

## 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 <sup>(1)</sup> (5100 psi) - 400 bar <sup>(2)</sup> (5800 psi)                           |
| Oil leakage                                | 0.5 cm <sup>3</sup> /min (0.030 in <sup>3</sup> /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)   |

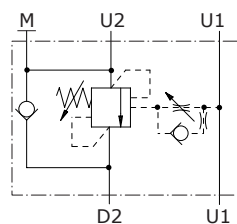
Weight

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

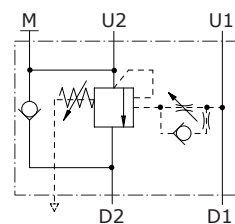
**VOSL/V1516/12:** 2.50 kg (5.51 lb) - **VOSL/V1516/34:** 3.30 kg (7.27 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - <sup>(1)</sup>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 - <sup>(2)</sup>Intermittent pressure at max. 100,000 cycles with specific internal testing.

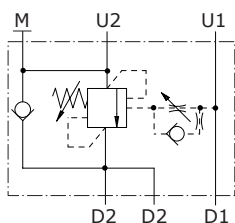
#### VOSL/N1516



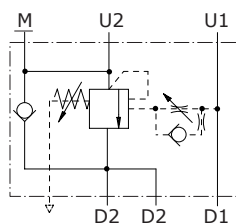
#### VOSL/V1516



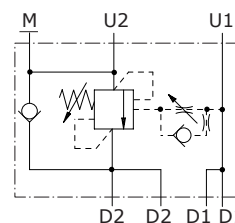
#### VOSL/N1516/F1



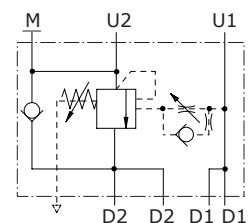
#### VOSL/V1516/F1



#### VOSL/N1516/F2

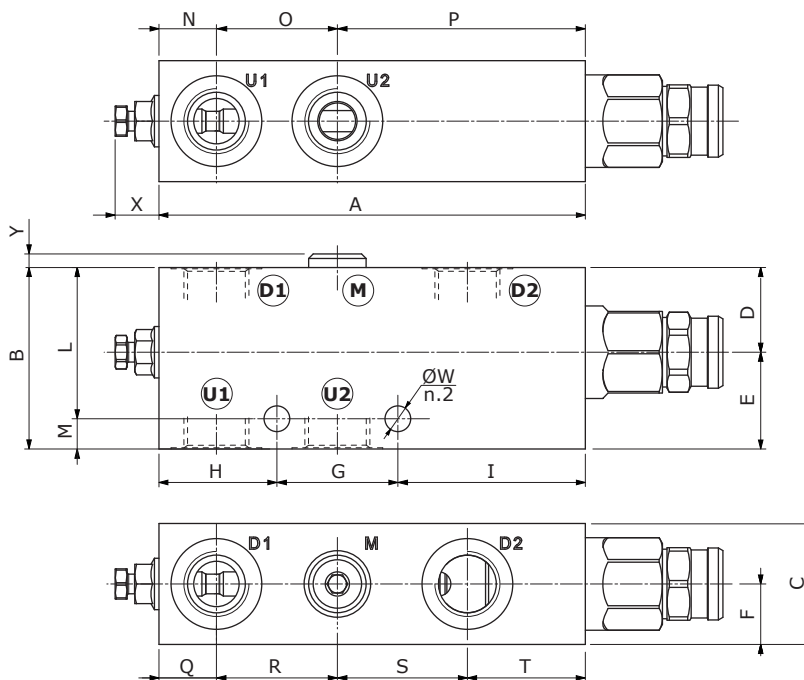


#### VOSL/V1516/F2

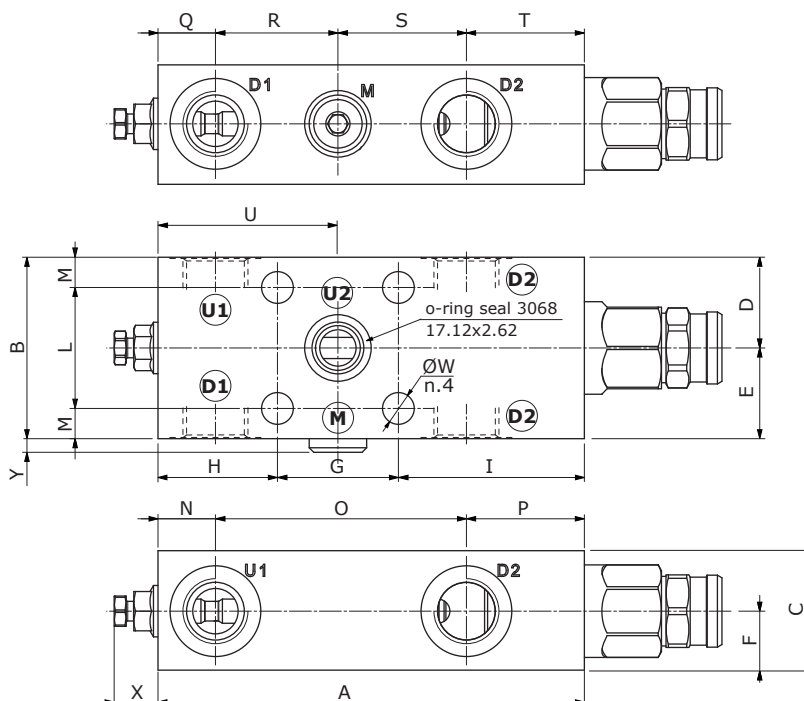


## Dimensions

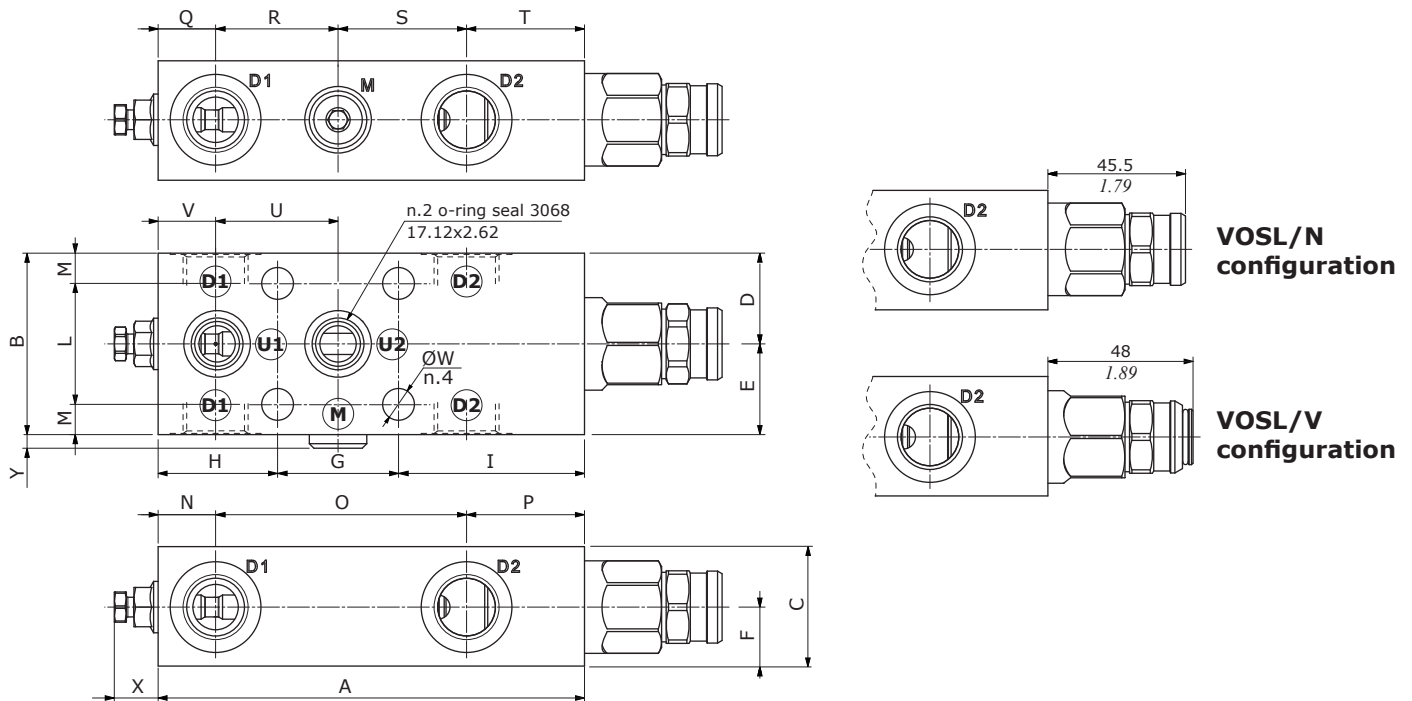
### VOSL/...1516/12 - VOSL/...1516/34



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



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



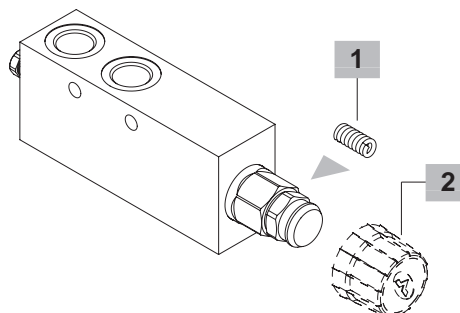
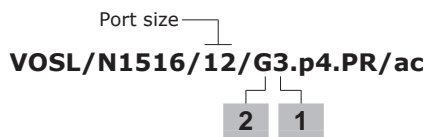
| Valve type        | ⊙1   | ⊙2   | ⊙U1        | ⊙U2        | ⊙M   | Valve type         | ⊙1    | ⊙2    | ⊙U1        | ⊙U2        | ⊙M   |
|-------------------|------|------|------------|------------|------|--------------------|-------|-------|------------|------------|------|
| VOSL/...1516/12   | G1/2 | 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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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 50-210 bar (725-3050 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 50-350 bar (725-5075 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 150-400 bar (2175-5800 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 50-350 bar (725-5075 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 150-400 bar (2175-5800 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-210 bar (725-3050 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 50-350 bar (725-5075 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 150-400 bar (2175-5800 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 50-350 bar (725-5075 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 150-400 bar (2175-5800 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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.

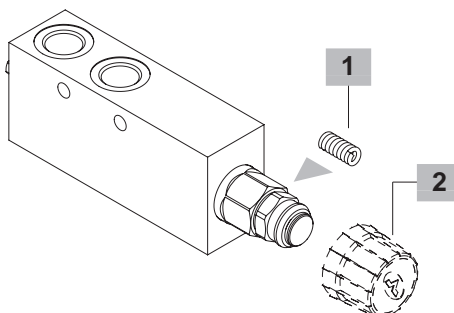
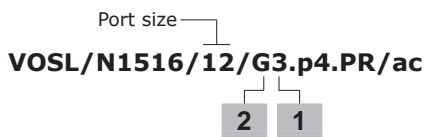
**1 Pressure setting spring**

| TYPE   | CODE       | DESCRIPTION                           |
|--|------------|---------------------------------------|
| <b>For 1:4 and zero differential pilot ratio</b> |            |                                       |
| <b>3</b>   | 3MOL316450 | For range 50-210 bar (725-3050 psi)   |
| <b>5</b>   | 3MOL316430 | For range 50-350 bar (725-5075 psi)   |
| <b>7</b>   | 3MOL316411 | For range 150-400 bar (2175-5800 psi) |
| <b>For 1:8 pilot ratio</b>                       |            |                                       |
| <b>5</b>   | 3MOL316450 | For range 50-350 bar (725-5075 psi)   |
| <b>7</b>   | 3MOL316430 | For range 150-400 bar (2175-5800 psi) |

**2 Antitampering cap**

| TYPE     | CODE       | DESCRIPTION       |
|----------|------------|-------------------|
| <b>G</b> | -          | Screw setting     |
| <b>Z</b> | 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 50-210 bar (72.5-3050 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 50-350 bar (72.5-5075 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 150-400 bar (2175-5800 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 50-350 bar (72.5-5075 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 150-400 bar (2175-5800 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 (72.5-3050 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 (72.5-5075 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 50-350 bar (72.5-5075 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 50-350 bar (72.5-5075 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 (72.5-5075 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 50-350 bar (72.5-5075 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 50-350 bar (72.5-5075 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 (72.5-5075 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 50-210 bar (72.5-3050 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 50-350 bar (72.5-5075 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 150-400 bar (2175-5800 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 50-350 bar (72.5-5075 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 150-400 bar (2175-5800 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 (72.5-3050 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 (72.5-5075 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 50-350 bar (72.5-5075 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 50-350 bar (72.5-5075 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 (72.5-5075 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 50-350 bar (72.5-5075 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 50-350 bar (72.5-5075 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 (72.5-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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 50-350 bar (725-5075 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**

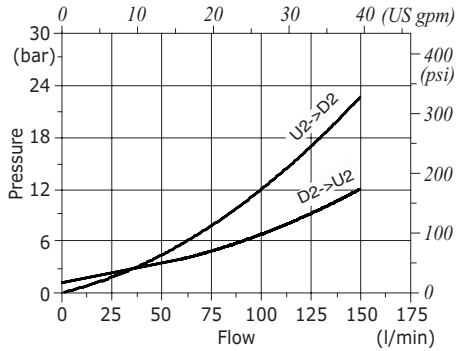
| TYPE   | CODE       | DESCRIPTION                           |
|--|------------|---------------------------------------|
| <b>For 1:4 and zero differential pilot ratio</b> |            |                                       |
| <b>3</b>   | 3MOL316450 | For range 50-210 bar (725-3050 psi)   |
| <b>5</b>   | 3MOL316430 | For range 50-350 bar (725-5075 psi)   |
| <b>7</b>   | 3MOL316411 | For range 150-400 bar (2175-5800 psi) |
| <b>For 1:8 pilot ratio</b>                       |            |                                       |
| <b>5</b>   | 3MOL316450 | For range 50-350 bar (725-5075 psi)   |
| <b>7</b>   | 3MOL316430 | For range 150-400 bar (2175-5800 psi) |

**2 Antitampering cap**

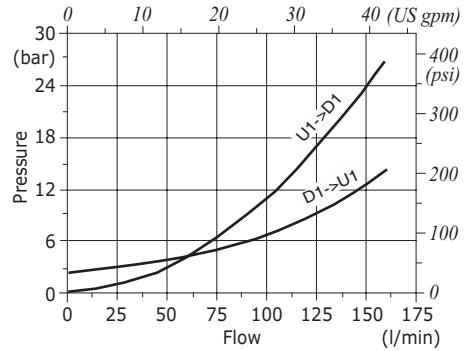
| TYPE     | CODE       | DESCRIPTION       |
|----------|------------|-------------------|
| <b>G</b> | -          | Screw setting     |
| <b>Z</b> | 4COP140311 | Antitampering cap |

## Rating diagrams

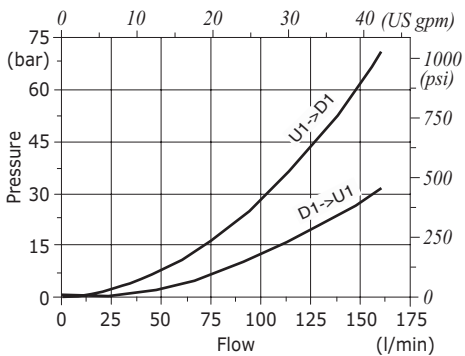
**VOSL/(N-V) 1516 (12-34) pressure drop vs. flow from D2->U2 and U2->D2**



**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**

