

Throttle-non-return valve

DN3 - DN10 PN 320

Features

- Throttle- Non-return valve controlling liquid media
- Opening pressure of the preload spring is approx. 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



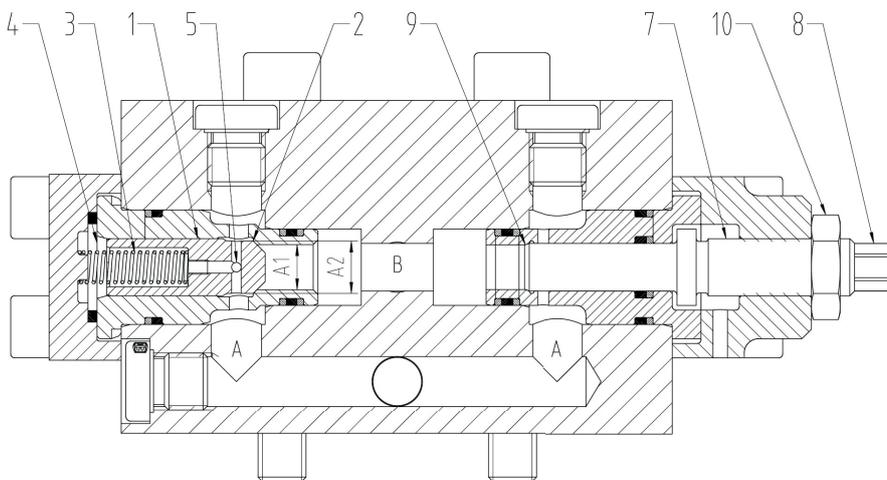
Function of non-return valve

The valve piston (1) is pressed into the valve seat (2) by the force of the spring (3). The control chamber (4) is connected to the A-channel via the control channels (5) within the valve piston (1). The hydraulic pressure supplied at the A-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 A- to the B-channel. Conversely, the non-return valve opens when the hydraulic pressure at the B-channel exceeds the hydraulic pressure at the A-channel and the spring force (3). In order to reach the initial opening of the closed valve, the hydraulic pressure within the B-channel must be greater by the factor of the control ratio $A2/A1$.

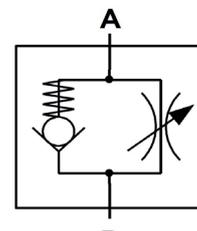
Function of throttle valve

The valve piston (7) is adjusted by turning the hexagon (8) axially via the thread. By turning it clockwise, the valve is closed pressing the valve piston (7) into the valve seat (9). The valve piston can be fixed via the locking nut (10).

Example Throttle- Non-return valve DN10:



Symbol



Control surface, hydr. forces
B-channel: Area-A1, open valve
A-Channel: Area-A2, close valve
Control surface (4) = $A2 > A1$

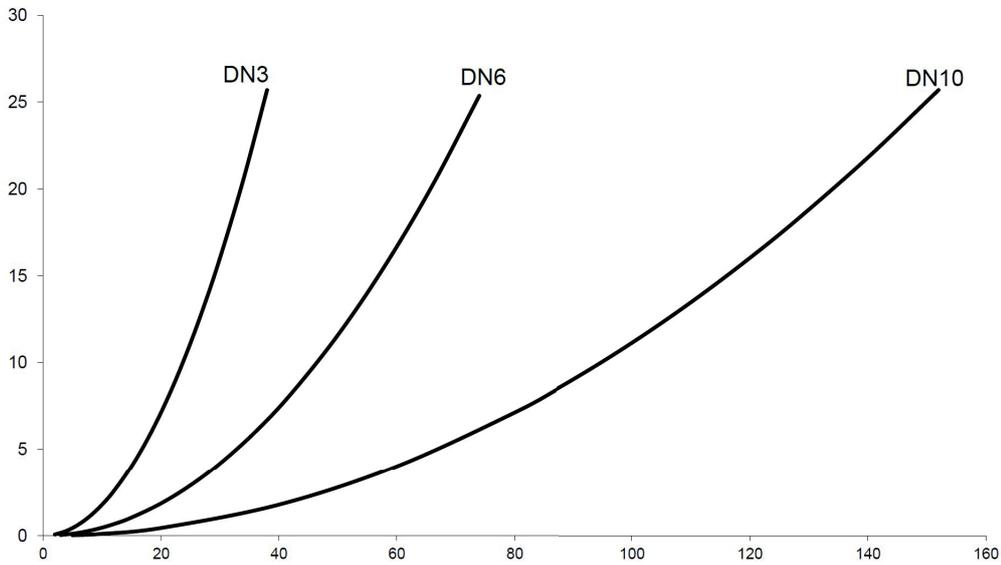
Technical data

measured with HFA medium 97/3%, at 20°C

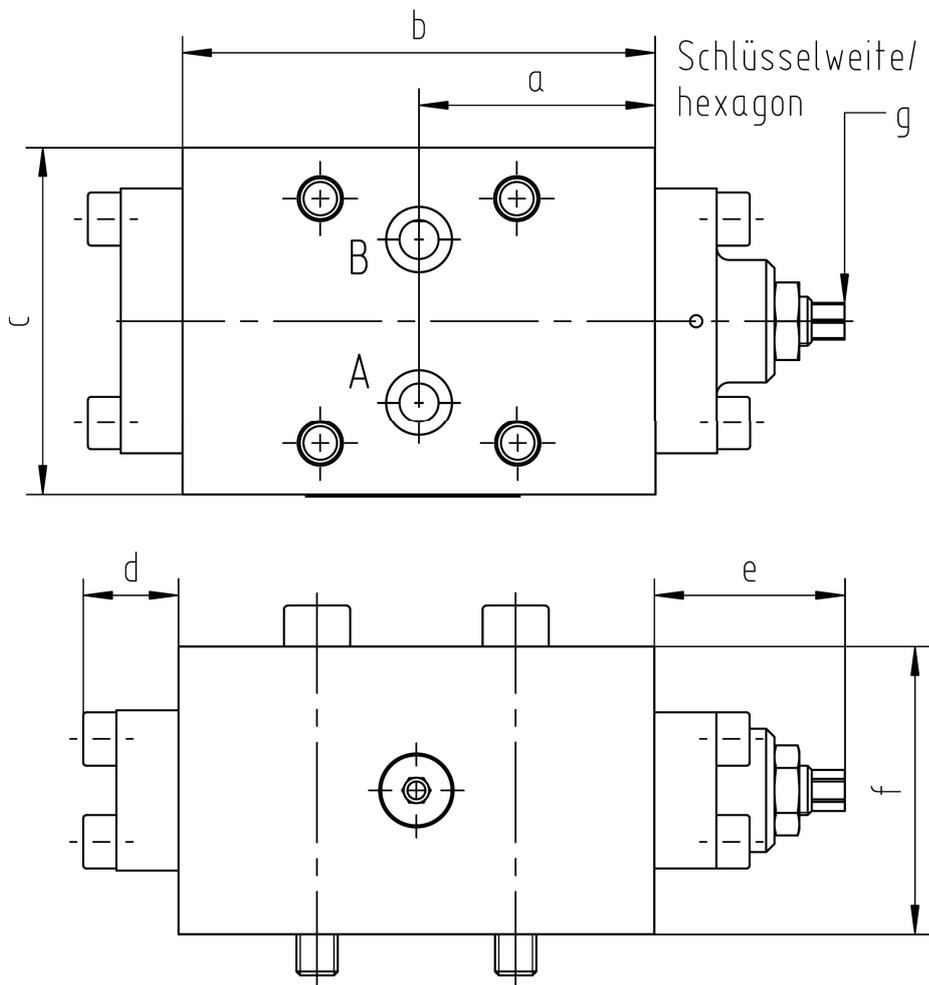
General	
Weight	see Order information
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material Valve parts	Stainless steel
Material Seals	NBR, PTFE, PUR
Hydraulic	
Hydraulic pressure connector A, B	≤ 320 bar
Direction of flow	B→A
Pressure fluid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

Characteristic curves throttle-non-return valves DN3 - DN 10

$\Delta P - Q$ characteristic curves



Dimension sheet throttle-non-return valve



Order information throttle-non-return valve

Included in the scope of supply

Mounting screws for the non-return valve

Nominal size	Weight [kg]	max. Pressure [bar]	Control ratio [A2/A1]	Dimensions [mm]							Article number
				a	b	c	d	e	f	g	
DN3	1,3	320	1,5	35	70	50	21	40	40	4	6356656
DN6	1,6	320	1,5	37,5	75	50	21	40	50	5	6356451
DN10	5,6	320	1,35	57,5	115	85	23	46	70	9	6356907