

# Check Valve

## Model: FTL□-□-RS

(RoHS compliant product)

### INSTRUCTION MANUAL

#### <Description>

##### ● Application

Semiconductor, medicals, and chemical industry related devices

##### ● Features

- This product is operational with low cracking pressure.
- This is check valve which works at low pressure when flowing in forward direction, but it doesn't work when flowing in reverse direction. This product, which has the part in contact with fluids is made of excellent anti-corrosive fluorine resin, can be used with corrosive fluids such as various chemical fluids, as well as strong alkaline or acid fluids.

#### <Before You Use>

**This product, which is included in the chemical weapon related goods specified in the regulations for foreign exchange and trade, needs the export permission according to that law in exporting. However, some sizes of this product do not apply the above mentioned.**

#### ⚠ WARNING

- Confirm the compatibility of the type of fluid to be used and the material of the part in contact with fluids before using this product.
- Before using this product, carefully read this manual to learn the correct usage of this product.
- Keep this manual at hand to see it any time you need.
- Follow the correct usage of this product specified in this manual.
- Comply with the warnings or cautions described in this manual.

#### ⚠ CAUTION

- Due to the structure of the product (especially in the case of gas), the check valve and relief valve may generate vibration noise cause of the cavitation.
- For check valves and relief valves that have not been operated for a long time, the initial cracking pressure may be higher than usual. Please open and operate the valve before use.

#### <About Instruction Manual>

- The information described in this manual is subject to change without prior notice, due to improvements of product in performance and/or functionality.
- No parts of this manual may be reproduced or utilized in any form or by any means.
- Please call Surpass Industry any time you lose this manual.
- Every effort was made to ensure that all information included in this manual were complete and accurate at the time of printing. If you have any point of doubt, errors, and omissions, please contact Surpass Industry.

#### ● Important Safety Instructions

##### <About Marks Used>

The meanings of the safety instruction marks used in this manual are as follows.

#### ⚠ WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in user death or serious injury.

#### ⚠ CAUTION

This symbol indicates warnings which, if not observed, may physically impair the user or damage surrounding objects

#### 1. Specifications

- Cracking pressure : 5 kPa or less
- Operating fluid temperature : 5°C~70°C
- Operating fluid pressure : 0 kPa~400 kPa
- Available fluid : Gas or liquids
- Operating environment temperature : 5°C~60°C
- Withstanding pressure : 500 kPa
- Material of the part in contact with liquids : PTFE, PFA, various types of O-ring

#### 2. Tubing Procedure and Usage

If a connecting part of the main unit is a PT female thread, connect a PT male coupling to it. Wrap PTFE sealing tape around a PT male thread, and screw it into the main unit.

When the connecting part is used for tubing, connect a coupling in reference to the appropriate brochure or an instruction manual provided by the manufacturer of your coupling.

If a connecting part of the main unit already has coupling formation, attach a coupling to the connecting part. For the attaching procedure, refer to the appropriate brochure or instruction manual provided by the manufacturer of your coupling.

#### ⚠ WARNING

- For a paring PT male thread, use one that is made of the resin materials but the rigid materials such as metallic. Also, be sure to connect the tube with any bending moment to be applied to the connecting part.
- Follow the instructions provided by the manufacturer of your coupling to tighten a nut securely.
- Connect a coupling of the correct size according to the specifications of this product. Connecting a coupling of a wrong size may result in leakage.
- Check the flow direction mark (→) for correct setting of IN and OUT.
- To prevent leakage from the connecting part, inspect it periodically. If any leakage detected, tighten nuts more firmly according to the appropriate brochure or instruction manual provided by the manufacturer of your coupling.
- This is a precision-made product. Never decompose or alter this product. Also, an impact from dropping may result in abnormal operation.
- Do not fix the main unit excessively with a fixing appliance. Excessive fixing may deform the product, resulting in leakage or abnormal operation.
- Be sure to hold the two-chamfering flats with a spanner when tightening a nut. Holding any other part may loosen the main unit, resulting in leakage.

### 3. Warranty

Surpass Industry products are warranted to be free from latently defective in performance and material for a period of one (1) year from the date of delivery. We will replace the product that is permitted in writing by us to be latently defective in design or workmanship within this time. This warranty shall not be applied to any defects caused by misuse, alteration, neglectful treatment, and neglect of our recommendations or instructions.

In addition, we are not be liable to any direct or consequential loss, damage, and personal injury due to an unauthorized usage in combination with other products and an improper usage outside of the specifications. Our product warranty shall be limited to replacement of product.

Replacement with expense to the purchaser shall be applied to the followings:

- Any defective products caused by usage that is not described in the Instruction Manual.
- Any defective products caused by neglectful treatment.
- Any defective products caused by decomposition, alteration, and improper adjustment or repair.
- Any defects of products caused by acts of God including natural disaster or fires.
- Consumables and accessories.

<Call to:>

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