



General Purpose Valves  
Catalog No. CB-03-1SA

Air operated 2-port valve, single unit  
(Compact cylinder valve)

# NAB\*/NAB\*V Series

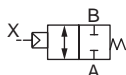
- NC (Normally Closed), NO (Normally Open), double acting
- Port size: Rc1/4, Rc3/8
- Working fluids: Air, gas, low vacuum



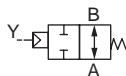
## JIS symbol

### ● NAB\* (\*1)

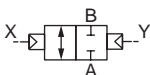
NC (Normally Closed)



NO (Normally Open)



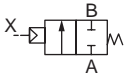
Double acting



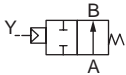
\*1: If port B is normally pressurized, be sure to read the individual precautions in "General Purpose Valves (No. CB-03-1SA)".

### ● NAB\*V

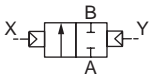
NC (Normally Closed)



NO (Normally Open)



Double acting



## Specifications

Item	NAB*			NAB*V		
	NAB1	NAB2	NAB3	NAB1V	NAB2V	NAB3V
Actuation	NC (Normally Closed)	NO (Normally Open)	Double acting	NC (Normally Closed)	NO (Normally Open)	Double acting
Working fluid	Air, gas (*2)			Low vacuum (air) (*2)		
Fluid viscosity mm <sup>2</sup> /s	500 or less					
Working pressure	0 to 0.7 MPa			1.3 x 10 <sup>2</sup> to 7 x 10 <sup>5</sup> Pa (abs)		
Proof pressure (water pressure) MPa	1.4					
Fluid temperature °C	-10 to 60 (no freezing)					
Ambient temperature °C	-10 to 60					
Valve seat leakage	0.12cm <sup>3</sup> /min or less (pneumatic pressure)			1.33 x 10 <sup>-3</sup> Pa·m <sup>3</sup> /sHe or less		
Port size	Rc1/4, Rc3/8					
Orifice size mm	7					
Cv	1.2					
C [dm <sup>3</sup> /(s·bar)]	5.2 (*3)					
b	0.3					
Weight kg	0.28 (depends on type)					
Mounting orientation	Unrestricted					
Pilot fluid	Air					
Pilot pressure MPa	0.25 to 0.7	Refer to the descriptions below.		0.25 to 0.7	Refer to the descriptions below.	
Pilot port size	Rc1/8					

\*2: Refer to the working fluid check list in the General Purpose Valves (No. CB-03-1SA).

\*3: Effective cross-sectional area S and sonic conductance C are converted as  $S \approx 5.0 \times C$ .

## Compatibility table by variation

	NAB
Port size	Rc1/4, 3/8
P4	●

●: Applicable models ○: Semi-applicable models ▲: Contact CKD for details. □: Not applicable

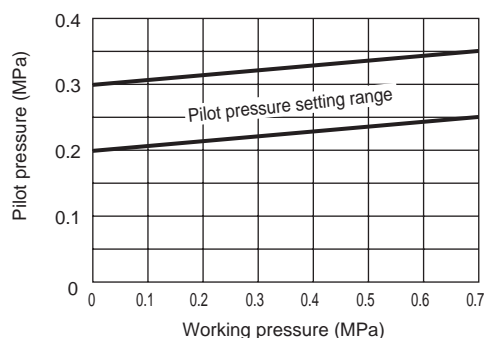
## ■ Pilot pressure

Set pilot air pressure within the specified range.

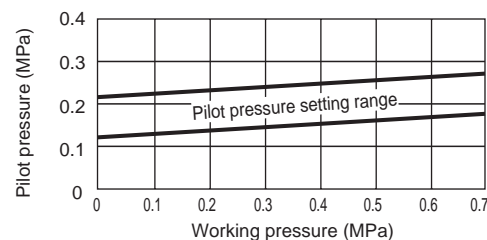
Set the pilot pressure for the NAB/GNAB Series NO and double acting as shown in the graph below. If the product is used with a pressure below the range shown in the graph, sealant failure may occur; if the product is used with a pressure above the range shown in the graph, durability may be compromised.

The NC is recommended when the pilot pressure cannot be controlled.

### ● NAB<sub>2V</sub> Series/GNAB<sub>2V</sub> Series



### ● NAB<sub>3V</sub> Series/GNAB<sub>3V</sub> Series



### How to order

**NAB 1 V - 8 - E B - P4**

Model No.

**A** Actuation

**B** Working fluid

**C** Port size

**D** Cylinder cover/body/sealant combination

**E** Other options

Code	Description
<b>A Actuation</b>	
<b>1</b>	NC (Normally Closed)
<b>2</b>	NO (Normally Open)
<b>3</b>	Double acting
<b>B Working fluid</b>	
<b>Blank</b>	General purpose (air/gas)
<b>V</b>	Low vacuum (air)
<b>C Port size</b>	
<b>8</b>	Rc1/4
<b>10</b>	Rc3/8
<b>D Cylinder cover/body/sealant combination</b>	
	<b>Cylinder guard</b> <b>Body</b> <b>Seal</b>
<b>E</b>	Aluminum die-casting Stainless steel Fluoro rubber
<b>E Other options</b>	
<b>Blank</b>	No option
<b>B</b>	Mounting plate

[Example of model No.]

**NAB1V-8-EB-P4**

Model: NAB

- A** Actuation : NC (Normally Closed)
- B** Working fluid : Low vacuum (air)
- C** Port size : Rc1/4
- D** Cylinder cover/body/sealant combination
  - : Cylinder cover - aluminum die-casting
  - Body - stainless steel
  - Sealant - fluoro rubber
- E** Other options : Mounting plate

**P4**  
Series

Pneumatic actuator  
Pneumatic cylinders  
Hand/Chuck  
Related products  
Cylinder Switch

Vacuum components  
Pneumatic valves

Pneumatic auxiliary components  
Clean air components  
Speed controller  
Fitting  
Auxiliary valve  
Silencer  
Tube

Gas generator

Fluid control components

Electric actuator  
Motor specification  
Motorless specifications



General Purpose Valves  
Catalog No. CB-03-1SA

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

# GNAB\*/GNAB\*V Series

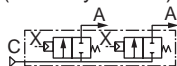
- NC (Normally Closed), NO (Normally Open), double acting
- Port size: Rc1/4, Rc3/8
- Working fluids: Air, gas, low vacuum



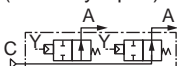
## JIS symbol

- Common supply  
(port C pressurization, port A vacuum pump side)

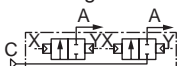
### NC (Normally Closed)



### NO (Normally Open)

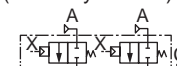


### Double acting

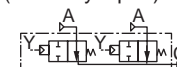


- Individual supply  
(port A pressurization, port C vacuum pump side)

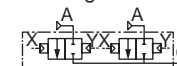
### NC (Normally Closed)



### NO (Normally Open)



### Double acting



## Specifications

Item	GNAB*			GNAB*V		
	GNAB1	GNAB2	GNAB3	GNAB1V	GNAB2V	GNAB3V
Actuation	NC (Normally Closed)	NO (Normally Open)	Double acting	NC (Normally Closed)	NO (Normally Open)	Double acting
Working fluid	Air, gas (*1)			Low vacuum (air) (*1)		
Fluid viscosity mm <sup>2</sup> /s	500 or less					
Working pressure	0 to 0.7 MPa			1.3 x 10 <sup>2</sup> to 7 x 10 <sup>5</sup> Pa (abs)		
Proof pressureForce(water pressure)MPa	1.4					
Fluid temperature °C	-10 to 60 (no freezing)					
Ambient temperature °C	-10 to 60					
Valve seat leakage	0.12cm <sup>3</sup> /min or less (pneumatic pressure)			1.33 x 10 <sup>-3</sup> Pa·m <sup>3</sup> /sHe or less		
Orifice size mm	7					
Cv	1.0					
C [dm <sup>3</sup> /(s·bar)]	3.8 (*2)					
b	0.3					
Mounting orientation	Unrestricted					
Pilot fluid	Air					
Pilot pressure MPa	0.25 to 0.7	Refer to the descriptions below.		0.25 to 0.7	Refer to the descriptions below.	
Pilot port size	Rc1/8					

\*1: Refer to the working fluid check list in the General Purpose Valves (No. CB-03-1SA).

\*2: Effective cross-sectional area S and sonic conductance C are converted as  $S \approx 5.0 \times C$ .

## Compatibility table by variation

	GNAB
Port size	Rc1/4, 3/8
P4	●

●: Applicable models ○: Semi-applicable models ▲: Contact CKD for details. □: Not applicable

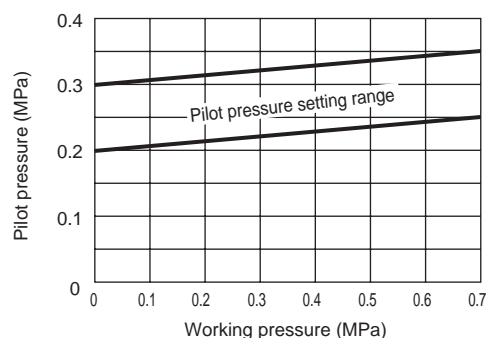
## ■ Pilot pressure

Set pilot air pressure within the specified range.

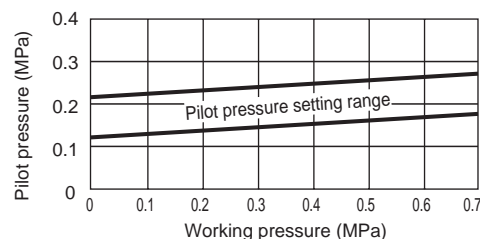
Set the pilot pressure for the NAB/GNAB Series NO and double acting as shown in the graph below. If the product is used with a pressure below the range shown in the graph, sealant failure may occur; if the product is used with a pressure above the range shown in the graph, durability may be compromised.

The NC is recommended when the pilot pressure cannot be controlled.

### ● NAB<sub>2V</sub> Series/GNAB<sub>2V</sub> Series



### ● NAB<sub>3V</sub> Series/GNAB<sub>3V</sub> Series



### How to order

**GNAB 2 V - 1 - 2 - 7 - P4**

Model No.

**A** Actuation

**B** Working fluid

**C** Air supply category

**D** Manifold station No.

**E** Cylinder cover/sub-plate/body/sealant combination

Code	Description																			
A Actuation																				
1	NC (Normally Closed)																			
2	NO (Normally Open)																			
3	Double acting																			
B Working fluid																				
Blank	General purpose (air/gas)																			
V	Low vacuum (air)																			
C Air supply category																				
1	Common supply (port C pressurization), port A vacuum pump side																			
5	Individual supply (port A pressurization), port C vacuum pump side																			
D Manifold station No.																				
2 to 10	2 to 10 stations																			
0	Actuator only																			
E Cylinder cover/sub-plate/body/sealant combination																				
	<table><tr><th>Cylinder guard</th><th>Sub-plate</th><th>Body</th><th>Seal</th></tr><tr><td>7</td><td>Aluminum die-casting</td><td>Stainless steel</td><td>Polypropylene</td><td>Fluoro rubber</td></tr><tr><td>E</td><td>Aluminum die-casting</td><td>Stainless steel</td><td>Stainless steel</td><td>Fluoro rubber</td></tr><tr><td>2</td><td>Aluminum die-casting</td><td>Aluminum</td><td>Polypropylene</td><td>Fluoro rubber</td></tr></table>	Cylinder guard	Sub-plate	Body	Seal	7	Aluminum die-casting	Stainless steel	Polypropylene	Fluoro rubber	E	Aluminum die-casting	Stainless steel	Stainless steel	Fluoro rubber	2	Aluminum die-casting	Aluminum	Polypropylene	Fluoro rubber
Cylinder guard	Sub-plate	Body	Seal																	
7	Aluminum die-casting	Stainless steel	Polypropylene	Fluoro rubber																
E	Aluminum die-casting	Stainless steel	Stainless steel	Fluoro rubber																
2	Aluminum die-casting	Aluminum	Polypropylene	Fluoro rubber																

[Example of model No.]

**GNAB2V-1-2-7-P4**

Model name: GNAB

- A** Actuation : NO (Normally Open)
- B** Working fluid : Low vacuum (air)
- C** Air supply : Port A vacuum pump side
- D** Manifold station No. : 2 stations
- E** Cylinder cover/sub-plate/body/sealant combination : Cylinder cover - aluminum die-casting  
Sub-plate - stainless steel  
Body - polypropylene  
Sealant - fluoro rubber

**P4**  
Series

Pneumatic actuator  
Pneumatic cylinders  
Hand/Chuck  
Related products  
Cylinder Switch

Vacuum components

Pneumatic valves

Pneumatic auxiliary components  
Clean air components  
Speed controller  
Fitting  
Auxiliary valve  
Silencer  
Tube

Gas generator

Fluid control components

Electric actuator  
Motor specification  
Motorless specifications