

Non-return valve C-RV

PN 320, PN500
DN16 – 100

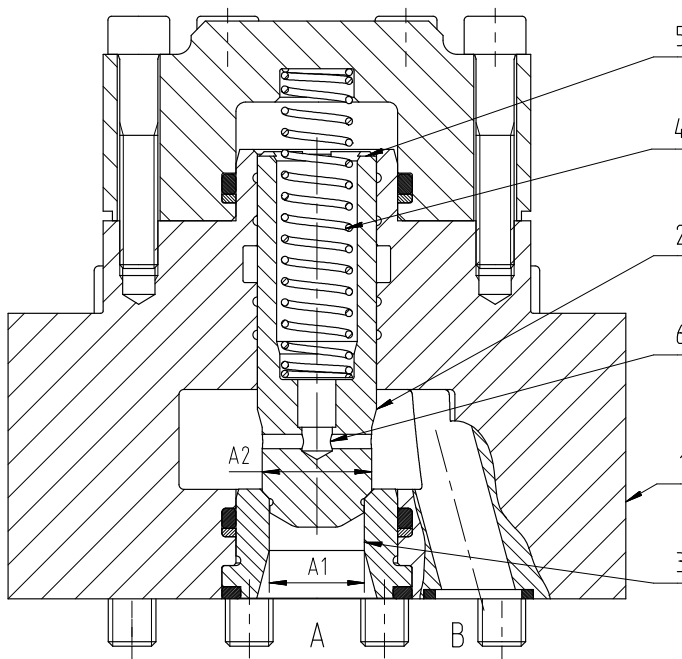
Features

- 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 2/2-way valve

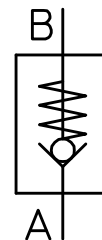
The valve piston (2) guided within the valve body (1) is pressed into the valve seat (3) by the force of the spring (4). The control chamber (5) is connected to the B-channel via the control channels (6) within the valve piston (2). The hydraulic pressure supplied at the B-channel with the valve closed 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:



Control surfaces, hydraulic forces

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



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Technical data

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

general

Weight	see Valve data
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material	- Valve parts - Seals
	Stainless steel NBR, PTFE, PUR

hydraulic

hydraulic pressure connector A, B	≤ 320 bar, ≤500 bar, see Valve data
Direction of flow	A→B
Control ratio	A1≤A2, A1, A2 – control surfaces
Pressure fluid	Water, HFA
- Medium - Quality	see Hauhinco media requirement, water, HFA
- Medium - Temperature range	5 – 40°C
- min filter fineness connector A, B	Filter fineness 100µm
Pressure fluid	Mineral oil HLP according to DIN51624-2
- Medium - Quality	Cleanliness class -/19/16 according to ISO 4406
- Medium - Temperature range	5 – 50°C
- Viscosity	0.6 to 100 mm ² /s

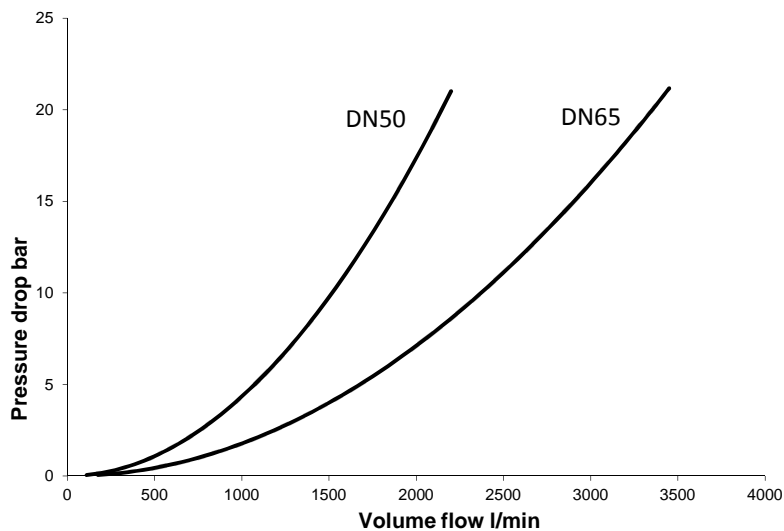
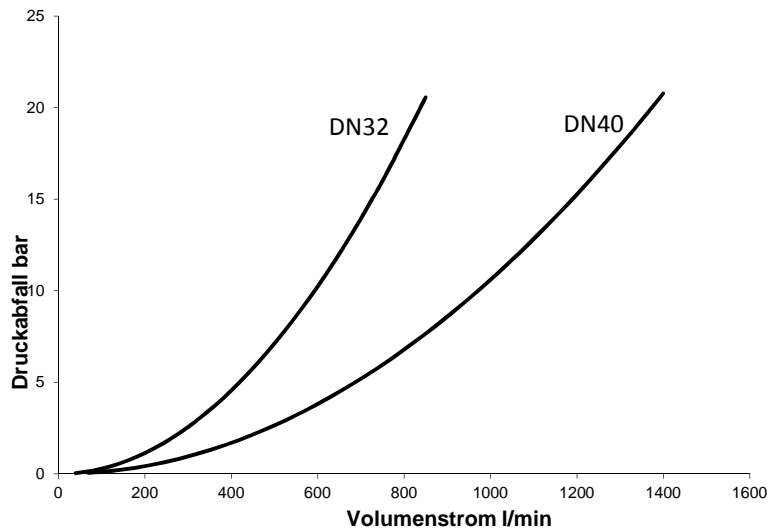
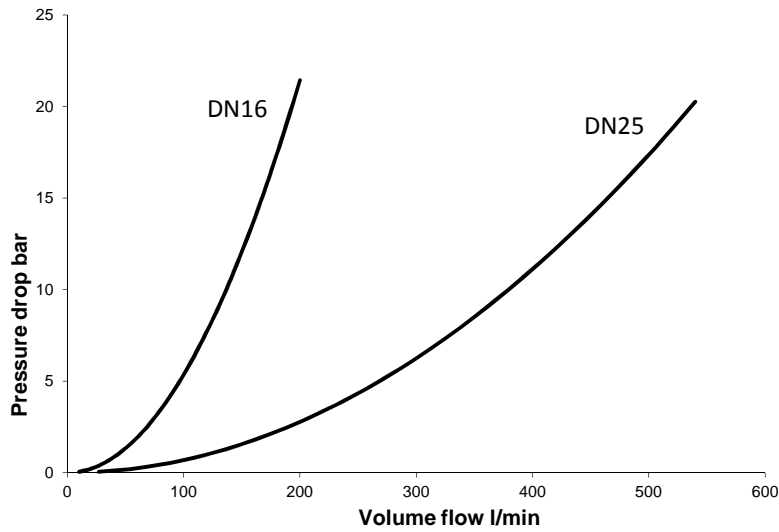
Use of other pressure fluids on request.

Ranges of application

Control ratio A2/A1 ≥ 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 ≤ 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

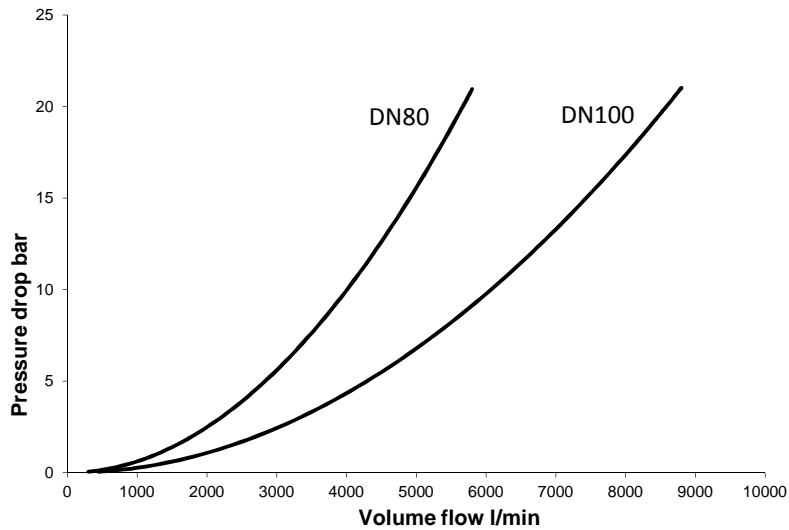
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ΔP-Q valve characteristics



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ΔP-Q valve characteristics



Valve data

Area ratio $A2/A1 \geq 1.2$

Nominal value		DN16	DN16	DN25	DN25	DN32	DN40	DN50
Pressure stage		PN320	PN500	PN320	PN500	PN320	PN320	PN320
Weight		3.8 kg	5.0 kg	8.5 kg	10.5 kg	12 kg	21 kg	31 kg
Control ratio	A2/A1	1.20	1.20	1.25	1.25	1.30	1.30	1.35
Non-return valve	Art. No.	6244343	6260144	6243460	6271847	6243509	6145124	6145191
	a	45	45	60	76	76	83	92
	b	93	93	123	123	150	175	209
	c	100	120	130	140	140	176	196
d	70	70	90	90	100	119	142	
Connec-tion dia-gram	Art. No.	6564151	6564275	6564186	6575749	6564194	6564208	6564216

Area ratio $A2/A1 \geq 1.2$

Nominal value		DN65	DN65	DN80	DN80	DN100	DN100
Pressure stage		PN320	PN500	PN320	PN500	PN320	PN500
Weight		60 kg	112 kg	122 kg	179 kg	233 kg	448 kg
Control ratio	A2/A1	1.20	1.20	1.35	1.35	1.30	1.30
Non-return valve	Art. No.	6145779	6600030	6251994	6260152	6145795	6169171
	a	120	205	180	180	235	340
	b	273	270	336	336	398	434
	c	240	294	294	370	370	466
d	170	210	214	214	265	300	
Connec-tion dia-gram	Art. No.	6564224	6600041	6564232	6564704	6564240	6578160

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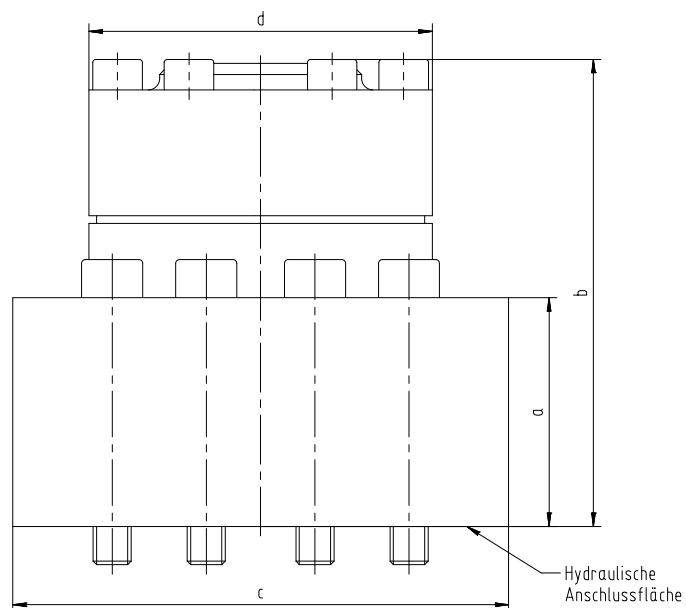
Valve data

Area ratio $A2/A1 \leq 1.1$

Nominal value		DN16	DN25	DN32	DN40	DN65
Pressure stage		PN320	PN500	PN320	PN500	PN320
Weight		3.8 kg	8.5 kg	12 kg	21 kg	60 kg
Control ratio	A2/A1	1.10	1.10	1.15	1.10	1.10
	Art. No.	6259405	6259421	6259448	6154182	6153097
Non-return valve	a	45	60	76	83	120
	b	93	123	150	175	273
	c	100	130	140	176	240
	d	70	90	100	119	170
Connection diagram	Art. No.	6564151	6564186	6564194	6564208	6564224

Dimension sheet

Non-return valve C-RV - DN16 – DN100



Deutsch	Englisch
Hydraulische Anschlussfläche	Hydraulic terminal surface

Included in the scope of supply:

- Mounting screws for the non-return valve

Ordering example 1: Non-return valve C-RV - DN25-PN320
 Area ratio $A2/A1 = 1.25$
 Art. No. 6243460