Read all instructions thoroughly

INSTRUCTIONS

Check Valve

形式 - KCV (Flare type、Taper thread type、Brazing type、Round flange type)

SAGInoMIYA

INTRODUCTION

Thank you for purchasing our KCV type check valve.
Please read the instruction manual carefully before use and use the product correctly.
After reading, be sure to keep it in a place where the user can access it at any time.

NOTE FOR SAFETY

⚠WARNING

- This valve is designed and manufactured for the purpose of controlling the refrigerant and air of stationary freezers, refrigerators, air-conditioners, etc. Do not use it for any other purpose.
- Cannot be used with toxic or flammable fluids.

⚠CAUTION

- Please use within the product specifications.
- Do not use in an environment where water is constantly dripping, underwater, or in a corrosive atmosphere. It may cause external leakage.
- Do not apply any excessive impact due to a drop or the like, nor any heavy load to the valve. It may cause malfunction or external leakage.
- Do not ride on the valve. It may cause malfunction or external leakage.
- If piping vibration is transmitted directly to the valve, bending stress will be applied, causing damage and external leakage. Securely fix the piping using clamps or other means.
- Do not apply impact pressure such as a liquid hammer. It may cause malfunction or external leakage.
- If the flow rate is significantly low or if there is fluid pulsation, a noise may occur.
- Do not disassemble. If disassembly is required, please contact us.

PRODUCT SPECIFICATIONS

Do not use the valve under conditions outside of its specifications. It may cause malfunction or damage.
Typical specifications are as follows. For others, please refer to the drawings or contact us.

- Max. working pressure : 2.94 MPa (KCV-****X)　3.53 MPa (KCV-****Y)
- Allowable fluid temperature : -40～+125℃
- Supported fluids : Fluorocarbon、Air、Oil、Other fluids that do not affect copper alloys

INSTALLATION METHOD

- Remove dust and foreign matter of the system piping. It may cause failure.
  Malfunctions, valve leakage, and erosion due to the above are not covered by the specifications.
- Install the valve so that the direction indication on the body and the direction of fluid flow are aligned.
  Reverse mounting may cause damage to peripheral equipment.
- The mounting postures are as follows. Other postures may cause malfunction.
  - Springless (without @) : Vertical posture with cover on top.
  - Spring loaded (with @1 & ****ADX) : 0° which is vertical posture with cover on top and to ±90°.

Flare type (KCV-****BX、BX@1、BY、BY@1)
Taper thread type (KCV-****GX、GX@1、GY、GY@1、AGX、AGX@1、AGY、AGY@1)

- Do not scratch the end face of the flare. It may cause external leakage.
- Tighten the screws securely. Appropriate tightening torques are as follows.

Appropriate tightening torque (JIS B 8607)

		Flare type					Taper thread type							
Size		1/4	3/8	1/2	5/8	3/4	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Torque	N·m	16	38	55	75	110	25	30	35	50	60	80	85	100
	(kgf·cm)	{160}	{380}	{550}	{750}	{1100}	{250}	{300}	{350}	{500}	{600}	{800}	{850}	{1000}

Brazing type (KCV-****ADX)

- Do not deform the joint. It may cause external leakage.
- So that the valve section is at 125℃ or less, wrap the center of the body with a wet rag, etc. for cool it and brazing in a short time.
- To prevent oxide scale that may cause valve leakage, fill the inside of the valve with inert gas (nitrogen gas, carbon dioxide gas, etc.) before brazing.
- Do not allow water to get inside.

Round flange type (KCV-****FX、FX@1、FY、FY@1)

- Tighten the flange bolts evenly so that there is no one-sided tightening.

OTHERS

Please refer to the latest version of the attached “CONSENT RELATED TO DISCLAIMERS” for matters related to the following.

- Confirmation of operation
- Restrictions of use
- Scope of warranty

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To Customers Using Saginomiya's Product

CONSENT RELATED TO DISCLAIMERS

We, SAGINOMIYA SEISAKUSHO, INC., (hereinafter referred to as "Saginomiya"), truly appreciate your choosing Saginomiya's product (hereinafter referred to as this "Product").
When this Product is used, this document as provided below shall be applicable except to the extent that there is anything to the contrary in any applicable estimate, agreement, catalogue, specification, etc.

● CONFIRMATION OF OPERATION

All customers using this Product (hereinafter referred to as "Customers") are requested to, after properly installing this Product, test the operation of this Product to confirm that all the systems in connection with this Product fully function.
In order to prevent the occurrence of bodily injury, fire accidents, serious damage, etc., in connection with the Customers' machinery or equipment due to improper installation of this Product, Saginomiya kindly requests the Customers to take the necessary safety measures by preparing safe designs such as a fail-safe design (*1) and a fire spread prevention design, as well as to make the proper adjustments for product reliability necessary for fault-tolerance (*2).

(*1) Fail-safe design: Design to ensure safety in the event of any mechanical failure
(*2) Fault-tolerance: Utilization of redundancy technology

Periodic Inspection of this Product
Be sure to confirm the proper operation of this Product and keep records of such operation at least once a year.

Saginomiya shall be held harmless and be indemnified by the Customers from any damages incurred due to the Customers failing to conduct the above operational procedures, provided, however, that, this shall not apply if the damages which the Customers incurred due to the defect of this Product caused by Saginomiya.

● RESTRICTIONS OF USE

This Product is designed and manufactured for the purpose of using them for cooling and heating and refrigerating appliances and air conditioning equipment or various industrial equipment, but is not designed and manufactured for the purpose of using this Product for any instrument or system related to human life or health purposes.
Therefore, the use of this Product in fields related to items (1) through (3) below is not intended whatsoever.
Saginomiya shall be held harmless and be indemnified from any and all damages incurred by use of this Product under item (3).

(1) In any field related to nuclear power and radiation;
(2) In any field related to space or seafloor equipment;
(3) In any equipment or device requiring a high degree of reliance on such equipment or device with respect to which it is reasonably foreseeable that failure or malfunction of the equipment or device would either directly or indirectly cause serious damage to human life, health or property;

Also, when using this Product under the fields related to items (1) through (10), (except for item (3), in relation to which this Product must never be used), please be sure to notify Saginomiya's contact desk in charge of sales and obtain Saginomiya's prior written approval for such use.

Saginomiya shall be held harmless and be indemnified from any and all damages incurred by use of this Product in relation to these fields if the Customers do not notify Saginomiya's contact desk and obtain Saginomiya's prior written approval.

(4) Heating, cooling and air conditioning equipment that uses flammable and/or toxic refrigerants, or various industrial equipment that uses flammable and/or toxic fluids;
(5) Transportation device (railroad, aviation, ship or vessel, vehicle equipment, etc.);
(6) Disaster-prevention or crime-prevention device;
(7) Facility or application directly related to medical equipment, burning appliances, electro thermal equipment, amusement rides and devices, facilities/applications associated directly with billing;
(8) Equipment requiring high reliance on supply systems such as electricity, gas, water, etc., in large-scale communication system, or in transportation or air traffic control system;
(9) Facilities that are to comply with regulations of governmental / public agencies or specific industries or
(10) Other machineries or equipment equivalent to those set forth in the above items (4) to (9) which require for high reliability and safety.

It is recommended to replace this Product within 5 to 10 years of delivery if no other duration of use is provided in the applicable specifications or instruction manual because the conditions and environment of use also have an impact on this Product.

● SCOPE OF WARRANTY

SAGINOMIYA WILL PROVIDE THE CUSTOMERS WITH REPLACEMENT OR REPAIRED THIS PRODUCT DELIVERED, FREE OF COST, ONLY WITHIN ONE YEAR OF DELIVERY TO THE CUSTOMER, IF FAILURE OCCURS IN THE CUSTOMERS' EQUIPMENT USING THIS PRODUCT DUE TO A DEFECT OF THIS PRODUCT; PROVIDED, HOWEVER, THAT IN ANY EVENT THE RATIO OF THE AMOUNT THAT SAGINOMIYA BEARS FOR THE DAMAGES INCURRED BY THE FAILURE OF THIS PRODUCT OR CUSTOMERS' EQUIPMENT SHALL NOT EXCEED THE PRICE OF THIS PRODUCT WE DELIVERED. IN ADDITION, SAGINOMIYA SHALL BE HELD HARMLESS AND BE INDEMNIFIED FROM ANY AND ALL DAMAGES INCURRED WHEN THE FAILURE OF THE CUSTOMERS' EQUIPMENT OCCURRED DUE TO ANY CAUSE SET FORTH BELOW.

(1) WHEN CAUSED BY INAPPROPRIATE HANDLING OR USE OF THIS PRODUCT BY THE CUSTOMERS (SUCH AS NOT COMPLYING WITH THE CONDITIONS, ENVIRONMENTAL SPECIFICATIONS OR CAUTIONS INDICATED IN ANY APPLICABLE CATALOGUE, SPECIFICATIONS, INSTRUCTION MANUAL, ETC.);
(2) WHEN FAILURE OCCURRED DUE TO ANY REASON OTHER THAN THIS PRODUCT;
(3) WHEN CAUSED BY MODIFICATION OR REPAIR OF THIS PRODUCT MADE BY ANYONE OTHER THAN SAGINOMIYA OR DESIGNEE OF SAGINOMIYA;
(4) WHEN CAUSED BY THE USE OF THIS PRODUCT IN VIOLATION OF THE ABOVE "RESTRICTIONS OF USE" OR "CONFIRMATION OF OPERATION";
(5) WHEN SUCH FAILURE WAS NOT REASONABLY FORESEEABLE AT THE TIME OF SAGINOMIYA'S SHIPMENT; OR
(6) BY ANY OTHER CAUSE NOT ATTRIBUTABLE TO SAGINOMIYA, SUCH AS AN ACT OF GOD, DISASTER, OR ACT OF ANY THIRD PARTY.

PLEASE NOTE THAT THE CUSTOMERS WILL NOT BE ENTITLED TO ANY OF THE ABOVE WARRANTY IF THE CUSTOMERS PURCHASED THIS PRODUCT FROM INTERNET AUCTION, ETC.