



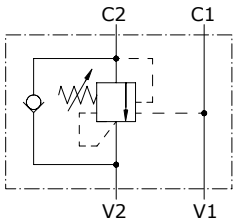
**Type VOSL/N78/....
counterbalance valves**

- Single acting
- Load sensitive

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

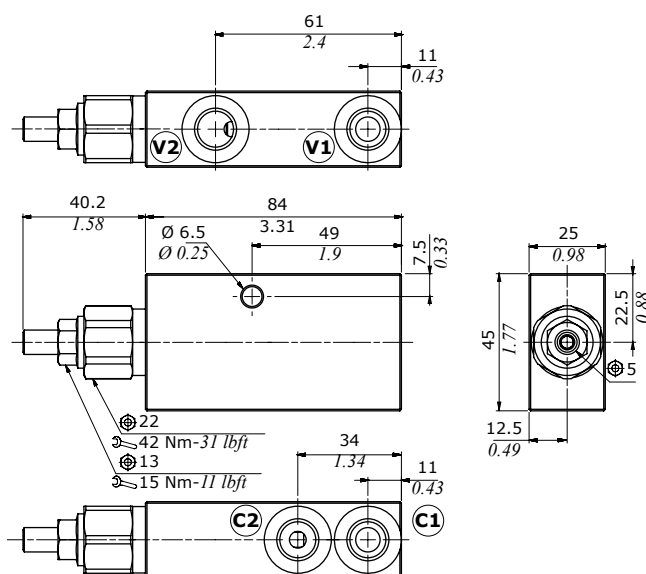
VOSL/N78 - VOSL/N78/..PB	
Nominal flow	40 l/min (10.57 US gpm)
Max. pressure	Steel body = 350 bar (5100 psi)
Oil leakage	0.25 cm³/min - 0.015 in³/min. (5 drops) at 80% of pressure setting
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)
	steel 0.723 kg (1.59 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions

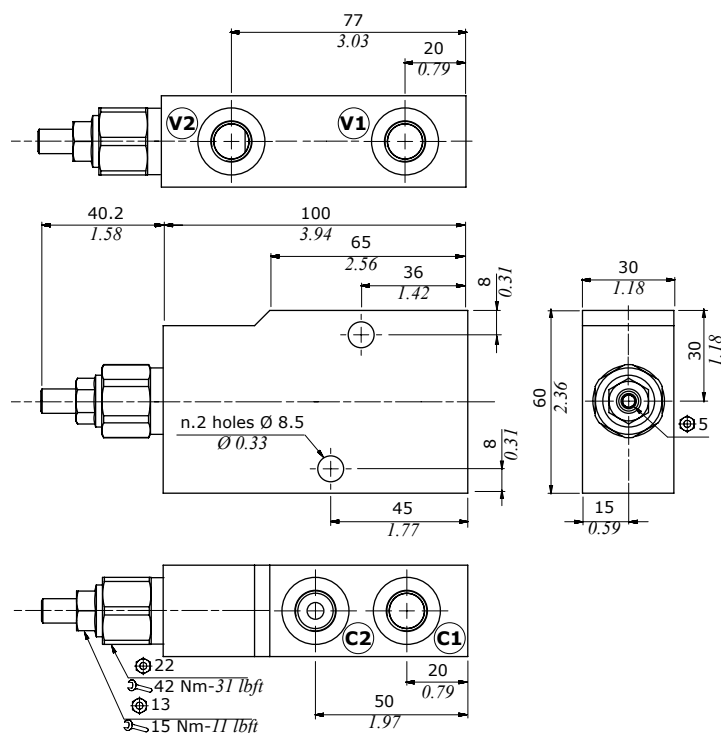
VOSL/N78/14



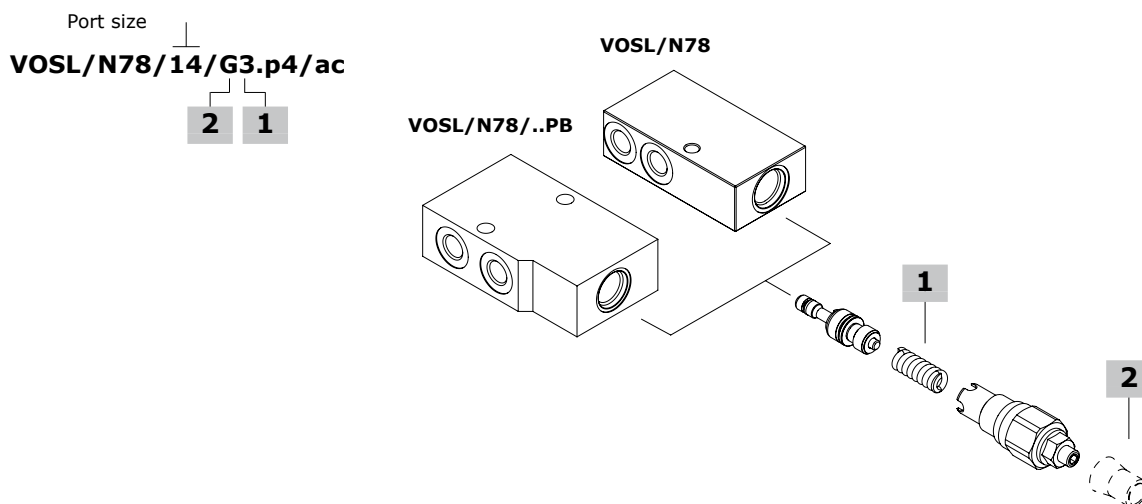
Valve type	V1	V2	C1	C2
VOSL/N78/14	G1/4	G1/4		
VOSL/N78/14PB	G1/4	G1/4		

Valve type	V1	V2	C1	C2
VOSL/N78/S6	SAE6	SAE6		

VOSL/N78/14PB



Ordering codes and description composition



VOSL/N78 complete valves

TYPE: **VOSL/N78/14/G5.p4/ac** CODE: 1513512100
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N78/14/G3.p4/ac** CODE: 1513512101
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N78/S6/G5.p4/ac** CODE: 1513512200
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N78/S6/G3.p4/ac** CODE: 1513512201
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)

VOSL/N78....PB complete valves

TYPE: **VOSL/N78/14PB/G5.p4/ac** CODE: 1513612100
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N78/14PB/G3.p4/ac** CODE: 1513612101
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)

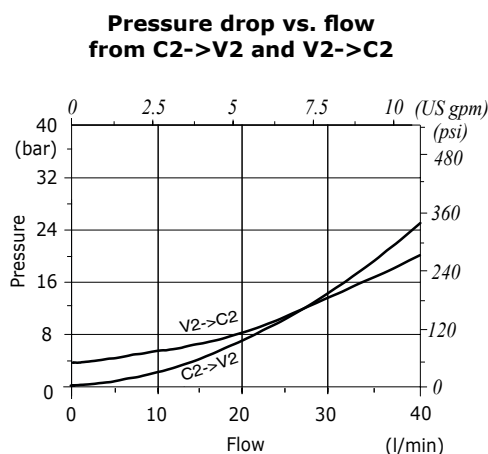
1 Pressure setting spring

TYPE	CODE	DESCRIPTION
For 1:4 pilot ratio		
3	3MOL310282	For range 60-220 bar (870-3190 psi) standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)
5	380113	For range 100-350 bar (1450-5075 psi) standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP120420	Antitampering cap

Rating diagrams





Type VOSLP/N78/.... counterbalance valves

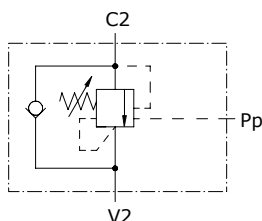
- Single acting
- External pilot

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

VOSLP/N78 - VOSLP/N78/..PB

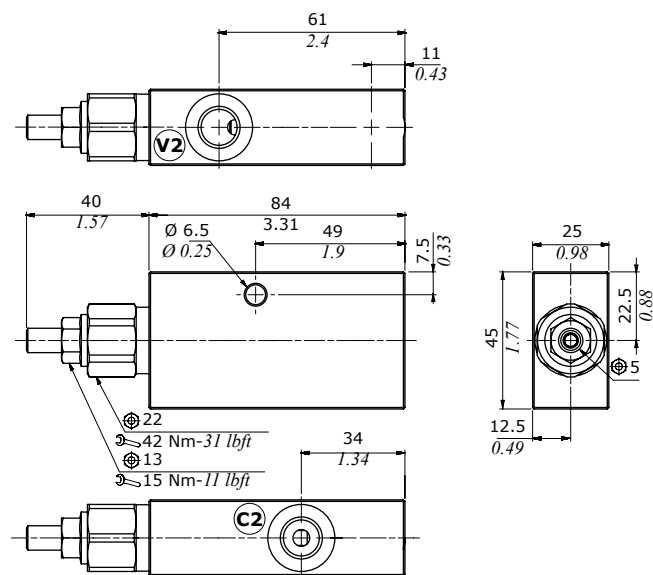
Nominal flow	40 l/min (10.57 US gpm)
Max. pressure	Steel body = 350 bar (5100 psi)
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 80% of pressure setting
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)
	steel 0.723 kg (1.59 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions

VOSLP/N78/14

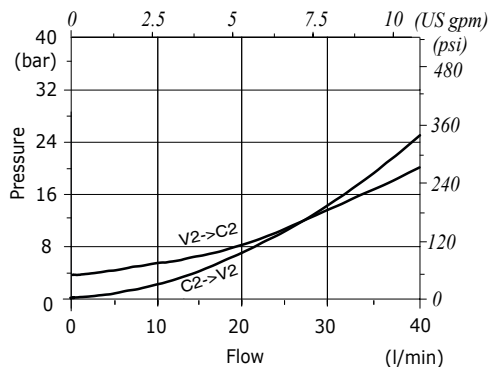


Valve type	V1	V2	C1	C2
VOSLP/N78/14		G1/4		G1/4

Valve type	V1	V2	C1	C2
VOSLP/N78/S6		SAE6		SAE6

Rating diagrams

Pressure drop vs. flow
from C2->V2 and V2->C2

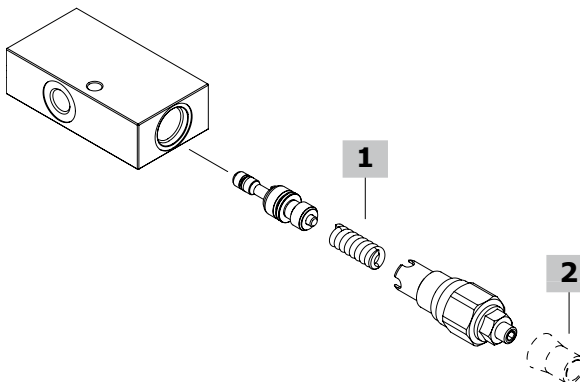


Ordering codes and description composition

Port size
VOSLP/N78/14/G3.p4/ac

2 1

VOSLP/N78



VOSLP/N78 complete valves

TYPE: **VOSLP/N78/14/G5.p4/ac** CODE: 1533612100
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/N78/14/G3.p4/ac** CODE: 1533612101
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/N78/S6/G5.p4/ac** CODE: 1533612200
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/N78/S6/G3.p4/ac** CODE: 1533612201
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
For 1:4 pilot ratio		
3	3MOL310282	For range 60-220 bar (870-3190 psi) standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)
5	380113	For range 100-350 bar (1450-5075 psi) standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP120420	Antitampering cap



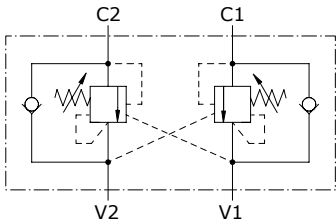
**Type VODL/N78 /....
counterbalance valves**

- Double acting
- Load sensitive

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

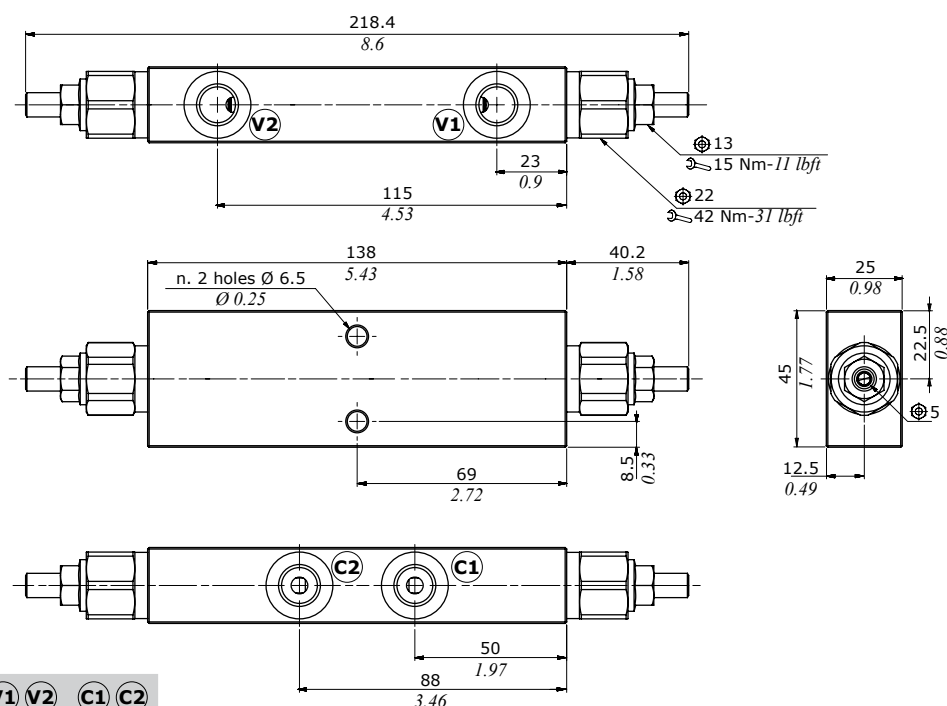
VODL/N78 - VODL/N78/..PB	
Nominal flow	40 l/min (10.57 US gpm)
Max. pressure	Steel body = 350 bar (5100 psi)
Oil leakage	0.25 cm³/min - 0.015 in³/min. (5 drops) at 80% of pressure setting
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)
	steel 1.25 kg (2.75 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions

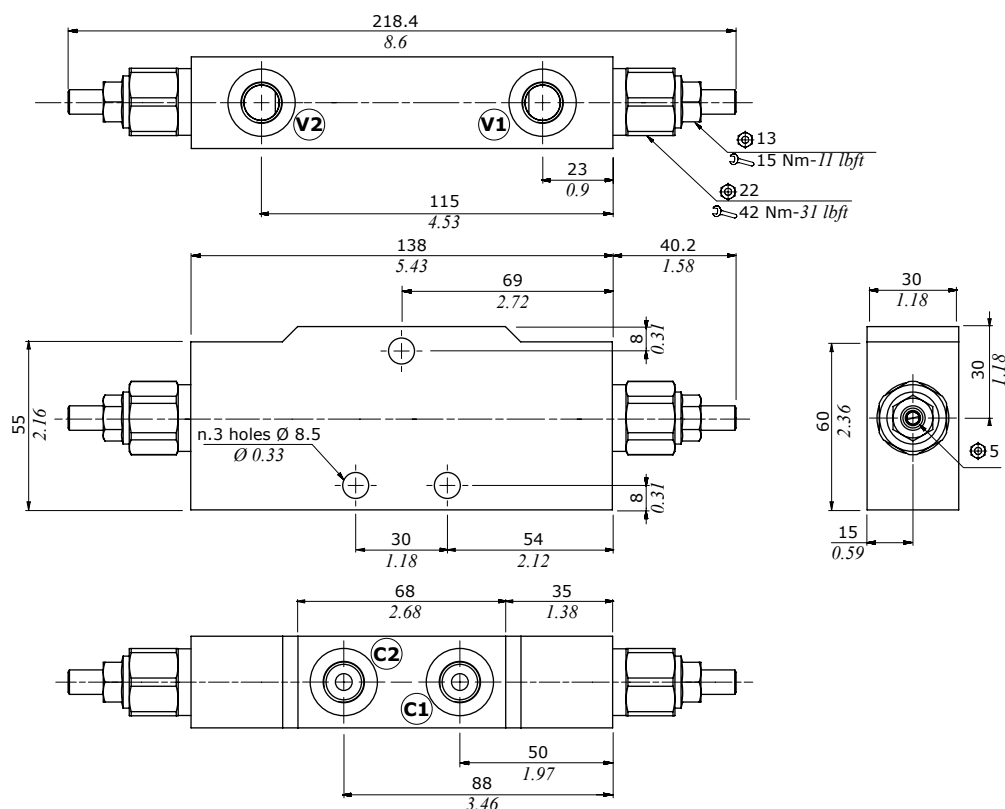
VODL/N78/14



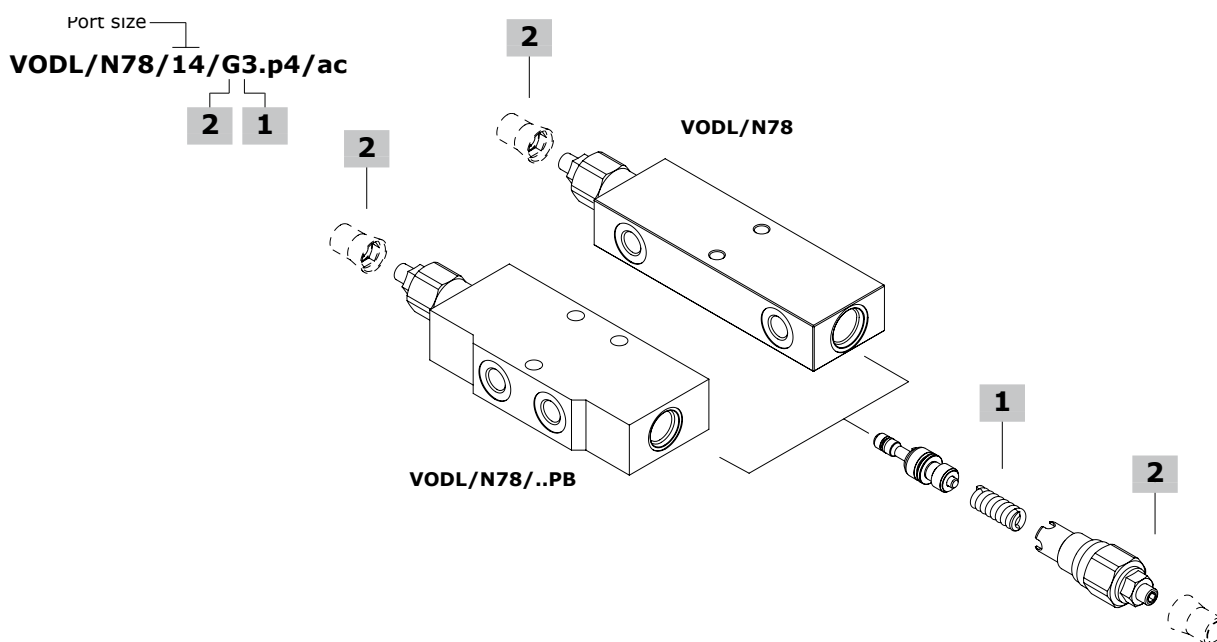
Tipo valvola	V1	V2	C1	C2
VODL/N78/14	G1/4	G1/4		
VODL/N78/14PB	G1/4	G1/4		

Tipo valvola	V1	V2	C1	C2
VODL/N78/S6	SAE6	SAE6		

VODL/N78/14PB



Ordering codes and description composition



VODL/N78 complete valves

TYPE: **VODL/N78/14/G5.p4/ac** CODE: 1553612100
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N78/14/G3.p4/ac** CODE: 1553612101
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N78/S6/G5.p4/ac** CODE: 1553612200
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N78/S6/G3.p4/ac** CODE: 1553612201
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)

VODL/N78....PB complete valves

TYPE: **VODL/N78/14PB/G5.p4/ac** CODE: 1553712100
DESCRIPTION: Steel body, pilot ratio 1:4, range 100-350 bar (1450-5075 psi), standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N78/14PB/G3.p4/ac** CODE: 1553712101
DESCRIPTION: Steel body, pilot ratio 1:4, range 60-220 bar (870-3190 psi), standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)

1 Pressure setting spring

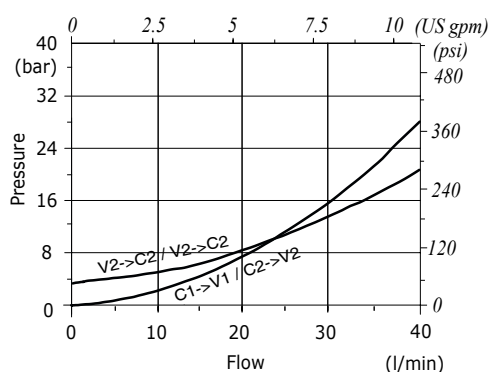
TYPE	CODE	DESCRIPTION
For 1:4 pilot ratio		
3	3MOL310282	For range 60-220 bar (870-3190 psi) standard setting 150 bar (2170 psi) @ 5 l/min (1.32 US gpm)
5	380113	For range 100-350 bar (1450-5075 psi) standard setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP120420	Antitampering cap

Rating diagrams

**Pressure drop vs. flow
from C2->V2 and V2->C2**





Type VOSL/N1116 - VOSL/R1116 - VOSL/V1116 counterbalance valves

- Single acting
- Load Sensitive (type N)
- Relief compensated (type R)
- Vented (type V)
- Configuration with F1 and F2 flange

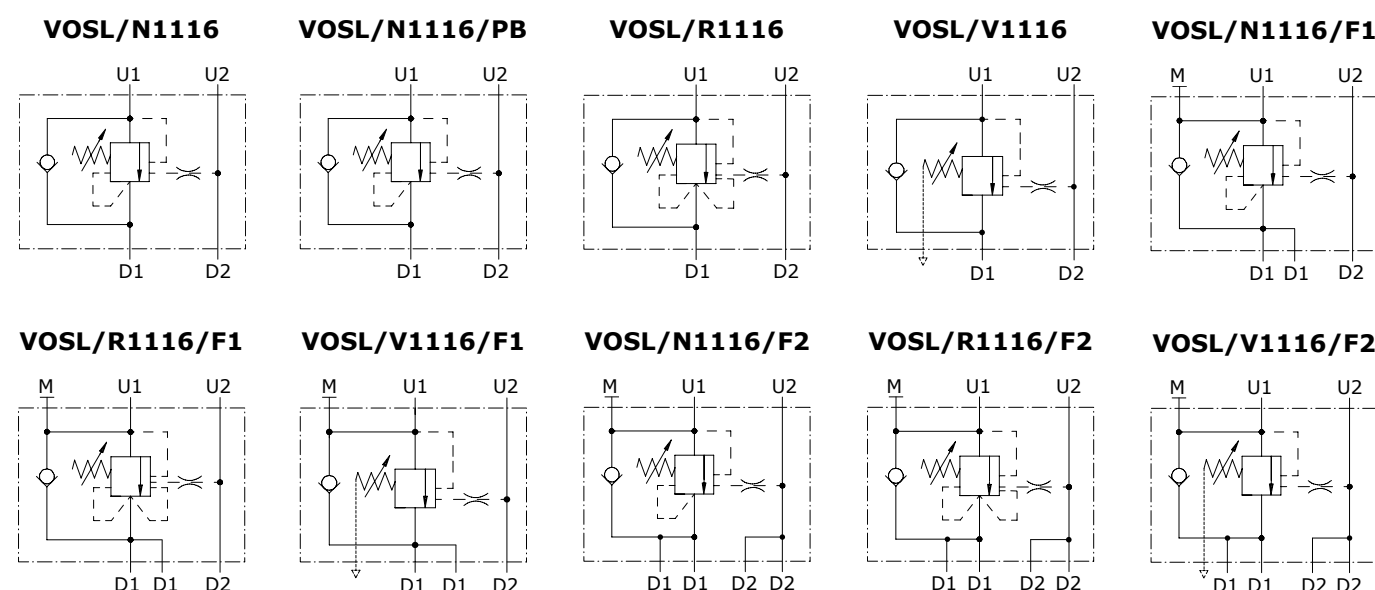
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

VOSL/N1116 (38-12) - VOSL/R1116 (38-12) - VOSL/V1116 (38-12)

Nominal flow	60 l/min (15.9 US gpm)
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)

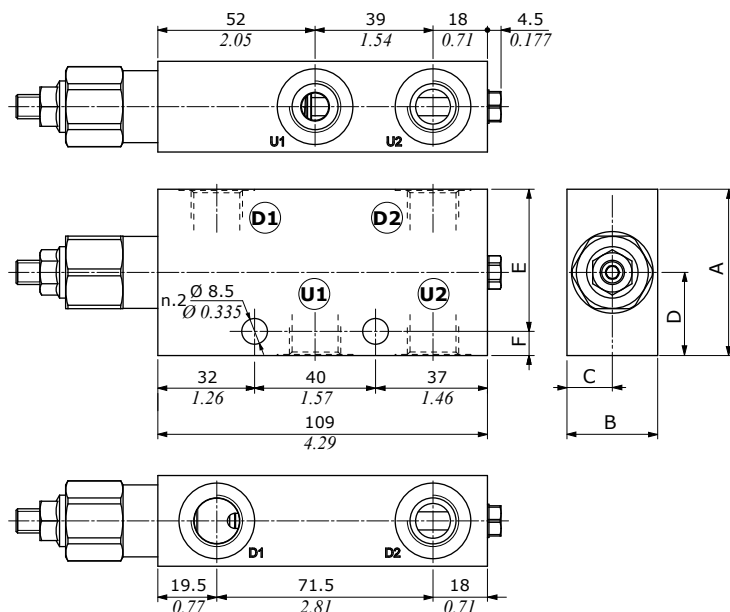
Weight	aluminium	VOSL/N1116/38: 0.59 kg (1.30 lb) - VOSL/N1116/12: 0.75 kg (1.65 lb) VOSL/R1116/38: 0.64 kg (1.41 lb) - VOSL/R1116/12: 0.82 kg (1.81 lb) VOSL/V1116/38: 0.66 kg (1.46 lb) - VOSL/V1116/12: 0.83 kg (1.83 lb)
	steel	VOSL/N1116/38: 1.31 kg (2.88 lb) - VOSL/N1116/12: 1.74 kg (3.84 lb) VOSL/N1116/38PB: - VOSL/N1116/12PB: VOSL/R1116/38: 1.34 kg (2.95 lb) - VOSL/R1116/12: 1.73 kg (3.81 lb) VOSL/V1116/38: 1.36 kg (2.88 lb) - VOSL/V1116/12: 1.78 kg (3.92 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.

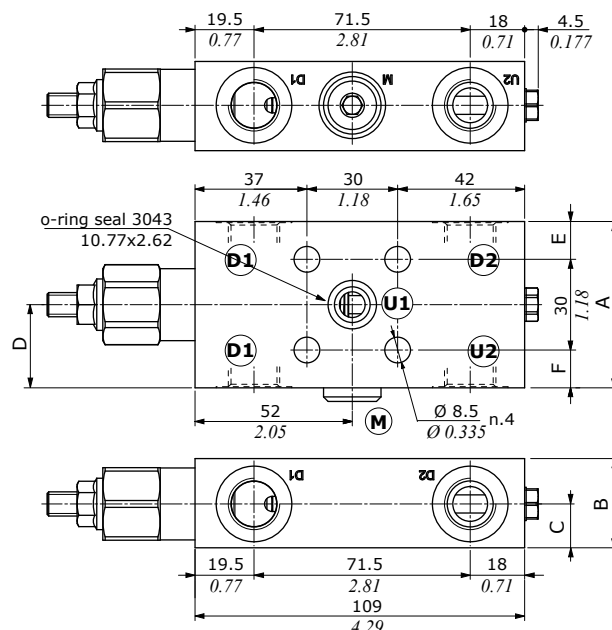


Dimensions

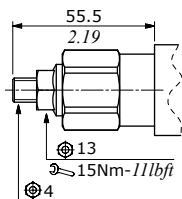
VOSL/...1116/38 - VOSL/...1116/12



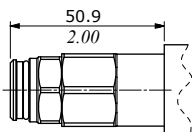
VOSL/...1116/38F1 - VOSL/...1116/12F1



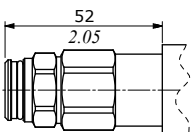
VOSL/N configuration



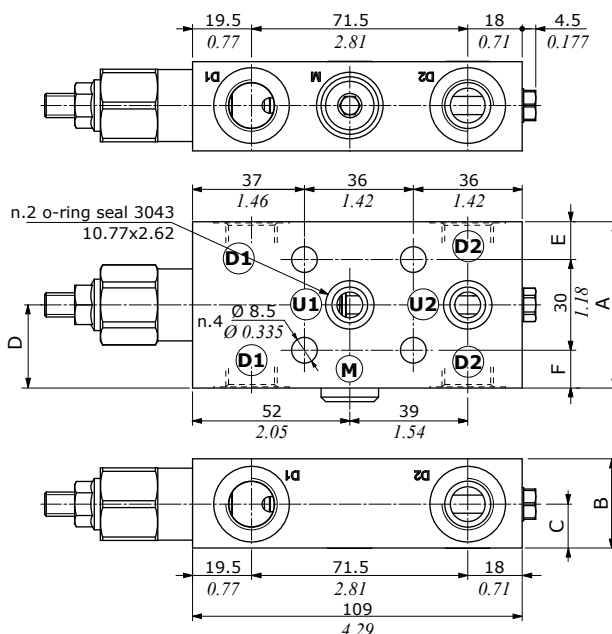
VOSL/R configuration



VOSL/V configuration



VOSL/...1116/38F2 - VOSL/...1116/12F2



Valve type	D1	D2	U1	U2	M
VOSL/...1116/38	G3/8	G3/8	G3/8	G3/8	-
VOSL/...1116/12	G1/2	G1/2	G1/2	G1/2	-
VOSL/...1116/38F1	G3/8	G3/8	Ø8.5 Ø0.335	G3/8	G1/4
VOSL/...1116/12F1	G1/2	G1/2	Ø8.5 Ø0.335	G1/2	G1/4
VOSL/...1116/38F2	G3/8	G3/8	Ø8.5 Ø0.335	Ø8.5 Ø0.335	G1/4
VOSL/...1116/12F2	G1/2	G1/2	Ø8.5 Ø0.335	Ø8.5 Ø0.335	G1/4

Valve type	D1	D2	U1	U2	M
VOSL/...1116/S8	SAE8	SAE8	SAE8	SAE8	-
VOSL/...1116/S10	SAE10	SAE10	SAE10	SAE10	-
VOSL/...1116/S8F1	SAE8	SAE8	Ø8.5 Ø0.335	SAE8	G1/4
VOSL/...1116/S10F1	SAE10	SAE10	Ø8.5 Ø0.335	SAE10	G1/4
VOSL/...1116/S8F2	SAE8	SAE8	Ø8.5 Ø0.335	Ø8.5 Ø0.335	G1/4
VOSL/...1116/S10F2	SAE10	SAE10	Ø8.5 Ø0.335	Ø8.5 Ø0.335	G1/4

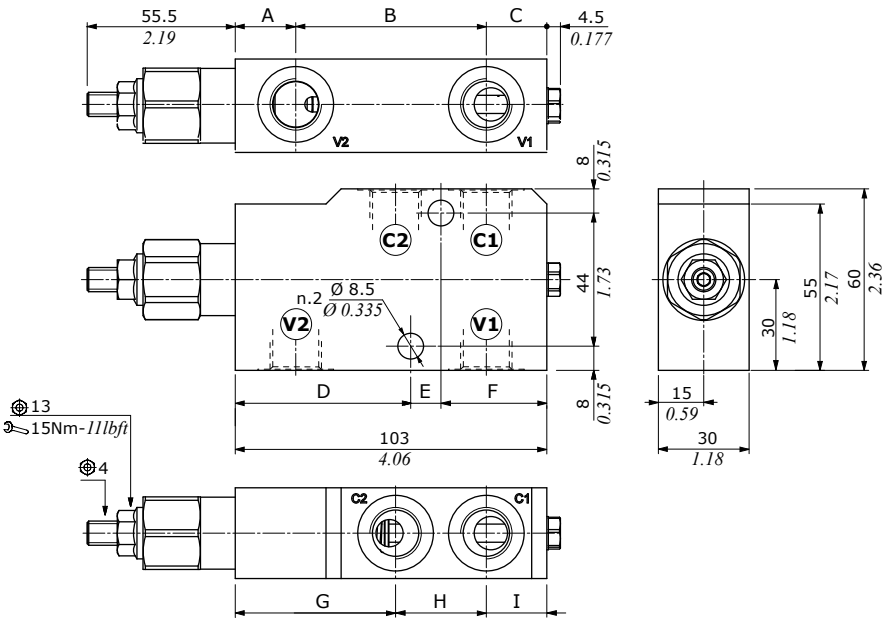
Dimensions are in mm-in

Valve type	A	B	C	D	E	F
VOSL/...1116/38	55	30	15	27.5	47	8
VOSL/...1116/S8	2.17	1.18	0.59	1.08	1.85	0.315
VOSL/...1116/12	65	35	17.5	32.5	57	8
VOSL/...1116/S10	2.26	1.38	0.69	1.28	2.24	0.315
VOSL/...1116/38F1	55	29.5	14.5	27.5	12.5	12.5
VOSL/...1116/S8F1	2.17	1.16	0.57	1.08	0.49	0.49
VOSL/...1116/12F1	65	34.5	17	32.5	17.5	17.5
VOSL/...1116/S10F1	2.26	1.36	0.67	1.28	0.69	0.69
VOSL/...1116/38F2	55	29.5	14.5	27.5	12.5	12.5
VOSL/...1116/S8F2	2.17	1.16	0.57	1.08	0.49	0.49
VOSL/...1116/12F2	65	34.5	17	32.5	17.5	17.5
VOSL/...1116/S10F2	2.26	1.36	0.67	1.28	0.69	0.69

Ordering codes and description composition

VOSL/N1116/38PB - VOSL/N1116/12PB

Valve type	All ports
VOSL/N1116/38PB	G3/8
VOSL/N1116/12PB	G1/2



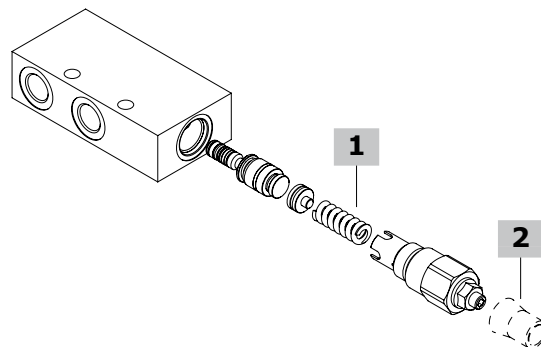
Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I
VOSL/N1116/38PB	20-0.79	63-2.48	20-0.79	58-2.28	10-0.394	35-1.38	53-2.09	30-1.18	20-0.79
VOSL/N1116/12PB	20-0.79	69-2.72	14-0.55	60.5-2.38	10-0.394	32.5-1.28	53-2.09	36-1.42	14-0.55

Ordering codes and description composition

Port size
VOSL/N1116/38/G3.p4/ac

2 1



VOSL/N1116 complete valves

Load sensitive (N) configuration with G3/8 threadPilot ratio 1:4

TYPE: **VOSL/N1116/38/G3.p4/ac** CODE: 1514322101
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/38/G5.p4/ac** CODE: 1514322100
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/38/G5.p4** CODE: 1514321100
DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/N1116/38/G5.p8/ac** CODE: 1514322104
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/N1116/38/G3.p0/ac** CODE: 1514322106
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi). Std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/38/G5.p0/ac** CODE: 1514322107
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/8 thread and F1 flange

TYPE: **VOSL/N1116/38F1/G5.p4/ac** CODE: 1515022100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/38F1/G5.p8/ac** CODE: 1515022101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/38F1/G5.p0/ac** CODE: 1515022102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/8 thread and F2 flange

TYPE: **VOSL/N1116/38F2/G5.p4/ac** CODE: 1515022103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/38F2/G5.p8/ac** CODE: 1515022104
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/38F2/G5.p0/ac** CODE: 1515022105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VOSL/N1116 complete valves (continua)

Load sensitive (N) configuration with SAE8 threadPilot ratio 1:4

TYPE: **VOSL/N1116/S8/G3.p4/ac** CODE: 1514322200
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S8/G5.p4/ac** CODE: 1514322201
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S8/G5.p4** CODE: 1514321200
DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/N1116/S8/G5.p8/ac** CODE: 1514322204
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/N1116/S8/G3.p0/ac** CODE: 1514322206
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi). Std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S8/G5.p0/ac** CODE: 1514322207
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE8 thread and F1 flange

TYPE: **VOSL/N1116/S8F1/G5.p4/ac** CODE: 1515022200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S8F1/G5.p8/ac** CODE: 1515022201
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S8F1/G5.p0/ac** CODE: 1515022202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE8 thread and F2 flange

TYPE: **VOSL/N1116/S8F2/G5.p4/ac** CODE: 1515022203
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S8F2/G5.p8/ac** CODE: 1515022204
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S8F2/G5.p0/ac** CODE: 1515022205
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Ordering codes and description composition

VOSL/N1116 complete valves

Load sensitive (N) configuration with G1/2 thread

TYPE: **VOSL/N1116/12/G5.p4/ac** CODE: 1514332100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/12/G5.p8/ac** CODE: 1514332101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/12/G5.p0/ac** CODE: 1514332102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/12/G5.p4** CODE: 1514331100

DESCRIPTION: Aluminium body, pilot ratio 1:4 range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F1 flange

TYPE: **VOSL/N1116/12F1/G5.p4/ac** CODE: 1515032100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/12F1/G5.p8/ac** CODE: 1515032101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/12F1/G5.p0/ac** CODE: 1515032102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F1 flange

TYPE: **VOSL/N1116/12F2/G5.p4/ac** CODE: 1515032103

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/12F2/G5.p8/ac** CODE: 1515032104

DESCRIPTION: Steel body, pilot ratio 1:8. Range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/12F2/G5.p0/ac** CODE: 1515032105

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VOSL/N1116 complete valves

Load sensitive (N) configuration with SAE10 thread

TYPE: **VOSL/N1116/S10/G5.p4/ac** CODE: 1514332200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S10/G5.p8/ac** CODE: 1514332201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S10/G5.p0/ac** CODE: 1514332202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F1 flange

TYPE: **VOSL/N1116/S10F1/G5.p4/ac** CODE: 1515032200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S10F1/G5.p8/ac** CODE: 1515032201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S10F1/G5.p0/ac** CODE: 1515032202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F2 flange

TYPE: **VOSL/N1116/S10F2/G5.p4/ac** CODE: 1515032203

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S10F2/G5.p8/ac** CODE: 1515032204

DESCRIPTION: Steel body, pilot ratio 1:8. Range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1116/S10F2/G5.p0/ac** CODE: 1515032205

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3ML1133201	For range 50-210 bar (725-3050 psi)
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5	3ML1133200	For range 150-350 bar (2175-5075 psi)
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For 1:8 pilot ratio

5	3ML1133201	For range 180-350 bar (2610-5075 psi)
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2 Setting type

TYPE	CODE	DESCRIPTION
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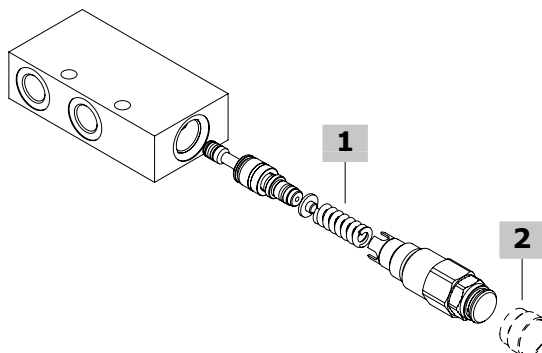
G	-	Screw setting
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Z	4COP120420	Antitampering cap
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Ordering codes and description composition

Port size
VOSL/R1116/38/G3.p4/ac

2 1



VOSL/R1116 complete valves

Relief compensated (R) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VOSL/R1116/38/G3.p4/ac** CODE: 1514422101

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/38/G5.p4/ac** CODE: 1514422100

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/38/G5.p4** CODE: 1514421100

DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/R1116/38/G5.p8/ac** CODE: 1514422104

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/R1116/38/G3.p0/ac** CODE: 1514422106

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/38/G5.p0/ac** CODE: 1514422107

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G3/8 thread and F1 flange

TYPE: **VOSL/R1116/38F1/G5.p4/ac** CODE: 1515122100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/38F1/G5.p8/ac** CODE: 1515122101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/38F1/G5.p0/ac** CODE: 1515122102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G3/8 thread and F2 flange

TYPE: **VOSL/R1116/38F2/G5.p4/ac** CODE: 1515122103

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/38F2/G5.p8/ac** CODE: 1515122104

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/38F2/G5.p0/ac** CODE: 1515122105

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VOSL/R1116 complete valves

Relief compensated (R) configuration with SAE8 thread

Pilot ratio 1:4

TYPE: **VOSL/R1116/S8/G3.p4/ac** CODE: 1514422200

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S8/G5.p4/ac** CODE: 1514422201

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/R1116/S8/G5.p8/ac** CODE: 1514422204

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/R1116/S8/G3.p0/ac** CODE: 1514422206

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S8/G5.p0/ac** CODE: 1514422207

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE8 thread and F1 flange

TYPE: **VOSL/R1116/S8F1/G5.p4/ac** CODE: 1515122200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S8F1/G5.p8/ac** CODE: 1515122201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S8F1/G5.p0/ac** CODE: 1515122202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE8 thread and F2 flange

TYPE: **VOSL/R1116/S8F2/G5.p4/ac** CODE: 1515122203

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S8F2/G5.p8/ac** CODE: 1515122204

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S8F2/G5.p0/ac** CODE: 1515122205

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Ordering codes and description composition

VOSL/R1116 complete valves

Relief compensated (R) configuration with G1/2 thread

TYPE: **VOSL/R1116/12/G5.p4/ac** CODE: 1514432100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/12/G5.p8/ac** CODE: 1514432101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/12/G5.p0/ac** CODE: 1514432102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/12/G5.p4** CODE: 1514431100

DESCRIPTION: Aluminium body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G1/2 thread and F1 flange

TYPE: **VOSL/R1116/12F1/G5.p4/ac** CODE: 1515132100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/12F1/G5.p8/ac** CODE: 1515132101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/12F1/G5.p0/ac** CODE: 1515132102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G1/2 thread and F2 flange

TYPE: **VOSL/R1116/12F2/G5.p4/ac** CODE: 1515132103

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/12F2/G5.p8/ac** CODE: 1515132104

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/12F2/G5.p0/ac** CODE: 1515132105

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VOSL/R1116 complete valves

Relief compensated (R) configuration with SAE10 thread

TYPE: **VOSL/R1116/S10/G5.p4/ac** CODE: 1514432200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S10/G5.p8/ac** CODE: 1514432201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S10/G5.p0/ac** CODE: 1514432202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S10/G5.p4** CODE: 1514431200

DESCRIPTION: Aluminium body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE10 thread and F1 flange

TYPE: **VOSL/R1116/S10F1/G5.p4/ac** CODE: 1515132200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S10F1/G5.p8/ac** CODE: 1515132201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S10F1/G5.p0/ac** CODE: 1515132202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE10 thread and F2 flange

TYPE: **VOSL/R1116/S10F2/G5.p4/ac** CODE: 1515132203

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S10F2/G5.p8/ac** CODE: 1515132204

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/R1116/S10F2/G5.p0/ac** CODE: 1515132205

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3ML1133201	For range 50-210 bar (725-3050 psi)
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5	3ML1133200	For range 150-350 bar (2175-5075 psi)
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For 1:8 pilot ratio

5	3ML1133201	For range 180-350 bar (2610-5075 psi)
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2 Setting type

TYPE	CODE	DESCRIPTION
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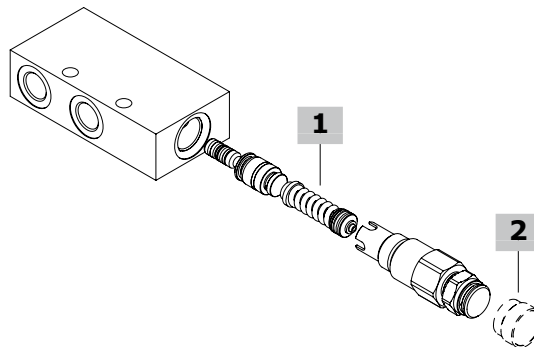
G	-	Screw setting
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Z	4COP130200	Antitampering cap
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Ordering codes and description composition

Port size
VOSL/V1116/38/G3.p4/ac

2 1



VOSL/V1116 complete valves

Vented (V) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VOSL/V1116/38/G3.p4/ac** CODE: 1514522101

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/38/G5.p4/ac** CODE: 1514522100

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/38/G5.p4** CODE: 1514521100

DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/V1116/38/G5.p8/ac** CODE: 1514522104

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/V1116/38/G3.p0/ac** CODE: 1514522106

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/38/G5.p0/ac** CODE: 1514522107

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G3/8 thread and F1 flange

TYPE: **VOSL/V1116/38F1/G5.p4/ac** CODE: 1515222100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-
5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/38F1/G5.p8/ac** CODE: 1515222101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/38F1/G5.p0/ac** CODE: 1515222102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G3/8 thread and F2 flange

TYPE: **VOSL/V1116/38F2/G5.p4/ac** CODE: 1515222103

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/38F2/G5.p8/ac** CODE: 1515222104

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-
5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/38F2/G5.p0/ac** CODE: 1515222105

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VOSL/V1116 complete valves

Vented (V) configuration with SAE8 thread

Pilot ratio 1:4

TYPE: **VOSL/V1116/S8/G3.p4/ac** CODE: 1514522200

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S8/G5.p4/ac** CODE: 1514522201

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/V1116/S8/G5.p8/ac** CODE: 1514522204

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/V1116/S8/G3.p0/ac** CODE: 1514522206

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S8/G5.p0/ac** CODE: 1514522207

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE8 thread and F1 flange

TYPE: **VOSL/V1116/S8F1/G5.p4/ac** CODE: 1515222200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S8F1/G5.p8/ac** CODE: 1515222201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S8F1/G5.p0/ac** CODE: 1515222202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE8 thread and F2 flange

TYPE: **VOSL/V1116/S8F2/G5.p4/ac** CODE: 1515222203

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S8F2/G5.p8/ac** CODE: 1515222204

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S8F2/G5.p0/ac** CODE: 1515222205

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Ordering codes and description composition

VOSL/V1116 complete valves

Vented (V) configuration with G1/2 thread

TYPE: **VOSL/V1116/12/G5.p4/ac** CODE: 1514532100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/12/G5.p8/ac** CODE: 1514532101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/12/G5.p0/ac** CODE: 1514532102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/12/G5.p4** CODE: 1514531100

DESCRIPTION: Aluminium body pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G1/2 thread and F1 flange

TYPE: **VOSL/V1116/12F1/G5.p4/ac** CODE: 1515232100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/12F1/G5.p8/ac** CODE: 1515232101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/12F1/G5.p0/ac** CODE: 1515232102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G1/2 thread and F2 flange

TYPE: **VOSL/V1116/12F2/G5.p4/ac** CODE: 1515232103

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/12F2/G5.p8/ac** CODE: 1515232104

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/12F2/G5.p0/ac** CODE: 1515232105

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VOSL/V1116 complete valves

Vented (V) configuration with SAE10 thread

TYPE: **VOSL/V1116/S10/G5.p4/ac** CODE: 1514532200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S10/G5.p8/ac** CODE: 1514532201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S10/G5.p0/ac** CODE: 1514532202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE10 thread and F1 flange

TYPE: **VOSL/V1116/S10F1/G5.p4/ac** CODE: 1515232200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S10F1/G5.p8/ac** CODE: 1515232201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S10F1/G5.p0/ac** CODE: 1515232202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE10 thread and F2 flange

TYPE: **VOSL/V1116/S10F2/G5.p4/ac** CODE: 1515232203

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S10F2/G5.p8/ac** CODE: 1515232204

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1116/S10F2/G5.p0/ac** CODE: 1515232205

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3ML1133201	For range 50-210 bar (725-3050 psi)
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5	3ML1133200	For range 150-350 bar (2175-5075 psi)
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For 1:8 pilot ratio

5	3ML1133201	For range 180-350 bar (2610-5075 psi)
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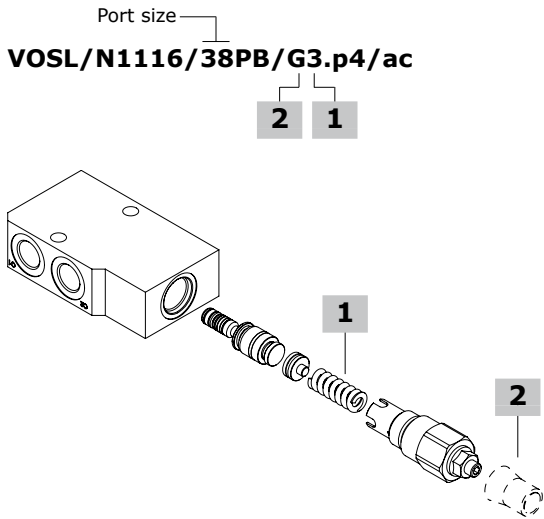
2 Setting type

TYPE	CODE	DESCRIPTION
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G	-	Screw setting
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Z	4COP130200	Antitampering cap
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Ordering codes and description composition



VOSL/N1116/PB complete valves

Load sensitive (N) configuration with G3/8 thread

Pilot ratio 1:4
TYPE: **VOSL/N1116/38PB/G3.p4/ac** CODE: 1514222101
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1116/38PB/G5.p4/ac** CODE: 1514222100
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8
TYPE: **VOSL/N1116/38PB/G5.p8/ac** CODE: 1514222102
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio
TYPE: **VOSL/N1116/38PB/G5.p0/ac** CODE: 1514222103
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread

Pilot ratio 1:4
TYPE: **VOSL/N1116/12PB/G3.p4/ac** CODE: 1514232101
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1116/12PB/G5.p4/ac** CODE: 1514232100
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8
TYPE: **VOSL/N1116/12PB/G5.p8/ac** CODE: 1514232102
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

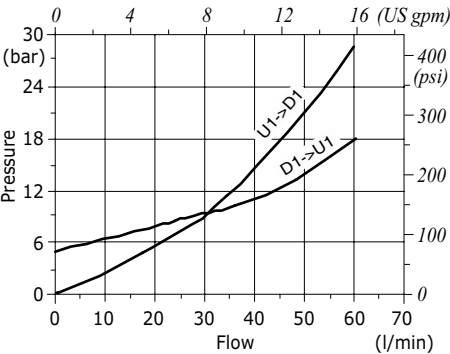
Zero differential pilot ratio
TYPE: **VOSL/N1116/12PB/G5.p0/ac** CODE: 1514232103
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
For other configurations please contact our Sales Dpt.

1 Pressure setting spring		
TYPE	CODE	DESCRIPTION
For 1:4 and zero differential pilot ratio		
3	3ML1133201	For range 50-210 bar (725-3050 psi)
5	3ML1133200	For range 150-350 bar (2175-5075 psi)
For 1:8 pilot ratio		
5	3ML1133201	For range 180-350 bar (2610-5075 psi)

2 Setting type		
TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP130200	Antitampering cap

Ordering codes and description composition

VOSL/(N-R-V) 1116 (38-12) pressure drop vs. flow
from D1->U1 and U1->D1





Type VOSLP/N1116 - VOSLP/R1116 counterbalance valves

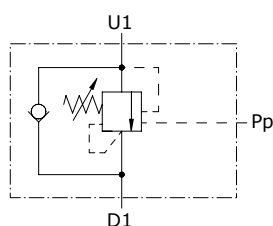
- Single acting
- External pilot
- Load Sensitive (type N)
- Relief Compensated (type R)

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

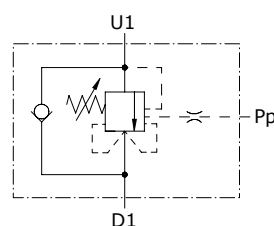
VOSLP/N1116 (38-12) - VOSLP/R1116 (38-12)		
Nominal flow	60 l/min (15.9 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)	
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi	
Fluid	mineral based oil	
Viscosity	from 10 to 200 cSt	
Max. level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)	
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)	
Weight	aluminium	VOSLP/N1116/38: 0.51kg (1.12 lb) - VOSLP/N1116/12: 0.65 kg (1.43 lb)
	steel	VOSLP/N1116/38: 1.13 kg (2.49 lb) - VOSLP/N1116/12: 1.51 kg (3.33 lb) VOSLP/R1116/38: 1.20 kg (2.64 lb) - VOSLP/R1116/12: 1.58 kg (3.48 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.

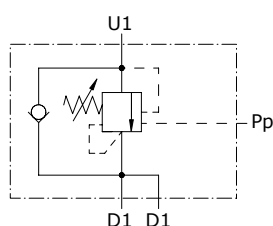
VOSLP/N1116



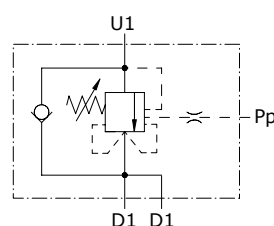
VOSLP/R1116



VOSLP/N1116/F1

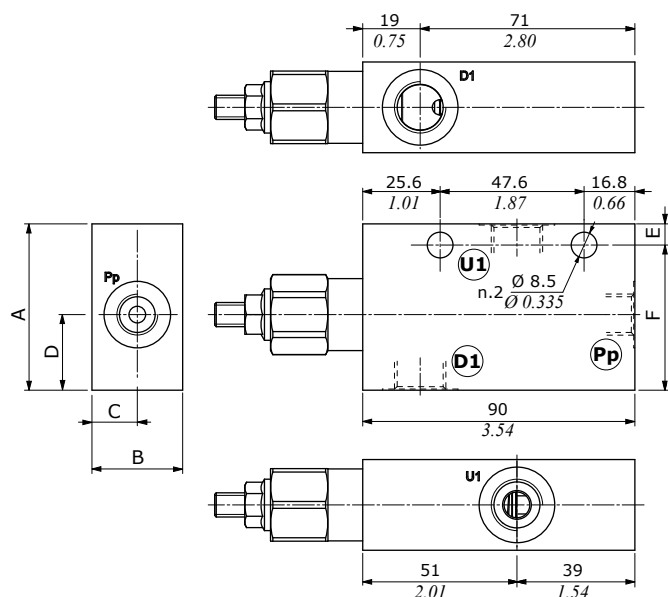


VOSLP/R1116/F1

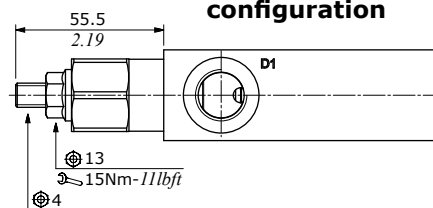


Dimensions

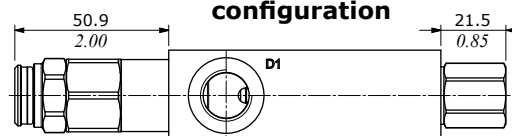
VOSLP/...1116/38 - VOSLP/...1116/12



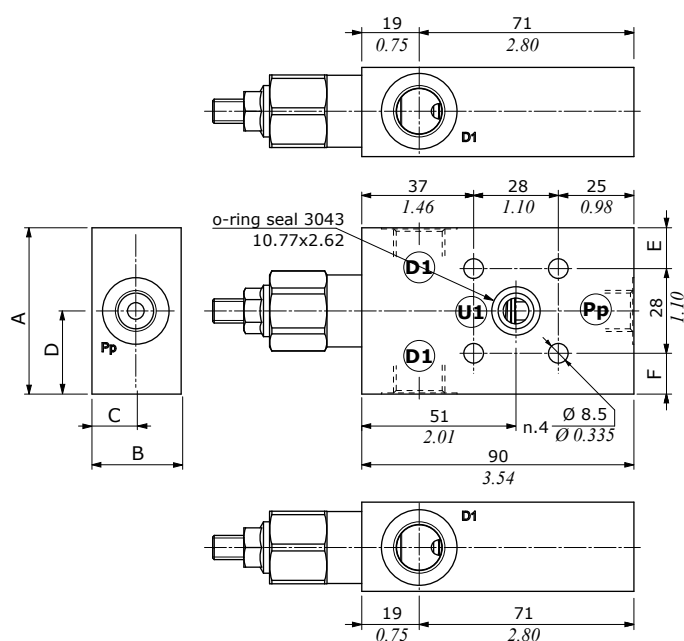
VOSLP/N configuration



VOSLP/R configuration



VOSLP/...1116/38F1 - VOSLP/...1116/12F1



Valve type	D1	U1	Pp
VOSLP/...1116/38	G3/8	G3/8	G1/4
VOSLP/...1116/12	G1/2	G1/2	G1/4
VOSLP/...1116/38F1	G3/8	Ø8.5 Ø0.335	G1/4
VOSLP/...1116/12F1	G1/2	Ø8.5 Ø0.335	G1/4

Valve type	D1	U1	Pp
VOSLP/...1116/S8	SAE8	SAE8	SAE6
VOSLP/...1116/S10	SAE10	SAE10	SAE6
VOSLP/...1116/S8F1	SAE8	Ø8.5 Ø0.335	SAE6
VOSLP/...1116/S10F1	SAE10	Ø8.5 Ø0.335	SAE6

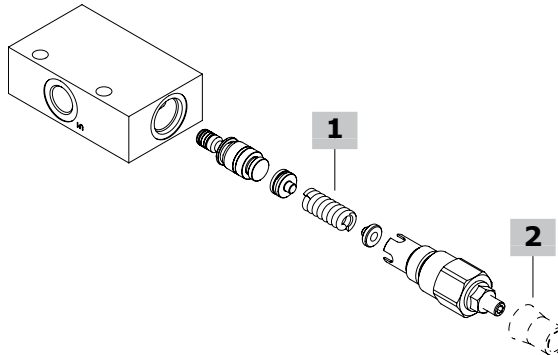
Dimensions are in mm-in

Valve type	A	B	C	D	E	F
VOSLP/...1116/38	55	30	15	25	48	7
VOSLP/...1116/S8	2.17	1.18	0.59	0.98	1.89	0.276
VOSLP/...1116/12	65	35	17.5	32.5	54	11
VOSLP/...1116/S10	2.26	1.38	0.69	1.28	2.13	0.433
VOSLP/...1116/38F1	55	29.5	14.5	27.5	13.5	13.5
VOSLP/...1116/S8F1	2.17	1.16	0.57	1.08	0.53	0.53
VOSLP/...1116/12F1	65	34.5	17	32.5	18.5	18.5
VOSLP/...1116/S10F1	2.26	1.36	0.67	1.28	0.73	0.73

Ordering codes and description composition

Port size
VOSLP/N1116/38/G3.p4/ac

2 1



VOSLP/N1116 complete valves

Load sensitive (N) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VOSLP/N1116/38/G3.p4/ac** CODE: 1534322101

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/38/G5.p4/ac** CODE: 1534322100

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std
setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/38/G5.p4** CODE: 1534321100

DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSLP/N1116/38/G5.p8/ac** CODE: 1534322104

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSLP/N1116/38/G3.p0/ac** CODE: 1534322106

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/38/G5.p0/ac** CODE: 1534322107

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/8 thread and F1 flange

TYPE: **VOSLP/N1116/38F1/G5.p4/ac** CODE: 1535522100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/38F1/G5.p8/ac** CODE: 1535522101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/38F1/G5.p0/ac** CODE: 1535522102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VOSLP/N1116 complete valves

Load sensitive (N) configuration with SAE8 thread

Pilot ratio 1:4

TYPE: **VOSLP/N1116/S8/G3.p4/ac** CODE: 1534322200

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S8/G5.p4/ac** CODE: 1534322201

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std
setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S8/G5.p4** CODE: 1534321200

DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSLP/N1116/S8/G5.p8/ac** CODE: 1534322204

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSLP/N1116/S8/G3.p0/ac** CODE: 1534322206

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S8/G5.p0/ac** CODE: 1534322207

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE8 thread and F1 flange

TYPE: **VOSLP/N1116/S8F1/G5.p4/ac** CODE: 1535522200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S8F1/G5.p8/ac** CODE: 1535522201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S8F1/G5.p0/ac** CODE: 1535522202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3ML1133201	For range 50-210 bar (725-3050 psi)
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5	3ML1133200	For range 150-350 bar (2175-5075 psi)
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For 1:8 pilot ratio

5	3ML1133201	For range 180-350 bar (2610-5075 psi)
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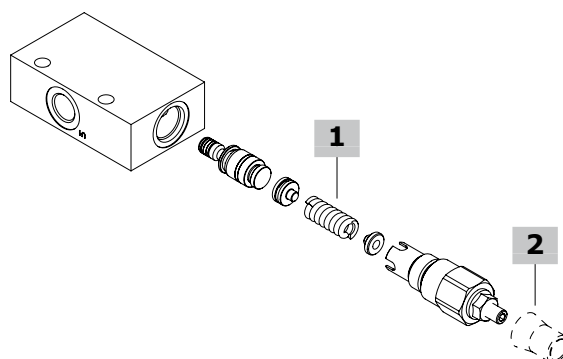
2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP120420	Antitampering cap

Dimensions

Port size
VOSLP/N1116/12/G3.p4/ac

2 1



VOSLP/N1116 complete valves

Load sensitive (N) configuration with G1/2 thread

TYPE: **VOSLP/N1116/12/G5.p4/ac** CODE: 1534332100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/12/G5.p8/ac** CODE: 1534332101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/12/G5.p0/ac** CODE: 1534332102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/12/G5.p4** CODE: 1534331100

DESCRIPTION: Aluminium body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F1 flange

TYPE: **VOSLP/N1116/12F1/G5.p4/ac** CODE: 1535532100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/12F1/G5.p8/ac** CODE: 1535532101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/12F1/G5.p0/ac** CODE: 1535532102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm).

For other configurations please contact our Sales Dpt.

VOSLP/N1116 complete valves

Load sensitive (N) configuration with SAE10 thread

TYPE: **VOSLP/N1116/S10/G5.p4/ac** CODE: 1534332200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S10/G5.p8/ac** CODE: 1534332201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S10/G5.p0/ac** CODE: 1534332202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S10/G5.p4** CODE: 1534331200

DESCRIPTION: Aluminium body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F1 flange

TYPE: **VOSLP/N1116/S10F1/G5.p4/ac** CODE: 1535532200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S10F1/G5.p8/ac** CODE: 1535532201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/N1116/S10F1/G5.p0/ac** CODE: 1535532202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3ML1133201	For range 50-210 bar (725-3050 psi)
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5	3ML1133200	For range 150-350 bar (2175-5075 psi)
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For 1:8 pilot ratio

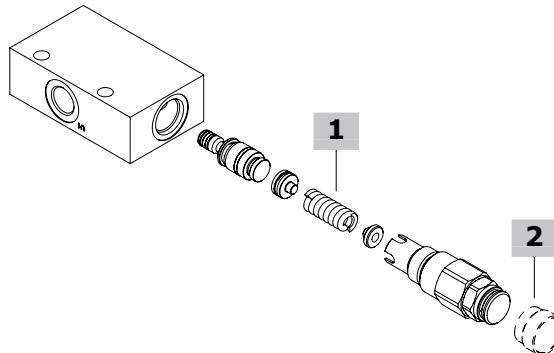
5	3ML1133201	For range 180-350 bar (2610-5075 psi)
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2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP120420	Antitampering cap

Ordering codes and description composition

Port size
VOSLP/R1116/38/G3.p4/ac
2 1



VOSLP/R1116 complete valves

Relief compensated (R) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VOSLP/R1116/38/G3.p4/ac** CODE: 1534422101
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/38/G5.p4/ac** CODE: 1534422100
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSLP/R1116/38/G5.p8/ac** CODE: 1534422104
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSLP/R1116/38/G3.p0/ac** CODE: 1534422106
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/38/G5.p0/ac** CODE: 1534422107
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G3/8 thread and F1 flange

TYPE: **VOSLP/R1116/38F1/G5.p4/ac** CODE: 1535622100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/38F1/G5.p8/ac** CODE: 1535622101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/38F1/G5.p0/ac** CODE: 1535622102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350
bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US

VOSLP/R1116 complete valves

Relief compensated (R) configuration with SAE8 thread

Pilot ratio 1:4

TYPE: **VOSLP/R1116/S8/G3.p4/ac** CODE: 1534422200
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/S8/G5.p4/ac** CODE: 1534422201
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSLP/R1116/S8/G5.p8/ac** CODE: 1534422204
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSLP/R1116/S8/G3.p0/ac** CODE: 1534422206
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/S8/G5.p0/ac** CODE: 1534422207
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE8 thread and F1 flange

TYPE: **VOSLP/R1116/S8F1/G5.p4/ac** CODE: 1535622200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/S8F1/G5.p8/ac** CODE: 1535622201
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/R1116/S8F1/G5.p0/ac** CODE: 1535522202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3ML1133201	For range 50-210 bar (725-3050 psi)
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5	3ML1133200	For range 150-350 bar (2175-5075 psi)
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For 1:8 pilot ratio

5	3ML1133201	For range 180-350 bar (2610-5075 psi)
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2 Setting type

TYPE	CODE	DESCRIPTION
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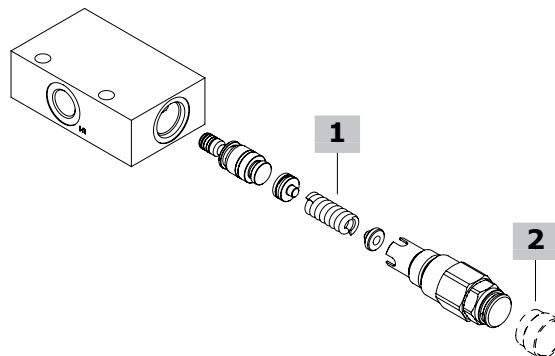
G	-	Screw setting
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Z	4COP130200	Antitampering cap
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Ordering codes and description composition

Port size
VOSLP/R1116/12/G3.p4/ac

2 **1**



gpm)

VOSLP/R1116 complete valves

Relief compensated (R) configuration with G1/2 thread

TYPE: **VOSLP/R1116/12/G5.p4/ac** CODE: 1534432100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/12/G5.p8/ac** CODE: 1534432101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/12/G5.p0/ac** CODE: 1534432102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G1/2 thread and F1 flange

TYPE: **VOSLP/R1116/12F1/G5.p4/ac** CODE: 1535632100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/12F1/G5.p8/ac** CODE: 1535632101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/12F1/G5.p0/ac** CODE: 1535632102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
For other configurations please contact our Sales Dpt.

VOSLP/R1116 complete valves

Relief compensated (R) configuration with SAE10 thread

TYPE: **VOSLP/R1116/S10/G5.p4/ac** CODE: 1534432200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/S10/G5.p8/ac** CODE: 1534432201
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/S10/G5.p0/ac** CODE: 1534432202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE10 thread and F1 flange

TYPE: **VOSLP/R1116/S10F1/G5.p4/ac** CODE: 1535632200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/S10F1/G5.p8/ac** CODE: 1535632201
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSLP/R1116/S10F1/G5.p0/ac** CODE: 1535632202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE CODE DESCRIPTION

For 1:4 and zero differential pilot ratio

3 3ML1133201 For range 50-210 bar (725-3050 psi)
5 3ML1133200 For range 150-350 bar (2175-5075 psi)

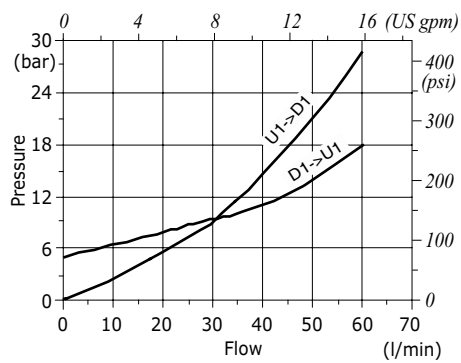
For 1:8 pilot ratio

5 3ML1133201 For range 180-350 bar (2610-5075 psi)

2 Setting type

TYPE CODE DESCRIPTION
G - Screw setting
Z 4COP130200 Antitampering cap

**VOSLP/(N-R) 1116 (38-12) pressure drop vs. flow
from D1->U1 and U1->D1**





Type VODL/N1116 - VODL/R1116 counterbalance valves

- Double acting
- Load Sensitive (type N)
- Relief Compensated (type R)

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

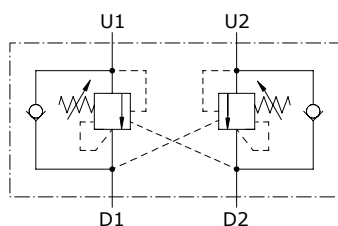
VODL/N1116 (38-12) - VODL/R1116 (38-12)

Nominal flow	60 l/min (15.9 US gpm)
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)

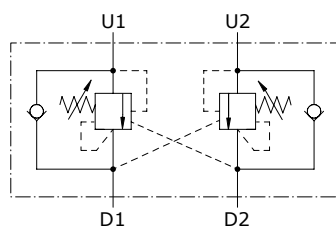
Weight	aluminium	VODL/N1116/38: 0.91 kg (2.01 lb) - VODL/N1116/12: 1.13 kg (2.49 lb)
	steel	VODL/R1116/38: 1.06 kg (2.34 lb) - VODL/R1116/12: 1.29 kg (2.84 lb)
		VODL/N1116/38: 1.91 kg (4.21 lb) - VODL/N1116/12: 2.55 kg (5.62 lb)
		VODL/N1116/38PB: - VODL/N1116/12PB:
		VODL/R1116/38: 2.06 kg (4.54 lb) - VODL/R1116/12: 2.69 kg (5.93 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.

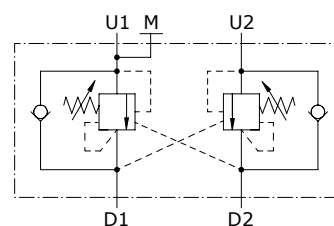
VODL/N1116 VODL/N1116/F2



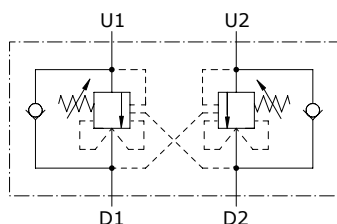
VODL/N1116/PB



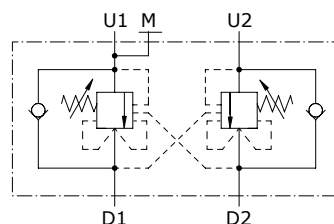
VODL/N1116/F1



VODL/R1116 VODL/R1116/F2

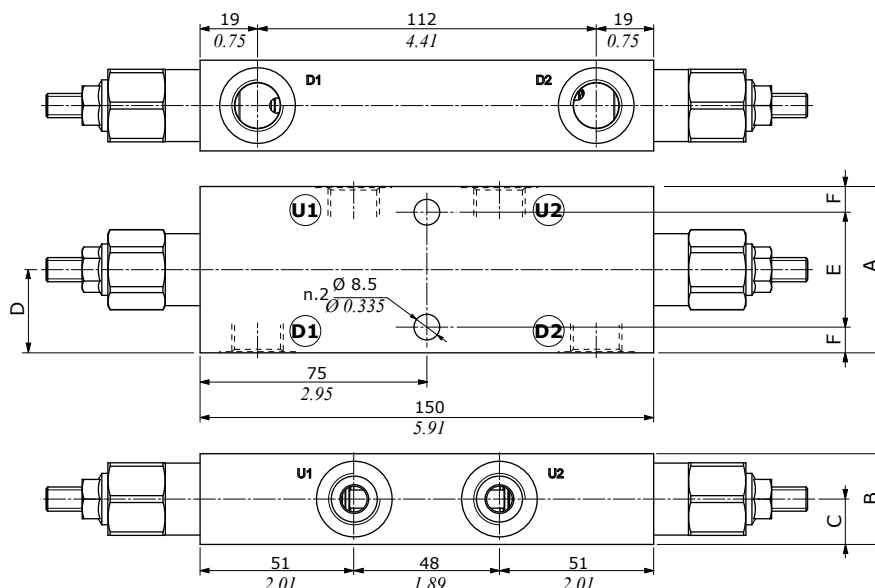


VODL/R1116/F1

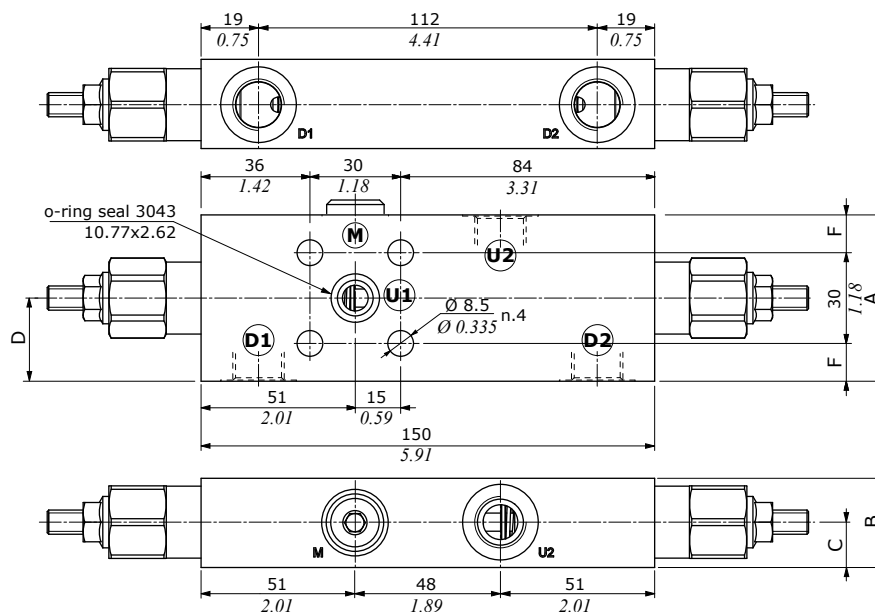


Dimensions

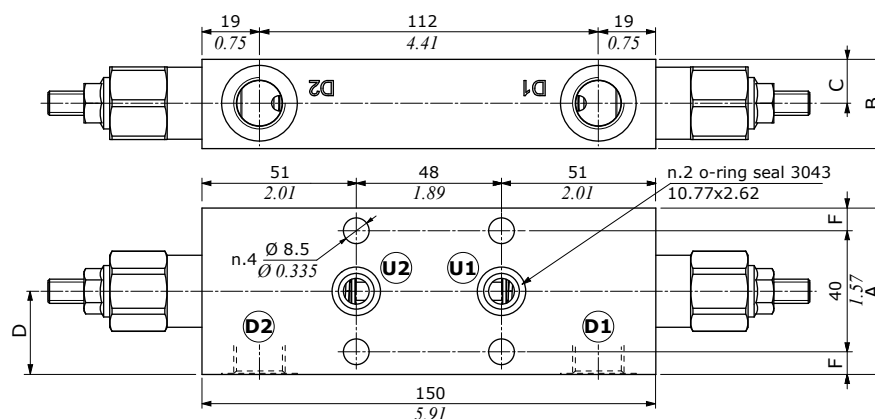
VODL/...1116/38 - VODL/...1116/12



VODL/...1116/38F1 - VODL/...1116/12F1

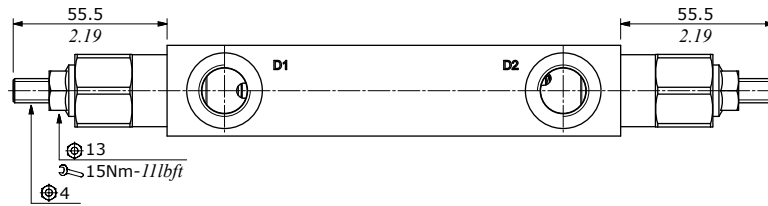


VODL/...1116/38F2 - VODL/...1116/12F2

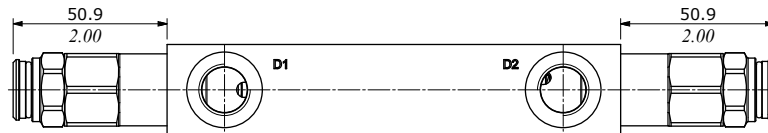


Dimensions

VODL/N configuration



VODL/R configuration



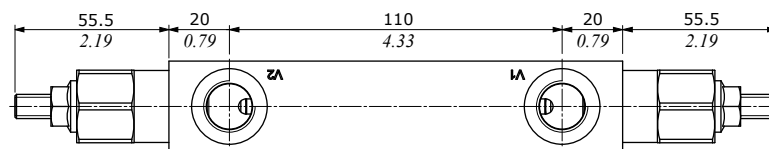
Valve type	D1	D2	U1	U2	M
VODL/...1116/38	G3/8	G3/8	G3/8	G3/8	-
VODL/...1116/12	G1/2	G1/2	G1/2	G1/2	-
VODL/...1116/38F1	G3/8	G3/8	Ø8.5 - Ø0.335	G3/8	G1/4
VODL/...1116/12F1	G1/2	G1/2	Ø8.5 - Ø0.335	G1/2	G1/4
VODL/...1116/38F2	G3/8	G3/8	Ø8.5 - Ø0.335	Ø8.5 - Ø0.335	-
VODL/...1116/12F2	G1/2	G1/2	Ø8.5 - Ø0.335	Ø8.5 - Ø0.335	-

Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G
VODL/...1116/38	55	30	15	27.5	38	8.5	8.5
VODL/...1116/S8	2.17	1.18	0.59	1.08	1.50	0.334	0.334
VODL/...1116/12	65	35	17.5	32.5	43	11	11
VODL/...1116/S10	2.26	1.38	0.69	1.28	1.69	0.433	0.433
VODL/...1116/38F1	55	29.5	15	27.5	30	7.5	7.5
VODL/...1116/S8F1	2.17	1.16	0.59	1.08	1.18	0.295	0.295
VODL/...1116/12F1	65	34.5	17	32.5	30	17.5	17.5
VODL/...1116/S10F1	2.26	1.36	0.67	1.28	1.18	0.69	0.69
VODL/...1116/38F2	55	29.5	14.5	27.5	40	7.5	7.5
VODL/...1116/S8F2	2.17	1.16	0.57	1.08	1.57	0.295	0.295
VODL/...1116/12F2	65	34.5	17	32.5	40	12.5	12.5
VODL/...1116/S10F2	2.26	1.36	0.67	1.28	1.57	0.49	0.49

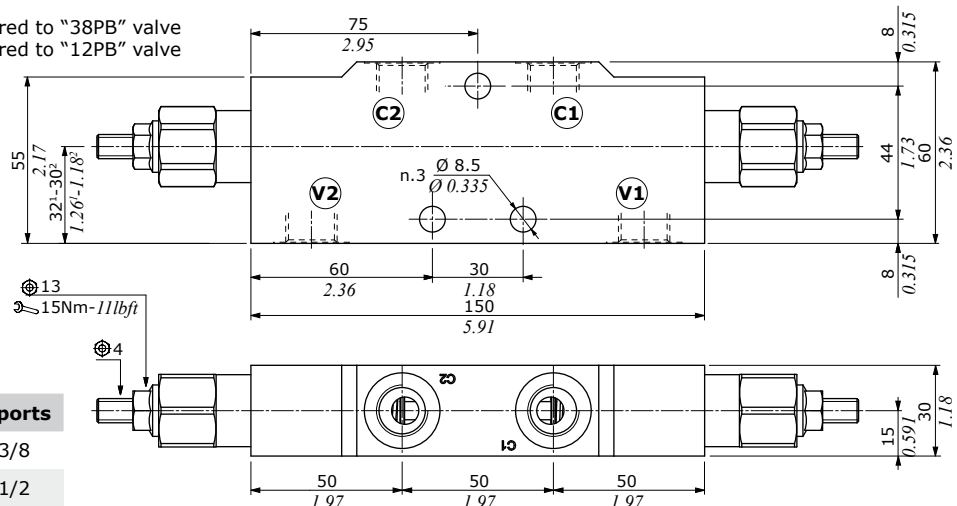
Valve type	D1	D2	U1	U2	M
VODL/...1116/S8	SAE8	SAE8	SAE8	SAE8	-
VODL/...1116/S10	SAE10	SAE10	SAE10	SAE10	-
VODL/...1116/S8F1	SAE8	SAE8	Ø8.5 - Ø0.335	SAE8	G1/4
VODL/...1116/S10F1	SAE10	SAE10	Ø8.5 - Ø0.335	SAE10	G1/4
VODL/...1116/S8F2	SAE8	SAE8	Ø8.5 - Ø0.335	Ø8.5 - Ø0.335	-
VODL/...1116/S10F2	SAE10	SAE10	Ø8.5 - Ø0.335	Ø8.5 - Ø0.335	-

VODL/N1116/38PB - VODL/N1116/12PB



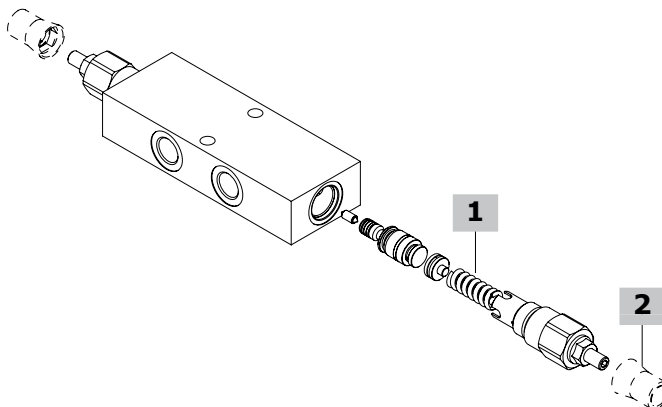
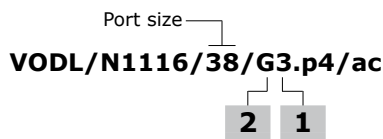
NOTES

- (1): dimension referred to "38PB" valve
(2): dimension referred to "12PB" valve



Valve type	All ports
VODL/N1116/38PB	G3/8
VODL/N1116/12PB	G1/2

Ordering codes and description composition



VODL/N1116 complete valves

Load sensitive (N) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VODL/N1116/38/G3.p4/ac** CODE: 1554322103
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38/G5.p4/ac** CODE: 1554322100
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38/G5.p4** CODE: 1554321100
DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/N1116/38/G5.p8/ac** CODE: 1554322106
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/N1116/38/G3.p0/ac** CODE: 1554322108
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38/G5.p0/ac** CODE: 1554322109
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/8 thread and F1 flange

TYPE: **VODL/N1116/38F1/G5.p4/ac** CODE: 1555122100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38F1/G5.p8/ac** CODE: 1555122101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38F1/G5.p0/ac** CODE: 1555122102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/8 thread and F2 flange

TYPE: **VODL/N1116/38F2/G5.p4/ac** CODE: 1555122103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38F2/G5.p8/ac** CODE: 1555122104
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38F2/G5.p0/ac** CODE: 1555122105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VODL/N1116 complete valves

Load sensitive (N) configuration with SAE8 thread

Pilot ratio 1:4

TYPE: **VODL/N1116/S8/G3.p4/ac** CODE: 1554322200
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/S8/G5.p4/ac** CODE: 1554322201
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/S8/G5.p4** CODE: 1554321200
DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/N1116/S8/G5.p8/ac** CODE: 1554322204
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/N1116/S8/G3.p0/ac** CODE: 1554322206
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/S8/G5.p0/ac** CODE: 1554322207
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE8 thread and F1 flange

TYPE: **VODL/N1116/S8F1/G5.p4/ac** CODE: 1555122200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/S8F1/G5.p8/ac** CODE: 1555122201
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/S8F1/G5.p0/ac** CODE: 1555122202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE8 thread and F2 flange

TYPE: **VODL/N1116/S8F2/G5.p4/ac** CODE: 1555122203
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/S8F2/G5.p8/ac** CODE: 1555122204
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-
5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/S8F2/G5.p0/ac** CODE: 1555122205
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VODL/N1116 complete valves

Load sensitive (N) configuration with G1/2 thread

TYPE: **VODL/N1116/12/G5.p4/ac** CODE: 1554332100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/12/G5.p8/ac** CODE: 1554332101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/12/G5.p0/ac** CODE: 1554332102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/12/G5.p4** CODE: 1554331100
DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F1 flange

TYPE: **VODL/N1116/12F1/G5.p4/ac** CODE: 1555132100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/12F1/G5.p8/ac** CODE: 1555132101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/12F1/G5.p0/ac** CODE: 1555132102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F2 flange

TYPE: **VODL/N1116/12F2/G5.p4/ac** CODE: 1555132103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/12F2/G5.p8/ac** CODE: 1555132104
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/12F2/G5.p0/ac** CODE: 1555132105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VODL/N1116 complete valves

Load sensitive (N) configuration with SAE10 thread

TYPE: **VODL/N1116/S10/G5.p4/ac** CODE: 1554332200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/S10/G5.p8/ac** CODE: 1554332201
DESCRIPTION: Steel body, pilot ratio 1:8, range 5-350 bar (72.5-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/S10/G5.p0/ac** CODE: 1554332202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/S10/G5.p4** CODE: 1554331201
DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F1 flange

TYPE: **VODL/N1116/S10F1/G5.p4/ac** CODE: 1555132200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/S10F1/G5.p8/ac** CODE: 1555132201
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/S10F1/G5.p0/ac** CODE: 1555132202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F2 flange

TYPE: **VODL/N1116/S10F2/G5.p4/ac** CODE: 1555132203
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/S10F2/G5.p8/ac** CODE: 1555132204
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/N1116/S10F2/G5.p0/ac** CODE: 1555132205
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
For 1:4 and zero differential pilot ratio		
3	3ML1133201	For range 50-210 bar (725-3050 psi)
5	3ML1133200	For range 150-350 bar (2175-5075 psi)
For 1:8 pilot ratio		
5	3ML1133201	For range 180-350 bar (2610-5075 psi)

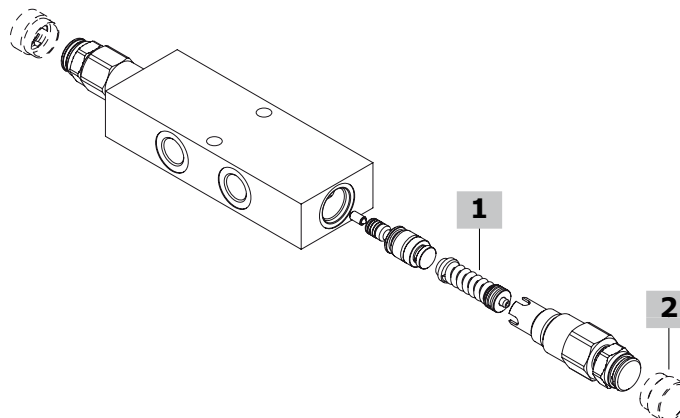
2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP120420	Antitampering cap

Ordering codes and description composition

Port size
VODL/R1116/38/G3.p4/ac

2 1



VODL/R1116 complete valves

Relief compensated (R) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VODL/R1116/38/G3.p4/ac** CODE: 1554422101
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/38/G5.p4/ac** CODE: 1554422100
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/38/G5.p4** CODE: 1554421100
DESCRIPTION: aluminium body configuration range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/R1116/38/G5.p8/ac** CODE: 1554422104
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/R1116/38/G3.p0/ac** CODE: 1554422106
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/38/G5.p0/ac** CODE: 1554422107
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G3/8 thread and F1 flange

TYPE: **VODL/R1116/38F1/G5.p4/ac** CODE: 1555022100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/38F1/G5.p8/ac** CODE: 1555022101
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/38F1/G5.p0/ac** CODE: 1555022102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G3/8 thread and F2 flange

TYPE: **VODL/R1116/38F2/G5.p4/ac** CODE: 1555022103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/38F2/G5.p8/ac** CODE: 1555022104
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/38F2/G5.p0/ac** CODE: 1555022105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VODL/R1116 complete valves

Relief compensated (R) configuration with SAE8 thread

Pilot ratio 1:4

TYPE: **VODL/R1116/S8/G3.p4/ac** CODE: 1554422200
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S8/G5.p4/ac** CODE: 1554422201
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S8/G5.p4** CODE: 1554421200
DESCRIPTION: aluminium body configuration range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/R1116/S8/G5.p8/ac** CODE: 1554422204
DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/R1116/S8/G3.p0/ac** CODE: 1554422206
DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S8/G5.p0/ac** CODE: 1554422207
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE8 thread and F1 flange

TYPE: **VODL/R1116/S8F1/G5.p4/ac** CODE: 1555022200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S8F1/G5.p8/ac** CODE: 1555022201
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S8F1/G5.p0/ac** CODE: 1555022202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE8 thread and F2 flange

TYPE: **VODL/R1116/S8F2/G5.p4/ac** CODE: 1555022203
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S8F2/G5.p8/ac** CODE: 1555022204
DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S8F2/G5.p0/ac** CODE: 1555022205
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Ordering codes and description composition

VODL/R1116 complete valves

Relief compensated (R) configuration with G1/2 thread

TYPE: **VODL/R1116/12/G5.p4/ac** CODE: 1554432101

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/12/G5.p8/ac** CODE: 1554432100

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/12/G5.p0/ac** CODE: 1554432102

DESCRIPTION: Steel body, zero differential pilot ratio. Range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/12/G5.p4** CODE: 1554431100

DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G1/2 thread and F1 flange

TYPE: **VODL/R1116/12F1/G5.p4/ac** CODE: 1555032103

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/12F1/G5.p8/ac** CODE: 1555032104

DESCRIPTION: pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/12F1/G5.p0/ac** CODE: 1555032105

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with G1/2 thread and F2 flange

TYPE: **VODL/R1116/12F2/G5.p4/ac** CODE: 1555032100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/12F2/G5.p8/ac** CODE: 1555032101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/12F2/G5.p0/ac** CODE: 1555032102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VODL/R1116 complete valves

Relief compensated (R) configuration with SAE10 thread

TYPE: **VODL/R1116/S10/G5.p4/ac** CODE: 1554432200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S10/G5.p8/ac** CODE: 1554432201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S10/G5.p0/ac** CODE: 1554432202

DESCRIPTION: Steel body, zero differential pilot ratio. Range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S10/G5.p4** CODE: 1554431200

DESCRIPTION: Aluminium body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE10 thread and F1 flange

TYPE: **VODL/R1116/S10F1/G5.p4/ac** CODE: 1555032200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S10F1/G5.p8/ac** CODE: 1555032201

DESCRIPTION: pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S10F1/G5.p0/ac** CODE: 1555032202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

Relief compensated (R) configuration with SAE10 thread and F2 flange

TYPE: **VODL/R1116/S10F2/G5.p4/ac** CODE: 1555032203

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S10F2/G5.p8/ac** CODE: 1555032204

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VODL/R1116/S10F2/G5.p0/ac** CODE: 1555032205

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

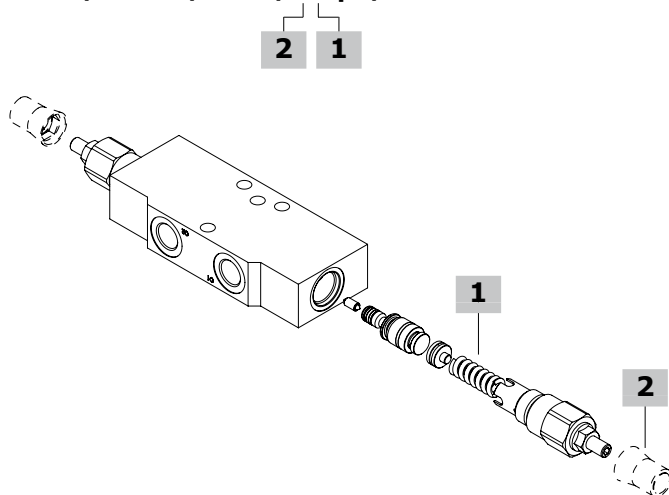
TYPE	CODE	DESCRIPTION
For 1:4 and zero differential pilot ratio		
3	3ML1133201	For range 50-210 bar (725-3050 psi)
5	3ML1133200	For range 150-350 bar (2175-5075 psi)
For 1:8 pilot ratio		
5	3ML1133201	For range 180-350 bar (2610-5075 psi)

2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP130200	Antitampering cap

Rating diagrams

Port size
VODL/N1116/38PB/G3.p4/ac



1 Pressure setting spring

TYPE	CODE	DESCRIPTION
For 1:4 and zero differential pilot ratio		
3	3ML1133201	For range 50-210 bar (725-3050 psi)
5	3ML1133200	For range 150-350 bar (2175-5075 psi)
For 1:8 pilot ratio		
5	3ML1133201	For range 180-350 bar (2610-5075 psi)

2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP120420	Antitampering cap

VODL/N1116/PB complete valves

Load sensitive (N) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VODL/N1116/38PB/G3.p4/ac** CODE: 1555422101

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/38PB/G5.p4/ac** CODE: 1555422100

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/N1116/38PB/G5.p8/ac** CODE: 1555422102

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/N1116/38PB/G5.p0/ac** CODE: 1555422103

DESCRIPTION: Steel body, range 5-350 bar (72.5-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread

Pilot ratio 1:4

TYPE: **VODL/N1116/12PB/G3.p4/ac** CODE: 1555432101

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1116/2PB/G5.p4/ac** CODE: 1555432100

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/N1116/12PB/G5.p8/ac** CODE: 1555432102

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

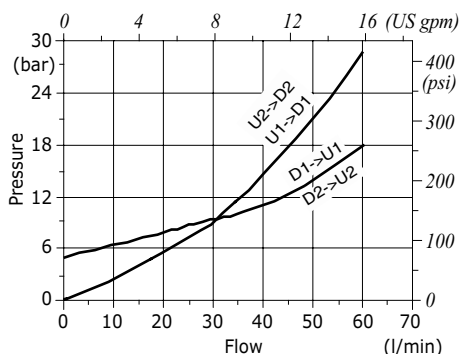
TYPE: **VODL/N1116/12PB/G5.p0/ac** CODE: 1555432103

DESCRIPTION: Steel body, range 5-350 bar (72.5-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

Rating diagrams

VODL/(N-R) 1116 (38-12) pressure drop vs. flow from D1->U1 and U1->D1 (D2->U2 and U2->D2)





Type VODL/V1116/CS counterbalance valves

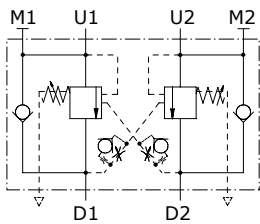
- Double acting
- Vented

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

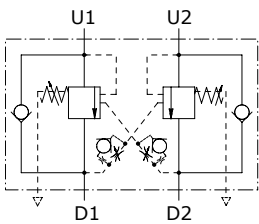
VODL/V1116/CS (38-12)	
Nominal flow	60 l/min (15.9 US gpm)
Max. pressure	350 bar (5100 psi)
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)
Weight	VODL/V1116/CS/38: 3.64 kg (8.02 lb) - VODL/V1116/CS/12: 3.50 kg (7.72 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.

VODL/V1116/CS

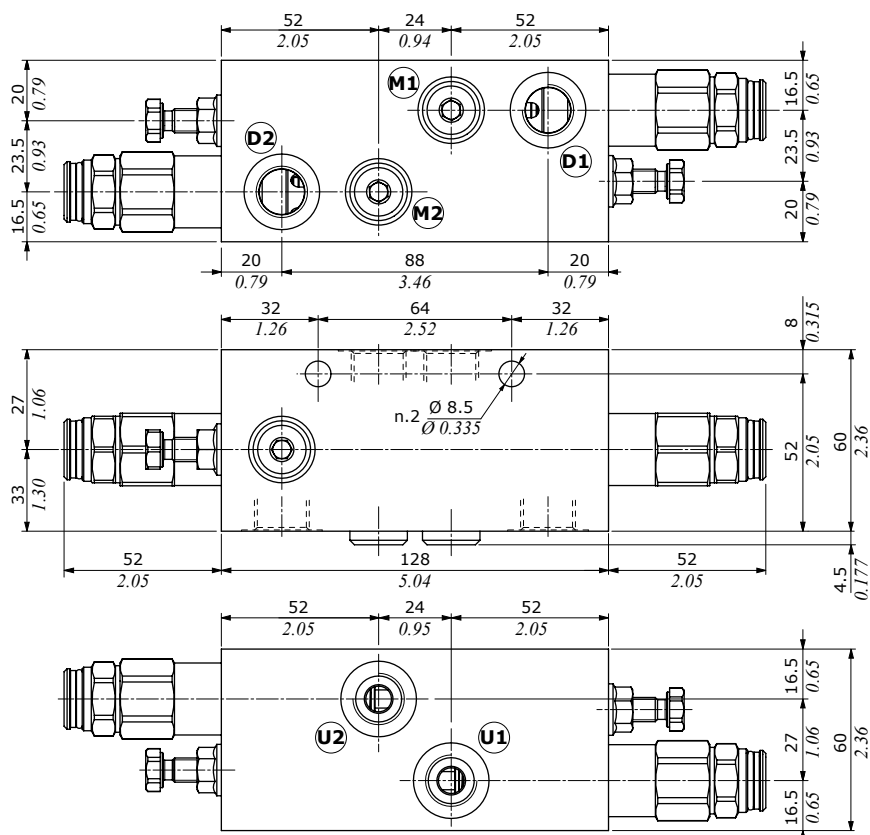


VODL/V1116/CS/F2

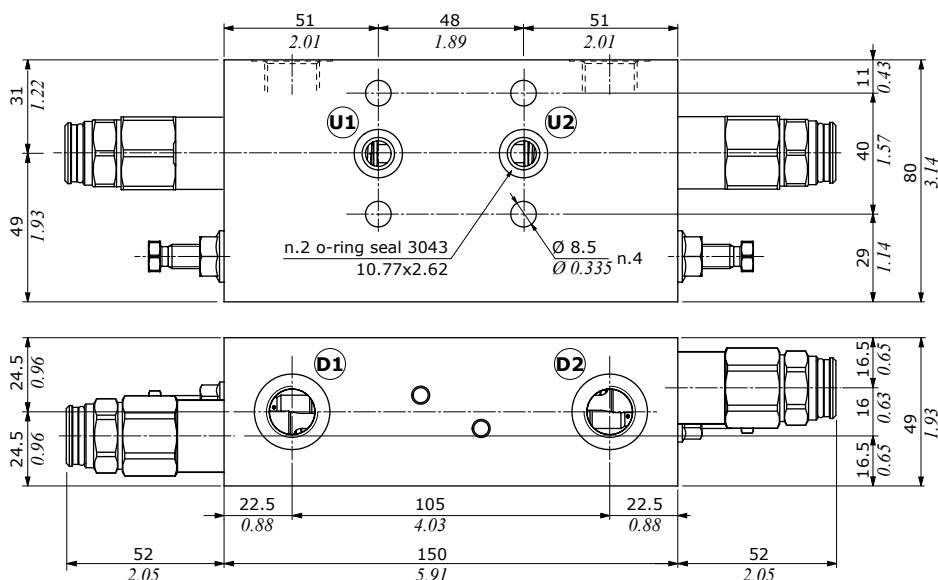


Dimensions

VODL/V1116/CS/38 - VODL/V1116/CS/12



VODL/V1116/CS/38F2 - VODL/V1116/CS/12F2



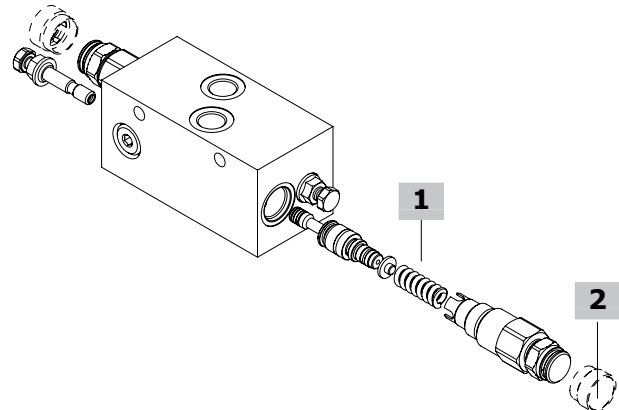
Valve type	D1 D2	U1 U2	M1 M2
VODL/V1116/CS/38	G3/8	G3/8	G1/4
VODL/V1116/CS/12	G1/2	G1/2	G1/4
VODL/V1116/CS/38F2	G3/8	Ø8.5 - Ø0.335	-
VODL/V1116/CS/12F2	G1/2	Ø8.5 - Ø0.335	-

Valve type	D1 D2	U1 U2	M1 M2
VODL/V1116/CS/S8	SAE8	SAE8	G1/4
VODL/V1116/CS/S10	SAE10	SAE10	G1/4
VODL/V1116/CS/S8F2	SAE8	Ø8.5 - Ø0.335	-
VODL/V1116/CS/S10F2	SAE10	Ø8.5 - Ø0.335	-

Ordering codes and description composition

Port size
VODL/V1116/CS/38/G3.p4.PR/ac

2 1



Complete valves

Vented (V) configuration with G3/8 thread

Pilot ratio 1:4

TYPE: **VODL/V1116/CS/38/G3.p4.PR/ac** CODE: 1554522102

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/38/G5.p4.PR/ac** CODE: 1554522100

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/V1116/CS/38/G5.p8.PR/ac** CODE: 1554522105

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/V1116/CS/38/G3.p0.PR/ac** CODE: 1554522107

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/38/G5.p0.PR/ac** CODE: 1554522101

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G3/8 thread and F2 flange

TYPE: **VODL/V1116/CS/38F2/G5.p4.PR/ac** CODE: 1556022100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 min (1.32 US gpm)

TYPE: **VODL/V1116/CS/38F2/G5.p8.PR/ac** CODE: 1556022101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/38F2/G5.p0.PR/ac** CODE: 1556022102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Complete valves

Vented (V) configuration with SAE8 thread

Pilot ratio 1:4

TYPE: **VODL/V1116/CS/S8/G3.p4.PR/ac** CODE: 1554522200

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S8/G5.p4.PR/ac** CODE: 1554522201

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/V1116/CS/S8/G5.p8.PR/ac** CODE: 1554522204

DESCRIPTION: Steel body, range 180-350 bar (2610-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/V1116/CS/S8/G3.p0.PR/ac** CODE: 1554522206

DESCRIPTION: Steel body, range 5-210 bar (72.5-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S8/G5.p0.PR/ac** CODE: 1554522207

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE8 thread and F2 flange

TYPE: **VODL/V1116/CS/S8F2/G5.p4.PR/ac** CODE: 1556022200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S8F2/G5.p8.PR/ac** CODE: 1556022201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar
(2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S8F2/G5.p0.PR/ac** CODE: 1556022202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3ML1133201	For range 50-210 bar (725-3050 psi)
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5	3ML1133200	For range 150-350 bar (2175-5075 psi)
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For 1:8 pilot ratio

5	3ML1133201	For range 180-350 bar (2610-5075 psi)
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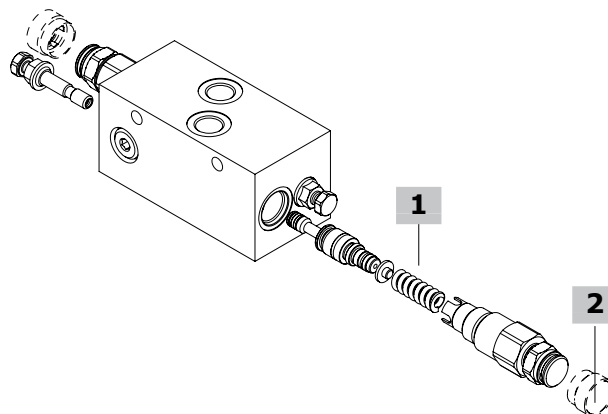
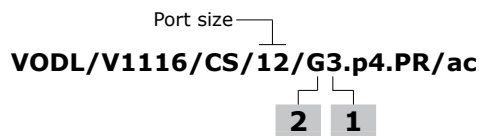
2 Setting type

TYPE	CODE	DESCRIPTION
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G	-	Screw setting
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Z	4COP130200	Antitampering cap
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Rating diagrams



Complete valves

Vented (V) configuration with G1/2 thread

TYPE: **VODL/V1116/CS/12/G5.p4.PR/ac** CODE: 1554532100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/12/G5.p8.PR/ac** CODE: 1554532101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/12/G5.p0/ac** CODE: 1554532102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G1/2 thread and F2 flange

TYPE: **VODL/V1116/CS/12F2/G5.p4.PR/ac** CODE: 1556032100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/12F2/G5.p8.PR/ac** CODE: 1556032101

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/12F2/G5.p0.PR/ac** CODE: 1556032102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

Vented (V) configuration with SAE10 thread

TYPE: **VODL/V1116/CS/S10/G5.p4.PR/ac** CODE: 1554532200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S10/G5.p8.PR/ac** CODE: 1554532201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S10/G5.p0/ac** CODE: 1554532202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Complete valves

Vented (V) configuration with SAE10 thread and F2 flange

TYPE: **VODL/V1116/CS/S10F2/G5.p4.PR/ac** CODE: 1556032200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S10F2/G5.p8.PR/ac** CODE: 1556032201

DESCRIPTION: Steel body, pilot ratio 1:8, range 180-350 bar (2610-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1116/CS/S10F2/G5.p0.PR/ac** CODE: 1556032202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
For 1:4 and zero differential pilot ratio		
3	3ML1133201	For range 50-210 bar (725-3050 psi)
5	3ML1133200	For range 150-350 bar (2175-5075 psi)
For 1:8 pilot ratio		
5	3ML1133201	For range 180-350 bar (2610-5075 psi)

For 1:4 and zero differential pilot ratio

3 3ML1133201 For range 50-210 bar (725-3050 psi)

5 3ML1133200 For range 150-350 bar (2175-5075 psi)

For 1:8 pilot ratio

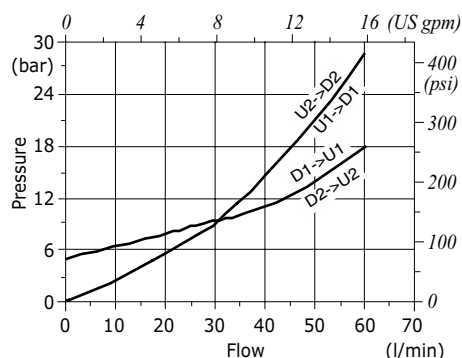
5 3ML1133201 For range 180-350 bar (2610-5075 psi)

2 Setting type

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP130200	Antitampering cap

Rating diagrams

VODL/V/1116/CS pressure drop vs. flow
from D1->U1 and U1 to D1 (D2->U2 and U2 to D2)





Type VOSL/N1516 - VOSL/V1516 counterbalance valves

- Single acting
- Load Sensitive (type N)
- Vented (type V)
- Configuration with F1 and F2 flange

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

VOSL/N1516 (12-34) - VOSL/V1516 (12-34)

Nominal flow	160 l/min (42.3 US gpm)
Max. pressure	350 bar ⁽¹⁾ (5100 psi) - 400 bar ⁽²⁾ (5800 psi)
Oil leakage	0.5 cm ³ /min (0.030 in ³ /min) - 10 drops/min at 80% of pressure setting
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 90°C (194°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)

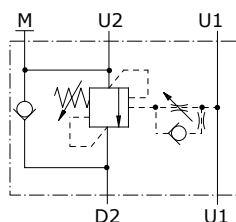
Weight

VOSL/N1516/12: 2.50 kg (5.51 lb) - **VOSL/N1516/34:** 3.30 kg (7.27 lb)

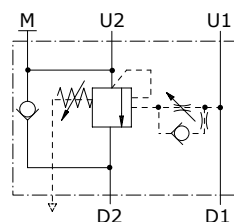
VOSL/V1516/12: 2.50 kg (5.51 lb) - **VOSL/V1516/34:** 3.30 kg (7.27 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - ⁽¹⁾According to NFPA T 2.6.1., fatigue rating verified for 1 million cycles on 6 sample valves with test Pressure = 1.23 x Max. pressure indicated - ⁽²⁾Intermittent pressure at max. 100,000 cycles with specific internal testing.

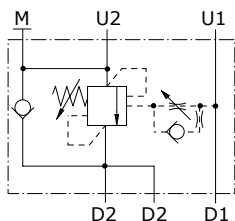
VOSL/N1516



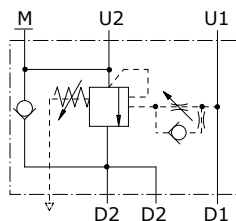
VOSL/V1516



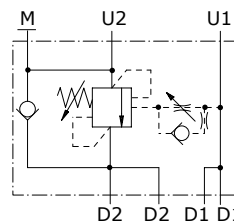
VOSL/N1516/F1



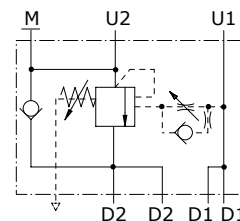
VOSL/V1516/F1



VOSL/N1516/F2

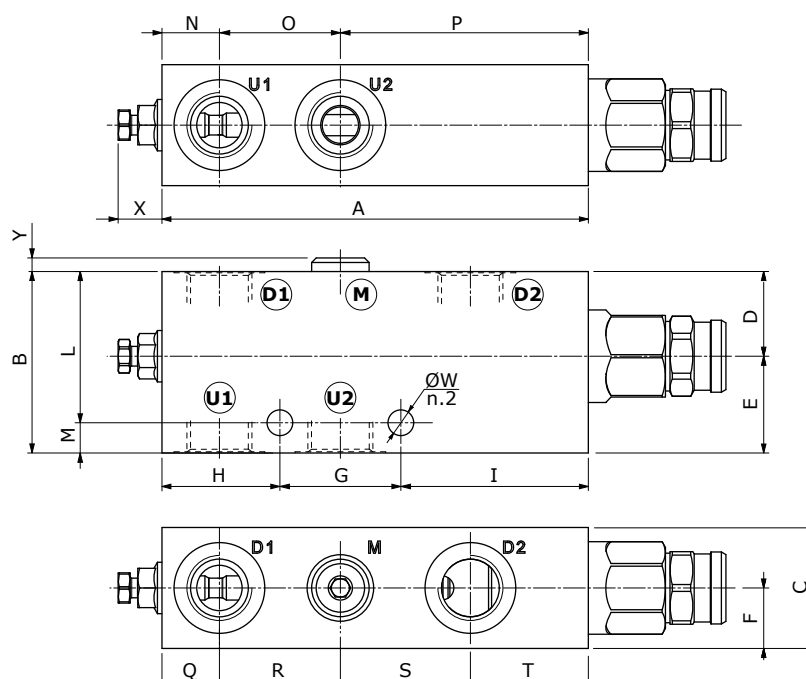


VOSL/V1516/F2

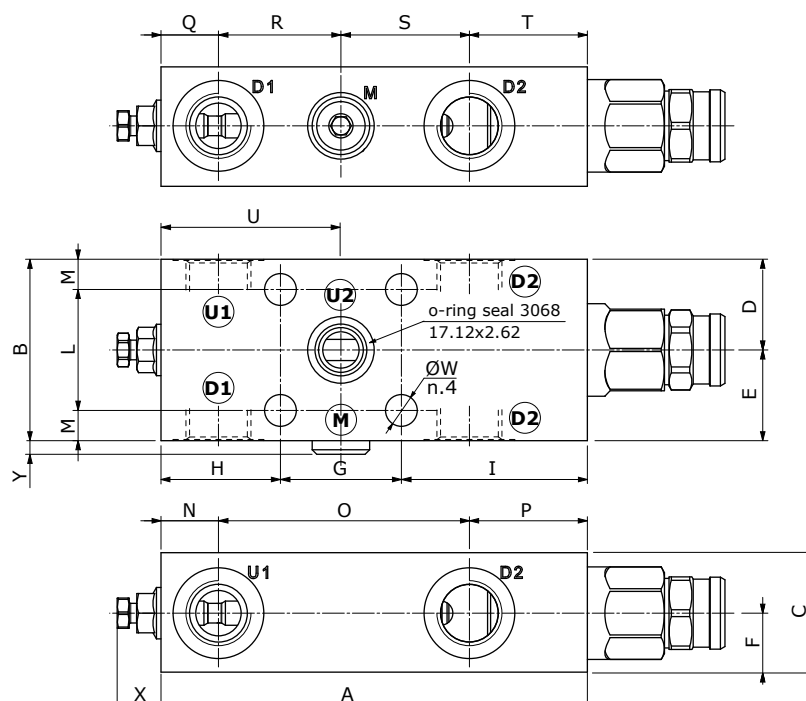


Dimensions

VOSL/...1516/12 - VOSL/...1516/34

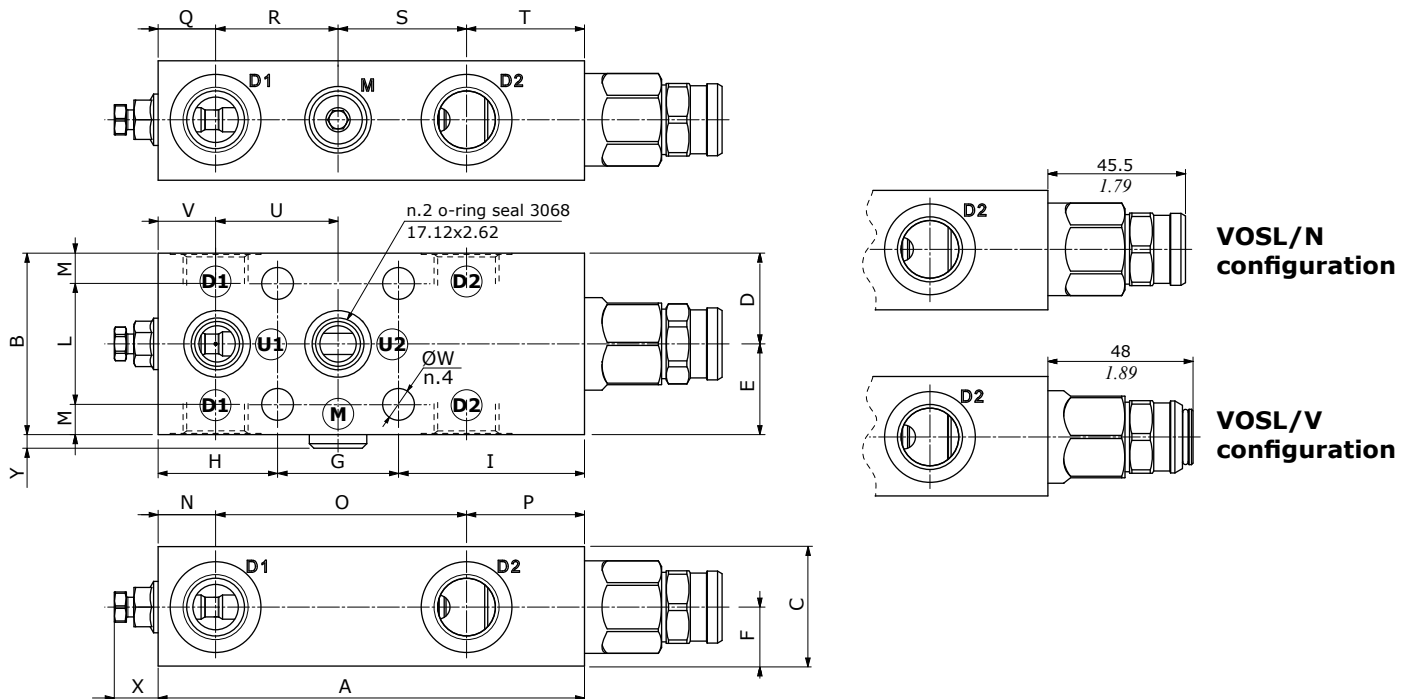


VOSL/...1516/12F1 - VOSL/...1516/34F1



Dimensions

VOSL/...1516/12F2 - VOSL/...1516/34F2



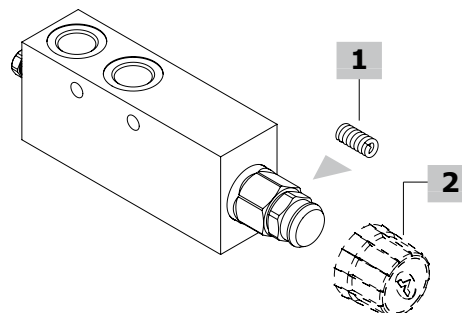
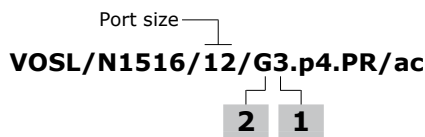
Valve type	D1	D2	U1	U2	M	Valve type	D1	D2	U1	U2	M
VOSL/...1516/12	G1/2	G1/2	G1/2	G1/2	G1/4	VOSL/...1516/S10	SAE10	SAE10	SAE10	SAE10	G1/4
VOSL/...1516/34	G3/4	G3/4	G3/4	G3/4	G1/4	VOSL/...1516/S12	SAE12	SAE12	SAE12	SAE12	G1/4
VOSL/...1516/12F1	G1/2	G1/2	G1/2	Ø12-Ø0.472	G1/4	VOSL/...1516/S10F1	SAE10	SAE10	SAE10	Ø12-Ø0.472	G1/4
VOSL/...1516/34F1	G3/4	G3/4	G3/4	Ø12-Ø0.472	G1/4	VOSL/...1516/S12F1	SAE12	SAE12	SAE12	Ø12-Ø0.472	G1/4
VOSL/...1516/12F2	G1/2	G1/2	Ø12-Ø0.472	Ø12-Ø0.472	G1/4	VOSL/...1516/S10F2	SAE10	SAE10	Ø12-Ø0.472	Ø12-Ø0.472	G1/4
VOSL/...1516/34F2	G3/4	G3/4	Ø12-Ø0.472	Ø12-Ø0.472	G1/4	VOSL/...1516/S12F2	SAE12	SAE12	Ø12-Ø0.472	Ø12-Ø0.472	G1/4

Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I	L	M	N
VOSL/...1516/12 VOSL/...1516/S10	141-5.55	60-2.36	40-1.57	28-1.10	32-1.26	20-0.79	40-1.57	39-1.54	62-2.44	50-1.97	10-0.394	19-0.75
VOSL/...1516/34 VOSL/...1516/S12	147-5.79	80-3.15	40-1.57	39-1.54	41-1.61	20-0.79	40-1.57	45-1.77	62-2.44	60-2.36	20-0.79	22-0.87
VOSL/...1516/12F1 VOSL/...1516/S10F1	141-5.55	60-2.36	39.5-1.56	30-1.18	30-1.18	19.5-0.77	40-1.57	39.5-1.56	61.5-2.42	40-1.57	10-0.394	19-0.75
VOSL/...1516/34F1 VOSL/...1516/S12F1	147-5.79	80-3.15	39.5-1.56	40-1.57	40-1.57	19.5-0.77	40-1.57	45-1.77	62-2.44	40-1.57	20-0.79	22-0.87
VOSL/...1516/12F2 VOSL/...1516/S10F2	141-5.55	60-2.36	39.5-1.56	30-1.18	30-1.18	19.5-0.77	40-1.57	39.5-1.56	61.5-2.42	40-1.57	10-0.394	19-0.75
VOSL/...1516/34F2 VOSL/...1516/S12F2	147-5.79	80-3.15	39.5-1.56	40-1.57	40-1.57	19.5-0.77	40-1.57	45-1.77	62-2.44	40-1.57	20-0.79	22-0.87

Valve type	O	P	Q	R	S	T	U	V	ØW	X(max)	Y
VOSL/...1516/12 VOSL/...1516/S10	40-1.57	82-3.23	19-0.75	40-1.57	43-1.69	39-1.54	-	-	8.5-0.335	22-0.87	4.5-0.177
VOSL/...1516/34 VOSL/...1516/S12	43-1.69	65-2.56	22-0.87	43-1.69	43-1.69	39-1.54	-	-	10.5-0.413	22-0.87	4.5-0.177
VOSL/...1516/12F1 VOSL/...1516/S10	83-3.27	39-1.54	19-0.75	40.5-1.59	42.5-1.67	39-1.54	59.5-2.34	-	10.5-0.413	22-0.87	4.5-0.177
VOSL/...1516/34F1 VOSL/...1516/S12F1	86-3.39	39-1.54	22-0.87	43-1.69	43-1.69	39-1.54	65-2.56	-	10.5-0.413	22-0.87	4.5-0.177
VOSL/...1516/12F2 VOSL/...1516/S10F2	83-3.27	39-1.54	19-0.75	40.5-1.59	42.5-1.67	39-1.54	40-1.57	19.5-0.77	10.5-0.413	22-0.87	4.5-0.177
VOSL/...1516/34F2 VOSL/...1516/S12F2	86-3.39	39-1.54	22-0.87	43-1.69	43-1.69	39-1.54	43-1.69	22-0.87	10.5-0.413	22-0.87	4.5-0.177

Ordering codes and description composition



VOSL/N1516 Complete valves

Load sensitive (N) configuration with G1/2 thread

Pilot ratio 1:4

TYPE: **VOSL/N1516/12/G3.p4.PR/ac** CODE: 1514632100

DESCRIPTION: Steel body, range 100-210 bar (1450-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12/G5.p4.PR/ac** CODE: 1514632101

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12/G7.p4.PR/ac** CODE: 1514632102

DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/N1516/12/G5.p8.PR/ac** CODE: 1514632104

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12/G7.p8.PR/ac** CODE: 1514632105

DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/N1516/12/G3.p0.PR/ac** CODE: 1514632106

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12/G5.p0.PR/ac** CODE: 1514632107

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12/G7.p0.PR/ac** CODE: 1514632108

DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std
setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F1 flange

TYPE: **VOSL/N1516/12F1/G5.p4.PR/ac** CODE: 1515632100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12F1/G5.p8.PR/ac** CODE: 1515632101

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12F1/G5.p0.PR/ac** CODE: 1515632102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F2 flange

TYPE: **VOSL/N1516/12F2/G5.p4.PR/ac** CODE: 1515632103

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12F2/G5.p8.PR/ac** CODE: 1515632104

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/12F2/G5.p0.PR/ac** CODE: 1515632105

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

VOSL/N1516 Complete valves

Load sensitive (N) configuration with SAE10 thread

Pilot ratio 1:4

TYPE: **VOSL/N1516/S10/G3.p4.PR/ac** CODE: 1514632200

DESCRIPTION: Steel body, range 100-210 bar (1450-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10/G5.p4.PR/ac** CODE: 1514632201

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10/G7.p4.PR/ac** CODE: 1514632202

DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/N1516/S10/G5.p8.PR/ac** CODE: 1514632204

DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10/G7.p8.PR/ac** CODE: 1514632205

DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/N1516/S10/G3.p0.PR/ac** CODE: 1514632206

DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10/G5.p0.PR/ac** CODE: 1514632207

DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10/G7.p0.PR/ac** CODE: 1514632208

DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std
setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F1 flange

TYPE: **VOSL/N1516/S10F1/G5.p4.PR/ac** CODE: 1515632200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10F1/G5.p8.PR/ac** CODE: 1515632201

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10F1/G5.p0.PR/ac** CODE: 1515632202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F2 flange

TYPE: **VOSL/N1516/S10F2/G5.p4.PR/ac** CODE: 1515632203

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10F2/G5.p8.PR/ac** CODE: 1515632204

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/N1516/S10F2/G5.p0.PR/ac** CODE: 1515632205

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

Ordering codes and description composition

VOSL/N1516 Complete valves

Load sensitive (N) configuration with G3/4 thread

TYPE: **VOSL/N1516/34/G5.p4.PR/ac** CODE: 1514642100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/34/G5.p8.PR/ac** CODE: 1514642101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/34/G5.p0.PR/ac** CODE: 1514642102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/4 thread and F1 flange

TYPE: **VOSL/N1516/34F1/G5.p4.PR/ac** CODE: 1515642100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/34F1/G5.p8.PR/ac** CODE: 1515642101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/34F1/G5.p0.PR/ac** CODE: 1515642102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/4 thread and F2 flange

TYPE: **VOSL/N1516/34F2/G5.p4.PR/ac** CODE: 1515642103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/34F2/G5.p8.PR/ac** CODE: 1515642104
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/34F2/G5.p0.PR/ac** CODE: 1515642105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VOSL/N1516 Complete valves

Load sensitive (N) configuration with SAE12 thread

TYPE: **VOSL/N1516/S12/G5.p4.PR/ac** CODE: 1514642200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/S12/G5.p8.PR/ac** CODE: 1514642201
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/S12/G5.p0.PR/ac** CODE: 1514642202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE12 thread and F1 flange

TYPE: **VOSL/N1516/S12F1/G5.p4.PR/ac** CODE: 1515642200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/S12F1/G5.p8.PR/ac** CODE: 1515642201
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/S12F1/G5.p0.PR/ac** CODE: 1515642202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE12 thread and F2 flange

TYPE: **VOSL/N1516/S12F2/G5.p4.PR/ac** CODE: 1515642203
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/S12F2/G5.p8.PR/ac** CODE: 1515642204
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/N1516/S12F2/G5.p0.PR/ac** CODE: 1515642205
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE CODE DESCRIPTION

For 1:4 and zero differential pilot ratio

3 3MOL316450 For range 100-210 bar (1450-3050 psi)
5 3MOL316430 For range 150-350 bar (2175-5075 psi)
7 3MOL316411 For range 200-400 bar (2900-5800 psi)

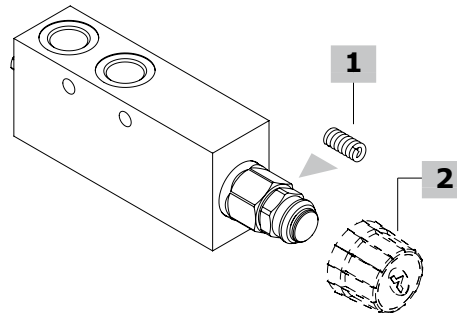
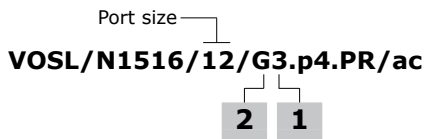
For 1:8 pilot ratio

5 3MOL316450 For range 150-350 bar (2175-5075 psi)
7 3MOL316430 For range 200-400 bar (2900-5800 psi)

2 Antitampering cap

TYPE CODE DESCRIPTION
G - Screw setting
Z 4COP140311 Antitampering cap

Ordering codes and description composition



VOSL/V1516 Complete valves

Vented (V) configuration with G1/2 thread

Pilot ratio 1:4

TYPE: **VOSL/V1516/12/G3.p4.PR/ac** CODE: 1514732100
DESCRIPTION: Steel body, range 100-210 bar (1450-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12/G5.p4.PR/ac** CODE: 1514732101
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12/G7.p4.PR/ac** CODE: 1514732102
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/V1516/12/G5.p8.PR/ac** CODE: 1514732104
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12/G7.p8.PR/ac** CODE: 1514732105
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/V1516/12/G3.p0.PR/ac** CODE: 1514732106
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12/G5.p0.PR/ac** CODE: 1514732107
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12/G7.p0.PR/ac** CODE: 1514732108
DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std
setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G1/2 thread and F1 flange

TYPE: **VOSL/V1516/12F1/G5.p4.PR/ac** CODE: 1515732100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12F1/G5.p8.PR/ac** CODE: 1515732101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12F1/G5.p0.PR/ac** CODE: 1515732102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G1/2 thread and F2 flange

TYPE: **VOSL/V1516/12F2/G5.p4.PR/ac** CODE: 1515732103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12F2/G5.p8.PR/ac** CODE: 1515732104
DESCRIPTION: Steel body, Pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/12F2/G5.p0.PR/ac** CODE: 1515732105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

VOSL/V1516 Complete valves

Vented (V) configuration with SAE10 thread

Pilot ratio 1:4

TYPE: **VOSL/V1516/S10/G3.p4.PR/ac** CODE: 1514732200
DESCRIPTION: Steel body, range 100-210 bar (1450-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10/G5.p4.PR/ac** CODE: 1514732201
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10/G7.p4.PR/ac** CODE: 1514732202
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VOSL/V1516/S10/G5.p8.PR/ac** CODE: 1514732204
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10/G7.p8.PR/ac** CODE: 1514732205
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VOSL/V1516/S10/G3.p0.PR/ac** CODE: 1514732206
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10/G5.p0.PR/ac** CODE: 1514732207
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10/G7.p0.PR/ac** CODE: 1514732208
DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std
setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE10 thread and F1 flange

TYPE: **VOSL/V1516/S10F1/G5.p4.PR/ac** CODE: 1515732200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10F1/G5.p8.PR/ac** CODE: 1515732201
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10F1/G5.p0.PR/ac** CODE: 1515732202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE10 thread and F2 flange

TYPE: **VOSL/V1516/S10F2/G5.p4.PR/ac** CODE: 1515732203
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10F2/G5.p8.PR/ac** CODE: 1515732204
DESCRIPTION: Steel body, Pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/V1516/S10F2/G5.p0.PR/ac** CODE: 1515732205
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Ordering codes and description composition

VOSL/V1516 Complete valves

Vented (V) configuration with G2/4 thread

TYPE: **VOSL/V1516/34/G5.p4.PR/ac** CODE: 1514742100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/34/G5.p8.PR/ac** CODE: 1514742101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/34/G5.p0.PR/ac** CODE: 1514742102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G3/4 thread and F1 flange

TYPE: **VOSL/V1516/34F1/G5.p4.PR/ac** CODE: 1515742100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/34F1/G5.p8.PR/ac** CODE: 1515742101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/34F1/G5.p0.PR/ac** CODE: 1515742102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G3/4 thread and F2 flange

TYPE: **VOSL/V1516/34F2/G5.p4.PR/ac** CODE: 1515742103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/34F2/G5.p8.PR/ac** CODE: 1515742104
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/34F2/G5.p0.PR/ac** CODE: 1515742105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
For other configurations please contact our Sales Dpt.

VOSL/V1516 Complete valves

Vented (V) configuration with SAE12 thread

TYPE: **VOSL/V1516/S12/G5.p4.PR/ac** CODE: 1514742200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/S12/G5.p8.PR/ac** CODE: 1514742201
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/S12/G5.p0.PR/ac** CODE: 1514742202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE12 thread and F1 flange

TYPE: **VOSL/V1516/S12F1/G5.p4.PR/ac** CODE: 1515742100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/S12F1/G5.p8.PR/ac** CODE: 1515742101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/S12F1/G5.p0.PR/ac** CODE: 1515742102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE12 thread and F2 flange

TYPE: **VOSL/V1516/S12F2/G5.p4.PR/ac** CODE: 1515742103
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/S12F2/G5.p8.PR/ac** CODE: 1515742104
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VOSL/V1516/S12F2/G5.p0.PR/ac** CODE: 1515742105
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
For other configurations please contact our Sales Dpt.

1 Pressure setting spring

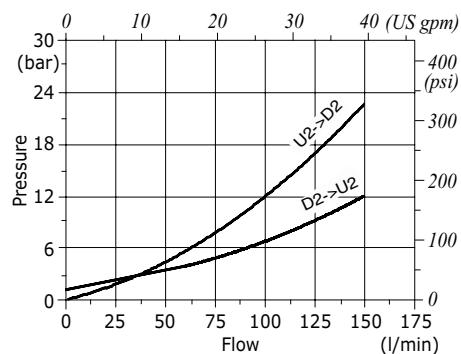
TYPE	CODE	DESCRIPTION
<u>For 1:4 and zero differential pilot ratio</u>		
3	3MOL316450	For range 100-210 bar (725-3050 psi)
5	3MOL316430	For range 150-350 bar (2175-5075 psi)
7	3MOL316411	For range 200-400 bar (2900-5800 psi)
<u>For 1:8 pilot ratio</u>		
5	3MOL316450	For range 150-350 bar (2175-5075 psi)
7	3MOL316430	For range 200-400 bar (2900-5800 psi)

2 Antitampering cap

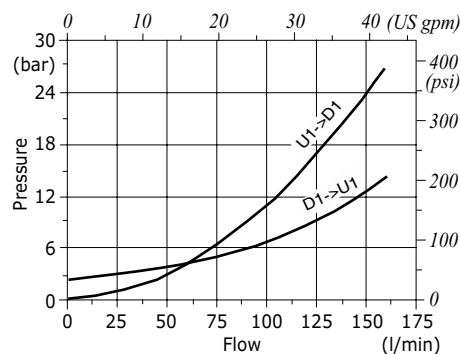
TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP140311	Antitampering cap

Rating diagrams

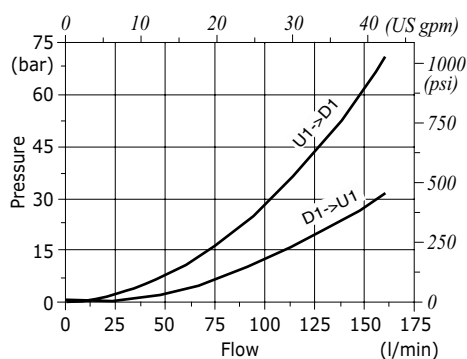
**VOSL/(N-V) 1516 (12-34) pressure drop vs. flow
from D2->U2 and U2->D2**



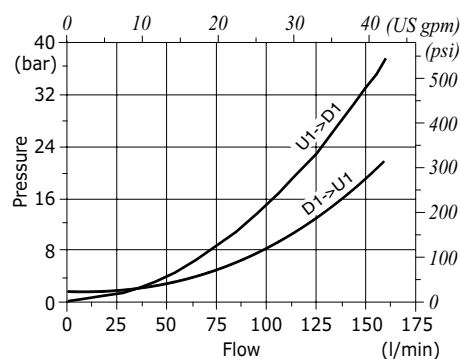
**VOSL/(N-V) 1516 (12-34) pressure drop vs. flow
from D1->U1 and U1->D1 pilot ratio 1:4**



**VOSL/(N-V) 1516 (12-34) pressure drop vs. flow
from D1->U1 and U1->D1 pilot ratio 1:8**



**VOSL/(N-V) 1516 (12-34) pressure drop vs. flow
from D1->U1 and U1->D1 zero differential pilot ratio**





Type VODL/N1516/CS - VODL/V1516/CS counterbalance valves

- Double acting
- Load Sensitive (type N)
- Vented (type V)

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

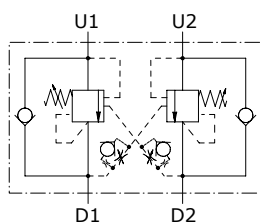
VODL/N1516/CS (12-34) - VODL/V1516/CS (12-34)

Nominal flow	160 l/min (42.3 US gpm)
Max. pressure	350 bar ⁽¹⁾ (5100 psi) - 400 bar ⁽²⁾ (5800 psi)
Oil leakage	0.5 cm ³ /min (0.030 in ³ /min) - 10 drops/min at 80% of pressure setting
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of contamination	18/16/13 ISO4406
Fluid temperature	with NBR seals from -20°C (-4°F) to 90°C (194°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)

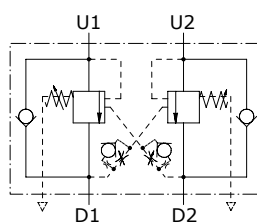
Weight **VODL/N1516/CS/12:** 5.40 kg (11.90 lb) - **VODL/N1516/CS/34:** 5.30 kg (11.68 lb)
VODL/V1516/CS/12: 5.40 kg (11.90 lb) - **VODL/V1516/CS/34:** 5.30 kg (11.68 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - ⁽¹⁾According to NFPA T 2.6.1., fatigue rating verified for 1 million cycles on 6 sample valves with test Pressure = 1.23 x Max. pressure indicated - ⁽²⁾Intermittent pressure at max. 100,000 cycles with specific internal testing.

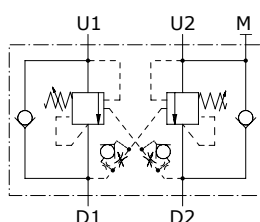
VODL/N1516/CS



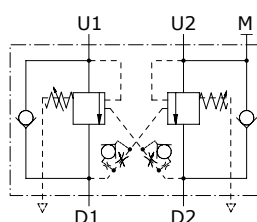
VODL/V1516/CS



VODL/N1516/CS/F2

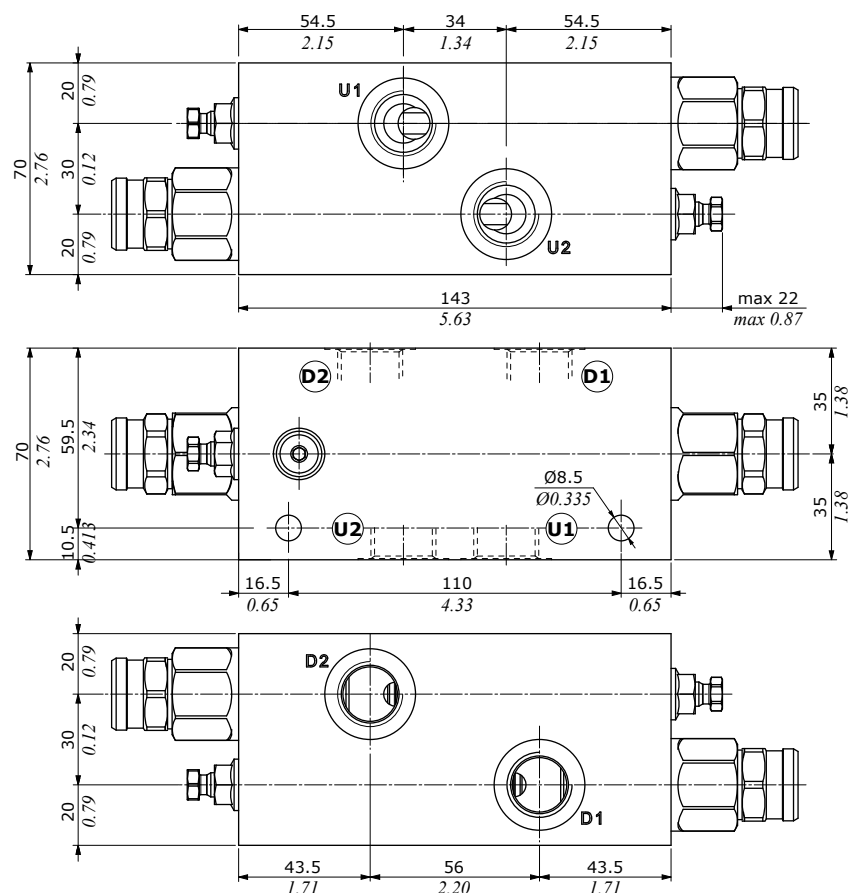


VODL/V1516/CS/F2



Dimensions

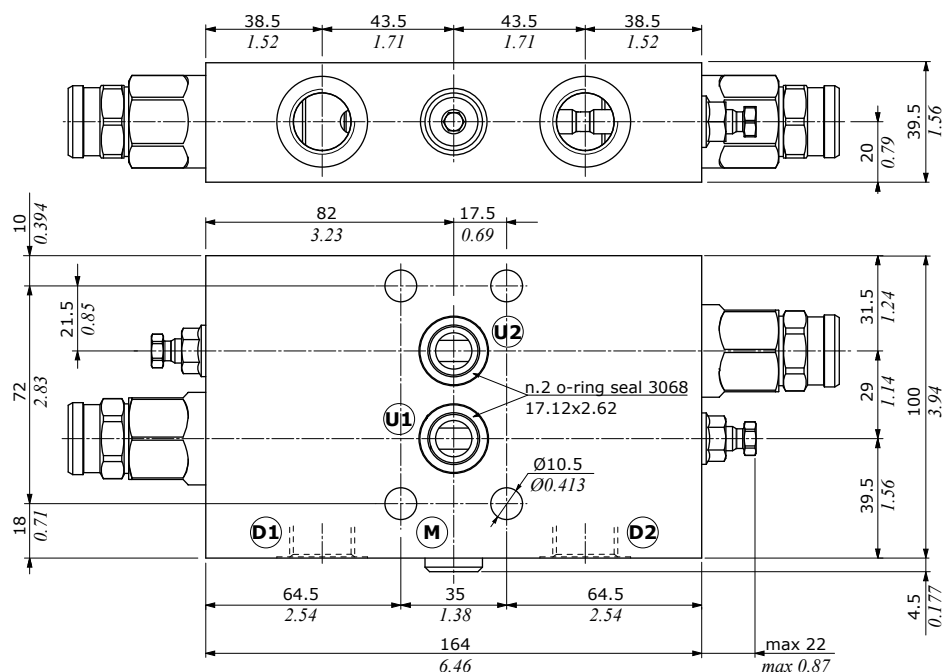
VODL/...1516/CS/12 - VODL/...1516/CS/34



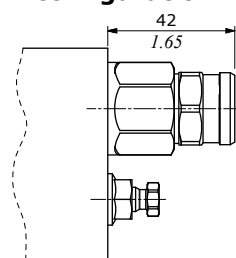
Valve type	D1	D2	U1	U2	M
VODL/...1516/CS/12	G1/2	G1/2	-	-	-
VODL/...1516/CS/34	G3/4	G3/4	-	-	-
VODL/...1516/CS/12F2	G1/2	G1/2	Ø12 Ø0.472	G1/4	-
VODL/...1516/CS/34F2	G3/4	G3/4	Ø12 Ø0.472	G1/4	-

Valve type	D1	D2	U1	U2	M
VODL/...1516/CS/S10	SAE10	SAE10	-	-	-
VODL/...1516/CS/S12	SAE12	SAE12	-	-	-
VODL/...1516/CS/S10F2	SAE10	SAE10	Ø12 Ø0.472	G1/4	-
VODL/...1516/CS/S12F2	SAE12	SAE12	Ø12 Ø0.472	G1/4	-

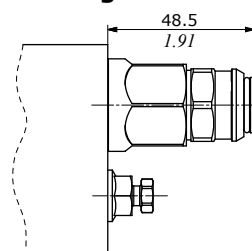
VODL/...1516/CS/12F2 - VODL/...1516/CS/34F2



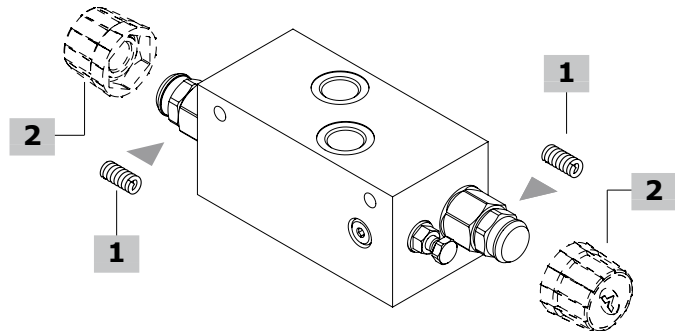
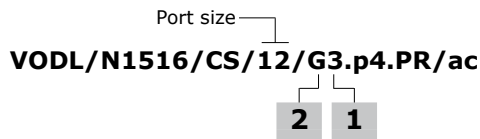
VODL/N configuration



VODL/V configuration



Ordering codes and description composition



VODL/N1516 Complete valves

Load sensitive (N) configuration with G1/2 thread

Pilot ratio 1:4

TYPE: **VODL/N1516/CS/12/G3.p4.PR/ac** CODE: 1556532100
DESCRIPTION: Steel body, range 100-210 bar (1450-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12/G5.p4.PR/ac** CODE: 1556532101
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12/G7.p4.PR/ac** CODE: 1556532102
DESCRIPTION: range 200-400 bar (2900-5800 psi), std setting 350 bar
(5075 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/N1516/CS/12/G5.p8.PR/ac** CODE: 1556532104
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi),
std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12/G7.p8.PR/ac** CODE: 1556532105
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi),
std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/N1516/CS/12/G3.p0.PR/ac** CODE: 1556532106
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12/G5.p0.PR/ac** CODE: 1556532107
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12/G7.p0.PR/ac** CODE: 1556532108
DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std
setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G1/2 thread and F2 flange

TYPE: **VODL/N1516/CS/12F2/G5.p4.PR/ac** CODE: 1557032100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12F2/G5.p8.PR/ac** CODE: 1557032101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12F2/G5.p0.PR/ac** CODE: 1557032102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread

Pilot ratio 1:4

TYPE: **VODL/N1516/CS/S10/G3.p4.PR/ac** CODE: 1556532200
DESCRIPTION: Steel body, range 100-210 bar (1450-3050 psi),
std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S10/G5.p4.PR/ac** CODE: 1556532201
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std
setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S10/G7.p4.PR/ac** CODE: 1556532202
DESCRIPTION: range 300-400 bar (2900-5800 psi), std setting 350 bar
(5075 psi) @ 5 l/min (1.32 US gpm)

VODL/N1516 Complete valves (continue)

Load sensitive (N) configuration with SAE10 thread

Pilot ratio 1:8

TYPE: **VODL/N1516/CS/S10/G5.p8.PR/ac** CODE: 1556532204
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std
setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S10/G7.p8.PR/ac** CODE: 1556532205
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi), std
setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/N1516/CS/S10/G3.p0.PR/ac** CODE: 1556532206
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting
150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S10/G5.p0.PR/ac** CODE: 1556532207
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting
280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S10/G7.p0.PR/ac** CODE: 1556532208
DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std
setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE10 thread and F2 flange

TYPE: **VODL/N1516/CS/S10F2/G5.p4.PR/ac** CODE: 1557032200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S10F2/G5.p8.PR/ac** CODE: 1557032201
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar
(2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S10F2/G5.p0.PR/ac** CODE: 1557032202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar
(725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

1 Pressure setting spring

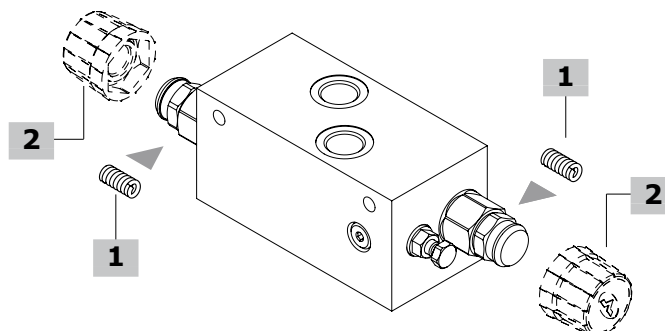
TYPE	CODE	DESCRIPTION
For 1:4 and zero differential pilot ratio		
3	3MOL316450	For range 100-210 bar (725-3050 psi)
5	3MOL316430	For range 150-350 bar (2175-5075 psi)
7	3MOL316411	For range 200-400 bar (2900-5800 psi)
For 1:8 pilot ratio		
5	3MOL316450	For range 150-350 bar (2175-5075 psi)
7	3MOL316430	For range 200-400 bar (2900-5800 psi)

2 Antitampering cap

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP140311	Antitampering cap

Ordering codes and description composition

Port size
VODL/N1516/CS/34/G3.p4.PR/ac



VODL/N1516 Complete valves

Load sensitive (N) configuration with G3/4 thread

TYPE: **VODL/N1516/CS/34/G5.p4.PR/ac** CODE: 1556542100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/34/G5.p8.PR/ac** CODE: 1556542101

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/34/G5.p0.PR/ac** CODE: 1556542102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with G3/4 thread and F2 flange

TYPE: **VODL/N1516/CS/34F2/G5.p4.PR/ac** CODE: 1557042100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/34F2/G5.p8.PR/ac** CODE: 1557042101

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/34F2/G5.p0.PR/ac** CODE: 1557042102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VODL/N1516 Complete valves

Load sensitive (N) configuration with SAE12 thread

TYPE: **VODL/N1516/CS/S12/G5.p4.PR/ac** CODE: 1556542200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S12/G5.p8.PR/ac** CODE: 1556542201

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S12/G5.p0.PR/ac** CODE: 1556542202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

Load sensitive (N) configuration with SAE12 thread and F2 flange

TYPE: **VODL/N1516/CS/S12F2/G5.p4.PR/ac** CODE: 1557042200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S12F2/G5.p8.PR/ac** CODE: 1557042201

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/S12F2/G5.p0.PR/ac** CODE: 1557042202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE CODE DESCRIPTION

For 1:4 and zero differential pilot ratio

3	3MOL316450	For range 100-210 bar (1450-3050 psi)
5	3MOL316430	For range 150-350 bar (2175-5075 psi)
7	3MOL316411	For range 200-400 bar (2900-5800 psi)

For 1:8 pilot ratio

5	3MOL316450	For range 150-350 bar (2175-5075 psi)
7	3MOL316430	For range 200-400 bar (2900-5800 psi)

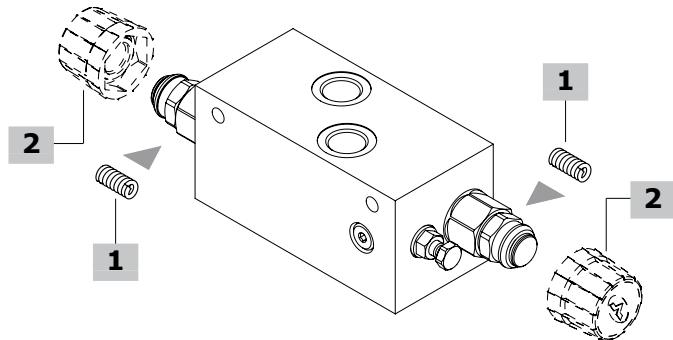
2 Antitampering cap

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP140311	Antitampering cap

Ordering codes and description composition

Port size
VODL/V1516/CS/12/G3.p4.PR/ac

2 1



VODL/V1516 Complete valves

Vented (V) configuration with G1/2 thread

Pilot ratio 1:4

TYPE: **VODL/V1516/CS/12/G3.p4.PR/ac** CODE: 1556632100
DESCRIPTION: Steel body, range 100-210 bar (1450-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/12/G5.p4.PR/ac** CODE: 1556632101
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/12/G7.p4.PR/ac** CODE: 1556632102
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi), std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Pilot ratio 1:8

TYPE: **VODL/V1516/CS/12/G5.p8.PR/ac** CODE: 1556632104
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/N1516/CS/12/G7.p8.PR/ac** CODE: 1556532105
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi), std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/V1516/CS/12/G3.p0.PR/ac** CODE: 1556632106
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/12/G5.p0.PR/ac** CODE: 1556632107
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/12/G7.p0.PR/ac** CODE: 1556632108
DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G1/2 thread and F2 flange

TYPE: **VODL/V1516/CS/12F2/G5.p4.PR/ac** CODE: 1557132100
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/12F2/G5.p8.PR/ac** CODE: 1557132101
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/12F2/G5.p0.PR/ac** CODE: 1557132102
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE10 thread

Pilot ratio 1:4

TYPE: **VODL/V1516/CS/S10/G3.p4.PR/ac** CODE: 1556632200
DESCRIPTION: Steel body, range 100-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S10/G5.p4.PR/ac** CODE: 1556632201
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S10/G7.p4.PR/ac** CODE: 1556632202
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi), std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

VODL/V1516 Complete valves

Vented (V) configuration with SAE10 thread

Pilot ratio 1:8

TYPE: **VODL/V1516/CS/S10/G5.p8.PR/ac** CODE: 1556632204
DESCRIPTION: Steel body, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S10/G7.p8.PR/ac** CODE: 1556632205
DESCRIPTION: Steel body, range 200-400 bar (2900-5800 psi), std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Zero differential pilot ratio

TYPE: **VODL/V1516/CS/S10/G3.p0.PR/ac** CODE: 1556632206
DESCRIPTION: Steel body, range 50-210 bar (725-3050 psi), std setting 150 bar (2175 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S10/G5.p0.PR/ac** CODE: 1556632207
DESCRIPTION: Steel body, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S10/G7.p0.PR/ac** CODE: 1556632208
DESCRIPTION: Steel body, range 150-400 bar (2175-5800 psi), std setting 350 bar (5075 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE10 thread and F2 flange

TYPE: **VODL/V1516/CS/S10F2/G5.p4.PR/ac** CODE: 1557132200
DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S10F2/G5.p8.PR/ac** CODE: 1557132201
DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S10F2/G5.p0.PR/ac** CODE: 1557132202
DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
For 1:4 and zero differential pilot ratio		
3	3MOL316450	For range 100-210 bar (725-3050 psi)
5	3MOL316430	For range 150-350 bar (2175-5075 psi)
7	3MOL316411	For range 200-400 bar (2175-5800 psi)

For 1:8 pilot ratio

5	3MOL316450	For range 150-350 bar (2175-5075 psi)
7	3MOL316430	For range 200-400 bar (2900-5800 psi)

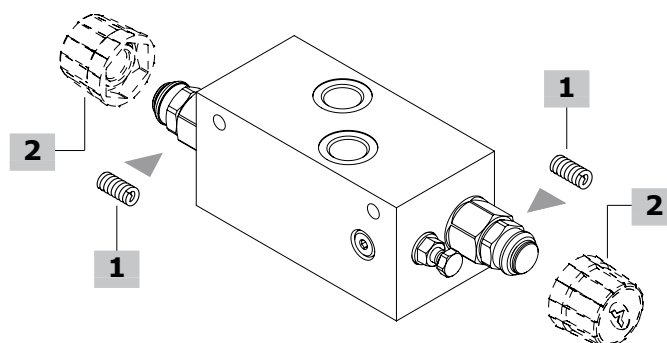
2 Antitampering cap

TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP140311	Antitampering cap

Ordering codes and description composition

Port size
VODL/V1516/CS/34/G3.p4.PR/ac

2 1



VODL/V1516 Complete valves

Vented (V) configuration with G3/4 thread

TYPE: **VODL/V1516/CS/34/G5.p4.PR/ac** CODE: 1556642100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/34/G5.p8.PR/ac** CODE: 1556642101

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/34/G5.p0.PR/ac** CODE: 1556642102

DESCRIPTION: Steel body, zero differential pilot ratio, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with G3/4 thread and F2 flange

TYPE: **VODL/V1516/CS/34F2/G5.p4.PR/ac** CODE: 1557142100

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/34F2/G5.p8.PR/ac** CODE: 1557142101

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/34F2/G5.p0.PR/ac** CODE: 1557142102

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

VODL/V1516 Complete valves

Vented (V) configuration with SAE12 thread

TYPE: **VODL/V1516/CS/S12/G5.p4.PR/ac** CODE: 1556642200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S12/G5.p8.PR/ac** CODE: 1556642201

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S12/G5.p0.PR/ac** CODE: 1556642202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

Vented (V) configuration with SAE12 thread and F2 flange

TYPE: **VODL/V1516/CS/S12F2/G5.p4.PR/ac** CODE: 1557142200

DESCRIPTION: Steel body, pilot ratio 1:4, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S12F2/G5.p8.PR/ac** CODE: 1557142201

DESCRIPTION: Steel body, pilot ratio 1:8, range 150-350 bar (2175-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/V1516/CS/S12F2/G5.p0.PR/ac** CODE: 1557142202

DESCRIPTION: Steel body, zero differential pilot ratio, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations please contact our Sales Dpt.

1 Pressure setting spring

TYPE	CODE	DESCRIPTION
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For 1:4 and zero differential pilot ratio

3	3MOL316450	For range 100-210 bar (1450-3050 psi)
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5	3MOL316430	For range 150-350 bar (2175-5075 psi)
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7	3MOL316411	For range 200-400 bar (2900-5800 psi)
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For 1:8 pilot ratio

5	3MOL316450	For range 150-350 bar (2175-5075 psi)
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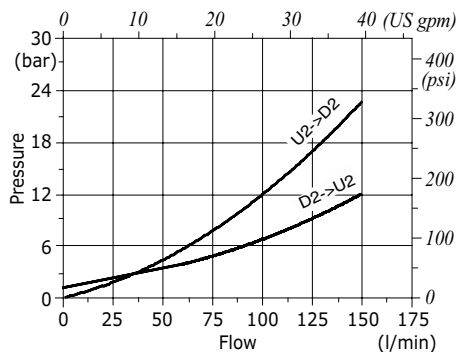
7	3MOL316430	For range 200-400 bar (2900-5800 psi)
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2 Antitampering cap

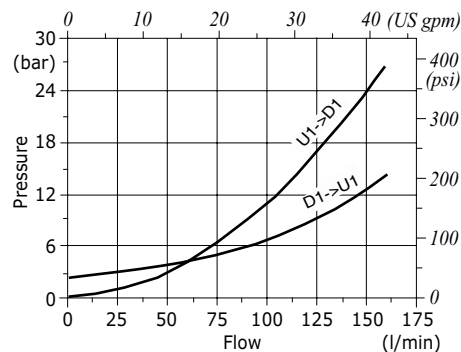
TYPE	CODE	DESCRIPTION
G	-	Screw setting
Z	4COP140311	Antitampering cap

Rating diagrams

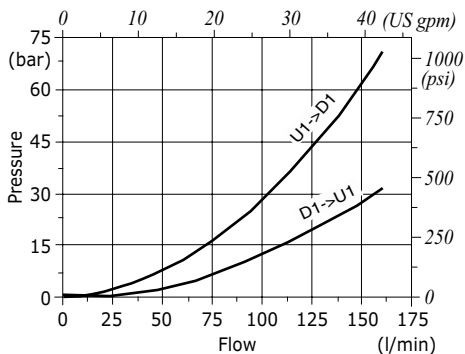
VODL/(N-V) 1516/CS (12-34) pressure drop vs. flow from D2->U2 and U2->D2



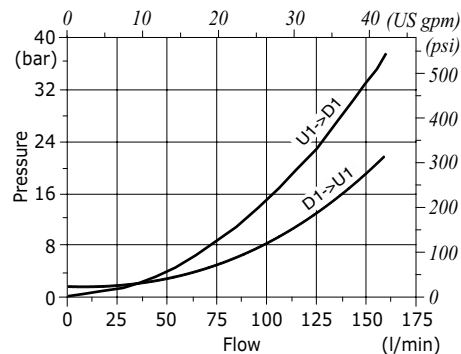
VODL/(N-V) 1516/CS (12-34) pressure drop vs. flow from D1->U1 and U1->D1 pilot ratio 1:4



VODL/(N-V) 1516/CS (12-34) pressure drop vs. flow from D1->U1 and U1->D1 pilot ratio 1:8



VODL/(N-V) 1516/CS (12-34) pressure drop vs. flow from D1->U1 and U1->D1 zero differential pilot ratio





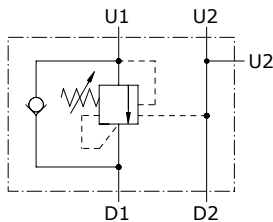
Type VOSL counterbalance valves

- Single acting
- Load sensitive

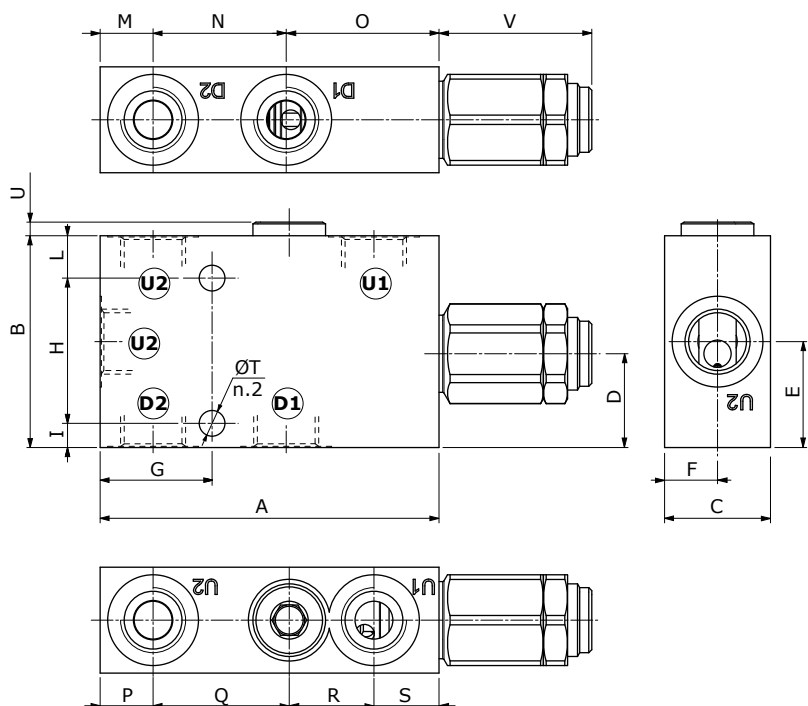
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VOSL 38	VOSL 12	VOSL 34	VOSL 100
Nominal flow		35 l/min (9.2 US gpm)	70 l/min (18.4 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	0.78 kg (1.71 lb)	1.00 kg (2.20 lb)	1.85 kg (4.07 lb)	3.26 kg (7.18 lb)
	steel	1.52 kg (3.35 lb)	1.95 kg (4.29 lb)	3.55 kg (7.82 lb)	7.07 kg (15.5 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	D2	U1	U2
VOSL 38	G3/8		G3/8	
VOSL 12	G1/2		G1/2	
VOSL 34	G3/4		G3/4	
VOSL 100	G1"		G1"	

Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	ØT	U	V
VOSL 38	105 4.13	65 2.56	30 1.18	27 1.06	32.5 1.30	15 0.59	34 1.34	40 1.57	8 0.315	17 0.67	16 0.63	38 1.50	51 2.01	16 0.63	38 1.50	29 1.14	22 0.87	8.5 0.335	4.5 0.177	52 2.05
VOSL 12	112 4.41	70 2.76	35 1.38	31 1.22	35 1.38	17.5 0.69	37 1.46	48 1.89	8 0.315	14 0.55	17.5 0.69	44 1.73	50.5 1.99	17.5 0.69	45 1.77	28 1.10	21.5 0.85	8.5 0.335	4.5 0.177	57 2.24
VOSL 34	140 5.51	90 3.54	40 1.57	36 1.42	45 1.77	20 0.79	52 2.05	70 2.76	10 0.394	10 0.394	22 0.87	53 2.09	65 2.56	22 0.87	53 2.09	35 1.38	30 1.18	10.5 0.413	5.5 0.217	66 2.60
VOSL 100	174 6.85	100 3.64	60 2.36	37 1.46	50 1.97	37 1.46	64 2.52	80 3.15	10 0.394	10 0.394	32 1.26	66 2.60	76 2.99	32 1.26	66 2.60	46 1.81	30 1.18	10.5 0.413	12.5 0.492	66 2.60

Ordering codes

VOSL complete valves

TYPE: **VOSL 38/TR.S.p4** CODE: 1510021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL 12/TR.S.p7** CODE: 1510031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

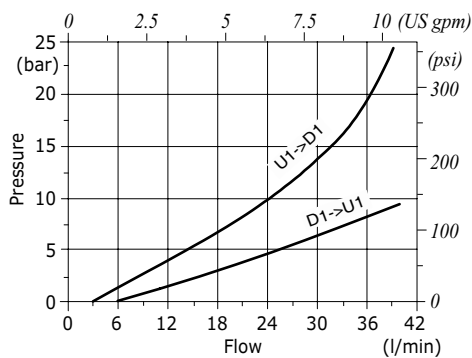
TYPE: **VOSL 34/TR.S.p7** CODE: 1510041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL 100/TR.S.p7** CODE: 1510051102
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

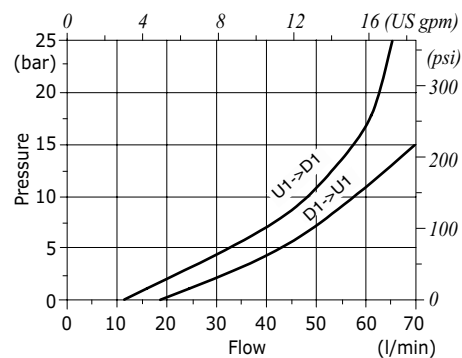
For other configurations and steel body, please contact our Sales Dpt

Rating diagrams

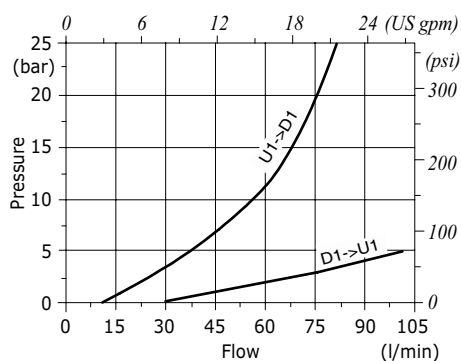
**VOSL 38 pressure drop vs. flow
from D1->U1 and U1->D1**



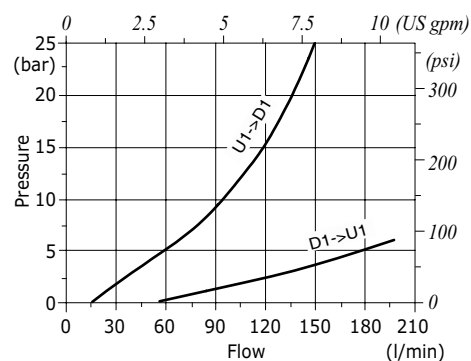
**VOSL 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL 100 pressure drop vs. flow
from D1->U1 and U1->D1**





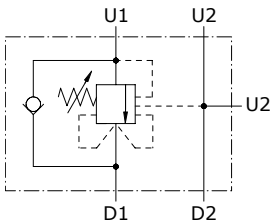
Type VOSL/CC counterbalance valves

- Single acting
- Relief compensated

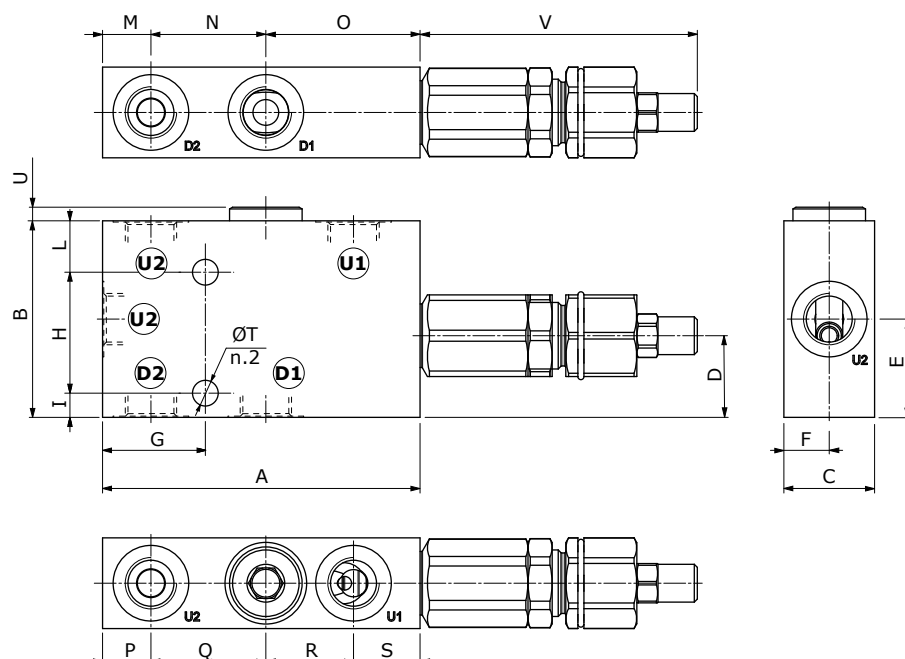
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VOSL/CC 38	VOSL/CC 12	VOSL/CC 34	VOSL/CC 100
Nominal flow		35 l/min (9.2 US gpm)	70 l/min (18.4 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	1.01 kg (2.23 lb)	1.16 kg (2.56 lb)	1.94 kg (4.28 lb)	3.33 kg (7.34 lb)
	steel	1.81 kg (3.99 lb)	2.11 kg (4.65 lb)	3.61 kg (7.96 lb)	7.07 kg (15.5 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	D2	U1	U2
VOSL/CC 38	G3/8	G3/8		
VOSL/CC 12	G1/2	G1/2		
VOSL/CC 34	G3/4	G3/4		
VOSL/CC 100	G1"	G1"		

Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	ØT	U	V
VOSL/CC 38	105	65	30	27	32.5	15	34	40	8	17	16	38	51	16	38	29	22	8.5	4.5	92.2
	4.13	2.56	1.18	1.06	1.30	0.59	1.34	1.57	0.315	0.67	0.63	1.50	2.01	0.63	1.50	1.14	0.87	0.335	0.177	3.63
VOSL/CC 12	112	70	35	31	35	17.5	37	48	8	14	17.5	44	50.5	17.5	45	28	21.5	8.5	4.5	99.7
	4.41	2.76	1.38	1.22	1.38	0.69	1.46	1.89	0.315	0.55	0.69	1.73	1.99	0.69	1.77	1.10	0.85	0.335	0.177	3.93
VOSL/CC 34	140	90	40	36	45	20	52	70	10	10	22	53	65	22	53	35	30	10.5	5.5	101.7
	5.51	3.54	1.57	1.42	1.77	0.79	2.05	2.76	0.394	0.394	0.87	2.09	2.56	0.87	2.09	1.38	1.18	0.413	0.217	4.00
VOSL/CC 100	174	100	60	37	50	37	64	80	10	10	32	66	76	32	66	46	30	10.5	12.5	101.7
	6.85	3.64	2.36	1.46	1.97	1.46	2.52	3.15	0.394	0.394	1.26	2.60	2.99	1.26	2.60	1.81	1.18	0.413	0.492	4.00

Ordering codes

VOSL/CC complete valves

TYPE: **VOSL/CC 38/TR.S.p4** CODE: 1514921100
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/CC 12/TR.S.p7** CODE: 1514931100
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

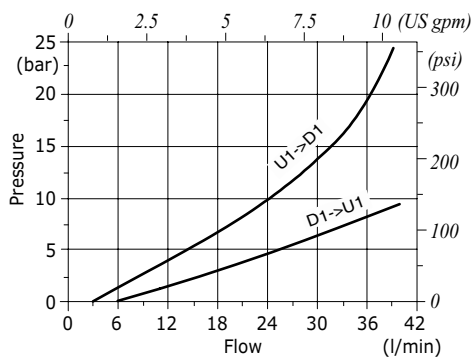
TYPE: **VOSL/CC 34/TR.S.p7** CODE: 1514941101
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

TYPE: **VOSL/CC 100/TR.S.p7** CODE: 1514951100
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) 5 l/min (1.32 US gpm)

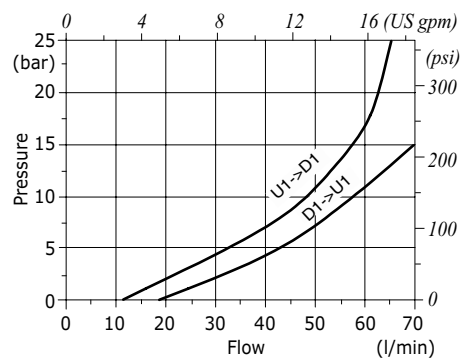
For other configurations and steel body, please contact our Sales Dpt

Rating diagrams

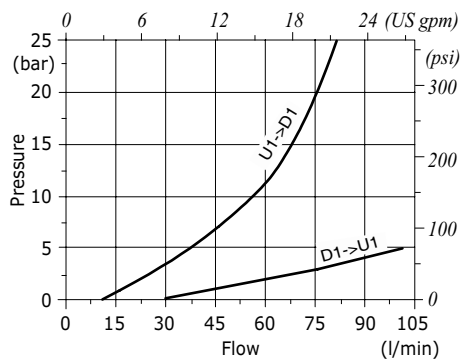
**VOSL/CC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



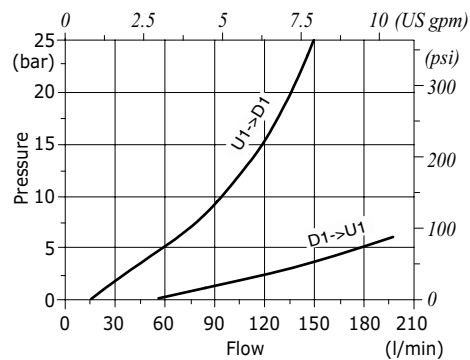
**VOSL/CC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL/CC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL/CC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





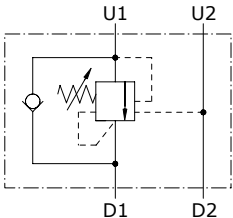
Type VOSL/SC counterbalance valves

- Single acting

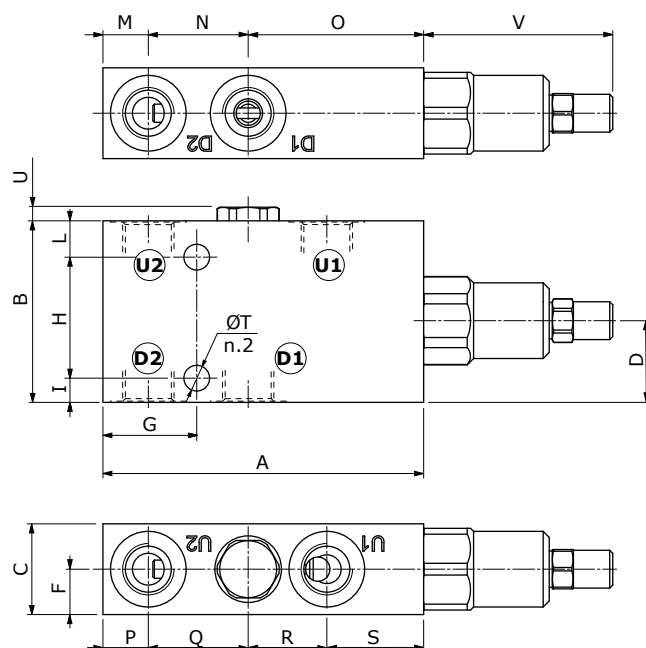
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	VOSL/SC 38	VOSL/SC 12	VOSL/SC 34	VOSL/SC 100	
Nominal flow	40 l/min (10.6 US gpm)	75 l/min (19.8 US gpm)	120 l/min (31.7 US gpm)	180 l/min (47.6 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)				
Oil leakage	0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting				
Fluid	mineral based oil				
Viscosity	from 10 to 200 cSt				
Max. level of contamination	18/16/13 ISO4406				
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)				
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)				
Weight	aluminium	0.80 kg (1.76 lb)	1.06 kg (2.34 lb)	1.48 kg (3.26 lb)	3.13 kg (6.90 lb)
	steel	1.54 kg (3.40 lb)	2.15 kg (4.74 lb)	3.34 kg (7.36 lb)	7.64 kg (16.8 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	D2	U1	U2
VOSL/SC 38	G3/8	G3/8		
VOSL/SC 12	G1/2	G1/2		
VOSL/SC 34	G3/4	G3/4		
VOSL/SC 100	G1"	G1"		

Dimensions are in mm-in

Valve type	A	B	C	D	F	G	H	I	L	M	N	O	P	Q	R	S	ØT	U	V
VOSL/SC 38	106 4.17	60 2.36	30 1.18	27 1.06	15 0.89	31 1.22	40 1.57	8 0.315	12 0.472	15 0.59	33 1.30	58 2.28	15 0.59	33 1.30	26 1.02	32 1.26	8.5 0.335	4.5 0.177	62.5 2.46
VOSL/SC 12	116 4.57	70 2.76	35 1.38	31 1.22	17.5 0.69	36 1.42	48 1.89	8 0.315	14 0.55	16 0.63	40 1.57	60 2.36	16 0.63	40 1.57	28 1.10	32 1.26	8.5 0.335	4.5 0.177	62.5 2.46
VOSL/SC 34	136 5.35	90 3.54	40 1.57	36 1.42	20 0.79	44 1.73	70 2.76	10 0.394	10 0.394	20 0.79	48 1.89	68 2.68	20 0.79	48 1.89	34 1.34	34 1.34	10.5 0.413	5.5 0.217	62.5 2.46
VOSL/SC 100	185 7.28	100 3.94	60 2.36	38 1.50	30 1.18	62 2.44	80 3.15	10 0.394	10 0.394	32 1.26	70 2.76	83 3.27	32 1.26	70 2.76	48 1.89	35 1.38	10.5 0.413	12.5 0.492	62.5 2.46

Ordering codes

VOSL/SC complete valves

TYPE: **VOSL/SC 38/TR.S.p4.PG** CODE: 1520021108
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/SC 12/TR.S.p7.PG** CODE: 1520031107
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

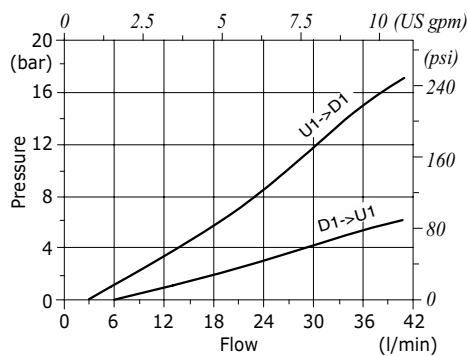
TYPE: **VOSL/SC 34/TR.S.p7.PG** CODE: 1520041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/SC 100/TR.S.p7.PG** CODE: 1520051102
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

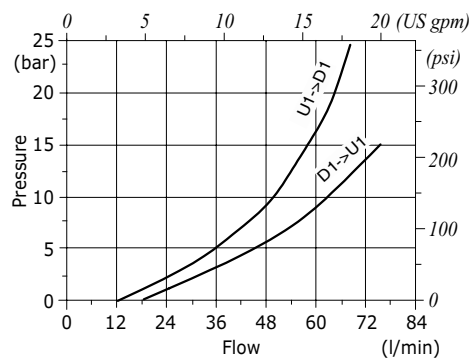
For other configurations and steel body, please contact our Sales Dpt.

Rating diagrams

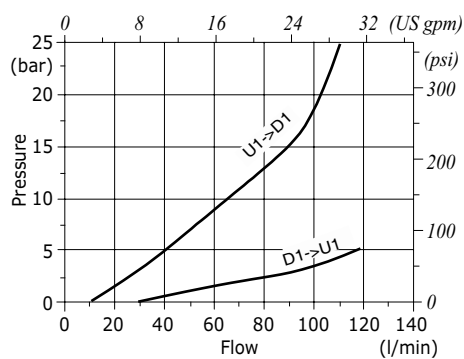
**VOSL/SC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



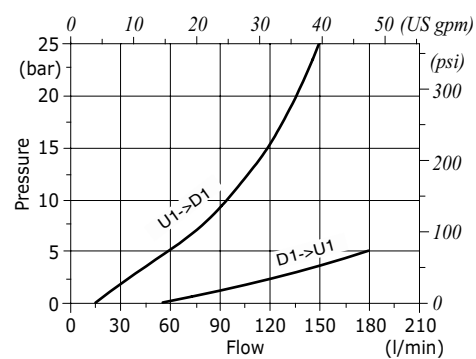
**VOSL/SC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL/SC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL/SC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





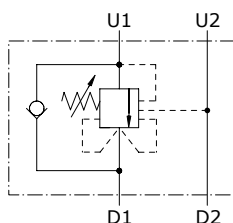
Type VOSL/SC/CC counterbalance valves

- Single acting

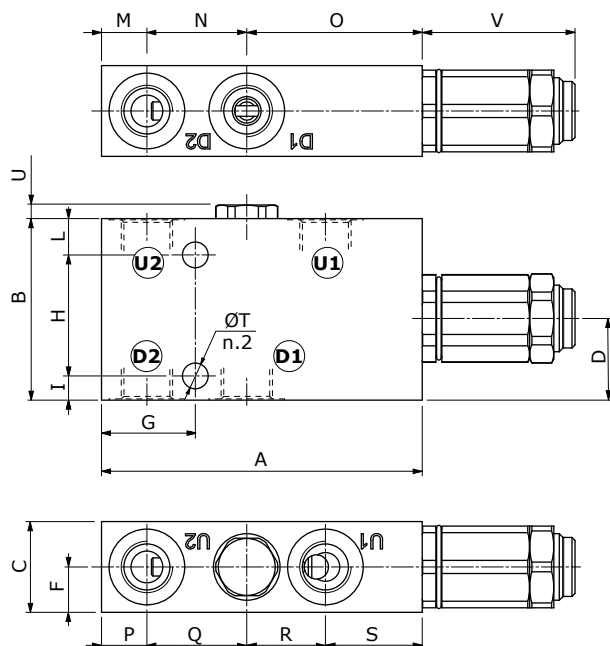
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	VOSL/SC/CC 38	VOSL/SC/CC 12	VOSL/SC/CC 34	VOSL/SC/CC 100
Nominal flow	40 l/min (10.6 US gpm)	75 l/min (19.8 US gpm)	120 l/min (31.7 US gpm)	180 l/min (47.6 US gpm)
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid	mineral based oil			
Viscosity	from 10 to 200 cSt			
Max. level of contamination	18/16/13 ISO4406			
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	0.83 kg (1.83 lb)	1.11 kg (2.45 lb)	1.53 kg (3.37 lb)
	steel	1.56 kg (3.44 lb)	2.32 kg (5.11 lb)	3.39 kg (7.47 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	D2	U1	U2
VOSL/SC/CC 38	G3/8	G3/8		
VOSL/SC/CC 12	G1/2	G1/2		
VOSL/SC/CC 34	G3/4	G3/4		
VOSL/SC/CC 100	G1"	G1"		

Dimensions are in mm-in

Valve type	A	B	C	D	F	G	H	I	L	M	N	O	P	Q	R	S	ØT	U	V
VOSL/SC 38/CC	106	60	30	27	15	31	40	8	12	15	33	58	15	33	26	32	8.5	4.5	51
	4.17	2.36	1.18	1.06	0.89	1.22	1.57	0.315	0.472	0.59	1.30	2.28	0.59	1.30	1.02	1.26	0.335	0.177	2.01
VOSL/SC/CC 12	116	70	35	31	17.5	36	48	8	14	16	40	60	16	40	28	32	8.5	4.5	51
	4.57	2.76	1.38	1.22	0.69	1.42	1.89	0.315	0.55	0.63	1.57	2.36	0.63	1.57	1.10	1.26	0.335	0.177	2.01
VOSL/SC/CC 34	136	90	40	36	20	44	70	10	10	20	48	68	20	48	34	34	10.5	5.5	51
	5.35	3.54	1.57	1.42	0.79	1.73	2.76	0.394	0.394	0.79	1.89	2.68	0.79	1.89	1.34	1.34	0.413	0.217	2.01
VOSL/SC/CC 100	185	100	60	38	30	62	80	10	10	32	70	83	32	70	48	35	10.5	12.5	51
	7.28	3.94	2.36	1.50	1.18	2.44	3.15	0.394	0.394	1.26	2.76	3.27	1.26	2.76	1.89	1.38	0.413	0.492	2.01

Ordering codes

VOSL/SC/CC complete valves

TYPE: **VOSL/SC/CC 38/TR.S.p4.PG** CODE: 1525021102

DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/SC/CC 12/TR.S.p7.PG** CODE: 1525031102

DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSL/SC/CC 34/TR.S.p7.PG** CODE: 1525041102

DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

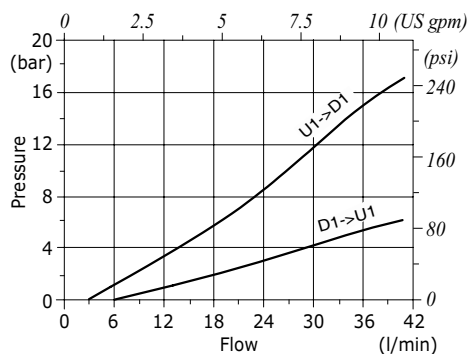
TYPE: **VOSL/SC/CC 100/TR.S.p7.PG** CODE: 1525051102

DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

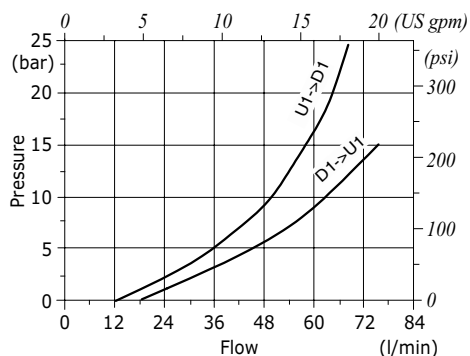
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

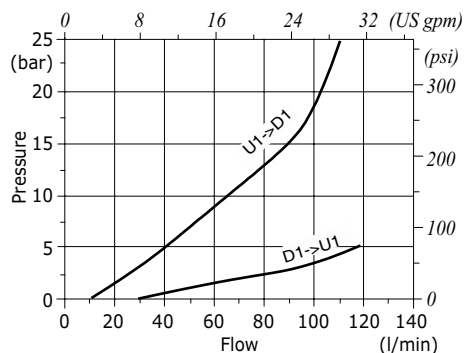
**VOSL/SC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



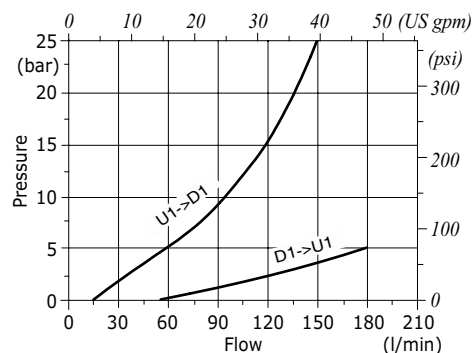
**VOSL/SC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL/SC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSL/SC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





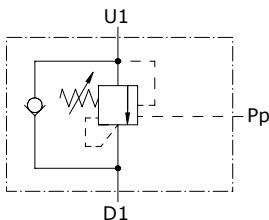
Type VOSLP counterbalance valves

- Single acting

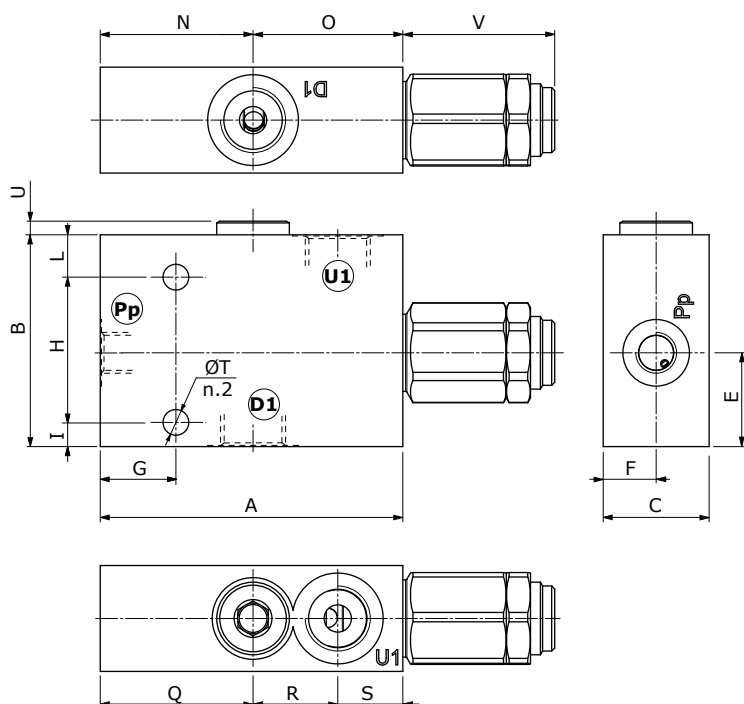
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	VOSLP 38	VOSLP 12	VOSLP 34	VOSLP 100	
Nominal flow	35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)				
Oil leakage	0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting				
Fluid	mineral based oil				
Viscosity	from 10 to 200 cSt				
Max. level of contamination	18/16/13 ISO4406				
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)				
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)				
Weight	aluminium	0.89 kg (1.96 lb)	0.97 kg (2.14 lb)	1.75 kg (3.86 lb)	2.90 kg (6.39 lb)
	steel	1.59 kg (3.51 lb)	1.88 kg (4.14 lb)	3.29 kg (7.25 lb)	6.18 kg (13.6 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	U1	Pp
VOSLP 38	G3/8	G1/4	
VOSLP 12	G1/2	G1/4	
VOSLP 34	G3/4	G1/4	
VOSLP 100	G1"	G1/4	

Dimensions are in mm-in

Valve type	A	B	C	E	F	G	H	I	L	N	O	Q	R	S	ØT	V
VOSLP 38	98 3.86	65 2.56	30 1.18	27 1.06	15 0.59	27 1.06	40 1.57	8 0.315	17 0.70	47 1.85	51 2.01	47 1.85	29 1.14	22 0.87	8.5 0.335	52 2.05
VOSLP 12	100 3.94	70 2.76	35 1.38	31 1.22	17.5 0.69	25 0.98	48 1.89	8 0.315	14 0.551	50.5 1.99	49.5 1.95	50.5 1.99	28 1.10	21.5 0.85	8.5 0.335	57 2.24
VOSLP 34	120 4.72	90 3.54	40 1.57	36 1.42	20 0.79	32 1.26	70 2.76	10 0.394	10 0.394	55 2.16	65 2.56	55 2.17	35 1.38	30 1.18	10.5 0.41	66 2.60
VOSLP 100	140 5.51	100 3.94	60 2.36	37 1.46	30 1.18	30 1.18	80 3.15	10 0.394	10 0.394	64 2.52	76 2.99	64 2.52	46 1.81	30 1.18	10.5 0.41	66 2.60

Ordering codes

VOSLP complete valves

TYPE: **VOSLP 38/TR.S.p4** CODE: 1530021102

DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP 12/TR.S.p7** CODE: 1530031102

DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP 34/TR.S.p7** CODE: 1530041102

DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

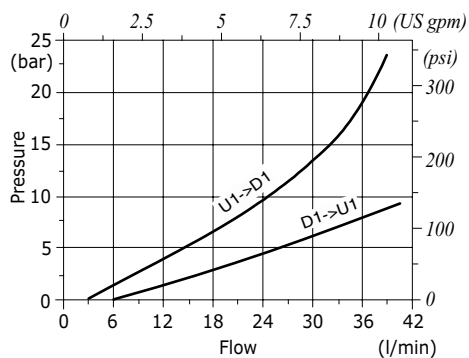
TYPE: **VOSLP 100/TR.S.p7** CODE: 1530051102

DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

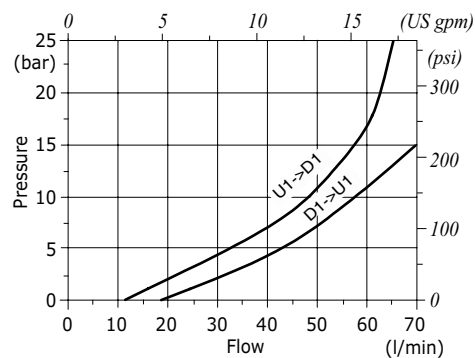
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

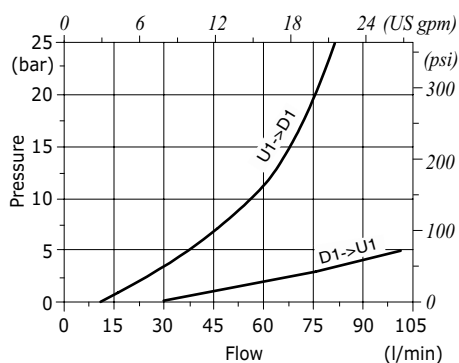
**VOSLP 38 pressure drop vs. flow
from D1->U1 and U1->D1**



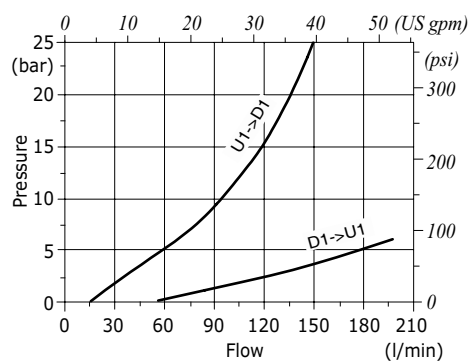
**VOSLP 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP 100 pressure drop vs. flow
from D1->U1 and U1->D1**





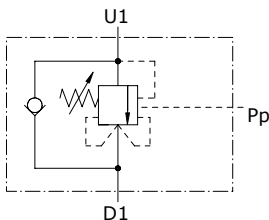
Type VOSLP/CC counterbalance valves

- Single acting
- Relief compensated

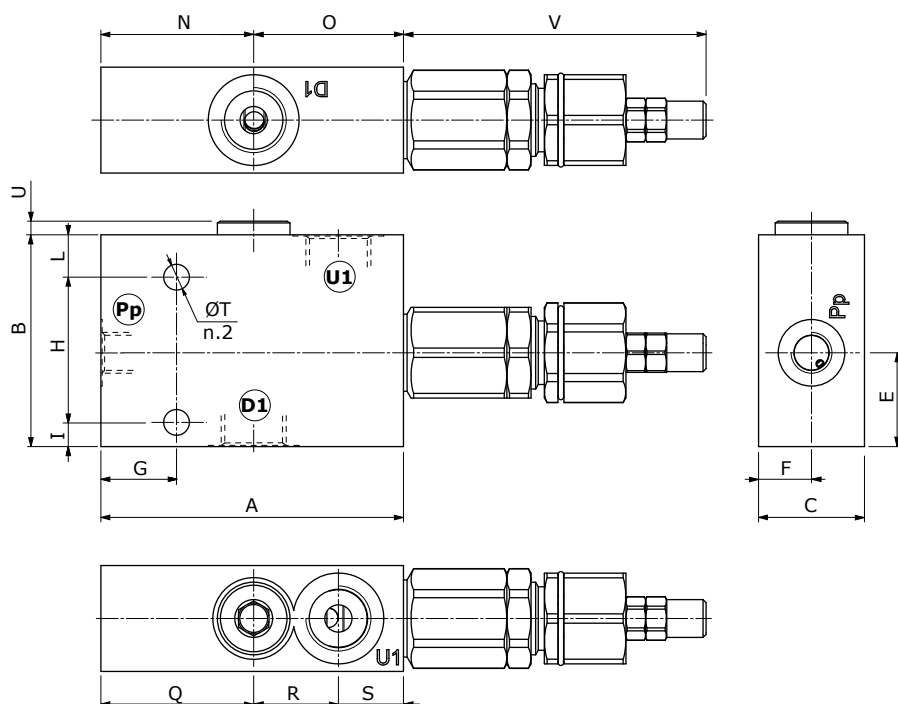
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VOSLP/CC 38	VOSLP/CC 12	VOSLP/CC 34	VOSLP/CC 100
Nominal flow		35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	1.01 kg (2.23 lb)	1.13 kg (2.49 lb)	1.83 kg (4.03 lb)	2.98 kg (6.57 lb)
	steel	1.70 kg (3.75 lb)	2.01 kg (4.43lb)	3.37 kg (7.43 lb)	6.26 kg (13.8 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	U1	Pp
VOSLP/CC 38	G3/8	G1/4	
VOSLP/CC 12	G1/2	G1/4	
VOSLP/CC 34	G3/4	G1/4	
VOSLP/CC 100	G1"	G1/4	

Dimensions are in mm-in

Valve type	A	B	C	E	F	G	H	I	L	N	O	Q	R	S	ØT	V
VOSLP/CC 38	98 3.86	65 2.56	30 1.18	27 1.06	15 0.59	27 1.06	40 1.57	8 0.315	17 0.70	47 1.85	51 2.01	47 1.85	29 1.14	22 0.87	8.5 0.335	92.2 3.63
VOSLP/CC 12	100 3.94	70 2.76	35 1.38	31 1.22	17.5 0.69	25 0.98	48 1.89	8 0.315	14 0.551	50.5 1.99	49.5 1.95	50.5 1.99	28 1.10	21.5 0.85	8.5 0.335	99.7 3.93
VOSLP/CC 34	120 4.72	90 3.54	40 1.57	36 1.42	20 0.79	32 1.26	70 2.76	10 0.394	10 0.394	55 2.16	65 2.56	55 2.17	35 1.38	30 1.18	10.5 0.41	101.7 4.00
VOSLP/CC 100	140 5.51	100 3.94	60 2.36	37 1.46	30 1.18	30 1.18	80 3.15	10 0.394	10 0.394	64 2.52	76 2.99	64 2.52	46 1.81	30 1.18	10.5 0.41	101.7 4.00

Ordering codes

VOSLP/CC complete valves

TYPE: **VOSLP/CC 38/TR.S.p4** CODE: 1534921100

DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/CC 12/TR.S.p7** CODE: 1534931100

DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/CC 34/TR.S.p7** CODE: 1534941100

DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

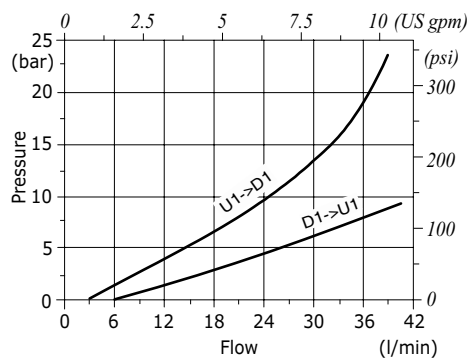
TYPE: **VOSLP/CC 100/TR.S.p7** CODE: 1534951100

DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

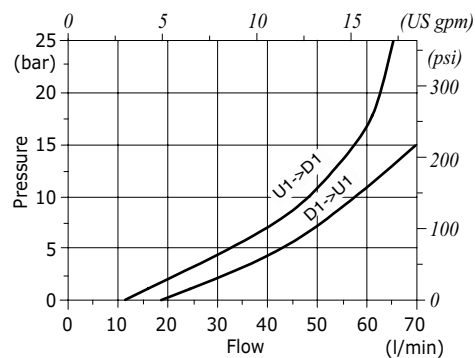
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

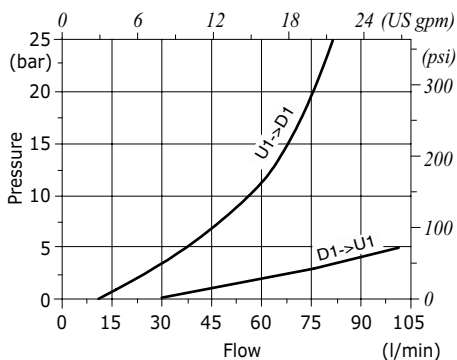
**VOSLP/CC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



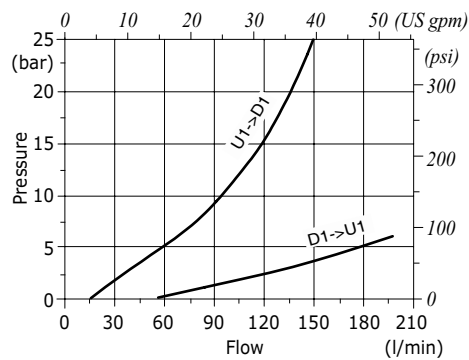
**VOSLP/CC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/CC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/CC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





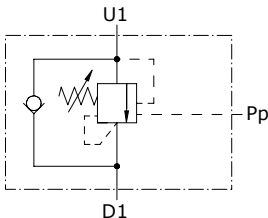
**Type VOSLP/SC
counterbalance valves**

- Single acting
- Load sensitive

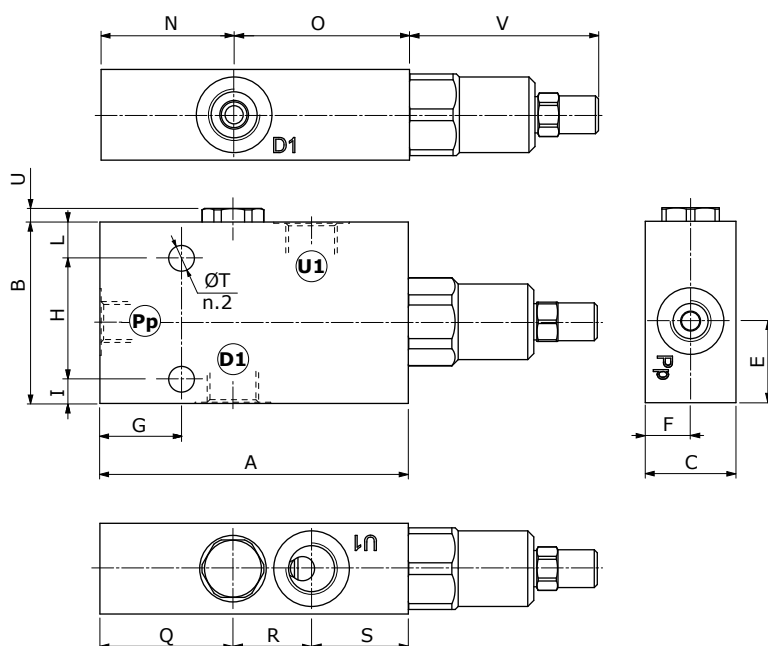
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VOSLP/SC 38	VOSLP/SC 12	VOSLP/SC 34	VOSLP/SC 100
Nominal flow		40 l/min (10.6 US gpm)	75 l/min (19.8 US gpm)	120 l/min (31.7 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	0.68 kg (1.50 lb)	0.95 kg (2.09 lb)	1.40 kg (3.09 lb)	2.70 kg (5.95 lb)
	steel	1.41 kg (3.11 lb)	2.03 kg (4.47 lb)	3.20 kg (7.05 lb)	6.52 kg (14.37 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	U1	Pp
VOSLP/SC 38	G3/8	G1/4	
VOSLP/SC 12	G1/2	G1/4	
VOSLP/SC 34	G3/4	G1/4	
VOSLP/SC 100	G1"	G1/4	

Dimensions are in mm-in

Valve type	A	B	C	E	F	G	H	I	L	N	O	Q	R	S	ØT	V
VOSLP/SC 38	102 4.02	60 2.36	30 1.18	27 1.06	15 0.59	27 1.06	40 1.57	8 0.315	12 0.472	44 1.73	58 2.28	44 1.73	26 1.02	32 1.26	8.5 0.335	62.5 2.46
VOSLP/SC 12	110 4.33	70 2.76	35 1.38	31 1.22	17.5 0.69	30 1.18	48 1.89	8 0.315	14 0.551	50 1.97	60 2.36	50 1.97	28 1.10	32 1.26	8.5 0.335	63.5 2.48
VOSLP/SC 34	123 4.84	90 3.54	40 1.57	36 1.42	20 0.78	31 1.22	70 2.76	10 0.394	10 0.394	55 2.17	68 2.68	55 2.17	34 1.34	34 1.34	10.5 0.413	63.5 2.48
VOSLP/SC 100	153 6.02	100 3.94	30 1.18	38 1.38	30 1.18	37 1.46	80 3.15	10 0.394	10 0.394	70 2.76	83 3.27	70 2.76	48 1.89	35 1.38	10.5 0.413	63.5 2.48

Ordering codes

VOSLP/SC complete valves

TYPE: **VOSLP/SC 38/TR.S.p4** CODE: 1540021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/SC 12/TR.S.p7** CODE: 1540031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

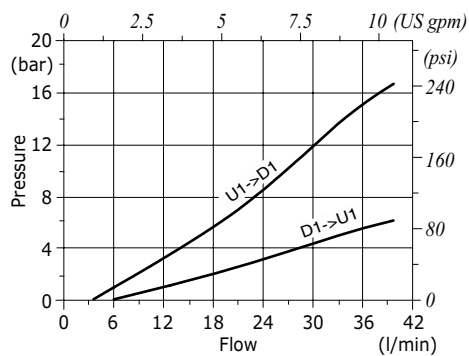
TYPE: **VOSLP/SC 34/TR.S.p7** CODE: 1540041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/SC 100/TR.S.p7** CODE: 1540051102
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

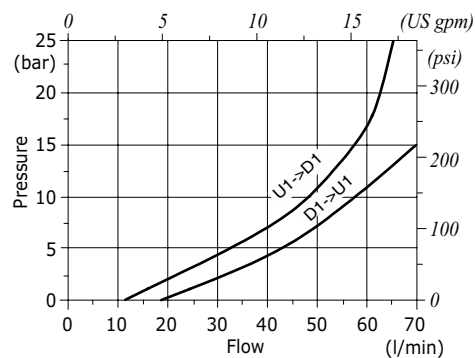
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

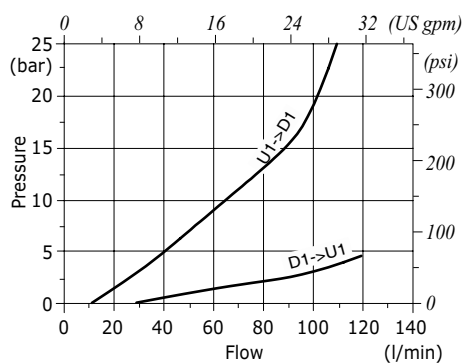
**VOSLP/SC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



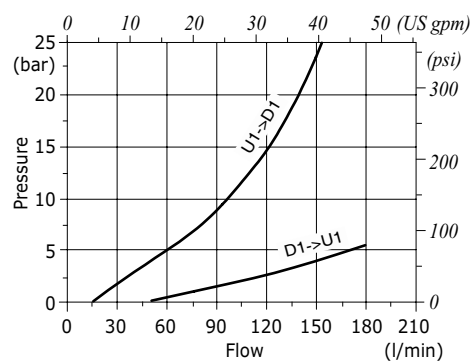
**VOSLP/SC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/SC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/SC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





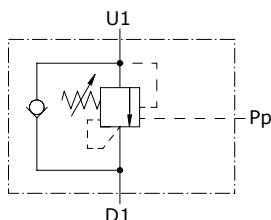
Type VOSLP/SC/RO counterbalance valves

- Single acting
- Load sensitive
- Bolt connection

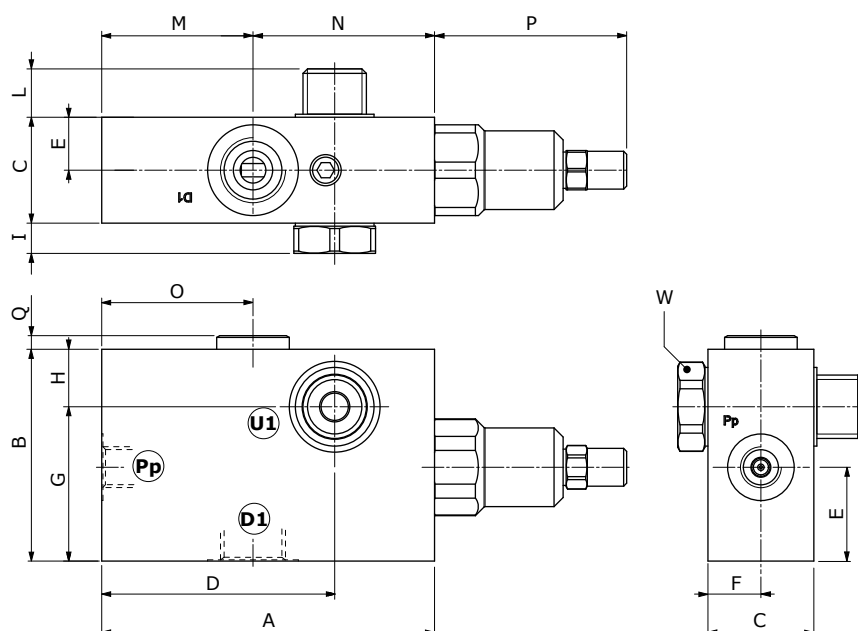
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VOSLP/SC/RO 38	VOSLP/SC/RO 12	VOSLP/SC/RO 34	VOSLP/SC/RO 100
Nominal flow		40 l/min (10.6 US gpm)	75 l/min (19.8 US gpm)	120 l/min (31.7 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	0.87 kg (1.91 lb)	1.19 kg (2.62 lb)	1.57 kg (3.46 lb)	3.19 kg (7.03 lb)
	steel	1.61 kg (3.55 lb)	2.24 kg (4.94 lb)	3.17 kg (7.19 lb)	6.91 kg (15.23 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1 female	U1 male	Pp
VOSLP/SC/RO 38	G3/8	G3/8	G1/4
VOSLP/SC/RO 12	G1/2	G1/2	G1/4
VOSLP/SC/RO 34	G3/4	G3/4	G1/4
VOSLP/SC/RO 100	G1"	G1"	G1/4

Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	W
VOSLP/SC/RO 38	102 4.02	60 2.36	30 1.18	68 2.68	27 1.06	15 0.59	44 1.73	16 0.63	9 0.354	22 0.87	44 1.73	58 2.28	44 1.73	62.5 2.46	4.5 0.177	22 0.87
VOSLP/SC/RO 12	110 4.33	70 2.76	35 1.38	77 3.03	31 1.22	17.5 0.68	51 2.01	19 0.75	10 0.394	16 0.63	50 1.97	60 2.36	50 1.97	63.5 2.50	4.5 0.177	27 1.06
VOSLP/SC/RO 34	116 4.57	90 3.54	40 1.57	84 3.31	36 1.42	20 0.79	61 2.40	29 1.14	10 0.394	17 0.67	48 1.89	68 2.68	48 1.89	63.5 2.50	5.5 0.217	32 1.26
VOSLP/SC/RO 100	153 6.02	100 3.94	60 2.36	118 4.65	38 1.50	30 1.18	69 2.72	31 1.22	12 0.472	22 0.87	70 2.76	73 2.87	70 2.76	63.5 2.50	12.5 0.492	41 1.61

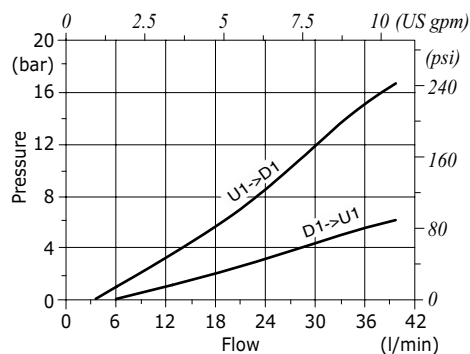
Ordering codes

VOSLP/SC/RO complete valves

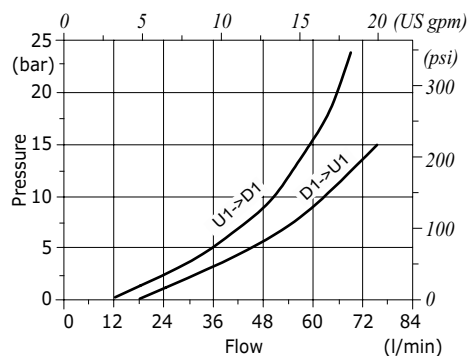
TYPE: **VOSLP/SC/RO 38/TR.S.p4.PG** CODE: 1544021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VOSLP/SC/RO 12/TR.S.p7.PG** CODE: 1544031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VOSLP/SC/RO 34/TR.S.p7.PG** CODE: 1544041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VOSLP/SC/RO 100/TR.S.p7.PG** CODE: 1544051106
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

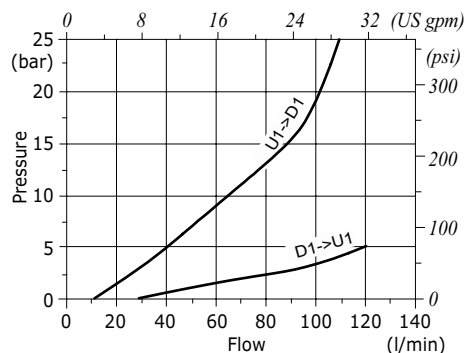
**VOSLP/SC/RO 38 pressure drop vs. flow
from D1->U1 and U1->D1**



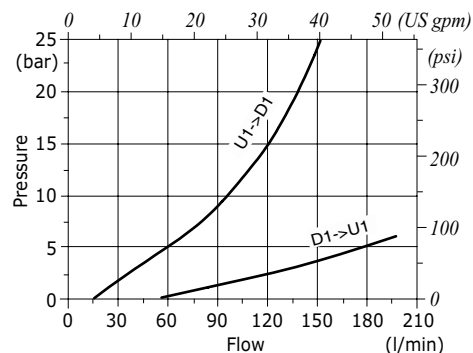
**VOSLP/SC/RO 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/SC/RO 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/SC/RO 100 pressure drop vs. flow
from D1->U1 and U1->D1**





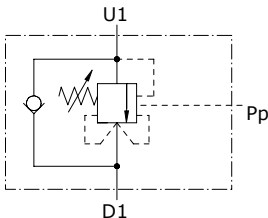
**Type VOSLP/SC/CC
counterbalance valves**

- Single acting
- Relief compensated

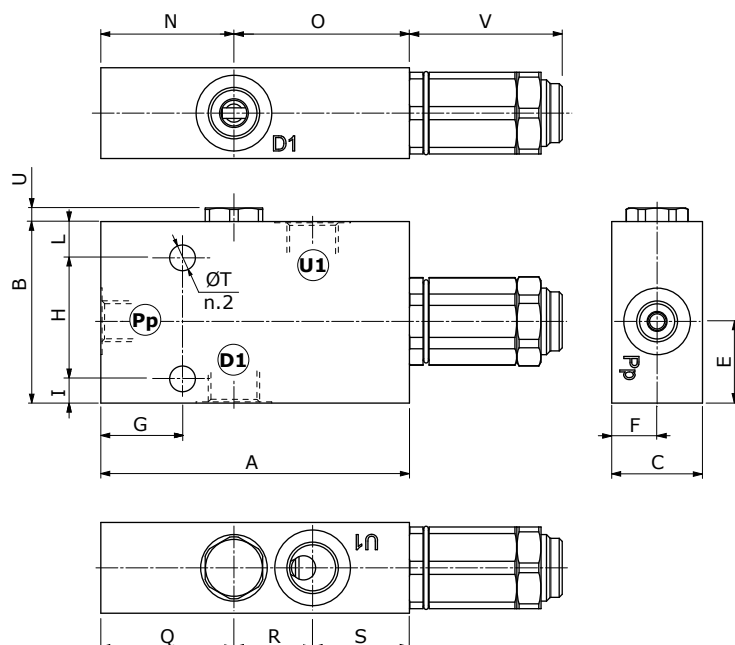
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VOSLP/SC/CC 38	VOSLP/SC/CC 12	VOSLP/SC/CC 34	VOSLP/SC/CC 100
Nominal flow		40 l/min (10.6 US gpm)	75 l/min (19.8 US gpm)	120 l/min (31.7 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	0.82 kg (1.81 lb)	1.10 kg (2.43 lb)	1.45 kg (3.20 lb)	2.78 kg (6.13 lb)
	steel	1.93 kg (4.25 lb)	2.20 kg (485 lb)	3.24 kg (7.14 lb)	6.64 kg (14.6 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	U1	Pp
VOSLP/SC/CC 38	G3/8	G1/4	
VOSLP/SC/CC 12	G1/2	G1/4	
VOSLP/SC/CC 34	G3/4	G1/4	
VOSLP/SC/CC 100	G1"	G1/4	

Dimensions are in mm-in

Valve type	A	B	C	E	F	G	H	I	L	N	O	Q	R	S	ØT	V
VOSLP/SC/CC 38	102	60	30	27	15	27	40	8	12	44	58	44	26	32	8.5	50.5
	4.02	2.36	1.18	1.06	0.59	1.06	1.57	0.315	0.472	1.73	2.28	1.73	1.02	1.26	0.335	1.99
VOSLP/SC/CC 12	110	70	35	31	17.5	30	48	8	14	50	60	50	28	32	8.5	50.5
	4.33	2.76	1.38	1.22	0.69	1.18	1.89	0.315	0.551	1.97	2.36	1.97	1.10	1.26	0.335	1.99
VOSLP/SC/CC 34	123	90	40	36	20	31	70	10	10	55	68	55	34	34	10.5	50.5
	4.84	3.54	1.57	1.42	0.78	1.22	2.76	0.394	0.394	2.17	2.68	2.17	1.34	1.34	0.413	1.99
VOSLP/SC/CC 100	153	100	30	38	30	37	80	10	10	70	83	70	48	35	10.5	50.5
	6.02	3.94	1.18	1.38	1.18	1.46	3.15	0.394	0.394	2.76	3.27	2.76	1.89	1.38	0.413	1.99

Ordering codes

VOSLP/SC/CC complete valves

TYPE: **VOSLP/SC/CC 38/TR.S.p4.PG** CODE: 1545021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

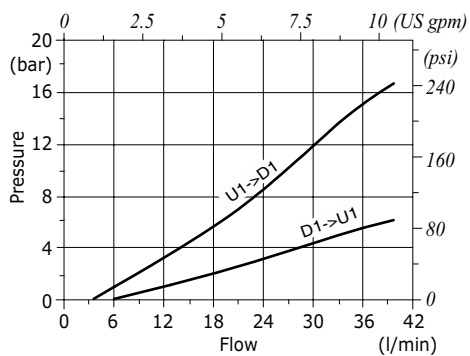
TYPE: **VOSLP/SC/CC 12/TR.S.p7.PG** CODE: 1545031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VOSLP/SC/CC 34/TR.S.p7.PG** CODE: 1545041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

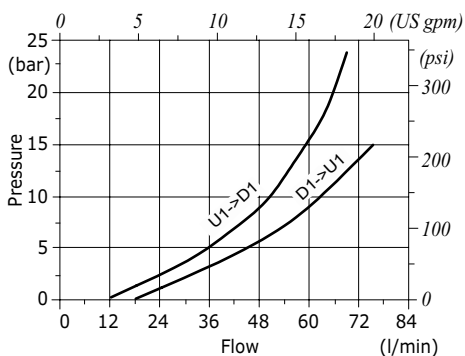
TYPE: **VOSLP/SC/CC 100/TR.S.p7.PG** CODE: 1545051102
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

For other configurations and steel body, please contact our Sales Dept.

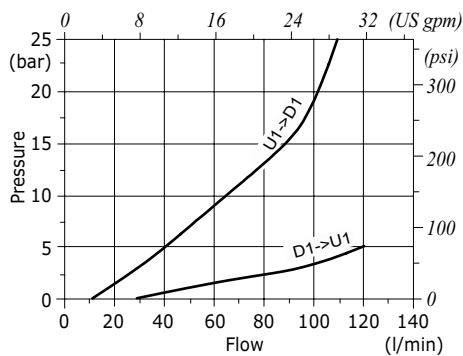
**VOSLP/SC/CC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



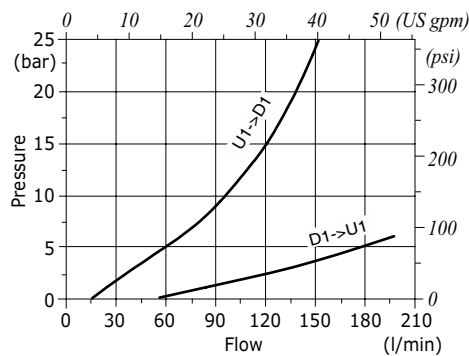
**VOSLP/SC/CC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/SC/CC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VOSLP/SC/CC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





Type VOSL/ML counterbalance valves

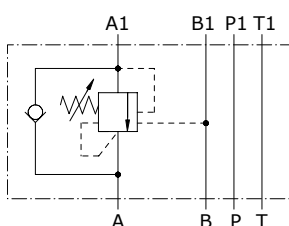
- Single acting
- Load sensitive
- Flange assembling according to ISO 4401:2005 (CETOP)

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

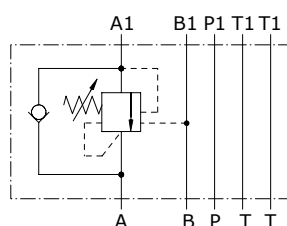
	VOSL/ML 6-38	VOSL/ML 10-12
Nominal flow	35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)	
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting	
Fluid	mineral based oil	
Viscosity	from 10 to 200 cSt	
Max. level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)	
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)	
Weight	aluminium	1.27 kg (2.80 lb)
	steel	2.68 kg (5.91 lb)
		2.27 kg (5.00 lb)
		5.46 kg (12.04 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.

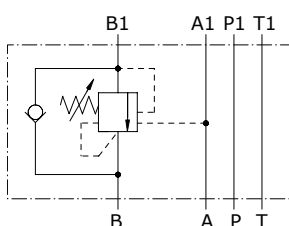
VOSL/ML 6-38A



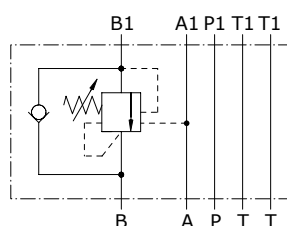
VOSL/ML 10-12A



VOSL/ML 6-38B

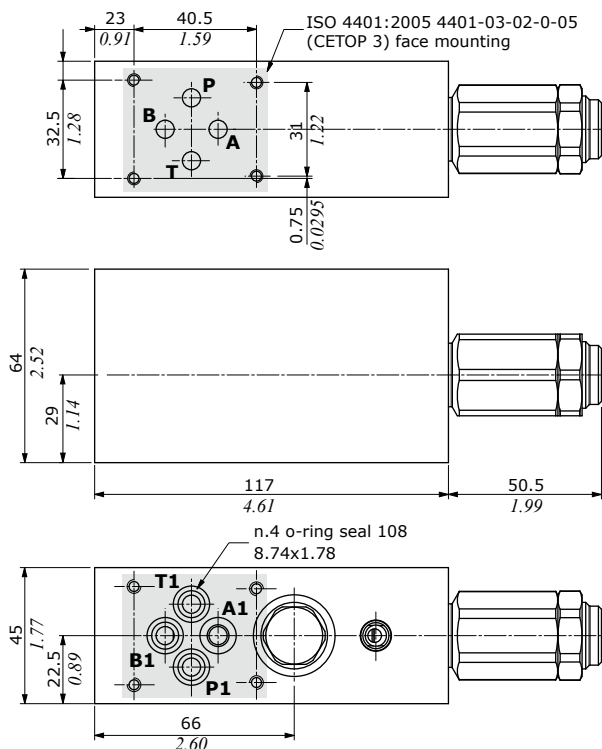


VOSL/ML 10-12B

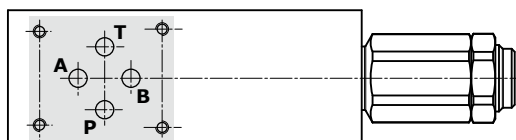


Dimensions

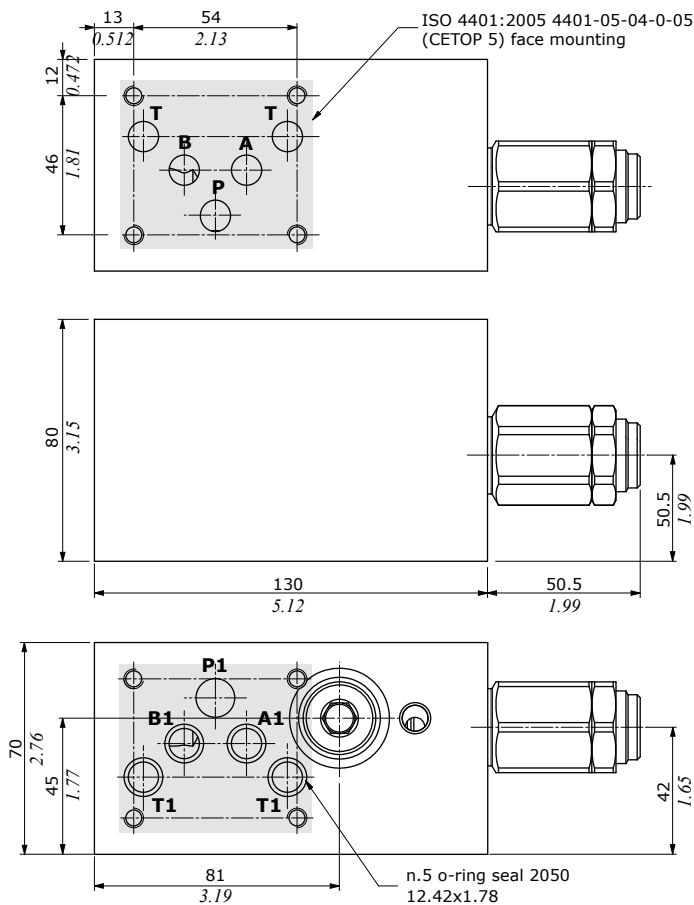
VOSL/ML 6-38A



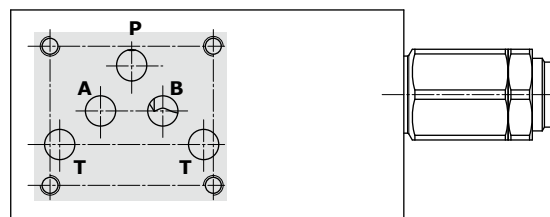
VOSL/ML 6-38B



VOSL/ML 10-12A



VOSL/ML 10-12B



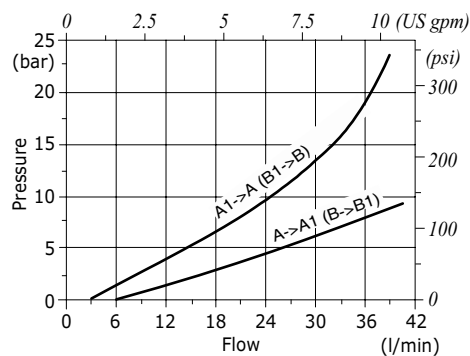
Ordering codes

VOSL/ML complete valves

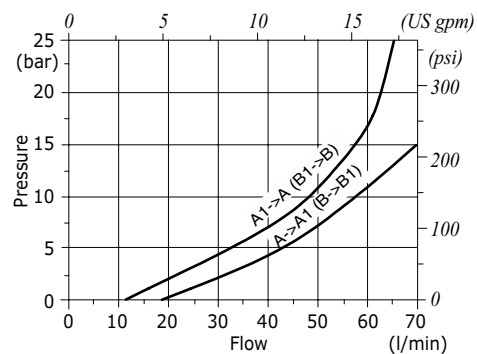
TYPE: **VOSL/ML 6-38A/TR.S.p4** CODE: 1518021802
 DESCRIPTION: Aluminium body, CETOP 3 flange, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VOSL/ML 6-38B/TR.S.p4** CODE: 1518021808
 DESCRIPTION: Aluminium body, CETOP 3 flange, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VOSL/ML 10-12A/TR.S.p7.PG** CODE: 1518031802
 DESCRIPTION: Aluminium body, CETOP 5 flange, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VOSL/ML 10-12B/TR.S.p7.PG** CODE: 1518031808
 DESCRIPTION: Aluminium body, CETOP 5 flange, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

**VOSL/ML 6-38 pressure drop vs. flow
from A->A1 (B->B1) and A1->A (B1->B)**



**VOSL/ML 10-12 pressure drop vs. flow
from A->A1 (B->B1) and A1->A (B1->B)**





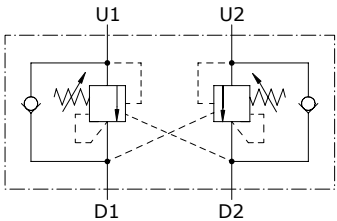
**Type VODL
counterbalance valves**

- Double acting
- Load sensitive

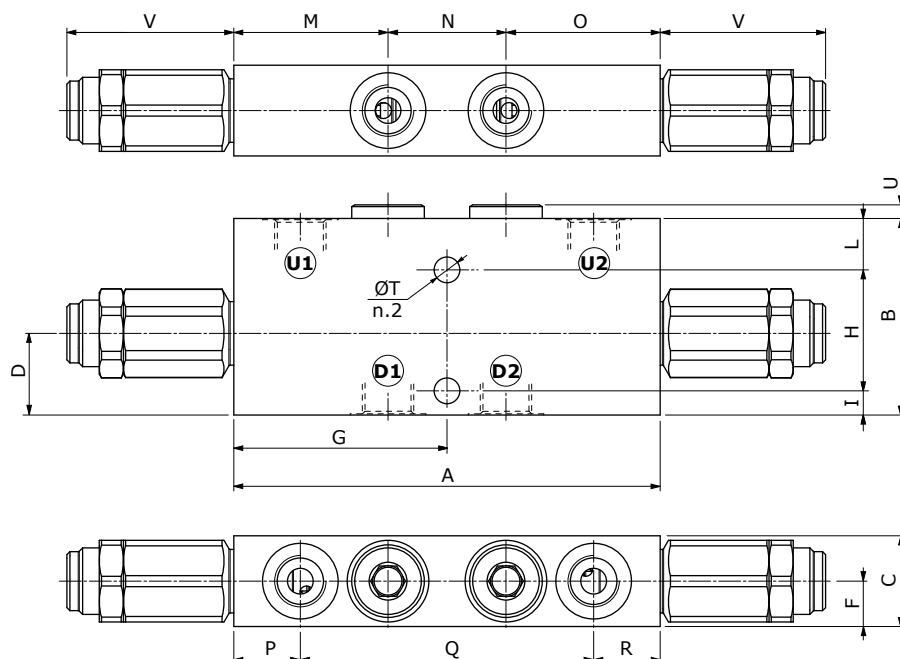
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VODL 38	VODL 12	VODL 34	VODL 100
Nominal flow		35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	1.32 kg (2.91 lb)	1.69 kg (3.73 lb)	2.92 kg (6.44 lb)	4.75 kg (10.47 lb)
	steel	2.39 kg (5.27 lb)	2.95 kg (6.50 lb)	5.13 kg (11.31 lb)	9.60 kg (21.16 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	D2	U1	U2
VODL 38	G3/8	G3/8		
VODL 12	G1/2	G1/2		
VODL 34	G3/4	G3/4		
VODL 100	G1"	G1"		

Dimensions are in mm-in

Valve type	A	B	C	F	G	H	I	L	M	N	O	P	Q	R	ØT	U	V
VODL 38	141	65	30	15	70.5	40	8	17	51	39	51	22	97	22	8.5	4.5	55
	5.55	2.56	1.18	0.59	2.76	1.57	0.315	0.67	2.01	1.54	2.01	0.87	3.82	0.87	0.335	0.177	2.17
VODL 12	149	70	34.5	17.25	74.5	48	8	14	50.5	48	50.5	21.5	106	21.5	8.5	4.5	50.5
	5.87	2.76	1.36	0.68	2.93	1.89	0.315	0.551	1.99	1.89	1.99	0.85	4.17	0.85	0.335	0.177	1.99
VODL 34	184	90	40	20	92	70	10	10	65	54	65	30	124	30	10.5	5.5	61
	7.25	3.54	1.57	0.79	3.62	2.76	0.394	0.394	2.56	2.13	2.56	1.18	4.88	1.18	0.413	0.217	2.40
VODL 100	218	100	60	30	109	80	10	10	76	66	76	30	158	30	10.5	12.5	61
	8.58	3.94	2.36	1.18	4.29	3.15	0.394	0.394	2.99	2.60	2.99	1.18	6.22	1.18	0.413	0.492	2.40

Ordering codes

VODL complete valves

TYPE: **VODL 38/TR.S.p4** CODE: 1550021102

DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL 12/TR.S.p7** CODE: 1550031102

DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL 34/TR.S.p7** CODE: 155041102

DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

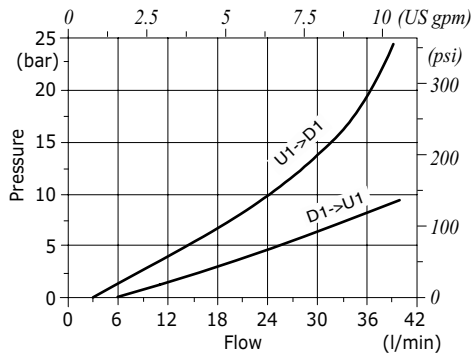
TYPE: **VODL 100/TR.S.p7** CODE: 1550051102

DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

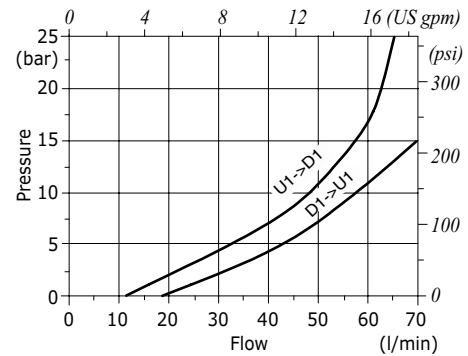
For other configurations, SAE thread and steel body, please contact our Sales Dept.

Rating diagrams

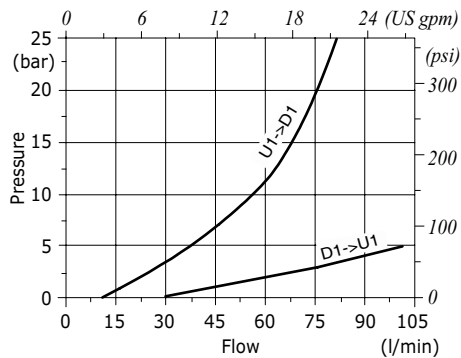
**VODL 38 pressure drop vs. flow
from D1->U1 and U1->D1**



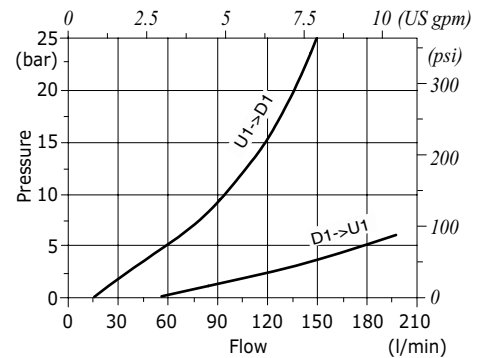
**VODL 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL 100 pressure drop vs. flow
from D1->U1 and U1->D1**





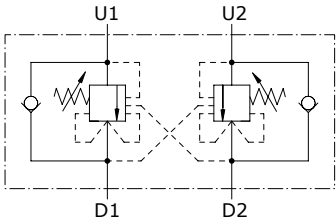
**Type VODL/CC
counterbalance valves**

- Double acting
- Relief compensated

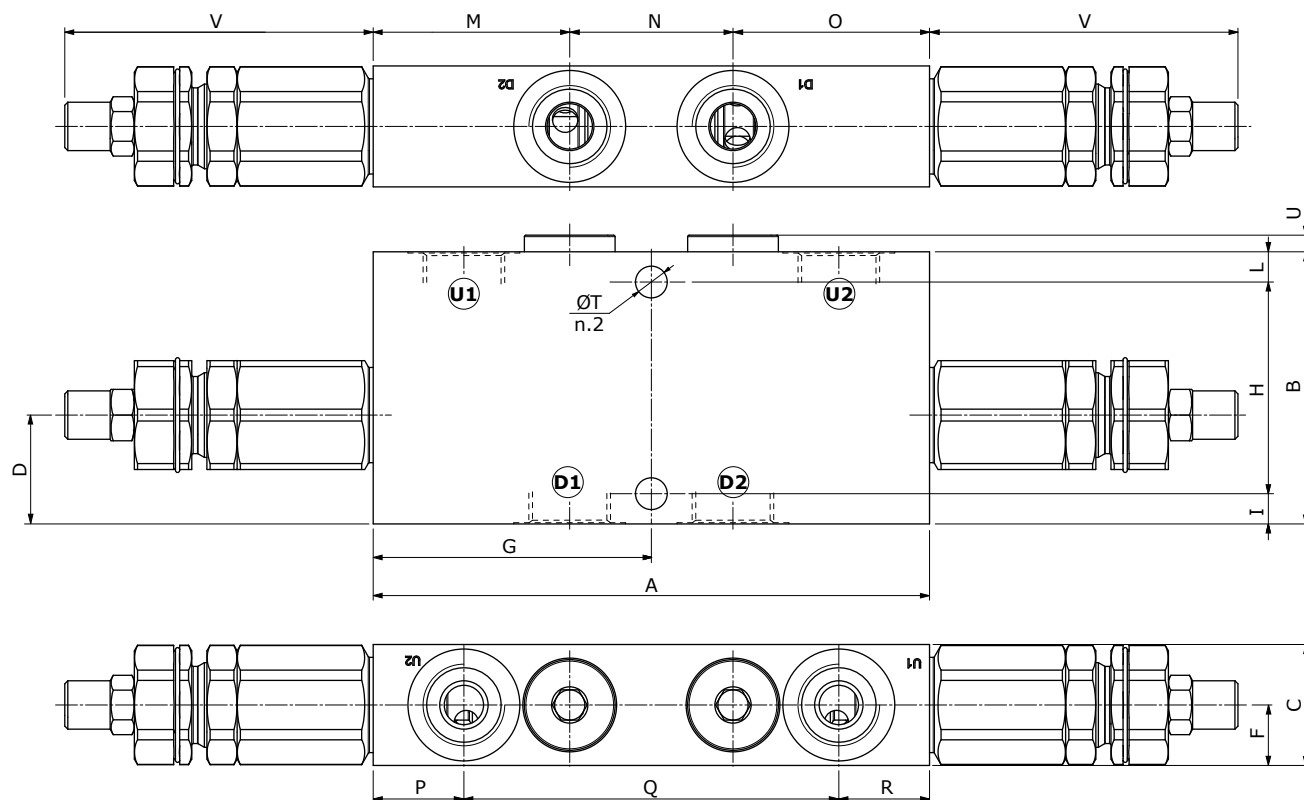
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VODL/CC 38	VODL/CC 12	VODL/CC 34	VODL/CC 100
Nominal flow		35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	1.45 kg (3.20 lb)	2.00 kg (4.41 lb)	3.08 kg (6.79 lb)	4.91 kg (10.82 lb)
	steel	2.62 kg (5.78 lb)	3.26 kg (7.19 lb)	5.29 kg (11.66 lb)	9.76 kg (21.52 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Dimensions are in mm-in

Valve type	A	B	C	F	G	H	I	L	M	N	O	P	Q	R	ØT	U	V	D1 D2	U1 U2
VODL 38/CC	141 5.55	65 2.56	30 1.18	15 0.59	70.5 2.76	40 1.57	8 0.315	17 0.67	51 2.01	39 1.54	51 2.01	22 0.87	97 3.82	22 0.87	8.5 0.335	4.5 0.177	92.5 3.64	G3/8	G3/8
VODL 12/CC	149 5.87	70 2.76	34.5 1.36	17.25 0.68	74.5 2.93	48 1.89	8 0.315	14 0.551	50.5 1.99	48 1.89	50.5 1.99	21.5 0.85	106 4.17	21.5 0.85	8.5 0.335	4.5 0.177	100.5 1.99	G1/2	G1/2
VODL 34/CC	184 7.25	90 3.54	40 1.57	20 0.79	92 3.62	70 2.76	10 0.394	10 0.394	65 2.56	54 2.13	65 2.56	30 1.18	124 4.88	30 1.18	10.5 0.413	5.5 0.217	102 4.02	G3/4	G3/4
VODL 100/CC	218 8.58	100 3.94	60 2.36	30 1.18	109 4.29	80 3.15	10 0.394	10 0.394	76 2.99	66 2.60	76 2.99	30 1.18	158 6.22	30 1.18	10.5 0.413	12.5 0.492	101 3.98	G1"	G1"

Ordering codes and description

VODL/CC complete valves

TYPE: **VODL/CC 38/TR.S.p4** CODE: 1559421100
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/CC 12/TR.S.p7** CODE: 1559431100
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

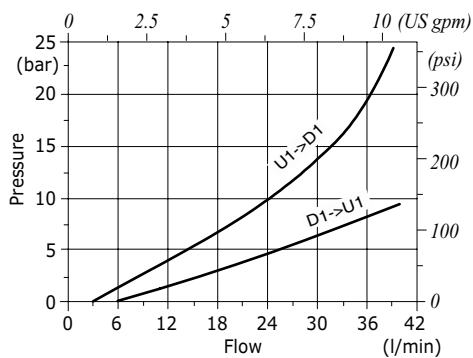
TYPE: **VODL/CC 34/TR.S.p7** CODE: 1559441100
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/CC 100/TR.S.p7** CODE: 1559451100
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

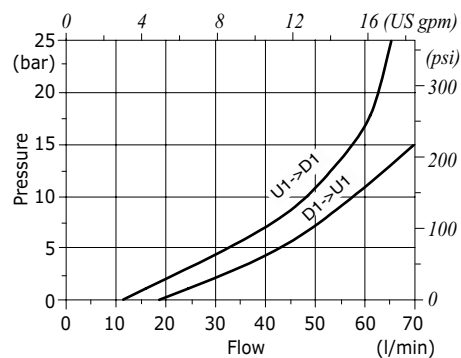
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

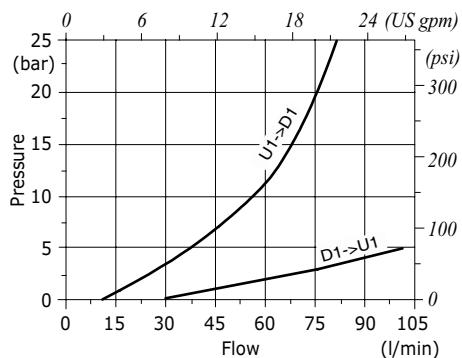
**VODL/CC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



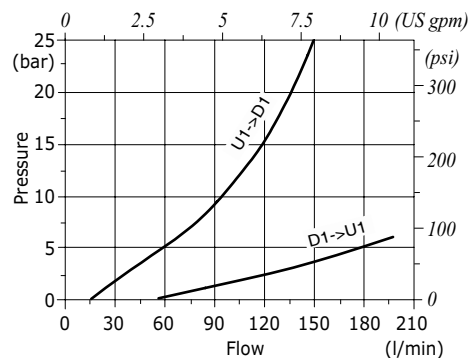
**VODL/CC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL/CC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL/CC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





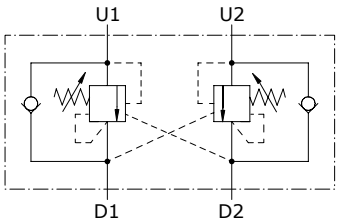
**Type VODL/SC
counterbalance valves**

- Double acting
- Load sensitive

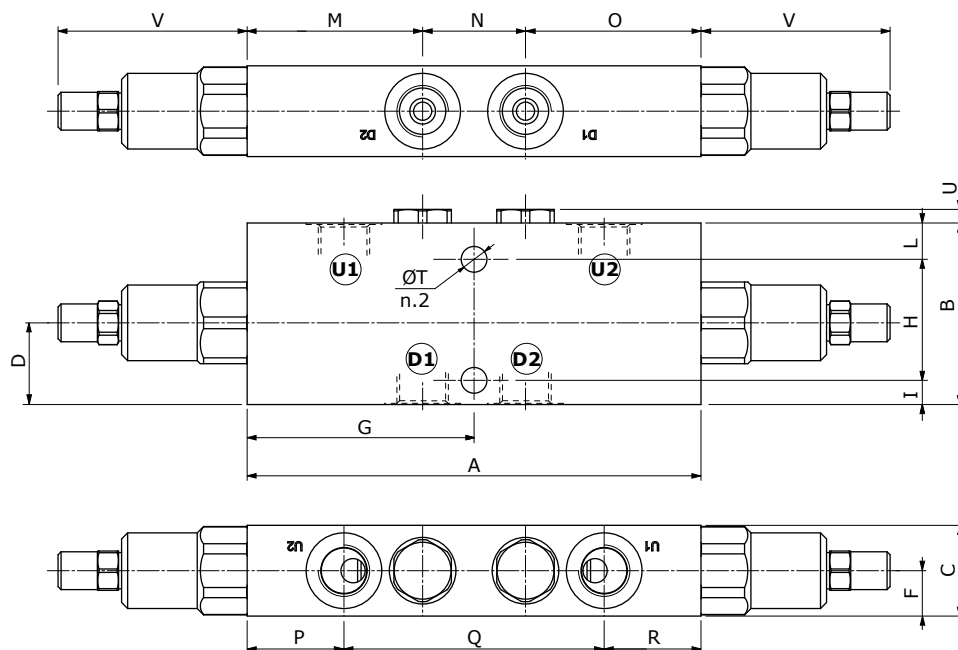
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		VODL/SC 38	VODL/SC 12	VODL/SC 34	VODL/SC 100
Nominal flow		40 l/min (10.6 US gpm)	75 l/min (19.8 US gpm)	120 l/min (31.7 US gpm)	180 l/min (47.6 US gpm)
Max. pressure		Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)			
Oil leakage		0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)			
Weight	aluminium	1.09 kg (2.40 lb)	1.53 kg (3.37 lb)	2.26 kg (4.98 lb)	4.24 kg (9.35 lb)
	steel	2.15 kg (4.74 lb)	2.96 kg (6.53 lb)	4.78 kg (10.54 lb)	9.71 kg (21.41 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	D2	U1	U2
VODL 38	G3/8	G3/8		
VODL 12	G1/2	G1/2		
VODL 34	G3/4	G3/4		
VODL 100	G1"	G1"		

Dimensions are in mm-in

Valve type	A	B	C	F	G	H	I	L	M	N	O	P	Q	R	ØT	U	V
VODL 38	150	60	30	15	75	40	8	12	58	34	58	32	86	32	8.5	4.5	62.5
	5.91	2.36	1.18	0.59	2.95	1.57	0.315	0.472	2.28	1.34	2.28	1.26	3.82	1.26	0.335	0.177	2.46
VODL 12	156	70	35	17.5	78	48	8	14	60	36	60	32	92	32	8.5	4.5	57.5
	6.14	2.76	1.38	0.69	3.07	1.89	0.315	0.551	2.52	1.89	2.52	1.26	3.62	1.26	0.335	0.177	2.26
VODL 34	186	90	40	20	93	70	10	10	68	50	68	34	118	34	10.5	5.5	63.5
	7.32	3.54	1.57	0.79	3.66	2.76	0.394	0.394	2.68	1.97	2.68	2.28	4.65	2.28	0.413	0.217	2.50
VODL 100	232	100	60	30	116	80	10	10	83	66	83	35	162	35	10.5	12.5	63.5
	9.13	3.94	2.36	1.18	4.57	3.15	0.394	0.394	3.27	2.60	3.27	1.38	6.38	1.38	0.413	0.492	2.50

Ordering codes and description

VODL/SC complete valves

TYPE: **VODL/SC 38/TR.S.p4** CODE: 1560021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/SC 12/TR.S.p7** CODE: 1560031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

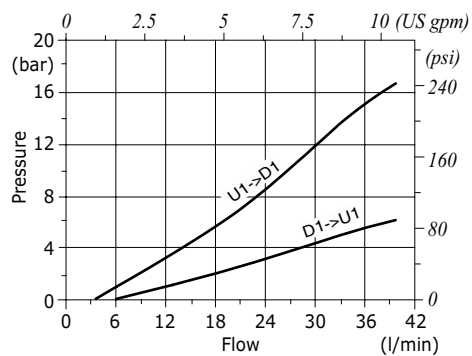
TYPE: **VODL/SC 34/TR.S.p7** CODE: 1560041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/SC 100/TR.S.p7** CODE: 1560051102
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

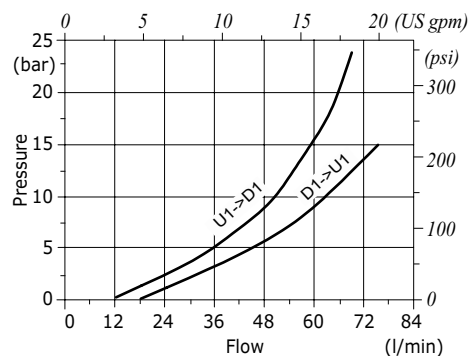
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

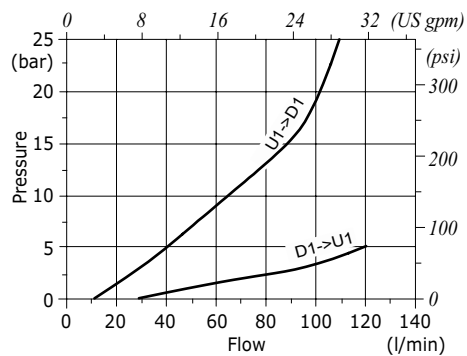
**VODL/SC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



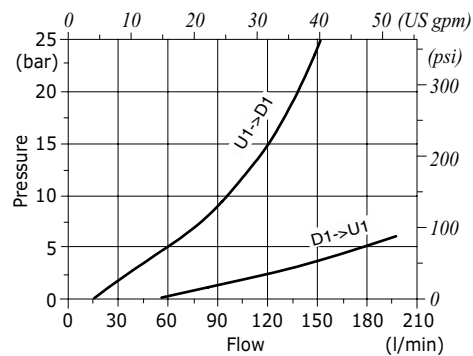
**VODL/SC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL/SC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL/SC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





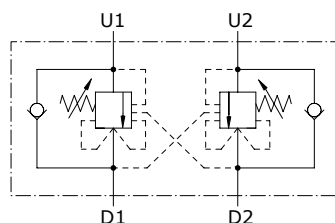
Type VODL/SC/CC counterbalance valves

- Double acting
- Relief compensated

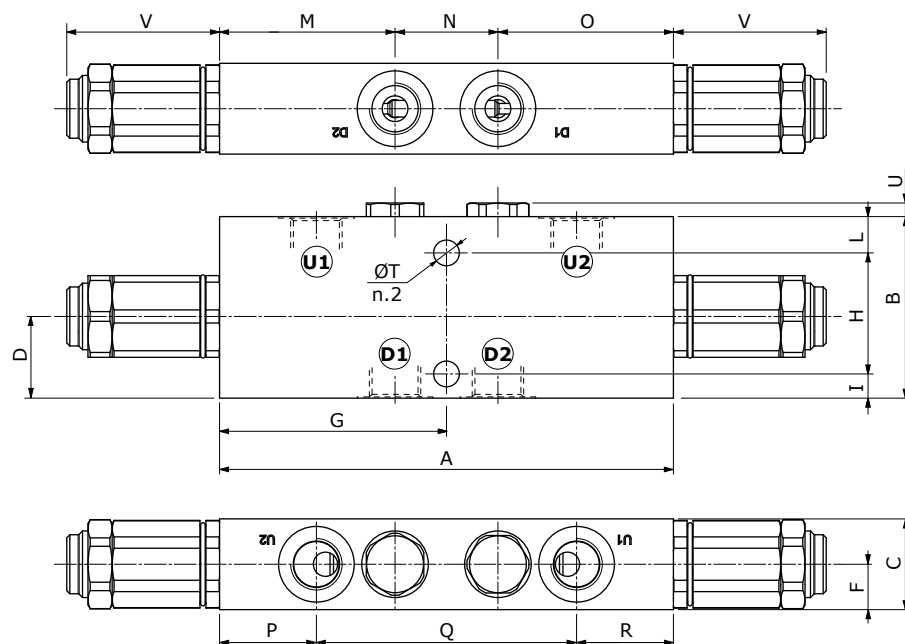
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	VODL/SC/CC 38	VODL/SC/CC 12	VODL/SC/CC 34	VODL/SC/CC 100	
Nominal flow	40 l/min (10.6 US gpm)	75 l/min (18.5 US gpm)	120 l/min (31.7 US gpm)	180 l/min (47.6 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)				
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting				
Fluid	mineral based oil				
Viscosity	from 10 to 200 cSt				
Max. level of contamination	18/16/13 ISO4406				
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)				
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)				
Weight	aluminium	1.14 kg (2.51 lb)	1.63 kg (3.59 lb)	2.37 kg (5.22 lb)	4.35 kg (9.59 lb)
	steel	2.18 kg (4.81 lb)	3.06 kg (6.75 lb)	4.85 kg (10.69 lb)	9.82 kg (21.65 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions



Valve type	D1	D2	U1	U2
VODL 38	G3/8	G3/8		
VODL 12	G1/2	G1/2		
VODL 34	G3/4	G3/4		
VODL 100	G1"	G1"		

Dimensions are in mm-in

Valve type	A	B	C	F	G	H	I	L	M	N	O	P	Q	R	ØT	U	V
VODL 38	150	60	30	15	75	40	8	12	58	34	58	32	86	32	8.5	4.5	50.5
	5.91	2.36	1.18	0.59	2.95	1.57	0.315	0.472	2.28	1.34	2.28	1.26	3.82	1.26	0.335	0.177	1.99
VODL 12	156	70	35	17.5	78	48	8	14	60	36	60	32	92	32	8.5	4.5	50.5
	6.14	2.76	1.38	0.69	3.07	1.89	0.315	0.551	2.52	1.89	2.52	1.26	3.62	1.26	0.335	0.177	1.99
VODL 34	186	90	40	20	93	70	10	10	68	50	68	34	118	34	10.5	5.5	50.5
	7.32	3.54	1.57	0.79	3.66	2.76	0.394	0.394	2.68	1.97	2.68	2.28	4.65	2.28	0.413	0.217	1.99
VODL 100	232	100	60	30	116	80	10	10	83	66	83	35	162	35	10.5	12.5	50.5
	9.13	3.94	2.36	1.18	4.57	3.15	0.394	0.394	3.27	2.60	3.27	1.38	6.38	1.38	0.413	0.492	1.99

Ordering codes and description

VODL/SC/CC complete valves

TYPE: **VODL/SC/CC 38/TR.S.p4** CODE: 1565021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/SC/CC 12/TR.S.p7** CODE: 1565031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

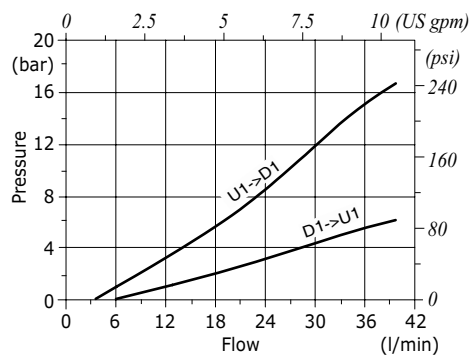
TYPE: **VODL/SC/CC 34/TR.S.p7** CODE: 1565041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VODL/SC/CC 100/TR.S.p7** CODE: 1565051102
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

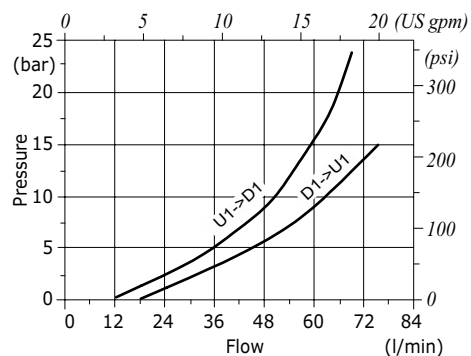
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

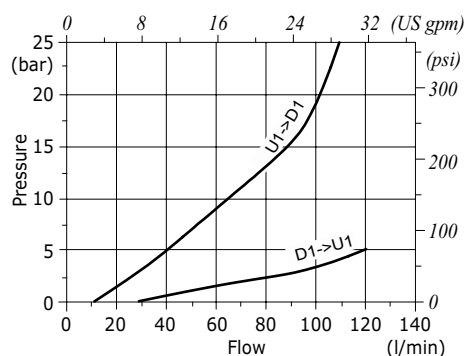
**VODL/SC/CC 38 pressure drop vs. flow
from D1->U1 and U1->D1**



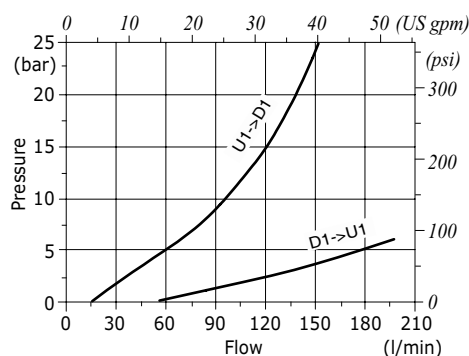
**VODL/SC/CC 12 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL/SC/CC 34 pressure drop vs. flow
from D1->U1 and U1->D1**



**VODL/SC/CC 100 pressure drop vs. flow
from D1->U1 and U1->D1**





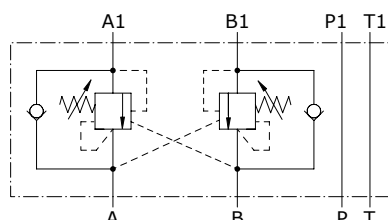
Type VODL/ML counterbalance valves

- Double acting
- Load sensitive
- Flange assembling according to ISO 4401:2005 (CETOP)

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

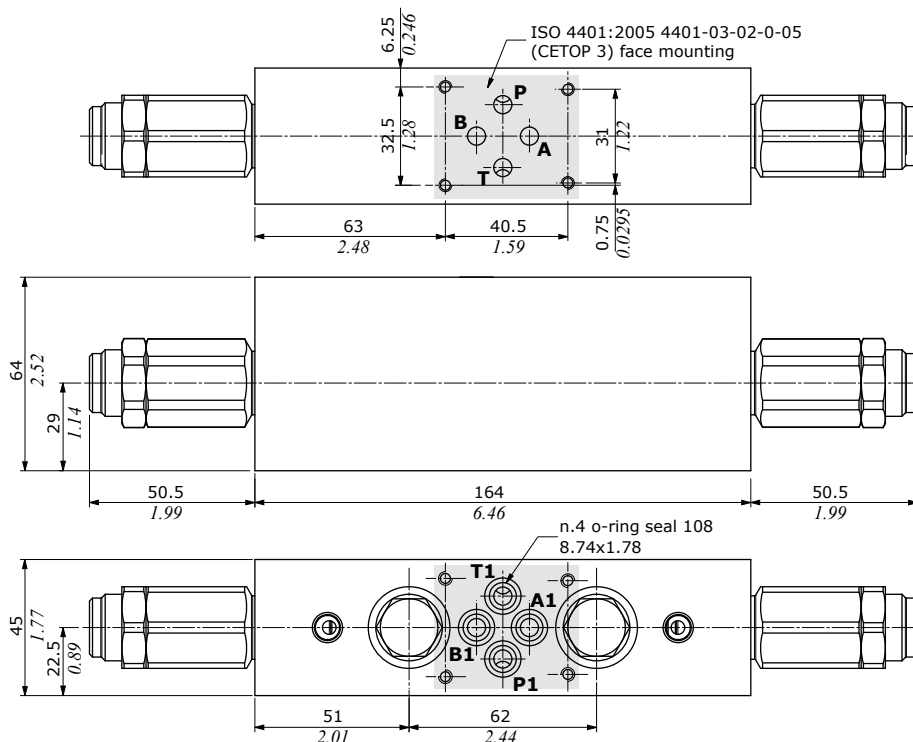
	VODL/ML 6-38	VODL/ML 10-12
Nominal flow	35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)	
Oil leakage	0.25 cm ³ /min - 0.015 in ³ /min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting	
Fluid	mineral based oil	
Viscosity	from 10 to 200 cSt	
Max. level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)	
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)	
Weight	aluminium	1.75 kg (3.86 lb)
	steel	3.70 kg (8.16 lb)
		3.25 kg (7.147 lb)
		7.55 kg (16.64 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.

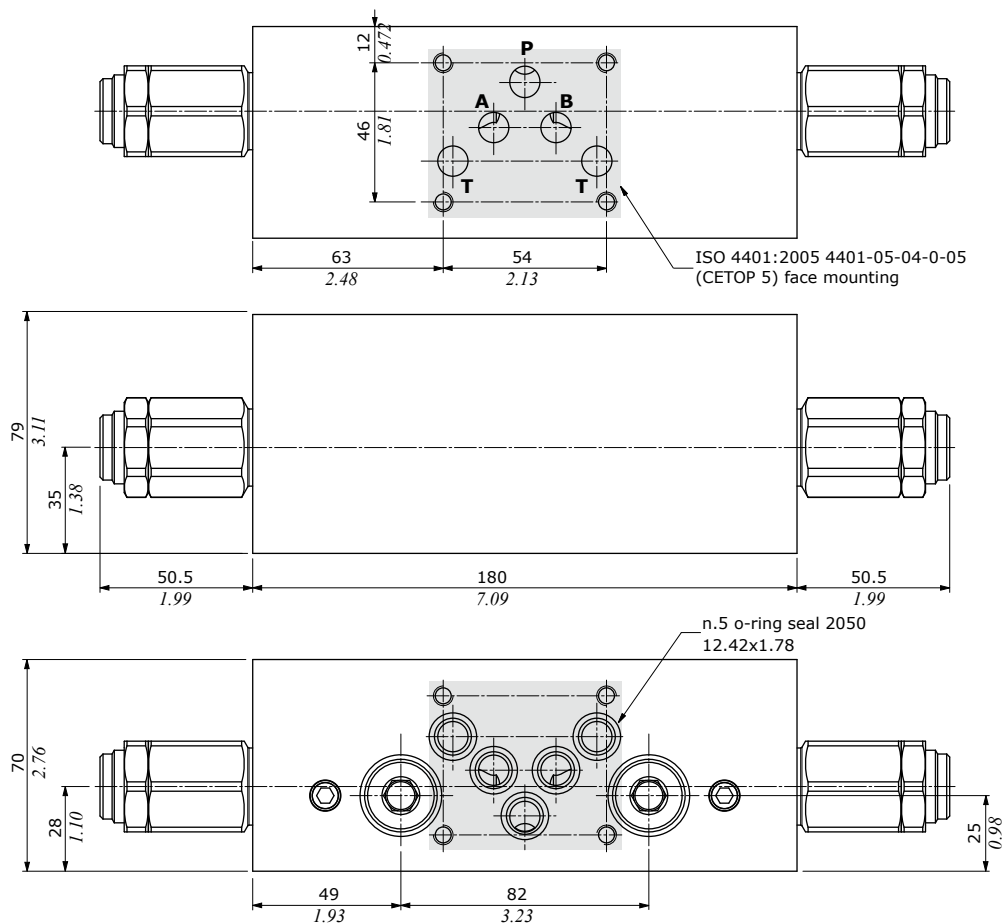


Dimensions

VODL/ML 6-38



VODL/ML 10-12

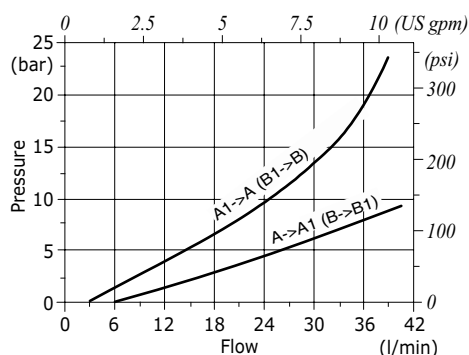


VODL/ML complete valves

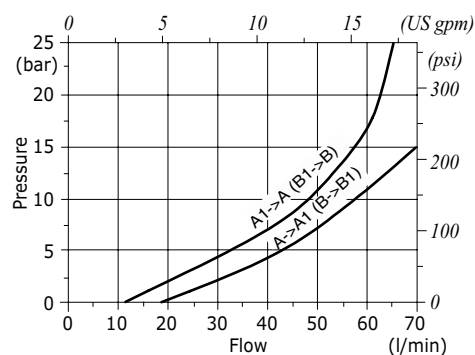
TYPE: **VODL/ML 6-38/TR.S.p4** CODE: 1558021802
DESCRIPTION: Aluminium body, CETOP 3 flange, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
TYPE: **VODL/ML 10-12/TR.S.p7** CODE: 1558031802
DESCRIPTION: Aluminium body, CETOP 5 flange, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

**VODL/ML 6-38 pressure drop vs. flow
from A->A1 (B->B1) and A1->A (B1->B)**



**VODL/ML 10-12 pressure drop vs. flow
from A->A1 (B->B1) and A1->A (B1->B)**





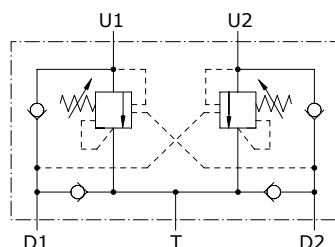
Type VABAL counterbalance valves

- Cross line, relief valve for motion control
- Load sensitive

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

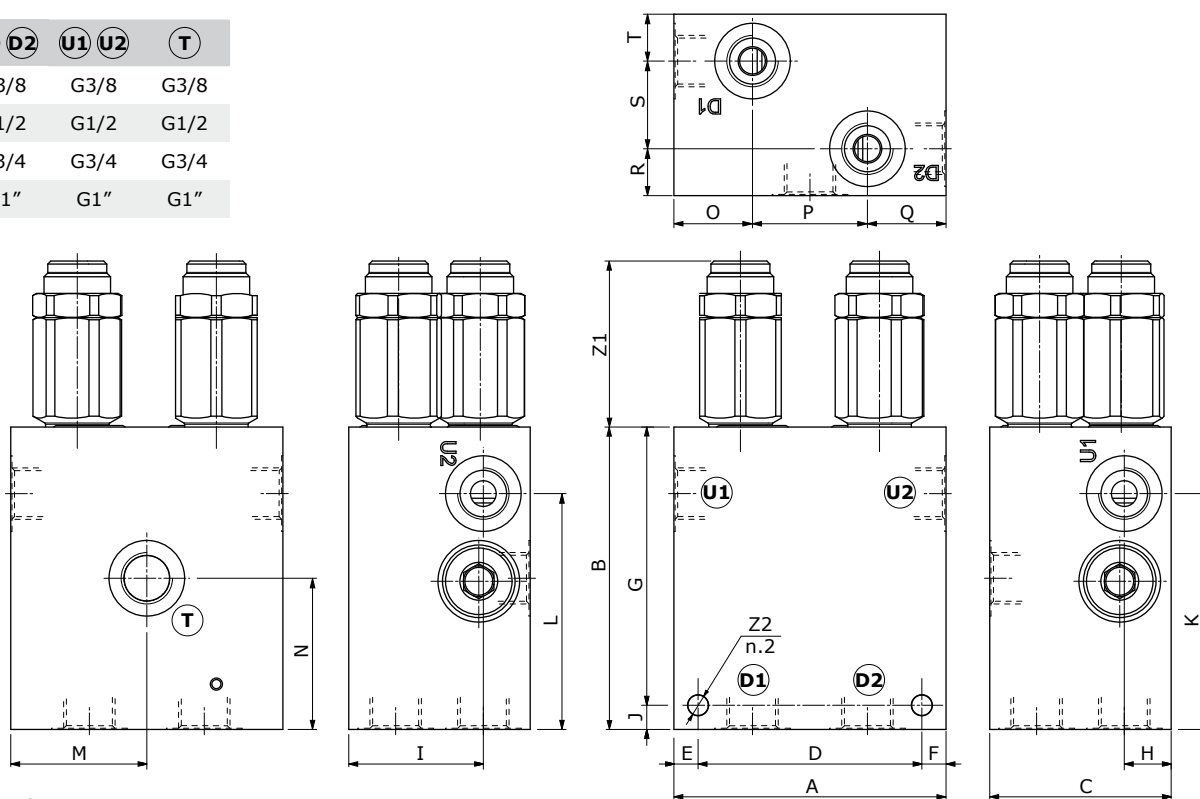
	VABAL 38	VABAL 12	VABAL 34	VABAL 100	
Nominal flow	35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.5 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)				
Oil leakage	0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting				
Fluid	mineral based oil				
Viscosity	from 10 to 200 cSt				
Max. level of contamination	18/16/13 ISO4406				
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)				
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)				
Weight	aluminium	2.16 kg (4.76 lb)	2.48 kg (5.47 lb)	4.47 kg (9.85 lb)	9.32 kg (20.55 lb)
	steel	4.33 kg (9.55 lb)	5.14 kg (11.33 lb)	9.05 kg (19.95 lb)	20.65 kg (45.53 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



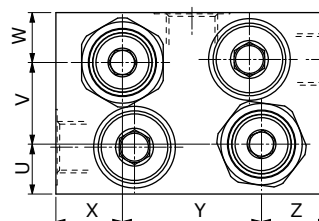
Dimensions

Valve type	D1 D2	U1 U2	T
VABAL 38	G3/8	G3/8	G3/8
VABAL 12	G1/2	G1/2	G1/2
VABAL 34	G3/4	G3/4	G3/4
VABAL 100	G1"	G1"	G1"



Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	J	K
VODL 38	90 3.54	100 3.94	60 2.36	74 2.91	8 0.315	8 0.315	92 3.62	8 0.315	78 3.07
VODL 12	100 3.94	100 3.94	70 2.76	84 3.31	8 0.315	8 0.315	92 3.62	8 0.315	78.5 3.09
VODL 34	120 4.72	120 4.72	85 3.35	100 3.94	10 0.394	10 0.394	110 4.33	10 0.394	90 3.54
VODL 100	160 6.30	160 6.30	110 4.33	136 5.35	12 0.472	12 0.472	148 5.83	12 0.472	130 5.12



Valve type	H	I	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Z1	Z2
VODL 38	15.5 0.61	44.5 1.75	78 3.07	45 1.77	50 1.97	26 1.02	38 1.50	26 1.02	15.5 0.61	29 1.14	15.5 0.61	16.5 0.65	27 1.06	16.5 0.65	22 0.87	46 1.81	22 0.87	54.8 2.16	M8
VODL 12	17.5 0.69	52.5 2.07	78.5 3.09	50 1.97	48 1.89	29 1.14	42 1.64	29 1.14	17.5 0.69	35 1.38	17.5 0.69	18.5 0.73	33 1.30	18.5 0.73	27 1.06	46 1.81	27 1.06	50.2 1.98	M8
VODL 34	21 0.83	64 2.52	90 3.54	60 2.36	55 2.17	33 1.30	54 2.13	33 1.30	21 0.83	43 1.70	21 0.83	24 0.94	37 1.46	24 0.94	28 1.10	64 2.52	28 1.10	60.8 2.39	M10
VODL 100	30 1.18	80 3.15	130 5.12	80 3.15	84 3.31	47 1.85	66 2.60	47 1.85	30 1.18	50 1.97	30 1.18	30 1.18	50 1.97	30 1.18	47 1.85	66 2.60	47 1.85	64.7 2.54	M12

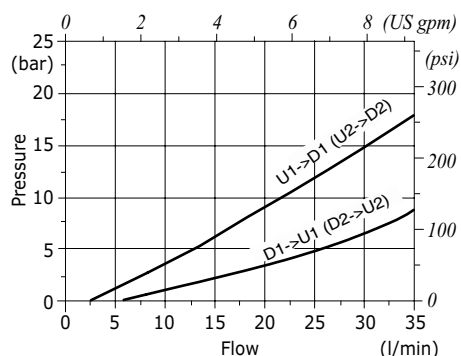
Ordering codes

VABAL complete valves

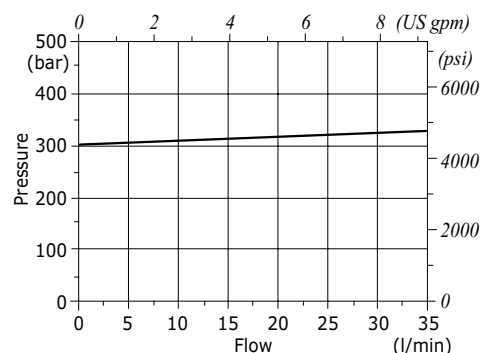
TYPE: **VABAL 38/TR.S.p4** CODE: 1570021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VABAL 12/TR.S.p7** CODE: 1570031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VABAL 34/TR.S.p7** CODE: 1570041102
 DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VABAL 100/TR.S.p7.PG** CODE: 1570051102
 DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

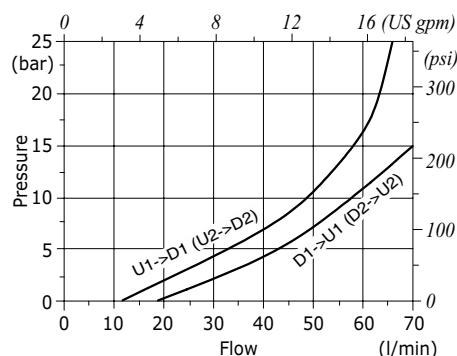
VABAL 38 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



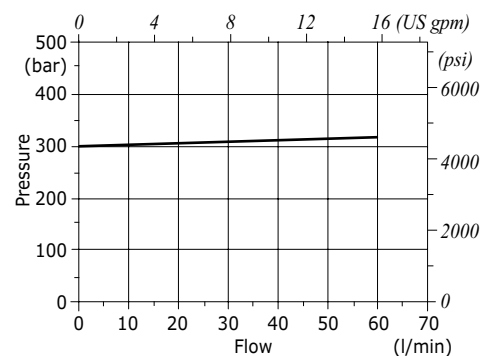
VABAL 38 pressure setting vs. flow
from U1 (U2)->T



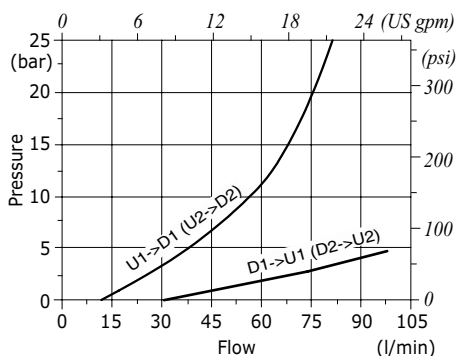
VABAL 12 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



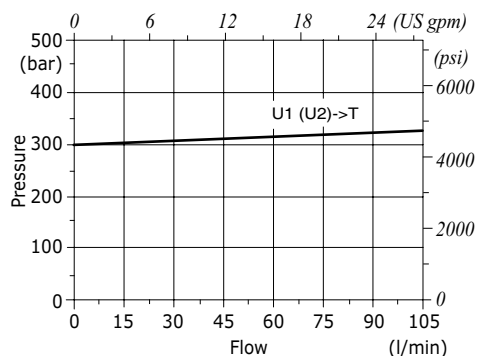
VABAL 12 pressure setting vs. flow
from U1 (U2)->T



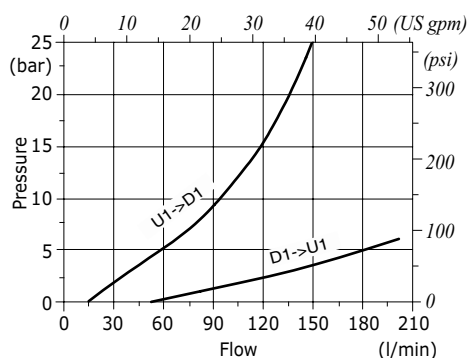
VABAL 34 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



VABAL 34 pressure setting vs. flow
from U1 (U2)->T



VABAL 100 pressure drop vs. flow
from U1->D1 and D1->U1





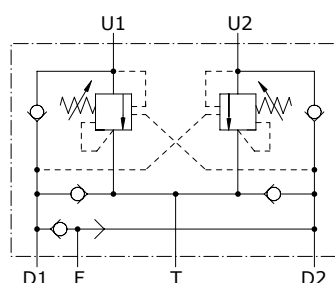
Type VABAL/SF counterbalance valves

- Cross line, relief valve for motion control
- Load sensitive

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

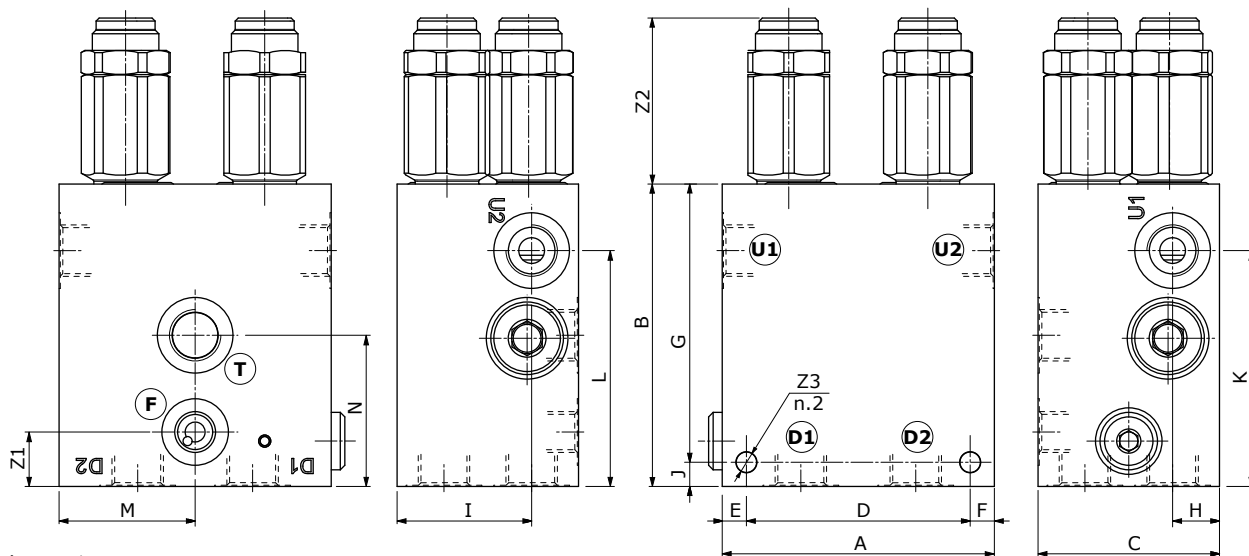
	VABAL/SF 38	VABAL/SF 12	VABAL/SF 34	VABAL/SF 100	
Nominal flow	35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)				
Oil leakage	0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 psi at 80% of pressure setting				
Fluid	mineral based oil				
Viscosity	from 10 to 200 cSt				
Max. level of contamination	18/16/13 ISO4406				
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)				
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)				
Weight	aluminium	2.73 kg (6.02 lb)	2.50 kg (5.51 lb)	4.52 kg (9.96 lb)	9.27 kg (20.44 lb)
	steel	4.31 kg (9.50 lb)	5.19 kg (11.44 lb)	9.03 kg (19.91 lb)	20.27 kg (44.69 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



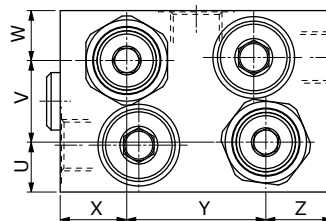
Dimensions

Valve type	D1	D2	U1	U2	T	F
VABAL 38	G3/8	G3/8	G3/8	G1/4		
VABAL 12	G1/2	G1/2	G1/2	G1/4		
VABAL 34	G3/4	G3/4	G3/4	G1/4		
VABAL 100	G1"	G1"	G1"	G1/4		



Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	J	K
VODL 38	90 3.54	100 3.94	60 2.36	74 2.91	8 0.315	8 0.315	92 3.62	8 0.315	78 3.07
VODL 12	100 3.94	100 3.94	70 2.76	84 3.31	8 0.315	8 0.315	92 3.62	8 0.315	78.5 3.09
VODL 34	120 4.72	120 4.72	85 3.35	100 3.94	10 0.394	10 0.394	110 4.33	10 0.394	90 3.54
VODL 100	160 6.30	160 6.30	110 4.33	136 5.35	12 0.472	12 0.472	148 5.83	12 0.472	130 5.12



Valve type	H	I	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Z1	Z2	Z3
VODL 38	15.5 0.61	44.5 1.75	78 3.07	45 1.77	50 1.97	26 1.02	38 1.50	26 1.02	15.5 0.61	29 1.14	15.5 0.61	16.5 0.65	27 1.06	16.5 0.65	22 0.87	46 1.81	22 0.87	18 0.71	54.8 2.16	M8
VODL 12	17.5 0.69	52.5 2.07	78.5 3.09	50 1.97	48 1.89	29 1.14	42 1.14	29 1.14	17.5 0.69	35 1.38	17.5 0.69	18.5 0.73	33 1.30	18.5 0.73	27 1.06	46 1.81	27 1.06	18 0.71	50.2 1.98	M8
VODL 34	21 0.83	64 2.52	90 3.54	60 2.36	55 2.17	33 1.30	54 2.13	33 1.30	21 0.83	43 1.70	21 0.83	24 0.94	37 1.46	24 0.94	28 1.10	64 2.52	28 1.10	20 0.79	60.8 2.39	M10
VODL 100	30 1.18	80 3.15	130 5.12	80 3.15	84 3.31	47 1.85	66 2.60	47 1.85	30 1.18	50 1.97	30 1.18	30 1.18	50 1.97	30 1.18	47 1.85	66 2.60	47 1.85	27 1.06	64.7 2.54	M12

Ordering codes

VABAL/SF complete valves

TYPE: **VABAL/SF 38/TR.S.p3** CODE: 1572021103

DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:3, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VABAL/SF 12/TR.S.p3** CODE: 1572031103

DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:3, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

TYPE: **VABAL/SF 34/TR.S.p3** CODE: 1572041103

DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:3, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

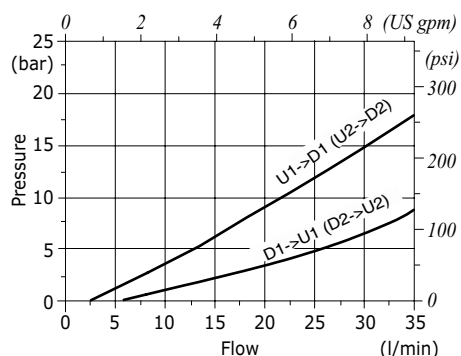
TYPE: **VABAL/SF 100/TR.S.p3.PG** CODE: 1572051103

DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:3, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)

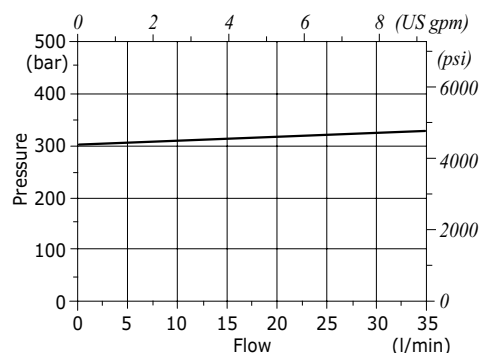
For other configurations and steel body please contact our Sales Dept.

Rating diagrams

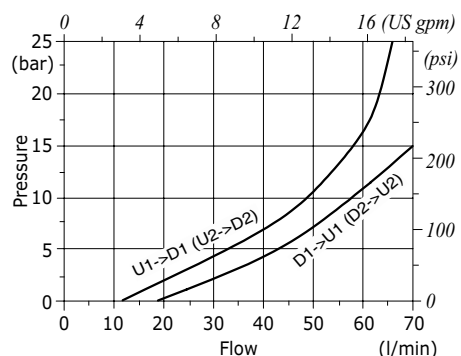
VABAL 38 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



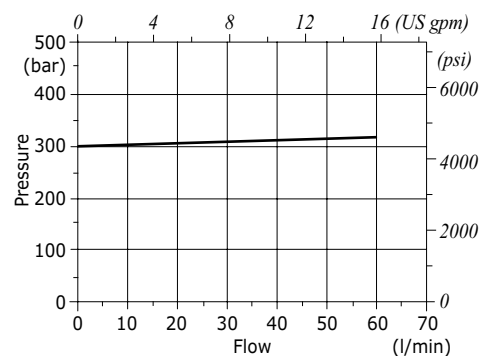
VABAL 38 pressure setting vs. flow
from U1 (U2)->T



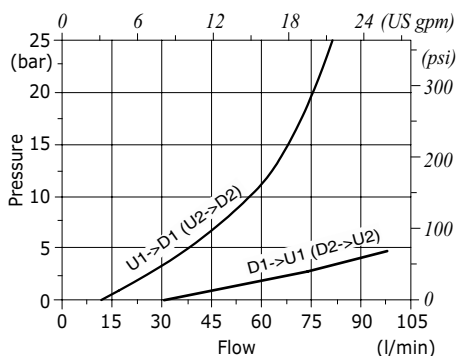
VABAL 12 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



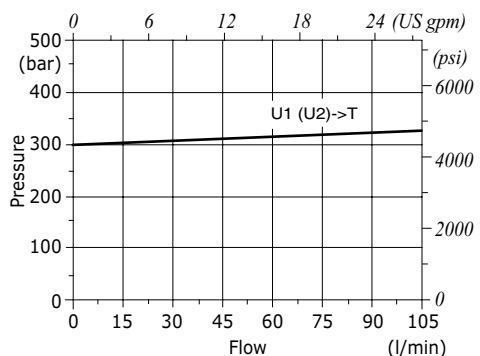
VABAL 12 pressure setting vs. flow
from U1 (U2)->T



VABAL 34 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



VABAL 34 pressure setting vs. flow
from U1 (U2)->T



VABAL 100 pressure drop vs. flow
from U1->D1 and D1->U1

