

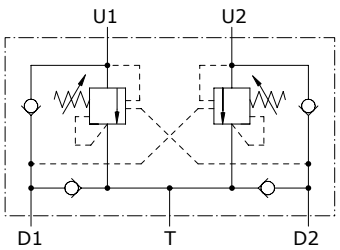
Type VABAL counterbalance valves

- Cross line, relief valve for motion control
- Load sensitive

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

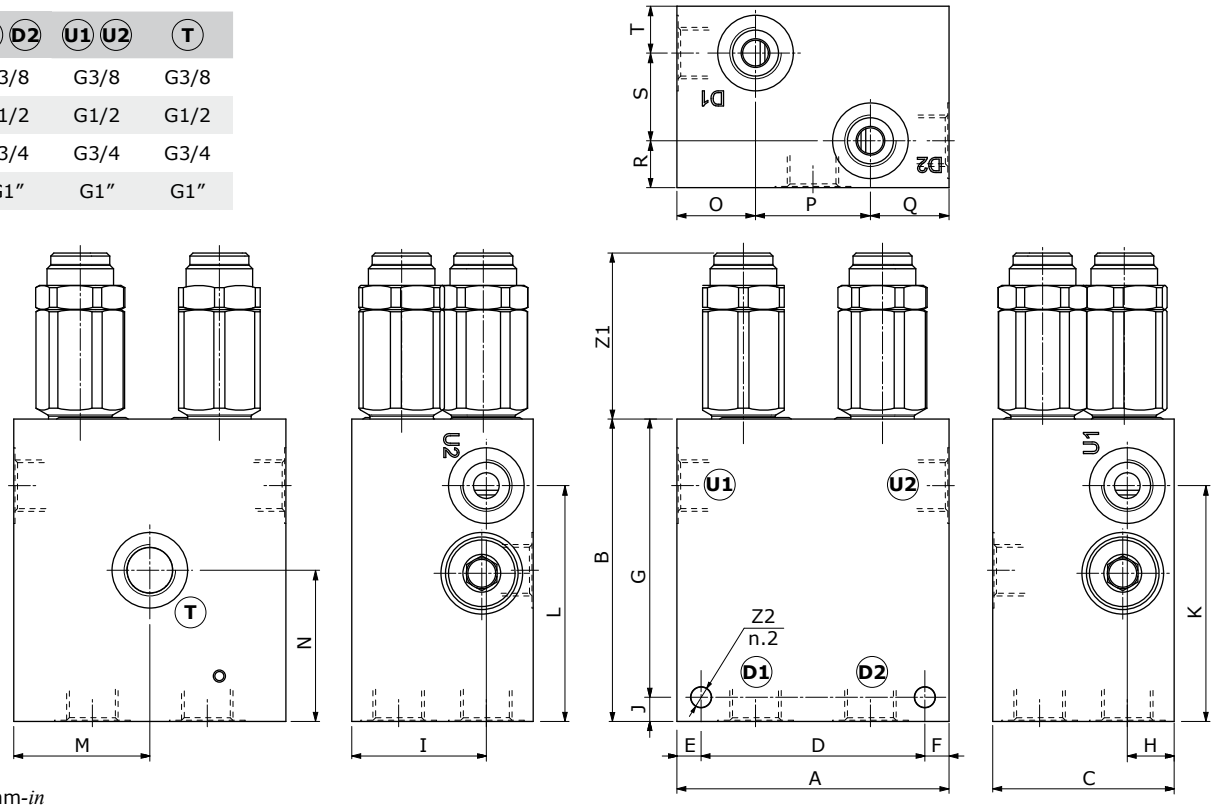
		VABAL 38	VABAL 12	VABAL 34	VABAL 100
Nominal flow		35 l/min *(9.2 US gpm)*	70 l/min *(18.5 US gpm)*	100 l/min *(26.4 US gpm)*	180 l/min *(47.5 US gpm)*
Max. pressure		Aluminium body = 210 bar *(3050 psi)* Steel body = 350 bar *(5100 psi)*			
Oil leakage		0.25 cm^3/min - *0.015 in^3/min.* (5 drops) at 210 bar - *3050 psi* at 80% of pressure setting			
Fluid		mineral based oil			
Viscosity		from 10 to 200 cSt			
Max. level of contamination		18/16/13 ISO4406			
Fluid temperature		*with NBR seals* from -20°C *(-4°F)* to 80°C *(176°F)*			
Environmental temp. for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*			
Weight	*aluminium*	2.16 kg *(4.76 lb)*	2.48 kg *(5.47 lb)*	4.47 kg *(9.85 lb)*	9.32 kg *(20.55 lb)*
	steel	4.33 kg *(9.55 lb)*	5.14 kg *(11.33 lb)*	9.05 kg *(19.95 lb)*	20.65 kg *(45.53 lb)*

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



Dimensions

Valve type	D1 D2	U1 U2	T
VABAL 38	G3/8	G3/8	G3/8
VABAL 12	G1/2	G1/2	G1/2
VABAL 34	G3/4	G3/4	G3/4
VABAL 100	G1"	G1"	G1"



Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G	J	K
VODL 38	90 *3.54*	100 *3.94*	60 *2.36*	74 *2.91*	8 *0.315*	8 *0.315*	92 *3.62*	8 *0.315*	78 *3.07*
VODL 12	100 *3.94*	100 *3.94*	70 *2.76*	84 *3.31*	8 *0.315*	8 *0.315*	92 *3.62*	8 *0.315*	78.5 *3.09*
VODL 34	120 *4.72*	120 *4.72*	85 *3.35*	100 *3.94*	10 *0.394*	10 *0.394*	110 *4.33*	10 *0.394*	90 *3.54*
VODL 100	160 *6.30*	160 *6.30*	110 *4.33*	136 *5.35*	12 *0.472*	12 *0.472*	148 *5.83*	12 *0.472*	130 *5.12*

Valve type	H	I	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Z1	Z2
VODL 38	15.5 *0.61*	44.5 *1.75*	78 *3.07*	45 *1.77*	50 *1.97*	26 *1.02*	38 *1.50*	26 *1.02*	15.5 *0.61*	29 *1.14*	15.5 *0.61*	16.5 *0.65*	27 *1.06*	16.5 *0.65*	22 *0.87*	46 *1.81*	22 *0.87*	54.8 *2.16*	M8
VODL 12	17.5 *0.69*	52.5 *2.07*	78.5 *3.09*	50 *1.97*	48 *1.89*	29 *1.14*	42 *1.14*	29 *1.14*	17.5 *0.69*	35 *1.38*	17.5 *0.69*	18.5 *0.73*	33 *1.30*	18.5 *0.73*	27 *1.06*	46 *1.81*	27 *1.06*	50.2 *1.98*	M8
VODL 34	21 *0.83*	64 *2.52*	90 *3.54*	60 *2.36*	55 *2.17*	33 *1.30*	54 *2.13*	33 *1.30*	21 *0.83*	43 *1.70*	21 *0.83*	24 *0.94*	37 *1.46*	24 *0.94*	28 *1.10*	64 *2.52*	28 *1.10*	60.8 *2.39*	M10
VODL 100	30 *1.18*	80 *3.15*	130 *5.12*	80 *3.15*	84 *3.31*	47 *1.85*	66 *2.60*	47 *1.85*	30 *1.18*	50 *1.97*	30 *1.18*	30 *1.18*	50 *1.97*	30 *1.18*	47 *1.85*	66 *2.60*	47 *1.85*	64.7 *2.54*	M12

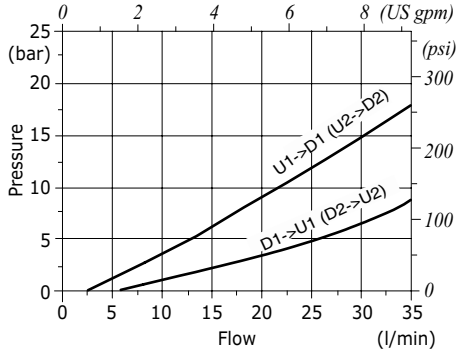
Ordering codes

VABAL complete valves

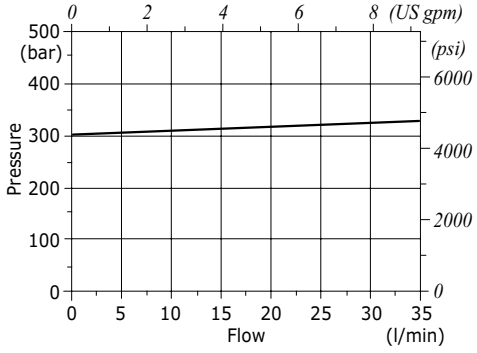
TYPE: **VABAL 38/TR.S.p4** CODE: 1570021102
DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar *(725-5075 psi)*, std setting 280 bar *(4060 psi)* @ 5 l/min *(1.32 US gpm)*
TYPE: **VABAL 12/TR.S.p7** CODE: 1570031102
DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 50-350 bar *(725-5075 psi)*, std setting 280 bar *(4060 psi)* @ 5 l/min *(1.32 US gpm)*
TYPE: **VABAL 34/TR.S.p7** CODE: 1570041102
DESCRIPTION: Aluminium body, G3/4 ports, pilot ratio 1:7, range 50-350 bar *(725-5075 psi)*, std setting 280 bar *(4060 psi)* @ 5 l/min *(1.32 US gpm)*
TYPE: **VABAL 100/TR.S.p7.PG** CODE: 1570051102
DESCRIPTION: Aluminium body, G1" ports, pilot ratio 1:7, range 50-350 bar *(725-5075 psi)*, std setting 280 bar *(4060 psi)* @ 5 l/min *(1.32 US gpm)*
For other configurations and steel body, please contact our Sales Dept.

Rating diagrams

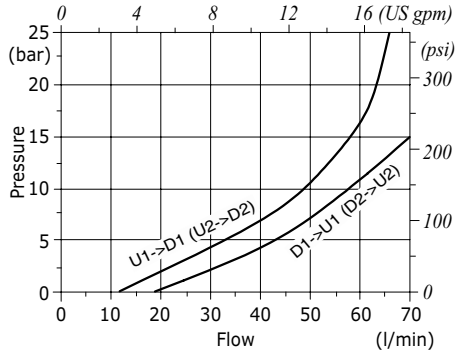
VABAL 38 pressure drop vs. flow from U1->D1 (U2->D2) and D1->U1 (D2->U2)



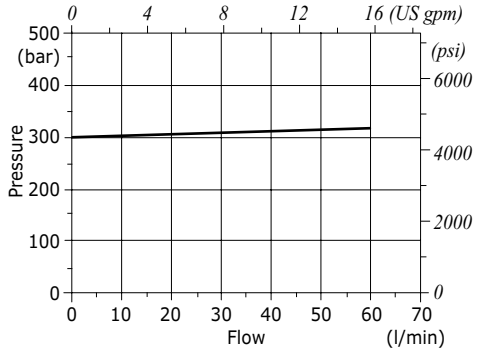
VABAL 38 pressure setting vs. flow from U1 (U2)->T



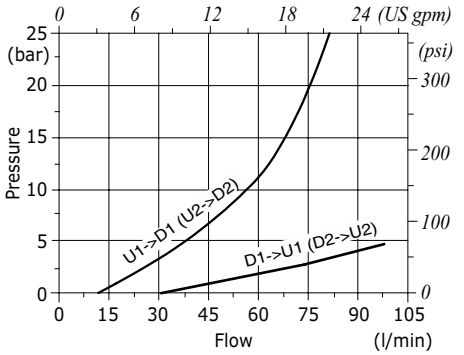
VABAL 12 pressure drop vs. flow from U1->D1 (U2->D2) and D1->U1 (D2->U2)



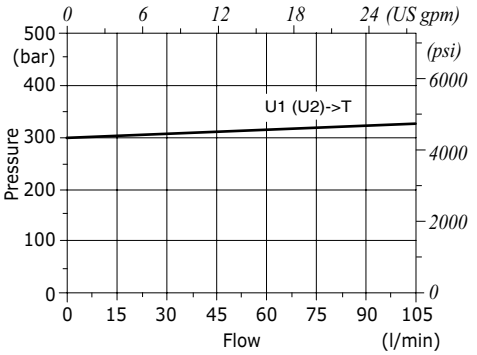
VABAL 12 pressure setting vs. flow from U1 (U2)->T



VABAL 34 pressure drop vs. flow from U1->D1 (U2->D2) and D1->U1 (D2->U2)



VABAL 34 pressure setting vs. flow from U1 (U2)->T



VABAL 100 pressure drop vs. flow from U1->D1 and D1->U1

