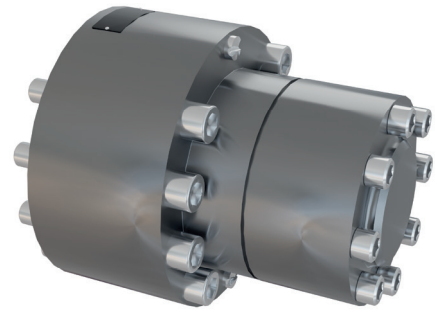


# Non-return valve C-RV

DN16 - DN100 PN 320, PN500

## Features

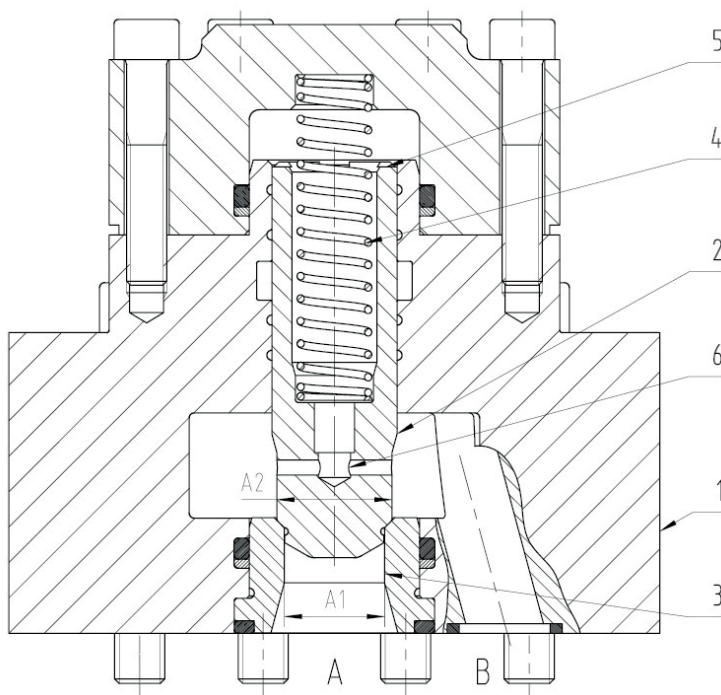
- Non-return valve controlling liquid media
- The valve is designed in two different control ratios, see Valve data
- Opening pressure of the preload spring is „1bar“, other opening pressures on request
- Valve piston and valve seat are coupled and close hydraulically „leak-free“.
- Valve fastening structural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



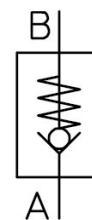
## Function of Non-return valve

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 C-RV:



### Symbol



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

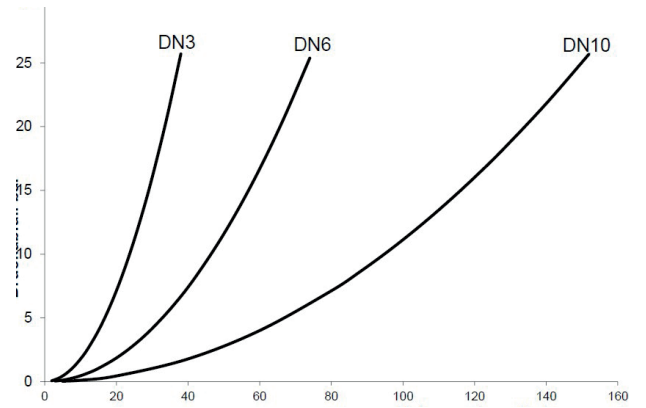
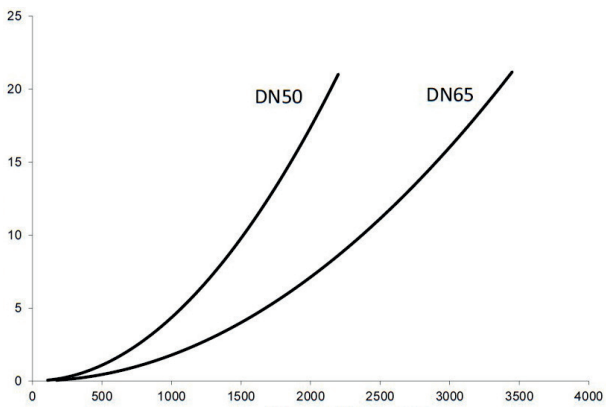
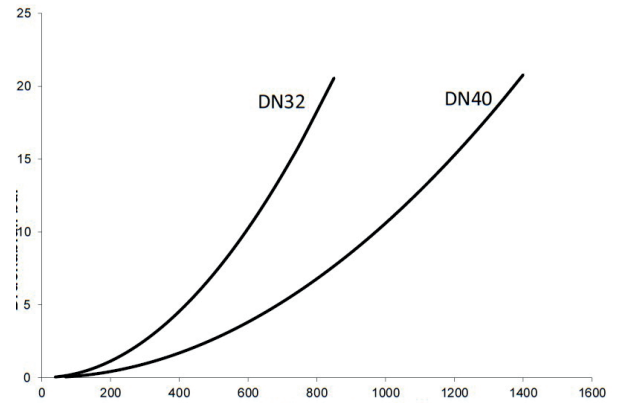
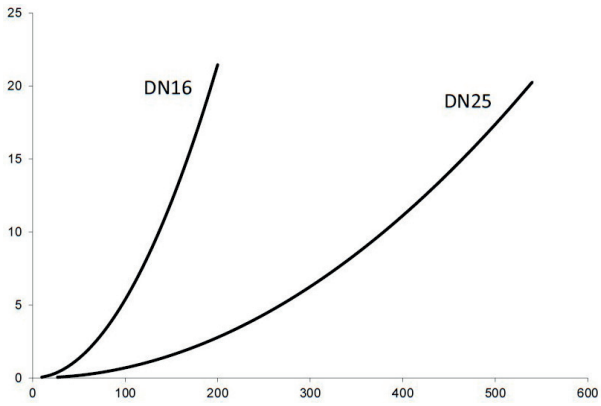
# Technical data

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

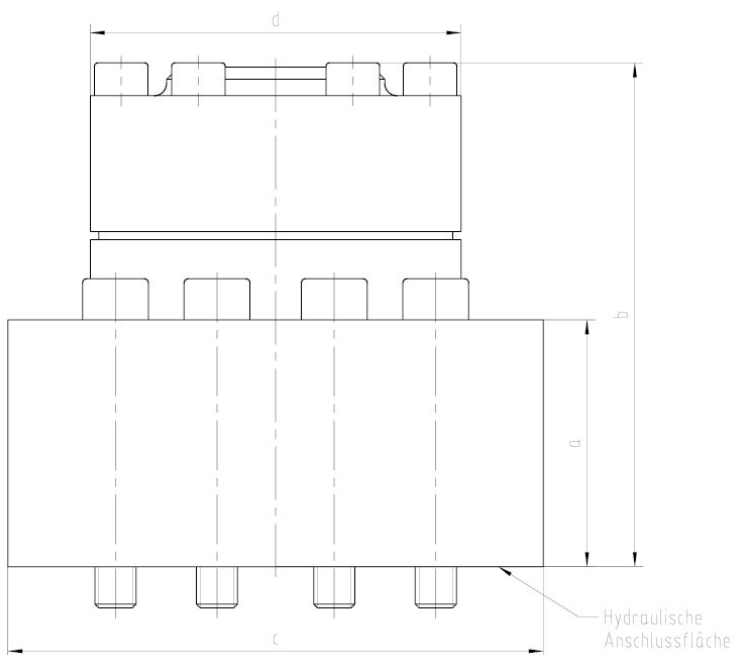
General	
Weight	see Order information
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material Valve parts	Stainless steel
Material Seals	NBR, PTFE, PUR
Hydraulic	
Hydraulic pressure connector A, B	≤ 320 bar, higher pressure stages on request ≤ 500bar, see Order information
Direction of flow	A→B
Control ratio	$A1 \leq A2$ , A1, A2 – Control surfaces
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 <sup>2</sup> /s
Use of other pressure fluids on request.	
Ranges of application	
Control ratio $A2/A1 \geq 1,2$	Standard applications, e.g. backstop. Special valve features are a delayed response due to the area ratio, an increased resistance to wear due to the large sealing surface.
Control ratio $A2/A1 \leq 1,1$	Special applications, e.g. for a quick response with a low pressure difference between A- and B-channel, such as a pressure relief function, pre-loading valve

# Characteristic curves non-return valves C-RV DN16 - DN 100

$\Delta P - Q$  characteristic curves



Dimension sheet



## Order information

### Included in the scope of supply

Mounting screws for the valves

Area ratio  $A2/A1 \geq 1,2$

Designation	Nominal size	Weight [kg]	max. Pressure [bar]	Control ratio [A2/A1]	Dimensions [mm]				Article number
					a	b	c	d	
Non-return valve C-RV	DN16	3,8	320	1,20	45	93	100	70	6244343
Non-return valve C-RV	DN16	5,0	500	1,20	45	93	120	70	6260144
Non-return valve C-RV	DN25	8,5	320	1,25	60	123	130	90	6243460
Non-return valve C-RV	DN25	10,5	500	1,25	76	123	140	90	6271847
Non-return valve C-RV	DN32	12,0	320	1,30	76	150	140	100	6396291
Non-return valve C-RV	DN40	21	320	1,30	83	175	176	119	6145124
Non-return valve C-RV	DN50	31	320	1,35	92	209	196	142	6145191
Non-return valve C-RV	DN65	60	320	1,20	120	273	240	170	6145779
Non-return valve C-RV	DN65	112	500	1,20	205	270	294	210	6600030
Non-return valve C-RV	DN80	122	320	1,35	180	336	294	214	6251994
Non-return valve C-RV	DN80	179	500	1,35	180	336	370	214	6260152
Non-return valve C-RV	DN100	233	320	1,30	235	398	370	265	6145795
Non-return valve C-RV	DN100	448	500	1,30	340	434	466	300	6169171

Area ratio  $A2/A1 \leq 1,1$

Designation	Nominal size	Weight [kg]	max. Pressure [bar]	Control ratio [A2/A1]	Dimensions [mm]				Article number
					a	b	c	d	
Non-return valve C-RV	DN16	3,8	320	1,10	45	93	100	70	6259405
Non-return valve C-RV	DN25	8,5	500	1,10	60	123	130	90	6259421
Non-return valve C-RV	DN32	12,0	320	1,15	76	150	140	100	6259448
Non-return valve C-RV	DN40	21,0	500	1,10	83	175	176	119	6154182
Non-return valve C-RV	DN65	60,0	320	1,10	120	273	240	170	6153097