



Manual Valve for Process Gas

OGD□0R Series

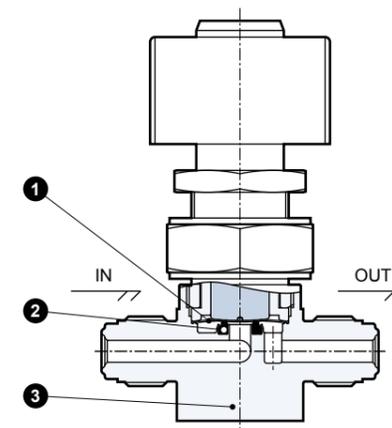
- Metal Diaphragm
- 90° Turn Snap-Action Type



OGD□0R Series

Internal Structure Diagram, Materials, and External Dimensions

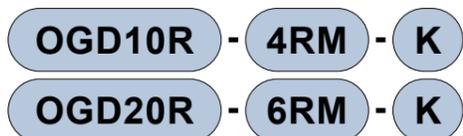
Internal Structure Diagram and Materials



Gas-wetted Materials

Part No.	Part Name	Material
1	Diaphragm	Ni-Co Alloy
2	Valve Seat	PCTFE
3	Body	SUS316L

Model No. Notation Method



- 1 Model No.
- 2 Connection Method
- 3 Handle Color

2 Connection Method

Code		Content	OGD10R	OGD20R
4RM		JXR MALE FITTING	●	
4R	1/4"	JXR FEMALE FITTING	●	
4S		DOUBLE FERRULE FITTING	●	
6RM		JXR MALE FITTING		●
6R	3/8"	JXR FEMALE FITTING		●
6S		DOUBLE FERRULE FITTING		●

Note) JXR fitting can be connected to VCR fitting.

1 Model No.

Code	Content
OGD10R	
OGD20R	

3 Handle Color

Code	Content
K	Black
R	Red
B	Blue
Y	Yellow

Specifications

Item	OGD10R	OGD20R
Applicable Fluid	Inert gas / Process gas	
Operating Pressure Pa (abs) - MPa (G)	1.3x10 ⁻⁶ to 0.99	
Fluid Temperature °C	5 to 80	
Operating Ambient Temperature °C	5 to 80	
Storage Ambient Temperature °C	-10 to 80	
Valve Seat Leakage Pa·m ³ /s (He)	1.0x10 ⁻¹⁰ or less	
Valve Seat Leakage Pa·m ³ /s (He)	2.8x10 ⁻¹² or less	
Cv Value (at 23°C, under pressure)	0.3	0.65
Connection Method	1/4" JXR Male Fitting 1/4" JXR Female Fitting 1/4" Double Ferrule Fitting	3/8" JXR Male Fitting 3/8" JXR Female Fitting 3/8" Double Ferrule Fitting
Weight kg	0.29 *1	0.67 *1
Durability	Proven 60,000 cycles *2	

*1: Values for OGD10R-4RM (1/4" JXR male fitting) and OGD20R-6RM (3/8" JXR male fitting).

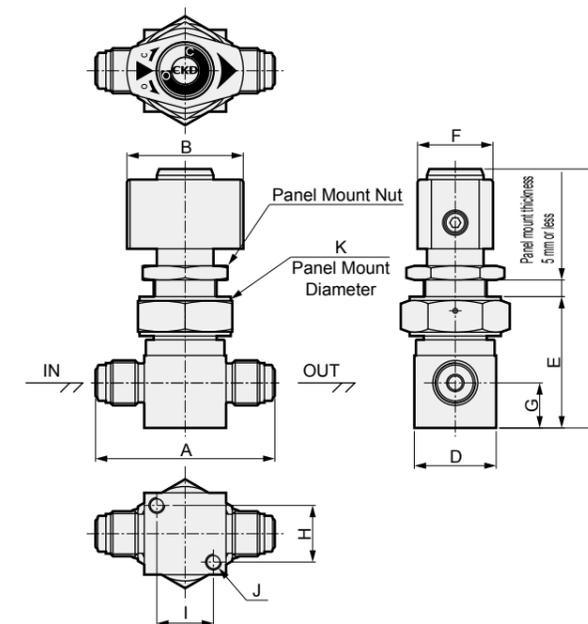
*2: Service life when the applicable fluid is an inert gas within the specifications and does not contain solid matter such as reaction products.

External Dimensions

OGD10R-4RM-□

OGD20R-6RM-□

- JXR Male Fitting



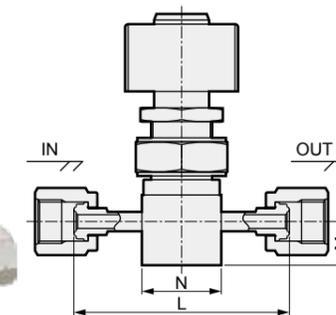
Model No.	A	B	C	D	E	F	G	H	I	J	K
OGD10R-4RM-□	57	37	82	□26	42	24	14.3	18	18	2-M5 Depth 6	ø20.5
OGD20R-6RM-□	76	47	104	□34	57	28	16	20.2	20.2	2-M5 Depth 8	ø26.5

Note) The panel mount nut is not included with the standard product. Products with a panel mount nut are special-order items.

OGD10R-4R-□

OGD20R-6R-□

- JXR Female Fitting

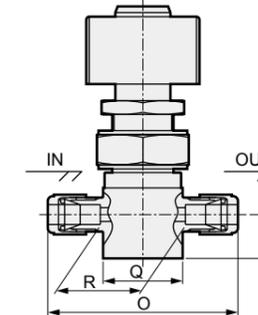


Model No.	L	M	N
OGD10R-4R-□	70.6	14.3	□26
OGD20R-6R-□	83	16	□34

OGD10R-4S-□

OGD20R-6S-□

- Double Ferrule Fitting



Model No.	O	P	Q	R
OGD10R-4S-□	62	14.3	□26	27.8
OGD20R-6S-□	80	16	□34	44.3

Optional Products

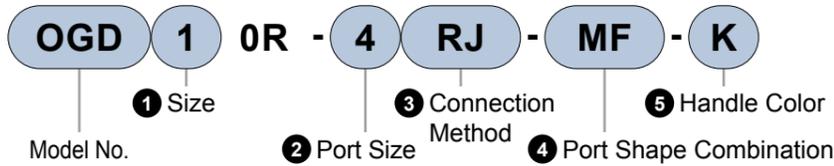
OGD□0R Series



Special Specifications

Model	Option Details
OGD□0R	Body option (29P. to32). ●Connection Method ●Port Shape Combination ●Handle Color
	Safety specification options (33Page) ●With Locking Mechanism

Model No. Notation Method



1 Size

Code	Content
1	1/4"
2	3/8"

2 Port Size

Code	Content	OGD1	OGD2
4	1/4"	●	
6	3/8"		●
8	1/2"		●

4 Port Shape Combination: Refer to the options compatibility table.

Content	Code
2-Port Valve	IN, OUT Same fitting type: Blank IN: Male OUT: Female: MF IN: Female OUT: Male: FM
3-Port Diverter Valve	abc Female-Female-Female: FFF abc Female-Female-Male: FFM abc Female-Male-Male: FMM abc Male-Male-Male: MMM abc Automatic Weld Fitting: WWW abc □/□/□ (*1): □□□

*1: Select the following codes for □. F: Female, M: Male, W: Fittings Automatic welding Free combination

3 4 Options Compatibility Table

Port Shape Combination	3 Connection Method				
	Code	RJ	R	RM	W
Blank	●	●	●	●	●
MF	●	●			
FM	●	●			
FFF	●	●			
FFM	●	●			
FMM	●	●			
MMM			●		
WWW				●	
□□□	●	●	●	●	●

3 Connection Method

Refer to the options compatibility table.

Code	Content
RJ	JXR Female Fitting (with bearing)
R	JXR Female Fitting
RM	JXR Male Fitting
W	Automatic Weld Fitting
S	Double Ferrule Fitting

5 Handle Color

Code	Content
K	Black
B	Blue
Y	Yellow
R	Red

External Dimensions

OGD10R 2-Port Valve

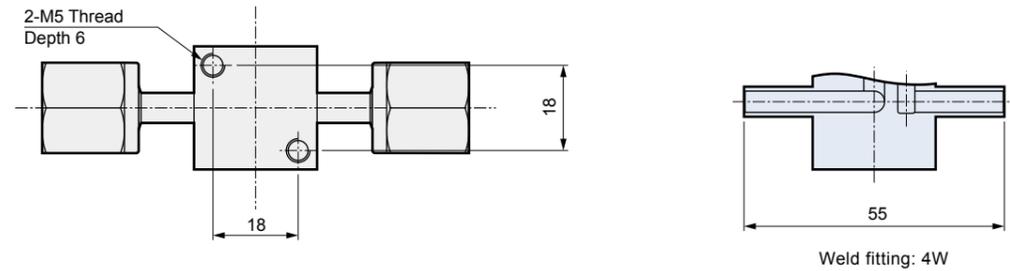
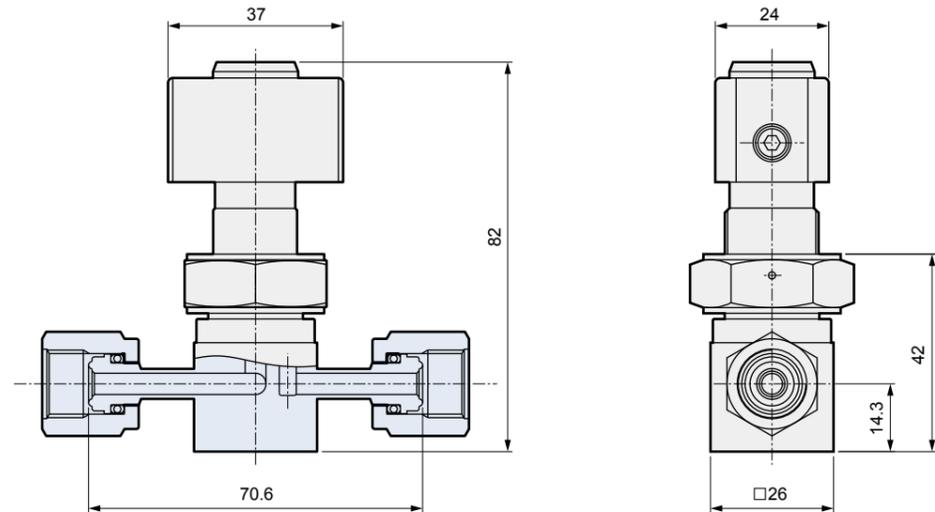
Special Specifications

External Dimensions

OGD10R-4RJ-K (B, Y, R) (1/4" JXR Female Fitting (with bearing) Type)

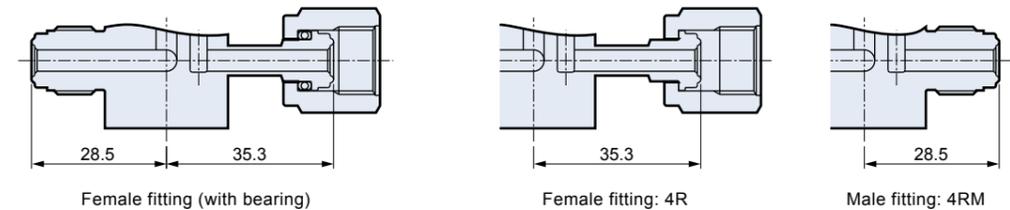
OGD10R-4W-K (B, Y, R) (1/4" Automatic Weld Fitting Type)

Diagram shows OGD10R-4RJ-K Female fitting (with bearing)



OGD10R-4RJ-□□-K (B, Y, R) (1/4" JXR Female (with bearing) - Male Combination Type)

OGD10R-4R-□□-K (B, Y, R) (1/4" JXR Female - Male Combination Type)



OGD10R 3-Port Diverter Valve **Special Specifications**

External Dimensions

- OGD10R-4RJ-□□□-K (B, Y, R) (1/4" JXR Female Fitting (with bearing) Combination Type)
- OGD10R-4R-□□□-K (B, Y, R) (1/4" JXR Female Fitting Combination Type)
- OGD10R-4RM-MMM-K (B, Y, R) (1/4" JXR Male Fitting Type)
- OGD10R-4W-□□□-K (B, Y, R) (1/4" Automatic Weld Fitting Combination Type)

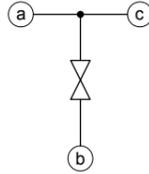
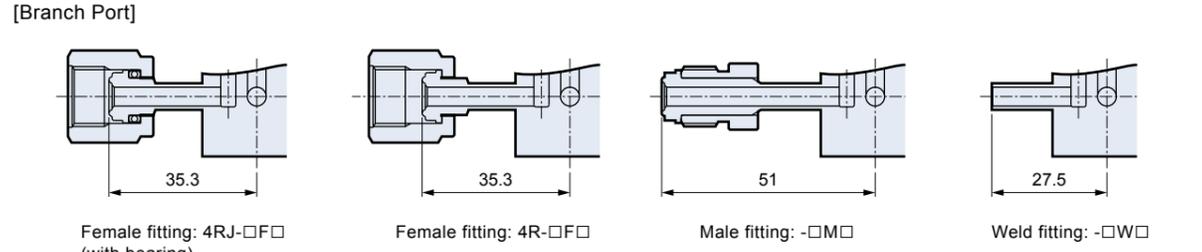
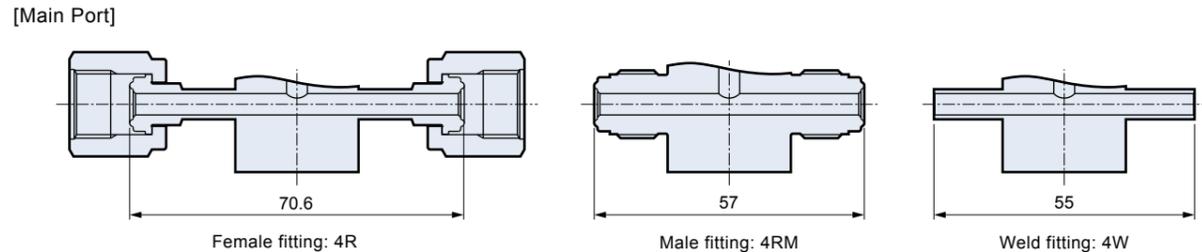
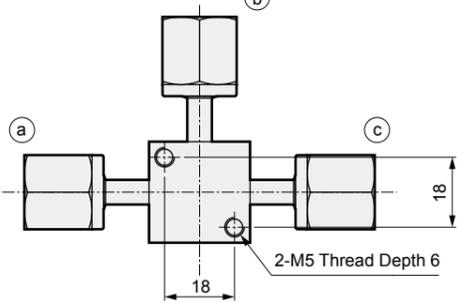
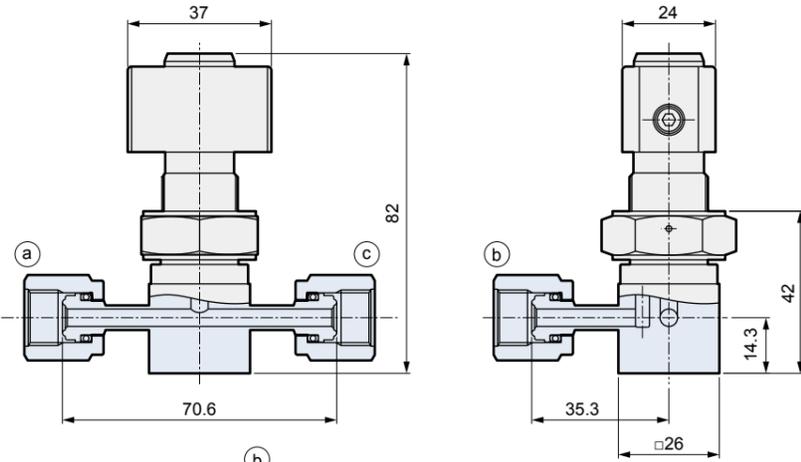


Diagram shows OGD10R-4RJ-FFF-K
Female fitting (with bearing)



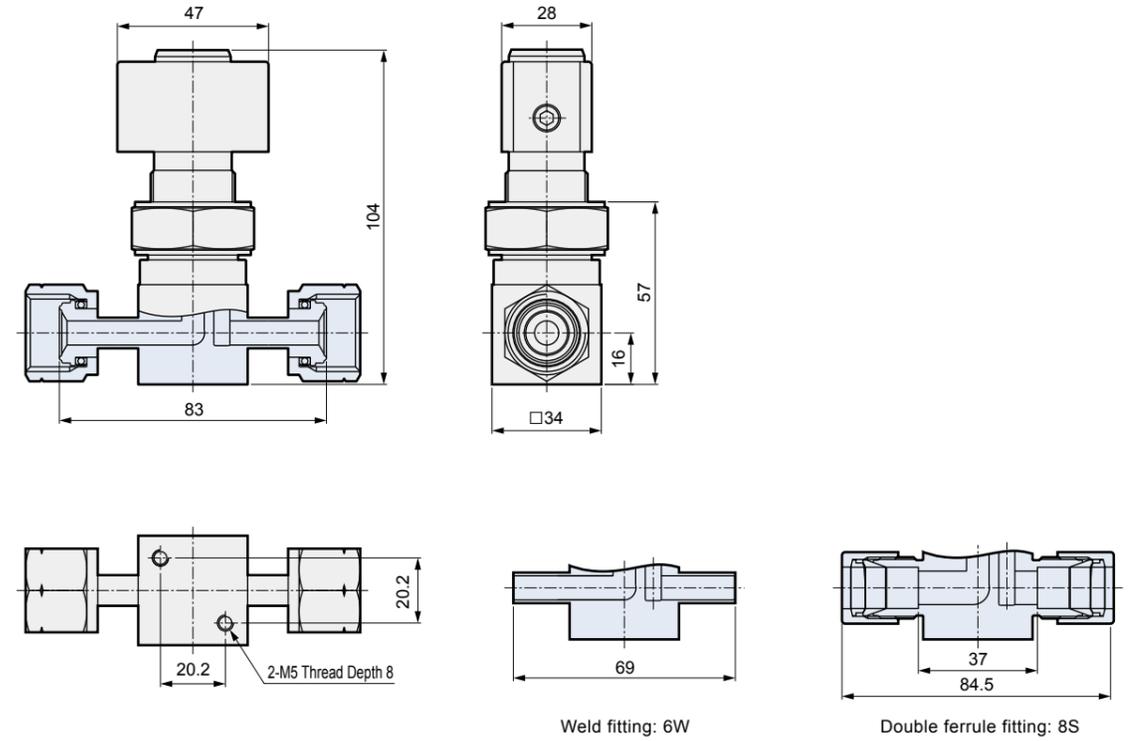
OGD20R 2-Port Valve **Special Specifications**

External Dimensions

- OGD20R-6RJ-K (B, Y, R) (3/8" JXR Female Fitting (with bearing) Type)
- OGD20R-6W-K (B, Y, R) (3/8" Automatic Weld Fitting Type)

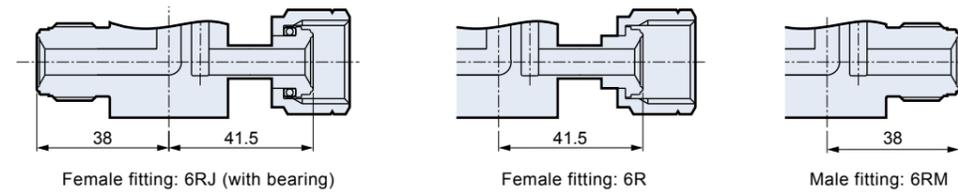
• 1/2" size also available. The face-to-face dimension is the same as the 3/8" size. (Double ferrule fittings are different)

Diagram shows OGD20R-6RJ-K
Female fitting (with bearing)



- OGD20R-6RJ-□□□-K (B, Y, R) (3/8" JXR Female (with bearing) - Male Combination Type)
- OGD20R-6R-□□□-K (B, Y, R) (3/8" JXR Female - Male Combination Type)

• 1/2" size also available. The face-to-face dimension is the same as the 3/8" size.



OGD20R 3-Port Diverter Valve **Special Specifications**

External Dimensions

- OGD20R-6RJ-□□□ (3/8" JXR Female Fitting (with bearing) Combination Type)
- OGD20R-6R-□□□ (3/8" JXR Female Fitting Combination Type)
- OGD20R-6RM-MMM (3/8" JXR Male Fitting Type)
- OGD20R-6W-□□□ (3/8" Automatic Weld Fitting Combination Type)

• 1/2" size also available. The face-to-face dimension is the same as the 3/8" size.

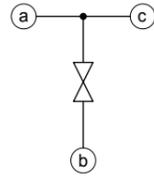
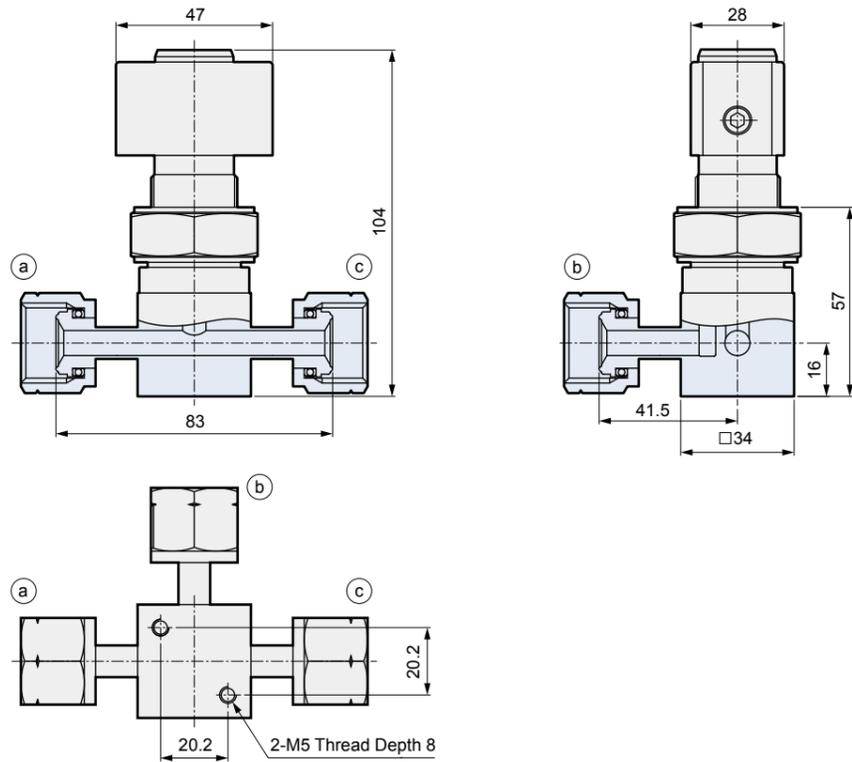
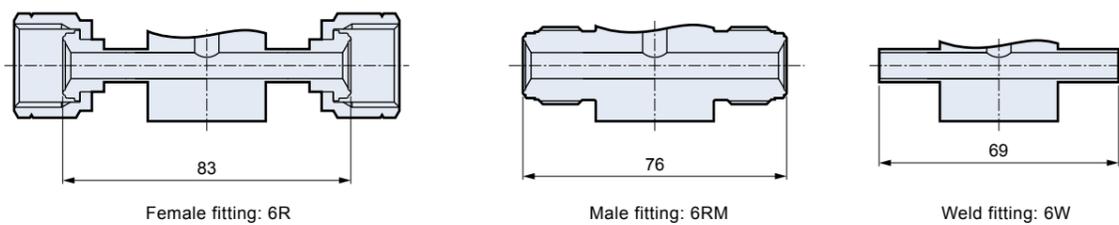


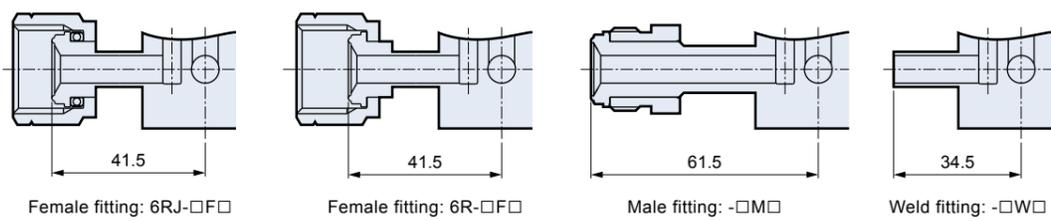
Diagram shows OGD20R-6RJ-FFF Female fitting (with bearing)



[Main Port]



[Branch Port]



Manual Valve Safety Specification Options **Special Specifications**

External View

OGD With Locking Mechanism



■ A key can also be included upon request.

*For details such as model numbers, please contact our sales representative.



To Use This Product Safely

Please be sure to read this before use.
For General Precautions refer to Intro 9.

Individual Precautions: Manual Valve for Process Gas, OGD Series

Design / Selection

1. Confirmation of Specifications

Warning

■ This product is not designed to function as a safety valve, such as an emergency shut-off valve. If such a function is required, please implement other reliable safety measures.

■ Incorrect equipment selection and handling can cause problems not only in this product, but also to your system. Product selection and handling should be performed after confirming the product specifications and their suitability for the customer's system, at the customer's own responsibility.

■ Check the compatibility between the gas contact part materials and working fluid before use.

■ Use within the specified fluid temperature and pressure range.

2. Ambient Environment

Caution

■ Do not use in atmospheres containing corrosive gases or in locations where substances that may affect the product such as chemicals, salt water, water or steam could make contact.

Use within the specified ambient temperature range.

3. Securing Space

Caution

■ Secure sufficient space for maintenance and inspection.

4. Piping

Warning

■ Foreign materials or burrs in the piping and piping work could damage the valve seat or diaphragm seal, and lead to leaks. Before installing the valve, be sure to remove any debris or burrs and take measures such as installing a primary side filter.

Caution

■ Make sure not to use the wrong connecting port when connecting the pipes to the product.

■ When piping, do not apply tension, compression, bending or other forces to the valve body from the piping.

■ If the tube for piping is bent, it will cause malfunctions; pipe with suitable tube lengths.

5. Purging

Caution

■ When removing valves using toxic, combustible or corrosive gases, purge with an inert gas such as nitrogen gas before removal.

6. During Use

Warning

■ Do not touch heater-equipped products with hands or body. Direct contact may cause burns.

Caution

■ Do not use valves as a footing or place any heavy objects on top of the valves.

■ Store unused products in a location where they are not exposed to direct sunlight or high temperatures.

For cautions about mounting, installation, adjustment, use, and maintenance, refer to CKD components Product Site (<https://www.ckd.co.jp/kiki/jp/>) → "Model No." [Instruction Manuals](#)

AGD
OGD
MGD
LGD
High Durability
Other Gas Components
PGM
IAGD
AVB
MVB
IAVB
Ending

AGD
OGD
MGD
LGD
High Durability
Other Gas Components
Regulator
PGM
IAGD
AVB
MVB
IAVB
Ending