Type VODL/N1516/CS - VODL/V1516/CS counterbalance valves

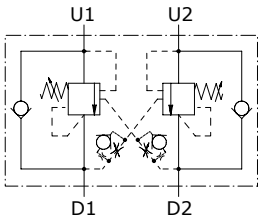
- Double acting
- Load Sensitive (type N)
- Vented (type V)

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

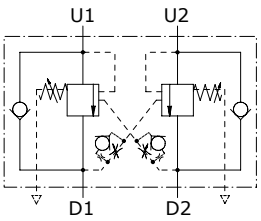
	VODL/N1516/CS (12-34) - VODL/V1516/CS (12-34)
Nominal flow	160 l/min *(42.3 US gpm)*
Max. pressure	350 bar(1) *(5100 psi)* - 400 bar(2) *(5800 psi)*
Oil leakage	0.5 cm^3/min *(0.030 in^3/min)* - 10 drops/min at 80% of pressure setting
Fluid	mineral based oil
Viscosity	from 10 to 200 cSt
Max. level of 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.

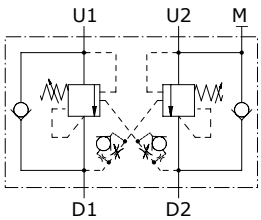
VODL/N1516/CS



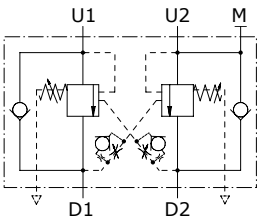
VODL/V1516/CS



VODL/N1516/CS/F2

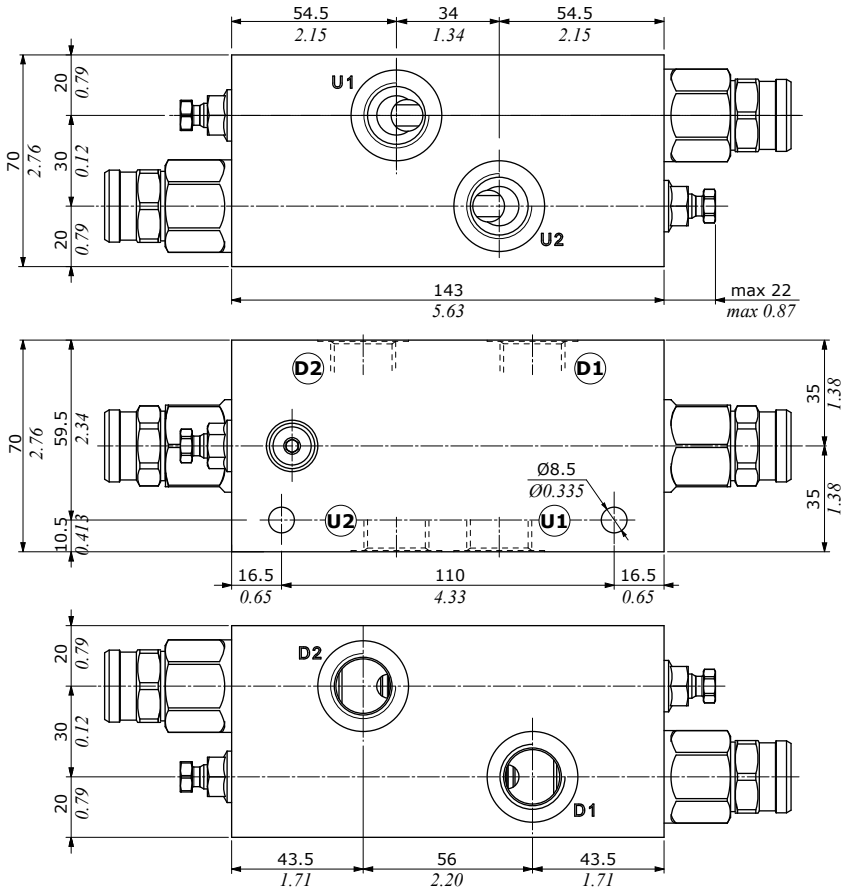


VODL/V1516/CS/F2



Dimensions

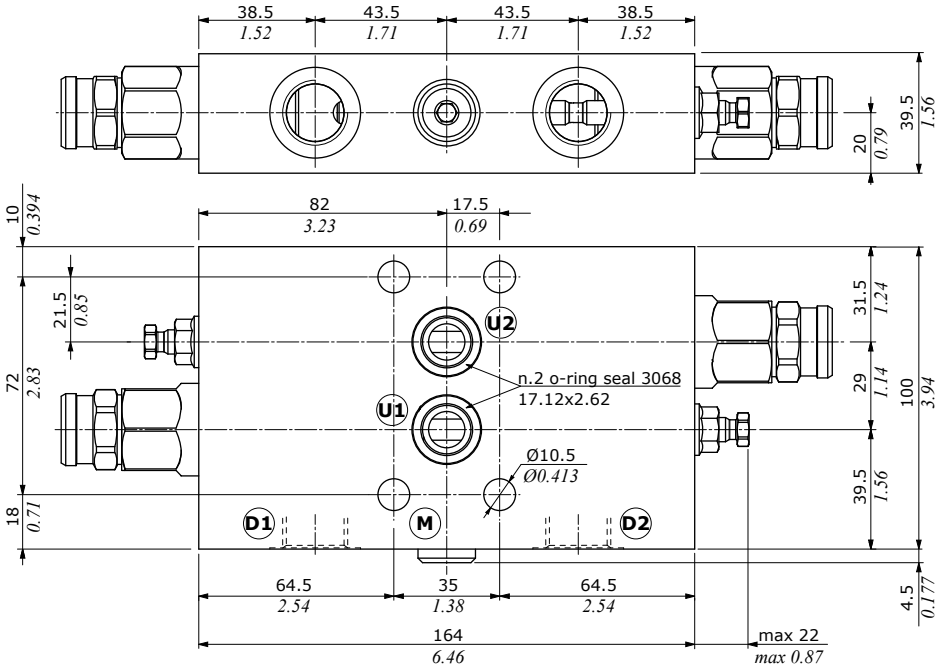
VODL/...1516/CS/12 - VODL/...1516/CS/34



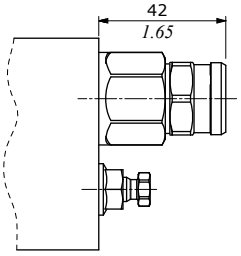
Valve type	D1	D2	U1	U2	M
VODL/...1516/CS/12	G1/2		G1/2		-
VODL/...1516/CS/34	G3/4		G3/4		-
VODL/...1516/CS/12F2	G1/2		Ø12 Ø0.472		G1/4
VODL/...1516/CS/34F2	G3/4		Ø12 Ø0.472		G1/4

Valve type	D1	D2	U1	U2	M
VODL/...1516/CS/S10	SAE10		SAE10		-
VODL/...1516/CS/S12	SAE12		SAE12		-
VODL/...1516/CS/S10F2	SAE10		Ø12 Ø0.472		G1/4
VODL/...1516/CS/S12F2	SAE12		Ø12 Ø0.472		G1/4

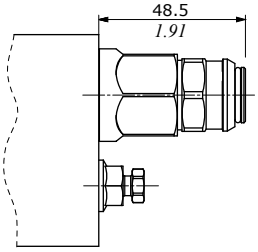
VODL/...1516/CS/12F2 - VODL/...1516/CS/34F2



VODL/N configuration

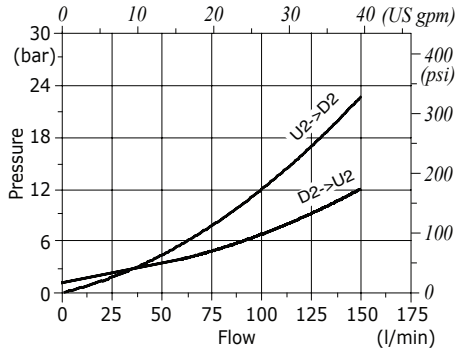


VODL/V configuration

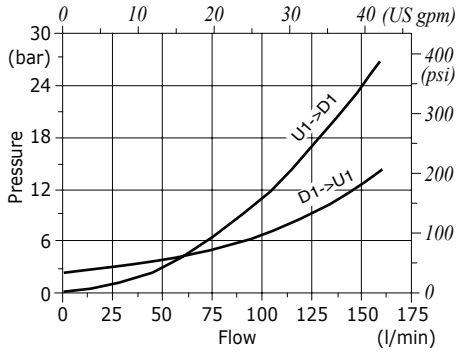


Rating diagrams

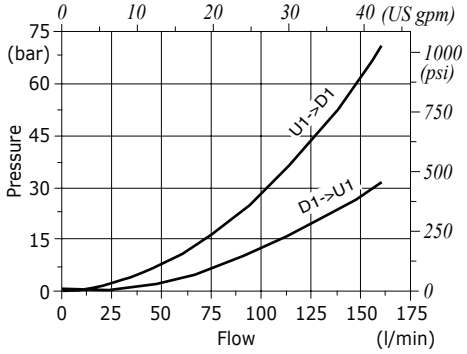
VODL/(N-V) 1516/CS (12-34) pressure drop vs. flow from D2->U2 and U2->D2



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