

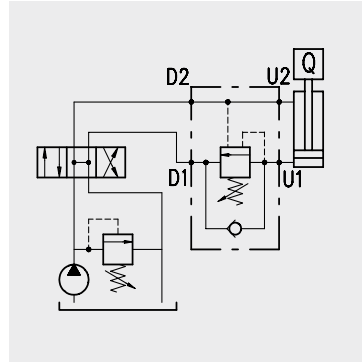
Operation

The oil flow is allowed from D1 to U1 and is stopped in the opposite way (from U1 to D1) up to the spring setting value. Free oil flow from U1 to D1 is strictly possible when the pilot pressure in D2 and U2 is strong enough to pilot the valve poppet.

Use the following formula to assert the applicable pilot pressure:

(Valve setting - load pressure) ÷ pilot ratio = pilot pressure

For example: If your pilot ratio is 1:4, your setting pressure is 250 bar (3600 psi) and your load pressure is 130 bar (1900 psi) then you will need 30 bar (430 psi) pilot pressure in order to displace the load [(250 bar-3600 psi - 130 bar-1900 psi) ÷ 4 = 30 bar-430 psi]. Should counterpressure arise in D1, the setting value of valve poppet (1:1 ratio) will increase and the pilot pressure be negatively affected (1:1 ratio).



Performance

Body valves

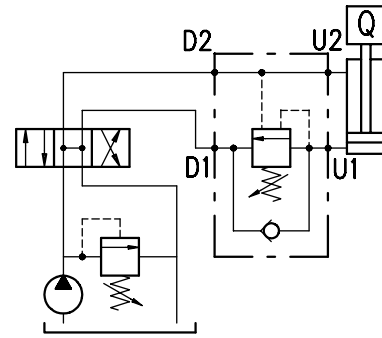
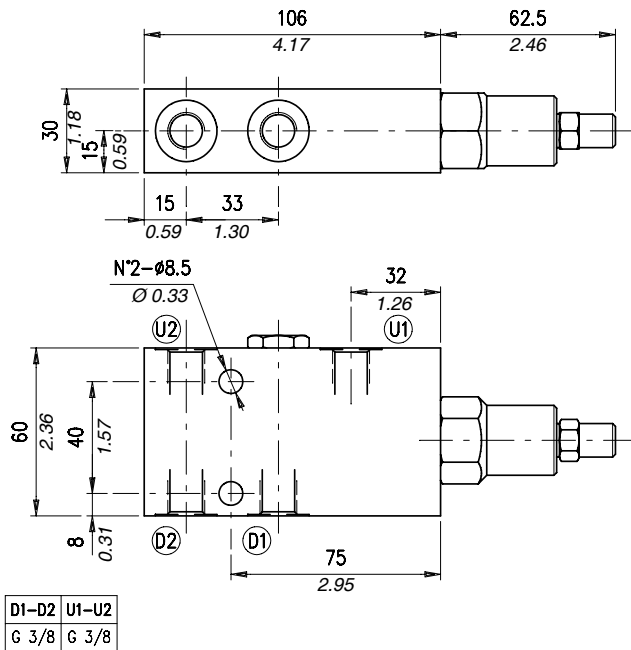
Type	Maximum flow		Maximum pressure		Application range with standard springs	Oil leakage from U1 to D1	Pilot ratio	Weight	
	l/min	US gpm	bar	psi				kg	lb
VOSL/SC 38	40	11	210 (aluminium) 350 (steel)	3050 (alum.) 5100 (steel)	5÷210 bar-72.5÷3050 psi (test setting 170 bar -2500 psi at 5 l/min.-1.3 US gpm)	0,25 cm³/min -15x10 ⁻³ in³/min (5 drops) at 210 bar -3050 psi- and 80% of the spring setting value with oil viscosity of 46 cSt.	1:4 (standard type) 1:3 (on request only)	0,68	1.50
VOSL/SC 12	75	20			50÷350 bar-725÷5100 psi (test setting 280 bar -4100 psi at 5 l/min.-1.3 US gpm)			aluminium	1,44
							steel		0,95
VOSL/SC 34	120	32			100÷700 bar -1450÷10150 psi (test setting 350 bar-5100 psi at 5 l/min.-1.3 US gpm)		aluminium	2,03	4.47
								steel	1,45
VOSL/SC 100	180	48			50÷350 bar-725÷5100 psi pressure increase= 131 bar-1900 psi /turn (test setting 280 bar -4060 psi at 5 l/min.-1.3 US gpm)		aluminium	3,28	7.23
								steel	3,10
VOSL /SC/C 1116/38	30	7.9	5÷210 bar-72.5÷3050 psi (test setting 150 bar -2200 psi at 5 l/min.-1.3 US gpm)	aluminium	7,54		16.62		
					steel		0,6	1.32	
VOSL /SC/C 1116/12	60	16	50÷350 bar-725÷5100 psi (test setting 280 bar -4100 psi at 5 l/min.-1.3 US gpm)	aluminium	1,4		3.09		
					steel		1:4	0,9	1.98
VOSL /SC /VU 14	20	5.2	50÷350 bar-725÷5100 psi (test setting 280 bar -4100 psi at 5 l/min.-1.3 US gpm)	aluminium	2		4.41		
					steel		1:6	0,95	2.09

Series VOSL/SC/F

Body valves

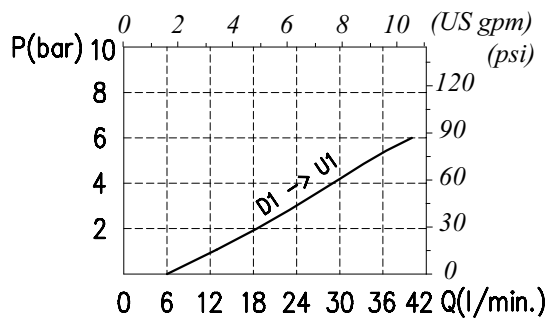
Type	Maximum flow		Maximum pressure		Application range with standard springs	Oil leakage from U1 to D1	Pilot ratio	Weight	
	l/min	US gpm	bar	psi				kg	lb
VOSL /SC /F 38	40	11	210 (aluminium) 350 (steel)	3050 (alum.) 5100 (steel)	5÷210 bar -72.5÷3050 psi (test setting 150 bar-2200 psi at 5 l/min.-1.3 US gpm)	0,25 cm ³ /min -15x10 ⁻³ in ³ /min (5 drops) at 210 bar -3050 psi- and 80% of the spring setting value with oil viscosity of 46 cSt	1:4 (standard type) 1:3 (on request only)	0,68	1.50
VOSL /SC /F 12	75	20			aluminium			1,40	3.09
					steel			0,95	2.09
					1:7 (standard type) 1:3 (on request only)		2,00	4.41	
VOSL /SC /F 34	120	32			100÷700 bar -1450÷10150 psi (test setting 350 bar-5100 psi at 5 l/min.-1.3 US gpm)		1,45	3.20	
					aluminium				3,27
			steel						

Dimensions and hydraulic circuit

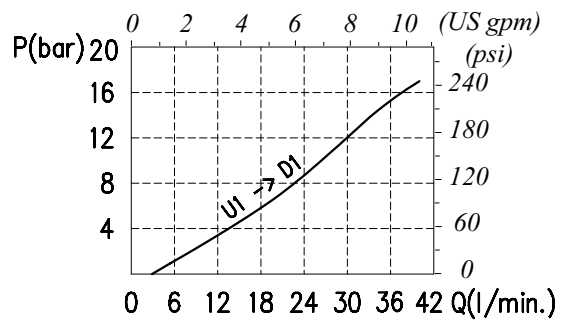


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

VOSL / SC 38 / □□ . S . □□ . PG . □□ / □□

Pressure settings

Pilot ratio

Check valve seat

Body material

TS) 5÷210 bar (72.5÷3050 psi)

TR) 50÷350 bar (725÷5100 psi)
(Standard)

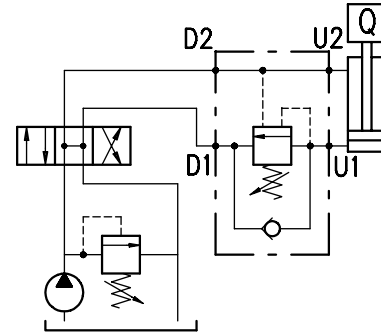
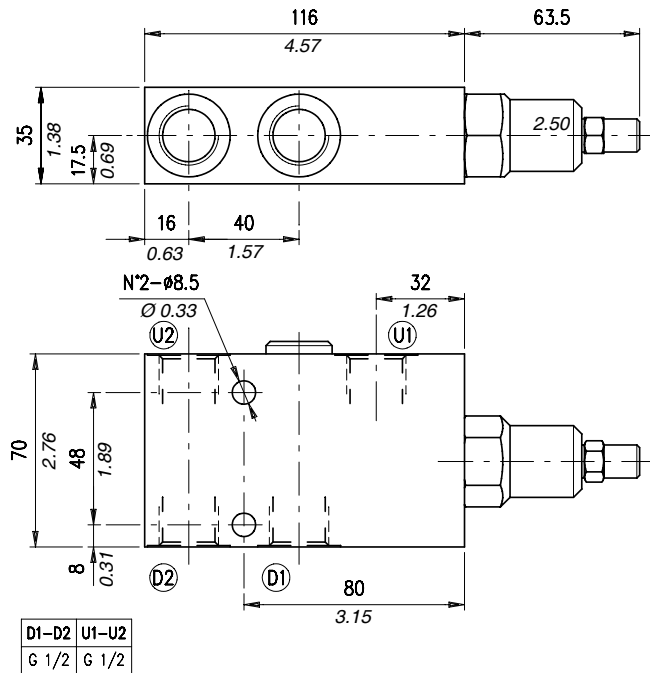
TG) 100÷700 bar (1450÷10150 psi)

p3) 1:3
p4) 1:4 (Standard)

See body
VRR) Hardened steel

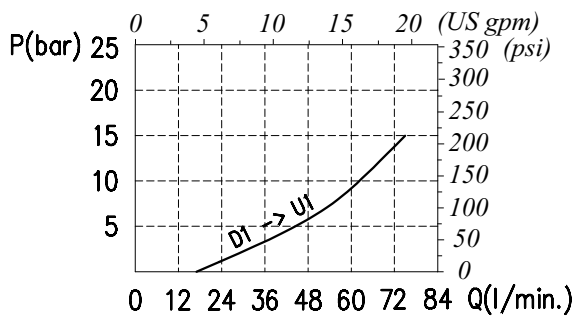
Aluminium
ac) Steel

Dimensions and hydraulic circuit

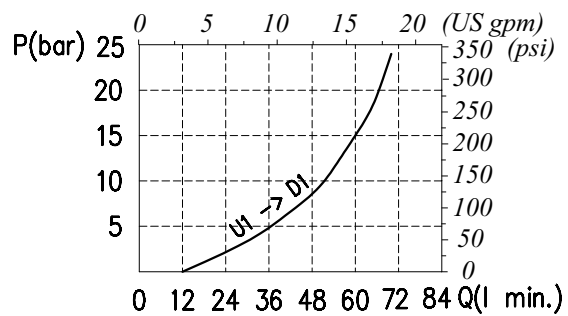


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

VOSL / SC 12 / □□ . S . □□ . PG . □□ / □□

Pressure settings

TS 5÷210 bar (72.5÷3050 psi)
TR 50÷350 bar (725÷5100 psi)
 (Standard)

TG 100÷700 bar (1450÷10150 psi)

Pilot ratio

p3 1:3
p7 1:7 (Standard)

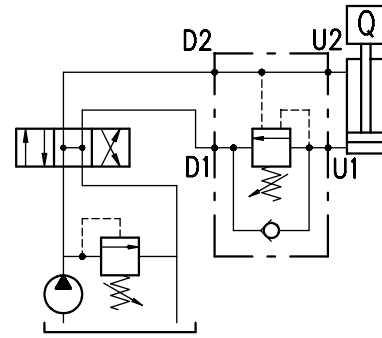
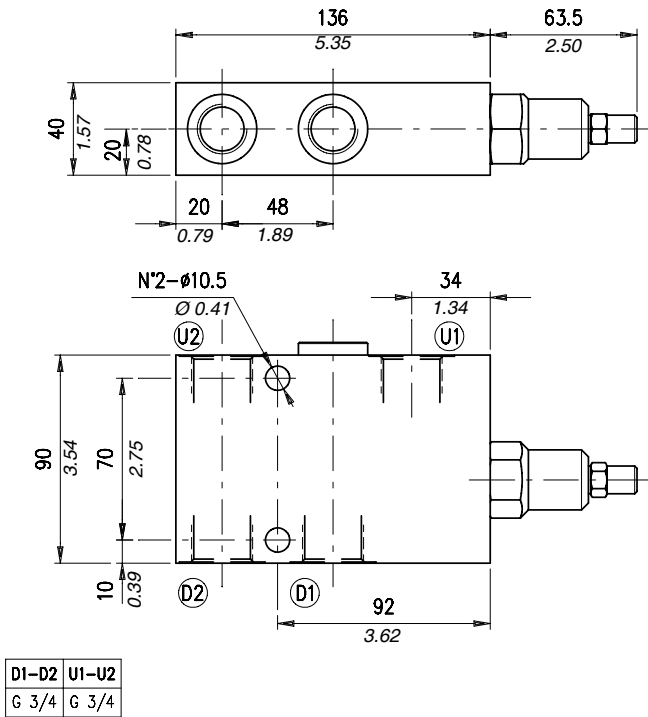
Check valve seat

See body
VRR Hardened steel

Body material

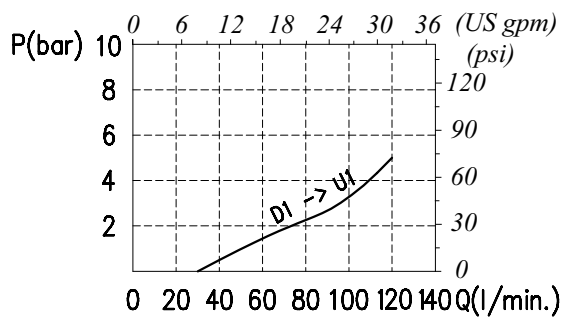
Aluminium
ac Steel

Dimensions and hydraulic circuit

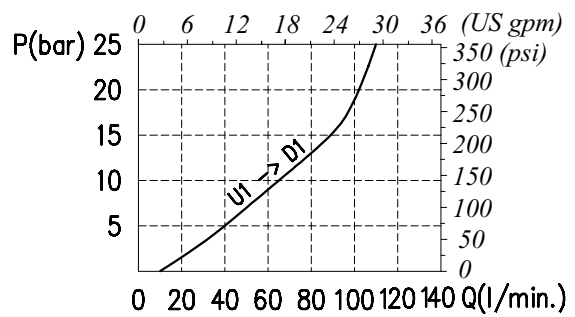


Rating diagrams

Typical pressure drop vs. flow characteristics

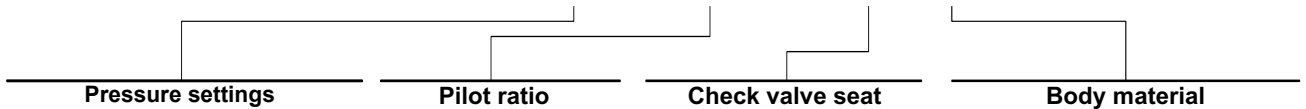


Typical pressure drop vs. flow characteristics



Order code

VOSL /SC/34 / □□ . S . □□ . PG . □□ / □□



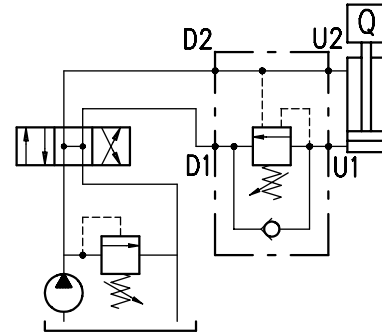
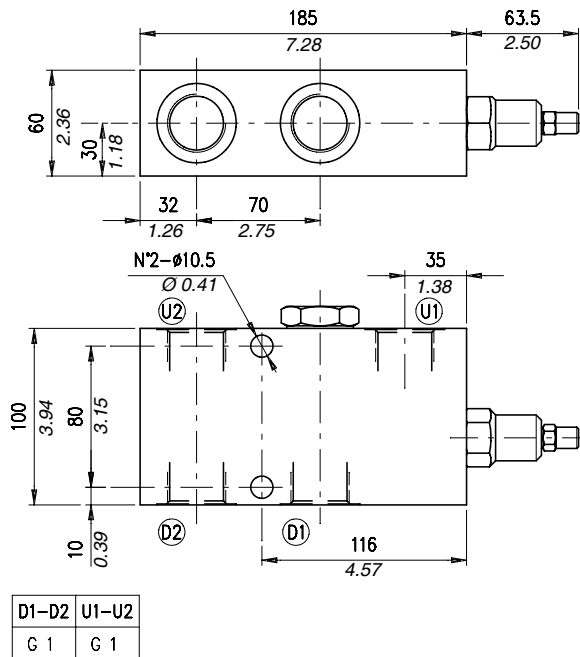
TS) 5÷210 bar (72.5÷3050psi)
TR) 50÷350 bar (725÷5100 psi)
 (Standard)
TG) 100÷700 bar (1450÷10150 psi)

p3) 1:3
p7) 1:7 (Standard)

_ See body
VRR) Hardened steel

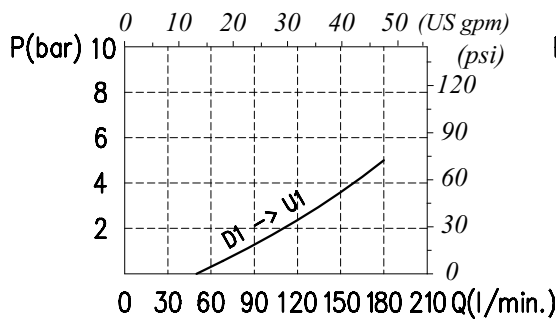
_ Aluminium
ac Steel

Dimensions and hydraulic circuit

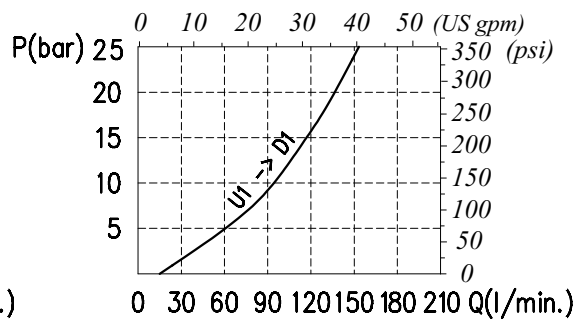


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

VOSL / SC 100 / □□ . S . □□ . PG . □□ / □□

Pressure settings

Pilot ratio

Check valve seat

Body material

TS) 5÷210 bar (72.5÷3050 psi)

TR) 50÷350 bar (725÷5100 psi)
(Standard)

TG) 100÷700 bar (1450÷10150 psi)

p3) 1:3

p7) 1:7 (Standard)

See body

VRR) Hardened steel

_ Aluminium
ac Steel