

Check valve

Type S

RE 20375

Edition: 2015-07

Replaces: 12.06



R78_165

- ▶ Size 6 ... 30
- ▶ Maximum operating pressure 315 bar
- ▶ Maximum flow 450 l/min

Features

- ▶ For threaded connection (screw-in thread)
- ▶ Leak-free blocking in one direction
- ▶ Various cracking pressures, optional

Contents

Features	1
Ordering codes	2
Symbols	2
Technical data	3
Characteristic curves	4, 5
Dimensions	5
Additional information	6

Ordering codes

01	02	03	04	05	06	07	08	09
S		A		•	0	/		

01	Isolator valve	S
02	Size 6	6
	Size 8	8
	Size 10	10
	Size 15	15
	Size 20	20
	Size 25	25
	Size 30	30
03	Threaded connection	A

Cracking pressure (see characteristic curves on page 4 and 5)

04	Characteristic curve "0" (without spring)	0
	Characteristic curve "1" (standard)	1
	Characteristic curve "2"	2
	Characteristic curve "3"	3
	Characteristic curve "5"	5
	Characteristic curve "8" (only sizes 25 and 30)	8
05	Change number (is entered by the plant)	0

Orifice in channel B

06	Without orifice (standard)	no code
	With orifice (Ø0.3 ... 1.6 mm) – enter orifice Ø in 1/10 mm (example: Orifice Ø 1.2 mm → B12)	B**

Connection thread


07	Pipe thread "G" according to ISO 228-1	no code
	Pipe thread "UNF" according to ANSI/ASME B 1.1	/12

Corrosion resistance (outside; thick film passivated according to DIN 50979 Fe//Zn8//Cn//T0)

08	None (valve housing primed)	no code
	Improved corrosion protection (240 h salt spray test according to EN ISO 9227)	J3

Special version

09	Standard version	no code
	Cracking pressure approx 0.1 ... 0.2 bar	SO68

 **Notice:** Preferred types and standard units are contained in the EPS (standard price list).

Symbols

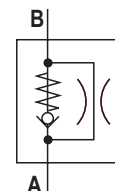
Without spring



With spring



With orifice



Technical data

(For applications outside these values, please consult us!)

general								
Sizes	Size	6	8	10	15	20	25	30
Weight	kg	0.1	0.2	0.3	0.5	1.0	2.0	2.5

hydraulic	
Maximum operating pressure	bar 315
Cracking pressure	bar See characteristic curves on page 4 and 5
Maximum flow	See characteristic curves on page 4 and 5
Hydraulic fluid	See table below
Hydraulic fluid temperature range	°C -30 ... +80
Viscosity range	mm ² /s 2.8 ... 500
Maximum admissible degree of contamination of the hydraulic fluid cleanliness class according to ISO 4406 (c)	Class 20/18/15 ¹⁾

Hydraulic fluid	Classification	Suitable sealing materials	Standards	Data sheet
Mineral oils	HL, HLP, HLPD, HVLP, HVLDP	NBR, FKM	DIN 51524	90220
Bio-degradable	▶ insoluble in water	HETG	ISO 15380	90221
		HEES		
	▶ soluble in water	HEPG	ISO 15380	
Flame-resistant	▶ water-free	HFDU, HFDR	ISO 12922	90222
	▶ containing water	HFC (Fuchs Hydrotherm 46M, Petrofer Ultra Safe 620)	ISO 12922	90223



Important information on hydraulic fluids:

- ▶ For more information and data on the use of other hydraulic fluids, please refer to the data sheets above or contact us!
- ▶ There may be limitations regarding the technical valve data (temperature, pressure range, life cycle, maintenance intervals, etc.)!
- ▶ The flash point of the hydraulic fluid used must be 40 K higher than the maximum solenoid surface temperature.

▶ Flame-resistant – containing water:

- Maximum pressure differential per control edge 50 bar
- Pressure pre-loading at the tank port > 20 % of the pressure differential, otherwise increased cavitation
- Life cycle as compared to operation with mineral oil HL, HLP 50 to 100 %

- ▶ **Bio-degradable and flame-resistant:** When using hydraulic fluids that are simultaneously zinc-solving, zinc may accumulate (700 mg zinc per pole tube).

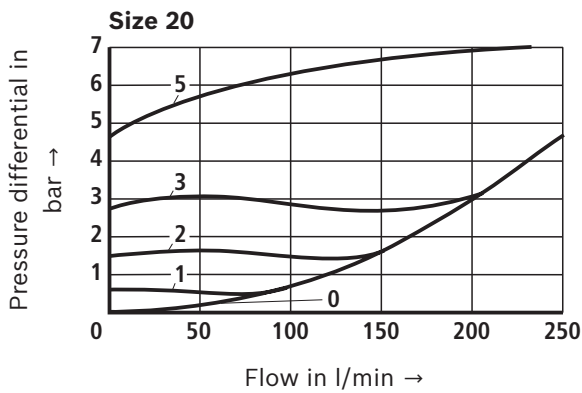
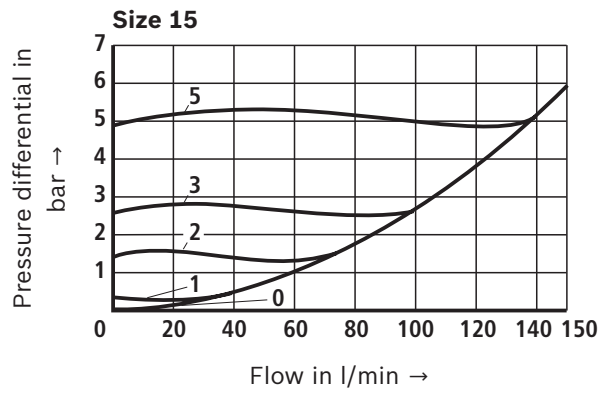
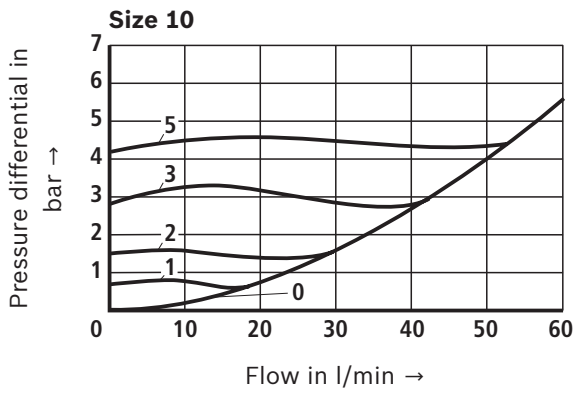
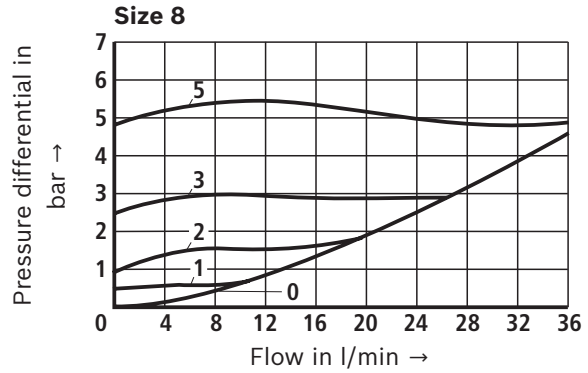
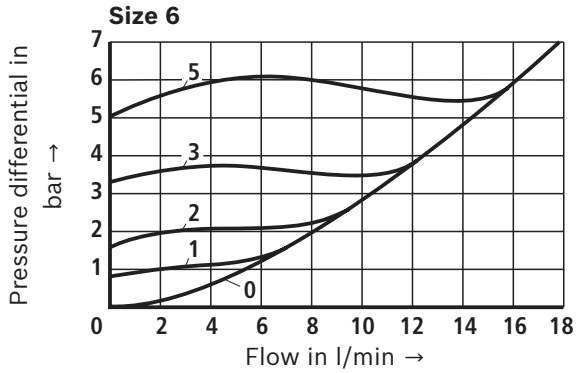
¹⁾ The cleanliness classes specified for the components must be adhered to in hydraulic systems. Effective filtration prevents faults and at the same time increases the life cycle of the components.

Available filters can be found at www.boschrexroth.com/filter.

Characteristic curves

(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^\circ\text{C}$)

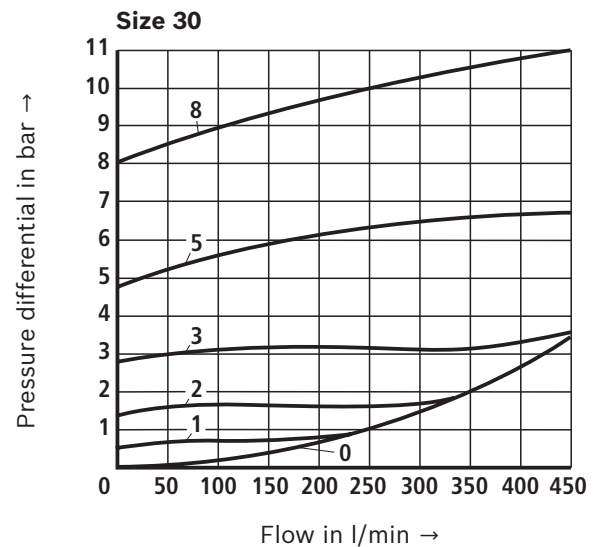
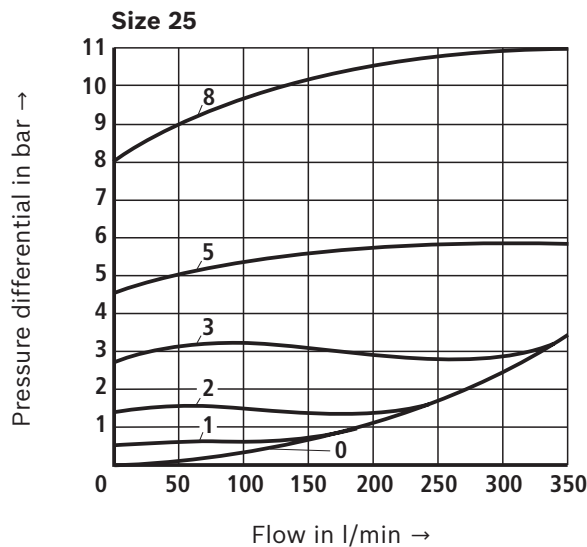
Δp - q_v characteristic curves at cracking pressure



Characteristic curves

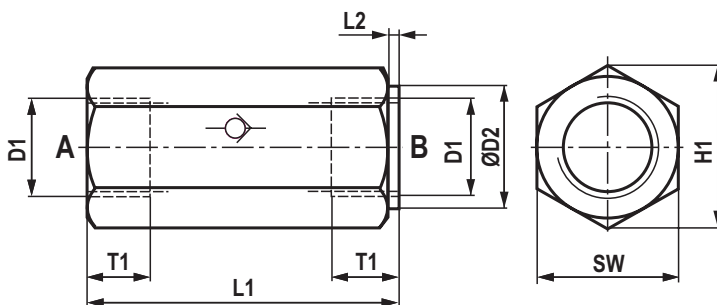
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ °C}$)

Δp - q_v characteristic curves at cracking pressure



Dimensions

(dimensions in mm)



		Size						
		6	8	10	15	20	25	30
D1	Metric	G1/4	G3/8	G1/2	G3/4	G1	G1 1/4	G1 1/2
	UNF	–	3/4-16 UNF	3/4-16 UNF	1 1/6-12 UNF	1 5/6-12 UNF	1 5/8-12 UNF	1 7/8-12 UNF
ØD2		19	24	30	36	46	60	65
H1		22	28	34.5	41.5	53	69	75
L1	Metric	58	58	72	88	98	120	132
	UNF	–	66	72	92	105	120	132
L1 ¹⁾		–	–	–	–	–	160 ¹⁾	168 ¹⁾
L2		2	2	2	2	2	2	2
T1	Metric	13	13	15	18	19	22	22.5
	UNF	–	15	15	20	20	20	20
SW		19	24	30	36	46	60	65

¹⁾ Version "A8.0"

Additional information

- ▶ Hydraulic fluids on mineral oil basis
 - ▶ Environmentally compatible hydraulic fluids
 - ▶ Flame-resistant, water-free hydraulic fluids
 - ▶ Flame-resistant hydraulic fluids - containing water (HFAE, HFAS, HFB, HFC)
 - ▶ Hydraulic valves for industrial applications
 - ▶ General product information on hydraulic products
 - ▶ Assembly, commissioning and maintenance of industrial valves
 - ▶ Selection of filters
 - ▶ Information on available spare parts
- Data sheet 90220
Data sheet 90221
Data sheet 90222
Data sheet 90223
Operating instructions 07600-B
Data sheet 07008
Data sheet 07300
www.boschrexroth.com/filter
www.boschrexroth.com/spc

Notes

Notes

Bosch Rexroth AG
Hydraulics
Zum Eisengießer 1
97816 Lohr am Main, Germany
Phone +49 (0) 93 52/18-0
documentation@boschrexroth.de
www.boschrexroth.de

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