

Discrete air operated 2 port valve
(Compact cylinder valve)

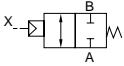
NAB* Series

- NC (normally closed) type, NO (normally open) type, double acting type
- Port size: Rc1/4, Rc3/8
- Working fluid: Air, water or gas

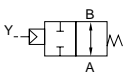


JIS symbol (*1)

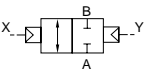
- NC (normally closed) type



- NO (normally open) type



- Double acting type



*1: If port B is normally pressurized, refer to the cautions carefully.

Specifications

Descriptions	NAB1-8	NAB1-10	NAB2-8	NAB2-10	NAB3-8	NAB3-10
Actuation	NC (normally closed) type		NO (normally open) type		Double acting type	
Working fluid	Air, gas or water (*1)					
Fluid viscosity mm ² /s	500 or less					
Working pressure range MPa	0 to 0.7					
Withstanding pressure (water) MPa	1.4					
Fluid temperature °C	-10 to 60 (no freezing) (*2)					
Ambient temperature °C	-10 to 60					
Valve seat leakage cm ³ /min	0.12 or less (compressed air)					
Port size	Rc1/4	Rc3/8	Rc1/4	Rc3/8	Rc1/4	Rc3/8
Orifice mm	7					
Cv flow factor	1.2					
C [dm ³ /(s · bar)]	5.2					
b	0.3					
Weight kg	0.36					
Mounting attitude	Free					
Pilot air pressure MPa	0.25 to 0.7		(*3)			
Pilot port size	Rc1/8					

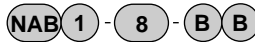
*1: Refer to working fluid check list (intro 36).

*2: This applies to both sealant, nitrile and fluoro rubbers.

*3: Refer to page 442 for the pilot air pressure of NO type or double acting type.

*4: Effective sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

How to order



Model no. **A** Actuation

B Port size

C Body/sealant combination

D Other options

Symbol	Descriptions		
A Actuation			
1	NC (normally closed) type		
2	NO (normally open) type		
3	Double acting type		
B Port size			
8	Rc 1/4		
10	Rc 3/8		
C Body/sealant combination			
		Body	Sealant
Blank	Standard	Brass	Nitrile rubber
B	Option	Brass	Fluoro rubber
D		Stainless steel	Nitrile rubber
E		Stainless steel	Fluoro rubber
D Other options			
Blank	No option		
B	Mounting plate		

<Example of model number>

NAB1-8-BB

Model: NAB

A Actuation : NC (normally closed) type

B Port size : Rc1/4

C Body/sealant combination

: Body - brass/sealant - fluoro rubber

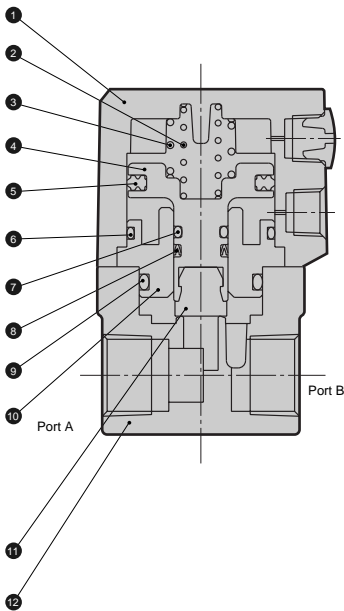
D Other options : Mounting plate

⚠ Note on model no. selection

*1: For standard, **C** is blank. If **C** other options are installed, indicate **C** with 0.

Internal structure and parts list

● NAB1



No.	Parts name	Material	
1	Cylinder guard	ADC12	Aluminum alloy die-casting
2	Spring	SWP	Piano wire
4	Piston	PPS	Polyphenylene sulfide
5	PSD packing seal	NBR	Nitrile rubber
6	O ring	NBR	Nitrile rubber
7	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)
8	MY packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
9	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)
10	Adaptor	C3604 (SUS303)	Brass (stainless steel)
11	Valving element	NBR (FKM)	Nitrile rubber (fluoro rubber)
12	Body	C3771 (SCS13)	Brass (stainless steel casting)

The material in parentheses is for option.

Dimensions

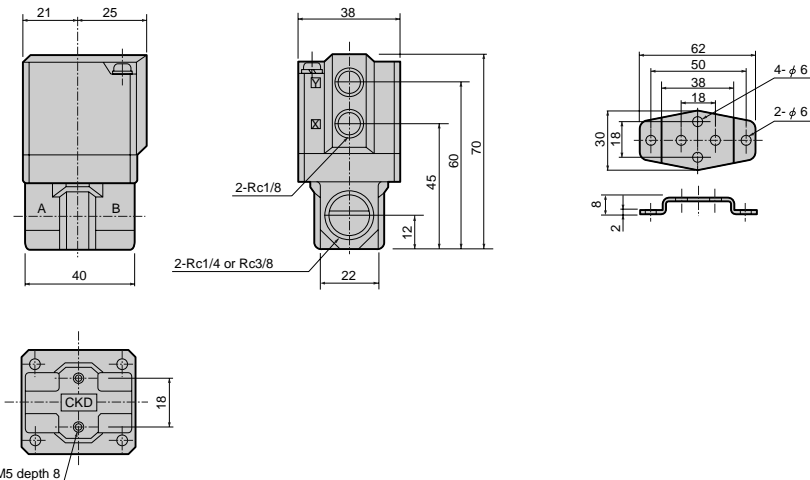


(Page 496)

● NAB*-8/10

● Mounting plate

NAB*-8/10-**B**



HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/ADK

For dry air

Explosion proof

HVB/HVL

HVL

SAB/SVB

NP/NAP/NVP

CHB/G

MXB/G

Other G.P. systems

PD/FAD/PJ

CVE/CVSE

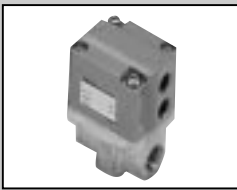
CPE/CPD

Medical analysis

Custom order

Air operated 2 port valve

(Compact cylinder valve)



Discrete air operated 2 port valve with solenoid valve
(Compact cylinder valve)

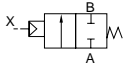
NAB*V Series

- NC (normally closed) type, NO (normally open) type, double acting type
- Port size: Rc1/4, Rc3/8
- Working fluid: Low vacuum

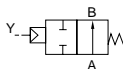


JIS symbol

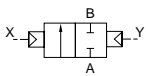
- NC (normally closed) type



- NO (normally open) type



- Double acting type



Common specifications

Descriptions	NAB1V-8	NAB1V-10	NAB2V-8	NAB2V-10	NAB3V-8	NAB3V-10
Actuation	NC (normally closed) type		NO (normally open) type		Double acting type	
Working fluid	Low vacuum (air or water) (*1)					
Fluid viscosity mm ² /s	500 or less					
Working pressure range Pa (abs)	1.3 x 10 ² to 7 x 10 ⁵					
Withstanding pressure (water) MPa	1.4					
Fluid temperature °C	-10 to 60 (no freezing) (*2)					
Ambient temperature °C	-10 to 60					
Valve seat leakage Pa·m ³ /h	1.33 x 10 ⁻³ or less					
Port size	Rc1/4	Rc3/8	Rc1/4	Rc3/8	Rc1/4	Rc3/8
Orifice mm	7					
C [dm ³ /(s·bar)]	5.2					
b	0.3					
Weight kg	0.36					
Mounting attitude	Free					
Pilot air pressure MPa	0.25 to 0.7		(*3)			
Pilot port size	Rc1/8					

*1: Refer to working fluid check list (intro 36).

*2: This applies to both sealant, nitrile and fluoro rubbers.

*3: Refer to page 442 for the pilot air pressure of NO type or double acting type.

*4: Effective sectional area S and sonic conductance C are converted as S ≒ 5.0 x C.

How to order



Model no.

Ⓐ Actuation

Working fluid
(Vacuum)

Ⓑ Port size

Ⓒ Body/sealant combination

*1

Ⓓ Other options

Symbol	Descriptions		
Ⓐ Actuation			
1	NC (normally closed) type		
2	NO (normally open) type		
3	Double acting type		
Ⓑ Port size			
8	Rc 1/4		
10	Rc 3/8		
Ⓒ Body/sealant combination			
		Body	Sealant
Blank	Standard	Brass	Nitrile rubber
B	Option	Brass	Fluoro rubber
D		Stainless steel	Nitrile rubber
E		Stainless steel	Fluoro rubber
Ⓓ Other options			
Blank	No option		
B	Mounting plate		

<Example of model number>

NAB1V-8-0B

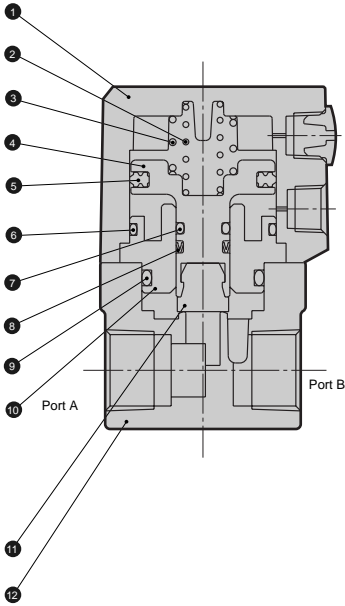
Model: NAB

- Ⓐ Actuation : NC (normally closed) type
- Ⓑ Port size : Rc1/4
- Ⓒ Body/sealant combination : Body - brass/sealant - nitrile rubber
- Ⓓ Other options : Mounting plate

⚠ Note on model no. selection

Internal structure and parts list

● NAB1V



No.	Parts name	Material	
1	Cylinder guard	ADC12	Aluminum alloy die-casting
2	Spring	SWP	Piano wire
3	Piston	PPS	Polyphenylene sulfide
5	PSD packing seal	NBR	Nitrile rubber
6	O ring	NBR	Nitrile rubber
7	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)
8	MY packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
9	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)
10	Adaptor	C3604 (SUS303)	Brass (stainless steel)
11	Valving element	NBR (FKM)	Nitrile rubber (fluoro rubber)
12	Body	C3771 (SCS13)	Brass (stainless steel casting)

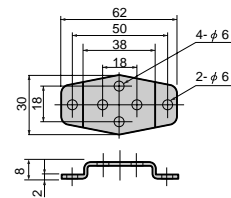
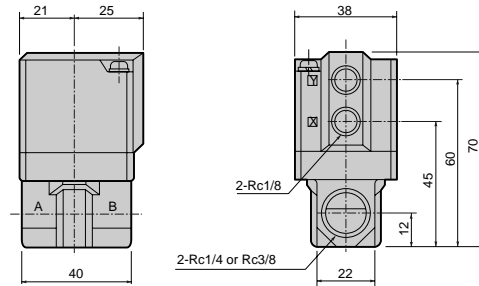
The material in parentheses is for option.

Dimensions (Page 496)

● NAB*V-8/10

● Mounting plate

NAB*V-8/10-**B**



HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/ADK

For dry air

Explosion proof

HVB/HVL

SAB/SVB

NP/NAP/NVP

CHB/G

MXB/G

Other G.P. systems

PD/FAD/PJ

CVE/CVSE

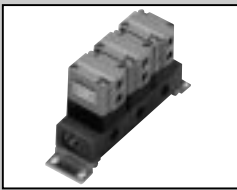
CPE/CPD

Medical analysis

Custom order

Air operated 2 port valve

(Compact cylinder valve)



Air operated 2 port valve, manifold
(Compact cylinder valve)

GNAB* Series

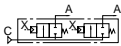
- NC (normally closed) type, NO (normally open) type, double acting type
- Port size: Rc1/4, Rc3/8
- Working fluid: Air, gas or water



JIS symbol

- Common supply type (port C pressurization)

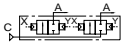
NC (normally closed) type



NO (normally open) type

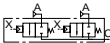


Double acting type



- Individual supply type (port A pressurization)

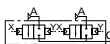
NC (normally closed) type



NO (normally open) type



Double acting type



Specifications

Descriptions	GNAB1-1/5	GNAB2-1/5	GNAB3-1/5
Actuation	NC (normally closed) type	NO (normally open) type	Double acting type
Working fluid	Air, gas or water (*1)		
Fluid viscosity mm ² /s	500 or less		
Working pressure range MPa	0 to 0.7		
Withstanding pressure (water) MPa	1.4		
Fluid temperature °C	-10 to 60 (no freezing) (*2)		
Ambient temperature °C	-10 to 60		
Valve seat leakage cm ³ /min	0.12 or less (compressed air)		
Orifice mm	7		
Cv flow factor	1.0		
C [dm ³ /(s·bar)]	3.8		
b	0.3		
Mounting attitude	Free		
Pilot air pressure MPa	0.25 to 0.7	(*3)	
Pilot port size	Rc1/8		

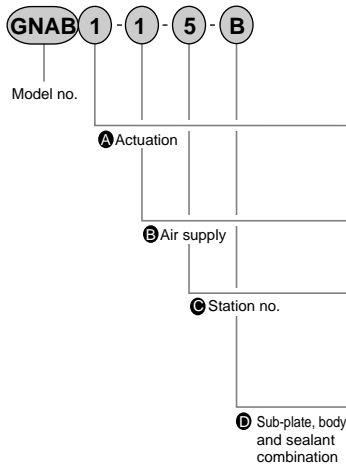
*1: Refer to working fluid check list (intro 36).

*2: This applies to both sealant, nitrile and fluoro rubbers.

*3: Refer to page 442 for the pilot air pressure of NO type or double acting type.

*4: Effective sectional area S and sonic conductance C are converted as S ≈ 5.0 × C.

How to order



Symbol	Descriptions			
A Actuation				
1	NC (normally closed) type			
2	NO (normally open) type			
3	Double acting type			
B Air supply				
1	Common supply type			
5	Individual supply type			
C Station no.				
2	2 station			
to	to			
10	10 station			
0	Only actuator			
D Sub-plate, body and sealant combination				
Blank	Standard			
	Sub-plate	Body	Sealant	Remarks
B	Brass	Polypropylene	Nitrile rubber	Water
D	Stainless steel	Stainless steel	Nitrile rubber	Solvent
E	Stainless steel	Stainless steel	Fluoro rubber	
1	Aluminum	Polypropylene	Nitrile rubber	Air or gas
2	Aluminum	Polypropylene	Fluoro rubber	

<Example of model number>

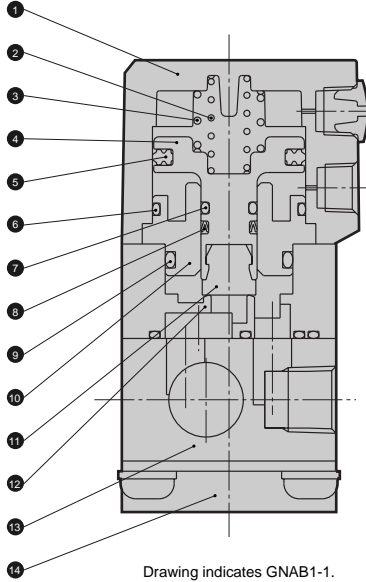
GNAB1-1-5-B

Model: GNAB

- A** Actuation : NC (normally closed) type
- B** Air supply : Common supply type
- C** Station no. : 5 station
- D** Sub-plate and sealant combination : Sub-plate - brass/body - polypropylene/sealant - fluoro rubber

Internal structure and parts list

● GNAB1



No.	Parts name	Material	No.	Parts name	Material		
1	Cylinder guard	ADC12	Aluminum alloy die-casting	8	MY packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
2	Spring	SWP	Piano wire	9	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)
3	Piston	PPS	Polyphenylene sulfide	10	Adaptor	C3604 (SUS303)	Brass (stainless steel)
4	PSD packing seal	NBR	Nitrile rubber	11	Valving element	NBR (FKM)	Nitrile rubber (fluoro rubber)
5	O ring	NBR	Nitrile rubber	12	Body	PP (SUS303)	Polypropylene (stainless steel)
6	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)	13	Sub-plate	C3604 (SUS303 / A6063)	Brass (stainless steel and aluminum)
7	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)	14	Mounting plate	SPC	Steel

The material in parentheses is for option.

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/ADK

For dry air

Explosion proof

HVB/HVL

HVL

SAB/SVB

NP/NAP/NVP

CHB/G

MXB/G

Other G.P. systems

PD/FAD/PJ


CVE/CVSE

CPE/CPD

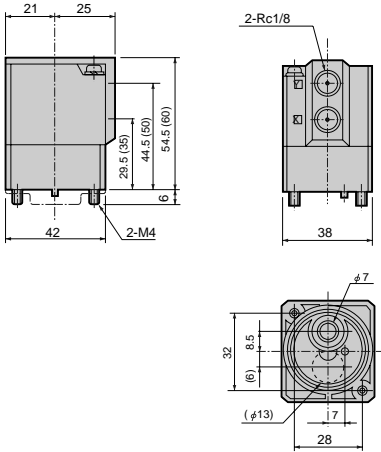
Medical analysis

Custom order

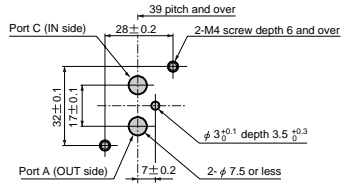
Air operated 2 port valve (Compact cylinder valve)

Dimensions: actuator  (Page 496)

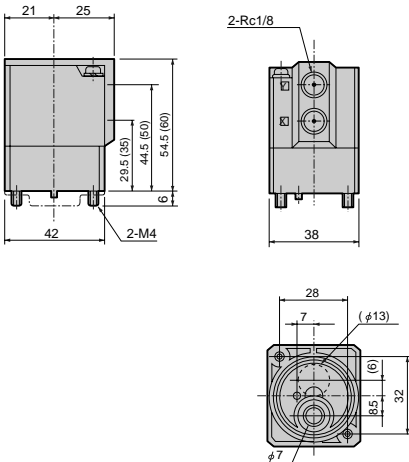
- Common supply type GNAB1/2/3-1-0



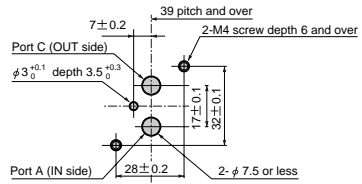
- Actuator installation method



- Individual supply type GNAB1/2/3-5-0



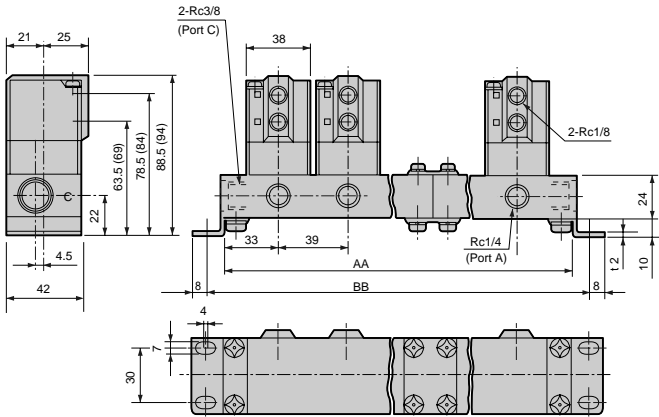
- Actuator installation method



Note 1: Dimensions shown in parentheses indicates the dimensions when stainless steel option is selected.
 Note 2: To protect the product, the product is delivered after assembling the plate on the bottom. Remove this plate before starting use.

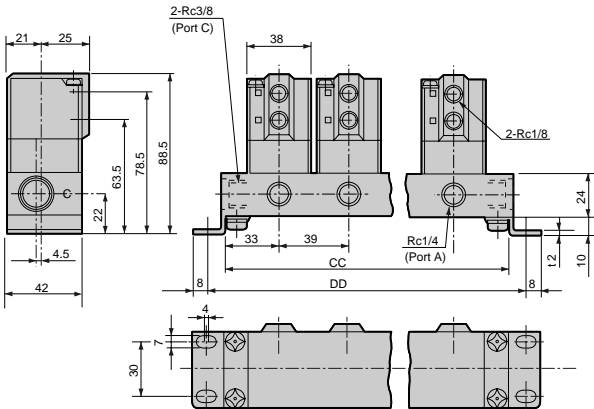
Dimensions: manifold (Page 496)

- GNAB1/2/3- $\frac{1}{5}$ -[2 to 10] (brass sub-plate)
(Stainless steel sub-plate)



Dimensions shown in parentheses are for stainless steel sub-plate.

- GNAB1/2/3- $\frac{1}{5}$ -[2 to 10] (aluminum sub-plate)



Station number	AA	BB	Manifold structure *1	CC *2	DD *2	Station number	AA	BB	Manifold structure *1	CC *2	DD *2
2	106	122	2 station x 1	105	121	7	329	345	5 station + 2 station	300	316
3	145	161	3 station x 1	144	160	8	368	384	5 station + 3 station	339	355
4	212	228	2 station x 2	183	199	9	435	451	3 station x 3	378	394
5	223	239	5 station x 1	222	238	10	446	462	5 station x 2	417	433
6	290	306	3 station x 2	261	277						

*1: Manifold is based on 2, 3 or 5 stations, and other stations are made with combining these basic stations.

*2: Aluminum sub-plate is integrated type but not connected type.

*3: Consult with CKD if the station number is larger than eleven.

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/ADK

For dry air

Explosion proof

HVB/HVL

HVB/HVL

SAB/SVB

SAB/SVB

NP/NAP/NVP

CHB/G

MXB/G

Other G.P. systems

PD/FAD/PJ

CVB/CVSE

CVB/CVSE

CPE/CPD

CPE/CPD

Medical analysis

Medical analysis

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

Custom order

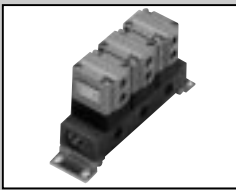
Custom order

Custom order

Custom order

Custom order

Air operated 2 port valve
(Compact cylinder valve)



Air operated 2 port valve, manifold
(Compact cylinder valve)

GNAB*V Series

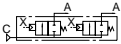
- NC (normally closed) type, NO (normally open) type, double acting type
- Port size: Rc1/4, Rc3/8
- Working fluid: Low vacuum



JIS symbol

- Common supply type (port C pressurization)

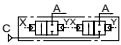
NC (normally closed) type



NO (normally open) type

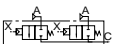


Double acting type



- Individual supply type (port A pressurization)

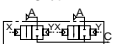
NC (normally closed) type



NO (normally open) type



Double acting type



Specifications

Descriptions	GNAB1V-1/5	GNAB2V-1/5	GNAB3V-1/5
Actuation	NC (normally closed) type	NO (normally open) type	Double acting type
Working fluid	Low vacuum (air or water) (*1)		
Fluid viscosity mm ² /s	500 or less		
Working pressure range Pa (abs)	1.3 x 10 ² to 7 x 10 ⁵		
Withstanding pressure (water) MPa	1.4		
Fluid temperature °C	-10 to 60 (no freezing) (*2)		
Ambient temperature	-10 to 60		
Valve seat leakage Pa·ml/s He	1.33 x 10 ⁻³ or less		
Orifice mm	7		
C [dm ³ /(s·bar)]	3.8		
b	0.3		
Mounting attitude	Free		
Pilot air pressure MPa	0.25 to 0.7		(*3)
Pilot port size	Rc1/8		

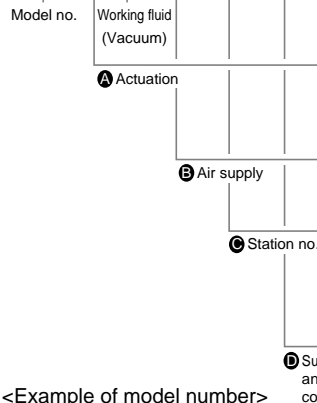
*1: Refer to working fluid check list (intro 36).

*2: This applies to both sealant, nitrile and fluoro rubbers.

*3: Refer to page 442 for the pilot air pressure of NO type or double acting type.

*4: Effective sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

How to order



<Example of model number>

GNAB1V-1-5-1

Model: GNAB

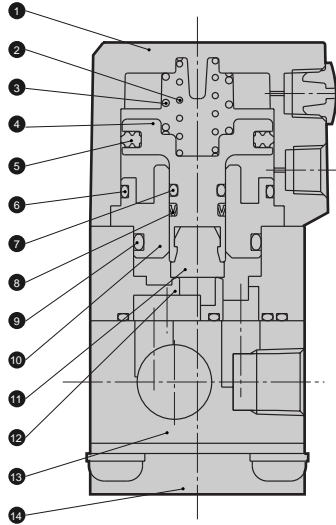
- Actuation : NC (normally closed) type
- Air supply : Port A, vacuum pump side
- Station no. : 5 station
- Sub-plate and sealant combination

: Sub-plate - aluminum/body - polypropylene/sealant - nitrile rubber

Symbol	Descriptions				
A Actuation					
1	NC (normally closed) type				
2	NO (normally open) type				
3	Double acting type				
B Air supply					
1	Port A, vacuum pump side				
5	Port C, vacuum pump side				
C Station no.					
2 to 10	2 station to 10 station				
0	Only actuator				
D Sub-plate, body and sealant combination					
Blank	Sealant	Sub-plate	Body	Sealant	Remarks
B		Brass	Polypropylene	Nitrile rubber	Water or vacuum
D	Option	Stainless steel	Stainless steel	Nitrile rubber	Solvent or vacuum
E		Stainless steel	Stainless steel	Fluoro rubber	
1		Aluminum	Polypropylene	Nitrile rubber	Air or vacuum
2		Aluminum	Polypropylene	Fluoro rubber	vacuum

Internal structure and parts list

● GNAB1V



Drawing indicates GNAB1V-1.

No.	Parts name	Material	No.	Parts name	Material
1	Cylinder guard	ADC12 / Aluminum alloy die-casting	8	MY packing seal	NBR (FKM) / Nitrile rubber (fluoro rubber)
2	Spring	SWP / Piano wire	9	O ring	NBR (FKM) / Nitrile rubber (fluoro rubber)
3			10	Adaptor	C3604 (SUS303) / Brass (stainless steel)
4	Piston	PPS / Polyphenylene sulfide	11	Valving element	NBR (FKM) / Nitrile rubber (fluoro rubber)
5	PSD packing seal	NBR / Nitrile rubber	12	Body	PP (SUS303) / Polypropylene (stainless steel)
6	O ring	NBR / Nitrile rubber	13	Sub-plate	C3604 (SUS303 / A6063) / Brass (stainless steel and aluminum)
7	O ring	NBR (FKM) / Nitrile rubber (fluoro rubber)	14	Mounting plate	SPC / Steel

The material in parentheses is for option.

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/ADK

For dry air

Explosion proof

HVB/HVL

SAB/SVB

NP/NAP/NVP

CHB/G

MXB/G

Other G.P. systems

PD/FAD/PJ


CVE/CVSE

CPE/CPD

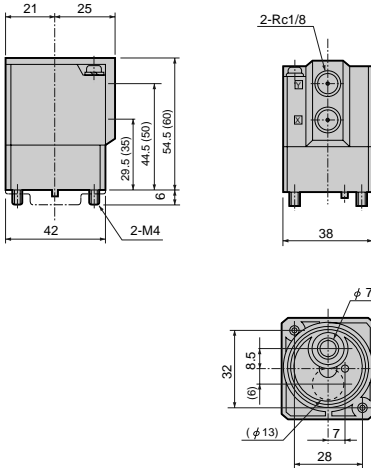
Medical analysis

Custom order

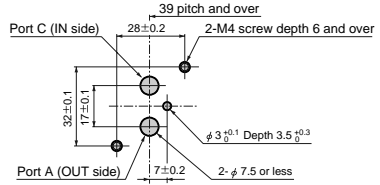
Air operated 2 port valve
(Compact cylinder valve)

Dimensions: actuator  (Page 496)

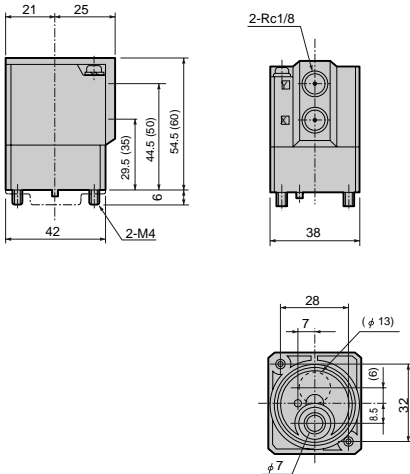
● Port A vacuum pump side
GNAB*V-1-0



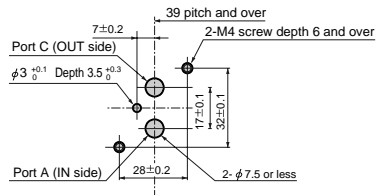
● How to mount actuator



● Port C vacuum pump side
GNAB*V-5-0



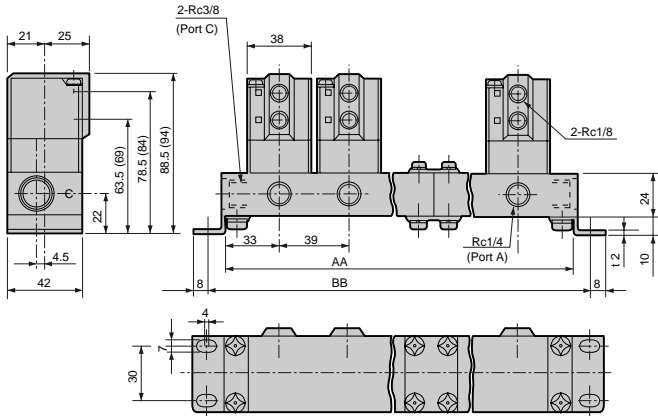
● Actuator installation method



Note 1: Dimensions shown in parentheses indicates the dimensions when stainless steel option is selected.
 Note 2: To protect the product, the product is delivered after assembling the plate on the bottom. Remove this plate before starting use.

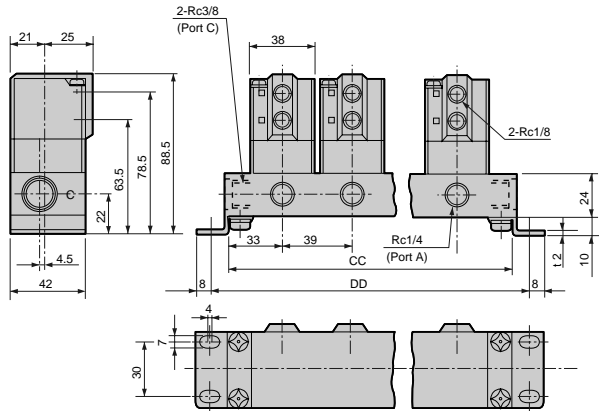
Dimensions: manifold  (Page 496)

- GNAB*V- $\frac{1}{5}$ - [2 to 10] (brass sub-plate)
(Stainless steel sub-plate)



Dimensions shown in parentheses are for stainless steel sub-plate.

- GNAB*V- $\frac{1}{5}$ - [2 to 10] (aluminum sub-plate)



Station number	AA	BB	Manifold structure *1	CC *2	DD *2	Station number	AA	BB	Manifold structure *1	CC *2	DD *2
2	106	122	2 station x 1	105	121	7	329	345	5 station + 2 station	300	316
3	145	161	3 station x 1	144	160	8	368	384	5 station + 3 station	339	355
4	212	228	2 station x 2	183	199	9	435	451	3 station x 3	378	394
5	223	239	5 station x 1	222	238	10	446	462	5 station x 2	417	433
6	290	306	3 station x 2	261	277						

*1: Manifold is based on 2, 3 or 5 stations, and other stations are made with combining these basic stations.

*2: Aluminum sub-plate is integrated type but not connected type.

*3: Consult with CKD if the station number is larger than eleven.

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/ADK

For dry air

Explosion proof

HVB/HVL

HVB/HVL

SAB/SVB

NP/NAP/NVP

CHB/G

MXB/G

Other G.P. systems

PD/FAD/PJ

CVE/CVSE

CPE/CPD

Medical analysis

Custom order

Custom order

Air operated 2 port valve

(Compact cylinder valve)