ/ UAQ
- ADQCP
- AQ2/ UADQ2
- AG/ UAG
- NGQ/ UNGQ
- AJ/ AJM
- ABK
- NSK
- GX/ AGX
- NDM
- ADR
- AMR/ UAMR
- NST
- AST
- ASTH
- NF
- NLCD
- NLCS
- TCRL
- NP
- ARD/ UARD
- NR
- ASL
- SB
- SAH
- CR/ CV
- CR/ CV-AQ2, ADQ2
- CR/ CV-AX
- CR/ CV-NLCD
- CR/ CV-AGL
- DR100
- RS
- DV1000/ 3000/4000
- DS300
- DS2000