

## Type VPF/3/EP+VMP

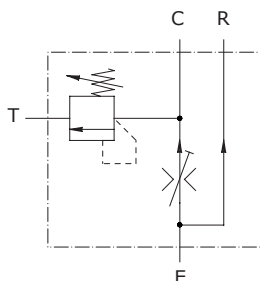
### flow control pressure compensated valves

- 3 ways
- Exceeding flow to pressure
- Whit costant flow in "C"
- With pressure relief valve

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

| VPF/3/EP 38+VMP                                     |                                                                        | VPF/3/EP 12+VMP         | VPF/3/EP 34+VMP         |                    |
|-----------------------------------------------------|------------------------------------------------------------------------|-------------------------|-------------------------|--------------------|
| Nominal flow                                        | 60 l/min (15.8 US gpm)                                                 | 100 l/min (26.4 US gpm) | 150 l/min (39.6 US gpm) |                    |
| Max. pressure                                       | Aluminium body = 210 bar (3050 psi)<br>Steel body = 350 bar (5100 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 temperature<br>for working conditions | from -40°C (-40°F) to 100°C (212°F)                                    |                         |                         |                    |
| Weight                                              | aluminium                                                              | 1.30 kg (2.87 lb)       | 1.90 kg (4.19 lb)       | 3.15 kg (6.94 lb)  |
|                                                     | steel                                                                  | 2.94 kg (6.48 lb)       | 4.38 kg (9.66 lb)       | 6.92 kg (15.26 lb) |

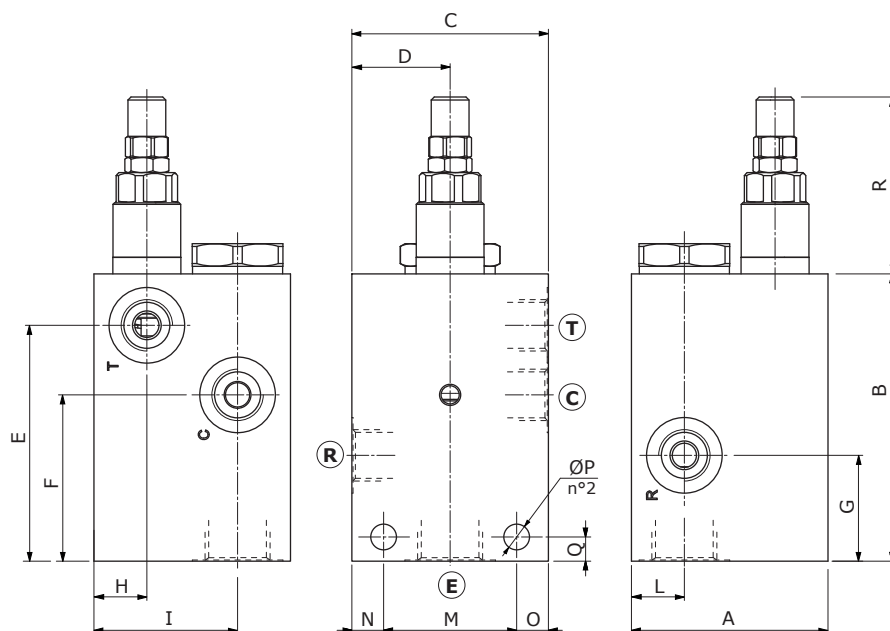
NOTE - For different conditions, please contact Walvoil Sales Dpt.



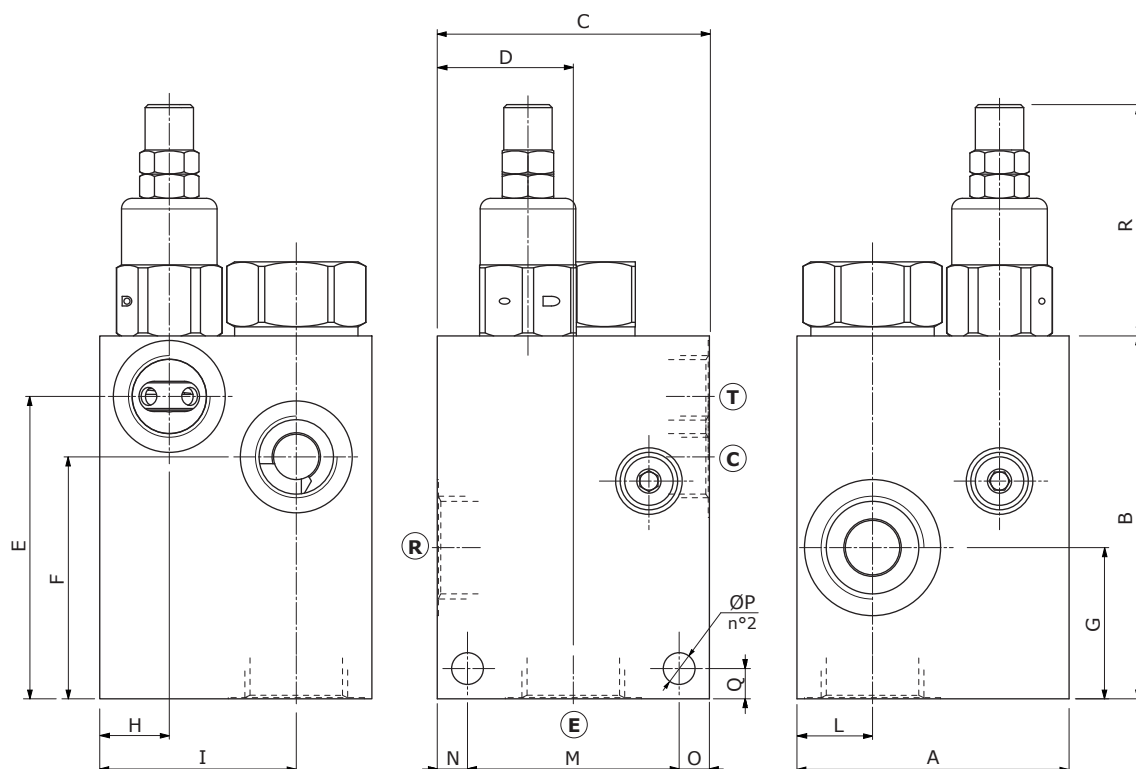
## Dimensions

### VPF/3/EP 38+VMP - VPF/3/EP 12+VMP

| Valve type      | (E)  | (R)  | (C)  | (T)  |
|-----------------|------|------|------|------|
| VPF/3/EP 35+VMP | G1/2 | G3/8 | G3/8 | G3/8 |
| VPF/3/EP 12+VMP | G3/4 | G3/4 | G1/2 | G1/2 |
| VPF/3/EP 34+VMP | G1"  | G1"  | G3/4 | G3/4 |



### VPF/3/EP 34+VMP



Dimensions are in mm-in

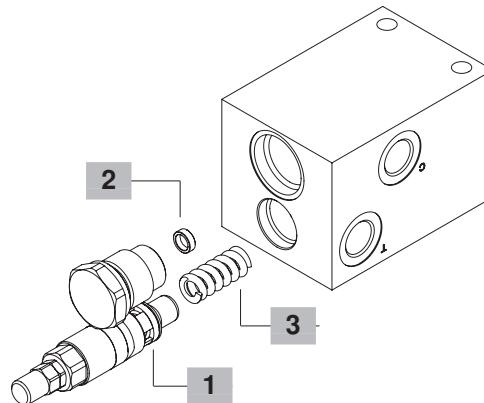
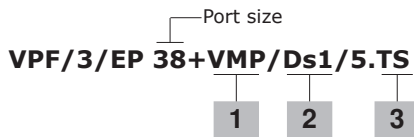
| Valve type      | A          | B           | C          | D            | E            | F          | G          | H            | I            | L            | M          | N             | O             | ØP            | Q           | R            |
|-----------------|------------|-------------|------------|--------------|--------------|------------|------------|--------------|--------------|--------------|------------|---------------|---------------|---------------|-------------|--------------|
| VPF/3/EP 38+VMP | 65<br>2.56 | 95<br>3.74  | 65<br>2.56 | 32.5<br>1.28 | 78<br>3.07   | 55<br>2.17 | 35<br>1.38 | 17.5<br>0.69 | 47.5<br>1.87 | 17.5<br>0.69 | 44<br>1.73 | 10.5<br>0.413 | 10.5<br>0.413 | 8.5<br>0.335  | 8<br>0.315  | 58.5<br>2.30 |
| VPF/3/EP 12+VMP | 75<br>2.95 | 110<br>4.33 | 75<br>2.95 | 37.5<br>1.48 | 92.5<br>3.64 | 72<br>2.83 | 45<br>1.77 | 17.5<br>0.69 | 55<br>2.17   | 20<br>0.79   | 54<br>2.13 | 10.5<br>0.413 | 10.5<br>0.413 | 8.5<br>0.335  | 8<br>0.315  | 67<br>2.64   |
| VPF/3/EP 34+VMP | 90<br>3.54 | 120<br>4.72 | 90<br>3.54 | 45<br>1.77   | 100<br>3.94  | 80<br>3.15 | 50<br>1.97 | 23<br>0.91   | 65<br>2.56   | 25<br>0.98   | 70<br>2.76 | 10<br>0.394   | 10<br>0.394   | 10.5<br>0.413 | 10<br>0.394 | 76.5<br>3.01 |

## Flow control valves

Flow control pressure compensated valves

# VPF/3/EP+VMP

## Ordering codes and description composition



### VPF/3/EP complete valves

TYPE: **VPF/3/EP 38+VMP/Ds1/5.TS** CODE: 1642021100  
DESCRIPTION: Aluminium body, G3/8 ports, fixed orifice Ø1 mm-0.039 in (Qc 1.2 l/min-0.31 US gpm), range 50-220 bar (725-3200 psi)

TYPE: **VPF/3/EP 12+VMP/Ds2/10.TS** CODE: 1642031102  
DESCRIPTION: Aluminium body, G1/2 ports, fixed orifice Ø2 mm-0.078 in (Qc 4 l/min-1.05 US gpm), range 50-220 bar (725-3200 psi)

TYPE: **VPF/3/EP 34+VMP/Ds3/20.TS** CODE: 1642041105  
DESCRIPTION: Aluminium body, G3/4 ports, fixed orifice Ø3 mm-0.12 in (Qc 11 l/min-2.9 US gpm), range 50-220 bar (725-3200 psi)

TYPE: **VPF/3/EP 38+VMP/Ds1/5.TS/ac** CODE: 1642022101  
DESCRIPTION: Steel body, 3/8 ports, fixed orifice Ø1 mm-0.039 in (Qc 1.2 l/min-0.31 US gpm), range 50-220 bar (725-3200 psi)

TYPE: **VPF/3/EP 12+VMP/Ds2/10.TS/ac** CODE: 1642032100  
DESCRIPTION: Steel body, 1/2 ports, fixed orifice Ø2 mm-0.078 in (Qc 4 l/min-1.05 US gpm), range 50-220 bar (725-3200 psi)

TYPE: **VPF/3/EP 34+VMP/Ds3/20.TS/ac** CODE: 1642042103  
DESCRIPTION: Steel body, 3/4 ports, fixed orifice Ø3 mm-0.12 in (Qc 11 l/min-2.9 US gpm) range 50-220 bar (725-3200 psi)

For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

### 3 Pressure setting springs

| TYPE                             | CODE       | DESCRIPTION                               |
|----------------------------------|------------|-------------------------------------------|
| <b>For VPF/3/EP 38+VMP valve</b> |            |                                           |
| <b>TB</b>                        | 3MOL314311 | Setting range 5-40 bar (72.5-580 psi)     |
| <b>TV</b>                        | 3MOL314330 | Setting range 20-80 bar (290-1150 psi)    |
| <b>TS</b>                        | 3MOL315330 | Setting range 50-220 bar (725-3200 psi)   |
| <b>TR</b>                        | 3ML1143600 | Setting range 180-350 bar (2600-5075 psi) |
| <b>For VPF/3/EP 12+VMP valve</b> |            |                                           |
| <b>TB</b>                        | 3MOL316410 | Setting range 5-40 bar (72.5-580 psi)     |
| <b>TV</b>                        | 3ML1154300 | Setting range 20-80 bar (290-1150 psi)    |
| <b>TS</b>                        | 3MOL317420 | Setting range 50-220 bar (725-3200 psi)   |
| <b>TR</b>                        | 3MOL317440 | Setting range 180-350 bar (2600-5075 psi) |
| <b>For VPF/3/EP 34+VMP valve</b> |            |                                           |
| <b>TB</b>                        | 3ML1184300 | Setting range 5-40 bar (72.5-580 psi)     |
| <b>TV</b>                        | 3ML1174500 | Setting range 20-80 bar (290-1150 psi)    |
| <b>TS</b>                        | 3ML1204200 | Setting range 50-220 bar (725-3200 psi)   |
| <b>TR</b>                        | 3ML1214500 | Setting range 180-350 bar (2600-5075 psi) |

### 1 Direct acting pressure relief valves

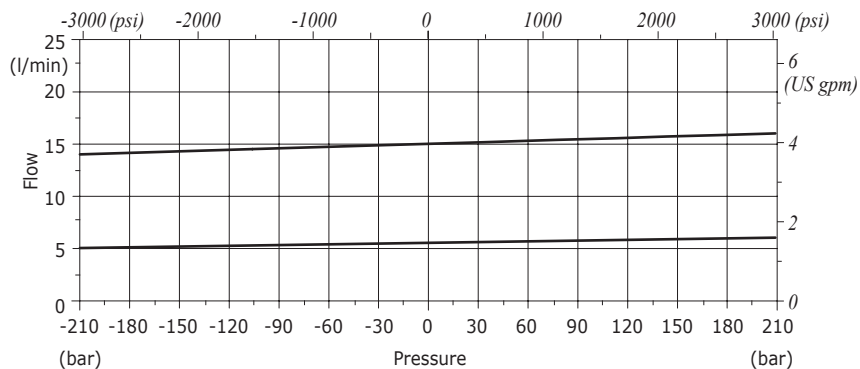
| TYPE               | CODE       | DESCRIPTION                                                          |
|--------------------|------------|----------------------------------------------------------------------|
| <b>VMP 5/TS.S</b>  | 1100520400 | For VPF/3/EP 38+VMP valve<br>Setting range 50-220 bar (725-3200 psi) |
| <b>VMP 10/TS.S</b> | 1100530400 | For VPF/3/EP 12+VMP valve<br>Setting range 50-220 bar (725-3200 psi) |
| <b>VMP 20/TS.S</b> | 1100540400 | For VPF/3/EP 34+VMP valve<br>Setting range 50-220 bar (725-3200 psi) |

### 2 Fixed orifice

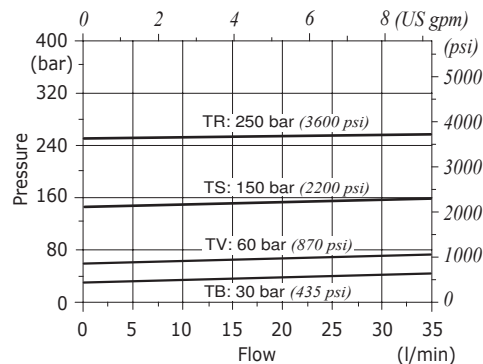
| TYPE                             | CODE       | DESCRIPTION                                |
|----------------------------------|------------|--------------------------------------------|
| <b>For VPF/3/EP 38+VMP valve</b> |            |                                            |
| <b>Ds1</b>                       | 3DF1091000 | Ø1 mm-0.039 in (Qc 1.2 l/1'-0.31 US gpm)   |
| <b>Ds1,5</b>                     | 3DF1091500 | Ø1.5 mm-0.059 in (Qc 2.8 l/1'-0.73 US gpm) |
| <b>Ds2</b>                       | 3DF1092000 | Ø2 mm-0.079 in (Qc 5 l/1'-1.32 US gpm)     |
| <b>Ds2,5</b>                     | 3DF1092500 | Ø2.5 mm-0.098 in (Qc 7.5 l/1'-1.98 US gpm) |
| <b>Ds2,8</b>                     | 3DF1092800 | Ø2.8 mm-0.11 in (Qc 9.5 l/1'-2.5 US gpm)   |
| <b>Ds3</b>                       | 3DF1093000 | Ø3 mm-0.12 in (Qc 11 l/1'-2.9 US gpm)      |
| <b>Ds3,5</b>                     | 3DF1093500 | Ø3.5 mm-0.14 in (Qc 16 l/1'-4.2 US gpm)    |
| <b>Ds3,8</b>                     | 3DF1093800 | Ø3.8 mm-0.15 in (Qc 20 l/1'-5.9 US gpm)    |
| <b>Ds4</b>                       | 3DF1094000 | Ø4 mm-0.16 in (Qc 23 l/1'-6 US gpm)        |
| <b>For VPF/3/EP 12+VMP valve</b> |            |                                            |
| <b>Ds1</b>                       | 3DF1111000 | Ø1 mm-0.039 in (Qc 1.1 l/1'-0.29 US gpm)   |
| <b>Ds1,5</b>                     | 3DF1111500 | Ø1.5 mm-0.059 in (Qc 2.5 l/1'-0.66 US gpm) |
| <b>Ds2</b>                       | 3DF1112000 | Ø2 mm-0.079 in (Qc 4 l/1'-1.05 US gpm)     |
| <b>Ds2,5</b>                     | 3DF1112500 | Ø2.5 mm-0.098 in (Qc 6.5 l/1'-1.72 US gpm) |
| <b>Ds2,8</b>                     | 3DF1112800 | Ø2.8 mm-0.11 in (Qc 8 l/1'-2.1 US gpm)     |
| <b>Ds3</b>                       | 3DF1113000 | Ø3 mm-0.12 in (Qc 9.5 l/1'-2.5 US gpm)     |
| <b>Ds3,5</b>                     | 3DF1113500 | Ø3.5 mm-0.14 in (Qc 13 l/1'-3.43 US gpm)   |
| <b>Ds3,8</b>                     | 3DF1113800 | Ø3.8 mm-0.15 in (Qc 16 l/1'-4.22 US gpm)   |
| <b>Ds4</b>                       | 3DF1114000 | Ø4 mm-0.16 in (Qc 18 l/1'-4.75 US gpm)     |
| <b>Ds4,5</b>                     | 3DF1114500 | Ø4.5 mm-0.18 in (Qc 25 l/1'-6.6 US gpm)    |
| <b>Ds5</b>                       | 3DF1115000 | Ø5 mm-0.2 in (Qc 32 l/1'-8.45 US gpm)      |
| <b>Ds5,5</b>                     | 3DF1115000 | Ø5.5 mm-1.2 in (Qc 41 l/1'-10.83 US gpm)   |
| <b>For VPF/3/EP 34+VMP valve</b> |            |                                            |
| <b>Ds1</b>                       | 3DF1151000 | Ø1 mm-0.039 in (Qc 1.3 l/1'-0.34 US gpm)   |
| <b>Ds1,5</b>                     | 3DF1151500 | Ø1.5 mm-0.059 in (Qc 3 l/1'-0.4 US gpm)    |
| <b>Ds2</b>                       | 3DF1152000 | Ø2 mm-0.079 in (Qc 5 l/1'-1.32 US gpm)     |
| <b>Ds2,5</b>                     | 3DF1152500 | Ø2,5 mm-0.14 in (Qc 7.5 l/1'-1.98 US gpm)  |
| <b>Ds3</b>                       | 3DF1153000 | Ø3 mm-0.15 in (Qc 11 l/1'-2.9 US gpm)      |
| <b>Ds3,5</b>                     | 3DF1153500 | Ø3,5 mm-0.15 in (Qc 15 l/1'-3.96 US gpm)   |
| <b>Ds4</b>                       | 3DF1154000 | Ø4 mm-0.16 in (Qc 20.5 l/1'-5.41 US gpm)   |
| <b>Ds4,5</b>                     | 3DF1154500 | Ø4.5 mm-0.18 in (Qc 26.5 l/1'-7 US gpm)    |
| <b>Ds5</b>                       | 3DF1155000 | Ø5 mm-0.2 in (Qc 33 l/1'-8.72 US gpm)      |
| <b>Ds5,5</b>                     | 3DF1155500 | Ø5.5 mm-1.2 in (Qc 42 l/1'-11.09 US gpm)   |
| <b>Ds6</b>                       | 3DF1156000 | Ø6 mm-0.18 in (Qc 52 l/1'-13.74 US gpm)    |
| <b>Ds6,5</b>                     | 3DF1156500 | Ø6.5 mm-0.2 in (Qc 63 l/1'-16.64 US gpm)   |
| <b>Ds7</b>                       | 3DF1157000 | Ø7 mm-1.2 in (Qc 77 l/1'-20.34 US gpm)     |

### Rating diagrams

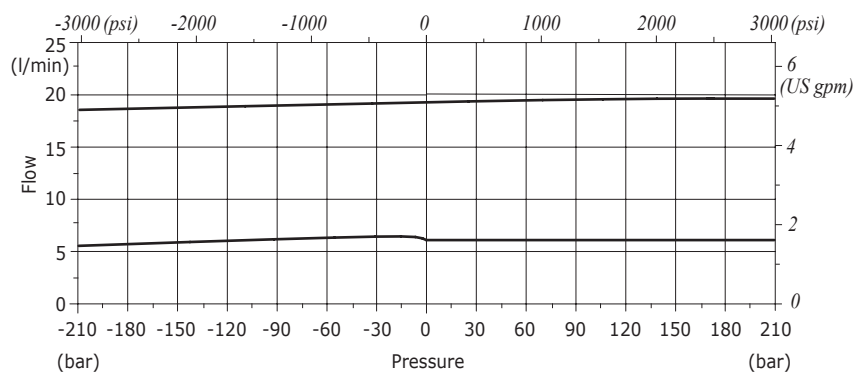
**VPF/3/EP 38+VMP compensation diagram  
in C changing the  $\Delta p$  between E and R**



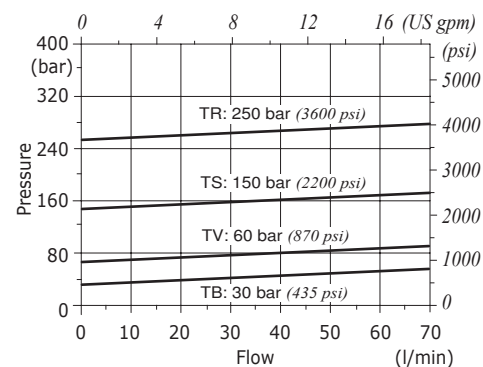
**VPF/3/EP 38+VMP**  
Std. setting at 5 l/min (1.32 US gpm)



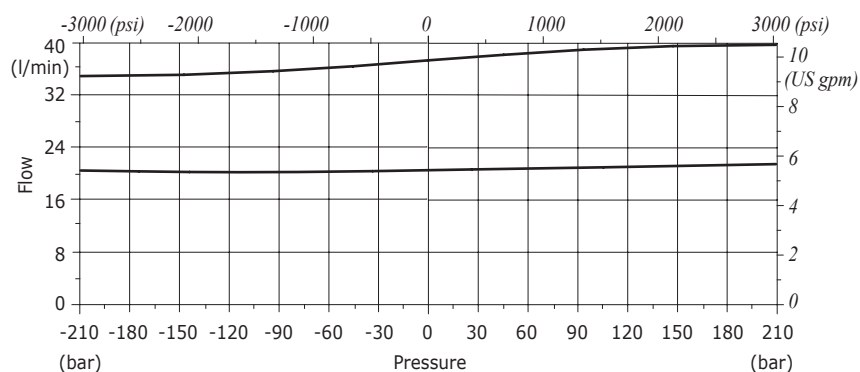
**VPF/3/EP 12+VMP compensation diagram  
in C changing the  $\Delta p$  between E and R**



**VPF/3/EP 12+VMP**  
Std. setting at 5 l/min (1.32 US gpm)



**VPF/3/EP 34+VMP compensation diagram  
in C changing the  $\Delta p$  between E and R**



**VPF/3/EP 34+VMP**  
Std. setting at 5 l/min (1.32 US gpm)

