



# HBV

Bellows Seal Valve for High Temperature(200°C)



# HBV Bellows Seal Valve for High Temperatures (200°C)

## 【Features】

The HBV series Bellows Seal Valves are non-metal seated valves with excellent heat resistance and airtightness, developed for use under high-temperature conditions.

- PEEK seat realizes high heat resistance.
- High sealing performance and durability are realized by equipping with a metallic bellows seal.
- Wet parts are precisely rinsed and treated oil free.
- Assembled and packaged in a clean room.

## Specification

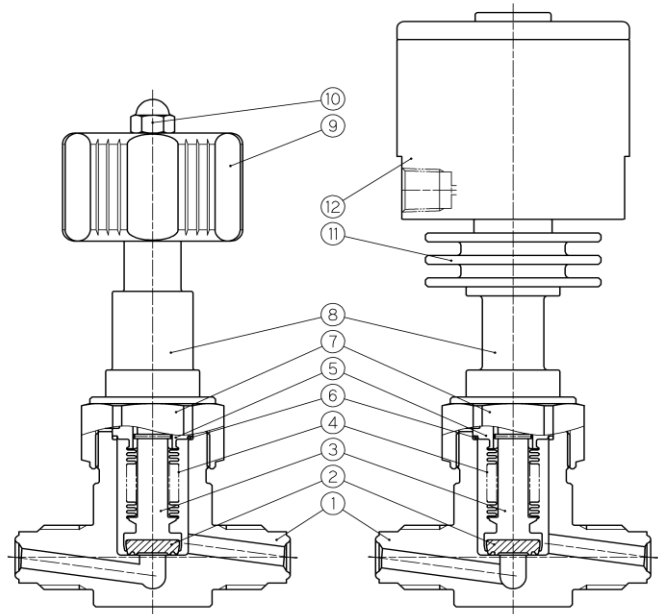
|                     |                                |   |      |
|---------------------|--------------------------------|---|------|
| Nominal Size        | 1/4"                           | 3/8"  | 1/2" |
| Work Pressure       | Vac.~1MPa                      |   |      |
| Work Temp.          | -10~+200°C                     |   |      |
| Detected Leak       | Internal(※1)                   | $\leq 5 \times 10^{-10} \text{Pa} \cdot \text{m}^3 / \text{sec.}$ |      |
|                     | External                       | $\leq 1 \times 10^{-9} \text{Pa} \cdot \text{m}^3 / \text{sec.}$  |      |
| Cv Value (※2)       | 0.3                            | 0.6   | 0.8  |
| End Connections(※3) | VTF(Metal gasket sealing type) |   |      |
|                     | BI-Lok(Double ferrule type)    |   |      |

|                     |                        |                |
|---------------------|------------------------|----------------|
| Air Work Pressure   | 0.4~0.6MPa             |                |
| Work Durability(※4) | (Manual)               | Over 20,000    |
|                     | (Automatic 1/4")       | Over 1,000,000 |
|                     | (Automatic 3/8", 1/2") | Over 1,000,000 |

- (※1) In the case of PEEK seat. (Depends on the material.)  
 (※2) In the case of VTF Male connection.  
 (※3) Other connection types available. Please ask us.  
 (※4) In-house Test: 1MPa N2 gas sealed.

## Primary Material

|   | Parts Name     | Materials |
|---|----------------|-----------|
| ① | Body           | SUS316L   |
| ② | Disk           | PEEK      |
| ③ | Disk Holder    | SUS316L   |
| ④ | Bellows        | SUS316L   |
| ⑤ | Bellows Flange | SUS316L   |
| ⑥ | Gasket         | Ni        |
| ⑦ | Bonnet Nut     | SUS304    |
| ⑧ | Bonnet         | SUS304    |
| ⑨ | Handle         | ADC12     |
| ⑩ | Nut            | SUS304    |
| ⑪ | Fin            | A5056     |
| ⑫ | Actuator       | Al etc .  |



## Part number / nomenclature

### HBV - ① - ② - ③ - ④ - PEEK

e.g. HBV - 4VM - NC - EP - PEEK [1/4"VTF Male Connection Normal Close Electro-Polishing]

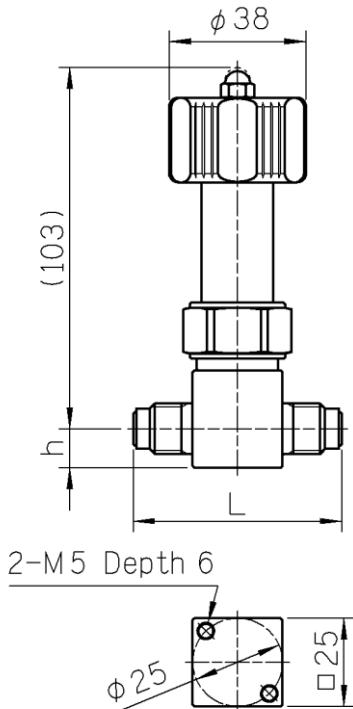
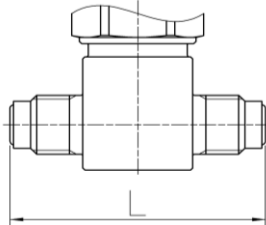
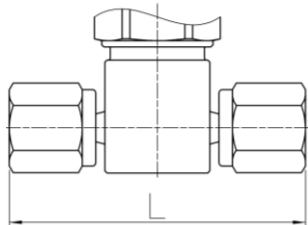
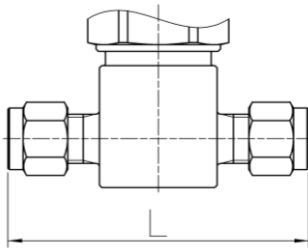
| ①    |      |
|------|------|
| Code | Size |
| 4    | 1/4" |
| 6    | 3/8" |
| 8    | 1/2" |

| ②    |            |
|------|------------|
| Code | Connection |
| VM   | VTF(M)     |
| VF   | VTF(F)     |
| D    | BI-Lok     |

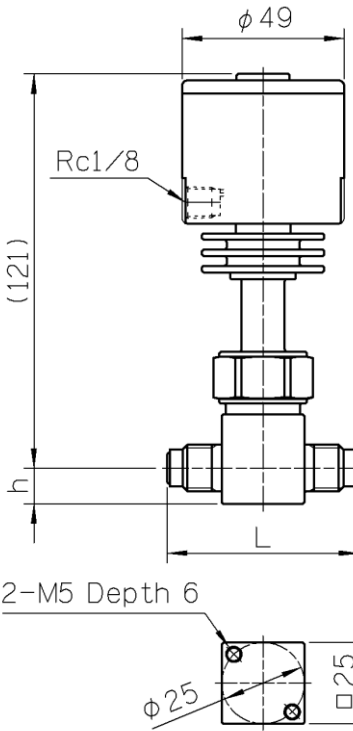
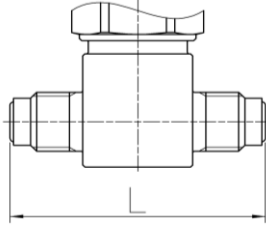
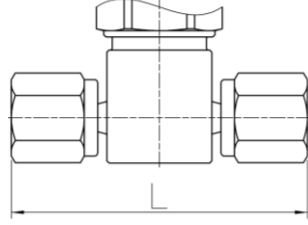
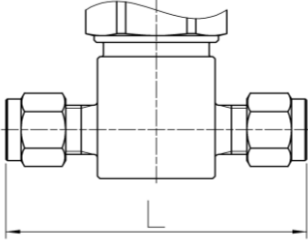
| ③     |              |
|-------|--------------|
| Code  | Actuation    |
| Blank | Manual       |
| NC    | Normal Close |
| NO    | Normal Open  |

| ④    |                                   |
|------|-----------------------------------|
| Code | Inner Finishing                   |
| EP   | Electro-polishing (< Ra0.18 μm)   |
| BA   | Mechanical-polishing (< Ra0.8 μm) |

## Dimensions (Manual)

|  <p style="font-size: small;">Bottom mount is common to all types</p> |   | <b>VTF(Male)</b> (mm)   |       |      |   |        |         |      |      |        |         |      |    |        |      |      |    |
|--|--|---|-------|------|---|--------|---------|------|------|--------|---------|------|----|--------|------|------|----|
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|  | Model  | Size  | L     | h    |   |        |         |      |      |        |         |      |    |        |      |      |    |
|  | HBV-4VM  | 1/4"  | 58    | 11   |   |        |         |      |      |        |         |      |    |        |      |      |    |
|  | HBV-8VM  | 1/2"  | 65    | 16   |   |        |         |      |      |        |         |      |    |        |      |      |    |
|  |   | <b>VTF(Female)</b> (mm)   |       |      |   |        |         |      |      |        |         |      |    |        |      |      |    |
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|  | Model  | Size  | L     | h    |   |        |         |      |      |        |         |      |    |        |      |      |    |
|  | HBV-4VF  | 1/4"  | 70.6  | 11   |   |        |         |      |      |        |         |      |    |        |      |      |    |
|  | HBV-8VF  | 1/2"  | 82    | 16   |   |        |         |      |      |        |         |      |    |        |      |      |    |
|    | <b>BI-Lok</b> (mm)   |   |       |      |   |        |         |      |      |        |         |      |    |        |      |      |    |
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| Model  | Size   | L   | h     |      |   |        |         |      |      |        |         |      |    |        |      |      |    |
| HBV-4D   | 1/4"   | 64  | 11    |      |   |        |         |      |      |        |         |      |    |        |      |      |    |
| HBV-6D   | 3/8"   | 77  | 16    |      |   |        |         |      |      |        |         |      |    |        |      |      |    |
| HBV-8D   | 1/2"   | 82.6  | 16    |      |   |        |         |      |      |        |         |      |    |        |      |      |    |

## Dimensions (Automatic)

|  <p style="font-size: small;">Bottom mount is common to all types</p> |   | <b>VTF(Male)</b> (mm)   |       |      |   |              |               |      |      |              |               |      |    |              |      |      |    |
|--|--|---|-------|------|---|--------------|---------------|------|------|--------------|---------------|------|----|--------------|------|------|----|
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|  | HBV-8VM-NC/NO  | 1/2"  | 65    | 16   |   |              |               |      |      |              |               |      |    |              |      |      |    |
|  |   | <b>VTF(Female)</b> (mm)   |       |      |   |              |               |      |      |              |               |      |    |              |      |      |    |
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|  | HBV-4VF-NC/NO  | 1/4"  | 70.6  | 11   |   |              |               |      |      |              |               |      |    |              |      |      |    |
|  | HBV-8VF-NC/NO  | 1/2"  | 82    | 16   |   |              |               |      |      |              |               |      |    |              |      |      |    |
|   | <b>BI-Lok</b> (mm)   |   |       |      |   |              |               |      |      |              |               |      |    |              |      |      |    |
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| HBV-6D-NC/NO   | 3/8"   | 77  | 16    |      |   |              |               |      |      |              |               |      |    |              |      |      |    |
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**Warning**

If you don't select and handle fittings, valves and related accessories in an adequate manner, it may injure human beings and damage applicable systems. Within the responsibility and authorization of users and piping designers, fittings, valves and related accessories shall be adequately selected, assembled, used and maintained based on the applicable conditions and product conformity to the system to be applied. Please read our operation manual carefully and feel free to contact us if you have any questions or requests.

**WARRANTY CLAUSE**

**1. Warranty Period**

The warranty period of the products is one (1) year from start of use or one and half (1.5) years after delivery whichever comes earlier. However, the products with special specification and/or the cases used deviating from the design specification shall be exempted.

**2. Scope of Warranty**

Any failure and damage under maker's responsibility found during the warranty period, the substitutes and/or replacement parts shall be provided free of charge. The warranty shall not be applied to a claim for the liquidated damages.

- URL : <http://www.ihara-sc.co.jp/en/>

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