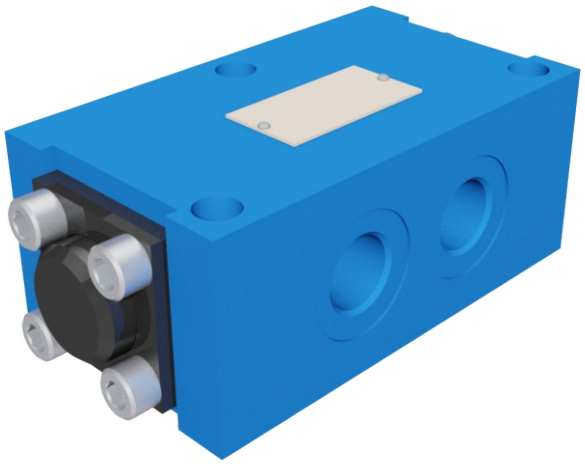
VALVOLE DI RITEGNO

SV/SL

PILOT OPERATED CHECK VALVES

The SV and SL valves are hydraulic pilot operated check valves of poppet type design which may be opened to permit flow in the reverse direction.

These valves are used for the isolation of operating circuits which are under pressure, i.e. as a safe guard against the lowering of a load when a line break occurs or against creeping movements of hydraulically locked actuators.

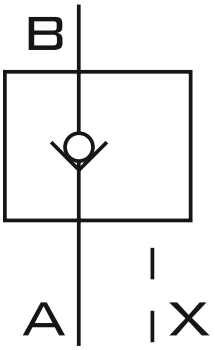


Technical data

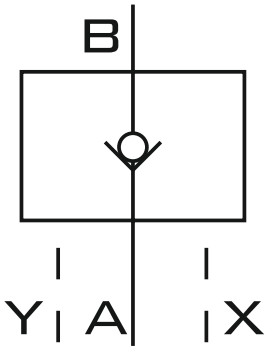
Size	10, 16, 20, 25, 32
Max. flow rate (l/min)	See characteristic curves
Operating pressure (MPa)	31.5
Fluid temperature (°C)	-30 – 80
Filtration accuracy (μm)	10
Valve body (material)	Casting phosphating surface

Schemes

Version SV
(internal pilot oil drain)



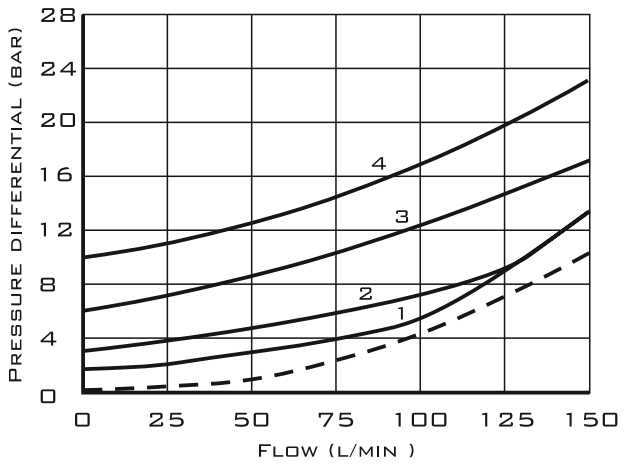
Version SL
(external pilot oil drain)



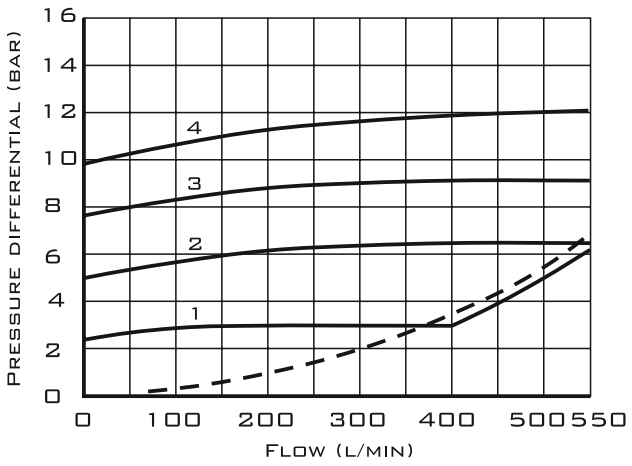
CHARACTERISTIC CURVES (SUBPLATE MOUNTING)

Δp-q CHARACTERISTIC CURVES

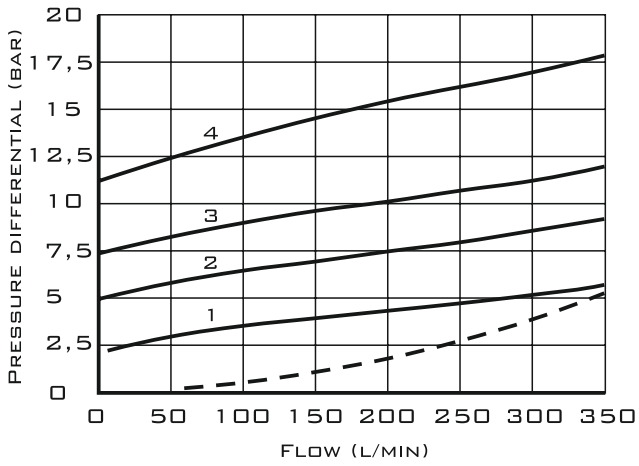
SIZE10



SIZE 32



SIZE 20



OPENING PRESSURE (BAR)

	NS10	NS20	NS32
1	1.5	2.5	2.5
2	3	5	5
3	6	7.5	8
4	10	10	10

——— A TO B

– – – B TO A

1 SCATTER RANGE

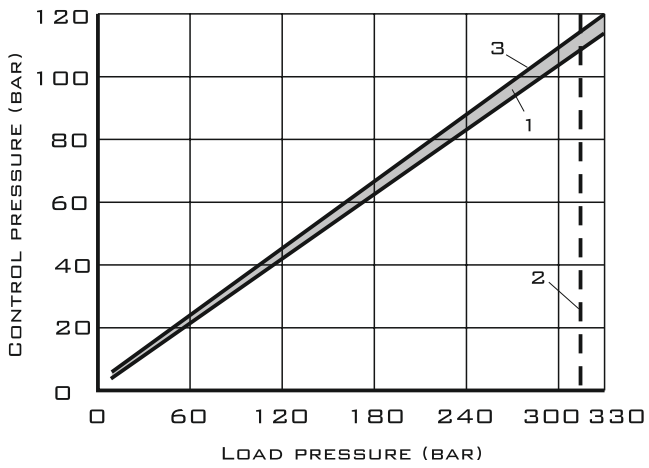
2 LIMITING VALUE

3 VALVE POPPET

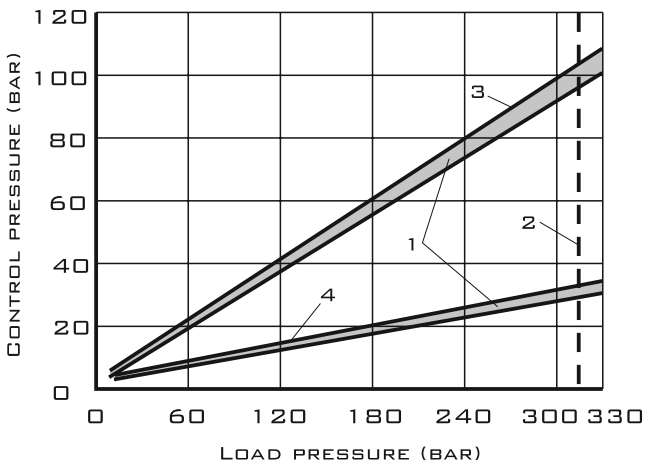
4 DECOMPRESSION

CONTROL PRESSURE-LOAD PRESSURE-CHARACTERISTIC CURVES

WITHOUT DECOMPRESSION



WITH DECOMPRESSION

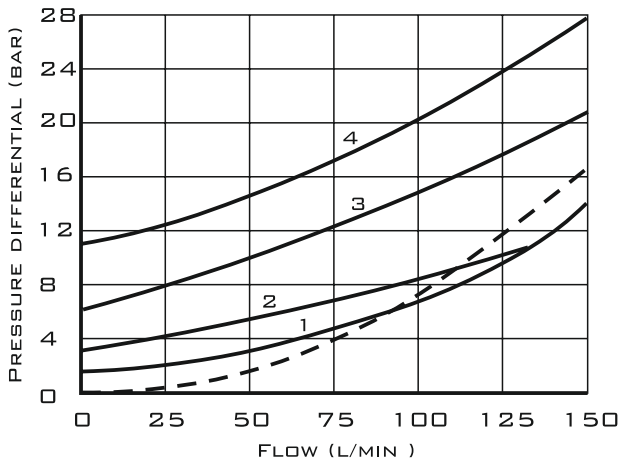


SEE ALSO:
Z2S10, Z2S16

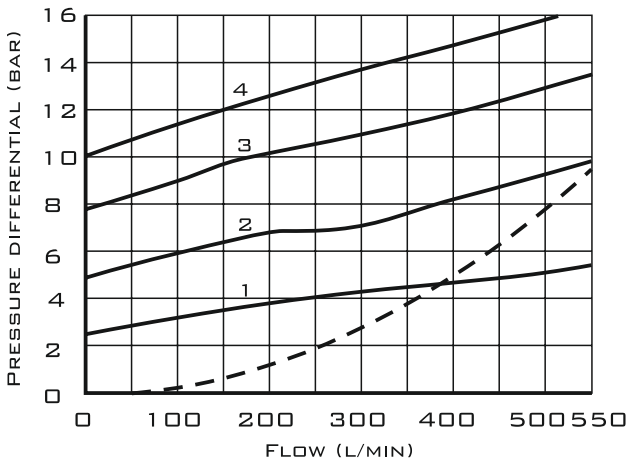
Characteristic curves (threaded connecting)

Δp-q characteristic curves

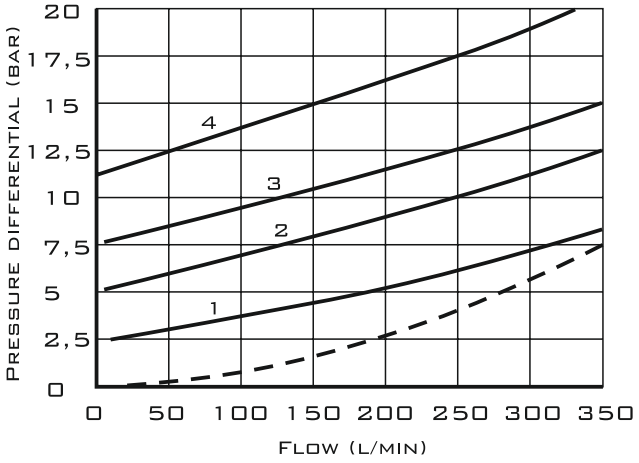
Size10



Size 25 and 32



Size 16 and 20



Opening pressure (bar)

	NS10	NS20	NS32
1	1.5	2.5	2.5
2	3	5	5
3	6	7.5	8
4	10	10	10

——— A to B

– – – B to A

1 Scatter range

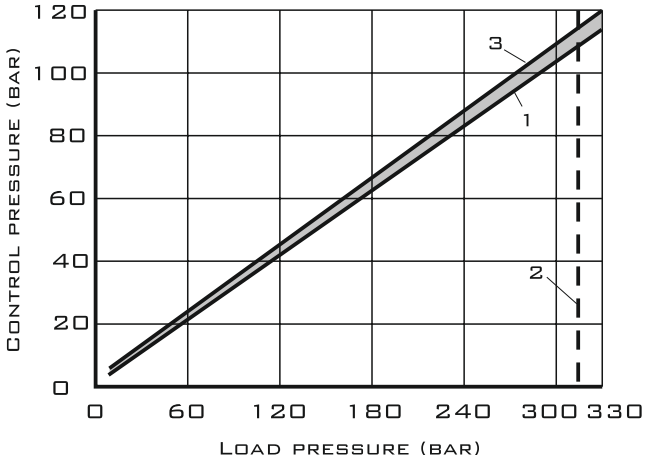
2 Limiting value

3 Valve poppet

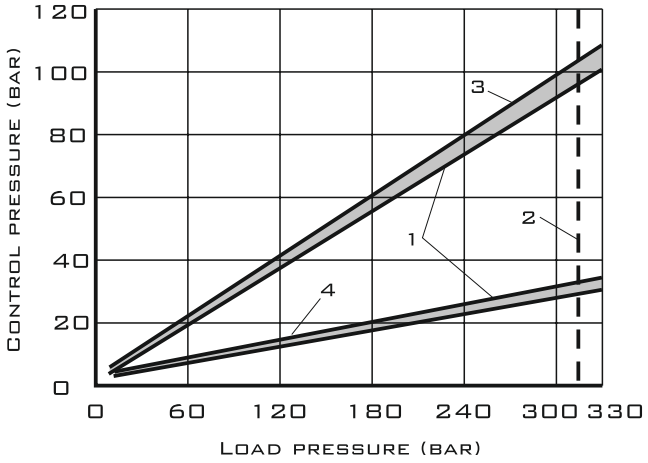
4 Decompression

Control pressure-load pressure-characteristic curves

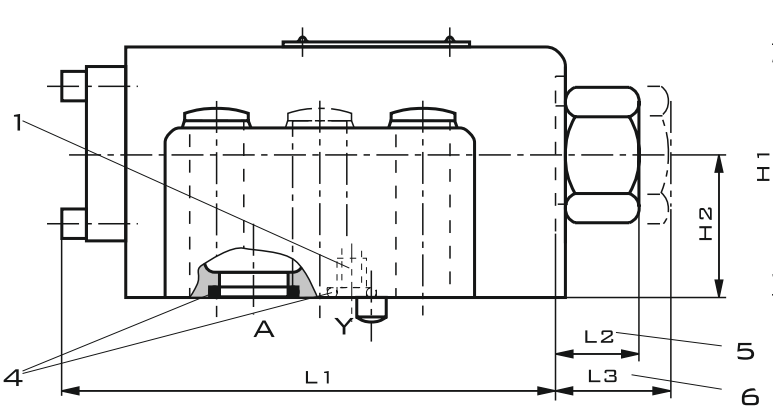
Without decompression

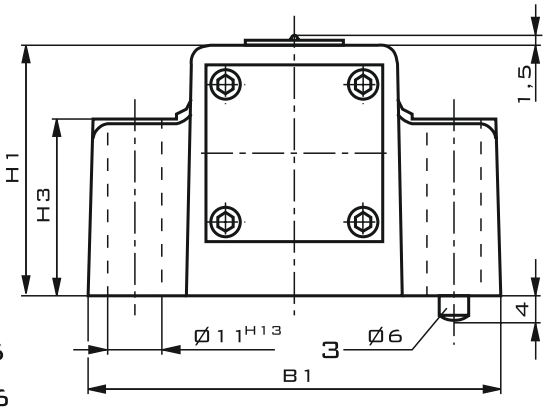


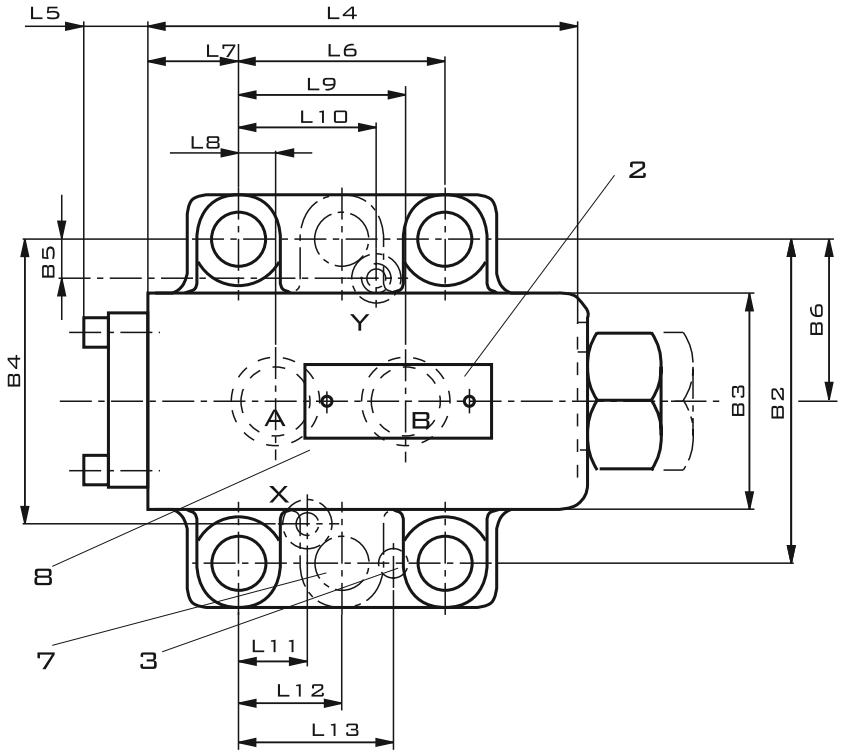
With decompression



Subplate installation dimensions







1 Port Y with valve type "SL" (with valve type "SV" this port is plugged)

2 Name plate

3 Locating pin

4 Identical seal rings
– for ports A and B
– for ports X and Y

5 Valve with opening pressure versions “1” and “2” (dim. L2)

6 Valve with opening pressure versions “3” and “4” (dim. L3)

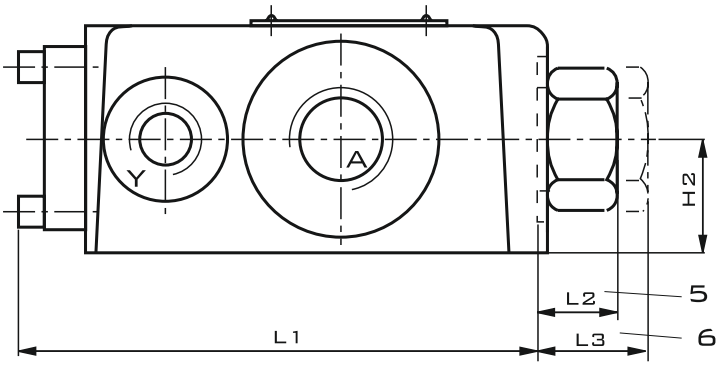
7 6 valve fixing holes for type SV/SL 30

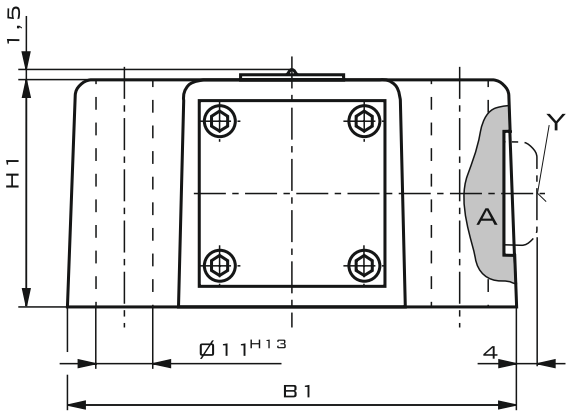
8 Connection location to ISO 5781

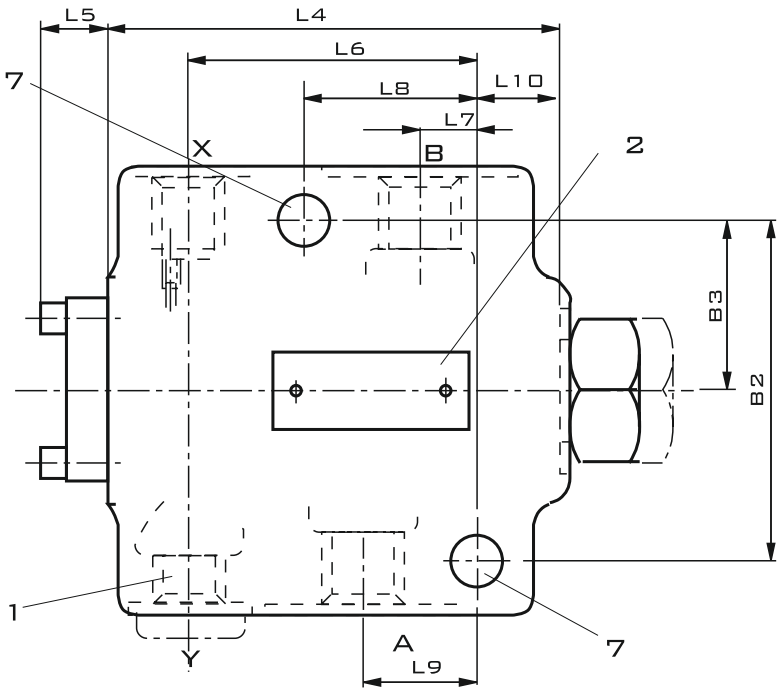
Type	Size	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
SV	10	100,8	15,5	15,5	87,8	13	42,9	18,5	7,2	35,8	–	21,5
	20	135	17,7	47,7	117	18	60,3	27,5	11,1	49,2	–	20,6
	32	156,1	36,1	46,1	134	22,1	84,2	39	16,7	67,5	–	24,6
SL	10	100,8	15,5	15,5	87,8	13	42,9	18,5	7,2	35,8	21,5	21,5
	20	135	17,7	47,7	117	18	60,3	27,5	11,1	49,2	39,5	20,6
	32	156,1	36,1	46,1	134	22,1	84,2	39	16,7	67,5	59,5	24,6

Type	Size	L12	L13	B1	B2	B3	B4	B5	H1	H2	H3	B6
SV	10	–	31,8	84	66,7	44	58,8	–	51	29	36	33,3
	20	–	44,5	100	79,4	61	73	–	70	37	55	39,7
	32	42,1	62,7	118	96,8	75	92,8	–	85	42,5	70	48,4
SL	10	–	31,8	84	66,7	44	58,8	7,9	51	29	36	33,3
	20	–	44,5	100	79,4	61	73	6,4	70	37	55	39,7
	32	42,1	62,7	118	96,8	75	92,8	3,8	85	42,5	70	48,4

Threaded connection dimensions







1 Port Y for valve type "SL" (for valve type "SV" this port is plugged)

2 Name plate

5 Valve with opening pressure versions "1" and "2" (dim. L2)

6 Valve with opening pressure versions "3" and "4" (dim. L3)

7 2 valve fixing holes

Type	Size	Ports A, B	Ports X, Y
SV	10	G1/2	G1/4
	16	G3/4	
	20	G1	
	25	G1 1/4	
	32	G1 1/2	
SL	10	G1/2	G1/4
	16	G3/4	
	20	G1	
	25	G1 1/4	
	32	G1 1/2	

Type	Size	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	B1	B2	B3	H1	H2
SV	10	100,8	15,5	15,5	87,8	13	56,5	10,5	33,5	22,5	17,3	87	66,7	33,4	44	22
	16, 20	133	17,7	47,7	115	18	74,5	17	50,5	36	27	105	79,4	39,7	68	34
	25, 32	156,1	35,7	45,7	134	22,1	101	24	84	49	18	130	96,8	48,4	85	42,5
SL	10	100,8	15,5	15,5	87,8	13	56,5	10,5	33,5	22,5	17,3	87	66,7	33,4	44	22
	16, 20	133	17,7	47,7	115	18	74,5	17	50,5	36	27	105	79,4	39,7	68	34
	25, 32	156,1	35,7	45,7	134	22,1	101	24	84	49	18	130	96,8	48,4	85	42,5

Order code

S							

V=Without drain port
L=With drain port

10=10 size
16=16 size
20=20 size
25=25 size
32=32 size

P=Plate mounting
G=Thread connection

A=With decompression feature
B=Without decompression feature

Opening pressure:
1, 2, 3, 4 – see characteristic curves (p. 2,3)

40= 40 Series

No code=NBR seals
V=FKM seals