Series NR02

AVENTICS™ Series NR02

EMERSON.

Pilot-operated non-return valve, Series NR02

- Qn 1▸2 = 300-680 l/min
- thread-in
- Internal thread
- G 1/8 G 1/4
- External thread
- G 1/8 G 1/4

Version	Poppet valve
Working pressure min./max.	0.5 ... 10 bar
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Port 1	Port 2	Port 12	Flow	Weight	Fig.
			Exhaust	Qn 1▸2		
0821003050	G 1/8	G 1/8	G 1/8	300 l/min	0.059 kg	Fig. 1, Fig. 2
0821003051	G 1/4	G 1/4	G 1/4	680 l/min	0.105 kg	-

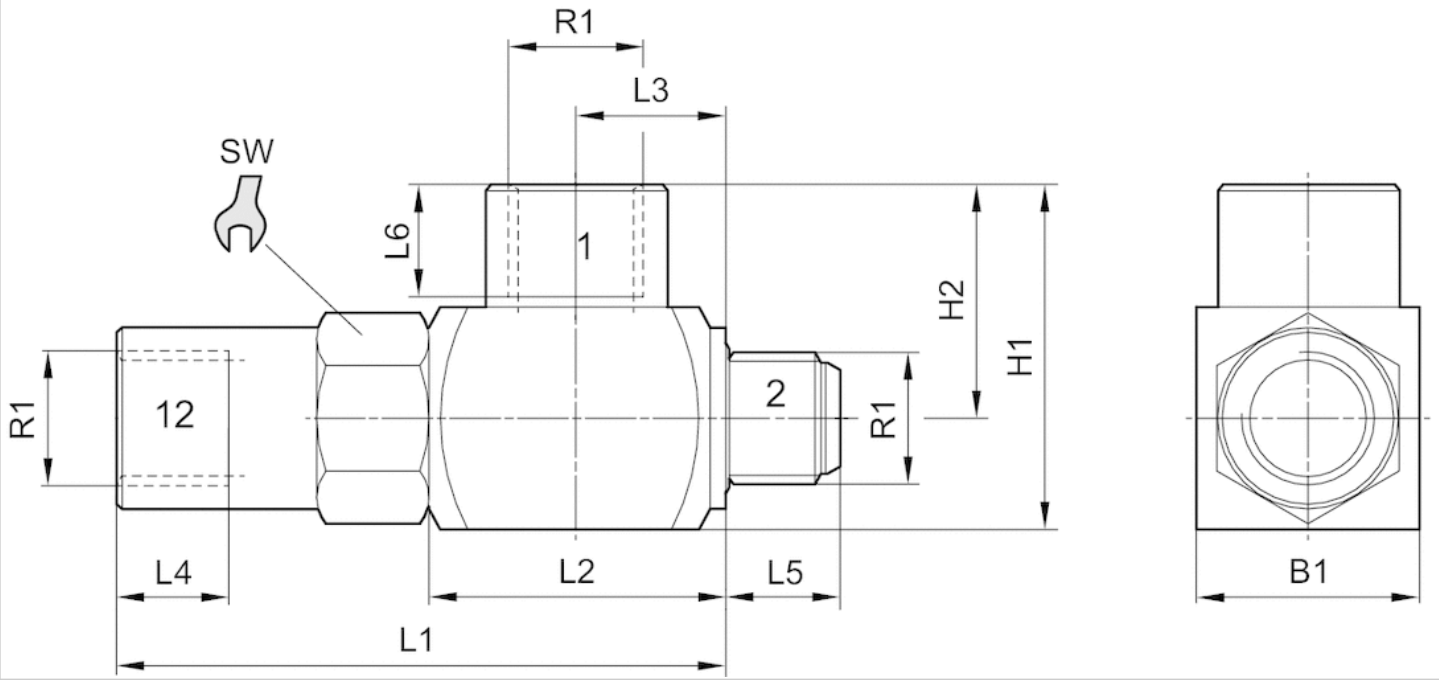
Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

Material	
Housing	Brass, nickel-plated
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions

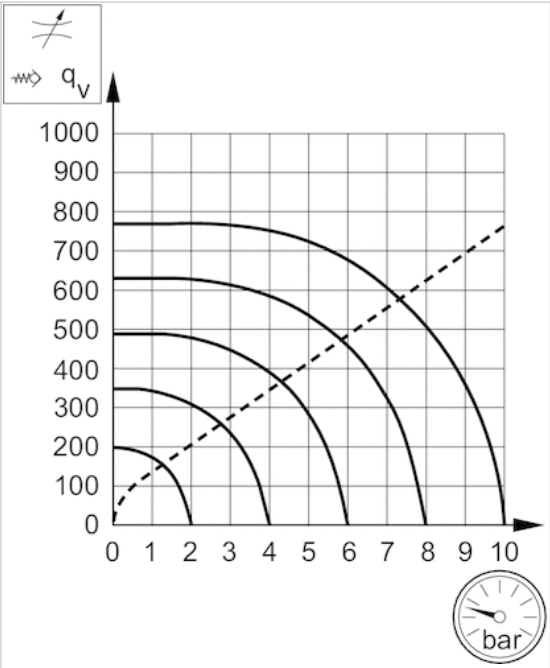


Dimensions

Part No.	R1	L1	L2	L3	L4	L5	L6	H1	H2	B1	SW
0821003050	G 1/8	50.5	25.4	12.7	8	7.5	8	24.5	16	17	15
0821003051	G 1/4	59.6	29	14.5	12	11.4	12	34	23	22	18

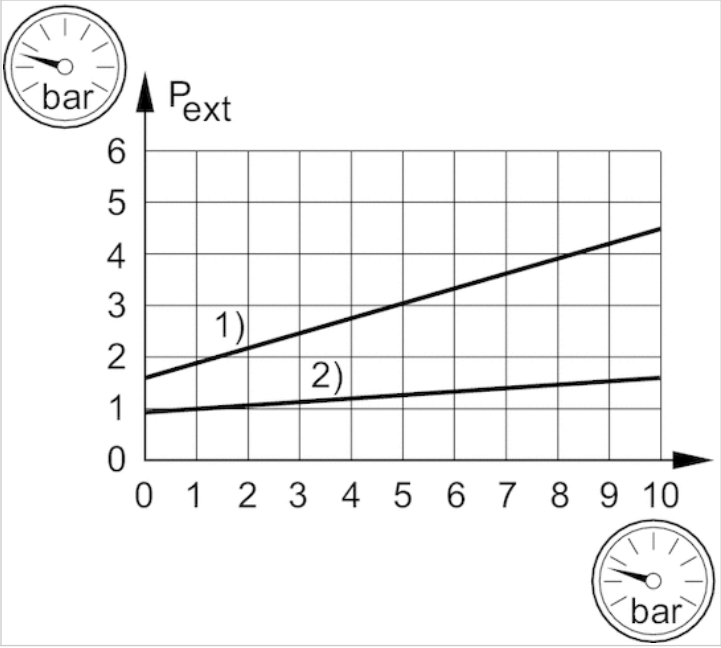
Diagrams

Flow diagram, Fig. 1



qv = Flow

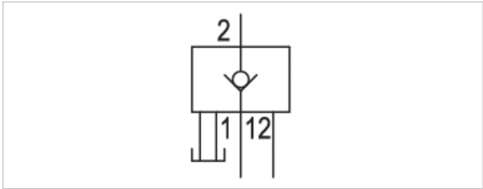
Flow diagram, Fig. 2



Pext = control pressure
1) switch on 2) switch off

Pilot-operated non-return valve, Series NR02

- Qn 1▸2 = 170-1800 l/min
- thread-in
- Internal thread
- G 1/8 G 1/4 G 3/8 G 1/2
- External thread
- G 1/8 G 1/4 G 3/8 G 1/2



Version	Poppet valve
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-5 ... 70 °C
Medium temperature min./max.	-5 ... 70 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Port 1	Port 2	Port 12	Flow	Weight	Fig.
			Exhaust	Qn 1▸2		
0821003045	G 1/8	G 1/8	M5	170 l/min	0.04 kg	Fig. 1
0821003046	G 1/4	G 1/4	M5	345 l/min	0.07 kg	Fig. 1
0821003047	G 3/8	G 3/8	G 1/8	1250 l/min	0.12 kg	Fig. 2
0821003048	G 1/2	G 1/2	G 1/8	1800 l/min	0.21 kg	Fig. 2

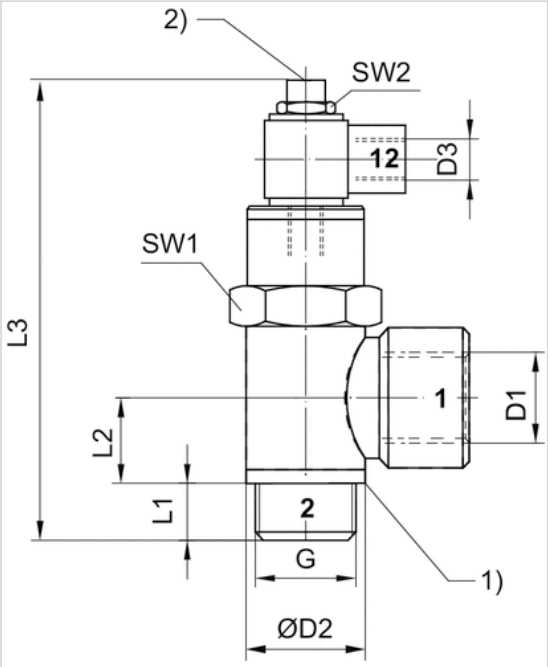
Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

Material	
Housing	Brass, nickel-plated
Seals	Acrylonitrile butadiene rubber

Dimensions

Fig. 1



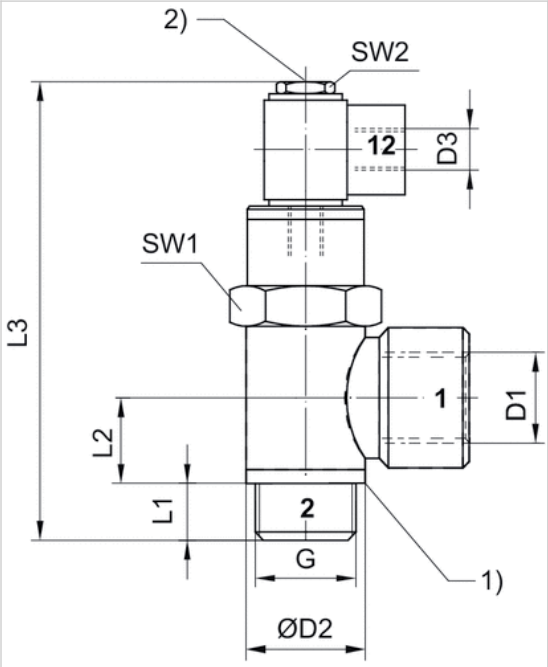
1) Seal, captive
2) Manual exhaust

Dimensions

Part No.	G	D1	D2	D3	L1	L2	L3	SW1	SW2
0821003045	G 1/8	G 1/8	14	M5	6	9.5	62	13	8
0821003046	G 1/4	G 1/4	18	M5	8.2	10.3	67	17	8

Dimensions

Fig. 2



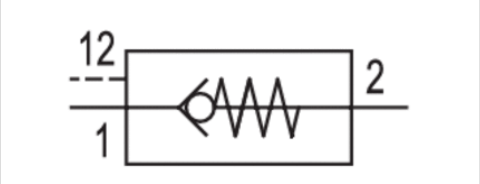
1) Seal, captive
2) Manual exhaust

Dimensions

Part No.	G	D1	D2	D3	L1	L2	L3	SW1	SW2
0821003047	G 3/8	G 3/8	21.8	G 1/8	9	12	76.5	20	14
0821003048	G 1/2	G 1/2	25.7	G 1/8	10	14	85	25	14

Pilot-operated non-return valve, Series NR02

- Qn 1▸2 = 480-5800 l/min
- Qn 2▸1 = 400-4800 l/min
- installing in piping
- Internal thread
- G 1/8 G 1/4 G 3/8 G 3/4 G 1/2 G 1
- Internal thread
- G 1/8 G 1/4 G 3/8 G 3/4 G 1/2 G 1



Version	Poppet valve
Working pressure min./max.	1 ... 12 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Port 1	Port 2	Port 12	Flow	Flow	Housing material	Weight	Fig.	
			Exhaust	Qn 1▸2	Qn 2▸1				
0821003025	G 1/8	G 1/8	G 1/8	480 l/min	400 l/min	Die cast zinc	0.099 kg	Fig. 1	-
0821003026	G 1/4	G 1/4	G 1/8	510 l/min	400 l/min	Die cast zinc	0.099 kg	Fig. 1	-
0821003027	G 3/8	G 3/8	G 1/8	2200 l/min	2200 l/min	Die cast zinc	0.23 kg	Fig. 2	-
0821003042	G 3/8	G 3/8	G 1/8	2400 l/min	2100 l/min	Die cast zinc	0.23 kg	Fig. 4	1)
0821003029	G 3/4	G 3/4	G 1/8	4600 l/min	4500 l/min	Aluminum	0.52 kg	Fig. 3	-
0821003028	G 1/2	G 1/2	G 1/8	2300 l/min	2200 l/min	Die cast zinc	0.23 kg	Fig. 2	-
0821003030	G 1	G 1	G 1/8	5800 l/min	4800 l/min	Aluminum	0.52 kg	Fig. 3	-

Nominal flow Qn at 6 bar and Δp = 1 bar

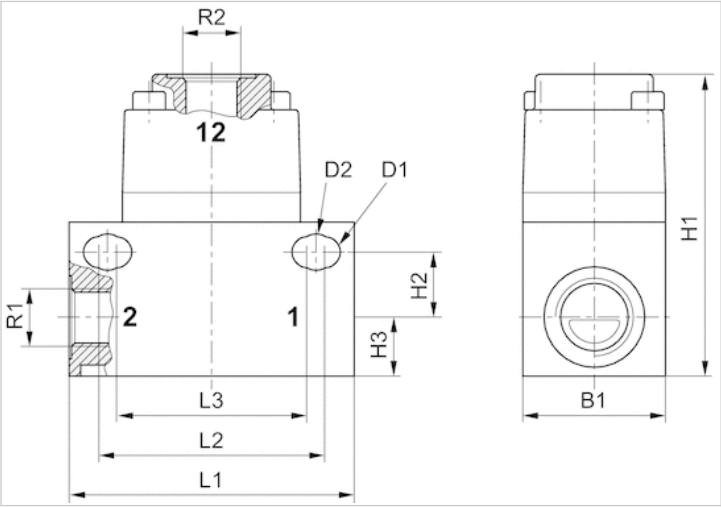
1) With manual override

Technical information

Material	
Housing	Die cast zinc Aluminum
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions, Fig. 1

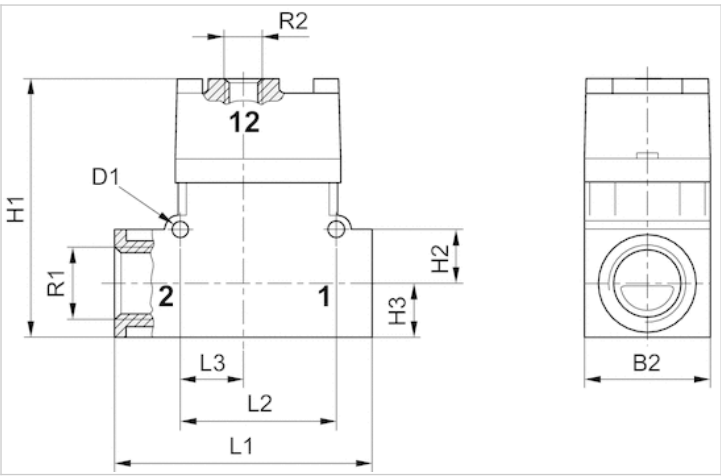


Dimensions

Part No.	R1	R2	Ø D1	Ø D2	L1	L2	L3	H1	H2	H3	B1
0821003025	G 1/8	G 1/8	5.2	6.1	48	38	32	51	11	10	24
0821003026	G 1/4	G 1/8	5.2	6.1	48	38	32	51	11	10	24

Dimensions

Dimensions, Fig. 2

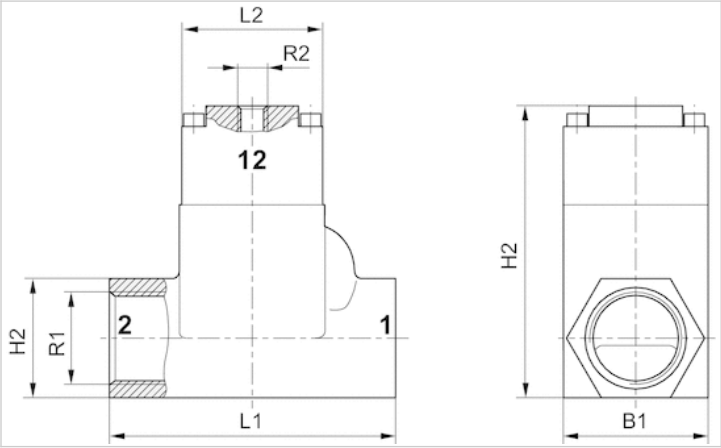


Dimensions

Part No.	R1	R2	Ø D1	L1	L2	L3	H1	H2	H3	B1
0821003027	G 3/8	G 1/8	4.3	72	44	18	72	15	15	35
0821003028	G 1/2	G 1/8	4.3	72	44	18	72	15	15	35

Dimensions

Dimensions, Fig. 3

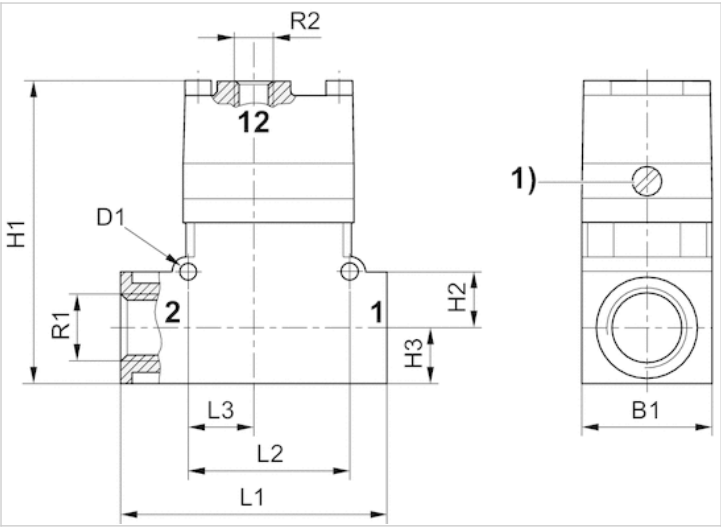


Dimensions

Part No.	R1	R2	L1	L2	H1	H2	B1
0821003029	G 3/4	G 1/8	100	50	41	101	50
0821003030	G 1	G 1/8	100	50	41	101	50

Dimensions

Dimensions, Fig. 4



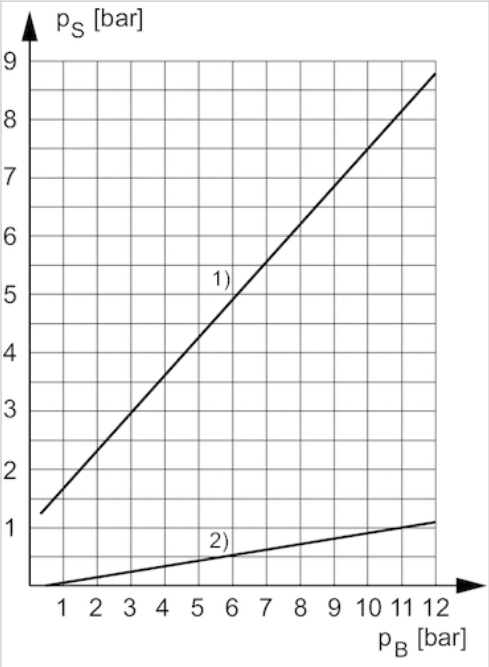
1) Manual override

Dimensions

Part No.	R1	R2	Ø D1	L1	L2	L3	H1	H2	H3	B1
0821003042	G 3/8	G 1/8	4.3	72	44	18	82	15	15	35

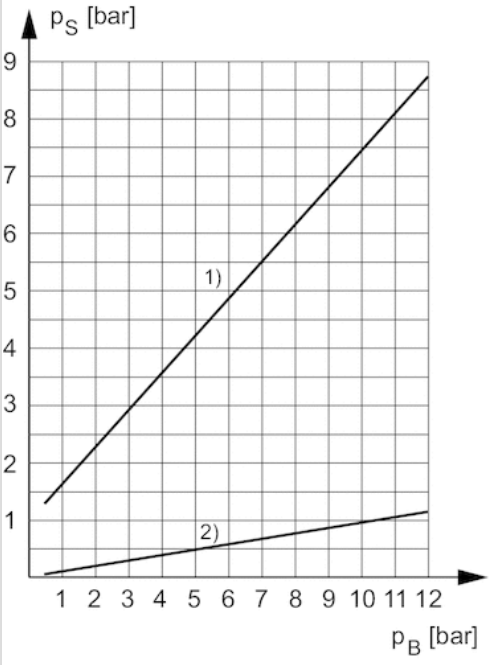
Diagrams

control pressure characteristic, G 1/8



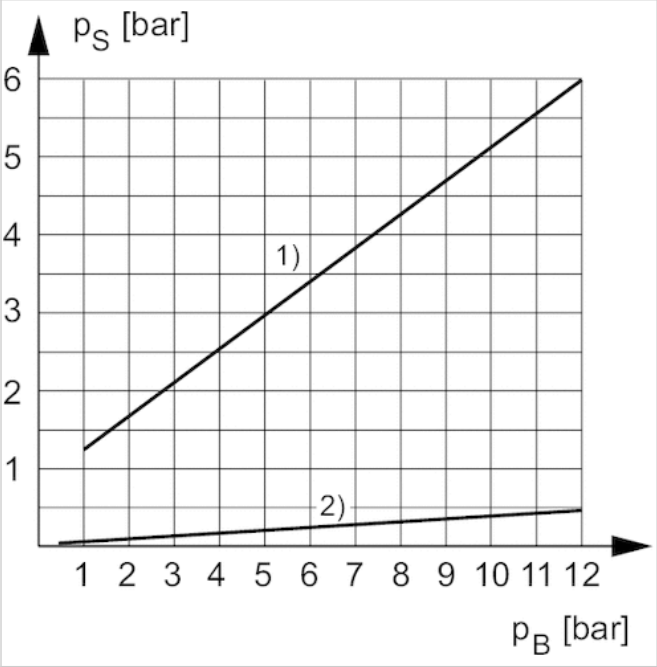
PS = control pressure
PB= Working pressure
1) Opening pressure
2) Closing pressure

control pressure characteristic, G 1/4



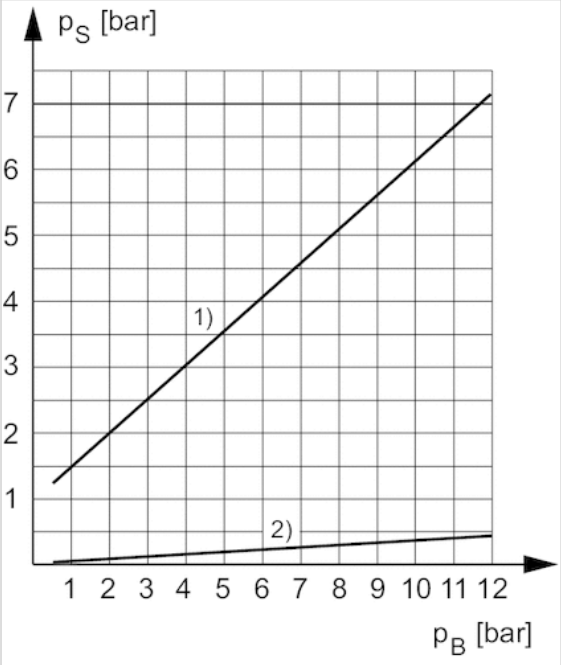
PS = control pressure
PB= Working pressure
1) Opening pressure
2) Closing pressure

control pressure characteristic, G 3/8



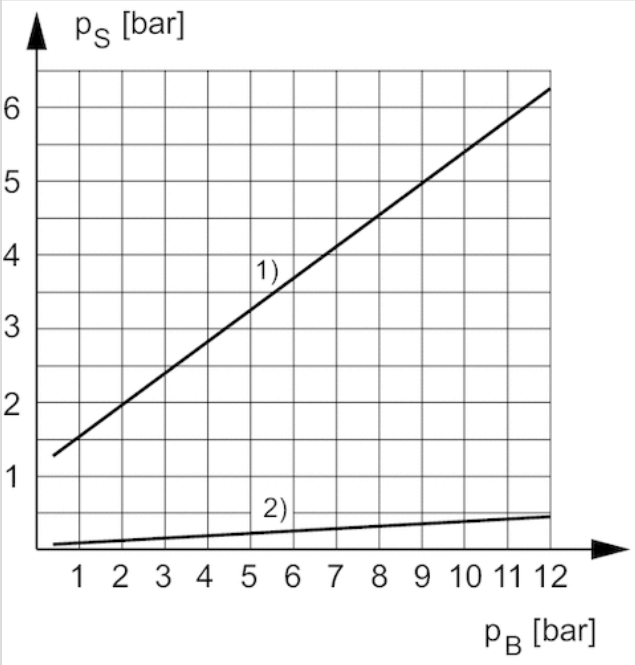
PS = control pressure
PB= Working pressure
1) Opening pressure
2) Closing pressure

control pressure characteristic, G 3/8, With manual override



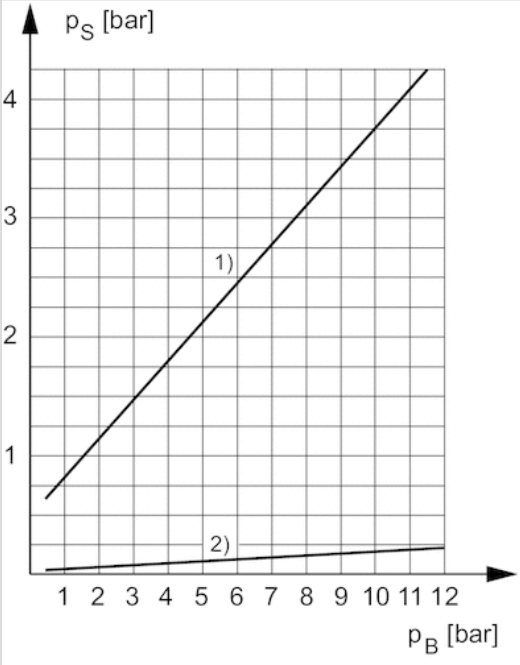
PS = control pressure
PB= Working pressure
1) Opening pressure
2) Closing pressure

control pressure characteristic, G 1/2



PS = control pressure
PB= Working pressure
1) Opening pressure
2) Closing pressure

control pressure characteristic, G 3/4, G 1



PS = control pressure
PB= Working pressure
1) Opening pressure
2) Closing pressure

Pilot-operated non-return valve, Series NR02

- Qn 1▸2 = 550-3000 l/min
- installing in piping
- Internal thread
- G 1/8 G 1/4 G 1/2
- External thread
- R 1/8 R 1/4 G 1/2

Version	Poppet valve
Working pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Port 1	Port 2	Port 12	Flow	Weight	Fig.
			Exhaust	Qn 1▸2		
5340050010	G 1/8	R 1/8	G 1/8	550 l/min	0.132 kg	Fig. 1
5340051000	G 1/4	R 1/4	Ø 8x1	1000 l/min	0.132 kg	Fig. 2
5340051010	G 1/4	R 1/4	G 1/8	1000 l/min	0.132 kg	Fig. 3
5340053000	G 1/2	G 1/2	G 1/8	3000 l/min	0.335 kg	Fig. 4

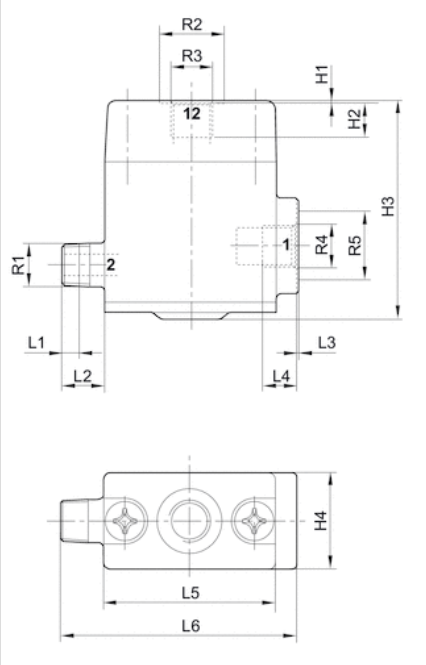
Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

Material	
Housing	Die cast zinc
Seals	Acrylonitrile butadiene rubber

Dimensions

Fig. 1

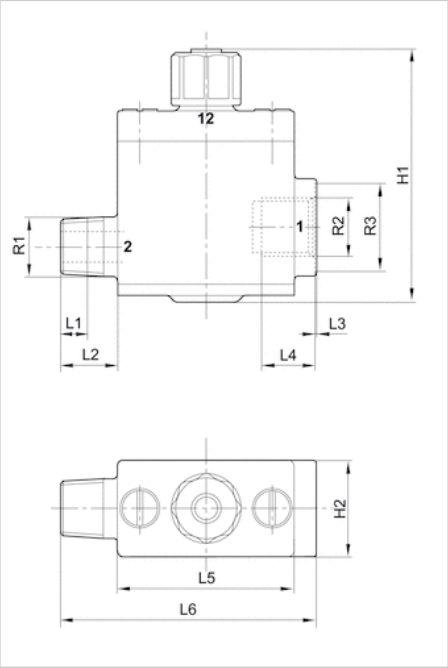


Dimensions

Part No.	R1	R2	R3	R4	R5	L1	L2	L3	L4	L5	L6	H1	H2	H3	H4
5340050010	R1/8	15	G1/8	G1/8	16	4	10	0.3	8	40	55	0.3	8	50.5	22

Dimensions

Fig. 2

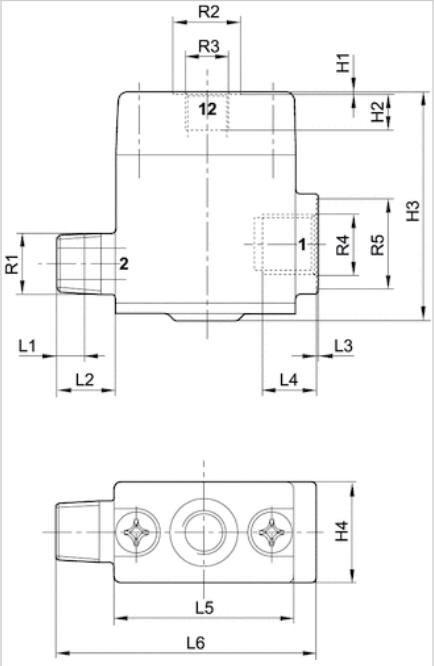


Dimensions

Part No.	R1	R2	R3	L1	L2	L3	L4	L5	L6	H1	H2
5340051000	R1/4	G1/4	20	6	13	0.3	12	40	58	57.5	22

Dimensions

Fig. 3

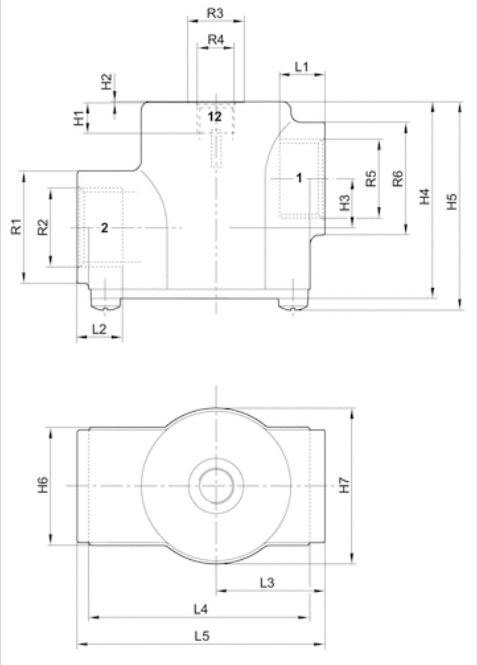


Dimensions

Part No.	R1	R2	R3	R4	R5	L1	L2	L3	L4	L5	L6	H1	H2	H3	H4
5340051010	R1/4	15	G1/8	G1/4	20	6	13	0.3	12	40	58	0.3	8	50.5	22

Dimensions

Fig. 4



Dimensions

Part No.	R1	R2	R3	R4	R5	R6	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	H6	H7
5340053000	30	G1/2	15	G1/8	G1/2	30	12	12	29	59	66	8	0.3	13	52.5	56	31.5	41.5

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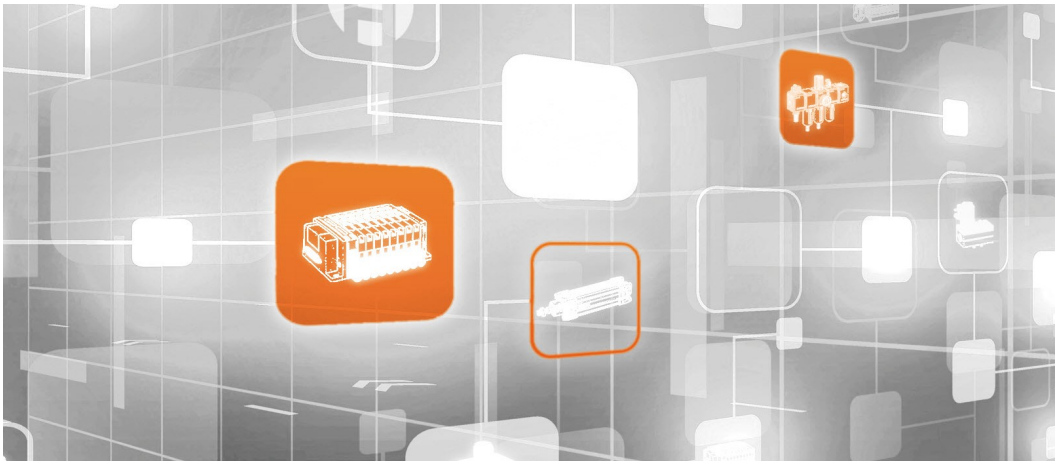

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