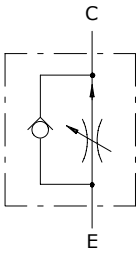
Type VPR/2/RL
flow control pressure compensated valves

- 2 way
- With reverse free - flow check

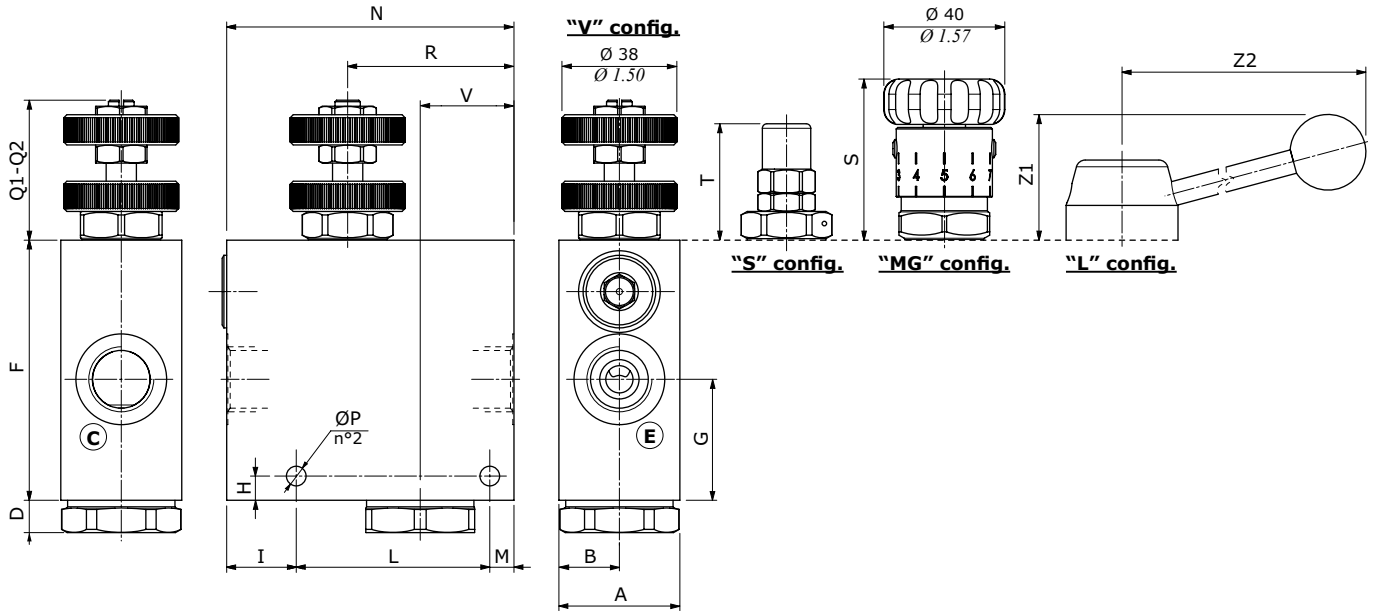
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

		VPR/2/RL 38	VPR/2/RL 12	VPR/2/RL 34	VPR/2/RL 100
Nominal flow **"Qc"**		30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*
Nominal flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*	75 l/min *(19.8 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*			
Weight	*aluminium*	1.09 kg *(2.40 lb)*	1.06 kg *(2.34 lb)*	2.15 kg *(4.73 lb)*	5.14 kg *(11.33 lb)*
	steel	2.41 kg *(5.31 lb)*	2.43 kg *(5.36 lb)*	4.60 kg *(10.14 lb)*	11.13 kg *(24.54 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions



Valve type	All ports
VPR/2/RL 38	G3/8
VPR/2/RL 12	G1/2
VPR/2/RL 34	G3/4
VPR/2/RL 100	G1"

Valve type	All ports
VPR/2/RL 38/SAE	SAE8
VPR/2/RL 12/SAE	SAE10
VPR/2/RL 34/SAE	SAE12

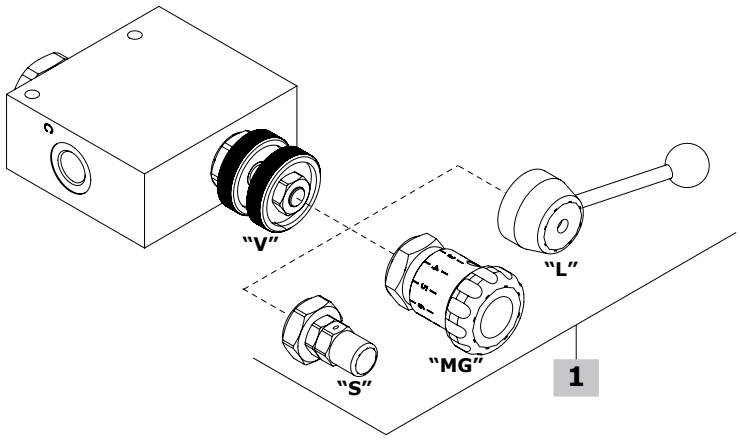
Dimensions are in mm-*in*

Valve type	A	B	D	F	G	H	I	L	M	N	ØP	Q1	Q2*	R	S	T	V	Z1	Z2
VPR/2/RL 38 **VPR/2/RL 38/SAE**	40 *1.57*	20 *0.78*	11 *0.43*	86 *3.38*	40 *1.57*	8 *0.31*	23 *0.90*	64 *2.51*	8 *0.31*	95 *3.74*	6.5 *0.25*	46.3 *1.82*	52.6 *2.07*	55 *2.16*	53.3 *2.10*	38.5 *1.51*	23 *0.91*	47.6 *1.87*	101.3 *3.99*
VPR/2/RL 12 **VPR/2/RL 12/SAE**	40 *1.57*	20 *0.78*	11 *0.43*	86 *3.38*	40 *1.57*	8 *0.31*	23 *0.90*	64 *2.51*	8 *0.31*	95 *3.74*	6.5 *0.25*	46.3 *1.82*	53.1 *2.09*	55 *2.16*	53.3 *2.10*	38.5 *1.51*	23 *0.91*	47.6 *1.87*	101.3 *3.99*
VPR/2/RL 34 **VPR/2/RL 34/SAE**	50 *1.97*	25 *0.98*	10.5 *0.41*	100 *3.94*	47 *1.85*	10 *0.39*	38 *1.50*	84 *3.31*	8 *0.31*	130 *5.12*	8.5 *0.33*	41.5 *1.73*	50.5 *1.99*	72 *2.83*	49.50 *1.95*	38.5 *1.51*	30 *1.18*	50.1 *1.97*	103.6 *4.08*
VPR/2/RL 100	70 *2.75*	35 *0.53*	13.5 *0.53*	140 *5.51*	58 *2.28*	10 *0.39*	50 *1.97*	100 *3.94*	10 *0.39*	160 *1.50*	10.5 *0.41*	52 *2.05*	-	91 *3.58*	52.5 *2.06*	41.5 *1.63*	37 *1.46*	50.5 *1.99*	107.3 *4.22*

(*) For **"SB"** execution (sensibilized adjustment)

Ordering codes and description composition

Port size
VPR/2/RL 38/V
1



VPR/2/RL complete valves

TYPE	CODE	DESCRIPTION
Adjustment kit type "V" (handwheel)		
VPR/2/RL 38/V	1611021100	Aluminium body, G3/8 ports
VPR/2/RL 12/V	1611031100	Aluminium body, G1/2 ports
VPR/2/RL 34/V	1611041100	Aluminium body, G3/4 ports
VPR/2/RL 100/V	1611051100	Aluminium body, G1" ports
VPR/2/RL 38/V/ac	1611022100	Steel body, G3/8 ports
VPR/2/RL 12/V/ac	1611032100	Steel body, G1/2 ports
VPR/2/RL 34/V/ac	1611042100	Steel body, G3/4 ports
VPR/2/RL 100/V/ac	1611052100	Steel body, G1" ports
VPR/2/RL 38/V/SAE	1611021200	Aluminium body, SAE8 ports
VPR/2/RL 12/V/SAE	1611031200	Aluminium body, SAE10 ports
VPR/2/RL 34/V/SAE	1611041200	Aluminium body, SAE12 ports
Adjustment kit type "MG" (handknob)		
VPR/2/RL 38/MG	1611021101	Aluminium body G3/8 ports
VPR/2/RL 12/MG	1611031101	Aluminium body G1/2 ports
VPR/2/RL 34/MG	1611041101	Aluminium body G3/4 ports
VPR/2/RL 100/MG	1611051101	Aluminium body G1" ports
Adjustment kit type "L" (lever)		
VPR/2/RL 38/L	1611021102	Aluminium body G3/8 ports
VPR/2/RL 12/L	1611031102	Aluminium body G1/2 ports
VPR/2/RL 34/L	1611041102	Aluminium body G3/4 ports
VPR/2/RL 100/L	1611051102	Aluminium body G1" ports

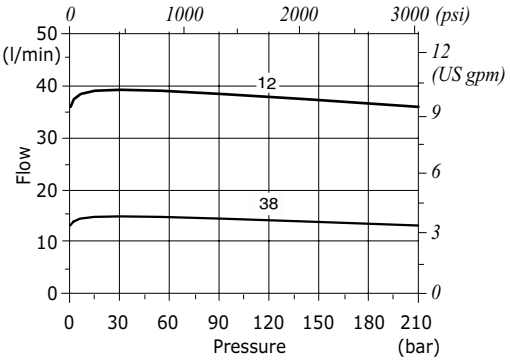
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

1 Adjustment kit

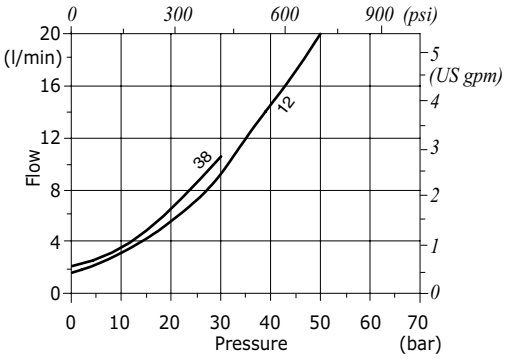
TYPE	CODE	DESCRIPTION
For VPR/2/RL 38 valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/2/RL 12 valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/2/RL 34 valve		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)
For VPR/2/RL 100 valve		
V	5KT6340603	"V" handwheel type
MG	5KT6200605	"MG" handknob type
S	5KT6200604	"S" screw type

Rating diagrams

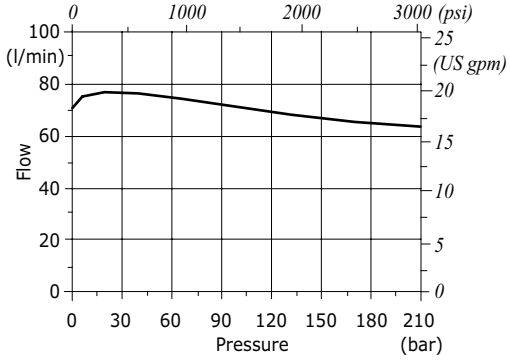
VPR/2/RL (12-38) pressure compensation diagram (E→C)



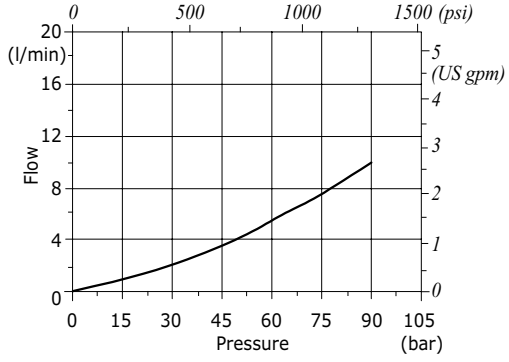
VPR/2/RL (12-38) pressure drop vs. flow (C→E)



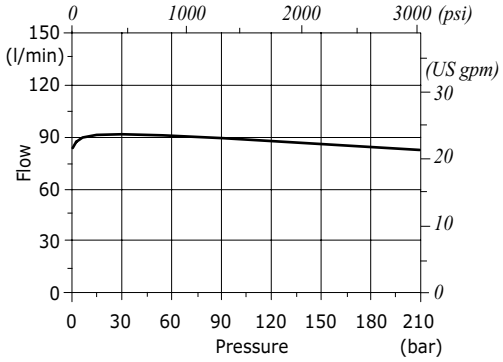
VPR/2/RL 34 pressure compensation diagram (E→C)



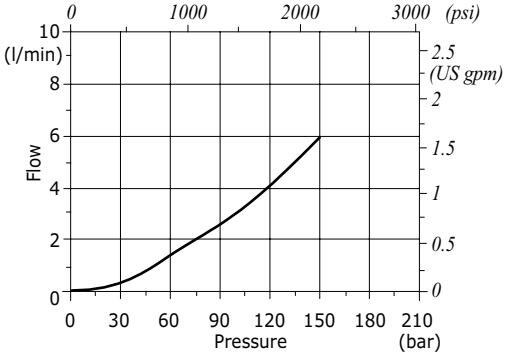
VPR/2/RL 34 pressure drop vs. flow (C→E)

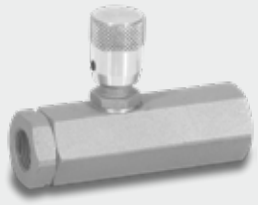


VPR/2/RL 100 pressure compensation diagram (E→C)



VPR/2/RL 34 pressure drop vs. flow (C→E)





Type VPR/2/RL/EX

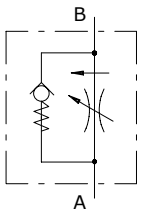
flow control pressure compensated valves

- With check valve
- Compensated

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

	VPR/2/RL/EX 14/V	VPR/2/RL/EX 38/V	VPR/2/RL/EX 12/V
Nominal flow	17 l/min *(4.5 US gpm)*	17 l/min *(4.5 US gpm)*	35 l/min *(9.2 US gpm)*
Nominal flow from B to A	25 l/min *(6.6 US gpm)*	30 l/min *(7.9 US gpm)*	45 l/min *(11.9 US gpm)*
Max. pressure	300 bar *(4350 psi)*	300 bar *(4350 psi)*	250 bar *(3600 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 for working conditions	from -40°C *(-40°F)* to 100°C *(212°F)*		
Weight *steel*	0.52 kg *(1.15 lb)*	0.50 kg *(1.1 lb)*	0.69 kg *(1.52 lb)*

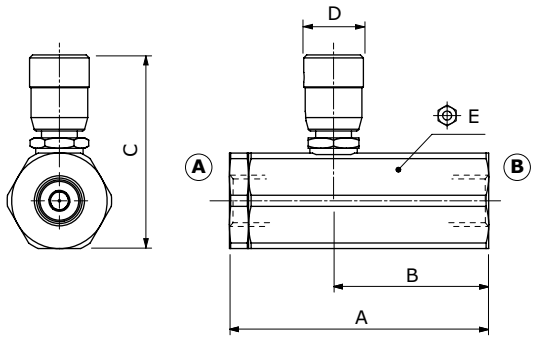
NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions

Dimensions are in mm-*in*

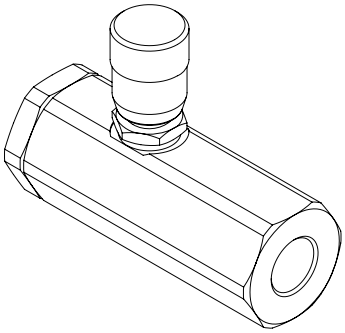
Valve type	All ports	A	B	C	D	E
VPR/2/RL/EX 14/V	G1/4	87 - *3.42*	52.5 - *2.07*	68 - *2.68*	20 - *0.79*	32
VPR/2/RL/EX 38/V	G3/8	87 - *3.42*	52.5 - *2.07*	68 - *2.68*	20 - *0.79*	32
VPR/2/RL/EX 12/V	G1/2	107 - *4.21*	61 - *2.40*	71 - *2.79*	20 - *0.79*	36



Ordering codes and description composition

Port size

VPR/2/RL/EX 14/V



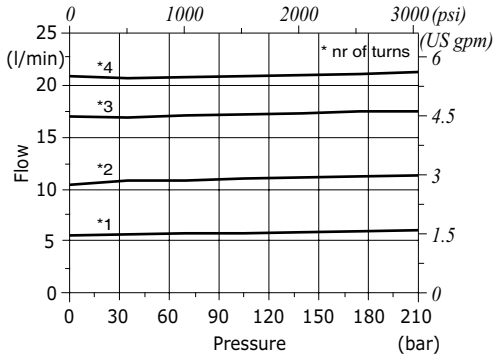
VRFU90C complete valves

TYPE	CODE	DESCRIPTION
VPR/2/RL/EX 14/V	1605510100	Steel body, G1/4 ports
VPR/2/RL/EX 38/V	1605520100	Steel body, G3/8 ports
VPR/2/RL/EX 12/V	1605530100	Steel body, G1/2 ports

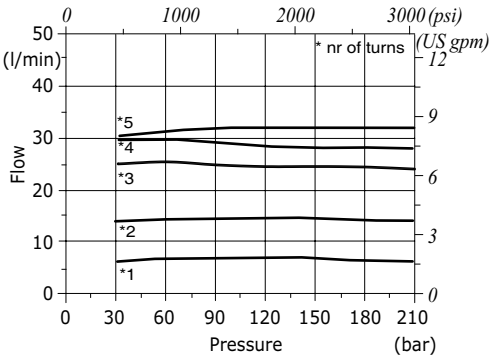
For other steel body configurations or SAE thread please contact our Sales Dpt.

Rating diagram

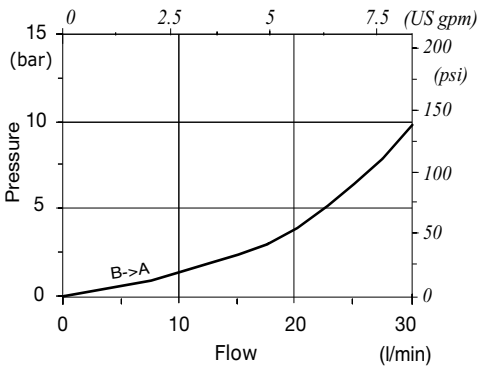
VPR/2/RL/EX 14/V - VPR/2/RL/EX 38/V
pressure drop vs. flow compensated (A→B)



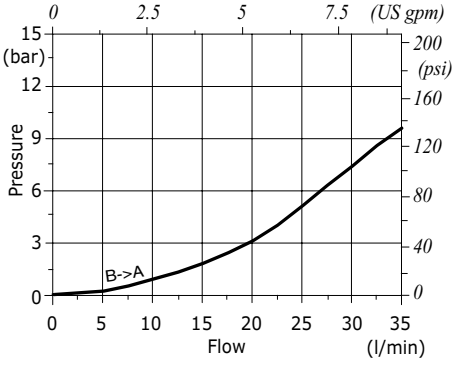
VPR/2/RL/EX 12/V
pressure drop vs. flow compensated (A→B)



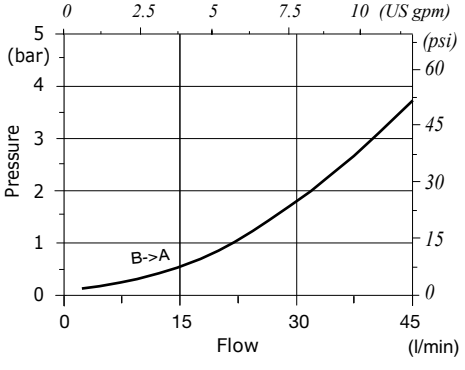
VPR/2/RL/EX 14/V
pressure drop vs. flow (B→A)



VPR/2/RL/EX 38/V
pressure drop vs. flow (B→A)



VPR/2/RL/EX 12/V
pressure drop vs. flow (B→A)



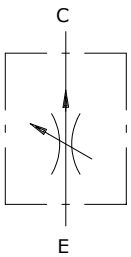
Type VPR/2/U
flow control pressure compensated valves

- 2 ways

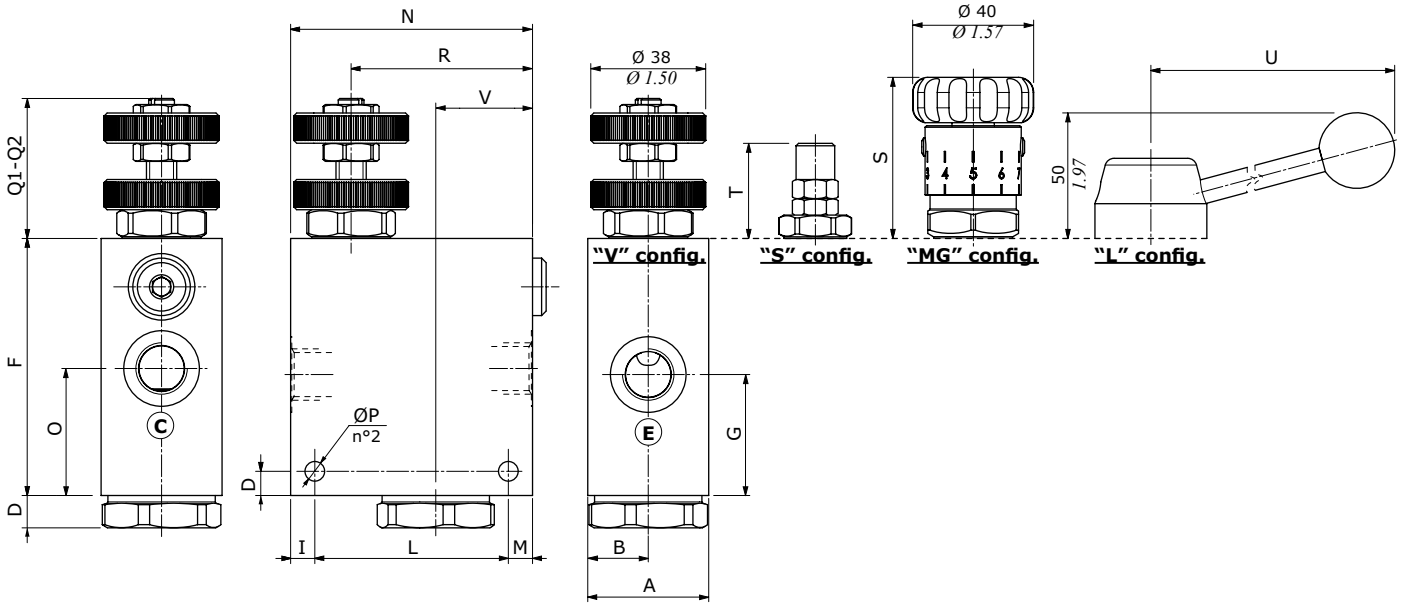
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

		VPR/2/U 38	VPR/2/U 12	VPR/2/U 34	VPR/2/U 100
Nominal flow **"Qc"**		30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*
Nominal flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*	75 l/min *(19.8 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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)* *with FPM seals* from -20°C *(-4°F)* to 100°C *(212°F)*			
Environmental temperature for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*			
Weight	*aluminium*	0.87 kg *(1.91 lb)*	0.88 kg *(1.94 lb)*	1.74 kg *(3.84 lb)*	3.96 kg *(8.73 lb)*
	steel	1.92 kg *(4.23 lb)*	1.99 kg *(4.39 lb)*	3.56 kg *(7.85 lb)*	7.80 kg *(17.20 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions



Valve type	All ports
VPR/2/U 38	G3/8
VPR/2/U 12	G1/2
VPR/2/U 34	G3/4
VPR/2/U 100	G1"

Valve type	All ports
VPR/2/U 38/SAE	SAE8
VPR/2/U 12/SAE	SAE10

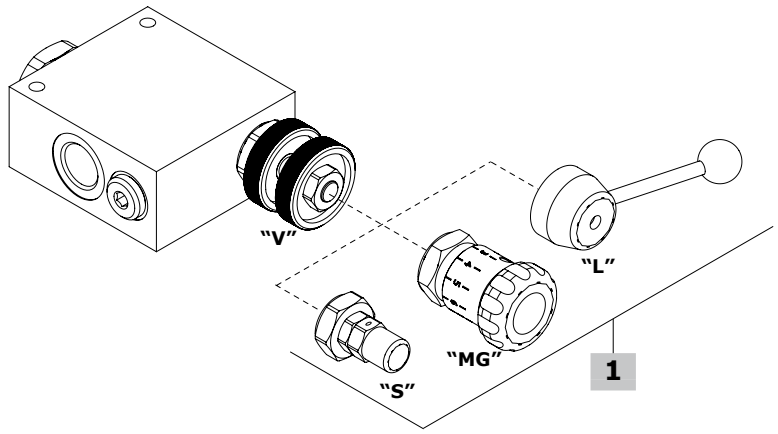
Dimensions are in mm-*in*

Valve type	A	B	D	F	G	H	I	L	M	N	O	ØP	Q1	Q2*	R	S	T	U	V
VPR/2/U 38	40	20	10.7	85	40	8	8	64	8	80	40.5	6.5	46.3	52.6	60	53.3	38.5	50	103.3
VPR/2/U 38/SAE	*1.57*	*0.78*	*0.42*	*3.35*	*1.57*	*0.315*	*0.315*	*2.51*	*0.315*	*3.14*	*1.59*	*0.256*	*1.82*	*2.07*	*2.36*	*2.10*	*1.51*	*1.97*	*3.99*
VPR/2/U 12	40	20	10.7	85	40	8	8	64	8	80	42	6.5	46.3	53.1	60	53.3	38.5	50	103.3
VPR/2/U 12/SAE	*1.57*	*0.78*	*0.42*	*3.35*	*1.57*	*0.315*	*0.315*	*2.51*	*0.315*	*3.14*	*1.65*	*0.256*	*1.82*	*2.09*	*2.36*	*2.10*	*1.51*	*1.97*	*3.99*
VPR/2/U 34	50	25	10.7	100	44	10	8	84	8	100	44	8.5	41.5	50.5	72	56.5	38.5	50	103.3
	1.97	*0.98*	*0.42*	*3.94*	*1.73*	*0.39*	*0.315*	*3.31*	*0.315*	*3.94*	*1.73*	*0.335*	*1.73*	*1.99*	*2.83*	*2.22*	*1.51*	*1.97*	*3.99*
VPR/2/U 100	70	35	13.5	140	58	10	10	100	10	120	58	10.5	52	-	92	56.5	41.5	50	107
	2.75	*0.53*	*0.53*	*5.51*	*2.28*	*0.394*	*0.394*	*3.94*	*0.39*	*4.72*	*2.28*	*0.413*	*2.05*		*3.62*	*2.22*	*1.63*	*1.97*	*4.21*

***"SB"** execution (sensibilized adjustment)

Ordering codes and description composition

Port size
VPR/2/U 38/V
1



VPR/2/U complete valves

TYPE	CODE	DESCRIPTION
Adjustment kit type "V" (handwheel)		
VPR/2/U 38/V	1613021100	Aluminium body, 3/8 ports
VPR/2/U 12/V	1613031100	Aluminium body, 1/2 ports
VPR/2/U 34/V	1613041100	Aluminium body, 3/4 ports
VPR/2/U 100/V	1613051100	Aluminium body, 1" ports
VPR/2/U 38/V/ac	1613022100	Steel body, 3/8 ports
VPR/2/U 12/V/ac	1613032100	Steel body, 1/2 ports
VPR/2/U 34/V/ac	1613042100	Steel body, 3/4 ports
VPR/2/U 100/V/ac	1613052100	Steel body, 1" ports
VPR/2/U 38/V/SAE	1613021200	Aluminium body, SAE8 ports
VPR/2/U 12/V/SAE	1613031200	Aluminium body, SAE10 ports
Adjustment kit type "MG" (handknob)		
VPR/2/U 38/MG	1613021101	Aluminium body, 3/8 ports
VPR/2/U 12/MG	1613031101	Aluminium body, 1/2 port
VPR/2/U 34/MG	1613041101	Aluminium body, 3/4 ports
VPR/2/RL 100/MG	1613051101	Aluminium body, 1" ports
VPR/2/U 12/MG/SAE	1613031201	Aluminium body, SAE10 port
VPR/2/RL 100/MG/SAE	1613051200	Aluminium body, SAE16 ports
Adjustment kit type "L" (lever)		
VPR/2/U 38/L	1613021102	Aluminium body, 3/8 ports
VPR/2/U 12/L	1613031102	Aluminium body, 1/2 ports
VPR/2/U 34/L	1613041102	Aluminium body, 3/4 ports
VPR/2/U 100/L	1613051102	Aluminium body, 1" ports

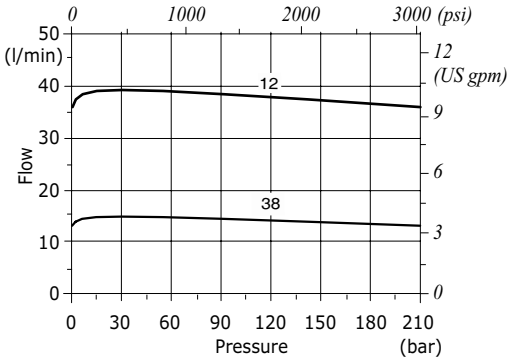
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

1 Adjustment kit

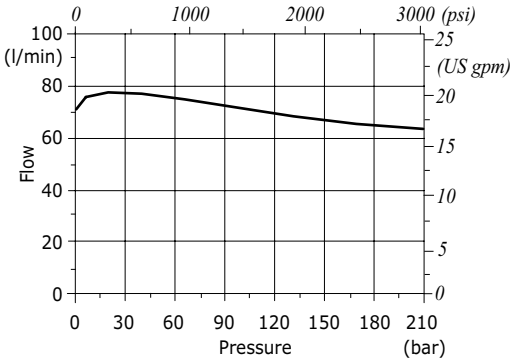
TYPE	CODE	DESCRIPTION
For VPR/2/RL 38 valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/2/RL 12 valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/2/RL 34 valve		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)
For VPR/2/RL 100 valve		
V	5KT6340603	"V" handwheel type
MG	5KT6200605	"MG" handknob type
S	5KT6200604	"S" screw type

Rating diagrams

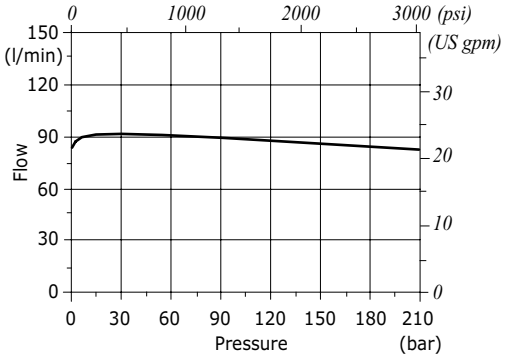
VPR/2/U 38-12 pressure compensation diagram (E→C)



VPR/2/U 34 pressure compensation diagram (E→C)



VPR/2/U 100 pressure compensation diagram (E→C)



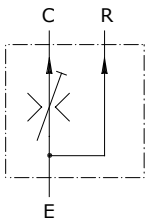
Type VPF/3/EP
flow control pressure compensated valves

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

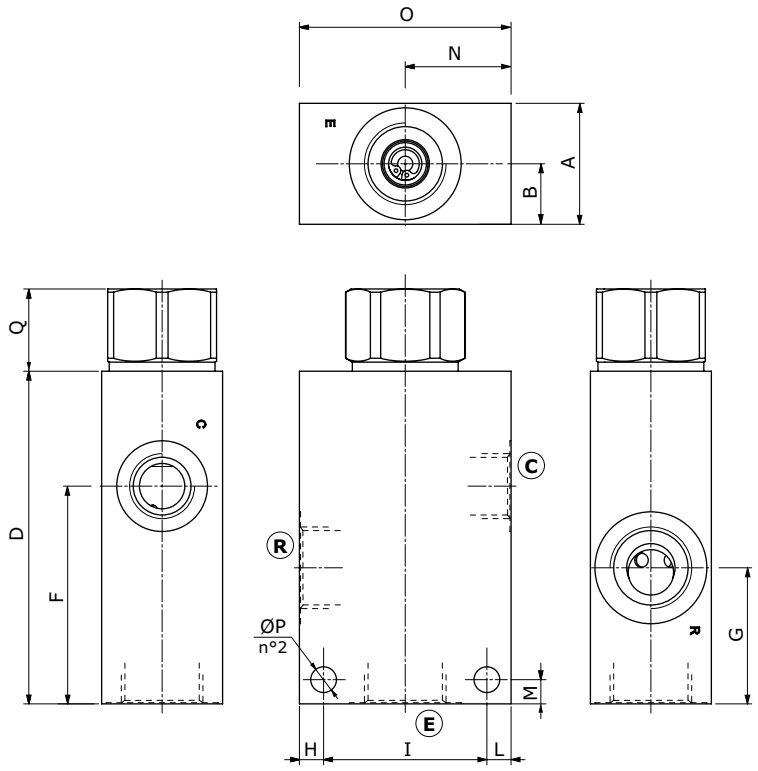
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

		VPF/3/EP 38	VPF/3/EP 12	VPF/3/EP 34
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)* 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)* *with FPM seals* from -20°C *(-4°F)* to 100°C *(212°F)*	
Environmental temperature for working conditions			from -40°C *(-40°F)* to 100°C *(212°F)*	
Weight	*aluminium*	0.62 kg *(1.37 lb)*	0.85 kg *(1.87 lb)*	1.68 kg *(3.70 lb)*
	steel	1.35 kg *(2.98 lb)*	2.18 kg *(4.81 lb)*	3.71 kg *(8.18 lb)*

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



Dimensions



Valve type	E	R	C
VPF/3/EP 38	G1/2	G3/8	G3/8
VPF/3/EP 12	G3/4	G3/4	G1/2
VPF/3/EP 34	1″	1″	G3/4

Dimensions are in mm-*in*

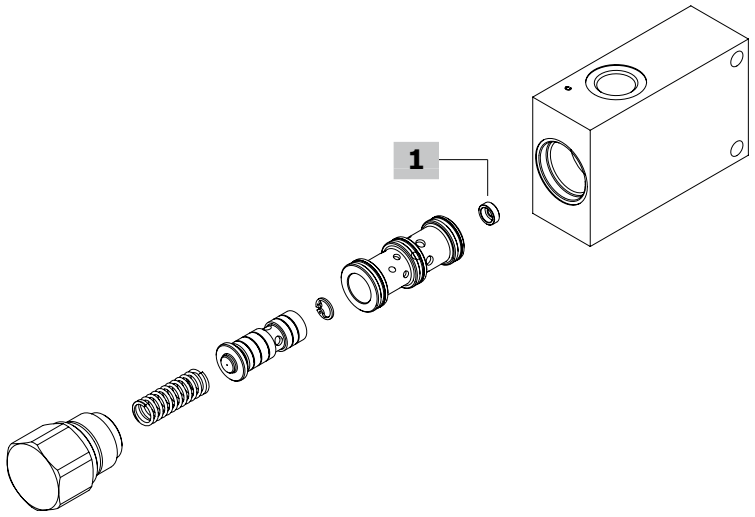
Valve type	A	B	D	F	G	H	I	L	M	N	O	ØP	Q
VPF/3/EP 38	35 *1.38*	17.5 *0.69*	95 *3.74*	55 *2.16*	35 *1.38*	8 *0.31*	44 *1.73*	8 *0.315*	8 *0.315*	30 *1.18*	60 *2.36*	8.5 *0.335*	10 *0.394*
VPF/3/EP 12	40 *1.57*	20 *0.79*	110 *4.33*	72 *2.83*	45 *1.77*	8 *0.315*	54 *2.12*	8 *0.315*	8 *0.315*	35 *1.38*	70 *2.75*	8.5 *0.335*	27.2 *1.07*
VPF/3/EP 34	50 *1.97*	25 *0.98*	120 *4.72*	80 *3.14*	50 *1.97*	10 *0.39*	70 *2.75*	10 *0.394*	10 *0.394*	45 1.77	90 *3.54*	10.5 *0.413*	24.5 *0.96*

Ordering codes and description composition

Port size

VPF/3/EP 38/Ds1

1



VPF/3/EP complete valves

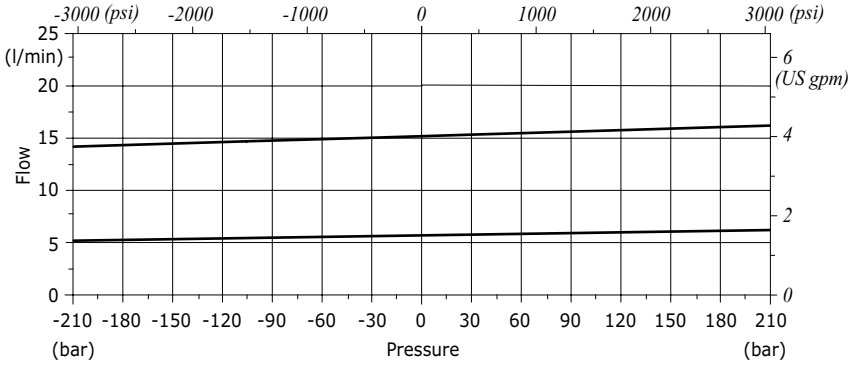
TYPE: **VPF/3/EP 38/Ds1** CODE: 1640021100
DESCRIPTION: Aluminium body, G3/8 ports, fixed orifice Ø1 mm-*0.039 in* (Qc 1.2 l/min-*0.31 US gpm*)
TYPE: **VPF/3/EP 12/Ds2** CODE: 1640031102
DESCRIPTION: Aluminium body, G1/2 ports, fixed orifice Ø2 mm-*0.078 in* (Qc 4 l/min-*1.05 US gpm*)
TYPE: **VPF/3/EP 34/Ds3** CODE: 1640041105
DESCRIPTION: Aluminium body, G3/4 ports, fixed orifice Ø3 mm-*0.12 in* (Qc 11 l/min-*2.9 US gpm*)
TYPE: **VPF/3/EP 38/Ds2,5/ac** CODE: 1640022100
DESCRIPTION: Steel body, G3/8 ports, fixed orifice Ø2.5 mm-*0.14 in* (Qc 7.5 l/min-*1.98 US gpm*)
TYPE: **VPF/3/EP 12/Ds3/ac** CODE: 1640032103
DESCRIPTION: Steel body, G1/2 ports, fixed orifice Ø3 mm-*0.12 in* (Qc 11 l/min-*2.9 US gpm*)
TYPE: **VPF/3/EP 34/Ds4/ac** CODE: 1640042100
DESCRIPTION: Steel body, G3/4 ports, fixed orifice Ø4 mm-*0.16 in* (Qc 20.5 l/min-*5.41 US gpm*)
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

1 Fixed orifice

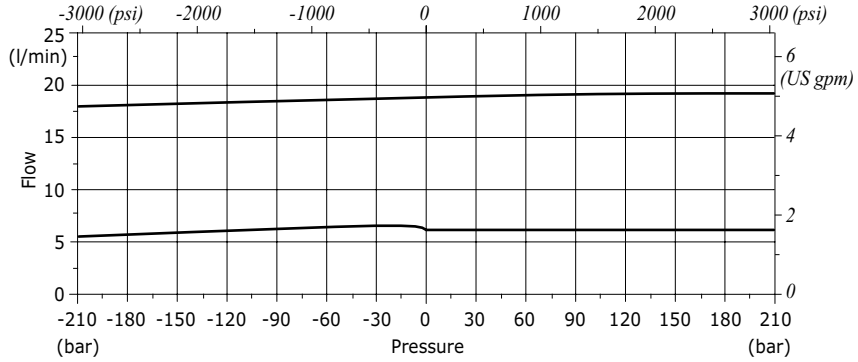
TYPE	CODE	DESCRIPTION
For VPF/3/EP 38 valve		
Ds1	3DF1091000	Ø1 mm-*0.039 in*(Qc 1.2 l/min-*0.31 US gpm*)
Ds1,5	3DF1091500	Ø1.5 mm-*0.059 in* (Qc 2.8 l/min-*0.73 US gpm*)
Ds2	3DF1092000	Ø2 mm-*0.079 in* (Qc 5 l/min-*1.32 US gpm*)
Ds2,5	3DF1092500	Ø2.5 mm-*0.098 in* (Qc 7.5 l/min-*1.98 US gpm*)
Ds2,8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

Rating diagrams

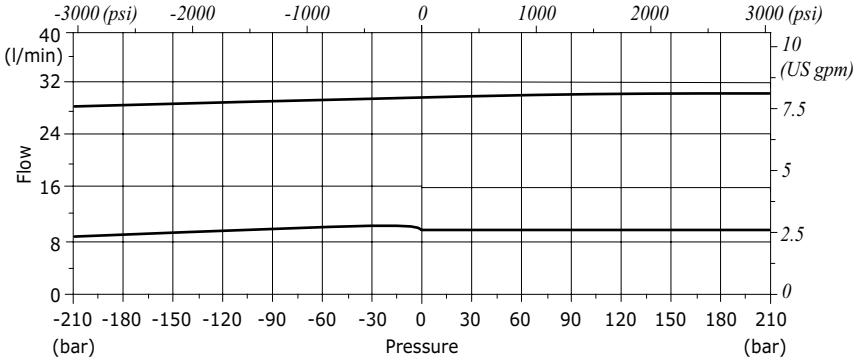
VPF/3/EP 38 compensation diagram in C changing the Δp between E and R



VPF/3/EP 12 compensation diagram in C changing the Δp between E and R



VPF/3/EP 34 compensation diagram in C changing the Δp between E and R



Type VPF/3/EP+VMP

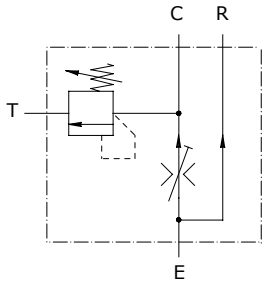
flow control pressure compensated valves

- 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)* 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 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)*

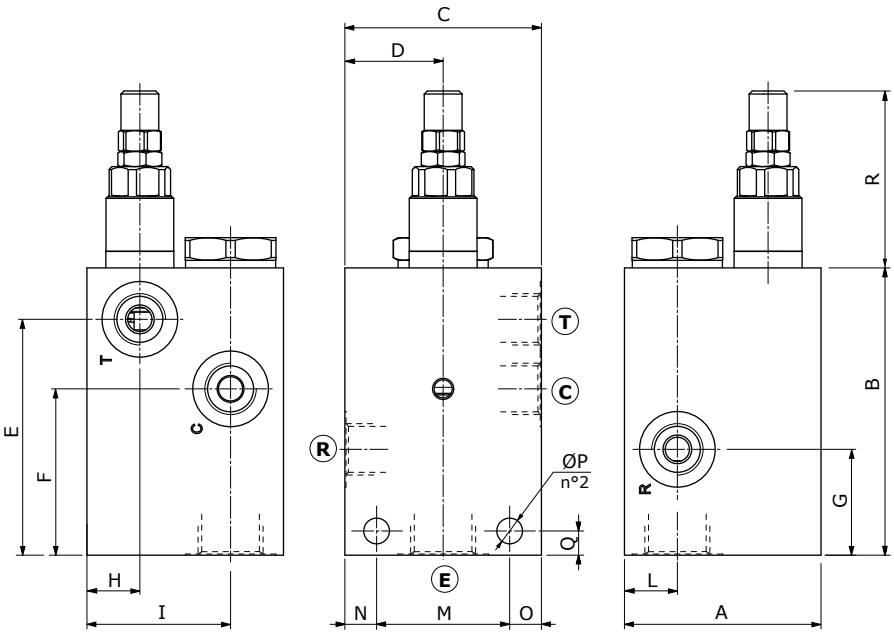
NOTE - For different conditions, please contact Walvoil Sales Dpt.



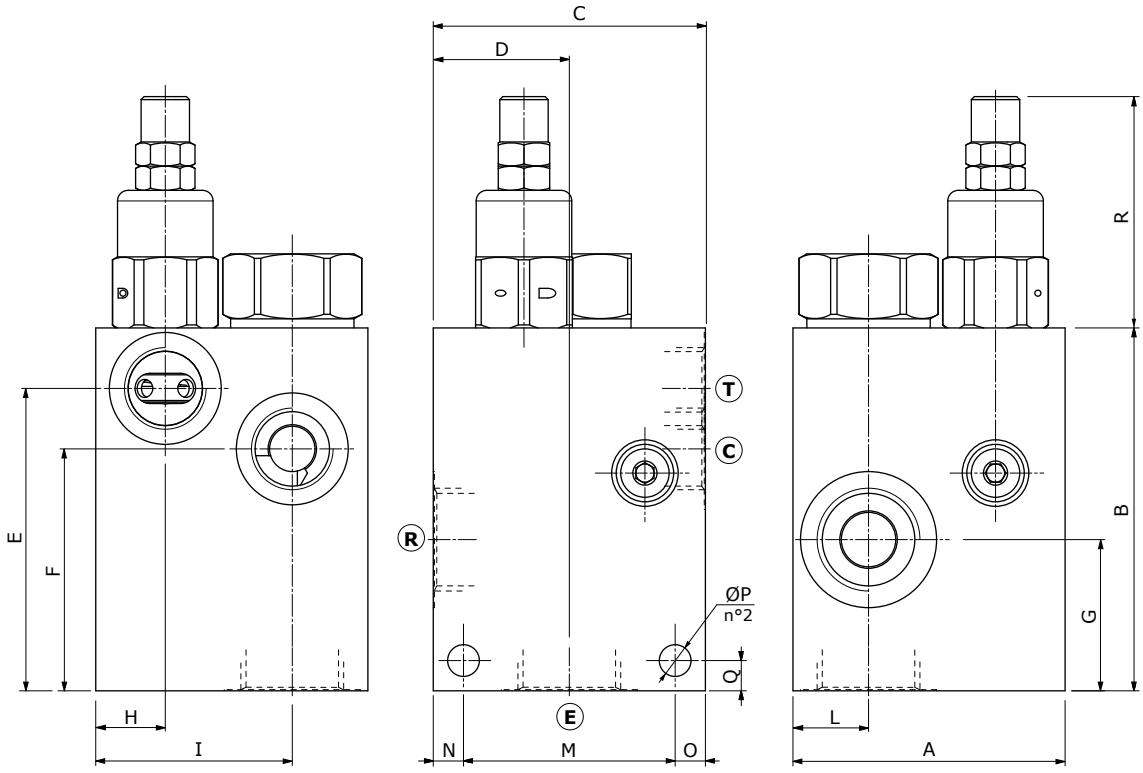
Dimensions

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



VPF/3/EP 34+VMP



Dimensions are in mm-*in*

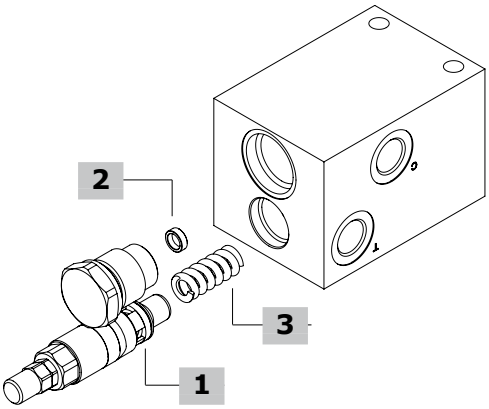
Valve type	A	B	C	D	E	F	G	H	I	L	M	N	O	ØP	Q	R
VPF/3/EP 38+VMP	65 *2.56*	95 *3.74*	65 *2.56*	32.5 *1.28*	78 *3.07*	55 *2.17*	35 *1.38*	17.5 *0.69*	47.5 *1.87*	17.5 *0.69*	44 *1.73*	10.5 *0.413*	10.5 *0.413*	8.5 *0.335*	8 *0.315*	58.5 *2.30*
VPF/3/EP 12+VMP	75 *2.95*	110 *4.33*	75 *2.95*	37.5 *1.48*	92.5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

Ordering codes and description composition

Port size

VPF/3/EP 38+VMP/Ds1/5.TS

1 **2** **3**



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

1 Direct acting pressure relief valves

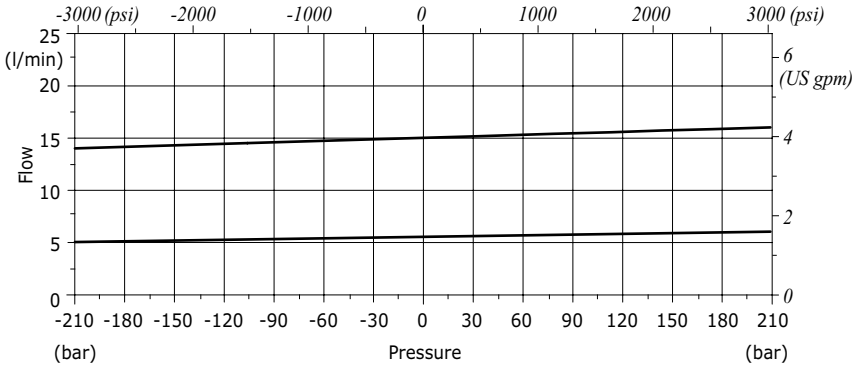
TYPE	CODE	DESCRIPTION
VMP 5/TS.S	1100520400	For VPF/3/EP 38+VMP valve Setting range 50-220 bar *(725-3200 psi)*
VMP 10/TS.S	1100530400	For VPF/3/EP 12+VMP valve Setting range 50-220 bar *(725-3200 psi)*
VMP 20/TS.S	1100540400	For VPF/3/EP 34+VMP valve Setting range 50-220 bar *(725-3200 psi)*

2 Fixed orifice

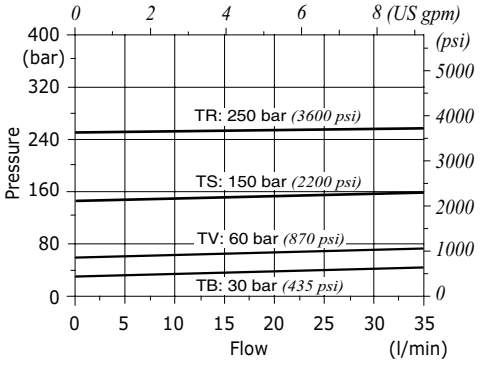
TYPE	CODE	DESCRIPTION
For VPF/3/EP 38+VMP valve		
Ds1	3DF1091000	Ø1 mm-*0.039 in* (Qc 1.2 l/min-*0.31 US gpm*)
Ds1,5	3DF1091500	Ø1.5 mm-*0.059 in* (Qc 2.8 l/min-*0.73 US gpm*)
Ds2	3DF1092000	Ø2 mm-*0.079 in* (Qc 5 l/min-*1.32 US gpm*)
Ds2,5	3DF1092500	Ø2.5 mm-*0.098 in* (Qc 7.5 l/min-*1.98 US gpm*)
Ds2,8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

Rating diagrams

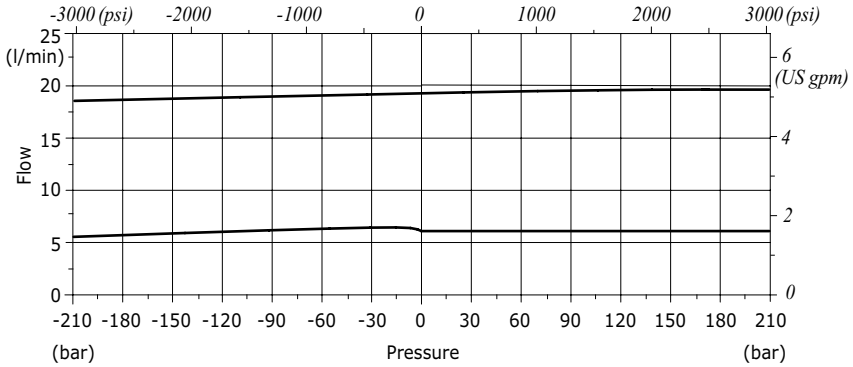
VPF/3/EP 38+VMP compensation diagram in C changing the Δp between E and R



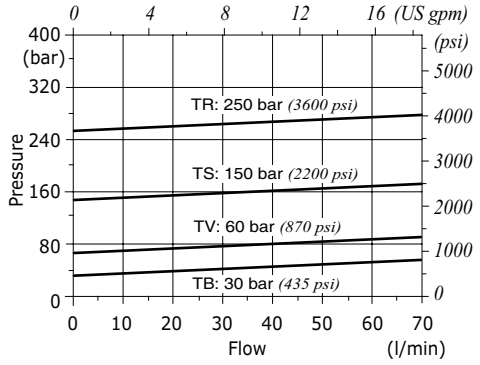
VPF/3/EP 38+VMP
Std. setting at 5 l/min *(1.32 US gpm)*



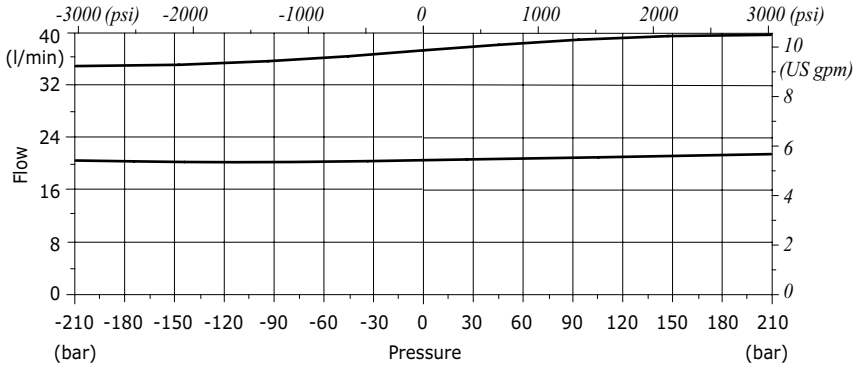
VPF/3/EP 12+VMP compensation diagram in C changing the Δp between E and R



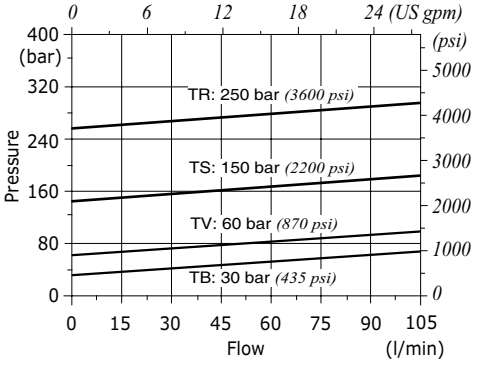
VPF/3/EP 12+VMP
Std. setting at 5 l/min *(1.32 US gpm)*



VPF/3/EP 34+VMP compensation diagram in C changing the Δp between E and R



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



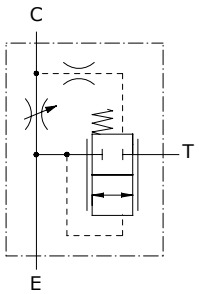
Type VPR/3/ET
flow control pressure compensated valves

- 3 ways

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

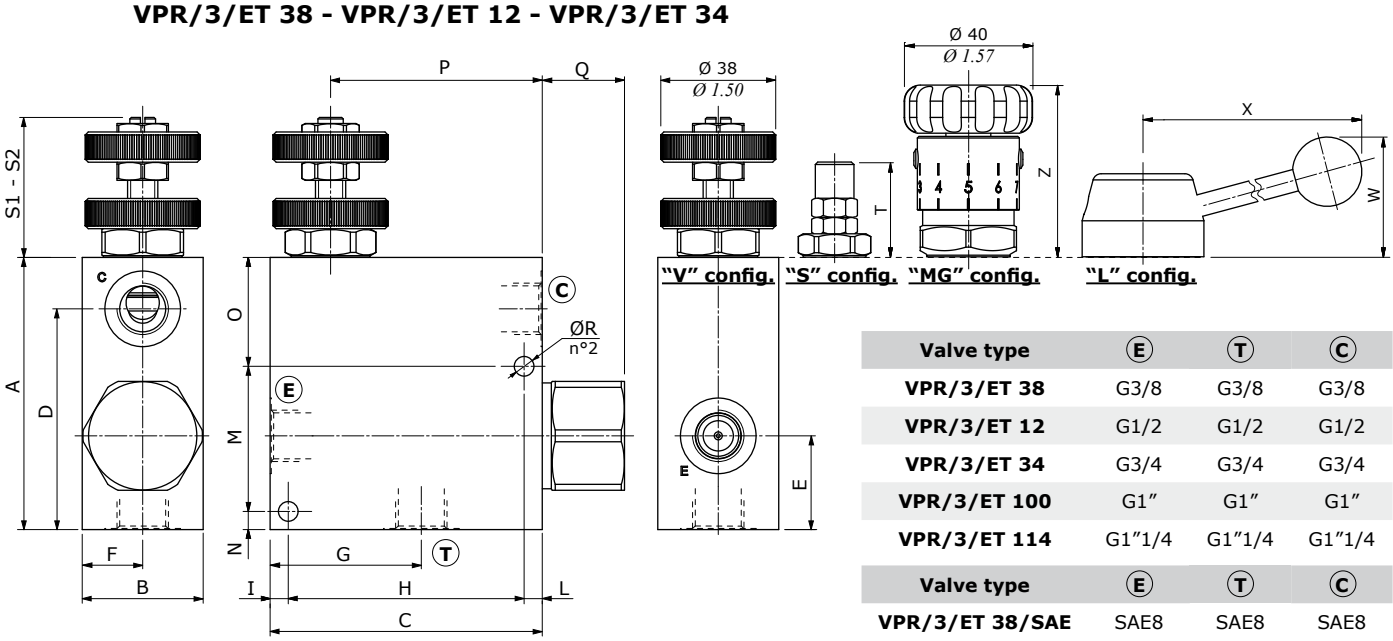
		VPR/3/ET 38	VPR/3/ET 12	VPR/3/ET 34	VPR/3/ET 100	VPR/3/ET 114
Max. inlet flow	*Line E*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	240 l/min *(63.4 US gpm)*	350 l/min *(92.5 US gpm)*
Max. regulated flow	*Line C*	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	250 l/min *(66 US gpm)*
Max. regulated flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*	75 l/min *(19.8 US gpm)*	125 l/min *(33 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*				
Weight	*aluminium*	1.07 kg *(2.36 lb)*	1.02 kg *(2.25 lb)*	2.22 kg *(4.89 lb)*	4.06 kg *(8.95 lb)*	4.49 kg *(20.94 lb)*
	steel	2.48 kg *(5.47 lb)*	2.43 kg *(5.36 lb)*	4.42 kg *(9,74 lb)*	8.49 kg *(18.72 lb)*	9.65 kg *(21.27 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions

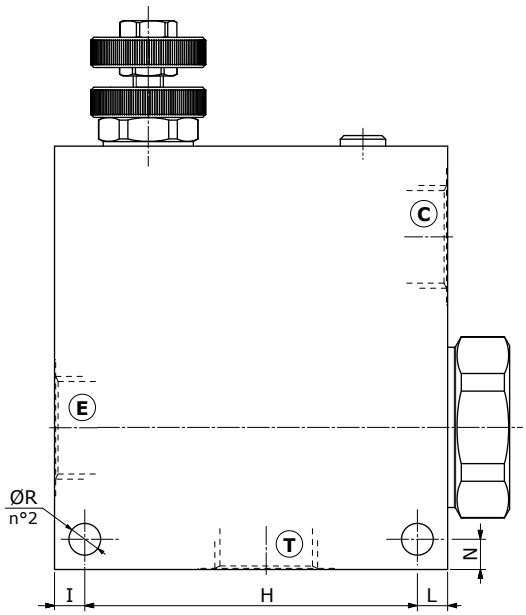
VPR/3/ET 38 - VPR/3/ET 12 - VPR/3/ET 34



Valve type	Ⓔ	Ⓣ	Ⓒ
VPR/3/ET 38	G3/8	G3/8	G3/8
VPR/3/ET 12	G1/2	G1/2	G1/2
VPR/3/ET 34	G3/4	G3/4	G3/4
VPR/3/ET 100	G1"	G1"	G1"
VPR/3/ET 114	G1"1/4	G1"1/4	G1"1/4

Valve type	Ⓔ	Ⓣ	Ⓒ
VPR/3/ET 38/SAE	SAE8	SAE8	SAE8
VPR/3/ET 12/SAE	SAE10	SAE10	SAE10
VPR/3/ET 34/SAE	SAE12	SAE12	SAE12
VPR/3/ET 100/SAE	SAE16	SAE16	SAE16
VPR/3/ET 114/SAE	SAE20	SAE20	SAE20

VPR/3/ET 100 - VPR/3/ET 114



Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F
VPR/3/ET 38 **VPR/3/ET 38/SAE**	90-*3.54*	40-*1.57*	90-*3.54*	73-*2.87*	31-*1.22*	20-*0.78*
VPR/3/ET 12 **VPR/3/ET 12/SAE**	90-*3.54*	40-*1.57*	90-*3.54*	73-*2.87*	31-*1.22*	20-*0.78*
VPR/3/ET 34 **VPR/3/ET 34/SAE**	110-*0.31*	50-*1.97*	110-*4.33*	85-*3.35*	35-*1.38*	25-*0.98*
VPR/3/ET 100 **VPR/3/ET 100/SAE**	140-*5.51*	Alum: 70-*2.75* Steel: 65-*2.56*	130-*5.11*	110-*4.33*	47-*1.85*	Alum: 35-*1.38* Steel: 32.5-*1.38*
VPR/3/ET 114 **VPR/3/ET 114/SAE**	165-*6.5*	Alum: 70-*2.75* Steel: 65-*2.56*	130-*5.11*	135-*5.31*	65-*2.56*	Alum: 35-*1.38* Steel: 32.5-*1.38*

Valve type	G	H	I - L	M	N	O	P
VPR/3/ET 38 **VPR/3/ET 38/SAE**	47.5-*1.87*	78-*3.07*	6-*0.24*	48-*1.89*	6-*0.236*	36-*1.42*	70-*2.75*
VPR/3/ET 12 **VPR/3/ET 12/SAE**	47.5-*1.87*	78-*3.07*	6-*0.24*	48-*1.89*	6-*0.236*	36-*1.42*	70-*2.75*
VPR/3/ET 34 **VPR/3/ET 34/SAE**	66-*2.60*	94-*3.70*	8-*0.31*	55.5-*2.18*	8-*0.315*	46.5-*1.83*	82-*3.23*
VPR/3/ET 100 **VPR/3/ET 100/SAE**	70-*2.75*	110-*4.33*	10-*0.39*	-	10-*0.394*	-	99-*3.90*
VPR/3/ET 114 **VPR/3/ET 114/SAE**	35-*1.38*	110-*4.33*	10-*0.39*	-	10-*0.394*	-	99-*3.90*

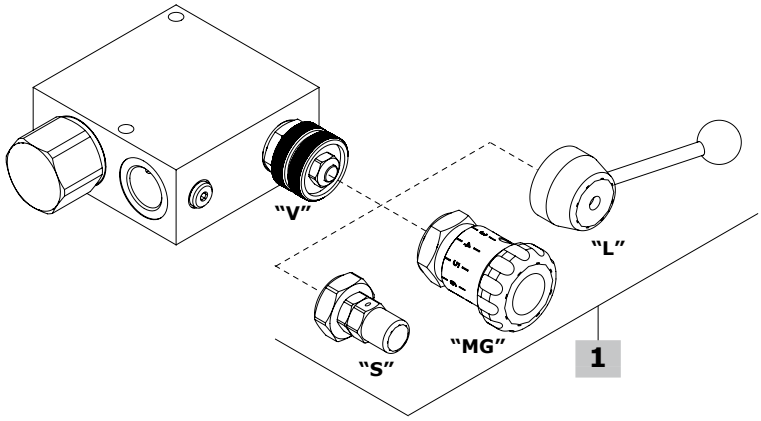
Valve type	Q	ØR	S1	S2*	T	W	X	Z
VPR/3/ET 38 **VPR/3/ET 38/SAE**	27.2-*1.07*	6.5-*0.25*	46.3-*1.82*	52.6-*2.07*	38.5-*1.51*	47.6-*1.87*	101.3-*3.99*	53.3-*2.10*
VPR/3/ET 12 **VPR/3/ET 12/SAE**	27.2-*1.07*	6.5-*0.25*	46.3-*1.82*	53.1-*2.09*	38.5-*1.51*	47.6-*1.87*	101.3-*3.99*	53.3-*2.10*
VPR/3/ET 34 **VPR/3/ET 34/SAE**	34.5-*1.36*	8.5-*0.33*	41.5-*1.73*	50.5-*1.99*	38.5-*1.51*	50.1-*1.97*	103.6-*4.08*	56.5-*2.22*
VPR/3/ET 100 **VPR/3/ET 100/SAE**	20.5-*0.81*	10.5-*0.41*	41.5-*1.73*	50.5-*1.99*	38.5-*1.51*	50.1-*1.97*	103.6-*4.08*	56.5-*2.22*
VPR/3/ET 114 **VPR/3/ET 114/SAE**	20.5-*0.81*	10.5-*0.41*	52-*2.05*	-	41.5-*1.63*	50.5-*1.99*	107.3-*4.22*	56.5-*2.22*

Ordering codes and description composition

Port size

VPR/3/ET 38/V

1



VPR/3/ET complete valves

Adjustment kit type "V" (handwheel)

TYPE	CODE	DESCRIPTION
VPR/3/ET 38/V	1620021100	Aluminium body, 3/8 ports
VPR/3/ET 12/V	1620031100	Aluminium body, 1/2 ports
VPR/3/ET 34/V	1620041100	Aluminium body, 3/4 ports
VPR/3/ET 100/V	1620051100	Aluminium body , 1" ports
VPR/3/ET 114/V	1620061100	Aluminium body, 1" 1/4 ports
VPR/3/ET 38/V/ac	1620022100	Steel body, 3/8 ports
VPR/3/ET 12/V/ac	1620032100	Steel body, 1/2 ports
VPR/3/ET 34/V/ac	1620042100	Steel body, 3/4 ports
VPR/3/ET 100/V/ac	1620052101	Steel body, 1" ports
VPR/3/ET 114/V/ac	1620062101	Steel body, 1" 1/4 ports
VPR/3/ET 38/V/SAE	1620021200	Aluminium body, SAE8 ports
VPR/3/ET 12/V/SAE	1620031200	Aluminium body, SAE10 ports
VPR/3/ET 34/V/SAE	1620041200	Aluminium body, SAE12 ports
VPR/3/ET 100/V/SAE	1620051200	Aluminium body, SAE16 ports
VPR/3/ET 114/V/SAE	1620061200	Aluminium body, SAE20 ports
Adjustment kit type "MG" (handknob)		
VPR/3/ET 38/MG	1620021101	Aluminium body, 3/8 ports
VPR/3/ET 12/MG	1620031101	Aluminium body, 1/2 ports
VPR/3/ET 34/MG	1620041101	Aluminium body, 3/4 ports
VPR/3/ET 100/MG	1620051101	Aluminium body, 1" ports
VPR/3/ET 114/MG	1620061101	Aluminium body, 1" 1/4 ports
Adjustment kit type "L" (lever)		
VPR/3/ET 38/L	1620021102	Aluminium body, 3/8 ports
VPR/3/ET 12/L	1620031102	Aluminium body, 1/2 ports
VPR/3/ET 34/L	1620041102	Aluminium body, 3/4 ports
VPR/3/ET 100/L	1620051102	Aluminium body, 1" ports
VPR/3/ET 114/L	1620061102	Aluminium body, 1" 1/4 ports
VPR/3/ET 38/L/SAE	1620021201	Aluminium body, SAE8 ports
VPR/3/ET 34/L/SAE	1620042200	Aluminium body, SAE12 ports

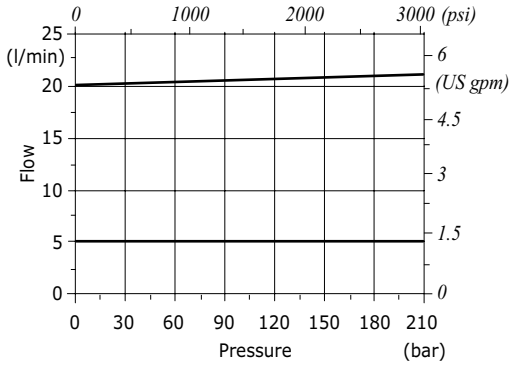
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

1 Adjustment kit

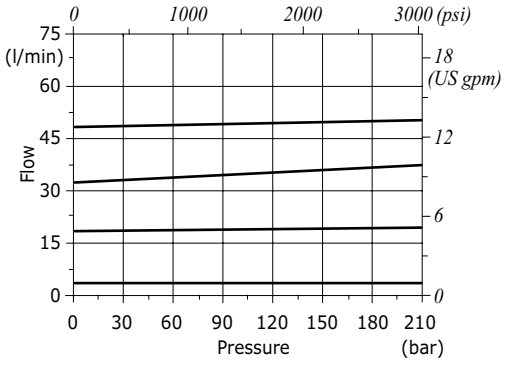
TYPE	CODE	DESCRIPTION
For VPR/3/ET 38 valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET 12 valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET 34 and VPR/2/ET 100 valves		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)
For VPR/3/ET 114 valve		
V	5KT6340603	"V" handwheel type
MG	5KT6200605	"MG" handknob type
S	5KT6200604	"S" screw type

Rating diagrams

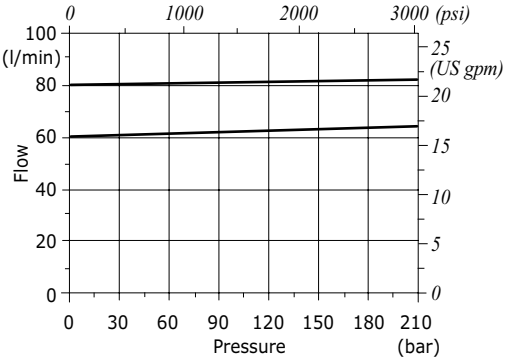
VPR/3/ET 38 compensation diagram E-> C



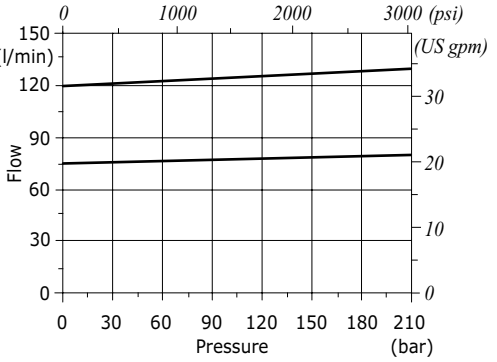
VPR/3/ET 12 compensation diagram E-> C



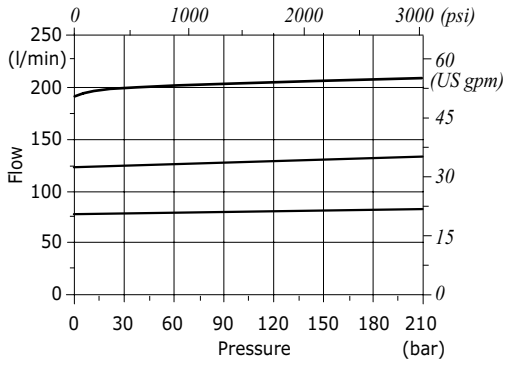
VPR/3/ET 34 compensation diagram E-> C



VPR/3/ET 100 compensation diagram E-> C



VPR/3/ET 114 compensation diagram E-> C



Type VPR/3/ET/RL

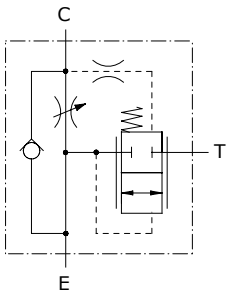
flow control pressure compensated valves

- 3 ways
- With reverse free - flow check

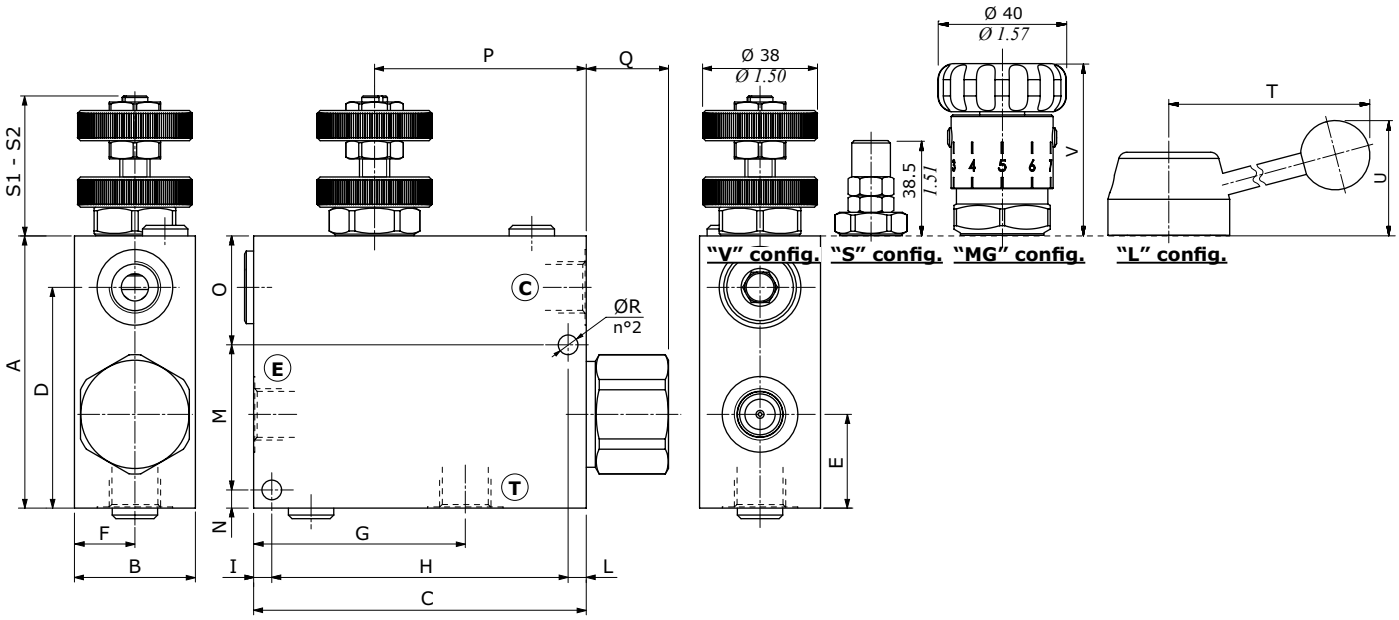
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

		VPR/3/ET/RL 38	VPR/3/ET/RL 12	VPR/3/ET/RL 34
Max. inlet flow	*Line E*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*
Max. regulated flow	*Line C*	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*
Max. regulated flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*		
Weight	*aluminium*	1.30 kg *(2.86 lb)*	1.25 kg *(2.75 lb)*	2.75 kg *(6.06 lb)*
	steel	2.86 kg *(6.3 lb)*	2.72 kg *(6 lb)*	5.95 kg *(13,12 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions



Valve type	E	T	C
VPR/3/ET/RL 38	G3/8	G3/8	G3/8
VPR/3/ET/RL 12	G1/2	G1/2	G1/2
VPR/3/ET/RL 34	G3/4	G3/4	G3/4

Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G	H	I - L	M	N	O	P
VPR/3/ET/RL 38	90-*3.54*	40-*1.57*	110-*0.43*	17-*0.24*	31-*1.22*	20-*0.78*	70-*2.75*	98-*3.86*	6-*0.236*	48-*1.89*	6-*0.236*	36-*0.24*	70-*2.75*
VPR/3/ET/RL 12	90-*3.54*	40-*1.57*	110-*0.43*	17-*0.24*	31-*1.22*	20-*0.78*	70-*2.75*	98-*3.86*	6-*0.236*	48-*1.89*	6-*0.236*	36-*0.24*	70-*2.75*
VPR/3/ET/RL 34	120-*4.72*	50-*1.97*	138-*5.43*	25-*0.98*	35-*1.38*	25-*0.98*	94-*3.7*	122-*4.80*	8-*0.315*	55.5-*2.18*	8-*0.315*	56.5-*0.24*	81.5-*3.21*

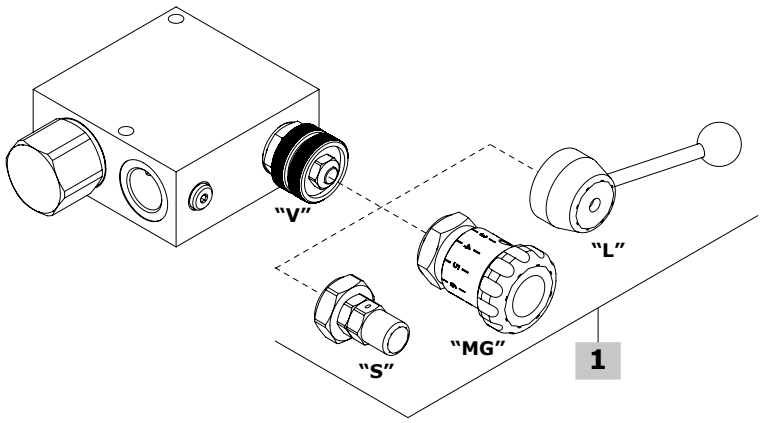
Valve type	Q	ØR	S1	S2*	T	U	V
VPR/3/ET/RL 38	27.2-*1.07*	6.5-*0.256*	46.3-*1.82*	52.6-*2.07*	101.3-*3.99*	47.6-*1.87*	53.3-*2.10*
VPR/3/ET/RL 12	27.2-*1.07*	6.5-*0.256*	46.3-*1.82*	53.1-*2.09*	101.3-*3.99*	47.6-*1.87*	53.3-*2.10*
VPR/3/ET/RL 34	34.5-*1.36*	8.5-*0.335*	41.5-*1.73*	50.5-*1.99*	103.6-*4.08*	50.1-*1.97*	56.5-*2.22*

Ordering codes and description composition

Port size

VPR/3/ET/RL 38/V

1



VPR/3/ET/RL complete valves

TYPE	CODE	DESCRIPTION
Adjustment kit type "V" (handwheel)		
VPR/3/ET/RL 38/V	1621021100	Aluminium body, 3/8 ports
VPR/3/ET/RL 12/V	1621031100	Aluminium body, 1/2 ports
VPR/3/ET/RL 34/V	1621041100	Aluminium body, 3/4 ports
VPR/3/ET/RL 38/V/ac	1621022100	Steel body, 3/8 ports
VPR/3/ET/RL 12/V/ac	1621032101	Steel bod , 1/2 ports
VPR/3/ET/RL 34/V/ac	1621042100	Steel body, 3/4 ports
Adjustment kit type "MG" (handknob)		
VPR/3/ET/RL 38/MG	1621021101	Aluminium body, 3/8 ports
VPR/3/ET/RL 12/MG	1621031101	Aluminium body, 1/2 ports
VPR/3/ET/RL 34/MG	1621041101	Aluminium body, 3/4 ports
Adjustment kit type "L" (lever)		
VPR/3/ET/RL 38/L	1621021102	Aluminium body, 3/8 ports
VPR/3/ET/RL 12/L	1621031102	Aluminium body, 1/2 ports
VPR/3/ET/RL 34/L	1621041102	Aluminium body, 3/4 ports

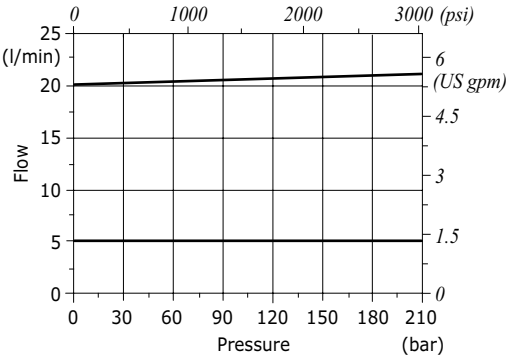
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

1 Adjustment kit

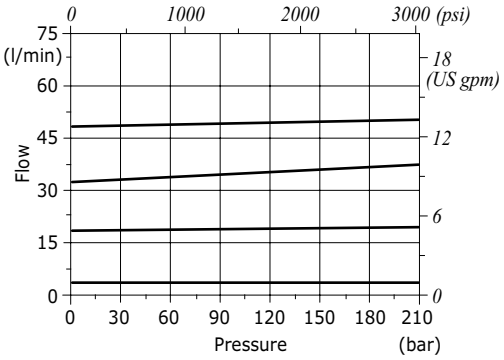
TYPE	CODE	DESCRIPTION
For VPR/3/ET 38 valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET 12 valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET 34 valve		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)

Rating diagrams

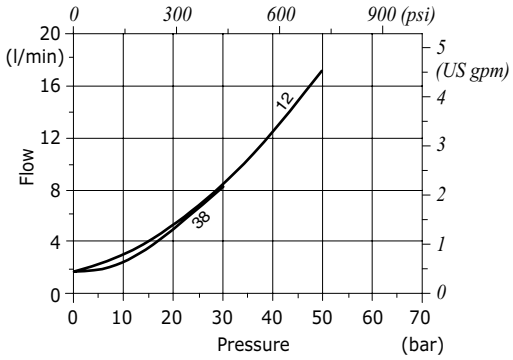
VPR/3/ET/RL 38
pressure compensation diagram (E→C)



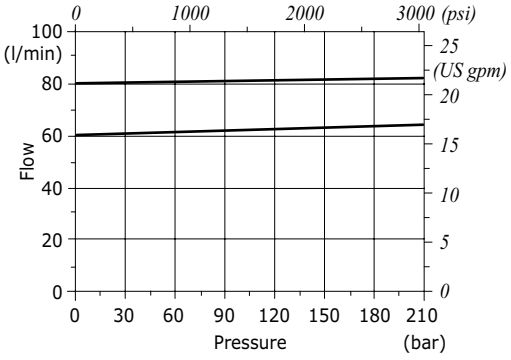
VPR/3/ET/RL 12
pressure compensation diagram (E→C)



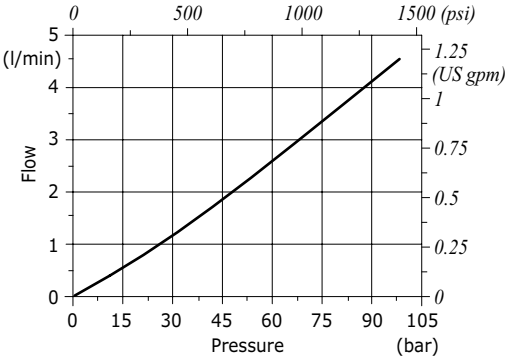
VPR/3/ET/RL (12-38)
pressure drop vs. flow (C→E)



VPR/3/ET/RL 34
pressure compensation diagram (E→C)



VPR/3/ET/RL 34
pressure drop vs. flow (C→E)



Type VPR/3/ET/VMP

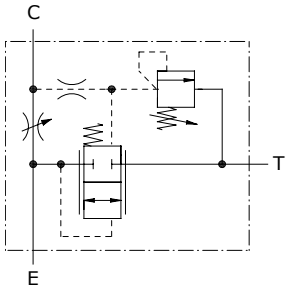
flow control pressure compensated valves

- 3 ways
- With pressure relief valve

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

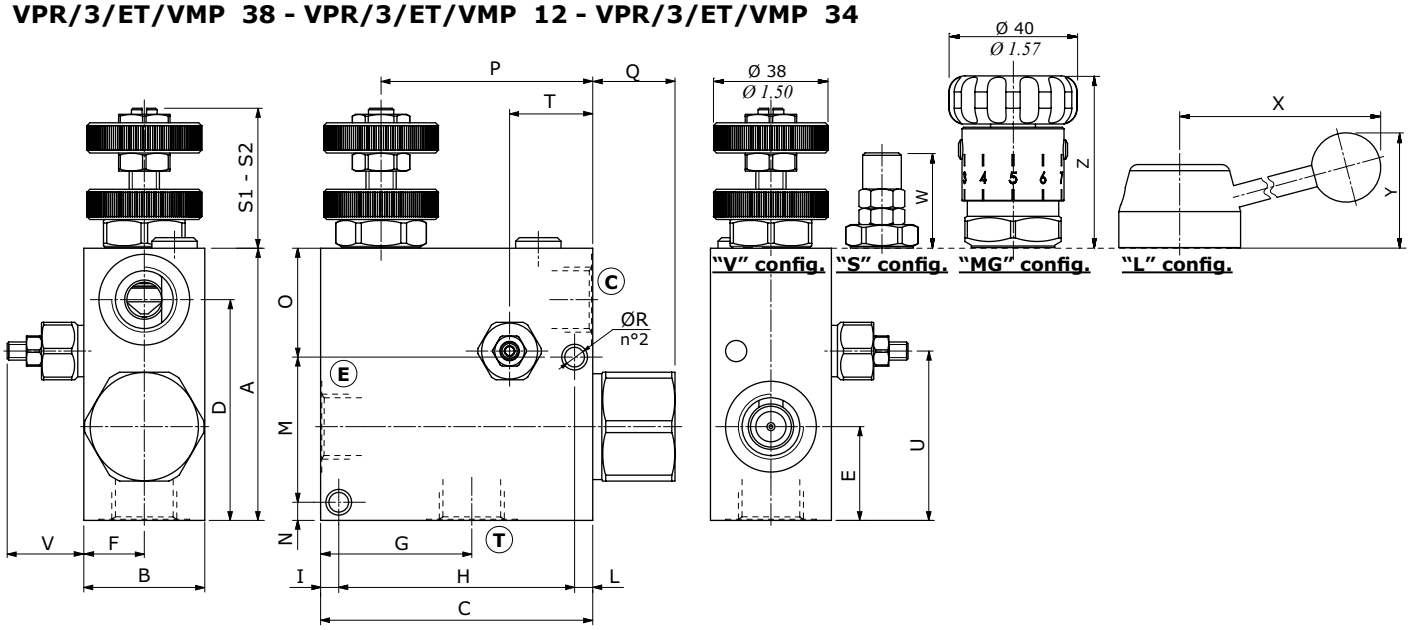
		VPR/3/ET/ VMP 38	VPR/3/ET/ VMP 12	VPR/3/ET/ VMP 34	VPR/3/ET/ VMP 100	VPR/3/ET/ VMP 114
Max. inlet flow	*Line E*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	240 l/min *(63.4 US gpm)*	350 l/min *(92.5 US gpm)*
Max. regulated flow	*Line C*	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(40 US gpm)*	250 l/min *(66 US gpm)*
Max. regulated flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*	75 l/min *(19.8 US gpm)*	125 l/min *(33 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*				
Weight	*aluminium*	1.10 kg *(2.42 lb)*	1.20 kg *(2.64 lb)*	2.10 kg *(4.62 lb)*	4.10 kg *(9.04 lb)*	4.66 kg *(10.27 lb)*
	steel	2.31 kg *(5.09 lb)*	2.42 kg *(5.33 lb)*	4.37 kg *(9,63 lb)*	8.27 kg *(18.23 lb)*	9.43 kg *(20.79 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)

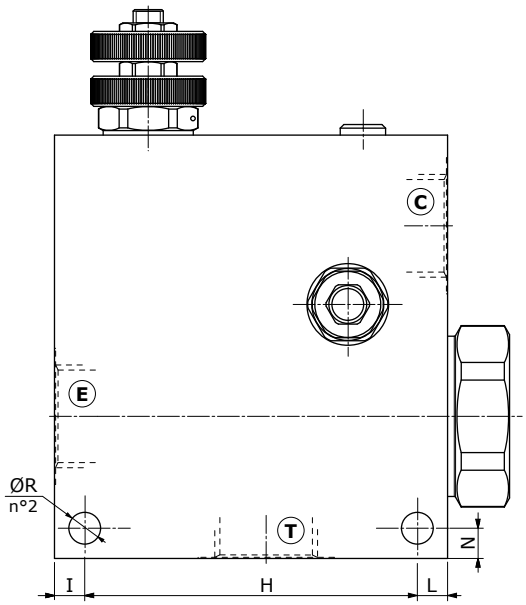


Dimensions

VPR/3/ET/VMP 38 - VPR/3/ET/VMP 12 - VPR/3/ET/VMP 34



VPR/3/ET/VMP 100
VPR/3/ET/VMP 114



Dimensions are in mm-*in*

Valve type	A	B	C	D	E	G
VPR/3/ET/VMP 38 VPR/3/ET/VMP 38/SAE	90-*3.54*	40-*1.57*	90-*3.54*	73-*2.87*	31-*1.22*	50-*1.97*
VPR/3/ET/VMP 12 VPR/3/ET/VMP 12/SAE	90-*3.54*	40-*1.57*	90-*3.54*	73-*2.87*	31-*1.22*	50-*1.97*
VPR/3/ET/VMP 34 VPR/3/ET/VMP 34/SAE	110-*0.31*	50-*1.97*	110-*4.33*	85-*3.35*	35-*1.38*	66-*2.60*
VPR/3/ET/VMP 100	140-*5.51*	65-*2.56*	130-*5.11*	110-*4.33*	47-*1.85*	70-*2.75*
VPR/3/ET/VMP 114	165-*6.5*	Alum:70-*2.75* Steel:65-*2.56*	130-*5.11*	135-*5.31*	65-*2.56*	70-*2.75*

Valve type	F	H	I-L	M	N	O
VPR/3/ET/VMP 38 VPR/3/ET/VMP 38/SAE	20-*0.78*	78-*3.07*	6-*0.236*	48-*1.89*	6-*0.236*	36-*1.42*
VPR/3/ET/VMP 12 VPR/3/ET/VMP 12/SAE	20-*0.78*	78-*3.07*	6-*0.236*	48-*1.89*	6-*0.236*	36-*1.42*
VPR/3/ET/VMP 34 VPR/3/ET/VMP 34/SAE	25-*0.98*	94-*3.70*	8-*0.31*	55.5-*2.18*	8-*0.31*	46.5-*1.83*
VPR/3/ET/VMP 100	32.5-*1.28*	110-4.33	10-*0.394*	-	10-*0.394*	-
VPR/3/ET/VMP 114	Alum:35-*1.38* Steel:32.5-*1.28*	110-*4.33*	10-*0.394*	-	10-*0.394*	-

Valve type	P	Q	ØR	S1	S2	T
VPR/3/ET/VMP 38 VPR/3/ET/VMP 38/SAE	70-*2.75*	27.2-*1.07*	6.5-*0.256*	46.3-*1.82*	52.6-*2.07*	27.5-*1.08*
VPR/3/ET/VMP 12 VPR/3/ET/VMP 12/SAE	70-*2.75*	27.2-*1.07*	6.5-*0.256*	46.3-*1.82*	53.1-*2.09*	27.5-*1.08*
VPR/3/ET/VMP 34 VPR/3/ET/VMP 34/SAE	82-*3.23*	34.5-*1.36*	8.5-*0.335*	41.5-*1.73*	50.5-*1.99*	44-*1.73*
VPR/3/ET/VMP 100	99-*3.90*	20.5-*0.81*	10.5-*0.413*	41.5-*1.73*	50.5-*1.99*	33-*0.12*
VPR/3/ET/VMP 114	99-*3.90*	20.5-*0.81*	10.5-*0.413*	52-*2.05*	-	33-*0.12*

Valve type	U	V	W	X	Y	Z
VPR/3/ET/VMP 38 VPR/3/ET/VMP 38/SAE	56-*2.20*	27.2-*1.07*	38.5-*1.51*	101.3-*3.99*	47.6-*1.87*	53.3-*2.10*
VPR/3/ET/VMP 12 VPR/3/ET/VMP 12/SAE	56-*2.20*	27.2-*1.07*	38.5-*1.51*	101.3-*3.99*	47.6-*1.87*	53.3-*2.10*
VPR/3/ET/VMP 34 VPR/3/ET/VMP 34/SAE	63.5-*2.50*	27.2-*1.07*	38.5-*1.51*	103.6-*4.08*	50.1-*1.97*	56.5-*2.22*
VPR/3/ET/VMP 100	84-*3.31*	53-*2.09*	38.5-*1.51*	103.6-*4.08*	50.1-*1.97*	56.5-*2.22*
VPR/3/ET/VMP 114	98-*3.86*	43-*1.69*	41.5-*1.73*	107.3-*4.22*	50.5-*1.99*	56.5-*2.22*

Valve type	E	T	C
VPR/3/ET/VMP 38	G3/8	G3/8	G3/8
VPR/3/ET/VMP 12	G1/2	G1/2	G1/2
VPR/3/ET/VMP 34	G3/4	G3/4	G3/4
VPR/3/ET/VMP 100	G1″	G1″	G1″
VPR/3/ET/VMP 114	G1″1/4	G1″1/4	G1″1/4

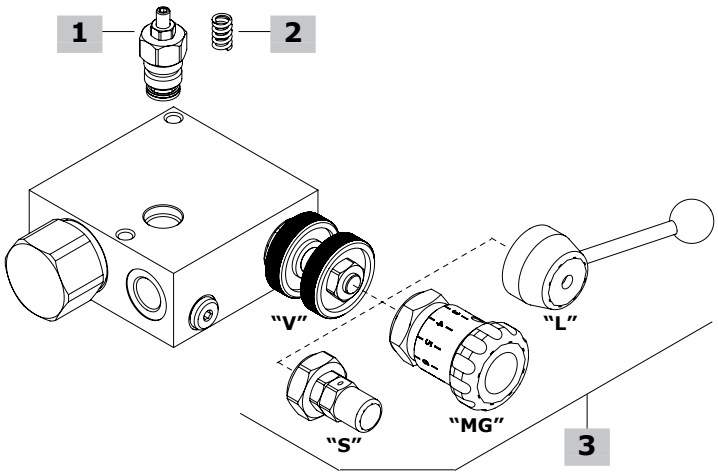
Valve type	E	T	C
VPR/3/ET/VMP 38/SAE	SAE8	SAE8	SAE8
VPR/3/ET/VMP 12/SAE	SAE10	SAE10	SAE10
VPR/3/ET/VMP 34/SAE	SAE12	SAE12	SAE12

Ordering codes and description composition

Port size

VPR/3/ET/VMP 38/V/02.TS

3 1 2



VPR/3/ET/VMP complete valves

Adjustment kit type "V" (handwheel)

TYPE: **VPR/3/ET/VMP 38/V/02.TS** CODE: 1623021100
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 12/V/02.TS** CODE: 1623031100
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 34/V/02.TS** CODE: 1623041100
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 100/V/02.TS** CODE: 1623051103
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 114/V/02.TS** CODE: 1623061100
DESCRIPTION: alum. body, 1"1/4 ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 38/V/02.TS/ac** CODE: 1623022100
DESCRIPTION: steel body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 12/V/02.TS/ac** CODE: 1623032100
DESCRIPTION: steel body, 1/2 ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 34/V/03.TS/ac** CODE: 1623042102
DESCRIPTION: steel body, 3/4 ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 100/V/03.TS/ac** CODE: 1623052104
DESCRIPTION: steel body, 1" ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 114/V/03.TS/ac** CODE: 1623062100
DESCRIPTION: steel body, 1"1/4 ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 38/V/02.TS/SAE** CODE: 1623021200
DESCRIPTION: alum. body, SAE8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 12/V/02.TS/SAE** CODE: 1623031200
DESCRIPTION: alum. body, SAE10 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 34/V/02.TS/SAE** CODE: 1623041200
DESCRIPTION: alum. body, SAE12 ports, setting range 50-220 bar *(725-3200 psi)*

Adjustment kit type "MG" (handknob)

TYPE: **VPR/3/ET/VMP 38/MG/02.TS** CODE: 16230211001
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 12/MG/02.TS** CODE: 1623031101
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 34/MG/02.TS** CODE: 1623041101
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 100/MG/02.TS** CODE: 1623051101
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*
VPR/3/ET/VMP 114/MG/02.TS CODE: 1623061101
DESCRIPTION: alum. body, 1"1/4 ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 12/MG/02.TS/SAE** CODE: 1623031201
DESCRIPTION: alum. body, SAE10 ports, setting range 50-220 bar *(725-3200 psi)*

Adjustment kit type "L" (lever)

TYPE: **VPR/3/ET/VMP 38/L/02.TS** CODE: 1623021102
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 12/L/02.TS** CODE: 1623031102
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 34/L/02.TS** CODE: 1623041102
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/VMP 100/L/02.TS** CODE: 1623051102
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 114/L/02.TS** CODE: 1623061102
DESCRIPTION: alum. body, 1"1/4 ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET/VMP 38/L/02.TS/SAE** CODE: 1623021202
DESCRIPTION: alum. body, SAE8 ports, setting 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.

1 Pressure relief valve

TYPE	CODE	DESCRIPTION
For VPR/3/ET/VMP 38 and 12 + VPR/3/ET/VMP 34 alluminium body		
VMP 02/TS.S	1100000101	Direct acting cartridge, setting range 50-220 bar *(725-3200 psi)*
For VPR/3/ET/VMP 34 steel body + VPR/3/ET/VMP 100 and 114		
MC08A/0S2B	0MC08002000	Direct acting cartridge, setting range 50-200 bar *(725-2900 psi)*

2 Pressure setting springs

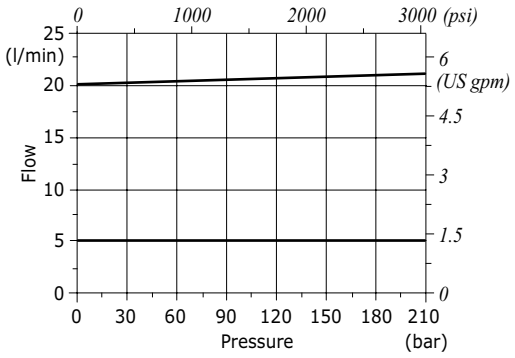
TYPE	CODE	DESCRIPTION
For VPR/3/ET/VMP 38 and 12 + VPR/3/ET/VMP 34 alluminium body		
TV	3ML1081400	Setting range 5-80 bar *(72.5-1150 psi)*
TS	3ML1081401	Setting range 50-220 bar *(725-3200 psi)*
TR	3ML1081402	Setting range 180-350 bar *(2600-5100 psi)*
For VPR/3/ET/VMP 34 steel body + VPR/3/ET/VMP 100 and 114		
TV	3ML1092500	Setting range 5-50 bar *(72.5-725 psi)*
TS	3ML1092501	Setting range 50-200 bar *(725-2900 psi)*
TR	3ML1092502	Setting range 150-350 bar *(2600-5100 psi)*

3 Adjustment kit

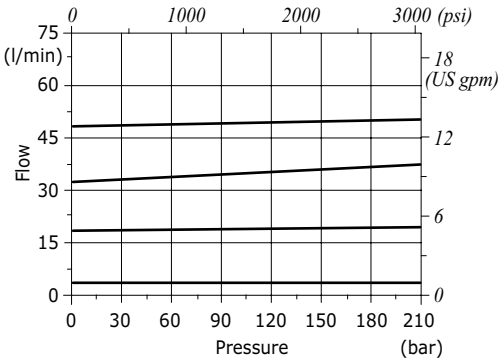
TYPE	CODE	DESCRIPTION
For VPR/3/ET/VMP 38 valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET/VMP 12 valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET/VMP 34 and VPR/2/ET/VMP 100 valves		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)
For VPR/3/ET/VMP 114 valve		
V	5KT6340603	"V" handwheel type
MG	5KT6200605	"MG" handknob type
S	5KT6200604	"S" screw type

Rating diagrams

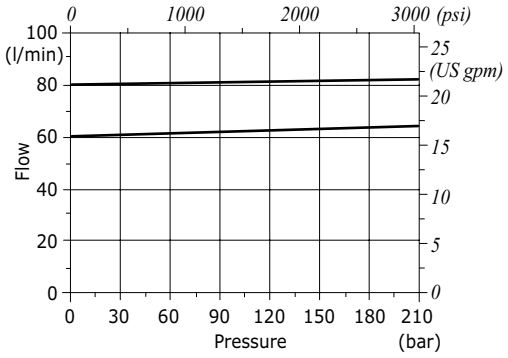
VPR/3/ET/VMP 38 pressure compensation diagram (E→C)



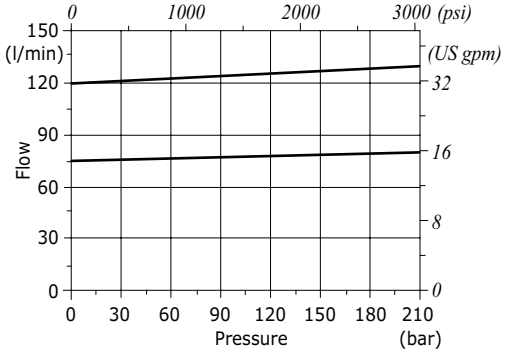
VPR/3/ET/VMP 12 pressure compensation diagram (E→C)



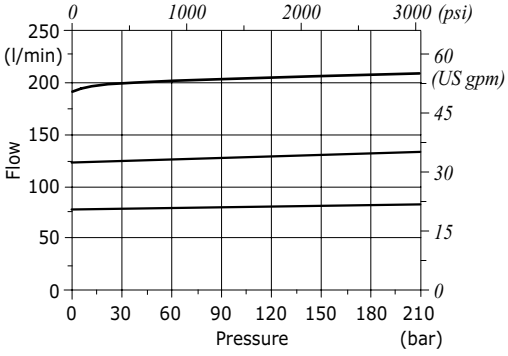
VPR/3/ET/VMP 34 pressure compensation diagram (E→C)



VPR/3/ET/VMP 100 pressure compensation diagram (E→C)



VPR/3/ET/VMP 114 pressure compensation diagram (E→C)



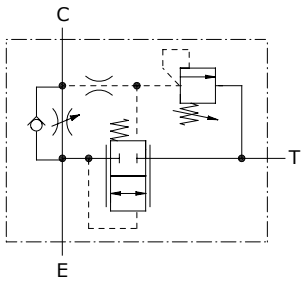
Type VPR/3/ET/RL/VMP
flow control pressure compensated valves

- 3 ways
- With reverse free - flow check
- With pressure relief valve

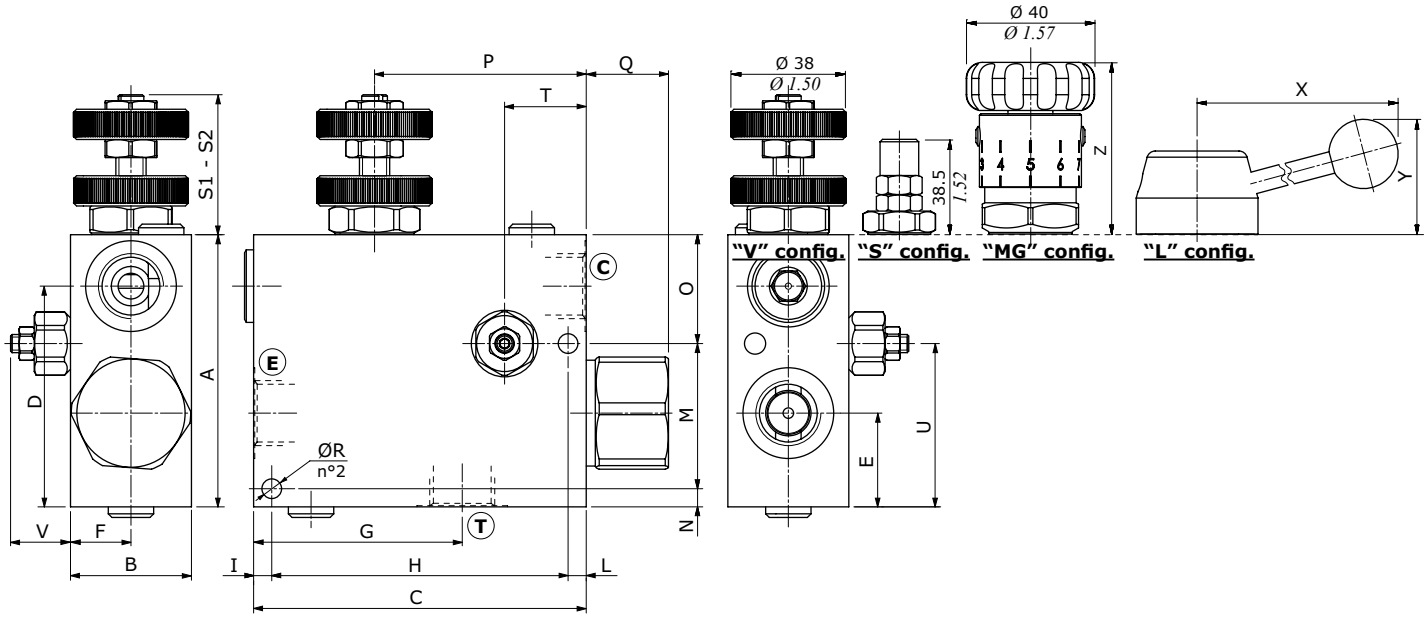
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

		VPR/3/ET/RL/VMP 38	VPR/3/ET/RL/VMP 12	VPR/3/ET/RL/VMP 34
Max. inlet flow	*Line C*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*
Max. regulated flow	*Line E*	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*
Max. regulated flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*		
Weight	*aluminium*	1.30 kg *(2.86 lb)*	1.25 kg *(2.75 lb)*	2.83 kg *(6.24 lb)*
	steel	2.78 kg *(6.13 lb)*	2.68 kg *(5.9 lb)*	6 kg *(13,22 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions



Valve type	Ⓔ	Ⓣ	Ⓒ
VPR/3/ET/RL/VMP 38	G3/8	G3/8	G3/8
VPR/3/ET/RL/VMP 12	G1/2	G1/2	G1/2
VPR/3/ET/RL/VMP 34	G3/4	G3/4	G3/4

Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G	H	I - L	M	N	O
VPR/3/ET/RL/VMP 38	90-*3.54*	40-*1.57*	110-*4.33*	73-*2.87*	31-*1.22*	20-*0.78*	70-*2.75*	98-*3.86*	6-*0.236*	48-*1.89*	6-*0.24*	36-*1.42*
VPR/3/ET/RL/VMP 12	90-*3.54*	40-*1.57*	110-*4.33*	73-*2.87*	31-*1.22*	20-*0.78*	69-*2.72*	98-*3.86*	6-*0.236*	48-*1.89*	6-*0.24*	36-*1.42*
VPR/3/ET/RL/VMP 34	120-*4.72*	50-*1.97*	138-*5.43*	95-*3.74*	35-*1.38*	25-*0.98*	94-*3.70*	122-*4.80*	8-*0.315*	55.5-*2.18*	8-*0.315*	56.5-*2.22*

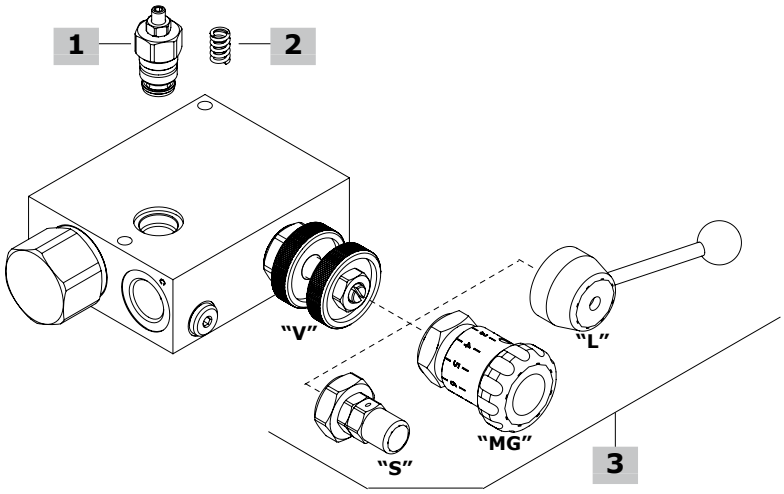
Valve type	P	Q	ØR	S1	S2	U	V	X	Y	Z
VPR/3/ET/RL/VMP 38	70-*2.76*	27.2-*1.07*	6.5-*0.25*	46.3-*1.82*	52.6-*2.07*	54-*2.13*	29.5-*1.16*	101.3-*3.99*	47.6-*1.87*	53.3-*2.10*
VPR/3/ET/RL/VMP 12	70-*2.76*	27.2-*1.07*	6.5-*0.25*	46.3-*1.82*	53.1-*2.09*	54-*2.13*	29.5-*1.16*	101.3-*3.99*	47.6-*1.87*	53.3-*2.10*
VPR/3/ET/RL/VMP 34	81.5-*3.21*	34.5-*1.36*	8.5-*0.33*	41.5-*1.73*	50.5-*1.99*	65-*2.56*	29.5-*1.16*	103.6-*4.08*	50.1-*1.97*	56.5-*2.22*

Ordering codes and description composition

Port size

VPR/3/ET/RL/VMP 38/V/02.TS

3 1 2



VPR/3/ET/RL/VMP complete valves

Adjustment kit type "V" (handwheel)

TYPE: **VPR/3/ET/RL/VMP 38/V/02.TS** CODE: 1623221101
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 12/V/02.TS** CODE: 1623231101
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 34/V/02.TS** CODE: 1623241101
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 38/V/02.TS/ac** CODE: 1623222100
DESCRIPTION: steel body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 12/V/02.TS/ac** CODE: 1623232100
DESCRIPTION: steel body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 34/V/02.TS/ac** CODE: 1623242100
DESCRIPTION: steel body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*

Adjustment kit type "MG" (handknob)

TYPE: **VPR/3/ET/RL/VMP 38/MG/02.TS** CODE**:** 1623221103
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 12/MG/02.TS** CODE**:** 1623231103
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 34/MG/02.TS** CODE**:** 1623241102
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*

Adjustment kit type "L" (lever)

TYPE: **VPR/3/ET/RL/VMP 38/L/02.TS** CODE: 1623221104
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 12/L/02.TS** CODE: 1623231100
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET/RL/VMP 34/L/02.TS** CODE: 1623241100
DESCRIPTION: alum. body, 3/4 ports, setting 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.

1 Pressure relief valve

TYPE	CODE	DESCRIPTION
VMP 02/TS.S	1100000101	Direct acting cartridge, setting range 50-220 bar *(725-3200 psi)*

2 Pressure setting springs

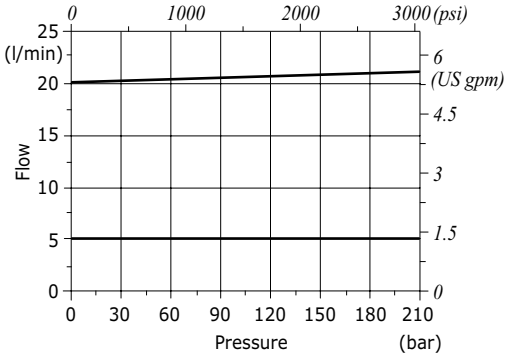
TYPE	CODE	DESCRIPTION
TV	3ML1081400	Setting range 5-80 bar *(72.5-1150 psi)*
TS	3ML1081401	Setting range 50-220 bar *(725-3200 psi)*
TR	3ML1081402	Setting range 180-350 bar *(2600-5100 psi)*

3 Adjustment kit

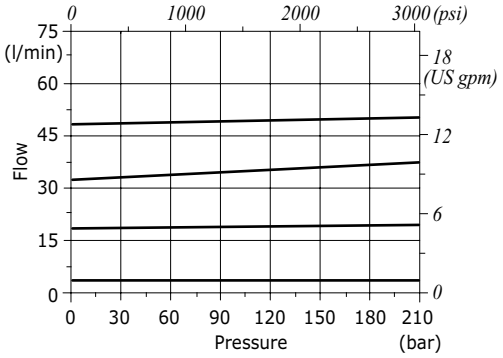
TYPE	CODE	DESCRIPTION
For VPR/3/ET/RL/VMP 38 valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET/RL/VMP 12 valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET/RL/VMP 34		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)

Rating diagrams

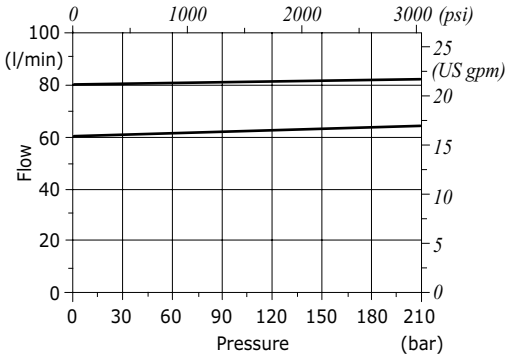
VPR/3/ET/RL/VMP 38 pressure compensation diagram (E→C)



VPR/3/ET/RL/VMP 12 pressure compensation diagram (E→C)



VPR/3/ET/RL/VMP 34 pressure compensation diagram (E→C)



Type VPR/3/ET/VMP+VE

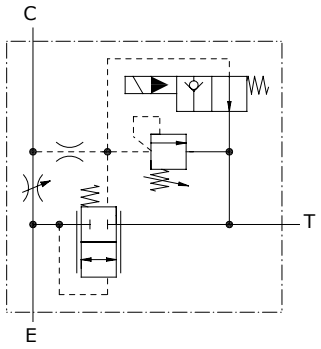
flow control pressure compensated valves

- 3 ways
- Electric venting
- With pressure relief valve

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

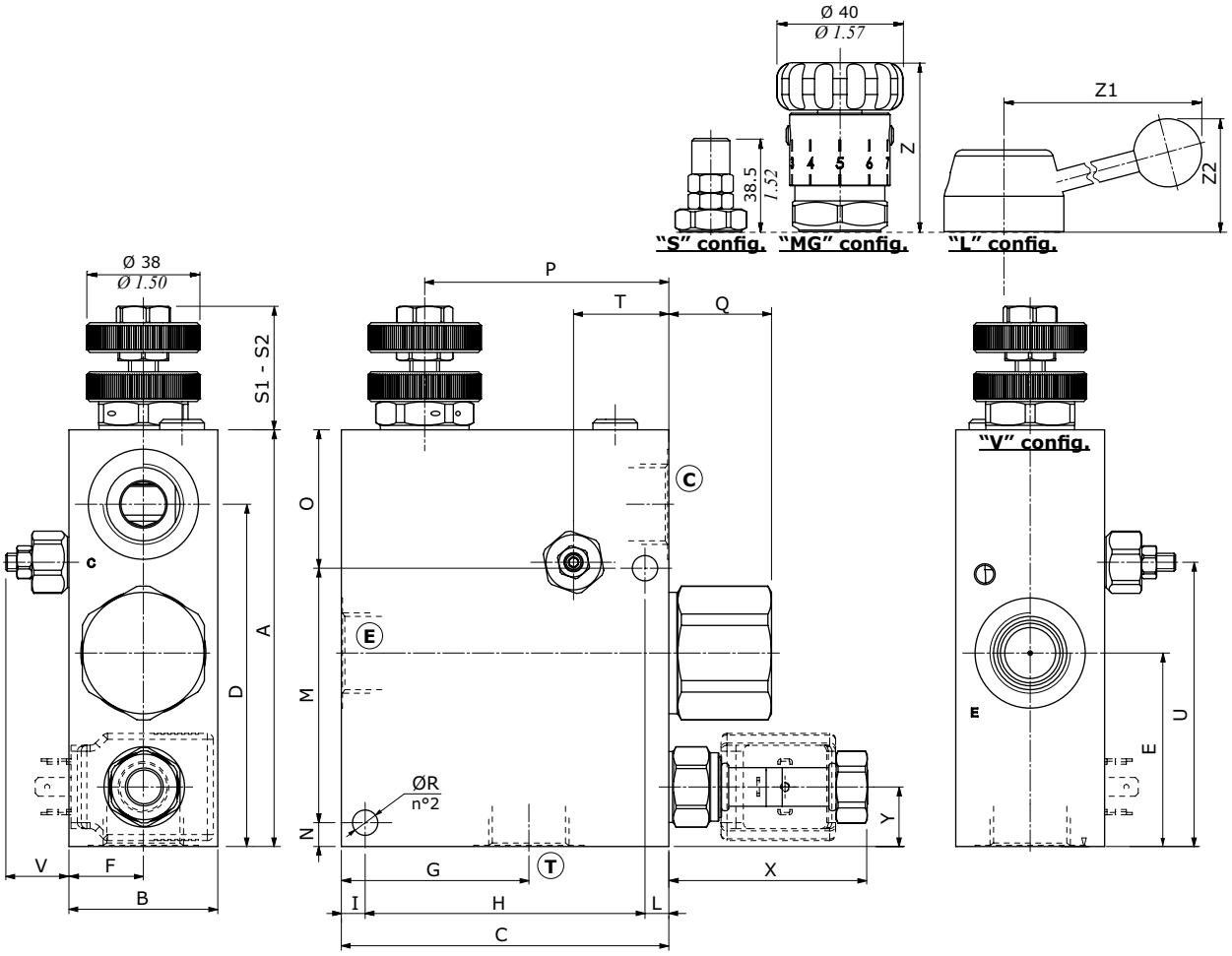
		VPR/3/ET 38 +VMP+VE	VPR/3/ET 12 +VMP+VE	VPR/3/ET 34 +VMP+VE	VPR/3/ET 100 +VMP+VE
Max. inlet flow	*Line E*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	240 l/min *(63.4 US gpm)*
Max. regulated flow	*Line C*	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*
Max. regulated flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*	75 l/min *(19.8 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*			
Weight	*aluminium*	1.45 kg *(3.19 lb)*	1.45 kg *(3.19 lb)*	2.61 kg *(5.75 lb)*	5.70 kg *(12.56 lb)*
	steel	3.08 kg *(6.79 lb)*	3.08 kg *(6.79 lb)*	5.54 kg *(12.21 lb)*	12.21 kg *(26.92 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions

VPR/3/ET 38+VMP+VE - VPR/3/ET 12+VMP+VE - VPR/3/ET 34+VMP+VE



Valve type	Ⓔ	Ⓣ	Ⓒ
VPR/3/ET 38+VMP+VE	G3/8	G3/8	G3/8
VPR/3/ET 12+VMP+VE	G1/2	G1/2	G1/2
VPR/3/ET 34+VMP+VE	G3/4	G3/4	G3/4
VPR/3/ET 100+VMP+VE	G1"	G1"	G1"

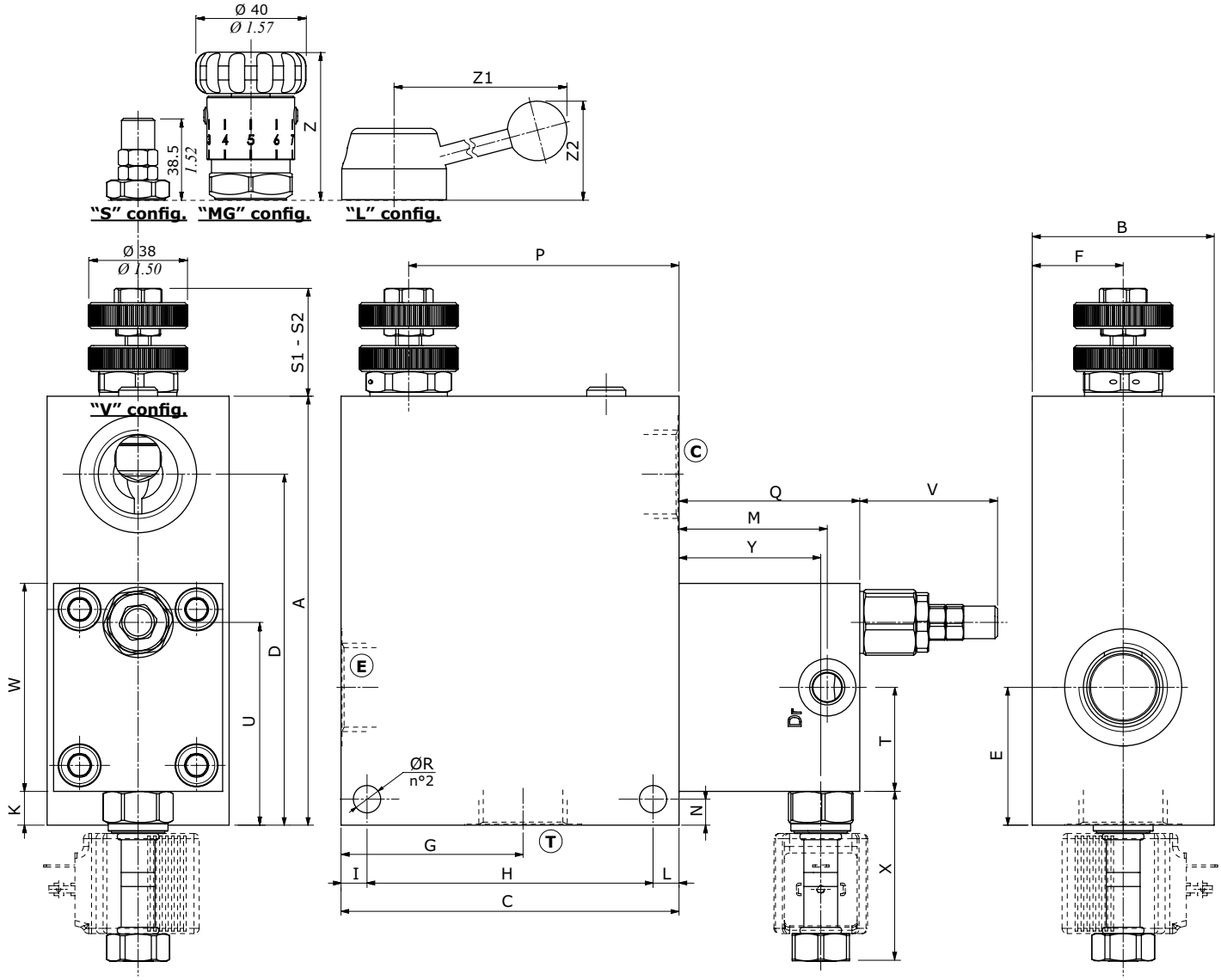
Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G	H	I - L	K	M	N	P
VPR/3/ET 38+VMP+VE	120-*4.72*	40-*1.57*	90-*3.54*	103-*4.05*	61-*2.40*	20-*0.78*	50-*1.97*	78-*3.07*	6-*0.236*	-	78-*3.07*	6-*0.236*	70-*2.75*
VPR/3/ET 12+VMP+VE	120-*4.72*	40-*1.57*	90-*3.54*	103-*4.05*	61-*2.40*	20-*0.78*	50-*1.97*	78-*3.07*	6-*0.236*	-	78-*3.07*	6-*0.236*	70-*2.75*
VPR/3/ET 34+VMP+VE	140-*5.51*	50-*1.97*	110-*4.33*	115-*4.53*	65-*2.56*	25-*0.98*	66-*0.31*	94-*3.7*	8-*0.315*	-	85.5-*3.37*	8-*0.315*	82-*3.23*
VPR/3/ET 100+VMP+VE	165-*6.50*	70-*2.75*	130-*5.12*	135-*5.31*	53-*2.08*	35-*1.38*	70-*2.75*	110-*4.33*	10-*0.394*	13-*0.51*	57-*2.24*	10-*0.394*	104-*4.09*

Valve type	Q	ØR	S1	S2	T	U	V	W	X (NA)	Y	Z	Z1	Z2
VPR/3/ET 38+VMP+VE	27.2-*1.07*	6.5-*0.25*	46.3-*1.82*	52.6-*2.07*	27-*1.06*	84-*3.31*	25-*0.98*	-	66.7-*2.63*	20-*0.79*	53.3-*2.10*	101.3-*3.99*	47.6-*1.87*
VPR/3/ET 12+VMP+VE	27.2-*1.07*	6.5-*0.25*	46.3-*1.82*	53.1-*2.09*	27-*1.06*	84-*3.31*	25-*0.98*	-	66.7-*2.63*	21.5-*0.85*	53.3-*2.10*	101.3-*3.99*	47.6-*1.87*
VPR/3/ET 34+VMP+VE	34.5-*1.36*	8.5-*0.33*	41.5-*1.73*	50.5-*1.99*	32-*1.26*	95.5-*3.76*	25-*0.98*	-	66.7-*2.63*	20-*0.79*	56.5-*2.22*	103.6-*4.08*	50.1-*1.97*
VPR/3/ET 100+VMP+VE	69.5-*2.74*	10.5-*0.413*	41.5-*1.73*	50.5-*1.99*	40-*1.57*	78-*3.07*	53-*2.09*	80-*3.15*	65.2-*2.57*	54.5-*2.15*	56.5-*2.22*		

Dimensions

VPR/3/ET 100+VMP+VE

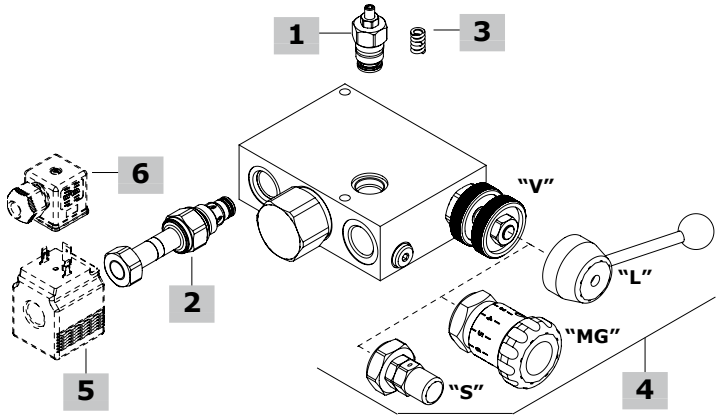


Ordering codes and description composition

Port size

VPR/3/ET 38+VMP+VE(EC08M).NA/V/02.TS

1 2 4 1 3



VPR/3/ET/VMP+VE complete valves

Adjustment kit type "V" (handwheel)

Configuration with normally open (NA) solenoid valve

TYPE: **VPR/3/ET 38+VMP+VE(EC08M).NA/V/02.TS** CODE: 1624021100
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 12+VMP+VE(EC08M).NA/V/02.TS** CODE: 1624031100
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 34+VMP+VE(EC08M).NA/V/02.TS** CODE: 1624041100
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 100+VMP+VE(EC08M).NA/V/03.TS** CODE: 1624051100
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*
TYPE: **VPR/3/ET 38+VMP+VE(EC08M).NA/V/02.TS/ac** CODE: 1624022101
DESCRIPTION: steel body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 12/VMP+VE(EC08M).NA/V/02.TS/ac** CODE: 1624032102
DESCRIPTION: steel body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 34/VMP+VE(EC08M).NA/V/02.TS/ac** CODE: 1624042100
DESCRIPTION: steel body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 100/VMP+VE(EC08M).NA/V/03.TS/ac** CODE: 1624052101
DESCRIPTION: steel body, 1" ports, setting range 50-200 bar *(725-2900 psi)*

Configuration with normally closed (NC) solenoid valve

TYPE: **VPR/3/ET 38+VMP+VE(EC08M).NC/V/02.TS** CODE: 1624021103
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 12+VMP+VE(EC08M).NC/V/02.TS** CODE: 1624031103
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 34+VMP+VE(EC08M).NC/V/02.TS** CODE: 1624041103
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 100+VMP+VE(EC08M).NC/V/03.TS** CODE: 1624051103
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*

Adjustment kit type "MG" (handknob)

Configuration with normally open (NA) solenoid valve

TYPE: **VPR/3/ET 38+VMP+VE(EC08M).NA/MG/02.TS** CODE: 1624021101
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 12+VMP+VE(EC08M).NA/MG/02.TS** CODE: 1624031101
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 34+VMP+VE(EC08M).NA/MG/02.TS** CODE: 1624041101
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 100+VMP+VE(EC08M).NA/MG/03.TS** CODE: 1624051101
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*

Configuration with normally closed (NC) solenoid valve

TYPE: **VPR/3/ET 38+VMP+VE(EC08M).NC/MG/02.TS** CODE: 1624021104
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 12+VMP+VE(EC08M).NC/MG/02.TS** CODE: 1624031104
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 34+VMP+VE(EC08M).NC/MG/02.TS** CODE: 1624041104
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 100+VMP+VE(EC08M).NC/MG/03.TS** CODE: 1624051104
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*

VPR/3/ET/VMP+VE complete valves

Adjustment kit type "L" (lever)

Configuration with electric valve normally open (NA)

TYPE: **VPR/3/ET 38+VMP+VE(EC08M).NA/L/02.TS** CODE: 1624021102
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 12+VMP+VE(EC08M).NA/L/02.TS** CODE: 1624031102
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 34+VMP+VE(EC08M).NA/L/02.TS** CODE: 1624041102
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 100+VMP+VE(EC08M).NA/L/03.TS** CODE: 1624051102
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*

Configuration with electric valve normally closed (NC)

TYPE: **VPR/3/ET 38+VMP+VE(EC08M).NC/L/02.TS** CODE: 1624021105
DESCRIPTION: alum. body, 3/8 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 12+VMP+VE(EC08M).NC/L/02.TS** CODE: 1624031105
DESCRIPTION: alum. body, 1/2 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 34+VMP+VE(EC08M).NC/L/02.TS** CODE: 1624041105
DESCRIPTION: alum. body, 3/4 ports, setting range 50-220 bar *(725-3200 psi)*
TYPE: **VPR/3/ET 100+VMP+VE(EC08M).NC/L/03.TS** CODE: 1624051105
DESCRIPTION: alum. body, 1" ports, setting range 50-200 bar *(725-2900 psi)*

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

1 Pressure relief valve

TYPE	CODE	DESCRIPTION
For VPR/3/ET 38-12-34+VMP+VE valves		
VMP 02/TS.S	1100000101	Direct acting cartridge, setting range 50-220 bar *(725-3200 psi)*
For VPR/3/ET 100+VMP+VE valve		
MC08A/0S2B	0MC08002000	Direct acting cartridge, setting range 50-200 bar *(725-2900 psi)*

2 Solenoid valve

TYPE	CODE	DESCRIPTION
EC08M/10NB	0EC08002031	Normally open (NA) configuration
EC08M/20NB	0EC08002032	Normally closed (NC) configuration)

3 Pressure setting springs

TYPE	CODE	DESCRIPTION
For VPR/3/ET 38-12-34+VMP+VE valves		
TV	3ML1081400	Setting range 5-80 bar *(72.5-1150 psi)*
TS	3ML1081401	Setting range 50-220 bar *(725-3200 psi)*
TR	3ML1081402	Setting range 180-350 bar *(2600-5100 psi)*
For VPR/3/ET 100+VMP+VE valve		
TV	3ML1092500	Setting range 5-50 bar *(72.5-725 psi)*
TS	3ML1092501	Setting range 50-200 bar *(725-2900 psi)*
TR	3ML1092502	Setting range 150-350 bar *(2200-5100 psi)*

Ordering codes and description composition

4 Adjustment kit

TYPE	CODE	DESCRIPTION
For VPR/3/ET 38+VMP+VE valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET 12+VMP+VE valves		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/ET 34-100+VMP+VE valve		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)

5 Coils (not included)

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200A	12VDC-ISO4400 coil for EC08M

For complete coils list see from page 433

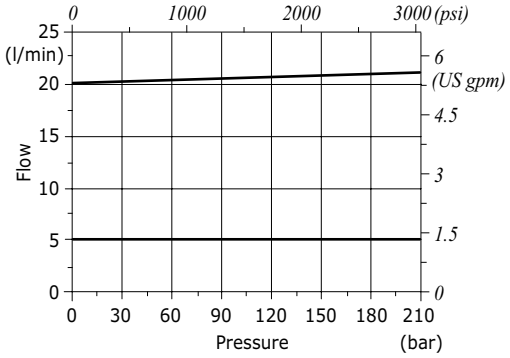
6 Connector (not included)

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

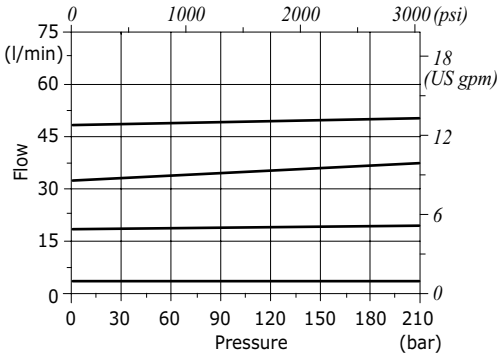
For complete connectors list see from page 433

Rating diagrams

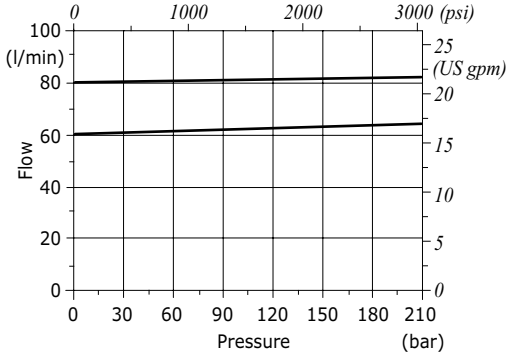
VPR/3/ET 38+VMP+VE pressure compensation diagram (E→C)



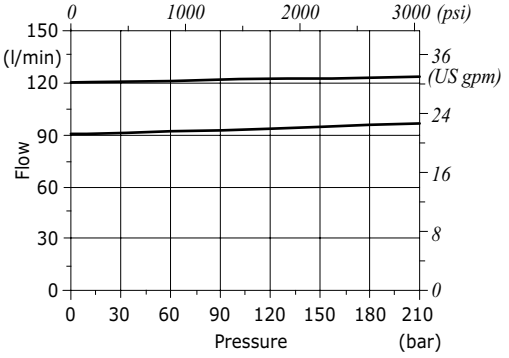
VPR/3/ET 12+VMP+VE pressure compensation diagram (E→C)



VPR/3/ET 34+VMP+VE pressure compensation diagram (E→C)



VPR/3/ET 100+VMP+VE pressure compensation diagram (E→C)



Type VPR/3/EP

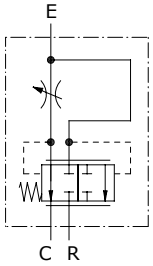
flow control pressure compensated valves

- 3 ways
- Exceeding flow to pressure

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

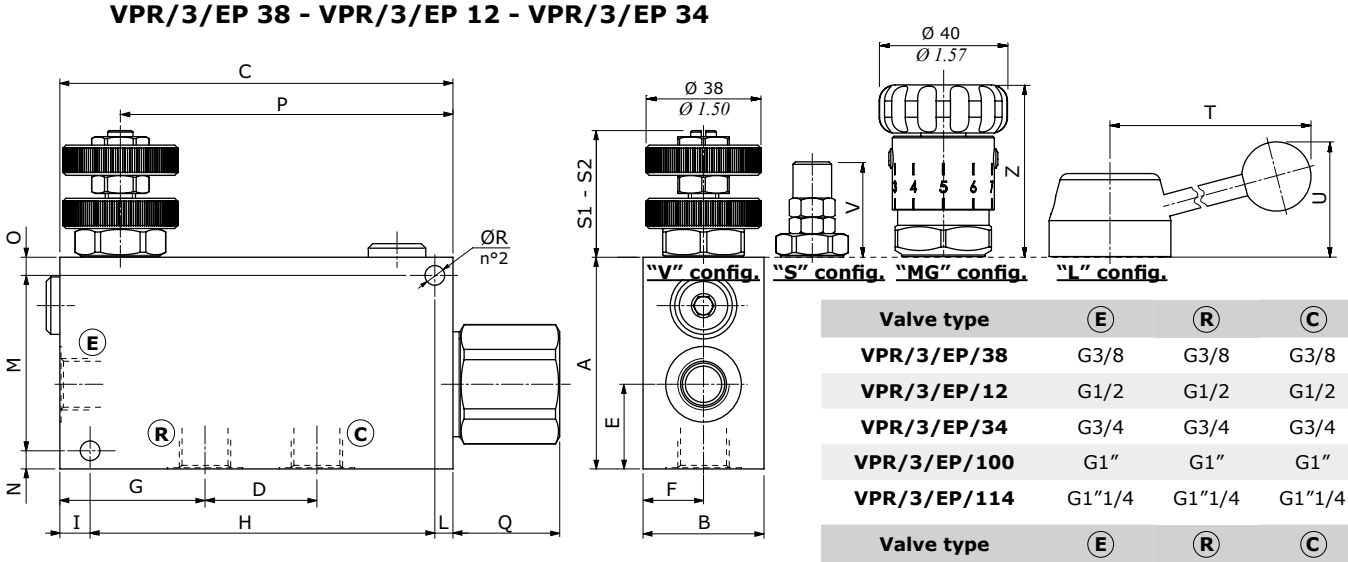
		VPR/3/EP 38	VPR/3/EP 12	VPR/3/EP 34	VPR/3/EP 100	VPR/3/EP 114
Max. inlet flow	*Line E*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	240 l/min *(63.4 US gpm)*	450 l/min *(119 US gpm)*
Max. regulated flow	*Line C*	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	250 l/min *(66.0 US gpm)*
Max. regulated flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*	75 l/min *(19.8 US gpm)*	125 l/min *(33.0 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 temp. for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*				
Weight	*aluminium*	1.26 kg *(2.78 lb)*	1.22 kg *(2.69 lb)*	2.49 kg *(5.49 lb)*	4.90 kg *(10.80 lb)*	5.19 kg *(11.44 lb)*
	steel	2.76 kg *(6.08 lb)*	2.79 kg *(6.15 lb)*	4.85 kg *(10.69lb)*	9.73 kg *(21.45 lb)*	16.20 kg *(35.71 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions

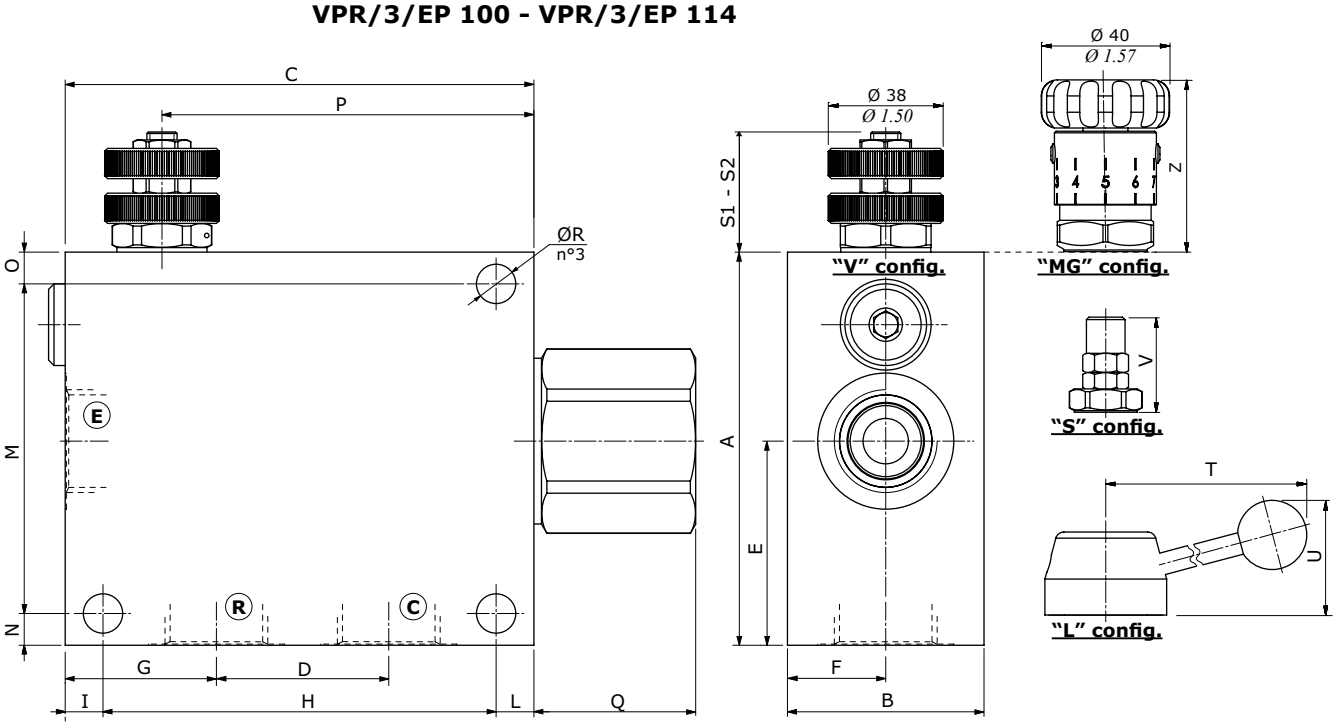
VPR/3/EP 38 - VPR/3/EP 12 - VPR/3/EP 34



Valve type	E	R	C
VPR/3/EP/38	G3/8	G3/8	G3/8
VPR/3/EP/12	G1/2	G1/2	G1/2
VPR/3/EP/34	G3/4	G3/4	G3/4
VPR/3/EP/100	G1"	G1"	G1"
VPR/3/EP/114	G1"1/4	G1"1/4	G1"1/4

Valve type	E	R	C
VPR/3/EP/38/SAE	SAE8	SAE8	SAE8
VPR/3/EP/12/SAE	SAE10	SAE10	SAE10
VPR/3/EP/34/SAE	SAE12	SAE12	SAE12
VPR/3/EP/100/SAE	SAE16	SAE16	SAE16
VPR/3/EP/114/SAE	SAE20	SAE20	SAE20

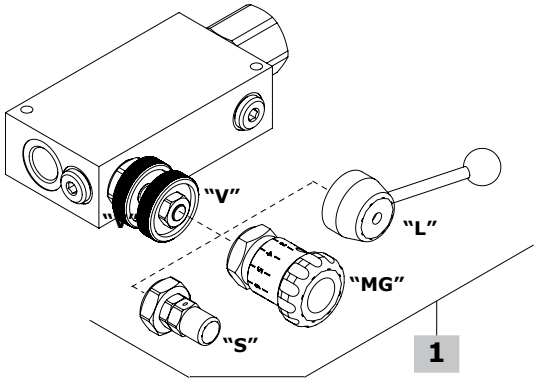
VPR/3/EP 100 - VPR/3/EP 114



Valve type	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	ØR	S1	S2	T	U	V	Z
VPR/3/EP/38	70	40	130	37	28	20	48	114	10	6	58	6	6	110	35	6.5	46.3	52.6	101.3	47.6	38.5	53.3
VPR/3/EP/38/SAE	*2.76*	*1.57*	*5.12*	*1.46*	*1.10*	*0.79*	*1.89*	*4.49*	*0.394*	*0.236*	*2.28*	*0.236*	*0.236*	*4.33*	*1.38*	*0.256*	*1.82*	*2.07*	*3.99*	*1.87*	*1.52*	*2.10*
VPR/3/EP/12	70	40	130	37	28	20	48	114	10	6	58	6	6	110	35	6.5	46.3	52.6	101.3	47.6	38.5	53.3
VPR/3/EP/12/SAE	*2.76*	*1.57*	*5.12*	*1.46*	*1.10*	*0.79*	*1.89*	*4.49*	*0.394*	*0.236*	*2.28*	*0.236*	*0.236*	*4.33*	*1.38*	*0.256*	*1.82*	*2.07*	*3.99*	*1.87*	*1.52*	*2.10*
VPR/3/EP/34	90	50	155	44	35	25	57	135	10	10	74	8	8	130	36.5	8.5	41.5	50.5	103.6	50.1	38.5	49.5
VPR/3/EP/34/SAE	*3.54*	*1.97*	*6.10*	*1.73*	*1.38*	*0.98*	*2.24*	*5.31*	*0.394*	*0.394*	*2.91*	*0.315*	*0.315*	*5.12*	*1.44*	*0.335*	*1.63*	*1.99*	*4.08*	*1.97*	*1.52*	*1.95*
VPR/3/EP/100	130	70	155	57	67.5	35	50	130	12.5	12.5	109	10.5	10.5	123	53.5	13	41.5	50.5	103.6	50.1	38.5	49.5
VPR/3/EP/100/SAE	*5.12*	*2.76*	*6.10*	*2.24*	*2.66*	*1.38*	*1.97*	*5.12*	*0.49*	*0.49*	*4.29*	*0.413*	*0.413*	*4.84*	*2.11*	*0.51*	*1.63*	*1.99*	*4.08*	*1.97*	*1.52*	*1.95*
VPR/3/EP/114	130	70	155	57	67.5	35	50	130	12.5	12.5	109	10.5	10.5	123	53.5	13	46.3	52.6	107.3	50.5	41.5	52.5
VPR/3/EP/114/SAE	*5.12*	*2.76*	*6.10*	*2.24*	*2.66*	*1.38*	*1.97*	*5.12*	*0.49*	*0.49*	*4.29*	*0.413*	*0.413*	*4.84*	*2.11*	*0.51*	*1.82*	*2.07*	*4.22*	*1.99*	*1.63*	*2.07*

Ordering codes and description composition

Port size
VPR/3/EP 38/V
1



VPR/3/EP complete valves

TYPE	CODE	DESCRIPTION
Adjustment kit type "V" (handwheel)		
VPR/3/EP 38/V	1630021100	Aluminium body, 3/8 ports
VPR/3/EP 12/V	1630031100	Aluminium body, 1/2 ports
VPR/3/EP 34/V	1630041100	Aluminium body , 3/4 ports
VPR/3/EP 100/V	1630051100	Aluminium body, 1" ports
VPR/3/EP 114/V	1630061100	Aluminium body, 1"1/4 ports
VPR/3/EP 38/V/ac	1630022100	Steel body, 3/8 ports
VPR/3/EP 12/V/ac	1630032100	Steel body, 1/2 ports
VPR/3/EP 34/V/ac	1630042100	Steel body, 3/4 ports
VPR/3/EP 100/V/ac	1630052100	Steel body, 1" ports
VPR/3/EP 114/V/ac	1630062100	Steel body, 1"1/4 ports
VPR/3/EP 38/V/SAE	1630021200	Aluminium body, SAE8 ports
VPR/3/EP 12/V/SAE	1630031200	Aluminium body, SAE10 ports
VPR/3/EP 34/V/SAE	1630041200	Aluminium body , SAE12 ports
VPR/3/EP 100/V/SAE	1630051200	Aluminium body, SAE16 ports
VPR/3/EP 114/V/SAE	1630061200	Aluminium body, SAE20 ports
VPR/3/EP 34/V/SAE/ac	1630042200	Steel body, SAE12 ports
VPR/3/EP 100/V/SAE/ac	1630052200	Steel body, SAE16 ports
Adjustment kit type "MG" (handknob)		
VPR/3/EP 38/MG	1630021101	Aluminium body, 3/8 ports
VPR/3/EP 12/MG	1630031101	Aluminium body, 1/2 ports
VPR/3/EP 34/MG	1630041101	Aluminium body, 3/4 ports
VPR/3/EP 100/MG	1630051101	Aluminium body, 1" ports
VPR/3/EP 114/MG	1630061101	Aluminium body, 1"1/4 ports
Adjustment kit type "L" (lever)		
VPR/3/EP 38/L	1630021102	Aluminium body, 3/8 ports
VPR/3/EP 12/L	1630031102	Aluminium body, 1/2 ports
VPR/3/EP 34/L	1630041102	Aluminium body, 3/4 ports
VPR/3/EP 100/L	1630051102	Aluminium body, 1" ports
VPR/3/EP 114/L	1630061102	Aluminium body, 1"1/4 ports

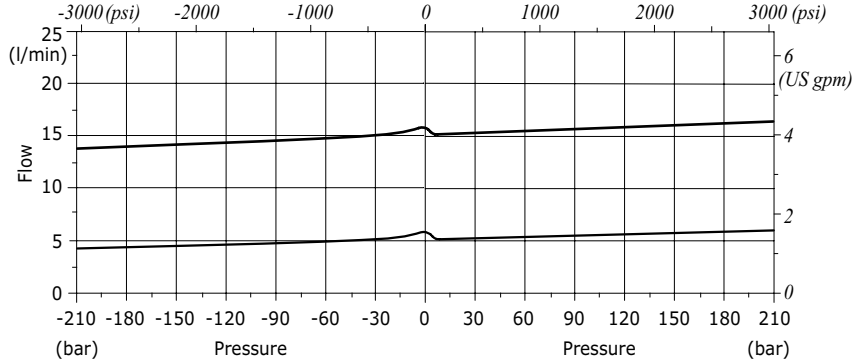
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

1 Adjustment kit

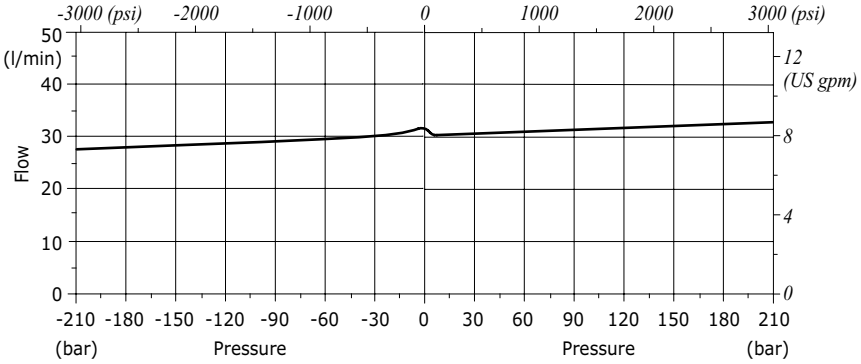
TYPE	CODE	DESCRIPTION
For VPR/3/EP 38 valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/EP 12 valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/EP 34-100 valves		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)
For VPR/3/EP 114 valves		
V	5KT6340603	"V" handwheel type
MG	5KT6200605	"MG" handknob type
S	5KT6200604	"S" screw type

Rating diagrams

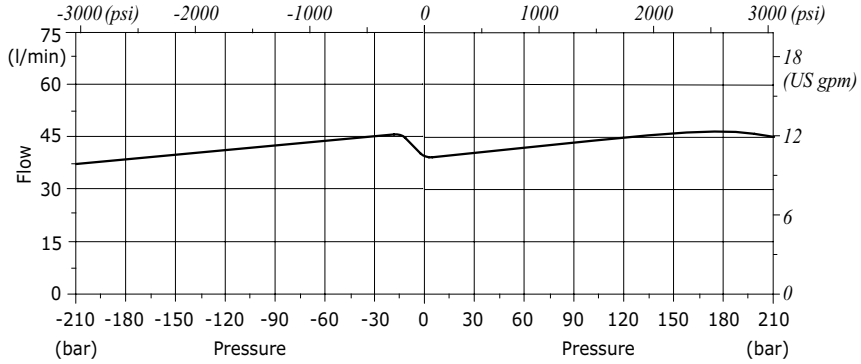
VPR/3/EP 38 compensation diagram in C changing the Δp between E and R



VPR/3/EP 12 compensation diagram in C changing the Δp between E and R

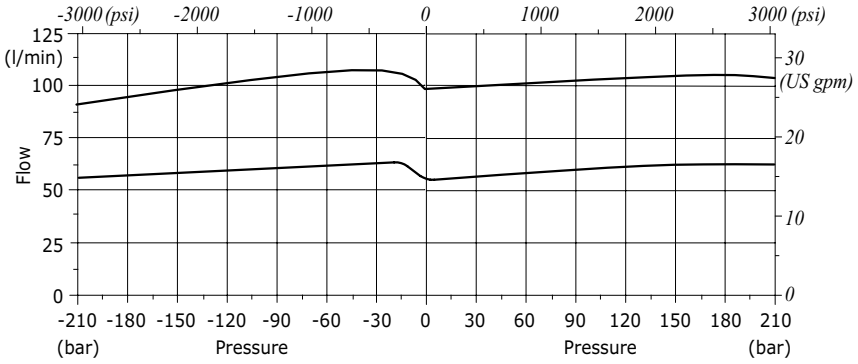


VPR/3/EP 34 compensation diagram in C changing the Δp between E and R

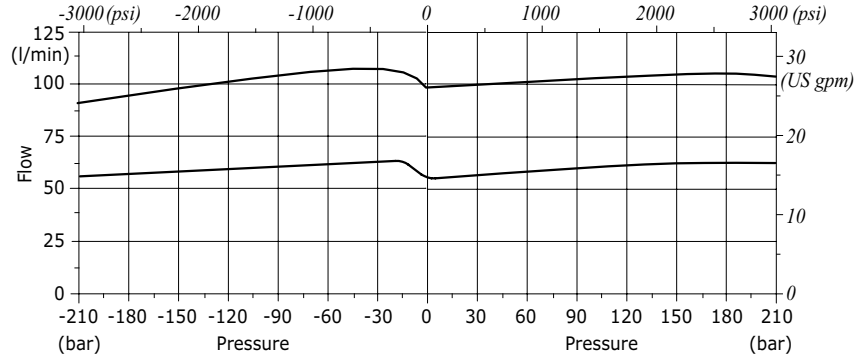


Rating diagrams

VPR/3/EP 100 compensation diagram in C changing the Δp between E and R



VPR/3/EP 114 compensation diagram in C changing the Δp between E and R



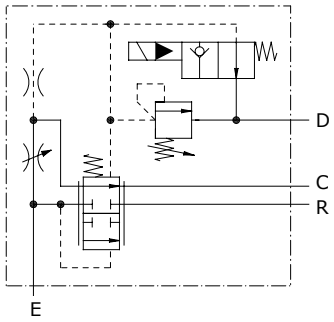
Type VPR/3/EP+VMP+VE
flow control pressure compensated valves

- 3 ways
- Exceeding flow to pressure
- Electric venting
- With pressure relief valve

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

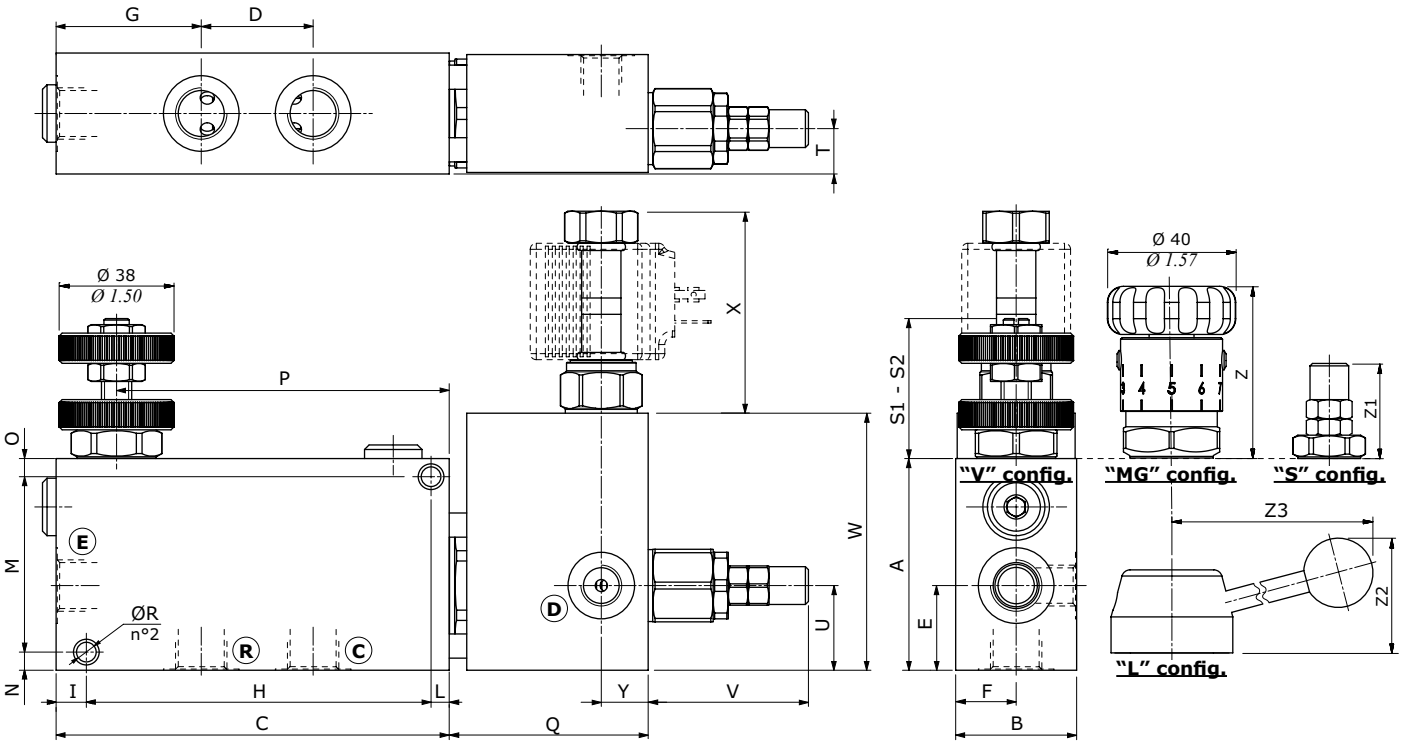
		VPR/3/EP 38	VPR/3/EP 12	VPR/3/EP 34	VPR/3/EP 100	VPR/3/EP 114
Max. inlet flow	*Line E*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	240 l/min *(63.4 US gpm)*	450 l/min *(119 US gpm)*
Max. regulated flow	*Line C*	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	150 l/min *(39.6 US gpm)*	250 l/min *(66 US gpm)*
Max. regulated flow **"SB"***		15 l/min *(4.0 US gpm)*	25 l/min *(6.6 US gpm)*	45 l/min *(11.9 US gpm)*	75 l/min *(18.1 US gpm)*	125 l/min *(33 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* 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 for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*				
Weight	*aluminium*	2.12 kg *(4.67 lb)*	2.10 kg *(4.63 lb)*	3.47 kg *(7.65 lb)*	5.49 kg *(12.10 lb)*	7.45 kg *(16.42 lb)*
	steel	4.19 kg *(6.28 lb)*	4.13 kg *(6.17 lb)*	7.03 kg *(10.91 lb)*	11.26 kg *(24.83 lb)*	18.20 kg *(40.12 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt.
***"SB"** execution (sensibilized adjustment)



Dimensions

VPR/3/EP 38+VMP+VE - VPR/3/EP 12+VMP+VE - VPR/3/EP 34+VMP+VE



Valve type	Ⓔ	Ⓡ	Ⓒ	Ⓓ
VPR/3/EP 38+VMP+VE	G3/8	G3/8	G3/8	G1/4
VPR/3/EP 12+VMP+VE	G1/2	G1/2	G1/2	G1/4
VPR/3/EP 34+VMP+VE	G3/4	G3/4	G3/4	G1/4
VPR/3/EP 100+VMP+VE	G1"	G1"	G1"	G1/4
VPR/3/EP 114+VMP+VE	G1"1/4	G1"1/4	G1"1/4	G1/4

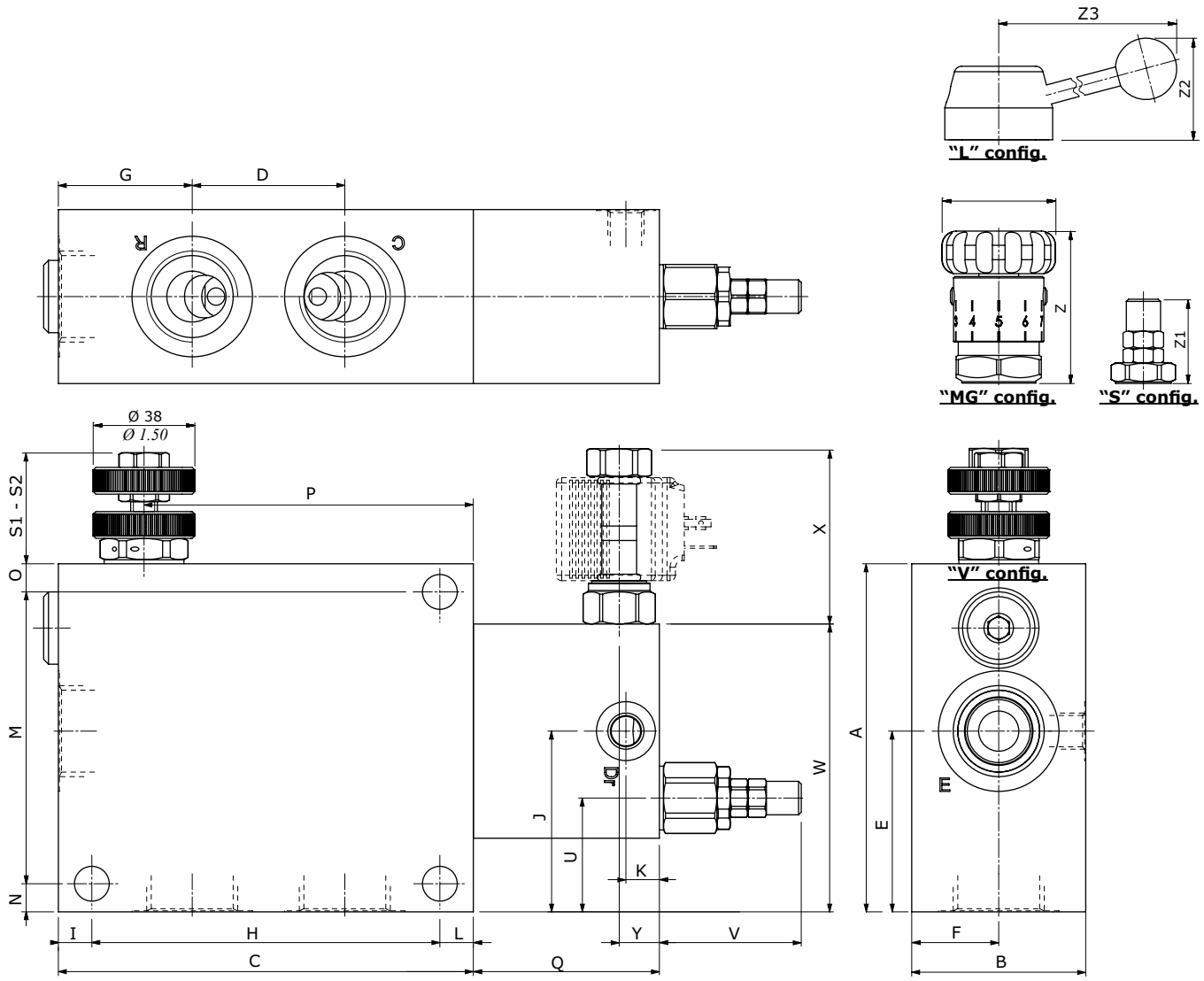
Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G	H	I	L	K	J	M	N
VPR/3/EP 38+VMP+VE	70 *2.76*	40 *1.57*	130 *5.12*	37 *1.46*	28 *1.10*	20 *0.79*	48 *1.89*	114 *4.49*	10 *0.394*	6 *0.236*	-	-	58 *2.28*	6 *0.236*
VPR/3/EP 12+VMP+VE	70 *2.76*	40 *1.57*	130 *5.12*	37 *1.46*	28 *1.10*	20 *0.79*	48 *1.89*	114 *4.49*	10 *0.394*	6 *0.236*	-	-	58 *2.28*	6 *0.236*
VPR/3/EP 34+VMP+VE	90 *3.54*	50 *1.97*	155 *6.10*	44 *1.73*	35 *1.38*	25 *0.98*	57 *2.24*	135 *5.31*	10 *0.394*	10 *0.394*	15 *0.59*	35 *1.38*	74 *2.91*	8 *0.315*
VPR/3/EP 100+VMP+VE	130 *5.12*	Alum:70-*2.76* Steel:65-*2.56*	155 *6.10*	57 *2.24*	67.5 *2.66*	Alum:35-*1.38* Steel:32.5-*1.28*	50 *1.97*	130 *5.12*	12.5 *0.49*	12.5 *0.49*	12.5 *0.49*	67.5 *2.66*	109 *4.29*	10.5 *0.413*
VPR/3/EP 114+VMP+VE	160 *6.30*	75 *2.95*	184 *7.24*	70 *2.76*	83 *3.27*	37.5 *1.48*	60 *2.36*	159 *6.26*	12.5 *0.49*	12.5 *0.49*	15 *0.59*	83 *3.27*	135 *5.31*	12.5 *0.49*

Valve type	O	P	Q	ØR	S1	S2	T	U	V	W	X(NA)	Y	Z	Z1	Z2	Z3
VPR/3/EP 38+VMP+VE	6 *0.236*	110 *4.33*	65.8 *2.59*	6.5 *0.256*	46.3 *1.82*	52.6 *2.07*	15 *0.59*	28 *1.10*	53 *2.09*	85 *3.35*	66.7 *2.63*	15.5 *0.61*	53.3 *2.10*	38.5 *1.52*	47.5 *1.87*	101.3 *3.99*
VPR/3/EP 12+VMP+VE	6 *0.236*	110 *4.33*	65.8 *2.59*	6.5 *0.256*	46.3 *1.82*	53.1 *2.09*	14.5 *0.59*	28 *1.10*	53 *2.09*	85 *3.35*	66.7 *2.63*	15.5 *0.61*	53.3 *2.10*	38.5 *1.52*	47.5 *1.87*	101.3 *3.99*
VPR/3/EP 34+VMP+VE	8 *0.315*	130 *5.12*	76.8 *3.02*	8.5 *0.335*	41.5 *1.63*	50.5 *1.99*	-	35 *1.38*	53 *2.09*	90 *3.54*	66.7 *2.63*	16 *0.63*	49.5 *1.95*	38.5 *1.52*	50.1 *1.97*	103.6 *4.08*
VPR/3/EP 100+VMP+VE	10.5 *0.413*	123 *4.84*	69.5 *2.74*	13 *0.51*	41.5 *1.63*	50.5 *1.99*	-	42.5 *1.67*	53 *2.09*	107.5 *4.23*	62.5 *2.46*	15 *0.59*	49.5 *1.95*	38.5 *1.52*	50.1 *1.97*	103.6 *4.08*
VPR/3/EP 114+VMP+VE	12.5 *0.49*	151 *5.94*	80 *3.15*	12.5 *0.49*	52 *2.05*	xxx- *xxx*	-	58 *2.28*	53 *2.09*	123 *4.84*	66.7 *2.63*	15 *0.59*	52.5 *2.06*	41.5 *1.63*	50.5 *1.99*	107.3 *4.22*

Dimensions

VPR/3/EP 100+VMP+VE - VPR/3/EP 114+VMP+VE



Ordering codes and description composition

VPR/3/EP 38+VMP+VE complete valves

Pressure relief valve setting range is 50-200 bar *(725-2900 psi)*

Adjustment kit type "V" (handwheel)

Configuration with normally open (NA) solenoid valve

TYPE: **VPR/3/EP 38+VMP+VE(EC08M).NA/V/03.TS** CODE: 1634021100
DESCRIPTION: aluminium body, 3/8 ports
TYPE: **VPR/3/EP 12+VMP+VE(EC08M).NA/V/03.TS** CODE: 1634031100
DESCRIPTION: aluminium body, 1/2 ports
TYPE: **VPR/3/EP 34+VMP+VE(EC08M).NA/V/03.TS** CODE: 1634041100
DESCRIPTION: aluminium body, 3/4 ports
TYPE: **VPR/3/EP 100+VMP+VE(EC08M).NA/V/03.TS** CODE: 1634051100
DESCRIPTION: aluminium body, 1" ports
TYPE: **VPR/3/EP 114+VMP+VE(EC08M).NA/V/03.TS** CODE: 1634061100
DESCRIPTION: aluminium body, 1"1/4 ports
TYPE: **VPR/3/EP 38+VMP+VE(EC08M).NA/V/03.TS/ac** CODE: 1634022100
DESCRIPTION: steel body, 3/8 ports
TYPE: **VPR/3/EP 12+VMP+VE(EC08M).NA/V/03.TS/ac** CODE: 1634032100
DESCRIPTION: steel body, 1/2 ports
TYPE: **VPR/3/EP 34+VMP+VE(EC08M).NA/V/03.TS/ac** CODE: 1634042100
DESCRIPTION: steel body, 3/4 ports
TYPE: **VPR/3/EP 100+VMP+VE(EC08M).NA/V/03.TS/ac** CODE: 1634052100
DESCRIPTION: steel body, 1" ports
TYPE: **VPR/3/EP 114+VMP+VE(EC08M).NA/V/03.TS/ac** CODE: 1634062100
DESCRIPTION: steel body, 1"1/4 ports

Configuration with normally closed (NC) solenoid valve

TYPE: **VPR/3/EP 38+VMP+VE(EC08M).NC/V/03.TS** CODE: 1634021103
DESCRIPTION: aluminium body, 3/8 ports
TYPE: **VPR/3/EP 12+VMP+VE(EC08M).NC/V/03.TS** CODE: 1634031103
DESCRIPTION: aluminium body, 1/2 ports
TYPE: **VPR/3/EP 34+VMP+VE(EC08M).NC/V/03.TS** CODE: 1634041103
DESCRIPTION: aluminium body, 3/4 ports
TYPE: **VPR/3/EP 100+VMP+VE(EC08M).NC/V/03.TS** CODE: 1634051103
DESCRIPTION: aluminium body, 1" ports
TYPE: **VPR/3/EP 114+VMP+VE(EC08M).NC/V/03.TS** CODE: 1634061103
DESCRIPTION: aluminium body, 1"1/4 ports

Adjustment kit type "MG" (handknob)

Configuration with normally open (NA) solenoid valve

TYPE: **VPR/3/EP 38+VMP+VE(EC08M).NA/MG/03.TS** CODE: 1634021101
DESCRIPTION: aluminium body, 3/8 ports
TYPE: **VPR/3/EP 12+VMP+VE(EC08M).NA/MG/03.TS** CODE: 1634031101
DESCRIPTION: aluminium body, 1/2 ports
TYPE: **VPR/3/EP 34+VMP+VE(EC08M).NA/MG/03.TS** CODE: 1634041101
DESCRIPTION: aluminium body, 3/4 ports
TYPE: **VPR/3/EP 100+VMP+VE(EC08M).NA/MG/03.TS** CODE: 1634051101
DESCRIPTION: aluminium body, 1" ports
TYPE: **VPR/3/EP 114+VMP+VE(EC08M).NA/MG/03.TS** CODE: 1634061101
DESCRIPTION: aluminium body, 1"1/4 ports

Configuration with normally closed (NC) solenoid valve

TYPE: **VPR/3/EP 38+VMP+VE(EC08M).NC/MG/03.TS** CODE: 1634021104
DESCRIPTION: aluminium body, 3/8 ports
TYPE: **VPR/3/EP 12+VMP+VE(EC08M).NC/MG/03.TS** CODE: 1634031104
DESCRIPTION: aluminium body, 1/2 ports
TYPE: **VPR/3/EP 34+VMP+VE(EC08M).NC/MG/03.TS** CODE: 1634041104
DESCRIPTION: aluminium body, 3/4 ports
TYPE: **VPR/3/EP 100+VMP+VE(EC08M).NC/MG/03.TS** CODE: 1634051104
DESCRIPTION: aluminium body, 1" ports
TYPE: **VPR/3/EP 114+VMP+VE(EC08M).NC/MG/03.TS** CODE: 1634061104
DESCRIPTION: aluminium body, 1"1/4 ports

Adjustment kit type "L" (lever)

Configuration with electric valve normally open (NA)

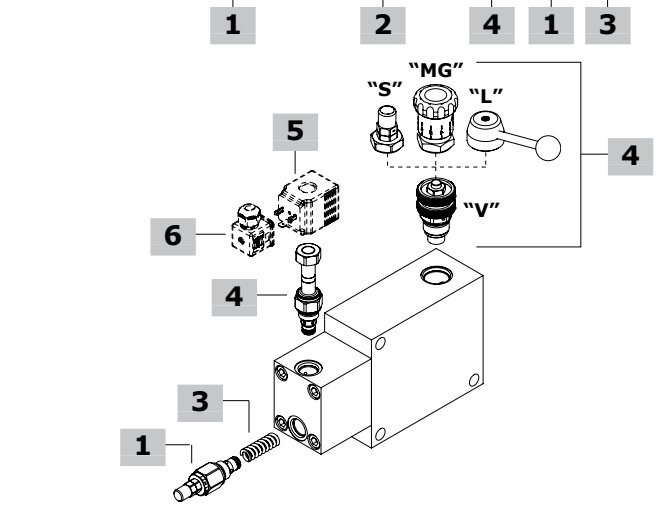
TYPE: **VPR/3/EP 38+VMP+VE(EC08M).NA/L/03.TS** CODE: 1634021102
DESCRIPTION: aluminium body, 3/8 ports
TYPE: **VPR/3/EP 12+VMP+VE(EC08M).NA/L/03.TS** CODE: 1634031102
DESCRIPTION: aluminium body, 1/2 ports
TYPE: **VPR/3/EP 34+VMP+VE(EC08M).NA/L/03.TS** CODE: 1634041102
DESCRIPTION: aluminium body, 3/4 ports
TYPE: **VPR/3/EP 100+VMP+VE(EC08M).NA/L/03.TS** CODE: 1634051102
DESCRIPTION: aluminium body, 1" ports
TYPE: **VPR/3/EP 114+VMP+VE(EC08M).NA/L/03.TS** CODE: 1634061102
DESCRIPTION: aluminium body, 1"1/4 ports

Configuration with electric valve normally closed (NC)

TYPE: **VPR/3/EP 38+VMP+VE(EC08M).NC/L/03.TS** CODE: 1634021105
DESCRIPTION: aluminium body, 3/8 ports
TYPE: **VPR/3/EP 12+VMP+VE(EC08M).NC/L/03.TS** CODE: 1634031105
DESCRIPTION: aluminium body, 1/2 ports
TYPE: **VPR/3/EP 34+VMP+VE(EC08M).NC/L/03.TS** CODE: 1634041105
DESCRIPTION: aluminium body, 3/4 ports
TYPE: **VPR/3/EP 100+VMP+VE(EC08M).NC/L/03.TS** CODE: 1634051105
DESCRIPTION: aluminium body, 1" ports
TYPE: **VPR/3/EP 114+VMP+VE(EC08M).NC/L/03.TS** CODE: 1634061105
DESCRIPTION: aluminium body, 1"1/4 ports

Port size

VPR/3/EP 38+VMP+VE(EC08M).NA/V/02.TS



1 Pressure relief valve

TYPE	CODE	DESCRIPTION
MC08A/0S2B	0MC08002000	Direct acting cartridge, setting range 50-200 bar *(725-2900 psi)*

2 Solenoid valve

TYPE	CODE	DESCRIPTION
EC08M/10NB	0EC08002031	Normally open (NA) configuration
EC08M/20NB	0EC08002032	Normally closed (NC) configuration)

3 Pressure setting springs

TYPE	CODE	DESCRIPTION
TV	3ML1092500	Setting range 5-50 bar *(72.5-725 psi)*
TS	3ML1092501	Setting range 50-200 bar *(725-2900 psi)*
TR	3ML1092502	Setting range 150-350 bar *(2200-5100 psi)*

4 Adjustment kit

TYPE	CODE	DESCRIPTION
For VPR/3/EP 38+VMP+VE valve		
V.SB	5KT6200200	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/EP 12+VMP+VE valve		
V.SB	5KT6130301	"V" handwheel type in "SB" configuration (sensibilized adjustment)
V	5KT6130200	"V" handwheel type
MG	5KT6200202	"MG" handknob type
S	5KT6200211	"S" screw type
For VPR/3/EP 34-100+VMP+VE valves		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
V.SB	5KT6130402	"V" handwheel type in "SB" configuration (sensibilized adjustment)
For VPR/3/EP 114+VMP+VE valve		
V	5KT6340603	"V" handwheel type
MG	5KT6200605	"MG" handknob type
S	5KT6200604	"S" screw type

5 Coils (not included)

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200A	12VDC-ISO4400 coil for EC08M

For complete coils list see from page 433

6 Connector (not included)

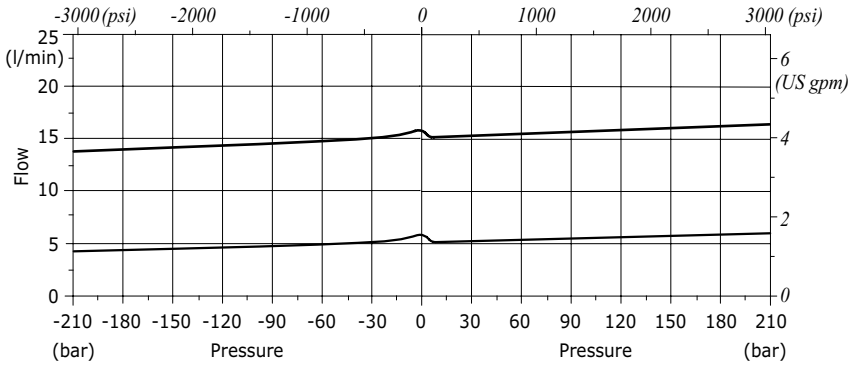
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 433

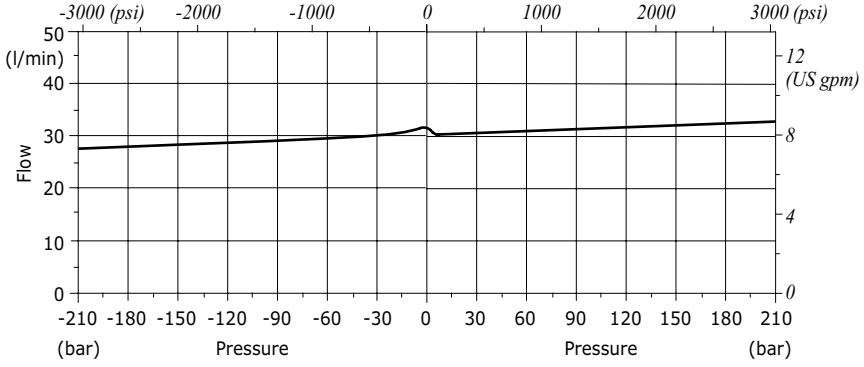
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, please contact our Sales Dpt.

Rating diagrams

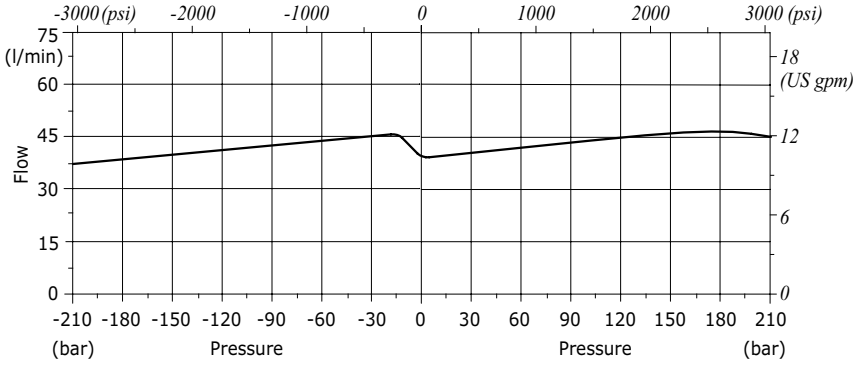
VPR/3/EP 38+VMP+VE compensation diagram in C changing the Δp between E and R



VPR/3/EP 12+VMP+VE compensation diagram in C changing the Δp between E and R

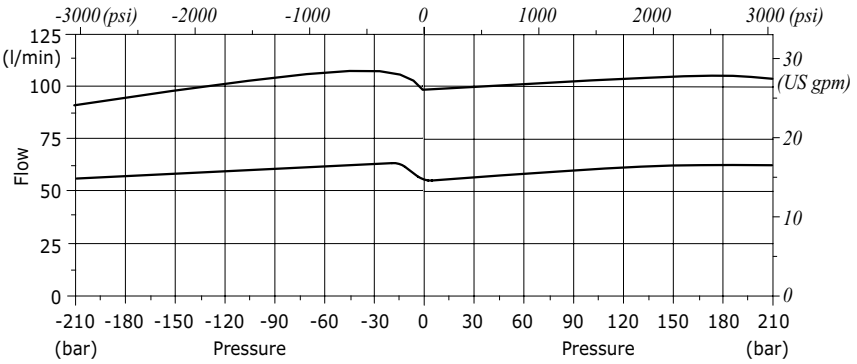


VPR/3/EP 34+VMP+VE compensation diagram in C changing the Δp between E and R

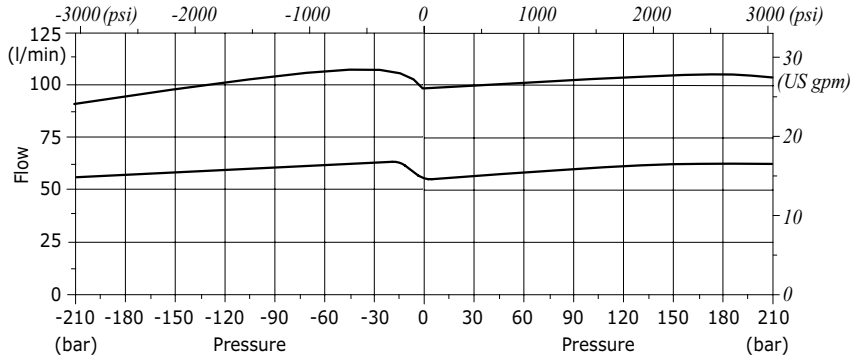


Rating diagrams

VPR/3/EP 100/VMP+VE compensation diagram in C changing the Δp between E and R



VPR/3/EP 114/VMP+VE compensation diagram in C changing the Δp between E and R



Type VPR/3/EP/VMP+VE/LPD

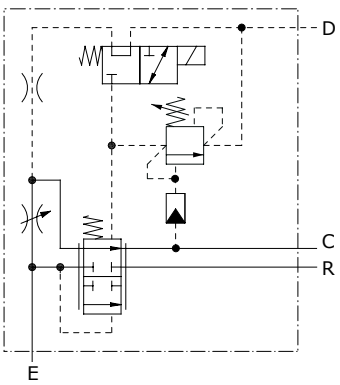
flow control pressure compensated valves

- 3 ways
- Exceeding flow to pressure
- Electric venting
- With pressure relief valve
- Low pressure drop
- Steel body

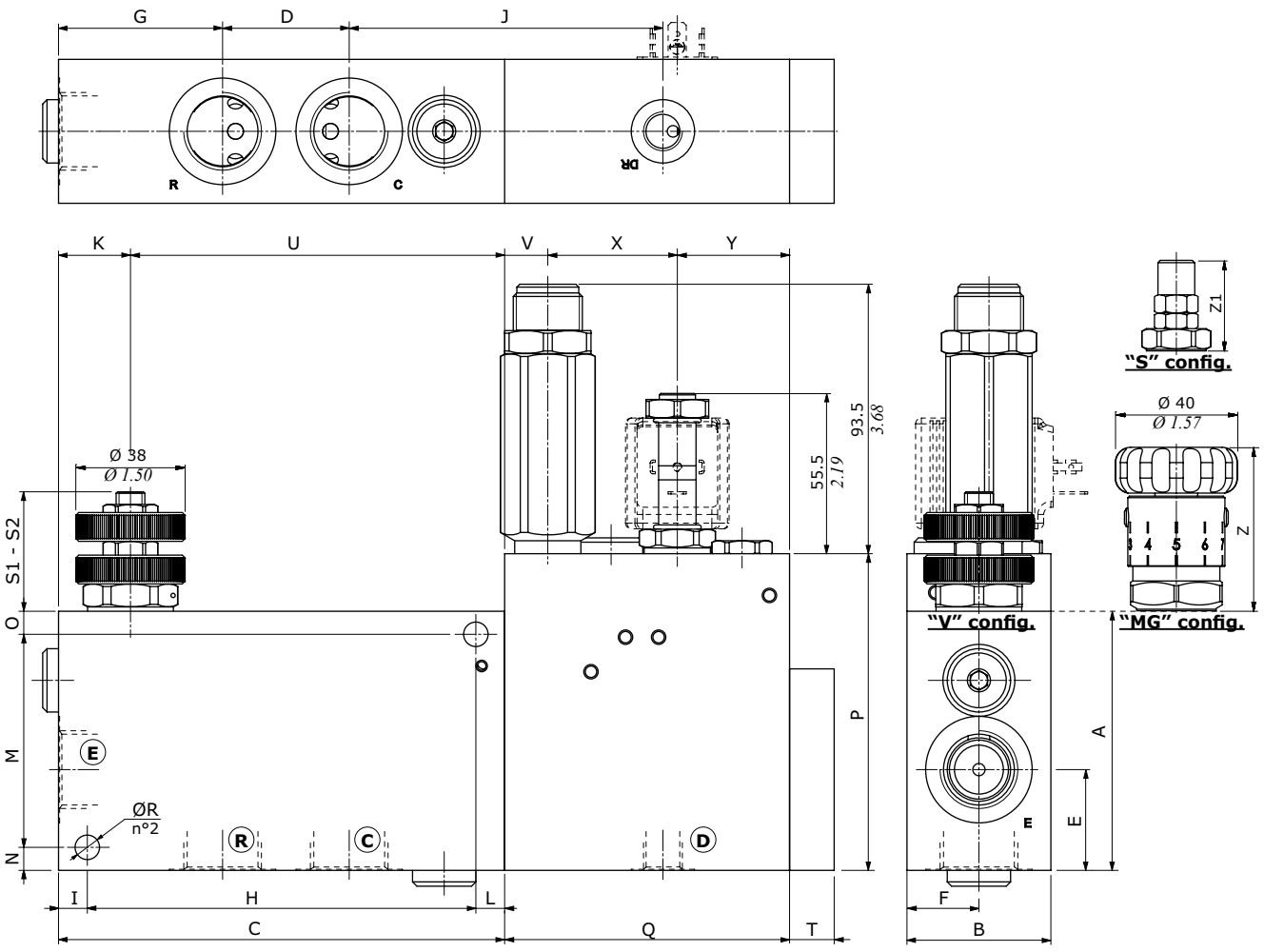
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

		VPR/3/EP 34/VMP+VE/LPD	VPR/3/EP 100/VMP+VE/LPD	VPR/3/EP 114/VMP+VE/LPD
Max. inlet flow	*Line E*	150 l/min *(39.6 US gpm)*	240 l/min *(63.4 US gpm)*	450 l/min *(119 US gpm)*
Max. regulated flow	*Line C*	90 l/min *(24 US gpm)*	150 l/min *(39.6 US gpm)*	250 l/min *(66 US gpm)*
Max. pressure			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 for working conditions			from -40°C *(-40°F)* to 100°C *(212°F)*	
Weight	*steel*	9.15 kg *(20.17 lb)*	19 kg *(41.89 lb)*	28 kg *(61.73 lb)*

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



Dimensions



Valve type	Ⓔ	Ⓡ	Ⓒ	Ⓓ
VPR/3/EP 34/VMP+VE/LPD	G3/4	G3/4	G3/4	G1/4
VPR/3/EP 100/VMP+VE/LPD	G1"	G1"	G1"	G1/4
VPR/3/EP 114/VMP+VE/LPD	G1"1/4	G1"1/4	G1"1/4	G1/4

Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G	H	I	L	K	J	M	N
VPR/3/EP 34/VMP+VE/LPD	90 *3.54*	50 *1.97*	155 *6.10*	44 *1.73*	35 *1.38*	25 *0.98*	57 *2.24*	135 *5.31*	10 *0.394*	10 *0.394*	25 *0.98*	109 *4.29*	74 *2.91*	8 *0.315*
VPR/3/EP 100/VMP+VE/LPD	130 *5.12*	65 *2.56*	155 *6.10*	57 *2.24*	67.5 *2.66*	32.5 *1.28*	50 *1.97*	130 *5.12*	12.5 *0.49*	12.5 *0.49*	32 *1.26*	121.5 *4.78*	109 *4.29*	10.5 *0.413*
VPR/3/EP 114/VMP+VE/LPD	160 *6.30*	75 *2.95*	184 *7.24*	70 *2.76*	83 *3.27*	37.5 *1.48*	60 *2.36*	159 *6.26*	12.5 *0.49*	12.5 *0.49*	35 *1.38*	147.5 *5.81*	135 *5.31*	12.5 *0.49*

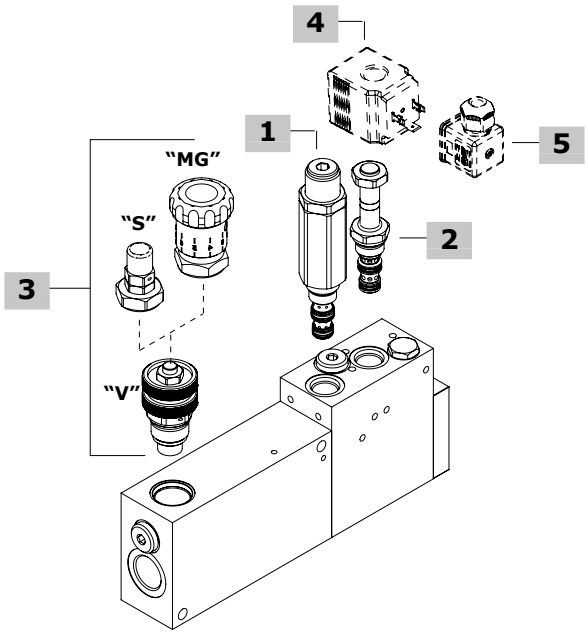
Valve type	O	P	Q	ØR	S1	S2	T	U	V	X	Y	Z	Z1
VPR/3/EP 34/VMP+VE/LPD	8 *0.315*	110 *4.33*	99 *3.90*	8.5 *0.335*	-	-	15.5 *0.61*	130 *5.12*	15 *0.59*	54 *2.13*	39 *1.54*	56.5 *2.22*	38.5 *1.52*
VPR/3/EP 100/VMP+VE/LPD	10.5 *0.413*	147.5 *5.81*	113 *4.45*	12.5 *0.49*	-	-	17.5 *0.69*	123 *4.84*	38 *1.50*	35.5 *1.40*	39.5 *1.56*	56.5 *2.22*	38.5 *1.52*
VPR/3/EP 114/VMP+VE/LPD	12.5 *0.49*	160 *6.30*	144 *5.67*	12.5 *0.49*	-	-	17.5 *0.69*	149 *5.87*	49 *1.93*	41 *1.61*	54 *2.13*	56.5 *2.22*	41.5 *1.63*

Ordering codes and description composition

Port size

VPR/3/EP 34/VMP+VE.NA/LPD/V/VDS.TS/ac

1 **2** **3** **1** **1**



VPR/3/EP/VMP+VE/LPD complete valves

Standard setting 160 bar at 5 l/min (2320 psi at 1.32 US gpm)
Adjustment kit type "V" (handwheel)
TYPE: **VPR/3/EP 34/VMP+VE.NA/LPD/V/VDS.TS/ac**
CODE: 1635042103
DESCRIPTION: steel body, G3/4 ports, setting range 150-300 bar *(2175-4350 psi)*
TYPE: **VPR/3/EP 100/VMP+VE.NA/LPD/V/VDS.TS/ac**
CODE:1635052103
DESCRIPTION: steel body, G1" ports, setting range 150-300 bar *(2175-4350 psi)*
TYPE: **VPR/3/EP 114/VMP+VE/NA/LPD/V/VDS.TS/ac**
CODE:1635062102
DESCRIPTION: steel body, G1"1/4 ports, setting range 150-300 bar *(2175-4350 psi)*
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals please contact our Sales Dpt.

1 Pressure relief valve

TYPE: **VDS/3/2 x VPR/3/EP....LPD/TS** CODE: 1208010400
DESCRIPTION: direct type valve, setting range 150-300 bar *(2175-4350 psi)*, standard setting 160 bar at 5 l/min *(2320 psi at 1.32 US gpm)*

2 Solenoid valve

TYPE	CODE	DESCRIPTION
MC08A/0S2B	0EJ08002051	Normally open (NA) configuration

3 Adjustment kit

TYPE	CODE	DESCRIPTION
For VPR/3/EP 34-100+VMP+VE valves		
V	5KT6130401	"V" handwheel type
MG	5KT6200400	"MG" handknob type
S	5KT6130404	"S" screw type
For VPR/3/EP 114+VMP+VE valve		
V	5KT6340603	"V" handwheel type
MG	5KT6200605	"MG" handknob type
S	5KT6200604	"S" screw type

4 Coil (not included)

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200A	12VDC-ISO4400 coil

For complete coils list see from page 433

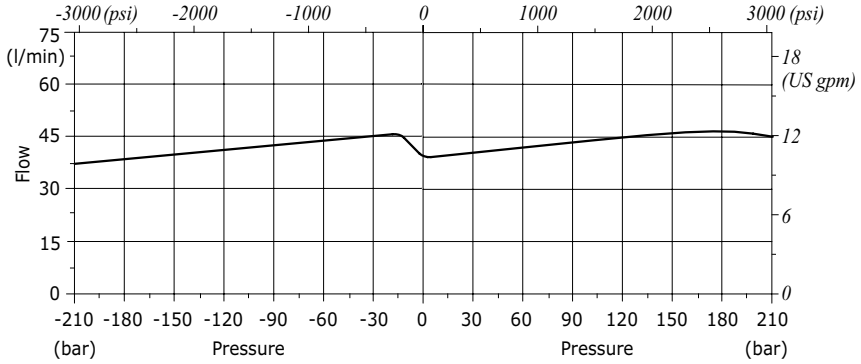
5 Connector (not included)

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

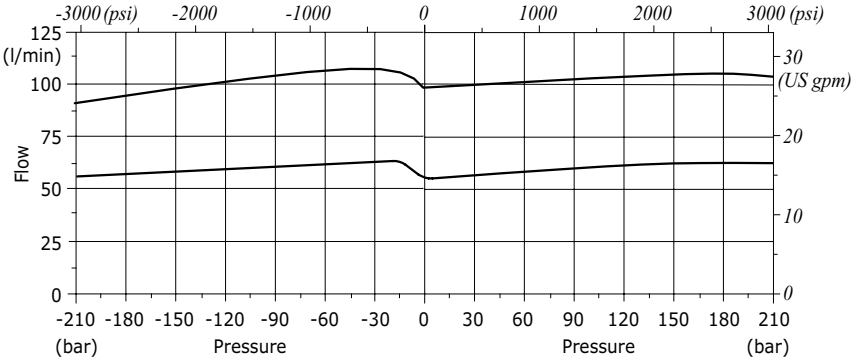
For complete connectors list see from page 433

Rating diagrams

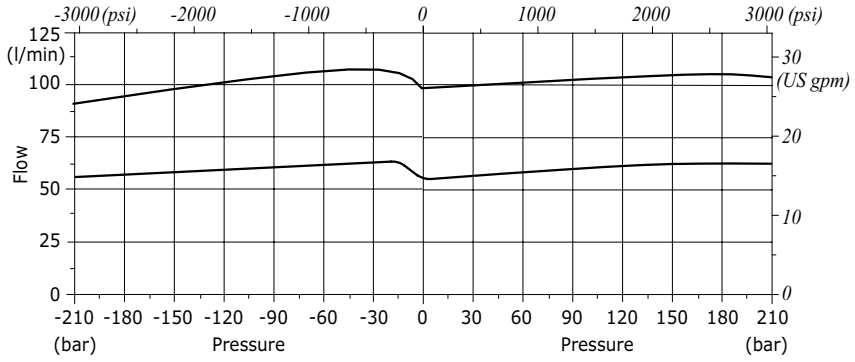
VPR/3/EP 34/VMP+VE/LPD compensation diagram in C changing the Δp between E and R



VPR/3/EP 100/VMP+VE/LPD compensation diagram in C changing the Δp between E and R



VPR/3/EP 114/VMP+VE/LPD compensation diagram in C changing the Δp between E and R



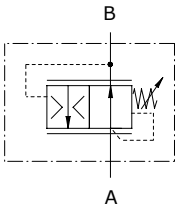
Type VDR
flow control pressure compensated valves

- Cartridge compensated
- With steel housing M-F or F-F
- Flow regulator adjustable type

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

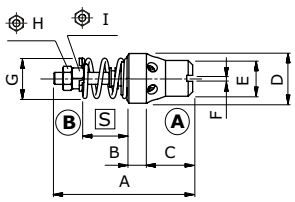
	VDR 14	VDR 38	VDR 12	VDR 34
Nominal flow from A to B	25 l/min *(6.6 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	220 l/min *(58.1 US gpm)*
Nominal flow from B to A	10 l/min *(2.6 US gpm)*	25 l/min *(6.6 US gpm)*	67 l/min *(17.7 US gpm)*	150 l/min *(39.6 US gpm)*
Max. pressure	300 bar *(4350 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 temp. for working conditions	from -40°C *(-40°F)* to 100°C *(212°F)*			
Weight *steel*	0.012 kg *(0.026 lb)*	0.022 kg *(0.048 lb)*	0.036 kg *(0.079 lb)*	0.069 kg *(0.152 lb)*

NOTES - They can be supplied preset at the required flow, to be mentioned in the order.
Tolerance on nominal flow rate = ±7%@50 bar.
For different conditions, please contact Walvoil Sales Dpt.

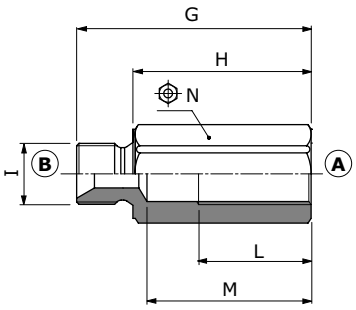


Dimension

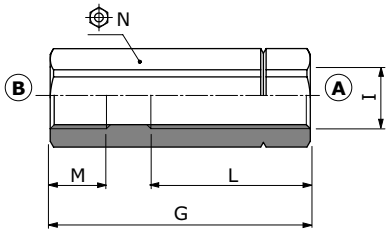
Type VDR



Housing type VDR/M



Housing type VDR/F



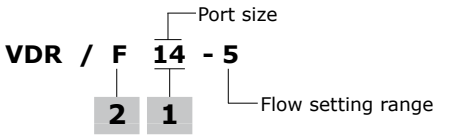
Dimensions are in mm-*in*

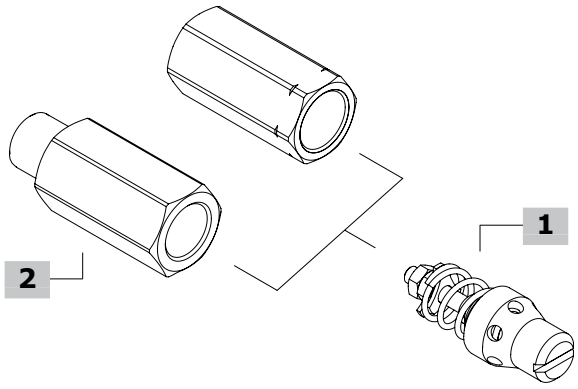
Valve type	A	B	C	D	E	F	G	⌖H	⌖I	S min-max
VDR 14	39 *1.53*	8 *0.31*	11.5 *0.45*	G 1/4	10 *0.39*	-	10 *0.39*	5.5	5.5	6-10.5 *0.236-0.413*
VDR 38	45 *1.77*	6 *0.24*	16 *0.63*	G 3/8	11.5 *0.45*	2 *0.08*	13.5 *0.53*	6	7	10.5-15.5 *0.413-0.61*
VDR 12	50 *1.97*	7 *0.27*	17 *0.67*	G 1/2	16 *0.63*	2 *0.08*	18 *0.71*	6	7	13-19 *0.511-0.748*
VDR 34	60 *2.36*	9.5 *0.37*	21.5 *0.55*	G 3/4	20 *0.79*	2 *0.08*	23 *0.9*	6	7	14-20.5 *0.551-0.807*

Dimensions are in mm-*in*

Housing type		G	H	I	L	M	⌖N
M	**14**	78 *3.07*	66 *2.6*	G 1/4	41 *1.61*	61 *2.40*	19
	38	82 *3.23*	70 *2.75*	G 3/8	41 *1.61*	63 *2.48*	22
	12	100 *3.94*	86 *3.38*	G 1/2	45 *1.77*	79 *3.11*	27
	34	112 *4.41*	96 *3.78*	G 3/4	55 *2.16*	86 *3.39*	32
F	**14**	66 *2.6*	-	G 1/4	34 *1.34*	12.5 *0.49*	19
	38	70 *2.75*	-	G 3/8	37 *1.45*	14 *0.55*	22
	12	80 *3.15*	-	G 1/2	38.5 *1.52*	15 *0.59*	27
	34	100 *3.94*	-	G 3/4	54 *2.12*	16.5 *0.65*	32

Ordering codes and description composition





Type	Flow setting range			
	VDR 14	VDR 38	VDR 12	VDR 34
	l/min *US gpm*	l/min *US gpm*	l/min *US gpm*	l/min *US gpm*
1	1 - 1.6 *0.26 - 0.42*	2.5 - 4 *0.66 - 1.06*	16 - 21 *4.2 - 5.6*	37 - 50 *9.8 - 13.2*
2	1.6 - 2.5 *0.42 - 0.66*	4 - 6.3 *1.06 - 1.66*	21 - 28 *5.5 - 7.4*	50 - 67 *13.2 - 17.7*
3	2.5 - 4 *0.66 - 1.06*	6.3 - 10 *1.66 - 2.64*	28 - 37 *7.4 - 9.8*	67 - 90 *17.7 - 23.8*
4	4 - 6.3 *1.06 - 1.66*	10 - 16 *2.64 - 4.2*	37 - 50 *9.8 - 13.2*	90 - 120 *23.8 - 31.7*
5	6.3 - 10 *1.66 - 2.64*	16 - 25 *4.2 - 6.6*	50 - 67 *13.2 - 17.7*	120 - 150 *31.7 - 39.6*

NOTE - l/min @ 50 bar *(720 psi)*

VDR complete valves

Chartridge with steel housing

TYPE	CODE	DESCRIPTION
VDR/F 14-1	1661110100	Female-female G1/4 ports, range type 1
VDR/F 38-2	1661120100	Female-female G3/8 ports, range type 2
VDR/F 12-2	1661130100	Female-female G1/2 ports, range type 2
VDR/F 34-3	1661140100	Female-female G3/4 ports, range type 3
VDR/M 14-1	1661210100	Male-female G1/4 ports, range type 1
VDR/M 38-2	1661220100	Male-female G3/8 ports, range type 2
VDR/M 12-2	1661230100	Male-female G1/2 ports, range type 2
VDR/M 34-3	1661240100	Male-female G3/4 ports, range type 3

For different configurations or SAE thread please contact our Sales Dpt.

2 Housing

M-F (male-female) or F-F (female-female) steel housing

TYPE	CODE	DESCR.	TYPE	CODE	DESCR.
MF14	CMFVRD01	G1/4, M-F	**MF03**	CMFVRD03	G1/2, M-F
FF14	CFFVRD01	G1/4, F-F	**FF03**	CFFVRD03	G1/2, F-F
MF02	CMFVRD02	G3/8, M-F	**MF04**	CMFVRD04	G3/4, M-F
FF02	CFFVRD02	G3/8, F-F	**FF04**	CFFVRD04	G3/4, F-F

For different configurations or SAE thread please contact our Sales Dpt.

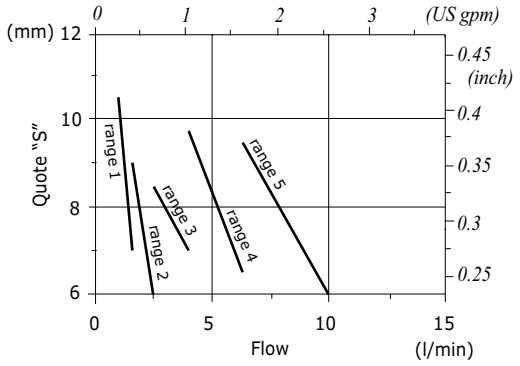
1 Valve

Nominal regulated flow tolerance ±10% with setting pressure Δp=50 bar *(720 psi)*.

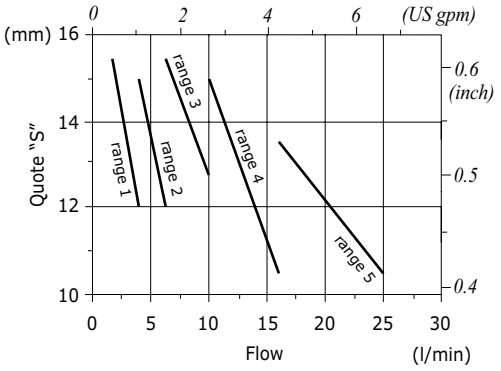
TYPE	CODE	DESCRIPTION
With G1/4 ports		
VDR 14-1	1661010100	Range type 1; setting 1.2 l/min *(0.32 USgpm)*
VDR 14-2	1661010101	Range type 2; setting 1.9 l/min *(0.50 USgpm)*
VDR 14-3	1661010102	Range type 3; setting 3.1 l/min *(0.82 USgpm)*
VDR 14-4	1661010103	Range type 4; setting 4.9 l/min *(1.29 USgpm)*
VDR 14-5	1661010104	Range type 5; setting 8.6 l/min *(2.27 USgpm)*
With G3/8 ports		
VDR 38-1	1661020100	Range type 1; setting 3.5 l/min *(0.92 USgpm)*
VDR 38-2	1661020101	Range type 2; setting 5.5 l/min *(1.45 USgpm)*
VDR 38-3	1661020102	Range type 3; setting 8 l/min *(2.11 USgpm)*
VDR 38-4	1661020103	Range type 4; setting 13 l/min *(3.43 USgpm)*
VDR 38-5	1661020104	Range type 5; setting 20 l/min *(5.28 USgpm)*
With G1/2 ports		
VDR 12-1	1661030100	Range type 1; setting 19 l/min *(5.02 USgpm)*
VDR 12-2	1661030101	Range type 2; setting 25 l/min *(6.60 USgpm)*
VDR 12-3	1661030102	Range type 3; setting 30 l/min *(7.92 USgpm)*
VDR 12-4	1661030103	Range type 4; setting 43 l/min *(11.36 USgpm)*
VDR 12-5	1661030104	Range type 5; setting 58 l/min *(15.32 USgpm)*
With G3/4 ports		
VDR 34-1	1661040100	Range type 1; setting 42 l/min *(11.09 USgpm)*
VDR 34-2	1661040101	Range type 2; setting 61 l/min *(16.11 USgpm)*
VDR 34-3	1661040102	Range type 3; setting 81 l/min *(21.40 USgpm)*
VDR 34-4	1661040103	Range type 4; setting 107 l/min *(28.27 USgpm)*
VDR 34-5	1661040104	Range type 5; setting 144 l/min *(38.04 USgpm)*

Rating diagrams

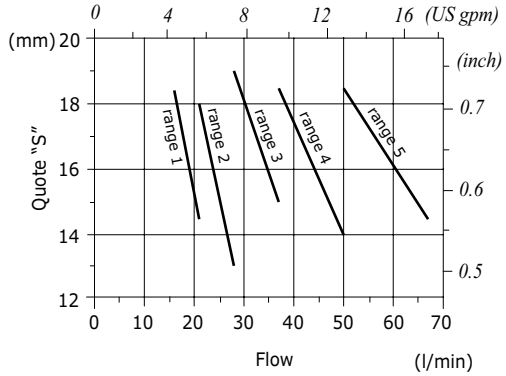
VDR 14 pressure flow setting range



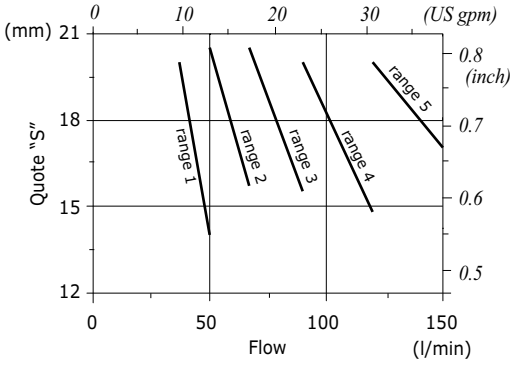
VDR 38 pressure flow setting range



VDR 12 pressure flow setting range



VDR 34 pressure flow setting range



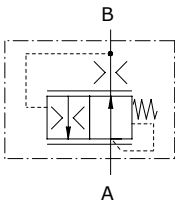
Type VDR/CO
flow control pressure compensated valves

- Cartridge compensated
- With steel housing M-F or F-F
- Flow regulator fixed type

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

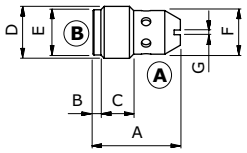
		VDR/CO 14	VDR/CO 38	VDR/CO 12
Nominal flow from A to B		15 l/min *(3.96 US gpm)*	25 l/min *(6.6 US gpm)*	60 l/min *(15.9 US gpm)*
Nominal flow from B to A		10 l/min *(2.6 US gpm)*	16 l/min *(4.2 US gpm)*	45 l/min *(11.9 US gpm)*
Max. pressure			350 bar *(5100 psi)*	
Fluid			mineral based oil	
Viscosity			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 for working conditions			from -40°C *(-40°F)* to 100°C *(212°F)*	
Weight	*steel*	0.01 kg *(0.022 lb)*	0.026 kg *(0.057 lb)*	0.05 kg *(0.11 lb)*

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

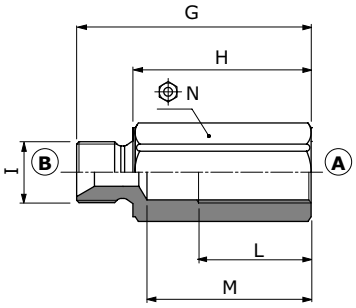


Dimension

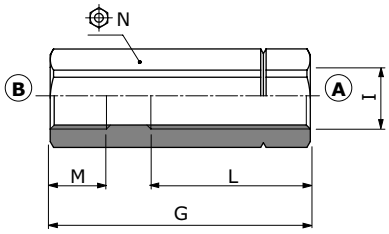
Type VDR/CO



Housing type VDR/CO/M



Housing type VDR/CO/F



Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G
VDR/CO 14	23 *0.9*	1.5 *0.06*	7 *0.27*	G 1/4	-	10.5 *0.41*	1.5 *0.06*
VDR/CO 38	28 *1.1*	2.5 *0.1*	10.5 *0.41*	G 3/8	14.5 *0.57*	14 *0.55*	1.5 *0.06*
VDR/CO 12	36 *1.42*	5 *0.2*	12 *0.47*	G 1/2	18 *0.71*	17 *0.67*	2 *0.08*

Dimensions are in mm-*in*

Housing type		G	H	I	L	M	N
MF	**14**	62 *2.44*	50 *1.97*	G 1/4	42 *1.65*	45 *1.77*	19
	38	82 *3.23*	70 *2.75*	G 3/8	41 *1.61*	63 *2.48*	22
	12	80 *3.15*	66 *2.60*	G 1/2	50 *1.97*	57 *2.32*	27
FF	**14***	50 *1.97*	-	G 1/4	21 *0.83*	12.5 *0.49*	19
	38	70 *2.75*	-	G 3/8	37 *1.46*	14 *0.55*	22
	12	80 *3.15*	-	G 1/2	50 *1.97*	16 *0.63*	27

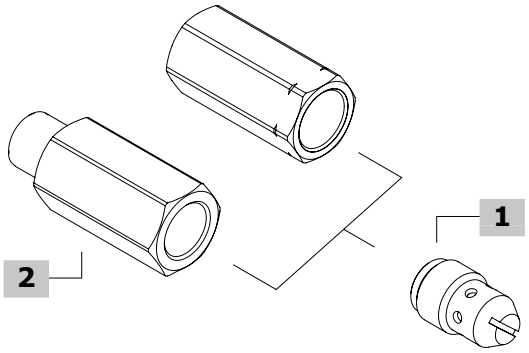
NOTE - (*) valve to be inserted in the reverse direction.

Ordering codes and description composition

Port size

VDR/CO / F 14 - 2 l/min

2 **1** Nominal flow



VDR/CO complete valves

Chartridge with steel housing

TYPE	CODE	DESCRIPTION
VDR/CO/F 14-2	1661610100	Female-female G1/4 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/F 38-2	1661620100	Female-female G3/8 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/F 12-12	1661630100	Female-female G1/2 ports, range 12 l/min - *3.2 US gpm*
VDR/CO/M 14-2	1661710100	Male-female G1/4 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/M 38-2	1661720100	Male-female G3/8 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/M 12-12	1661730100	Male-female G1/2 ports, range 12 l/min - *3.2 US gpm*

For different configurations or SAE thread please contact our Sales Dpt.

2 Housing

M-F (male-female) or F-F (female-female) steel housing

TYPE	CODE	DESCR.	TYPE	CODE	DESCR.
MF14	CMFVSC01	G1/4, M-F	**MF03**	CMFVSC03	G1/2, M-F
FF14	CFFVUBA-VSC01	G1/4, F-F	**FF03**	CFFVSC03	G1/2, F-F
MF02	CMFVSC02	G3/8, M-F			
FF02	CFFVSC02	G3/8, F-F			

For different configurations or SAE thread please contact our Sales Dpt.

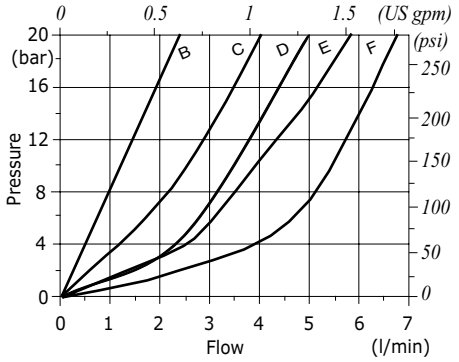
1 Valve

TYPE	CODE	DESCRIPTION
With G1/4 ports		
VDR/CO 14-1	1661510100	Nominal flow 1 l/min - *0.26 US gpm*
VDR/CO 14-2	1661510101	Nominal flow 2 l/min - *0.53 US gpm*
VDR/CO 14-3	1661510102	Nominal flow 3 l/min - *0.79 US gpm*
VDR/CO 14-4	1661510103	Nominal flow 4 l/min - *1.06 US gpm*
VDR/CO 14-5	1661510104	Nominal flow 5 l/min - *1.32 US gpm*
VDR/CO 14-6	1661510105	Nominal flow 6 l/min - *1.58 US gpm*
VDR/CO 14-7	1661510106	Nominal flow 7 l/min - *1.85 US gpm*
VDR/CO 14-8	1661510107	Nominal flow 8 l/min - *2.11 US gpm*
VDR/CO 14-9	1661510108	Nominal flow 9 l/min - *2.38 US gpm*
VDR/CO 14-10	1661510109	Nominal flow 10 l/min - *2.64 US gpm*
With G3/8 ports		
VDR/CO 38-2	1661520100	Nominal flow 2 l/min - *0.53 US gpm*
VDR/CO 38-4	1661520101	Nominal flow 4 l/min - *1.06 US gpm*
VDR/CO 38-6	1661520102	Nominal flow 6 l/min - *1.58 US gpm*
VDR/CO 38-8	1661520103	Nominal flow 8 l/min - *2.11 US gpm*
VDR/CO 38-10	1661520104	Nominal flow 10 l/min - *2.64 US gpm*
VDR/CO 38-12	1661520105	Nominal flow 12 l/min - *3.2 US gpm*
VDR/CO 38-14	1661520106	Nominal flow 14 l/min - *3.7 US gpm*
VDR/CO 38-16	1661520107	Nominal flow 16 l/min - *4.2 US gpm*
With G1/2 ports		
VDR/CO 12-12	1661530100	Nominal flow 12 l/min - *3.2 US gpm*
VDR/CO 12-16	1661530101	Nominal flow 16 l/min - *4.2 US gpm*
VDR/CO 12-20	1661530102	Nominal flow 20 l/min - *5.3 US gpm*
VDR/CO 12-25	1661530103	Nominal flow 25 l/min - *6.6 US gpm*
VDR/CO 12-30	1661530104	Nominal flow 30 l/min - *7.9 US gpm*
VDR/CO 12-35	1661530105	Nominal flow 35 l/min - *9.3 US gpm*
VDR/CO 12-40	1661530106	Nominal flow 40 l/min - *10.6 US gpm*
VDR/CO 12-45	1661530107	Nominal flow 45 l/min - *11.9 US gpm*

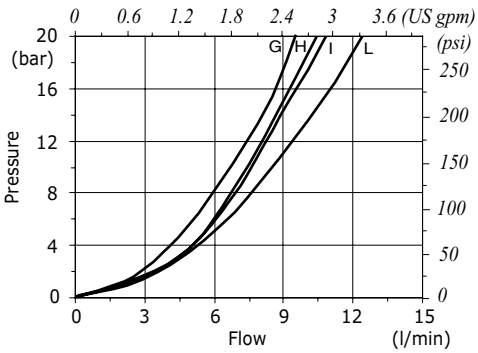
NOTE - Nominal flow ± 10% @ 100 bar - *1440 psi*

Rating diagrams

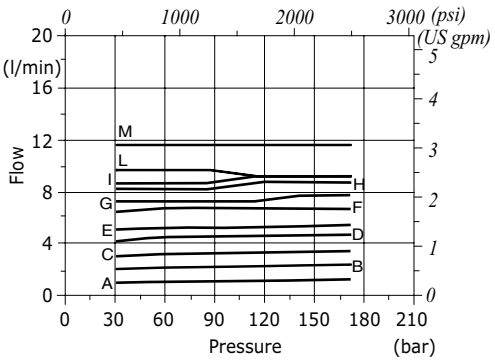
VDR/CO 14 pressure drop vs. flow (A→B) B-C-D-E-F nominal flow



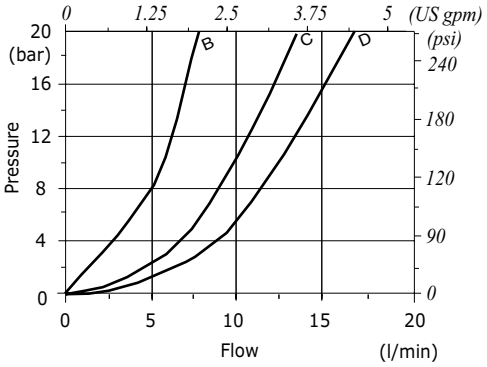
VDR/CO 14 pressure drop vs. flow (A→B) G-H-I-L nominal flow



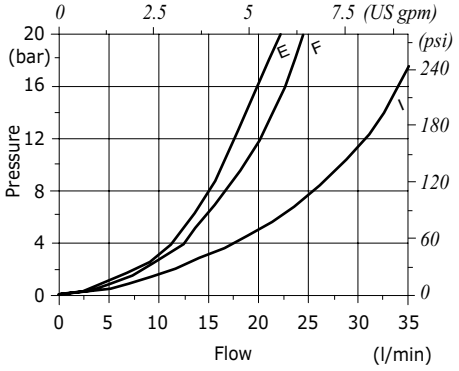
VDR/CO 14 pressure drop vs. flow (B→A) compensation diagram



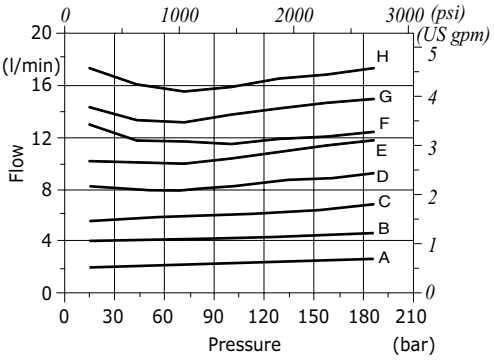
VDR/CO 38 pressure drop vs. flow (A→B) B-C-D nominal flow



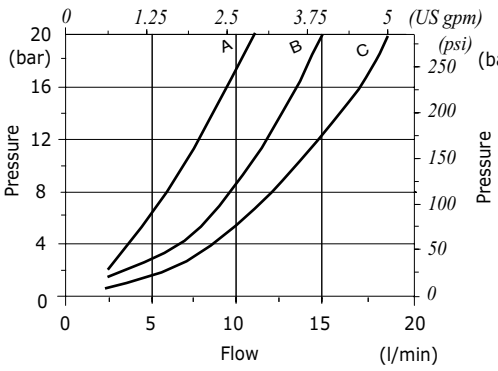
VDR/CO 38 pressure drop vs. flow (A→B) E-F-I nominal flow



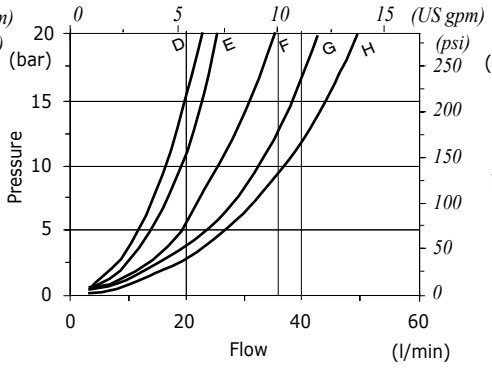
VDR/CO 38 pressure drop vs. flow (B→A) compensation diagram



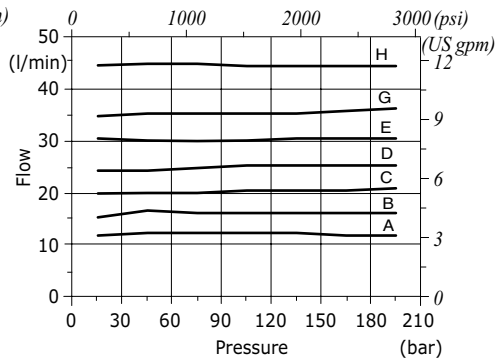
VDR/CO 12 pressure drop vs. flow (A→B) A-B-C-D nominal flow



VDR/CO 12 pressure drop vs. flow (A→B) E-F-I nominal flow



VDR/CO 12 pressure drop vs. flow (B→A) compensation diagram



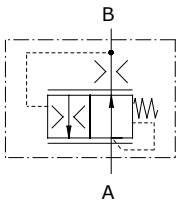
Type VSCOR....
flow control pressure compensated valves

- Pop-in cartridge compensated
- Flow regulator fixed type

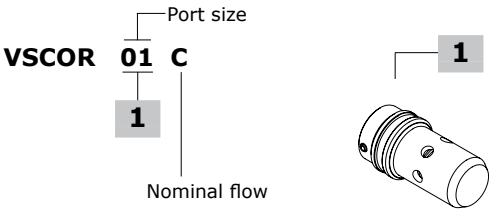
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

	VSCOR01..
Nominal flow from A to B	15 l/min *(4.0 US gpm)*
Nominal flow from B to A	10 l/min *(2.6 US gpm)*
Max. pressure	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 for working conditions	from -40°C *(-40°F)* to 100°C *(212°F)*
Weight *steel*	0.014 kg *(0.03 lb)*

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



Ordering codes and description composition



Type	Nominal flow VSCOR 01 l/min - *US gpm*
A	1 - *0.26*
B	2 - *0.53*
C	3 - *0.79*
D	4 - *1.06*
E	5 - *1.32*
F	6 - *1.58*
G	7 - *1.85*
H	8 - *2.11*
I	9 - *2.38*
L	10 - *2.64*

NOTE - l/min @ 50 bar - *720 psi*

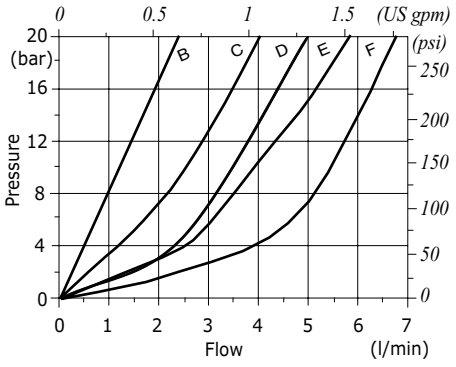
Complete valves

TYPE	CODE	DESCRIPTION
With 01 port 12.7 mm *(0.5 in)*		
VSCOR01A	1662010100	Nominal flow type A
VSCOR01B	1662010101	Nominal flow type B
VSCOR01C	1662010102	Nominal flow type C

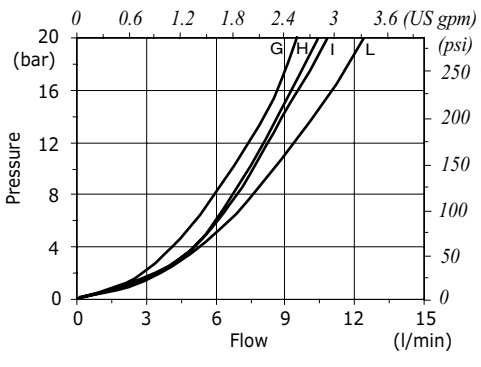
For different configurations or SAE thread please contact our Sales Dpt.

Dimension

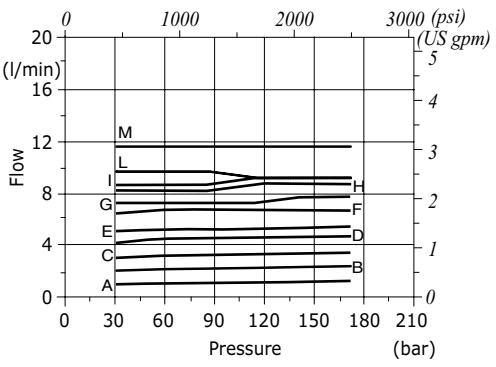
VSCOR 01 pressure drop vs. flow (A→B) B-C-D-E-F nominal flow



VSCOR 01 pressure drop vs. flow (A→B) G-H-I-L nominal flow



VSCOR 01 pressure drop vs. flow (B→A) compensation diagram



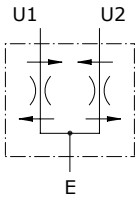
Type VDFR
flow control pressure compensated valves

- 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)*

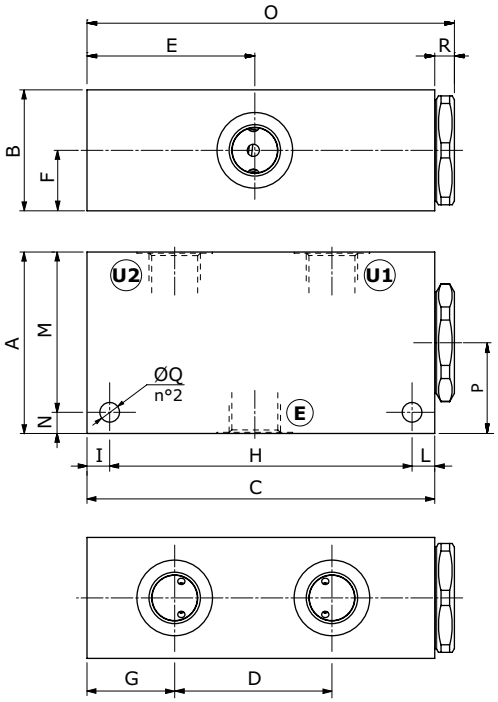
NOTE - For different conditions, please contact Walvoil Sales Dpt.



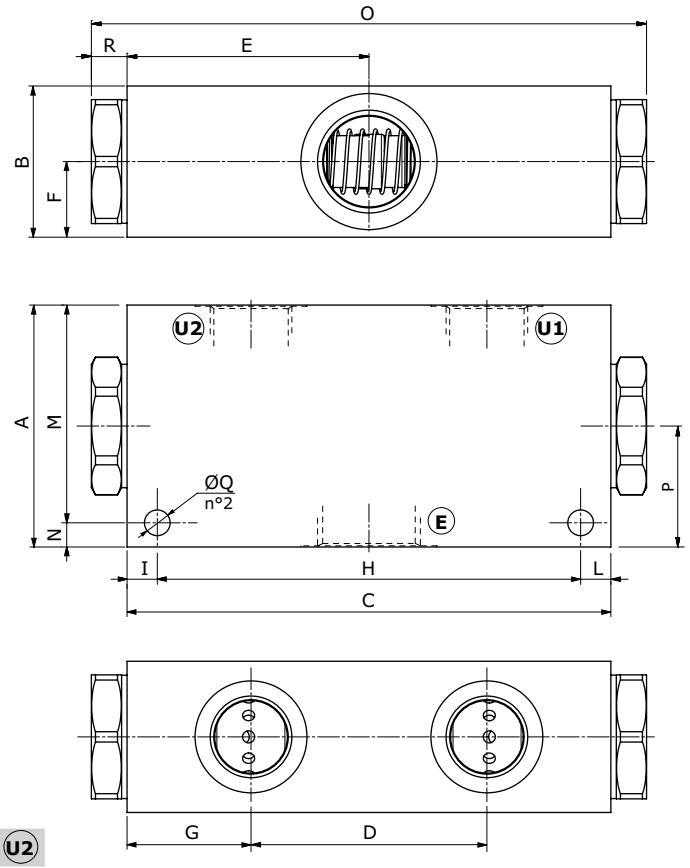
Dimensions

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

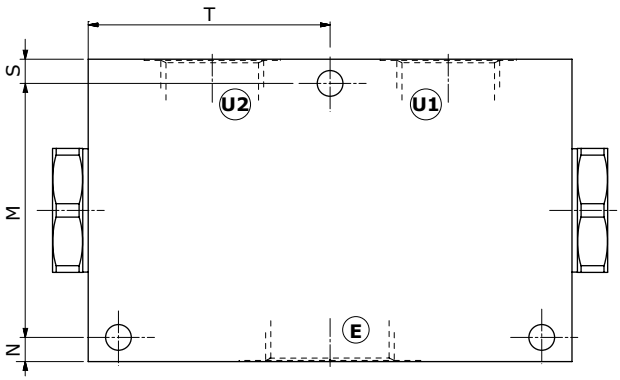


Valve type	E	U1 - U2
VDFR 38-12	G3/8	G3/8
VDFR 38-24	G3/8	G3/8
VDFR 38-40	G3/8	G3/8
VDFR 12-12	G1/2	G3/8
VDFR 12-24	G1/2	G3/8

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



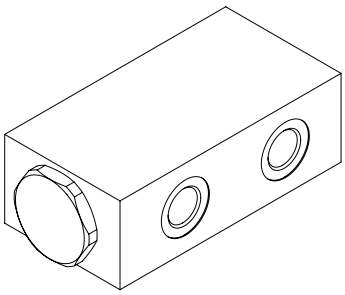
Dimensions are in mm-*in*

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)

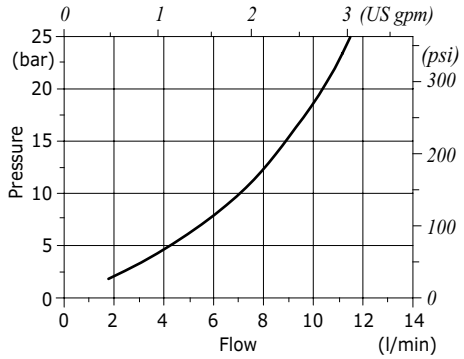
50%-50% Divide ratio

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

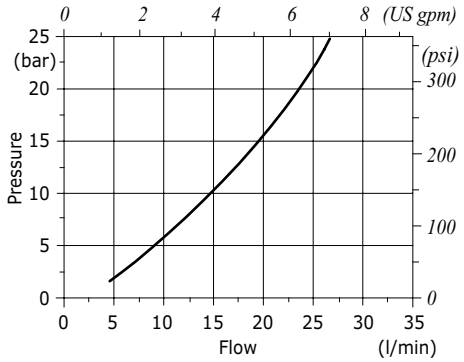
Note:special divide ratios 33%÷66% - 30%÷70% - 20%÷80% - 25%÷75% - 40%÷60% for VDFR 38-12, 38-24, 12-40 and 34-90.
33%÷66%-40%÷60% for VDFR 100-150
For VDFR 114-250 please please contact our Sales Dpt.
Mounting holes on request (standard on VDFR 34-90 - VDFR 100-150 and VDFR114-250)
For other steel body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

Rating diagrams

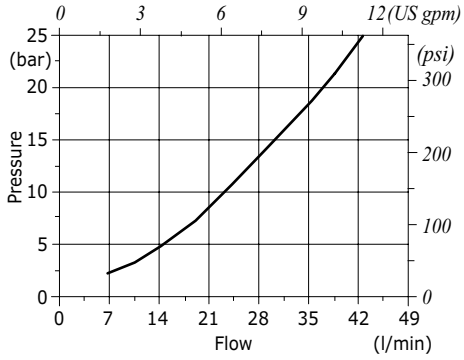
VDFR 38-12
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



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

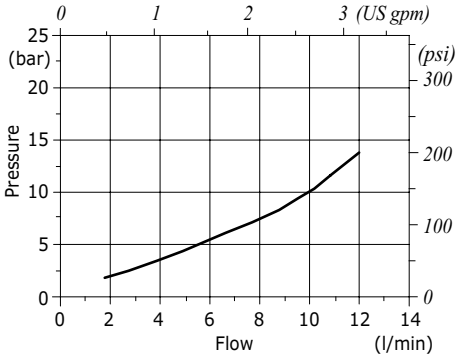


VDFR 38-40
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)

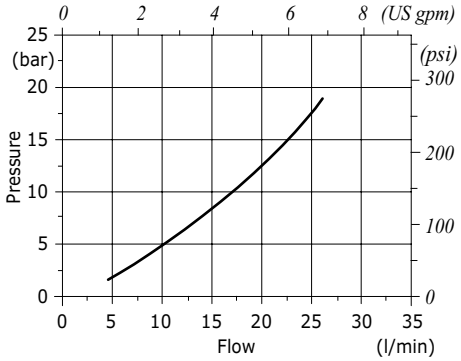


Rating diagrams

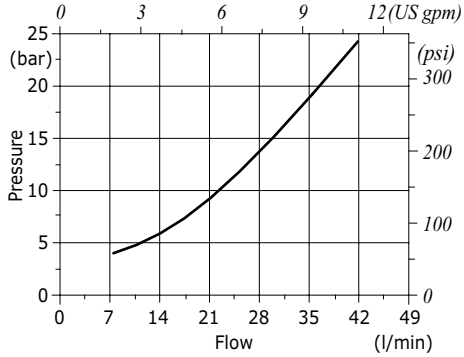
VDFR 12-12
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



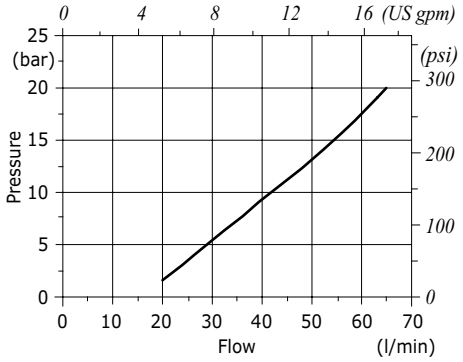
VDFR 12-24
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



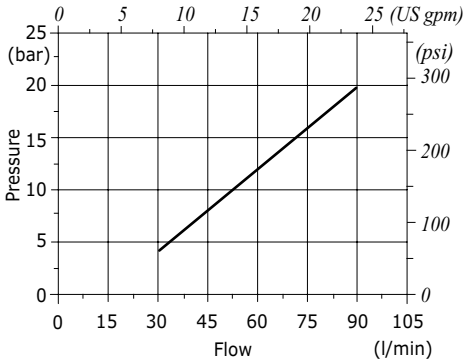
VDFR 12-40
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



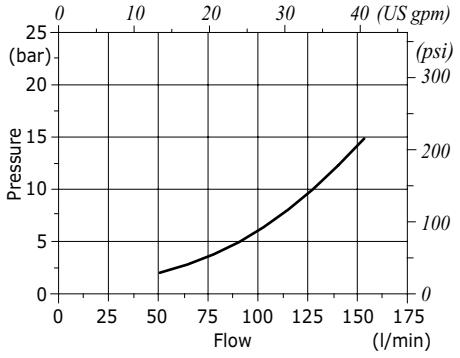
VDFR 34-65
pressure drop vs. flow
(E→U1-U2) and (U1-U2→E)



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)