

Pilot Operated 3, 5-port Valve 4GB*R Series

Residual pressure exhaust option added



4G with integrated exhaust mechanism



New

PATENT
No.5985436

Features

- › Residual pressure in the AB port can be manually discharged without reducing source pressure.
- › Integrated safety prevents cover from closing during manual operation.
- › The exhaust valve is not required during piping.



Manually discharge residual pressure



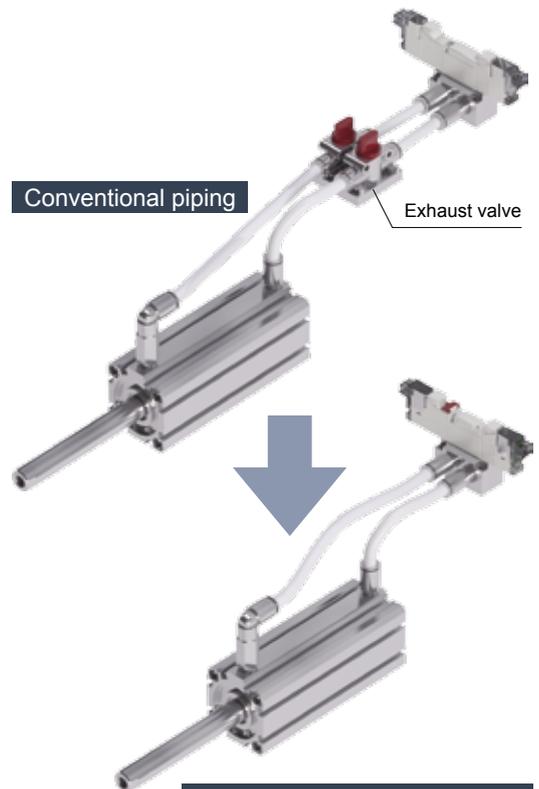
Safe design that prevents the protective cover from closing during operation

Piping comparison

Reduced part material

Reduced workload

Space saving



Conventional piping

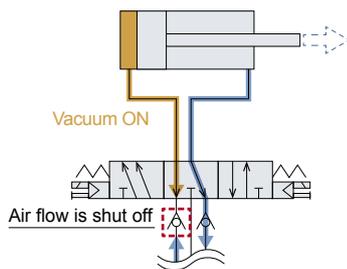
Exhaust valve

Valve application with exhaust

Applications

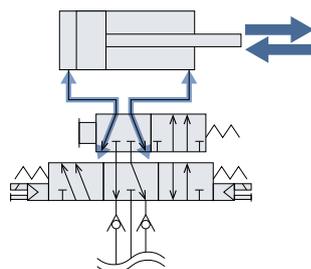
- › Residual pressure release of center closed position of a 3-position valve to relieve pressure in an emergency stop.
- › Rod transfer after intermediate cylinder stop for 3-position APR connection (with malfunction prevention valve)

When release valve is not used



The malfunction prevention valve shuts off air flow. The cylinder rod cannot be adjusted.

When release valve is used



Center closed residual pressure relieved to atmosphere when pressure discharger activated, allowing cylinder rod to be adjusted.

4G with residual pressure exhaust option

Valve specifications

Common specifications

Descriptions	Content
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	Non-locking/locking common (standard)
Pilot exhaust method	Main valve/pilot valve common exhaust
Lubrication *1	Not required
Degree of protection *2	Dust-proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environments

*1. Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.

*2. Avoid water drops or oil, etc., during use. IP65 (jet-proof) applies for DIN terminal box specifications. However, the specified outer diameter of the cord and tightening torque must be used for fixing in place.

How to order

- Single valve

4GB1 **3** **0R** - **06** - **E2** **X** ——— **3**

- Discrete valve for mounting base

4GB1 **3** **9R** - **00** - **E0** **X1** ——— **3**

- Manifold model No.

M4GB1 **4** **0R** - **C4** - **E2** **X1** - **10** - **3**

- Block manifold model No.

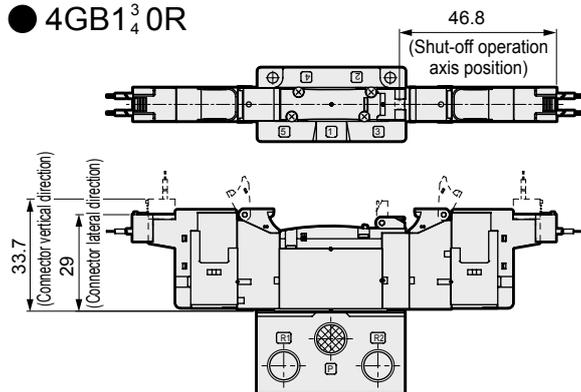
MN4GB1 **4** **0R** - **C4** - **E2** **X1** - **10** - **3**

A Model No. **B** Solenoid position **C** Port size **D** Electrical connections **E** Option **F** Station No. **G** Voltage

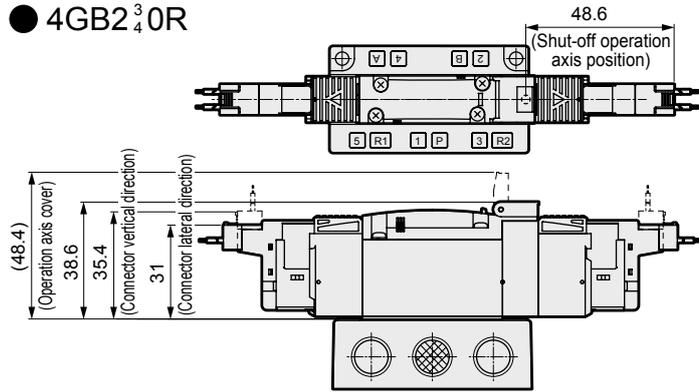
Pressure sensor (G1, G2) and shut-off structure (X, X1) cannot be selected simultaneously. Exhaust structure is only compatible with 4GB1 and 4GB2 valve positions 3 and 4.

Dimensions

● 4GB1³/₄0R



● 4GB2³/₄0R



If the goods and/or their replicas, the technology and/or software found in this catalog are to be exported, law requires that the exporter makes sure that they will never be used for the development and/or manufacture of weapons for mass destruction.

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● Specifications are subject to change without notice.

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Electrical specifications

Descriptions		Descriptions					
Rated voltage	V	DC24	DC12	DC5	DC3	AC100	AC200
Voltage fluctuation range		±10%					
Holding current A	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	With low exoergic/energy circuit (*3)	0.005	0.010	-	-	-	-
Power consumption W (*3)	Standard	0.35 (0.40)		0.35 (0.40)		-	
	With low exoergic/energy circuit	0.1		-		-	
Apparent power VA (*3,*4)	Standard	-		-		0.93 (0.98)	1.40
Thermal class		B					
Surge suppressor		Option					
Indicator		Lamp (option)					

*3. Values in () apply when light is included. In addition, the type with low exoergic/energy circuit is only available with light.

*4. 200 VAC is the value of the DIN terminal box (with light).

* Listed model No.

This catalog only lists the model No. of the newly-added shut-off structure (X*). For details of the 4GB/M4GB/MN4GB Series (specifications, model Nos., etc.), refer to "Pneumatic Valves" (catalog No. CB-023SA).

		A Model No.	
Code	Content	4GB1	4GB2
E Option			
X	Non-locking exhaust construct	●	●
X1	Locking exhaust construct	●	●