# Non-return valve B-RV

DN3 - DN10 PN 320, PN500

## **Features**

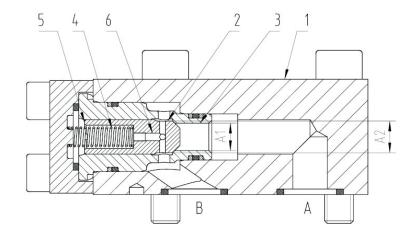
- Non-return valve controlling liquid media
- Opening pressure of the preload spring is "1bar", other opening pressures on request
- Valve piston and valve seat are coupled and close hydraulically "leak-free".
- Valve fastening structural plate form with a Hauhinco connection diagram
- Valve parts made of corrosion-resistant stainless steel



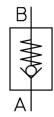
## Function of Non-return valve

The valve piston (2) guided within the valve body (1) is pressed into the valve seat (3) by the force of the spring (4). The control chamber (5) is connected to the B-channel via the control channels (6) within the valve piston (2). The hydraulic pressure supplied at the B-channel with the valve closed is thus also acting on the control surface (A2). This pressure keeps the valve closed and shuts off the direction of flow from the B- to the A-channel. Conversely, the non-return valve opens when the hydraulic pressure at the A-channel exceeds the hydraulic pressure at the B-channel and the spring force (4). In order to reach the initial opening of the closed valve, the hydraulic pressure within the A-channel must be greater by the factor of the control ratio A2/A1. The response behaviour of the valve is dampened by the throttling pin.

#### Example non-return valve B-RV:

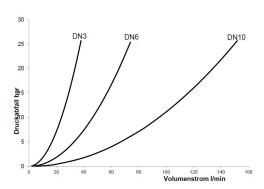


#### Symbol

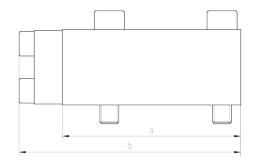


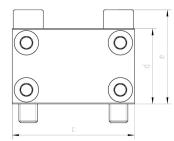
Control surfaces, hydraulic forces A channel: Area A1, open valve B channel: Area A2, close valve Control surface (5) = A2 > A1

## $\Delta P$ – Q characteristic curves



#### Dimension sheet





# **Technical data** measured with HFA medium 97/3%, at 20°C

| General  |  |
|--|--|
| Weight   | see Order information  |
| Installation position  | any  |
| Ambient temperature  | -10 to 50°C (hydraulic fluids, heed standard requirements)   |
| Material Valve parts<br>Material Seals   | Stainless steel<br>NBR, PTFE, PUR  |
| Hydraulic  |  |
| Hydraulic pressure connector A, B  | ≤ 320 bar bzw. ≤ 500bar, see Order information   |
| Direction of flow  | A→B  |
| Control ratio  | A1≤A2, A1, A2 – Control surfaces   |
| Pressure fluid - Medium - Temperature range - Medium - Quality - min. filter fineness connection | Water, HFA<br>5 to 40°C<br>see Hauhinco media requirement, water, HFA<br>Filter fineness 100µm                               |
| Pressure fluid - Medium - Temperature range - Medium - Quality - Viscosity                       | Mineral oil HLP according to DIN51624-2<br>5 to 50°C<br>Cleanliness class -/19/16 according to ISO 4406<br>0,6 bis 100 mm²/s |
| Use of other pressure fluids on request.   |  |

## **Order information**

### Included in the scope of supply

Mounting screws for the valves

| Designation           | Nominal size |      | max. Pres- | Control ratio | Dimensions [mm] |     |    |    |    | Article number |
|-----------------------|--------------|------|------------|---------------|-----------------|-----|----|----|----|----------------|
|                       |              | [kg] | sure [bar] | [A2/A1]       | a               | b   | C  | d  | е  |                |
| Non-return valve B-RV | DN3          | 0,7  | 320        | 1,35          | 58              | 76  | 40 | 30 | 36 | 6356435        |
| Non-return valve B-RV | DN6          | 0,9  | 320        | 1,35          | 62              | 80  | 50 | 30 | 38 | 6355846        |
| Non-return valve B-RV | DN6          | 0,9  | 500        | 1,35          | 62              | 80  | 50 | 30 | 38 | 6392636        |
| Non-return valve B-RV | DN10         | 2,2  | 320        | 1,20          | 95              | 118 | 65 | 40 | 50 | 6356419        |
| Non-return valve B-RV | DN10         | 2,2  | 500        | 1,35          | 95              | 118 | 65 | 40 | 50 | 6396291        |