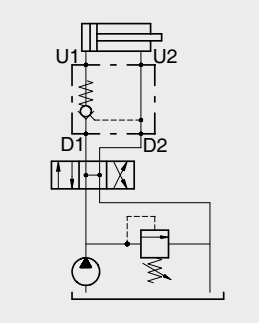
Operation

These valves allows oil flow from D1 to U1 and stops it in the opposite way (from U1 to D1). Free oil flow from U1 to D1 is strictly possible when the pilot pressure in U2 and D2 is strong enough to open the valve poppet. To assert the minimum opening pressure divide the value of pressure in U1 by the pilot ratio. To provide best valve performance from U1 to D1 make sure that no counterpressure arises in D1.



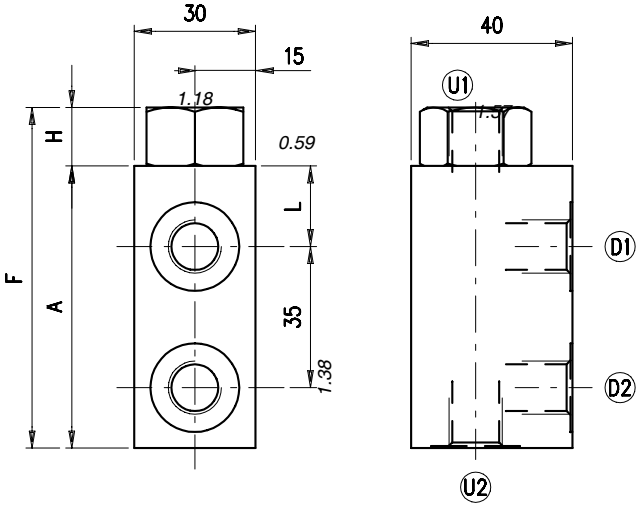
Performance

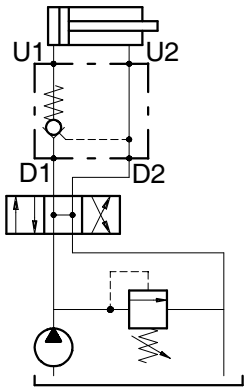
Body Valves

Type VBPSL	Maximum flow		Maximum pressure	Oil leaks from U1 a D1	Pilot ratio	Weight		Cartridge valve
	l/min	*US gpm*				kg	*lb*	
VBPSL 14 (/VP 38)	**(14)** 15 **(/VP 38)** 25	*4* *6.6*	210 bar *-3050 psi* (aluminium body) 350 bar *-5100 psi* (steel body)	0,10 cm³/min *-61x10⁻⁴ in³/min.* (2 drops) at 210 bar	1:4,5 (1) 1:3 (2)	**(14)** aluminium body 0,30 steel body 0,63 **(/VP 38)** aluminium body 0,32 steel body 0,67	*0.661* *1.39* *0.705* *1.48*	
VBPSL 38 - (12)	**(38)** 35 **(12)** 50	*9.2* *13*		0,25 cm³/min *-15x10⁻³ in³/min.* (2 drops) at 210 bar	1:4 (1) 1:6,3 (2) 1:7,5 (2)	**(38)** aluminium body 0,63 steel body 1,20 **(12)** aluminium body 0,65 steel body 1,22	*1.39* *2.65* *1.43* *2.69*	
VBPSL 34	100	*26*			1:4,3	aluminium body 1,68 steel body 3,33	*3.70* *7.34*	
VBPSL/T 38	25	*6.6*			1:4,5 (1) 1:3 (2)	aluminium body 0,47 steel body 1,13	*1.04* *2.49*	see VUI 38 page 107
VBPSL/T 12	50	*13*			1:4 (1) 1:6,3 (2) 1:7,5 (2)	aluminium body 0,63 steel body 1,44	*1.39* *3.18*	see VUI 12 page 108
VBPSL/T 34	100	*26*			1:4,3	aluminium body 1,76 steel body 3,49	*3.88* *7.69*	see VUI 34 page 109
VBPSL 14 (VP38)/SO	**(VBPSL/SO 14)** 15 **(VBPSL12/SO)** 50	*4* *13*		0,10 cm³/min *-61x10⁻⁴ in³/min.* (2 drops) a 210 bar	1:4,5 (1) 1:3 (2)	**(VBPSL/SO 14)** aluminium body 0,35 steel body 0,68 **(VBPSL/VP 38/SO)** aluminium body 0,37 steel body 0,74	*0.092* *1.50* *0.816* *1.63*	
VBPSL 38/VG (12) /SO	**(VBPSL 38/VG /SO)** 35 **(VBPSL 12 /SO)** 50	*9.2* *13*		0,25 cm³/min *-15x10⁻³ in³/min.* (2 drops) at 210 bar	1:4 (1) 1:6,3 (2) 1:7,5 (2)	**(VBPSL 38/VG /SO)** aluminium body 0,65 steel body 1,22 **(VBPSL 12 /SO)** aluminium body 0,65 steel body 1,22	*1.43* *2.690* *1.43* *2.69*	
VBPSF 14	15	*4*		0,10 cm³/min *-61x10⁻⁴ in³/min.* (2 drops) at 210 bar	1:4,5 (1) 1:3 (2)	aluminium body 0,31 steel body 0,65	*0.683* *1.43*	see VUI 38 page 107
VBPSF 38 (12)	**(38)** 35 **(12)** 50	*9.2* *13*		0,25 cm³/min *-15x10⁻³ in³/min.* (5 drops) at 210 bar	1:4 (1) 1:6,3 (2) 1:7,5 (2)	**(38)** aluminium body 0,67 steel body 1,54 **(12)** aluminium body 0,64 steel body 1,51	*1.48* *3.40* *1.41* *3.33*	see VUI 12 page 108
VBPSF 34	100	*26*			1:4,3	aluminium body 1,66 steel body 3,91	*3.66* *8.62*	see VUI 34 page 109

(1) standard version (2) on request

Dimensions and hydraulic circuit



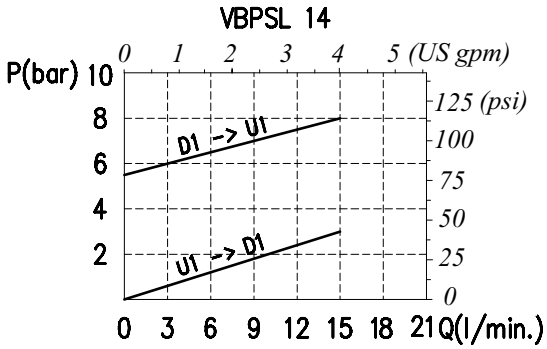


VBPSL	D1–D2	U1–U2	A	F	H	L
14	G 1/4	G 1/4	70 - *2.75*	84.5 - *3.33*	14.5 - *0.57*	20 - *0.79*
VP/38	G 3/8	G 3/8	80 - *3.15*	99.5 - *3.92*	19.5 - *0.77*	22.5 - *0.88*

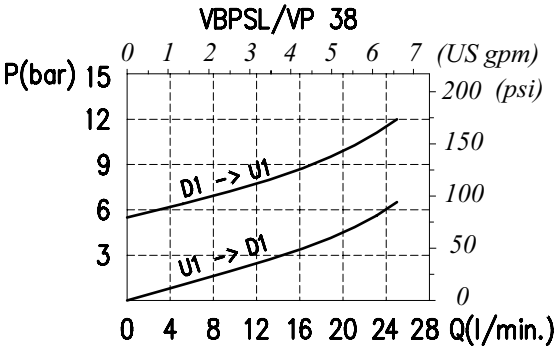
dimensions are in mm-*in*

Rating diagrams

Typical pressure drop vs. flow characteristic



Typical pressure drop vs. flow characteristic



Order code

VBPSL □□ / □□ / □□

Port size

14) G 1/4
/VP 38) G 3/8

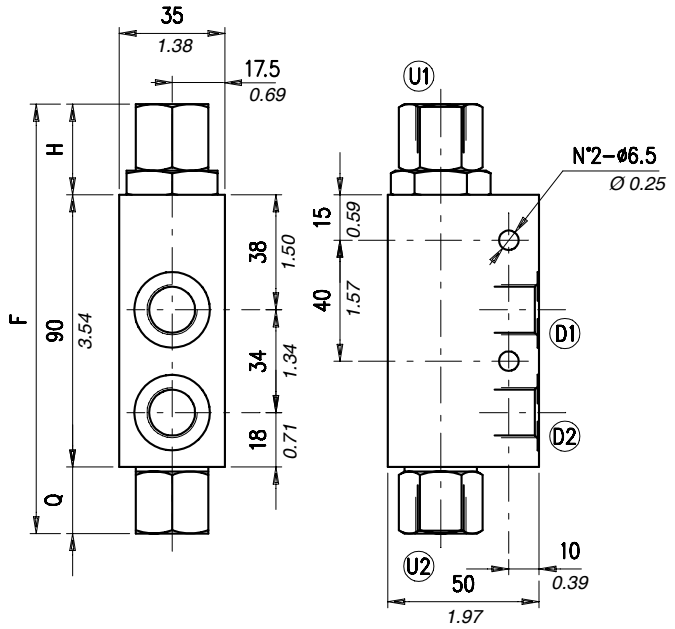
Pilot ratio

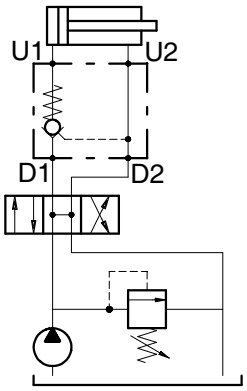
p3) 1:3
p4) 1:4,5 (standard)

Body material

_ Aluminium
ac Steel

Dimensions and hydraulic circuit



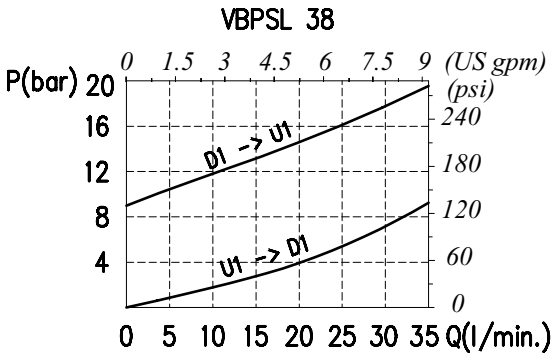


VBPSL	D1–D2	U1–U2	F	H	Q
38	G 3/8	G 3/8	142 - *5.59*	30 - *1.18*	22 - *0.87*
12	G 1/2	G 1/2	148 - *5.83*	33 - *1.30*	25 - *0.98*

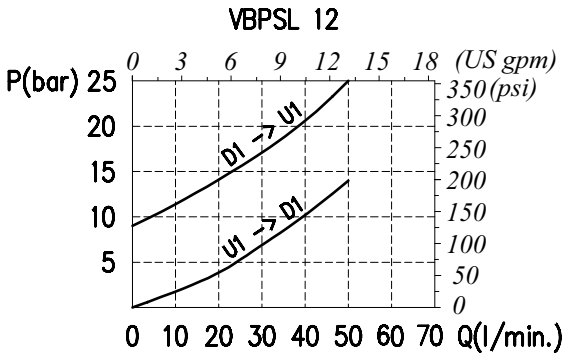
dimensions are in mm-*in*

Rating diagrams

Typical pressure drop vs. flow characteristic



Typical pressure drop vs. flow characteristic



Order code

VBPSL □□ / □□ / □□

Port size

38) G 3/8
12) G 1/2

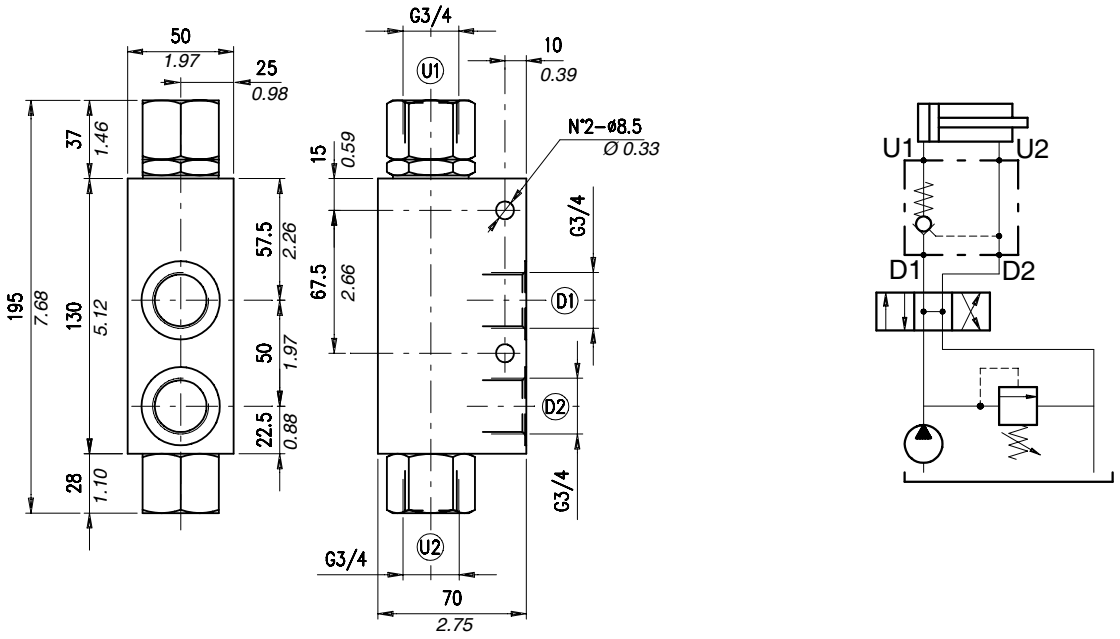
Pilot ratio

p4) 1:4 (standard)
p6,3) 1:6,3
p7,5) 1:7,5

Body material

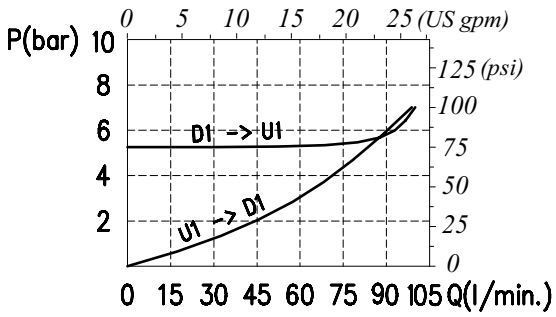
_ Aluminium
ac Steel

Dimensions and hydraulic circuit



Rating diagrams

Typical pressure drop vs. flow characteristic



Order code

VBPSL 34 / □□ / □□

Pilot ratio	Body material
P4)1:4,3 (standard)	_ Aluminium
	ac Steel