



## 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.

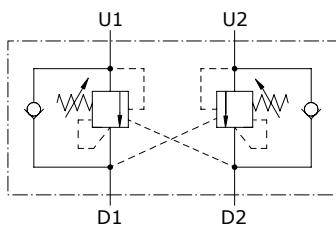
### VODL/N1116 (38-12) - VODL/R1116 (38-12)

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 <sup>3</sup> /min - 0.015 in <sup>3</sup> /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)

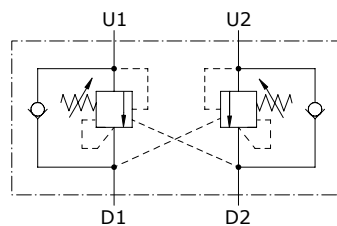
Weight	aluminium	<b>VODL/N1116/38:</b> 0.91 kg (2.01 lb) - <b>VODL/N1116/12:</b> 1.13 kg (2.49 lb)
	steel	<b>VODL/R1116/38:</b> 1.06 kg (2.34 lb) - <b>VODL/R1116/12:</b> 1.29 kg (2.84 lb)
		<b>VODL/N1116/38:</b> 1.91 kg (4.21 lb) - <b>VODL/N1116/12:</b> 2.55 kg (5.62 lb)
		<b>VODL/R1116/38PB:</b> - 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

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

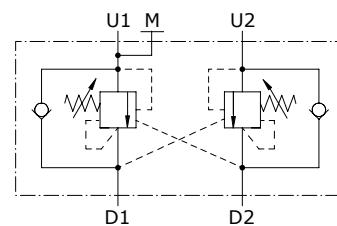
**VODL/N1116**  
**VODL/N1116/F2**



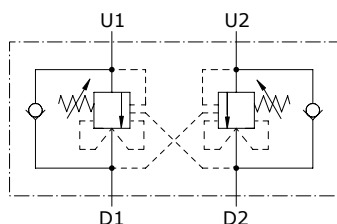
**VODL/N1116/PB**



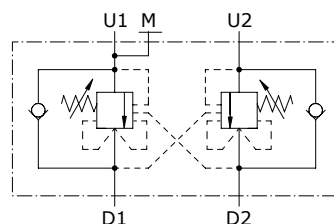
**VODL/N1116/F1**



**VODL/R1116**  
**VODL/R1116/F2**

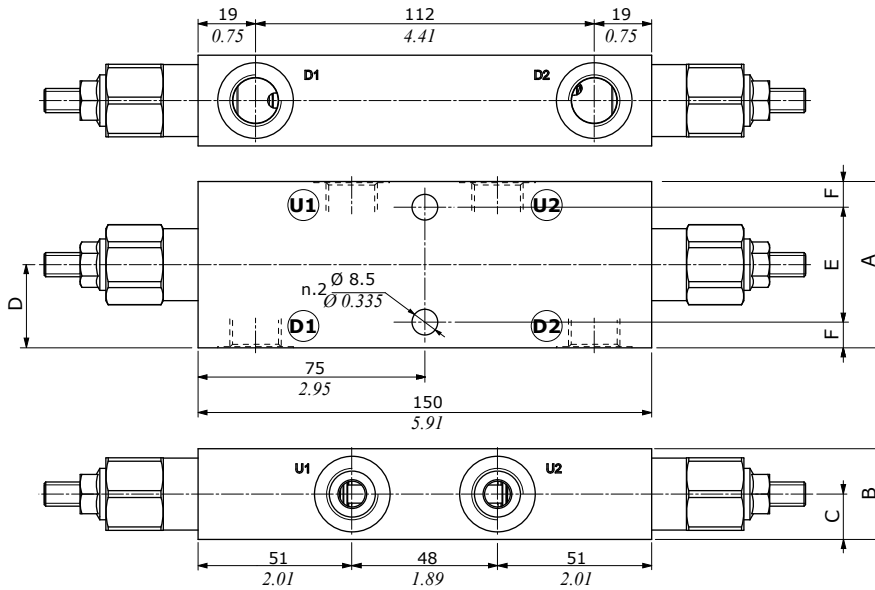


**VODL/R1116/F1**

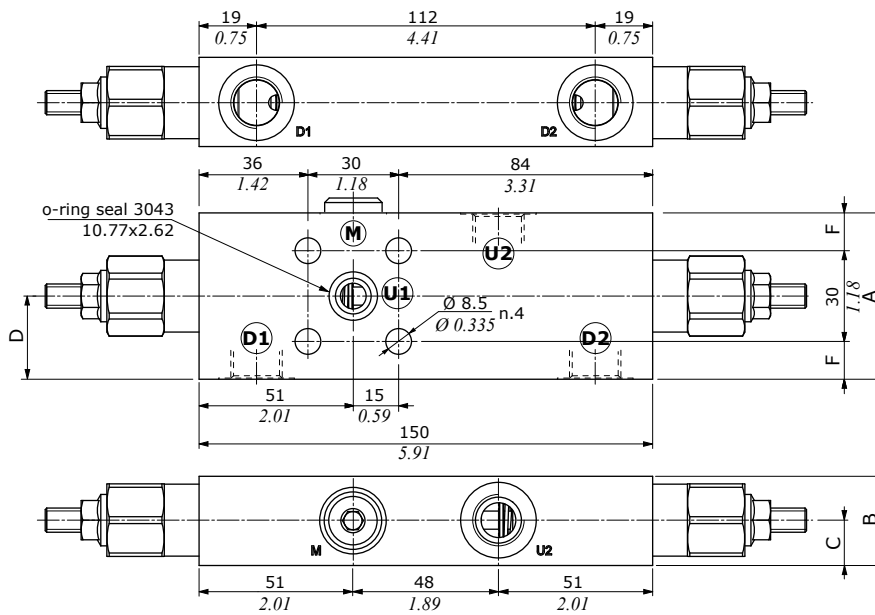


## Dimensions

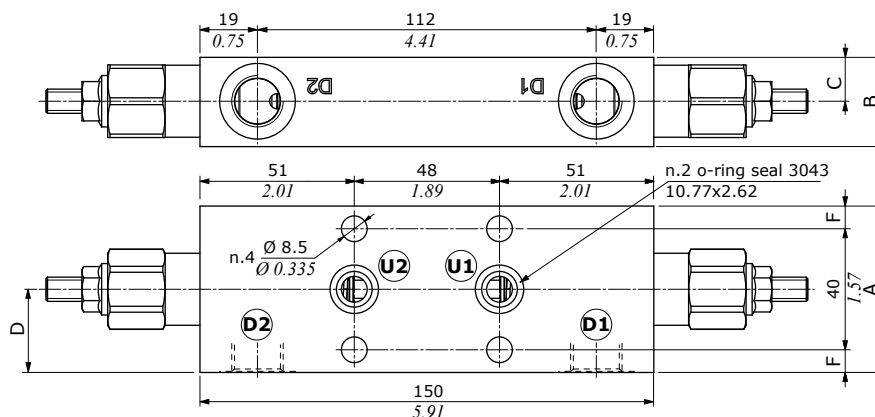
### VODL/...1116/38 - VODL/...1116/12

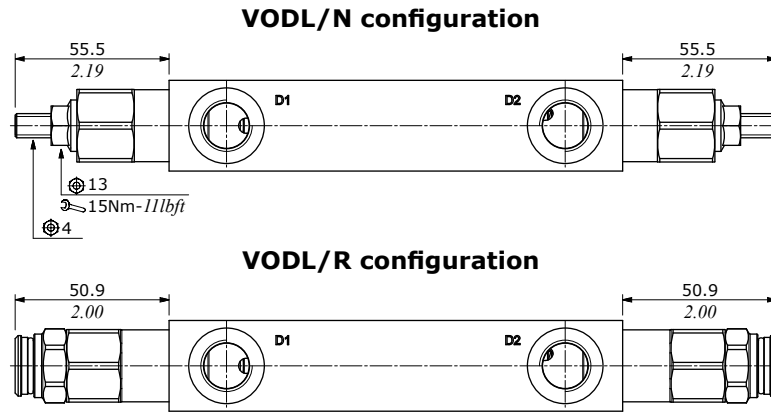


### VODL/...1116/38F1 - VODL/...1116/12F1



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





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	-

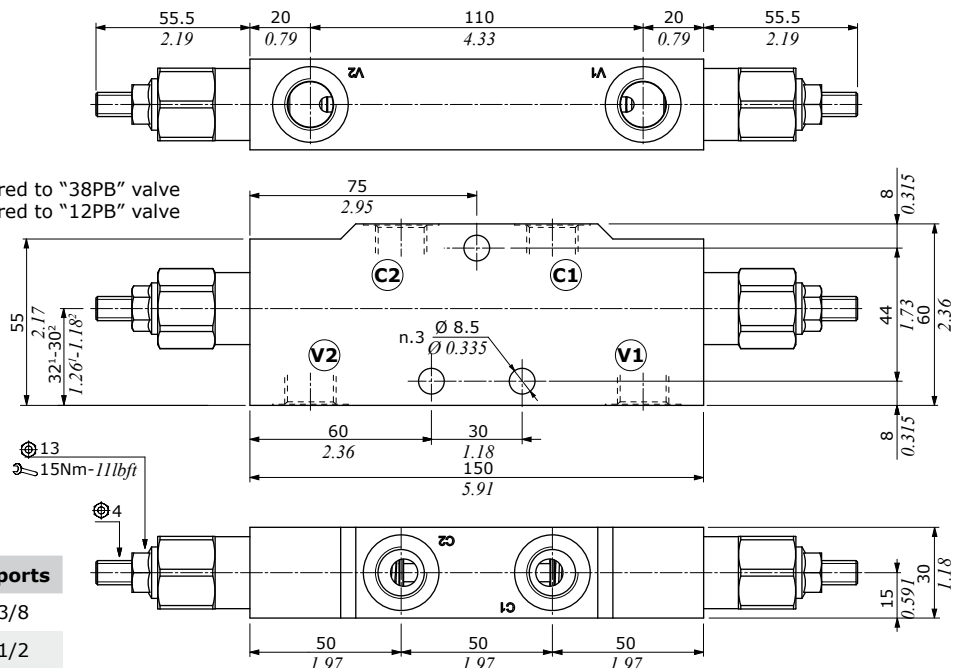
  

Valve type	D1	D2	U1	U2	M
VODL/...1116/S8	SAE8	SAE8	SAE8	SAE8	-
VODL/...1116/S10	SAE10	SAE10	SAE10	SAE10	-
VODL/...1116/S8F1	SAE8	SAE8	Ø8.5 - Ø0.335	SAE8	G1/4
VODL/...1116/S10F1	SAE10	SAE10	Ø8.5 - Ø0.335	SAE10	G1/4
VODL/...1116/S8F2	SAE8	SAE8	Ø8.5 - Ø0.335	Ø8.5 - Ø0.335	-
VODL/...1116/S10F2	SAE10	SAE10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

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

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

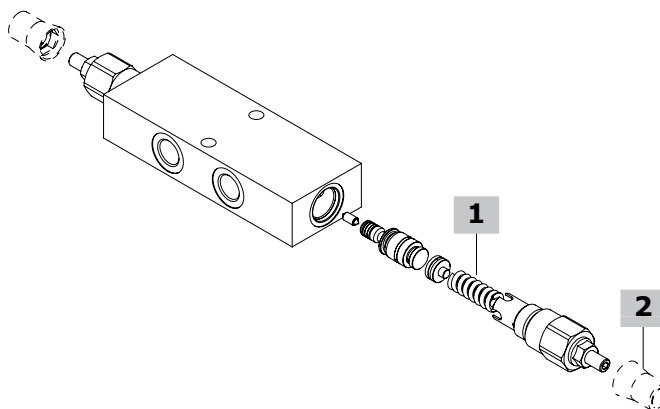
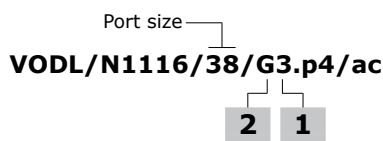


**NOTES**

- (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 180-350 bar (2610-5075 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.

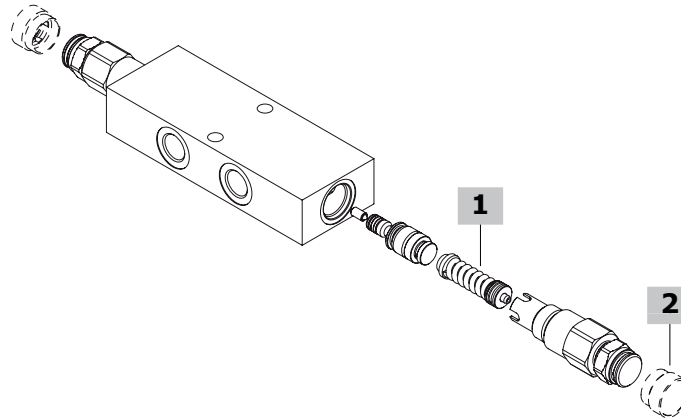
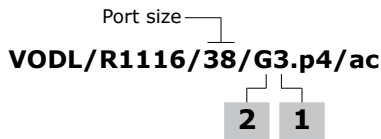
**1 Pressure setting spring**

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

**2 Setting type**

TYPE	CODE	DESCRIPTION
<b>G</b>	-	Screw setting
<b>Z</b>	4COP120420	Antitampering cap

## Ordering codes and description composition



### 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: 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/R1116/12F1/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: 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/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

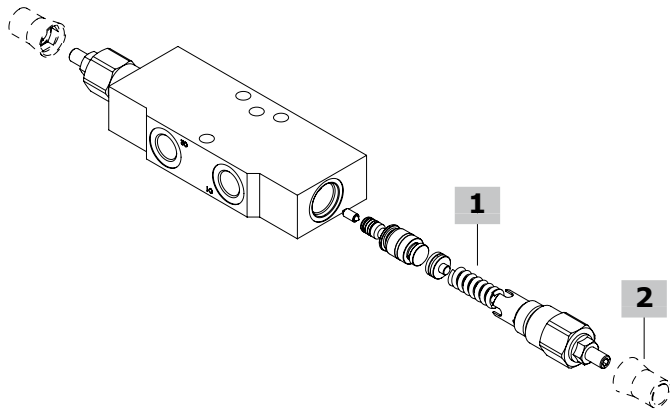
**G** - Screw setting

**Z** 4COP130200 Antitampering cap

## Rating diagrams

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

**2 1**



### 1 Pressure setting spring

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

### 2 Setting type

TYPE	CODE	DESCRIPTION
<b>G</b>	-	Screw setting
<b>Z</b>	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)**

