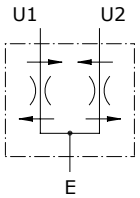
Type VDFR
flow control pressure compensated valves

- 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 *US gpm*	4÷12 *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)*

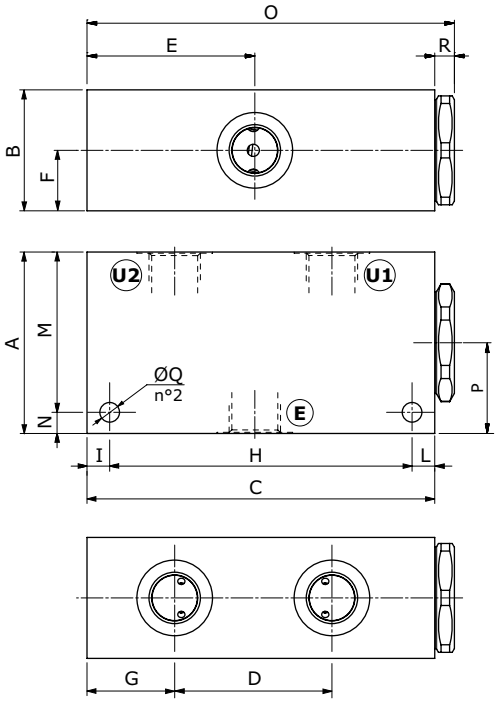
NOTE - For different conditions, please contact Walvoil Sales Dpt.



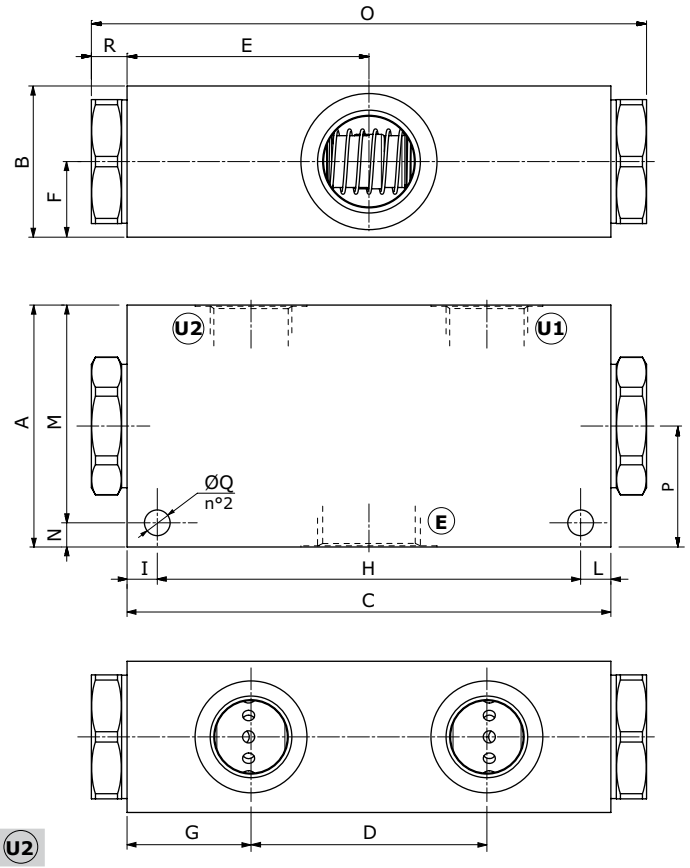
Dimensions

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

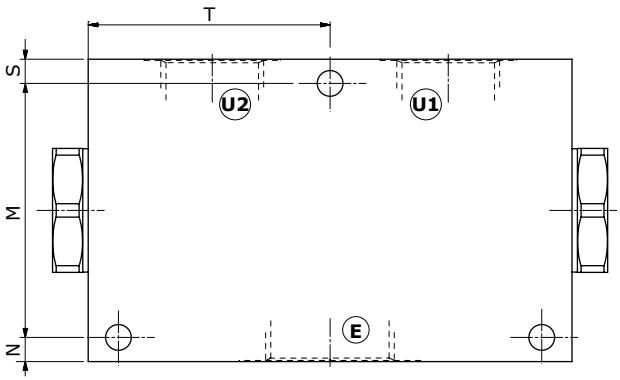


Valve type	E	U1 - U2
VDFR 38-12	G3/8	G3/8
VDFR 38-24	G3/8	G3/8
VDFR 38-40	G3/8	G3/8
VDFR 12-12	G1/2	G3/8
VDFR 12-24	G1/2	G3/8

Valve type	E	U1 - U2
VDFR 12-40	G1/2	G3/8
VDFR 34-65	G3/4	G1/2
VDFR 34-90	G3/4	G1/2
VDFR 100-150	G1"	G3/4
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



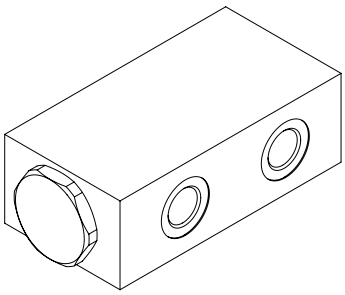
Dimensions are in mm-*in*

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

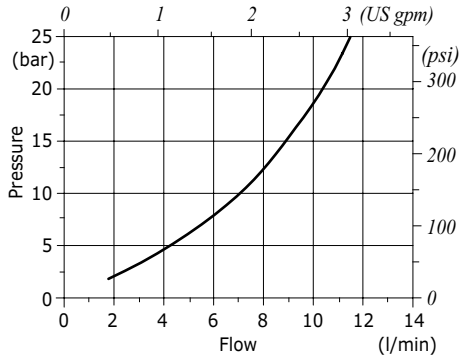
50%-50% Divide ratio

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

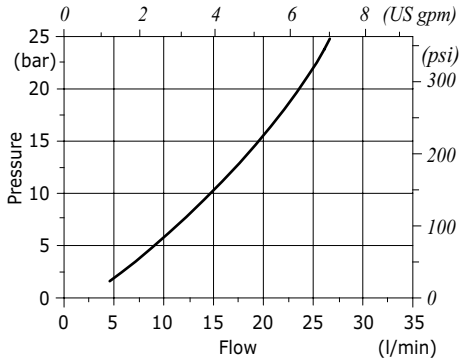
Note:special divide ratios 33%÷66% - 30%÷70% - 20%÷80% - 25%÷75% - 40%÷60% for VDFR 38-12, 38-24, 12-40 and 34-90.
33%÷66%-40%÷60% for VDFR 100-150
For VDFR 114-250 please please contact our Sales Dpt.
Mounting holes on request (standard on VDFR 34-90 - VDFR 100-150 and VDFR114-250)
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

Rating diagrams

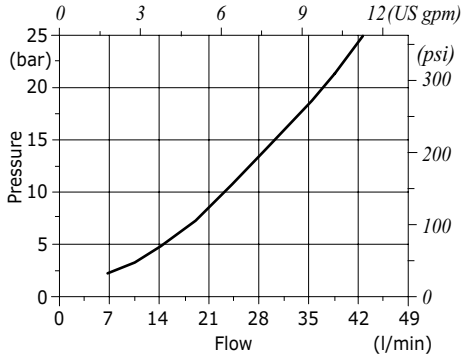
VDFR 38-12
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



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

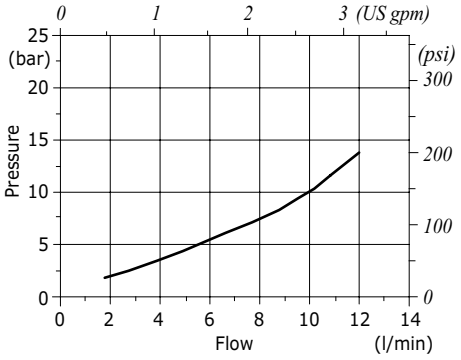


VDFR 38-40
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)

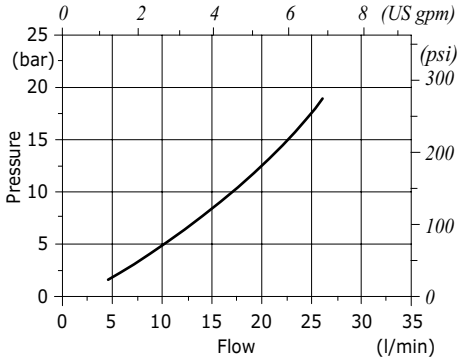


Rating diagrams

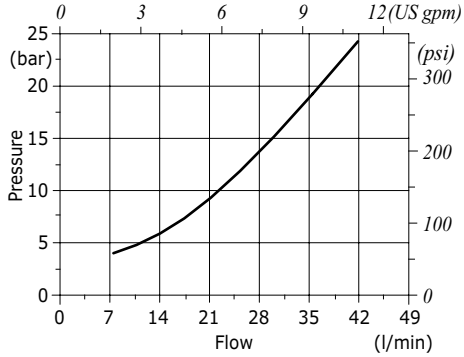
VDFR 12-12
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



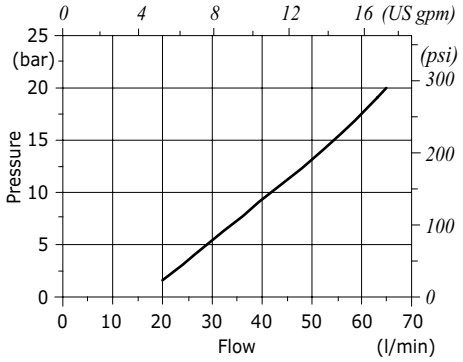
VDFR 12-24
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



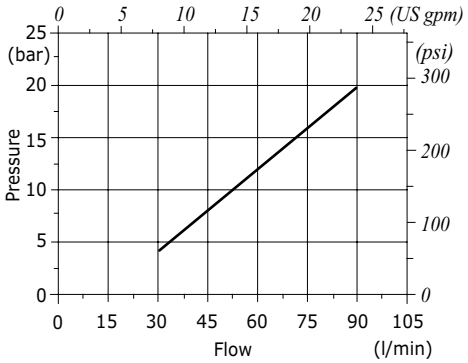
VDFR 12-40
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



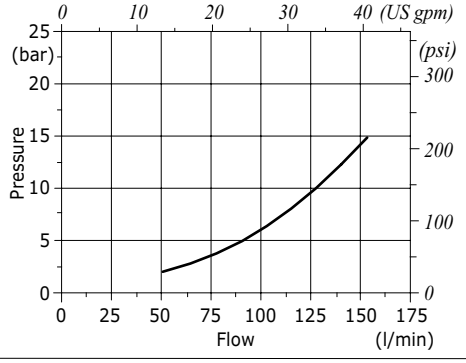
VDFR 34-65
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



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)