

Check valve

Type S

RE 20378

Edition: 2016-08

Replaces: 2016-03



H8081

- ▶ Size 6 ... 30
- ▶ Component series 1X
- ▶ Maximum operating pressure 450 bar
- ▶ Maximum flow 450 l/min

Features

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

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Ordering code

01	02	03	04	05	06	07	08	09
S		A		- 1X	/			

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	0 bar (without spring)	00
	0.5 bar (standard)	05
	1.5 bar	15
	3.0 bar	30
	5.0 bar	50
	8.0 bar (NG25 and 30 only)	80
	05	Component series 10 ... 19 (10 ... 19: unchanged installation and connection dimensions)
06	Maximum operating pressure 420 bar (NG25 and 30)	420
	Maximum operating pressure 450 bar (NG6 ... 20)	450

Corrosion resistance ¹⁾

07	Without corrosion protection	no code
	Improved corrosion protection (240 h salt spray test according to EN ISO 9227)	J3


Orifice in channel B

08	Without orifice (standard)	no code
	Orifice Ø 1.0 mm	B10
	Orifice Ø 1.2 mm	B12
	Orifice Ø 1.5 mm	B15

Connection thread

09	Pipe thread "G" according to ISO 228-1	no code
	Pipe thread "UNF/UN" according to ANSI/ASME B 1.1	/12
	More thread designs upon request	

¹⁾ Higher corrosion protection upon request

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

Symbols

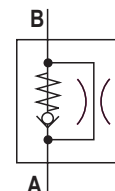
Without spring



With spring



With orifice



Technical data

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

general								
Sizes	NG	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	▶ NG20 and 30 bar	420
	▶ NG6 ... 20 bar	450
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	Standards	Data sheet
Mineral oils	HL, HLP, HLPD, HVLP, HVLPD	DIN 51524	90220
Bio-degradable ²⁾	▶ Insoluble in water	HETG HEES	90221
	▶ Soluble in water	HEPG	
Flame-resistant	▶ Water-free	HFDU (glycol base)	90222
		HFDU (ester base) ²⁾	
	▶ Containing water ²⁾	HFC (Fuchs Hydrotherm 46M, Petrofer Ultra Safe 620)	90223



Important notes 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 ignition temperature of the hydraulic fluid used must be 50 K higher than the maximum surface temperature.

▶ Flame-resistant – containing water:

- Life cycle as compared to operation with mineral oil HL, HLP 30 ... 100%
- Maximum hydraulic fluid temperature 60 °C

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

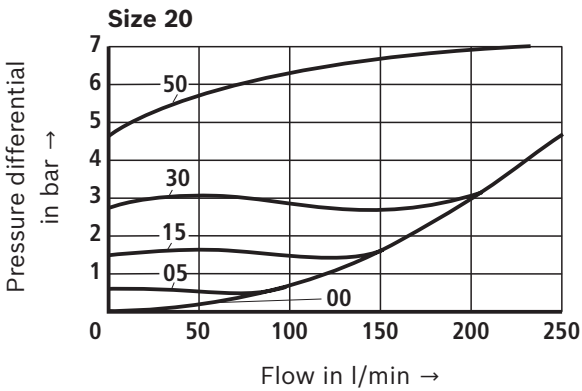
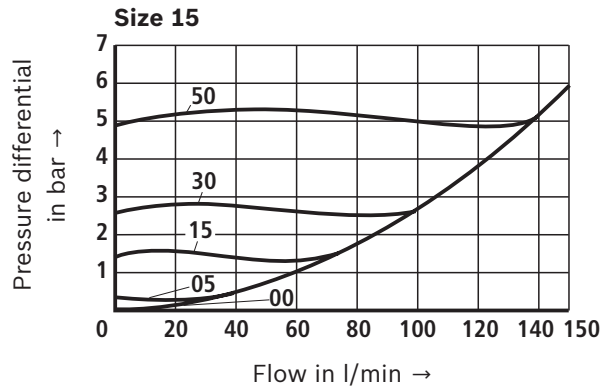
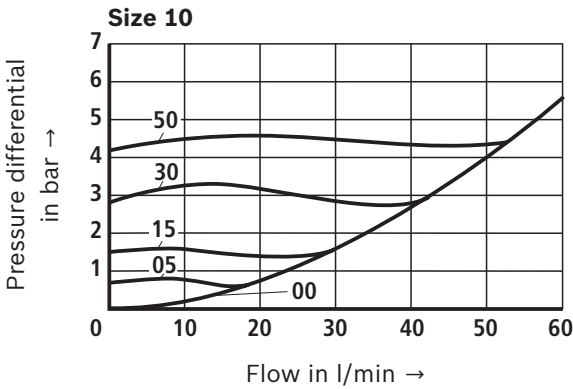
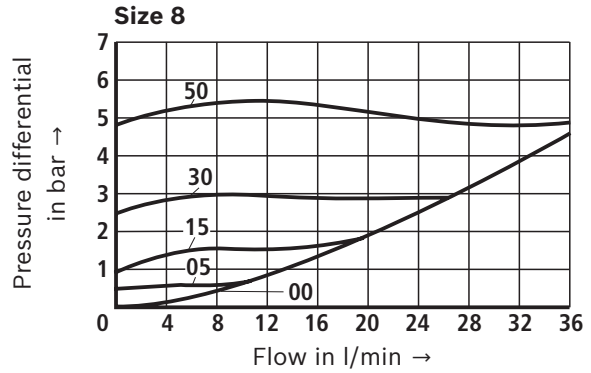
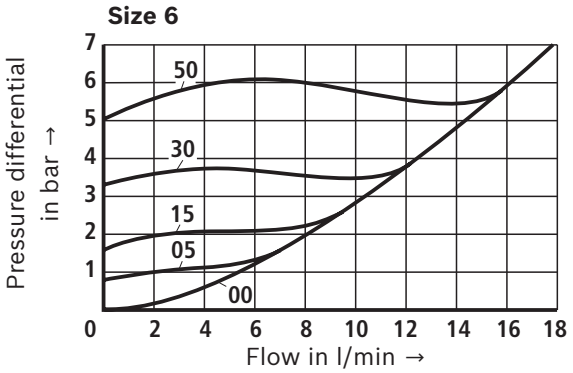
Available filters can be found at www.boschrexroth.com/filter.

²⁾ Small amounts of dissolved zinc may get into the hydraulic system during use.

Characteristic curves

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

Δp - q_v characteristic curves at cracking pressure

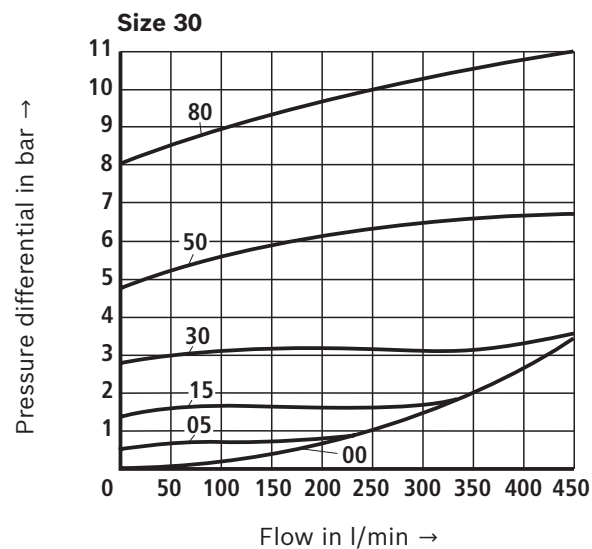
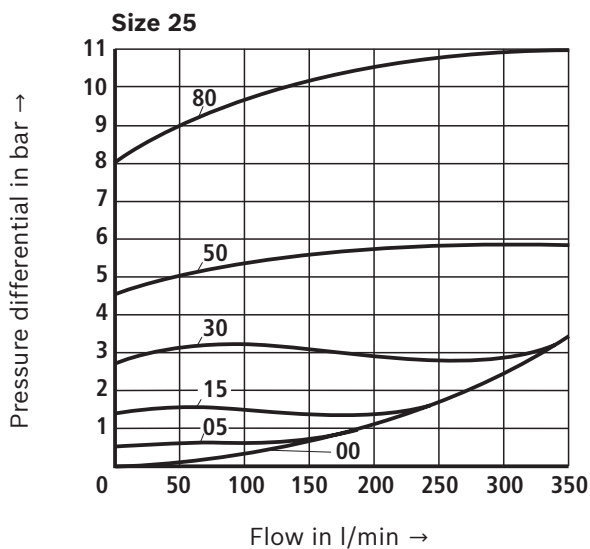


- 00** Cracking pressure 0 bar (without spring)
- 05** Cracking pressure 0.5 bar (standard)
- 15** Cracking pressure 1.5 bar
- 30** Cracking pressure 3.0 bar
- 50** Cracking pressure 5.0 bar

Characteristic curves

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

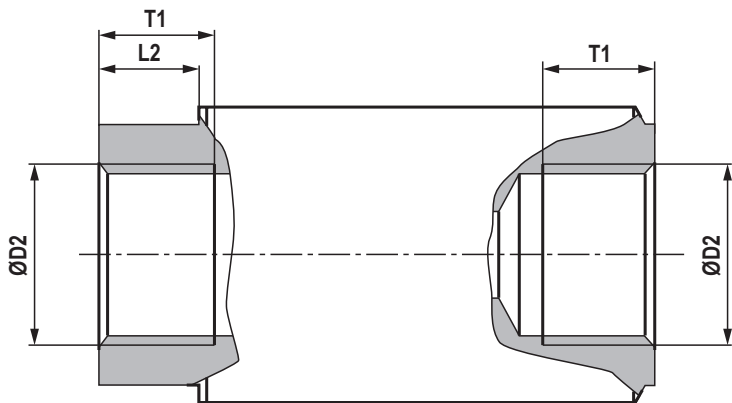
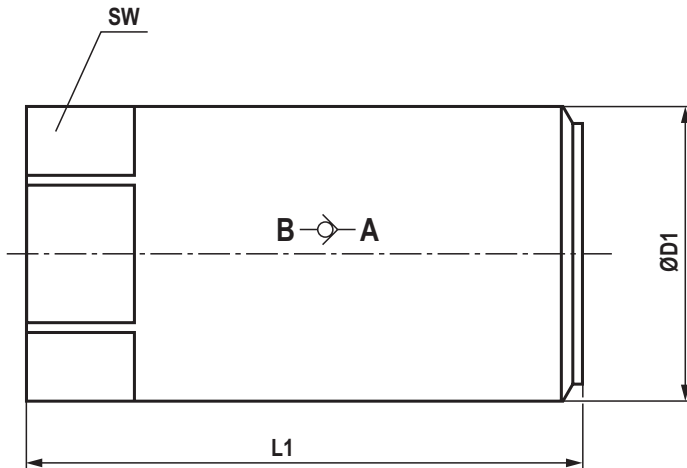
Δp - q_V characteristic curves at cracking pressure



- 00** Cracking pressure 0 bar (without spring)
- 05** Cracking pressure 0.5 bar (standard)
- 15** Cracking pressure 1.5 bar
- 30** Cracking pressure 3.0 bar
- 50** Cracking pressure 5.0 bar
- 80** Cracking pressure 8.0 bar

Dimensions

(dimensions in mm)



		Size							
		6	8		10	15	20	25	30
ØD1		22.5	28	34	34	42	52	68	74.5
D2	"G"	G1/4	G3/8	-	G1/2	G3/4	G1	G1 1/4	G1 1/2
	"UNF/UN"	-	-	3/4-16 UNF	3/4-16 UNF	1 1/6-12 UN	1 5/16-12 UN	1 5/8-12 UN	1 7/8-12 UN
L1	"G"	58	58		72	88	98	120	132
	"UNF/UN"	-	66		72	92	105	120	132
L1 ¹⁾		-	-		-	-	-	160 ¹⁾	168 ¹⁾
L2		10.5	11.5	13	13	15.5	19	25	28
T1	"G"	13	13		15	18	19	22	22.5
	"UNF/UN"	-	15		15	20	20	20	20
SW		19	24	30	30	36	46	60	65

1) Version "...A80..."

Further 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
- ▶ Selection of the filters
- ▶ Information on available spare parts

Data sheet 90220

Data sheet 90221

Data sheet 90222

Data sheet 90223

Operating instructions 07600-B

www.boschrexroth.com/filter

www.boschrexroth.com/spc

Notes

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