



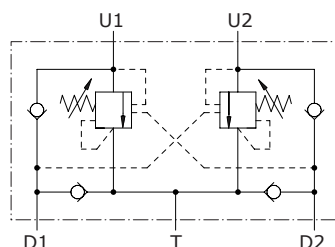
Type VABAL counterbalance valves

- 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.

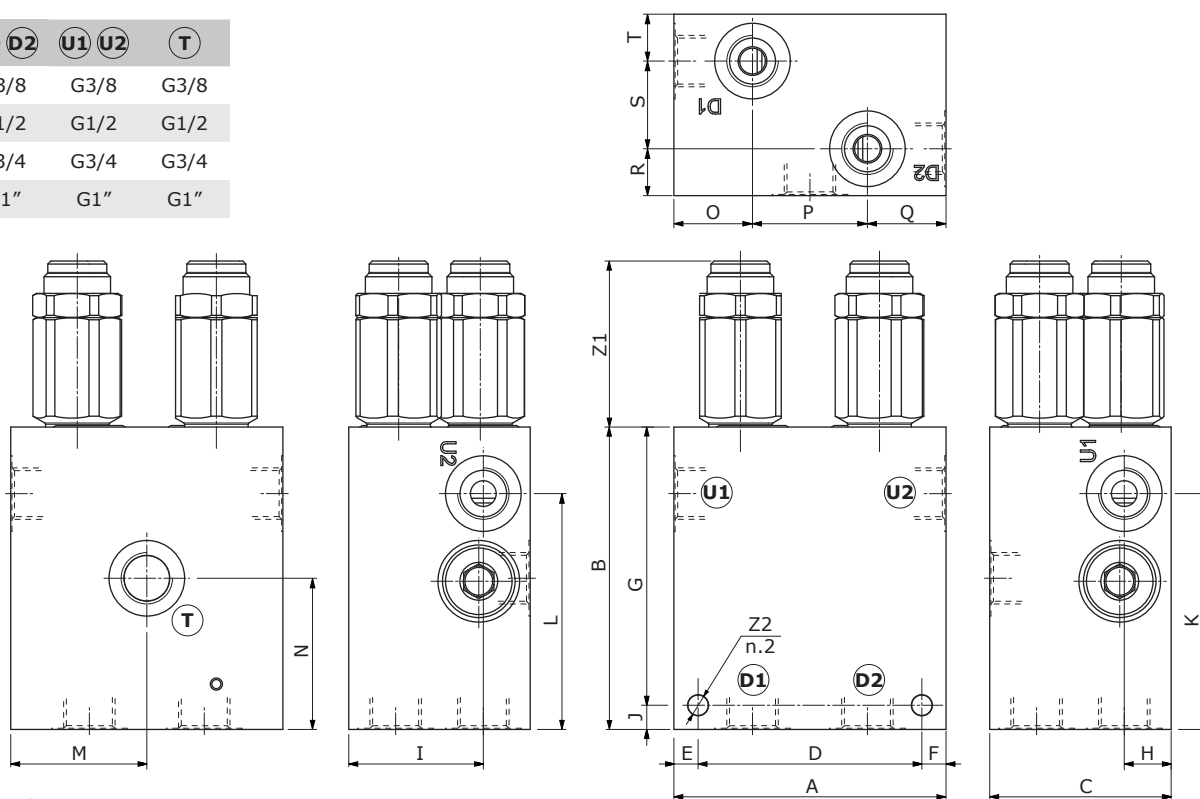
	VABAL 38	VABAL 12	VABAL 34	VABAL 100	
Nominal flow	35 l/min (9.2 US gpm)	70 l/min (18.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.5 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)				
Oil leakage	0.25 cm³/min - 0.015 in³/min. (5 drops) at 210 bar - 3050 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.



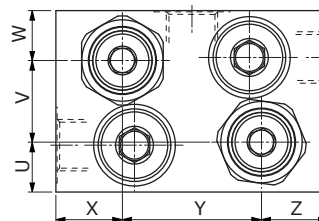
Dimensions

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

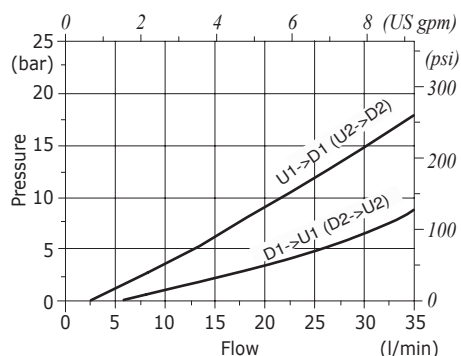
Ordering codes

VABAL complete valves

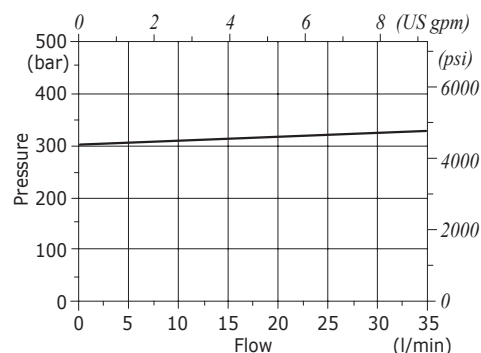
TYPE: **VABAL 38/TR.S.p4** CODE: 1570021102
 DESCRIPTION: Aluminium body, G3/8 ports, pilot ratio 1:4, range 50-350 bar (725-5075 psi), std setting 280 bar (4060 psi) @ 5 l/min (1.32 US gpm)
 TYPE: **VABAL 12/TR.S.p7** CODE: 1570031102
 DESCRIPTION: Aluminium body, G1/2 ports, pilot ratio 1:7, range 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

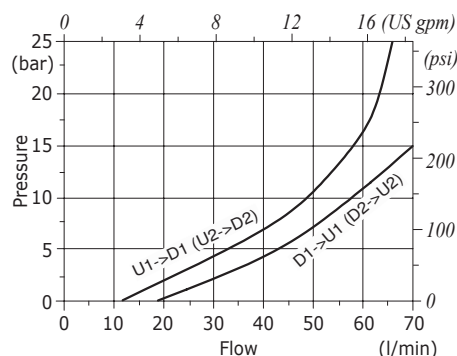
VABAL 38 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



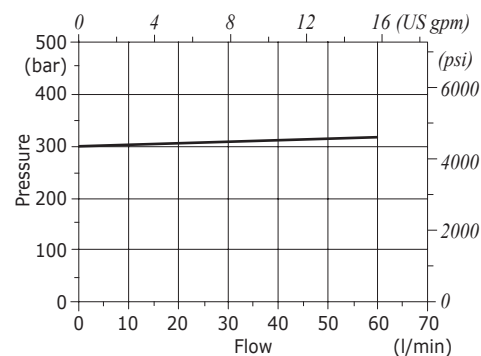
VABAL 38 pressure setting vs. flow
from U1 (U2)->T



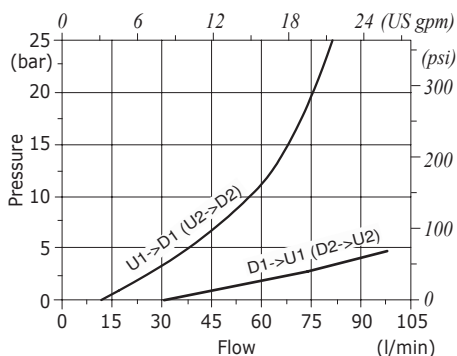
VABAL 12 pressure drop vs. flow
from U1->D1 (U2->D2) and D1->U1 (D2->U2)



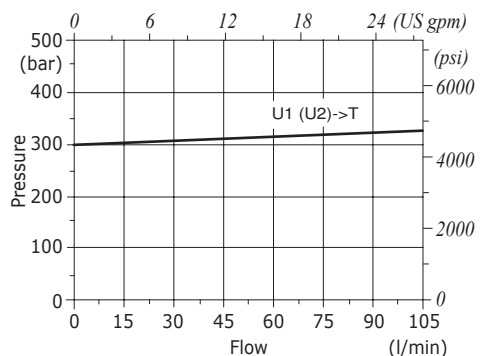
VABAL 12 pressure setting vs. flow
from U1 (U2)->T



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

