Ultra-Compact and Light Air Pilot Check Valve
Prevents Dropping during Robot Transfer

Even when air is stopped due to blackout, the Air Safety Valve maintains air pressure for long hours in a circuit. It is able to keep cylinder position and prevent workpiece falls. It is also highly reliable with built-in Soft Seal.

The piston descends (falls) due to air source shut-off.

Keeps the posture and prevents dropping by maintaining pressure.
Application Example

For Robot Transfer Hand
Air loss in couplers or pipes can be solved by setting the BWS closer to the gripper than the control valve.

High Reliability with Soft Seal
Testing data of measuring elapsed time and pressure change when maintaining air pressure in A port. Sealing part is equipped with Soft Seal. It enables great pressure maintaining ability.
※ Testing data of single product with stable surrounding temperature.

Model No. Indication

BWS 0 05 0

1 Body Size
03 : Port Thread Size M3
05 : Port Thread Size M5

2 Design No.
0 : Revision Number

Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>BWS0030</th>
<th>BWS0050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thread Size of Each Port mm</td>
<td>M3 × 0.5 Thread</td>
<td>M5 × 0.8 Thread</td>
</tr>
<tr>
<td>Operating Pressure MPa</td>
<td>0.2 – 0.7</td>
<td></td>
</tr>
<tr>
<td>Withstanding Pressure MPa</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Min. Passage Area mm²</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Cracking Pressure MPa</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Pilot Pressure MPa</td>
<td></td>
<td>Outgoing Side (A Port) : Maintaining Pressure × 0.5 or more</td>
</tr>
<tr>
<td>Operating Temperature °C</td>
<td>0 – 70</td>
<td></td>
</tr>
<tr>
<td>Usable Fluid</td>
<td>Dry Air</td>
<td></td>
</tr>
<tr>
<td>Weight g</td>
<td>9</td>
<td>14</td>
</tr>
</tbody>
</table>

Note:
※1. Minimum passage area in the product.
External Dimensions : BWS0030  
(Unit : mm)

External Dimensions : BWS0050  
(Unit : mm)

Notes for Usage
1. When using with a speed controller, set it between BWS and an actuator.
2. Please supply filtered clean dry air.
   Also, make sure no contaminants such as tips of sealing tape enter into the product as it affects a sealing ability.
   Pressure cannot be maintained if contaminants stick to a check valve.
3. This product is for maintaining pressure, and cannot be used under vacuum.
Cautions

Notes on Handling

1) It should be handled by qualified personnel.
   - The hydraulic and pneumatic machines and the products should be handled and maintained by qualified personnel.

2) Do not handle or remove the product unless the safety protocols are ensured.
   ① The machine and equipment can only be inspected or prepared when it is confirmed that the preventive devices are in place.
   ② Before the product is removed, make sure that the above-mentioned safety measures are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
   ③ After stopping the product, do not remove until the temperature drops.
   ④ Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.

3) Do not disassemble or modify.
   - If the product is taken apart or modified, the warranty will be voided even within the warranty period.

Maintenance and Inspection

1) Removal of the Product and Shut-off of Pressure Source
   - Before the product is removed, make sure that safety measures and preventive devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
   - Make sure there is no abnormality in the bolts and other respective parts before restarting.

2) Regularly tighten piping, mounting bolts and etc., to ensure proper use.

3) The product should be stored in the cool and dark place without direct sunshine or moisture.

4) Please contact us for overhaul and repair.

Warranty

1) Warranty Period
   - The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.

2) Warranty Scope
   - If the product is damaged or malfunctioned during the warranty period due to a faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
   - Defects or failures caused by the following are not covered.
     ① If the stipulated maintenance and inspection are not carried out.
     ② If the product is used while it is not suitable for use based on the operator’s judgment, resulting in defect.
     ③ If it is used or handled in inappropriate way by the operator. (Including damage caused by the misconduct of the third party.)
     ④ If the defect is caused by reasons other than our responsibility.
     ⑤ If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
     ⑥ Other caused by natural disasters or calamities not attributable to our company.
     ⑦ Parts or replacement expenses due to parts consumption and deterioration. (Such as rubber, plastic, seal material and some electric components.)

Damages excluding from direct result of a product defect shall be excluded from the warranty.

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Specifications in this Leaflet are Subject to Change without Notice.

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