



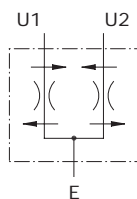
Type VDFR flow control pressure compensated valves

- Flow divider combiners

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

| | VDFR 38-12 | VDFR 38-24 | VDFR 38-40 | VDFR 12-12 | VDFR 12-24 | VDFR 12-40 | VDFR 34-65 | VDFR 34-90 | VDFR 100-150 | VDFR 114-250 | |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------|------------------------|------------------------|-----------------------|-------------------------|------------------------|-------------------------|---------------------------------|-----------------------|
| Nominal flow | l/min 4 ÷ 12 US gpm 1.1 ÷ 3.2 | 12 ÷ 24 3.2 ÷ 6.3 | 24 ÷ 38 6.3 ÷ 10.04 | 6.5 ÷ 12 1.71 ÷ 3.2 | 13 ÷ 23 3.43 ÷ 6.07 | 24 ÷ 40 6.3 ÷ 10.6 | 34 ÷ 65 8.98 ÷ 17.17 | 40 ÷ 90 10.6 ÷ 23.8 | 90 ÷ 150 23.8 ÷ 39.6 | 200 ÷ 250 52.8 ÷ 66 | |
| Max. pressure | Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi) | | | | | | | | | Steel body = 350 bar (5100 psi) | |
| Maximum division error | ± 5% of the oil flow in U1 or U2 and 120 bar (1750 psi) pressure difference between U1 and U2. (Division rate 50% ÷ 50%) | | | | | | | | | | |
| 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 | alum. | 0.82 kg (1.81 lb) | 0.82 kg (1.81 lb) | 0.87 kg (1.92 lb) | 0.83 kg (1.83 lb) | 0.83 kg (1.83 lb) | 0.82 kg (1.81 lb) | 0.92 kg (2.03 lb) | 2.16 kg (4.76 lb) | 2.09 kg (4.61 lb) | - |
| | steel | 1.98 kg (4.37 lb) | 1.98 kg (4.37 lb) | - | - | - | 1.97 kg (4.34 lb) | - | 4.42 kg (9.74 lb) | 4.29 kg (9.46 lb) | 6.58 kg (14.51 lb) |

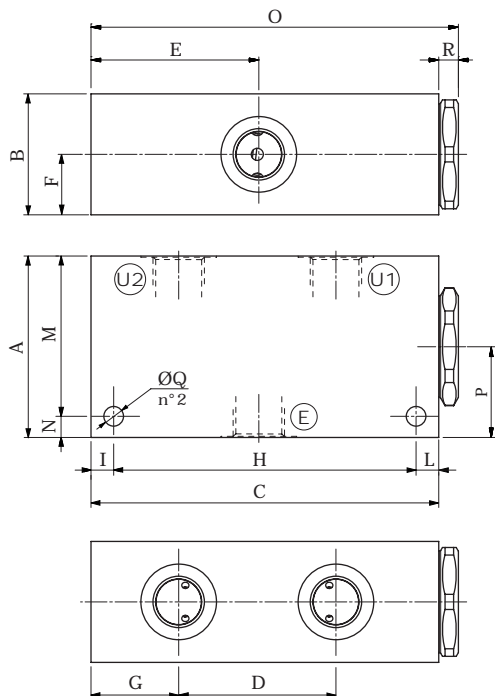
NOTE - For different conditions, please contact Walvoil Sales Dpt.



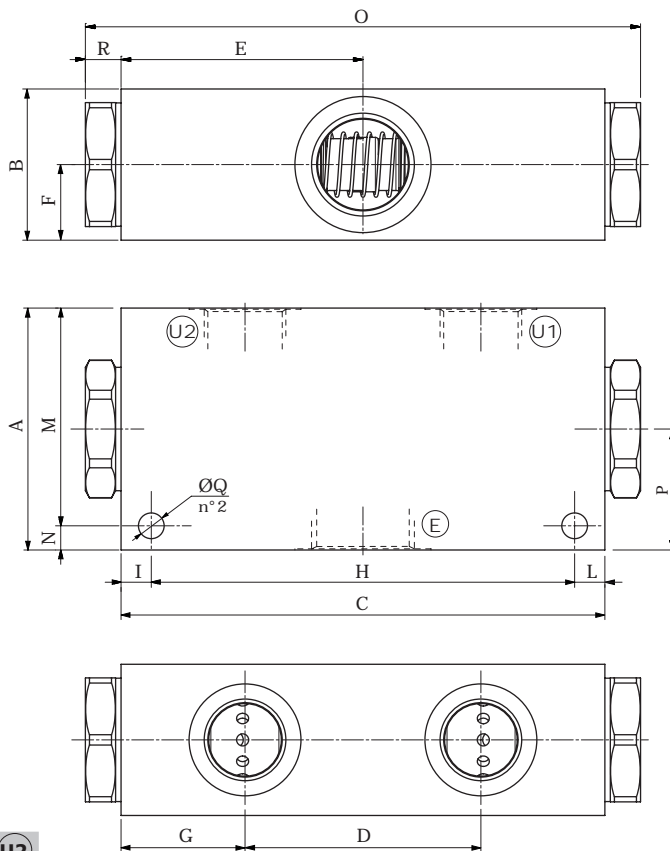
Dimensions

VDFR 38-12 - VDFR 38-24 - VDFR 12-40

These valves are supplied, as standard, without mounting holes.
Configurations with mounting holes (see dimension Q) are on request.



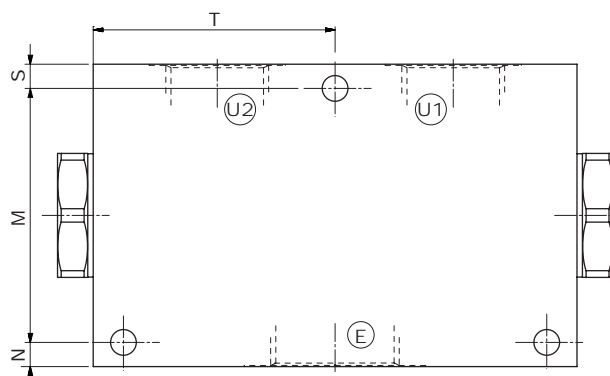
VDFR 34-65 - VDFR 34-90 - VDFR 100-150



| Valve type | E | U1 - U2 | Valve type | E | U1 - U2 |
|------------|------|---------|--------------|--------|---------|
| VDFR 38-12 | G3/8 | G3/8 | VDFR 12-40 | G1/2 | G3/8 |
| VDFR 38-24 | G3/8 | G3/8 | VDFR 34-65 | G3/4 | G1/2 |
| VDFR 38-40 | G3/8 | G3/8 | VDFR 34-90 | G3/4 | G1/2 |
| VDFR 12-12 | G1/2 | G3/8 | VDFR 100-150 | G1" | G3/4 |
| VDFR 12-24 | G1/2 | G3/8 | VDFR 114-250 | G1"1/4 | G1" |

| Valve type | E | U1 - U2 |
|------------------|-------|---------|
| VDFR 38-12/SAE | SAE8 | SAE8 |
| VDFR 38-24/SAE | SAE8 | SAE8 |
| VDFR 12-40/SAE | SAE10 | SAE8 |
| VDFR 34-90/SAE | SAE12 | SAE10 |
| VDFR 100-150/SAE | SAE16 | SAE12 |

VDFR 114-250

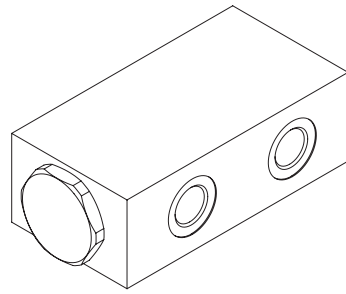


Dimensions are in mm-in

| Valve type | A | B | C | D | E | F | G | H | I | L | M | N | O | P | ØQ | R | S | T |
|------------------------|------|------|------|------|------|------|------|------|-------|-------|------|-------|-------|------|-------|-------|-------|------|
| VDFR 38-12 | 60 | 40 | 115 | 52 | 55.5 | 20 | 29 | 100 | 7.5 | 7.5 | 53 | 7 | 121.5 | 30 | 6.5 | 6.5 | - | - |
| VDFR 38-12/SAE | 2.36 | 1.57 | 4.53 | 2.05 | 2.19 | 0.79 | 1.14 | 3.94 | 0.295 | 0.295 | 2.09 | 0.276 | 4.78 | 1.18 | 0.256 | 0.256 | - | - |
| VDFR 38-24/38-40 | 60 | 40 | 115 | 52 | 55.5 | 20 | 29 | 100 | 7.5 | 7.5 | 53 | 7 | 121.5 | 30 | 6.5 | 6.5 | - | - |
| VDFR 38-24/SAE | 2.36 | 1.57 | 4.53 | 2.05 | 2.19 | 0.79 | 1.14 | 3.94 | 0.295 | 0.295 | 2.09 | 0.276 | 4.78 | 1.18 | 0.256 | 0.256 | - | - |
| VDFR 12-12/12-24/12-40 | 60 | 40 | 115 | 52 | 55.5 | 20 | 29 | 100 | 7.5 | 7.5 | 53 | 7 | 121.5 | 30 | 6.5 | 6.5 | - | - |
| VDFR 12-40/SAE | 2.36 | 1.57 | 4.53 | 2.05 | 2.19 | 0.79 | 1.14 | 3.94 | 0.295 | 0.295 | 2.09 | 0.276 | 4.78 | 1.18 | 0.256 | 0.256 | - | - |
| VDFR 34-65/34-90 | 80 | 50 | 160 | 78 | 80 | 25 | 41 | 140 | 10 | 10 | 72 | 8 | 183.6 | 40 | 8.5 | 11.8 | - | - |
| VDFR 34-90/SAE | 3.15 | 1.97 | 6.30 | 3.07 | 3.15 | 0.98 | 1.61 | 5.51 | 0.394 | 0.394 | 2.83 | 0.315 | 7.23 | 1.57 | 0.335 | 0.46 | - | - |
| VDFR 100-150 | 80 | 50 | 160 | 78 | 80 | 25 | 41 | 140 | 10 | 10 | 72 | 8 | 183.6 | 40 | 8.5 | 11.8 | - | - |
| VDFR 100-150/SAE | 3.15 | 1.97 | 6.30 | 3.07 | 3.15 | 0.98 | 1.61 | 5.51 | 0.394 | 0.394 | 2.83 | 0.315 | 7.23 | 1.57 | 0.335 | 0.46 | - | - |
| VDFR 114-250 | 100 | 60 | 160 | 78 | 80 | 30 | 41 | 140 | 10 | 10 | 84 | 8 | 183.6 | 50 | 8.5 | 11.8 | 8 | 80 |
| | 3.94 | 2.36 | 6.30 | 3.07 | 3.15 | 1.18 | 1.61 | 5.51 | 0.394 | 0.394 | 3.31 | 0.315 | 7.23 | 1.97 | 0.335 | 0.46 | 0.315 | 3.15 |

Ordering codes and description composition

Port size
VDFR 38-12



VDFR complete valves

50%-50% Divide ratio

| TYPE | CODE | DESCRIPTION |
|----------------------|------------|----------------------------|
| VDFR 38-12 | 1650021100 | Aluminium body, G3/8 ports |
| VDFR 38-24 | 1650021101 | Aluminium body, G3/8 ports |
| VDFR 38-40 | 1650021137 | Aluminium body, G3/8 ports |
| VDFR 12-12 | 1650031119 | Aluminium body, G1/2 ports |
| VDFR 12-24 | 1650031120 | Aluminium body, G1/2 ports |
| VDFR 12-40 | 1650031100 | Aluminium body, G1/2 ports |
| VDFR 34-65 | 1650041107 | Aluminium body, G3/4 ports |
| VDFR 34-90 | 1650041100 | Aluminium body, G3/4 ports |
| VDFR 100-150 | 1650051100 | Aluminium body, G1" ports |
| VDFR 38-12/ac | 1650022100 | Steel body, G3/8 ports |
| VDFR 38-24/ac | 1650022101 | Steel body, G3/8 ports |

VDFR complete valves (continue)

50%-50% Divide ratio

| TYPE | CODE | DESCRIPTION |
|----------------------------|------------|-----------------------------|
| VDFR 12-40/ac | 1650032100 | Steel body, G1/2 ports |
| VDFR 34-90/ac | 1650042101 | Steel body, G3/4 ports |
| VDFR 100-150/ac | 1650052100 | Steel body, G1" ports |
| VDFR 114-250/ac | 1650062100 | Steel body, G1 1/4 ports |
| VDFR 38-12/SAE | 1650021202 | Aluminium body, SAE8 ports |
| VDFR 38-24/SAE | 1650021203 | Aluminium body, SAE8 ports |
| VDFR 12-40/SAE | 1650031201 | Aluminium body, SAE10 ports |
| VDFR 34-90/SAE | 1650041200 | Aluminium body, SAE12 ports |
| VDFR 34-90/SAE/ac | 1650042200 | Steel body, SAE12 ports |
| VDFR 100-150/SAE/ac | 1650052200 | Steel body, SAE16 ports |

Note: special divide ratios 33%÷66% - 30%÷70% - 20%÷80% - 25%÷75% - 40%÷60% for VDFR 38-12, 38-24, 12-40 and 34-90. 33%÷66%-40%÷60% for VDFR 100-150

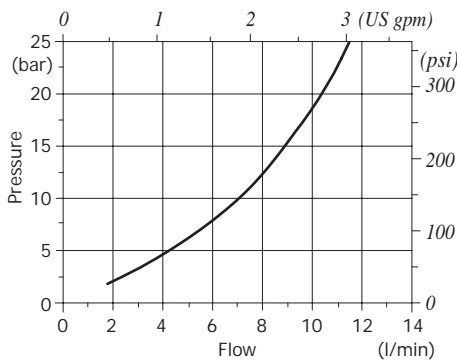
For VDFR 114-250 please contact our Sales Dpt.

Mounting holes on request (standard on VDFR 34-90 - VDFR 100-150 and VDFR114-250)

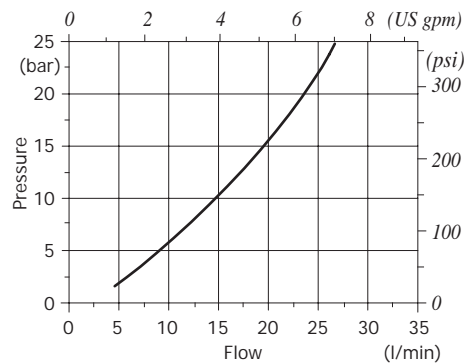
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

Rating diagrams

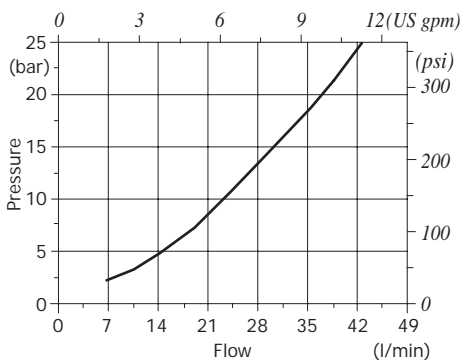
VDFR 38-12
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



VDFR 38-24
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)

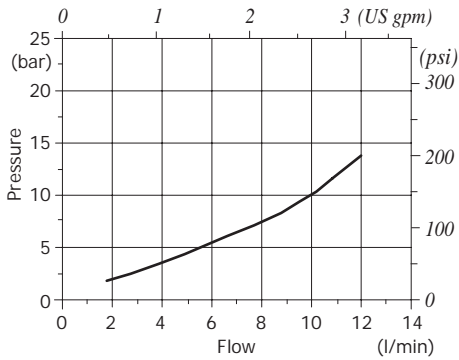


VDFR 38-40
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)

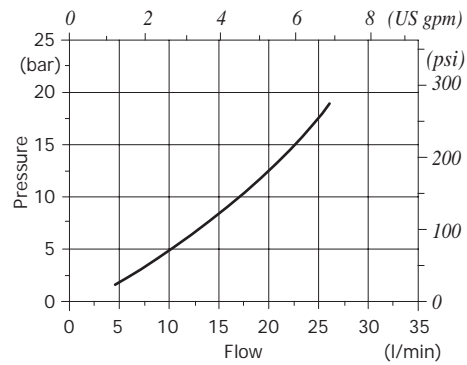


Rating diagrams

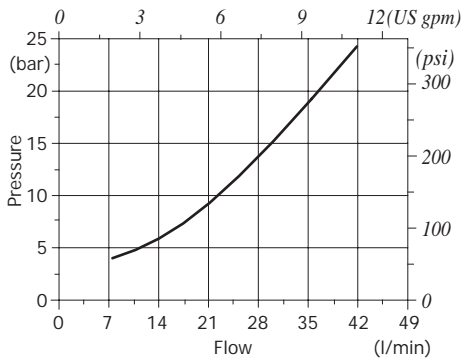
VDFR 12-12
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



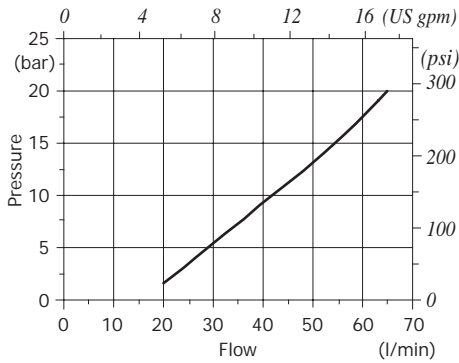
VDFR 12-24
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



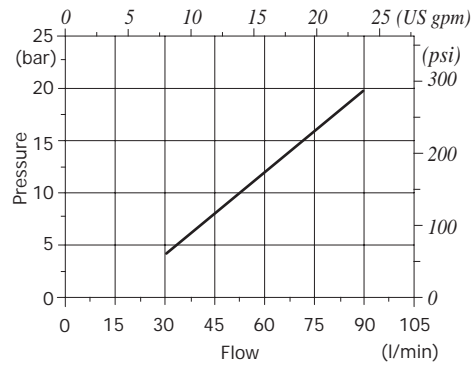
VDFR 12-40
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



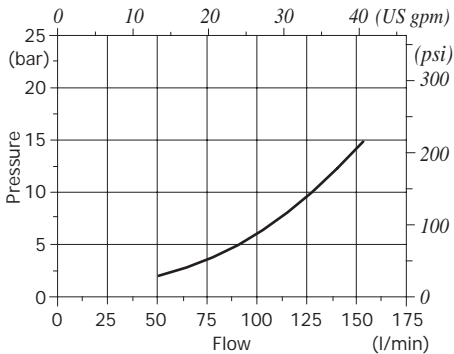
VDFR 34-65
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



VDFR 34-90
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



VDFR 100-150
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



VDFR 114-250
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)

