

RE 20 380/12.02

Replaces: 10.95

**Check valve cartridge
Type M-SR**

Nominal sizes 6 to 30

Series 1X

Maximum operating pressure 315 bar

Maximum flow 400 L/min



HAD 1720

Type M-SR..KE..-1X/..

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Features

- For installation in manifold blocks
 - As right angled check valve cartridge
 - As straight line check valve cartridge
- Leak-free closure in one direction
- Various opening pressures, optional (see ordering details)

Ordering details

M-SR		- 1X /		*
Check valve	= M-SR			Further details in clear text
Nominal size 6 (not with right angled check valve)	= 6			No code = NBR seals
Nominal size 8	= 8			V = (only with right angled check valve) FKM seals (other seals on request)
Nominal size 10	= 10			⚠ Attention! The compatibility of the seals and pressure fluid has to be taken into account!
Nominal size 15	= 15			
Nominal size 20	= 20			
Nominal size 25	= 25			
Nominal size 30	= 30			
Right angled check valve cartridge	= KE			1X = Series 10 to 19 (10 to 19: unchanged installation and connection dimensions)
Straight line check valve cartridge	= KD			00 = Without spring (not with straight line check valve)
				02 =
				05 = (Standard)
				15 =
				30 =
				50 =
				Opening pressure see characteristic curves

Preferred types, see page 2, are readily available!

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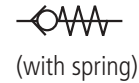
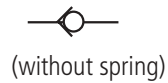
Preferred types (readily available)

Type	Material No.
M-SR 6 KD05-1X/	R900301889
M-SR 8 KE02-1X/	R900357438
M-SR 8 KE05-1X/	R900346083
M-SR 10 KE05-1X/	R900344549
M-SR 15 KE02-1X/	R900348943

Type	Material No.
M-SR 15 KE05-1X/	R900345372
M-SR 20 KE02-1X/	R900345744
M-SR 20 KE05-1X/	R900340979
M-SR 25 KE05-1X/	R900344778
M-SR 30 KE05-1X/	R900344919

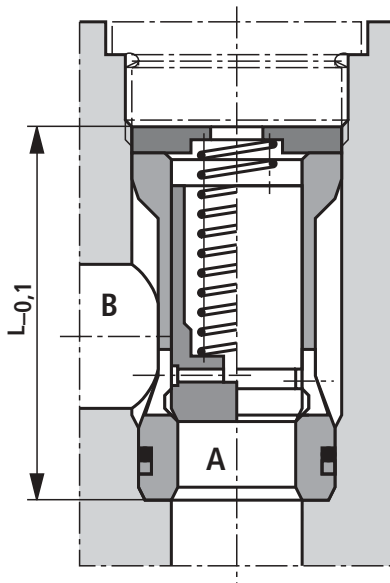
Further preferred types and standards can be found in the EPS (Standard Price List).

Symbols

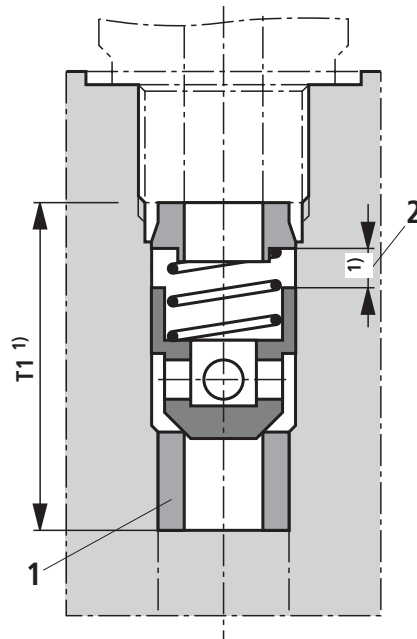


Section

Right angled
check valve cartridge



Straight line
check valve cartridge



NS	$L_{-0,1}$
8	36.3
10	39.3
15	45.8
20	55.3
25	74.3
30	83.3

1 Seat frozen-in at $-60\text{ }^{\circ}\text{C}$

2 Stroke

¹⁾ For dimensions see installation cavities

Technical data (for applications outside these parameters, please consult us!)**General**

Installation	Optional								
Ambient temperature range	°C	– 20 to + 80 (NBR seals)							
		– 20 to + 80 (FKM seals)							
Weight	NS	6	8	10	15	20	25	30	
	Right angled check valve cartridge	kg	–	0.03	0.05	0.08	0.14	0.32	0.47
	Straight line check valve cartridge	kg	0.05	0.05	0.05	0.1	0.2	0.25	0.3

Hydraulic

Maximum operating pressure	bar	315
Opening pressure	bar	See characteristic curves
Maximum flow	L/min	See characteristic curves
Pressure fluid	Mineral oil (HL, HLP) to DIN 51 524 ¹⁾ ; Fast bio-degradable pressure fluids to VDMA 24 568 (also see RE 90 221); HETG (rape seed oil) ¹⁾ ; HEPG (polyglycols) ²⁾ ; HEES (synthetic ester) ²⁾ ; Other pressure fluids on request	
Pressure fluid temperature range	°C	– 30 to + 80 (NBR seals)
		– 20 to + 80 (FKM seals)
Viscosity range	mm ² /s	2.8 to 500
Cleanliness class to ISO code	Maximum permissible degree of contamination of the pressure fluid is to ISO 4406 (C) class 20/18/15 ³⁾	

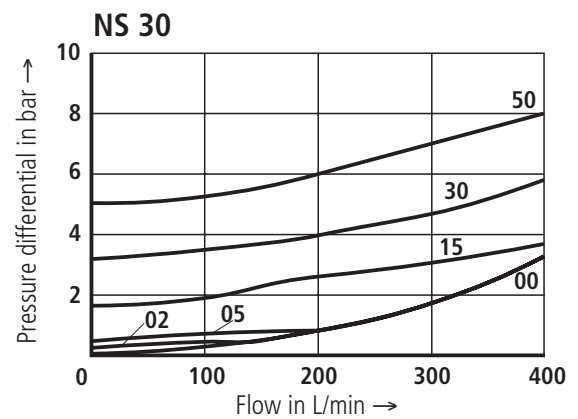
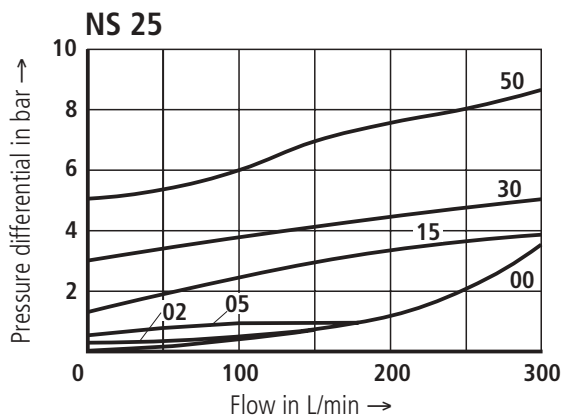
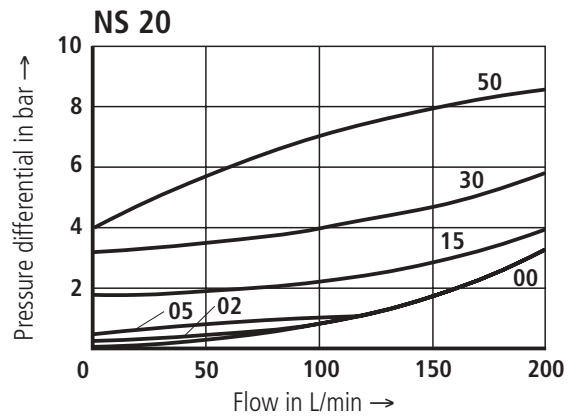
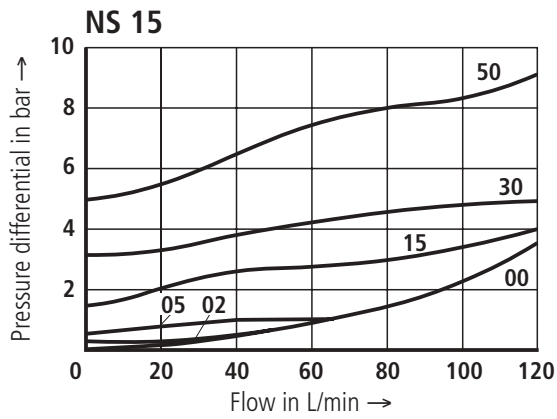
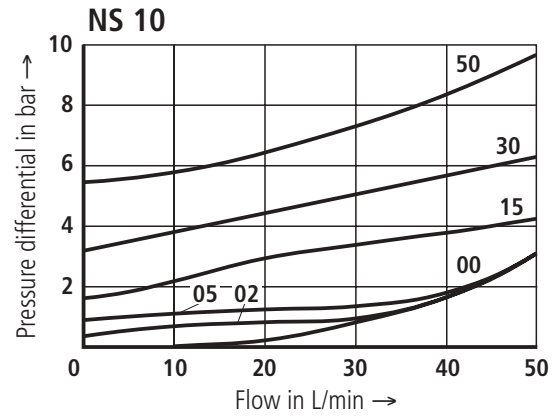
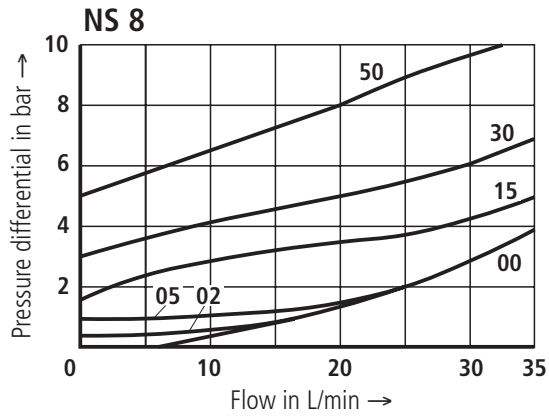
¹⁾ Suitable for NBR and FKM seals

²⁾ **Only** suitable for FKM seals

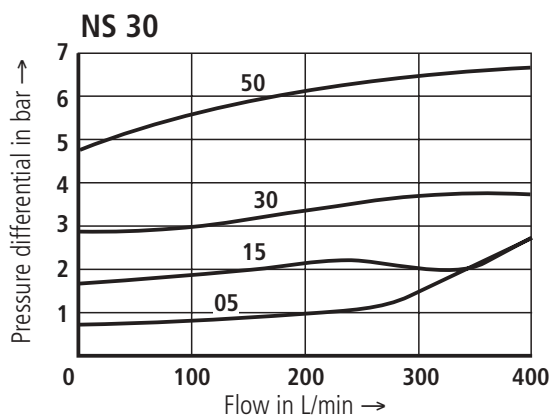
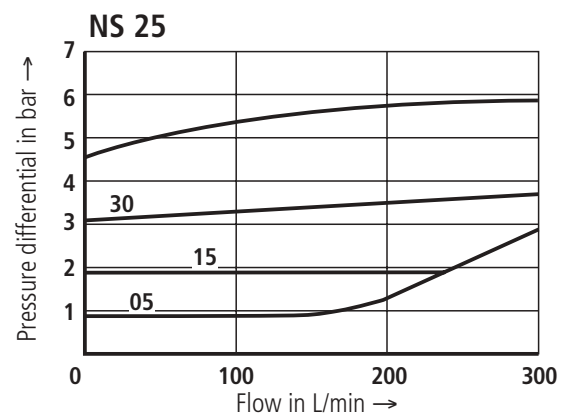
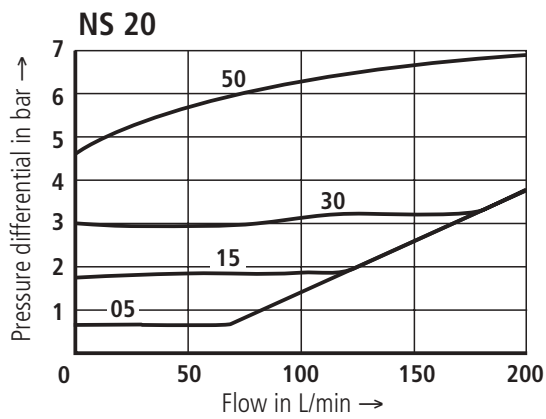
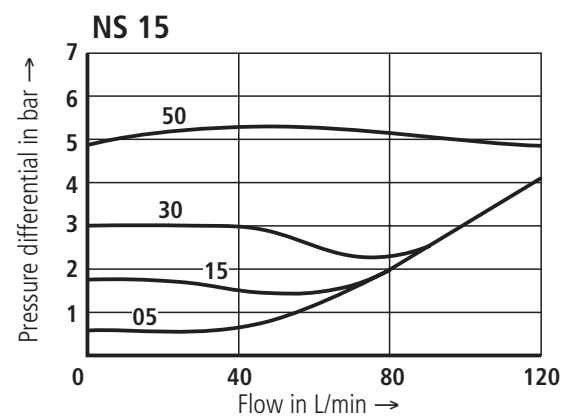
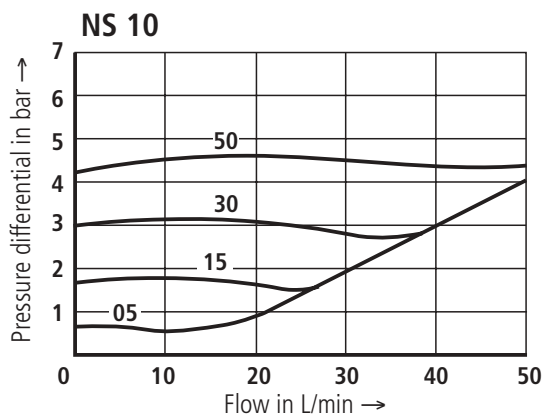
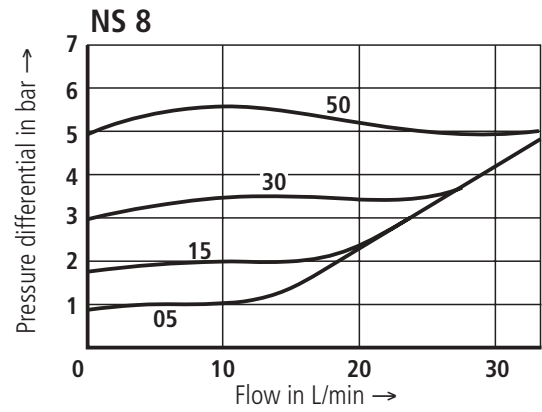
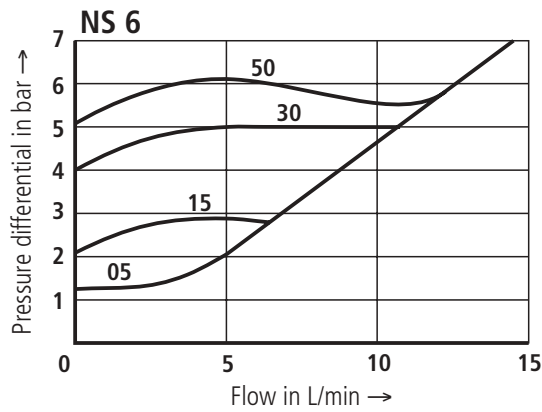
³⁾ The cleanliness class stated for the components must be adhered to in hydraulic systems. Effective filtration prevents faults from occurring and at the same time increases the component service life.

For the selection of filters see catalogue sheets RE 50 070, RE 50 076 and RE 50 081.

Pressure differential Δp in relation to the flow q_v at opening pressure

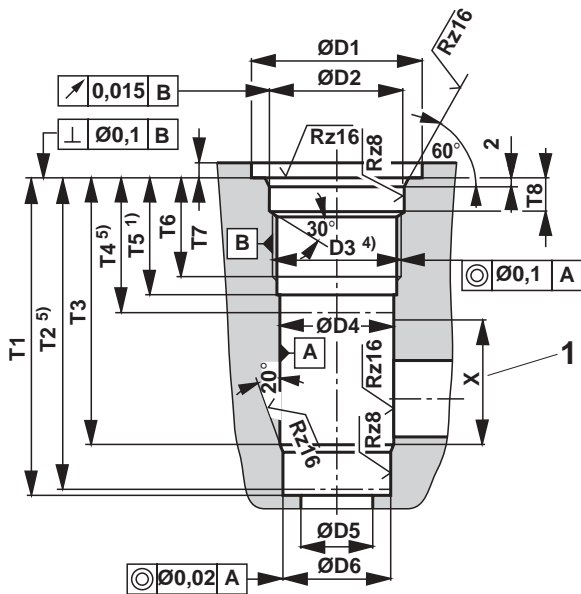


Pressure differential Δp in relation to the flow q_v at opening pressure

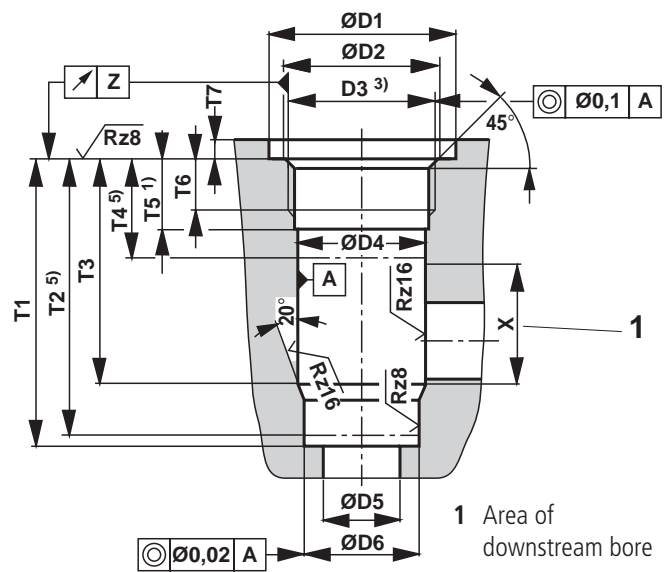


Cavities: right angled check valve cartridge (dimensions in mm)

For plug to RN 143.28



For plug to RN 143.21

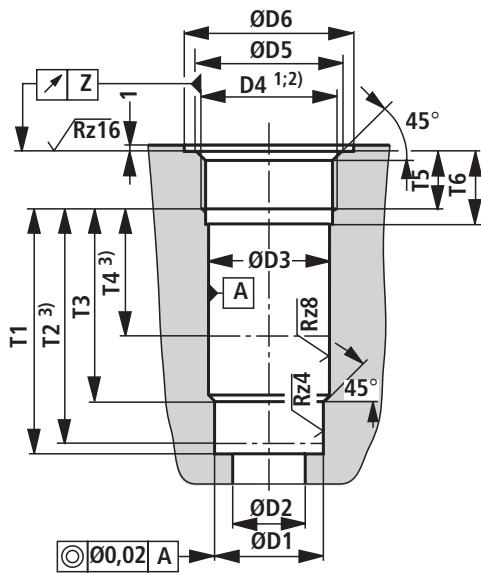


- 1) When fitting the cartridge at an increased depth, dimension T5 has to be increased accordingly.
- 2) With NBR seals

- 3) Pipe thread "G..." to ISO 228/1
- 4) Metric ISO fine thread to DIN 13
- 5) Depth of fit

NS	Plug ²⁾ Mat. No.	p_N in bar	ØD1	ØD2	D3	ØD4 H8	ØD5	ØD6 H7	T1 +0.1	T2	T3	T4	T5	T6	T7	T8 +0.2	X	Z
8	R900002423	315	23	17.1	G 3/8 ³⁾	14	8	13	48.5	47.5	38.5	20	15	12	6	—	18	0.05
10	R900002422	315	28	21.4	G 1/2 ³⁾	18	10	17	53.5	52.5	43.5	24	18	14	6	—	19	0.05
15	R900012091	315	33	26.8	G 3/4 ³⁾	24	15	22	62	60.5	50	26	20.5	16	6	—	24	0.05
20	R900002424	315	41	33.8	G 1 ³⁾	30	20	28	71.5	70	56.5	26	20.5	16	7	—	30	0.05
25	R900012411	250	51	42.5	G 1 1/4 ³⁾	38	25	36	90.5	88	72.5	28	22	16	7	—	43	0.1
30	R900012412	250	56	48.5	G 1 1/2 ³⁾	44	30	42	99.5	96.5	79.5	31	22	16	7	—	48	0.1
25	R900323609	315	56 ^{+0.5}	44 ^{H8}	M42 x 1.5 ⁴⁾	38	25	36	106.5	104	88.5	45	39	33	5	12	43	—
30	R900323610	315	62 ^{+0.5}	50 ^{H8}	M48 x 1.5 ⁴⁾	44	30	42	115.5	112.5	95.5	48	39	33	5	12	48	—

Cavities: straight line check valve cartridge (dimensions in mm)



- 1) Pipe thread "G..." to ISO 228/1
- 2) Metric ISO fine thread to DIN 13
- 3) Depth of fit

NS	ØD1 ^{H7}	ØD2	ØD3 ^{H8}	D4 ¹⁾	ØD5 ^{±0.1}	D4 ²⁾	ØD5 ^{±0.1}	ØD6
6	10	6	11	G 1/4	13.6	M14 x 1.5	14.4	25
8	13	8	14	G 3/8	17.1	M18 x 1.5	18.4	28
10	17	10	18	G 1/2	21.4	M22 x 1.5	22.4	34
15	22	15	24	G 3/4	26.8	M27 x 2	27.4	42
20	28	20	30	G 1	33.8	M33 x 2	33.5	47
25	36	25	38	G 1 1/4	42.5	M42 x 2	42.5	58
30	42	30	44	G 1 1/2	48.5	M48 x 2	48.5	65

NS	T1 _{-0.1}	T2	T3	T4	T5	T6	Z	Poppet stroke
6	29.8	27.8	21.8	19	12	16	0.05	4
8	32.8	30.8	22.8	18	12	16	0.05	4
10	38.8	36.8	28.8	21	14	19	0.05	4
15	48.4	46.4	36.4	27	16	21	0.05	5
20	59	57	44	29	18	24	0.05	5
25	73	71	55	39	20	26	0.1	7
30	83	81	63	42	22	28	0.1	7

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