



Type VUI check valves

- Poppet type

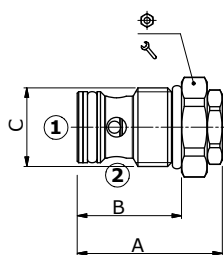
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	VUI 38	VUI 38/HF	VUI 12	VUI 34	VUI 100
Nominal flow	25 l/min (6.6 US gpm)	40 l/min (10.6 US gpm)	40 l/min (10.6 US gpm)	100 l/min (26.4 US gpm)	160 l/min (42.3 US gpm)
Max. pressure	400 bar (5800 psi)	300 bar (4350 psi)	400 bar (5800 psi)	400 bar (5800 psi)	400 bar (5800 psi)
Oil leakage	0.25 cm ³ /min (0.015 in ³ /min) at 210 bar (3050 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 0.08 kg (0.18 lb)	0.075 kg (0.16 lb)	0.15 kg (0.33 lb)	0.30 kg (0.66 lb)	0.54 kg (1.19 lb)

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

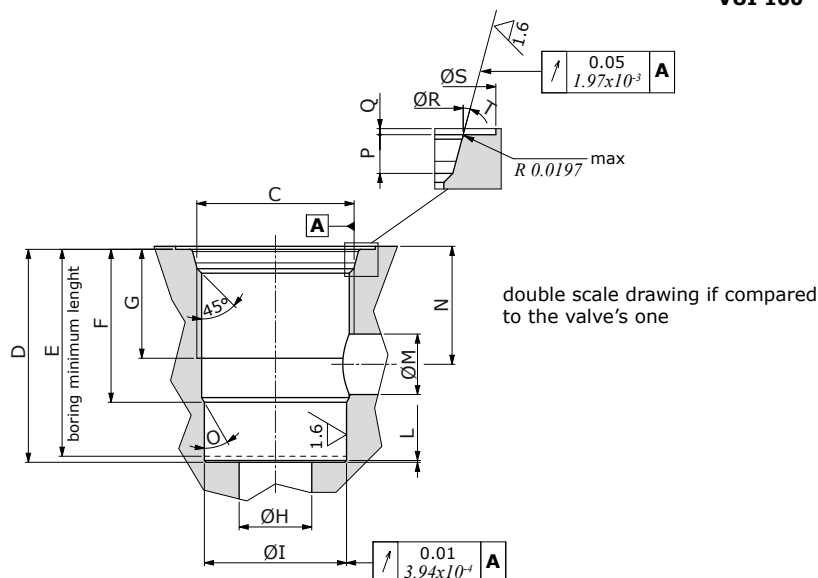


Dimensions



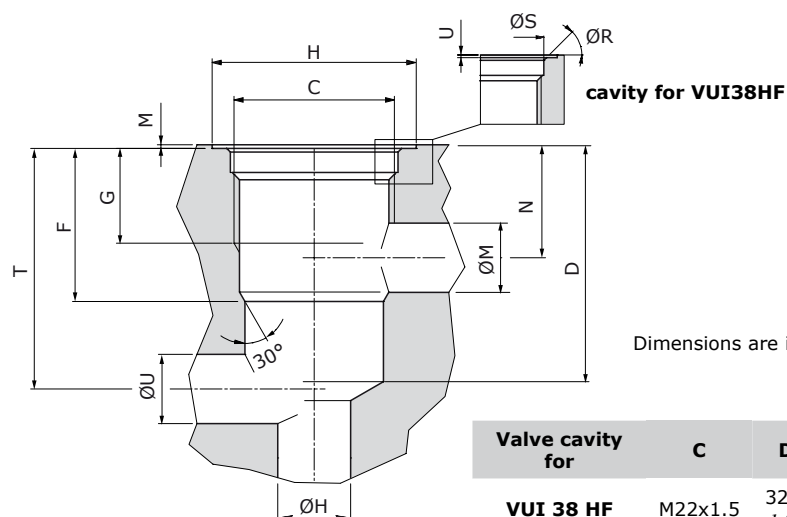
Dimensions are in mm-in

Valve type	A	B	C		Nm-lbft
VUI 38	42-1.65	27-1.06	M20x1.5	24	40-29
VUI 38/HF	34.5 - 1.36	28 - 1.10	M22x1.5	27	50-37
VUI 12	48-1.89	34.5-1.36	M26x1.5	30	60-44
VUI 34	68-2.68	51-2.01	M33x2	38	70-51
VUI 100	75-2.95	54.5-2.14	M42x2	46	80-59



Dimensions are in mm-in

Valve cavity for	C	D	E	F	G	ØH	ØI	L	ØM	N	O	P	Q	ØR	ØS
VUI 38	M20x1.5	29.5 1.16	28 1.10	20.5 0.81	16 0.63	10 0.39	16 H9 0.630 H9	/	7 0.275	16 0.63	30°	3 0.118	0.5 0.020	21 0.83	30 1.18
VUI 12	M26x1.5	35.2 1.39	34.2 1.35	25.3 0.996	18 0.71	12 0.47	23.5 H9 0.925 H9	0.3x45° 0.012x45°	10 0.39	19.5 0.77	30°	3.2 0.126	0.5 0.020	27.6 1.09	33 1.30
VUI 34	M33x2	52.5 2.07	51.5 2.03	39 1.54	28 1.10	20 0.79	27 H9 1.063 H9	0.5x45° 0.020x45	15 0.59	29.5 1.16	20°	3.2 0.126	0.5 0.020	34 1.35	40 1.57
VUI 100	75-2.95	57 2.24	55 2.17	41 1.61	29 1.14	28 1.10	38 H9 1.496 H9	1.5x45° 0.059x45	18 0.71	30 1.18	30°	4.5 0.177	0.5 0.020	43.5 1.71	50 1.97



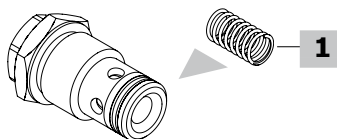
Dimensions are in mm-in

Valve cavity for	C	D	F	G	ØH	ØM	N	T	ØU
VUI 38 HF	M22x1.5	32.5 1.28	21 0.83	15 0.59	max. 18 max. 0.71	max.9 max. 0.35	15.5 0.61	33 1.30	9.5 0.37

Ordering codes and description composition

VUI 38/Pa0,5

1



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VUI complete valves

TYPE	CODE	DESCRIPTION
VUI 38/Pa0,5	1300020400	Steel body, opening pressure 0.5 bar (7.25 psi)
VUI 38/HF/Pa0,5	1300020900	Steel body, opening pressure 0.5 bar (7.25 psi)
VUI 12/Pa0,5	1300030400	Steel body, opening pressure 0.5 bar (7.25 psi)
VUI 34/Pa0,5	1300040400	Steel body, opening pressure 0.5 bar (7.25 psi)
VUI 100/Pa0,5	1300050400	Steel body, opening pressure 0.5 bar (7.25 psi)

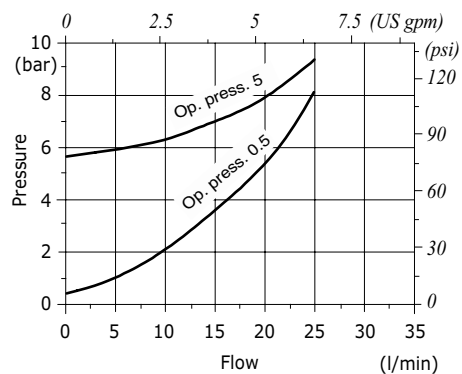
For configurations with FPM (Viton) seals please contact our Sales Dpt.

1 Pressure setting springs

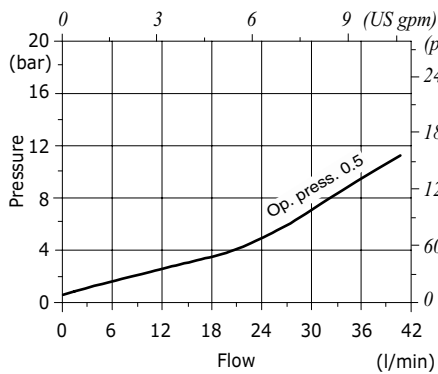
TYPE	CODE	DESCRIPTION
For VUI 38 valve		
Pa0,5	3ML1072001	Opening pressure 0.5 bar (7.25 psi)
Pa5	3ML1072003	Opening pressure 5 bar (72.5 psi)
For VUI 38 HF valve		
Pa0,5	1300020900	Opening pressure 0.5 bar (7.25 psi)
For VUI 12 valve		
Pa0,5	3ML1112900	Opening pressure 0.5 bar (7.25 psi)
Pa5	3ML1102801	Opening pressure 5 bar (72.5 psi)
For VUI 34 valve		
Pa0,5	3ML1155200	Opening pressure 0.5 bar (7.25 psi)
Pa5	3ML1155000	Opening pressure 5 bar (72.5 psi)
For VUI 100 valve		
Pa0,5	3ML1172801	Opening pressure 0.5 bar (7.25 psi)
Pa5	3ML1172800	Opening pressure 5 bar (72.5 psi)

Rating diagrams

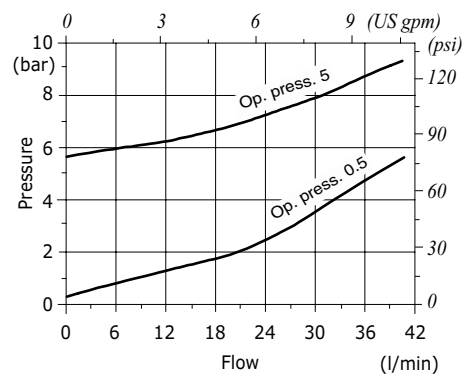
VUI 38 pressure drop vs. flow



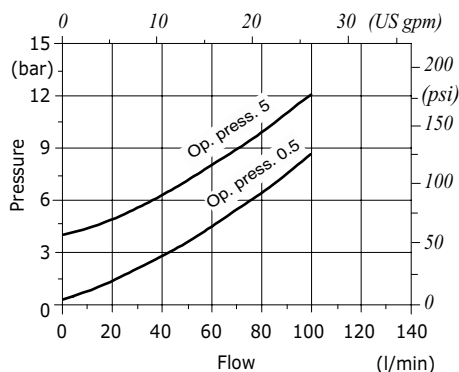
VUI 38 HF pressure drop vs. flow



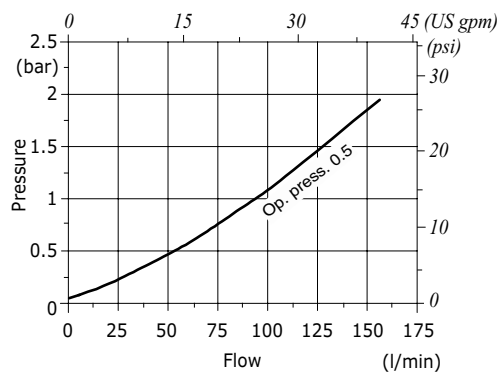
VUI 12 pressure drop vs. flow



VUI 34 pressure drop vs. flow



VUI 100 pressure drop vs. flow





Type VUS/INC
check valves

- Ball type

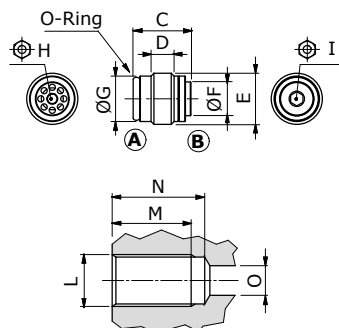
Technical specifications and diagrams are measured with mineral oil ISO VG32 at 50°C (122°F) temperature.

	VUS/INC 14		VUS/INC 38	VUS/INC 12	VUS/INC 34
Nominal flow	18 l/min (4.8 US gpm)		25 l/min (6.6 US gpm)	50 l/min (13.2 US gpm)	78 l/min (20.6 US gpm)
Max. pressure	350 bar (5100 psi)				
Oil leakage	0.25 cm ³ /min (0.015 in ³ /min) at 210 bar (3050 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	-40°C (-40°F) to 100°C (212°F)				
Weight	Steel	0.01 kg (0.02 lb)	0.02 kg (0.04 lb)	0.04 kg (0.09 lb)	0.07 kg (0.15 lb)

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



Dimensions



Dimensions are in mm-in

Valve type	ØC	D	E	G	ØG	ØH	ØI	O-Ring
VUS/INC14	17-0.67	6-0.24	G 1/4	9.2-0.36	11.3-0.445	3	3	1x9
VUS/INC38	18.5-0.73	7.5-0.29	G 3/8	11-0.43	14.8-0.57	3	4	1.78x10.82
VUS/INC12	23-0.90	9.5-0.37	G 1/2	14-0.55	18.5-0.73	5	6	1.78x14
VUS/INC34	28.5-1.12	14.5-0.57	G 3/4	19-0.75	24-0.94	8	8	2.62x18.72

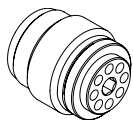
Valve cavity for	L	M	N	O
VUS/INC14	G 1/4	25-0.98	28-1.1	8-0.31
VUS/INC38	G 3/8	27-1.06	30-1.18	9-0.35
VUS/INC12	G 1/2	32-1.26	36-1.42	12-0.47
VUS/INC34	G 3/4	37-1.46	42-1.65	17-0.67

Ordering codes and description composition

VUS/INC 14/Pa0,5

Port size

Opening pressure (bar)



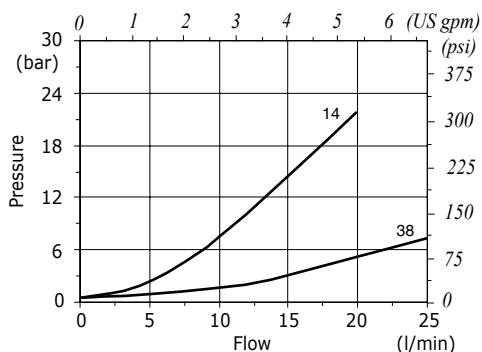
VUS/INC complete valves

TYPE	CODE	DESCRIPTION
VUS/INC 14/Pa0,5	1312110100	Opening pressure 0.5 bar (7.25 psi), G1/4 thread
VUS/INC 38/Pa0,5	1312120100	Opening pressure 0.5 bar (7.25 psi), G3/8 thread
VUS/INC 12/Pa0,5	1312130100	Opening pressure 0.5 bar (7.25 psi), G1/2 thread
VUS/INC 34/Pa0,5	1312140100	Opening pressure 0.5 bar (7.25 psi), G3/4 thread

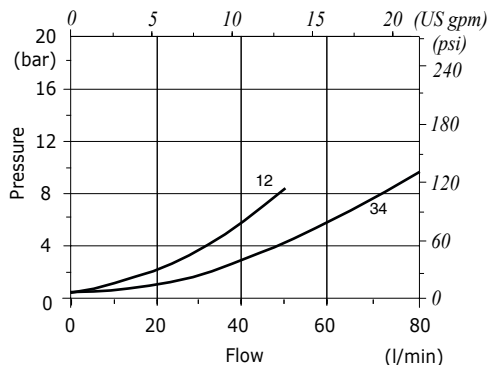
For different configurations and SAE thread please contact our Sales Dpt.

Rating diagrams

VUS/INC14-38 pressure drop vs. flow
opening pressure 0.5 bar (725 psi)



VUS/INC12-34 pressure drop vs. flow
opening pressure 0.5 bar (725 psi)





Type VUS/INC/A
check valves

- Poppet type

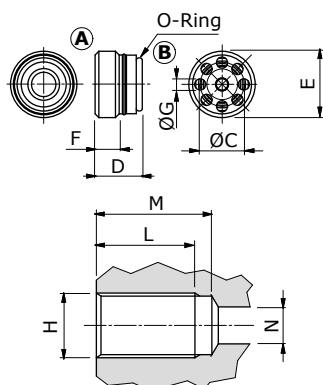
Technical specifications and diagrams are measured with mineral oil ISO VG32 at 50°C (122°F) temperature.

	VUS/INC/A18		VUS/INC/A14	VUS/INC/A38	VUS/INC/A12
Nominal flow	10 l/min (2.6 US gpm)		20 l/min (5.3 US gpm)	50 l/min (13.2 US gpm)	80 l/min (21.1 US gpm)
Max. pressure			350 bar (5100 psi)		
Oil leakage			0.25 cm ³ /min (0.015 in ³ /min) at 210 bar (3050 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	0.002 kg (0,004 lb)	0.005 kg (0.011 lb)	0.011 kg (0.024 lb)	0.019 kg (0.042 lb)

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



Dimensions



Dimensions are in mm-in

Valve type	ØC	D	E	F	ØG	O-Ring
VUS/INC/A18	5.6 - 0.22	7.5 - 0.29	G 1/8	3.5 - 0.14	1.6 - 0.06	1x6
VUS/INC/A14	8.4 - 0.33	8.5 - 0.33	G 1/4	4.4 - 0.17	2.2 - 0.09	1x8
VUS/INC/A38	11.1 - 0.44	11.3 - 0.44	G 3/8	6 - 0.23	3 - 0.12	1.5x11
VUS/INC/A12	13.5 - 0.53	12.7 - 0.5	G 1/2	6.5 - 0.25	3.8 - 0.15	1.78x14

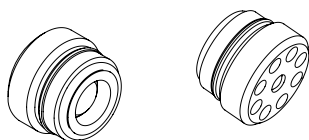
Valve cavity for	H	L	M	N
VUS/INC/A18	G 1/8	17 - 0.67	20 - 0.79	5 - 0.2
VUS/INC/A14	G 1/4	21 - 0.83	23.5 - 0.92	7 - 0.27
VUS/INC/A38	G 3/8	24 - 0.94	26.5 - 1.04	9 - 0.35
VUS/INC/A12	G 1/2	27.5 - 1.08	31 - 1.22	12 - 0.47

Ordering codes and description composition

VUS/INC/A 38/Pa0,5

Port size

Opening pressure (bar)



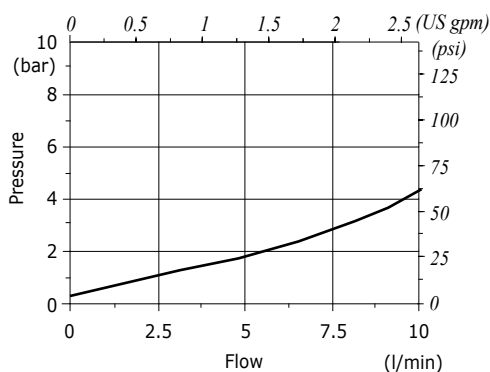
VUS/INC/A complete valves

TYPE	CODE	DESCRIPTION
VUS/INC/A18/Pa0,5	1312210101	Opening pressure 0.5 bar (7.25 psi), G1/8 thread
VUS/INC/A14/Pa0,5	1312210101	Opening pressure 0.5 bar (7.25 psi), G1/4 thread
VUS/INC/A38/Pa0,5	1312220100	Opening pressure 0.5 bar (7.25 psi), G3/8 thread
VUS/INC/A12/Pa0,5	1312230100	Opening pressure 0.5 bar (7.25 psi), G1/2 thread

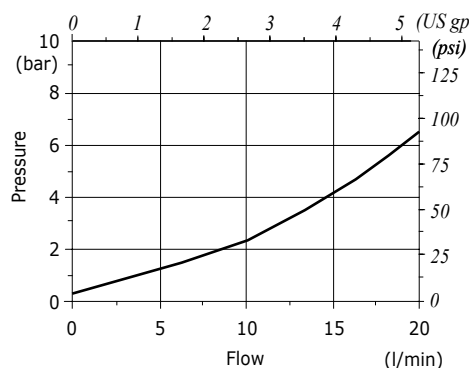
For different configurations and SAE thread please contact our Sales Dpt.

Rating diagrams

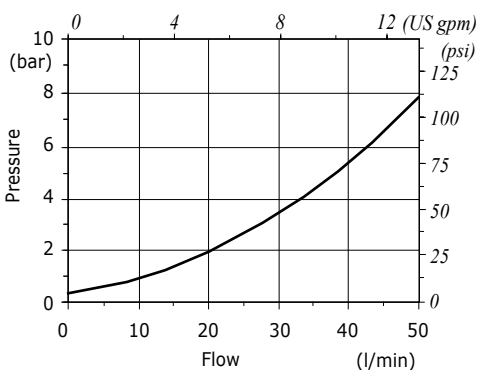
VUS/INC/A18 pressure drop vs. flow
opening pressure 0.5 bar (725 psi)



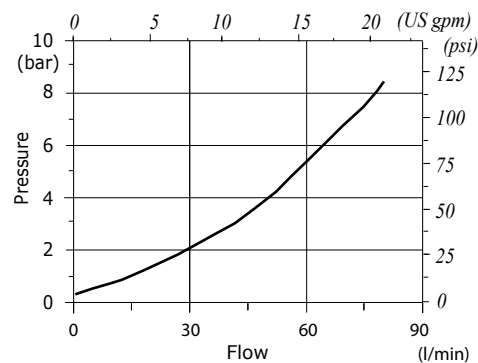
VUS/INC/A14 pressure drop vs. flow
opening pressure 0.5 bar (725 psi)



VUS/INC/A38 pressure drop vs. flow
opening pressure 0.5 bar (725 psi)



VUS/INC/A12 pressure drop vs. flow
opening pressure 0.5 bar (725 psi)





Type VUS/INC/B
check valves

- Poppet type

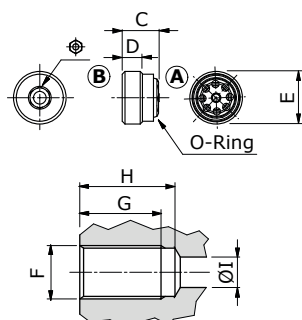
Technical specifications and diagrams are measured with mineral oil ISO VG32 at 50°C (122°F) temperature.

	VUS/INC/B18		VUS/INC/B14	VUS/INC/B38	VUS/INC/B12
Nominal flow	10 l/min (2.6 US gpm)		20 l/min (5.3 US gpm)	50 l/min (13.2 US gpm)	80 l/min (21.1 US gpm)
Max. pressure			350 bar (5100 psi)		
Oil leakage			0.25 cm³/min (0.015 in³/min) at 210 bar (3050 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	0.003 kg (0.006 lb)	0.007 kg (0.015 lb)	0.015 kg (0.033 lb)	0.023 kg (0.050 lb)

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



Dimensions



Dimensions are in mm-in

Valve type	ØC	D	E	ØI	O-Ring
VUS/INC/B14	10 - 0.39	6 - 0.24	G 1/4	5	1x9
VUS/INC/B38	11.5 - 0.45	7 - 0.27	G 3/8	6	1.5x10
VUS/INC/B12	13.5 - 0.53	8 - 0.31	G 1/2	8	1.6x14.1
Valve cavity for	F	G	H	ØI	
VUS/INC/B14	G 1/4	21.5 - 0.85	24 - 0.94	7 - 0.27	
VUS/INC/B38	G 3/8	23 - 0.90	25.5 - 1	9 - 0.35	
VUS/INC/B12	G 1/2	28 - 1.10	30.5 - 1.2	12 - 0.47	

Ordering codes and description composition

Port size
VUS/INC/B 14/Pa0,5
 Opening pressure (bar)



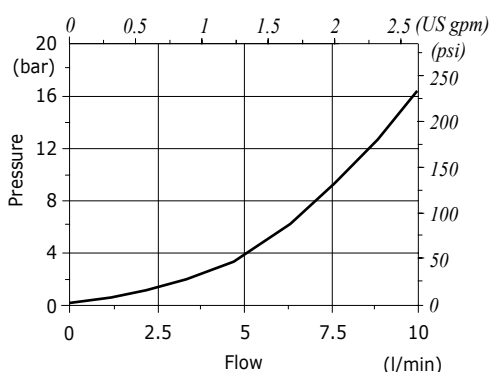
Complete valves

TYPE	CODE	DESCRIPTION
VUS/INC/B18/Pa0,5	1312300100	Opening pressure 0.5 bar (7.25 psi), G1/8 thread
VUS/INC/B14/Pa0,5	1312310100	Opening pressure 0.5 bar (7.25 psi), G1/4 thread
VUS/INC/B38/Pa0,5	1312320100	Opening pressure 0.5 bar (7.25 psi), G3/8 thread
VUS/INC/B12/Pa0,5	1312330100	Opening pressure 0.5 bar (7.25 psi), G1/2 thread

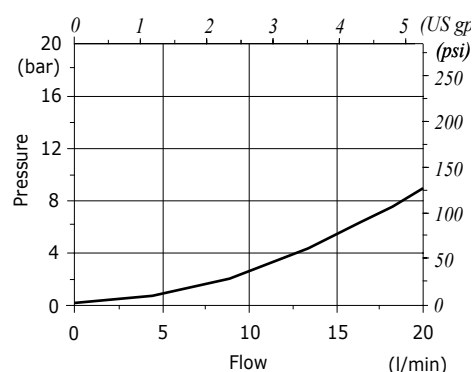
For different configurations and SAE thread please contact our Sales Dpt.

Rating diagrams

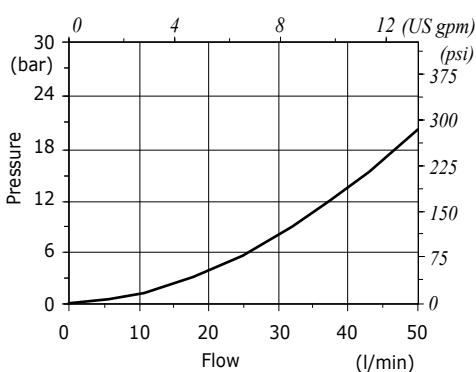
VUS/INC/B18 pressure drop vs. flow
 opening pressure 0.5 bar (725 psi)



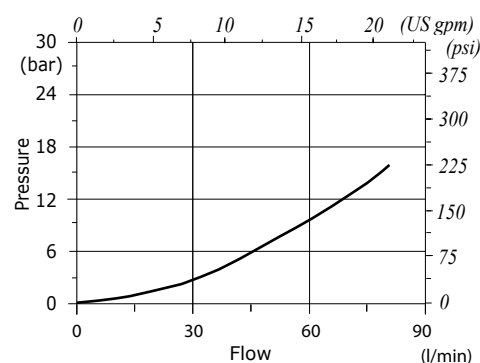
VUS/INC/B14 pressure drop vs. flow
 opening pressure 0.5 bar (725 psi)



VUS/INC/B38 pressure drop vs. flow
 opening pressure 0.5 bar (725 psi)



VUS/INC/B12 pressure drop vs. flow
 opening pressure 0.5 bar (725 psi)





Type VUC check valves

- Poppet type

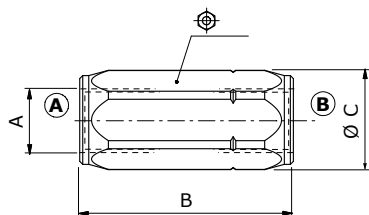
Technical specifications and diagrams are measured with mineral oil ISO VG32 at 50°C (122°F) temperature.

	VUC 14	VUC 38	VUC 12	VUC 34	VUC 100	VUC 114	VUC 112	
Nominal flow	30 l/min (7.9 US gpm)	50 l/min (13.2 US gpm)	90 l/min (23.8 US gpm)	130 l/min (34.3 US gpm)	180 l/min (47.6 US gpm)	250 l/min (66 US gpm)	380 l/min (100 US gpm)	
Max. pressure	400 bar (5800 psi)	400 bar (5800 psi)	350 bar (5100 psi)	300 bar (4350 psi)	270 bar (3900 psi)	250 bar (3600 psi)	200 bar (2900 psi)	
Oil leakage	0.25 cm³/min (0.015 in³/min) at 210 bar (3050 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	-40°C (-40°F) to 100°C (212°F)							
Weight	Steel	0.10 kg (0.22 lb)	0.18 kg (0.40 lb)	0.31 kg (0.68 lb)	0.56 kg (1.23 lb)	0.91 kg (2.01 lb)	1.48 kg (3.26 lb)	2.37 kg (5.22 lb)

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



Dimensions



Dimensions are in mm-in

Valve type	A	B	Ø C	Ø
VUC 14	G 1/4	58 - 2.28	21 - 0.83	19
VUC 38	G 3/8	62 - 2.44	27 - 1.05	24
VUC 12	G 1/2	71 - 2.79	33 - 1.30	30
VUC 34	G 3/4	84 - 3.31	40 - 1.57	36
VUC 100	1	106 - 4.17	49 - 1.93	45
VUC 114	G 1 1/4	127 - 5	61 - 2.40	55
VUC 112	G 1 1/2	138 - 5.43	72 - 2.83	65

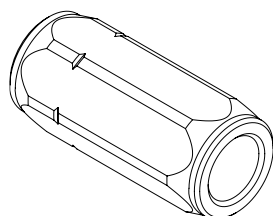
Ordering codes and description composition

Port size Opening pressure (bar)

VUC14/Pa0,5 FO

- without hole

FO with metering hole



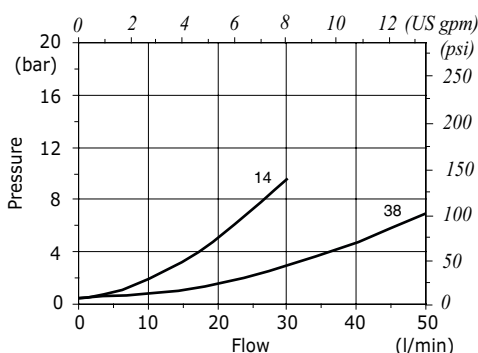
VUC complete valves

TYPE	CODE	DESCRIPTION
VUC14/Pa0,5	1312510100	Steel body, opening pressure 0.5 bar (7.25 psi), G1/4 thread
VUC38/Pa0,5	1312520100	Steel body, opening pressure 0.5 bar (7.25 psi), G3/8 thread
VUC12/Pa0,5	1312530100	Steel body, opening pressure 0.5 bar (7.25 psi), G1/2 thread
VUC34/Pa0,5	1312540100	Steel body, opening pressure 0.5 bar (7.25 psi), G3/4 thread
VUC100/Pa0,5	1312550100	Steel body, opening pressure 0.5 bar (7.25 psi), G1 thread
VUC114/Pa0,5	1312560100	Steel body, opening pressure 0.5 bar (7.25 psi), G1 1/4 thread
VUC112/Pa0,5	1312570100	Steel body, opening pressure 0.5 bar (7.25 psi), G1 1/2 thread

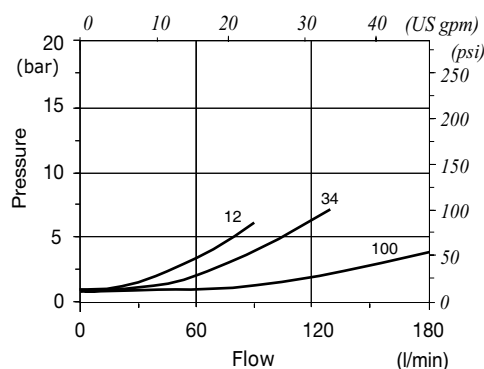
For different configurations and SAE thread please contact our Sales Dpt.

Rating diagrams

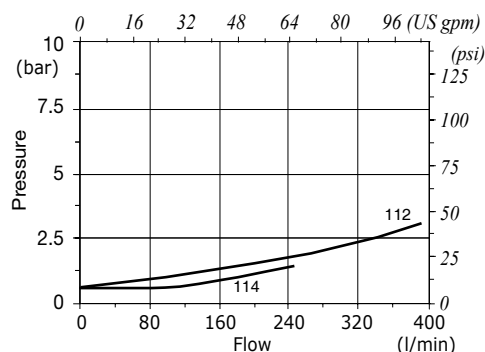
VUC14-VUC38 pressure drop vs. flow
opening pressure 0.5 bar (7.25 psi)

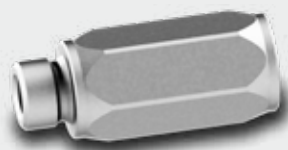


VUC12-VUC34-VUC100 pressure drop vs. flow
opening pressure 0.5 bar (7.25 psi)



VUC114-VUC112 pressure drop vs. flow
opening pressure 0.5 bar (7.25 psi)





Type VUC/M check valves

- Poppet type

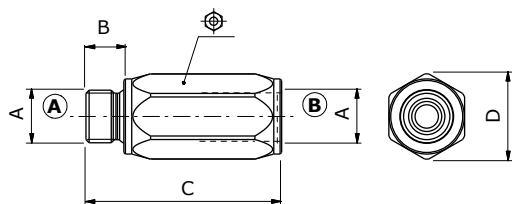
Technical specifications and diagrams are measured with mineral oil ISO VG32 at 50°C (122°F) temperature.

	VUC/M 14	VUC/M 38	VUC/M 12	VUC/M 34	VUC/M 100	VUC/M 114	
Nominal flow	30 l/min <i>(7.9 US gpm)</i>	50 l/min <i>(13.2 US gpm)</i>	90 l/min <i>(23.8 US gpm)</i>	130 l/min <i>(34.3 US gpm)</i>	180 l/min <i>(47.6 US gpm)</i>	250 l/min <i>(66 US gpm)</i>	
Max. pressure	400 bar <i>(5800 psi)</i>	400 bar <i>(5800 psi)</i>	350 bar <i>(5100 psi)</i>	300 bar <i>(4350 psi)</i>	270 bar <i>(3900 psi)</i>	250 bar <i>(3600 psi)</i>	
Oil leakage	0.25 cm³/min <i>(0.015 in³/min)</i> at 210 bar <i>(3050 psi)</i>						
Fluid	mineral based oil						
Viscosity	from 10 to 200 cSt						
Max. level of contamination	18/16/13 ISO4406						
Fluid temperature	<i>with NBR seals:</i> from -20°C <i>(-4°F)</i> to 80°C <i>(176°F)</i>						
Environmental temp. for working conditions	-40°C <i>(-40°F)</i> to 100°C <i>(212°F)</i>						
Weight	<i>Steel</i>	0.10 kg <i>(0.22 lb)</i>	0.18 kg <i>(0.40 lb)</i>	0.31 kg <i>(0.68 lb)</i>	0.56 kg <i>(1.23 lb)</i>	0.91 kg <i>(2.01 lb)</i>	1.48 kg <i>(3.26 lb)</i>

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



Dimensions



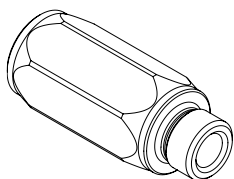
Dimensions are in mm-in

Valve type	A	B	C	D	⌀
VUC/M 14	G 1/4	12 - 0.47	58 - 2.28	21 - 0.83	19
VUC/M 38	G 3/8	12 - 0.47	62 - 2.44	27 - 1.05	24
VUC/M 12	G 1/2	14 - 0.55	71 - 2.79	33 - 1.30	30
VUC/M 34	G 3/4	16 - 0.63	76 - 2.99	40 - 1.57	36
VUC/M 100	1	18 - 0.71	106 - 4.17	49 - 1.93	45
VUC/M 114	G 1 1/4	20 - 0.78	122 - 4.80	63 - 2.48	55

Ordering codes and description composition

Port size — Opening pressure (bar)

VUC/M 14/Pa0,5



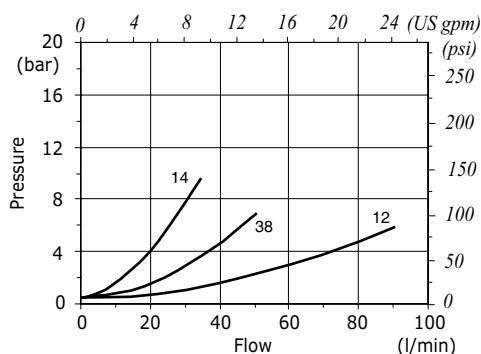
VUC/M complete valves

TYPE	CODE	DESCRIPTION
VUC/M14/Pa0,5	1312610100	Steel body, opening pressure 0.5 bar (7.25 psi), G1/4 thread
VUC/M38/Pa0,5	1312620100	Steel body, opening pressure 0.5 bar (7.25 psi), G3/8 thread
VUC/M12/Pa0,5	1312630100	Steel body, opening pressure 0.5 bar (7.25 psi), G1/2 thread
VUC/M34/Pa0,5	1312640100	Steel body, opening pressure 0.5 bar (7.25 psi), G3/4 thread
VUC/M100/Pa0,5	1312650100	Steel body, opening pressure 0.5 bar (7.25 psi), G1 thread
VUC/M114/Pa0,5	1312660100	Steel body, opening pressure 0.5 bar (7.25 psi), G1 1/4 thread

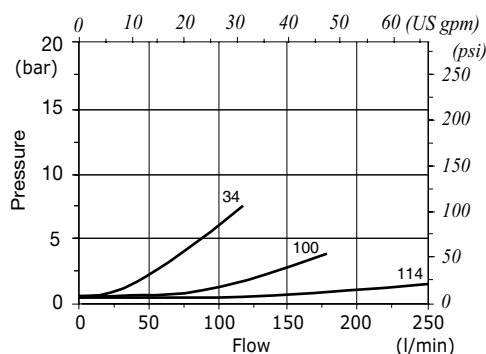
For different configurations and SAE thread please contact our Sales Dpt.

Rating diagrams

VUC/M14-38-12 pressure drop vs. flow
opening pressure 0.5 bar (7.25 psi)



VUC/M34-100-114 pressure drop vs. flow
opening pressure 0.5 bar (7.25 psi)





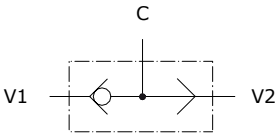
Type VT shuttle valves

- Shuttle valves
- Ball type

Technical specifications and diagrams are measured with mineral oil ISO VG32 at 50°C (122°F) temperature.

		VT 14	VT 38	VT 12	VT 34	VT 100
Nominal flow		35 l/min (9.3 US gpm)	50 l/min (13.2 US gpm)	90 l/min (23.8 US gpm)	140 l/min (37 US gpm)	180 l/min (47.6 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 temp. for working conditions		-40°C (-40°F) to 100°C (212°F)				
Weight	Steel	0.27 kg (0.59 lb)	0.464 kg (1.02 lb)	0.74 kg (1.63 lb)	1.406 kg (3.1 lb)	1.87 kg (4.12 lb)

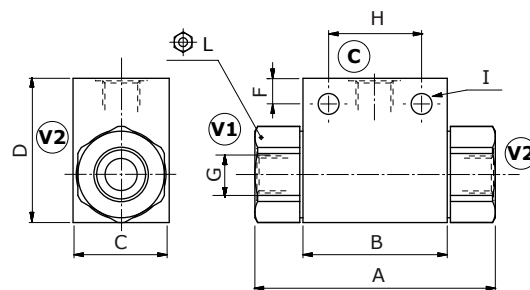
NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimensions

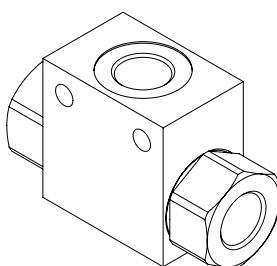
Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I	L
VT 14	69 2.71	36 1.42	25 0.98	35 1.38	22.5 0.88	7 0.27	G 1/4	25 0.98	6 0.24	22
VT 38	75 2.95	45 1.77	30 1.18	45 1.77	30 1.18	8 0.31	G 3/8	29 1.14	6.5 0.25	27
VT 12	94 3.7	57 2.24	35 1.38	50 1.97	32 1.26	9 0.35	G 1/2	36 1.42	5.5 0.22	30
VT 34	100 3.94	65 2.56	50 1.97	60 2.36	37.5 1.48	6.5 0.25	G 3/4	50 1.97	6.5 0.25	41
VT 100	126 4.96	80 3.15	50 1.97	80 3.15	54.5 2.14	11 0.43	G 1	60 2.36	10.5 0.41	46



Ordering codes and description composition

Port size
VT 14



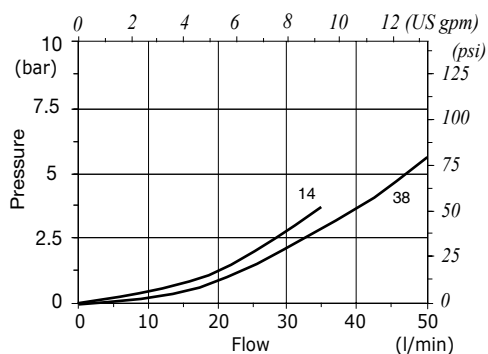
1 VT complete valves

TYPE	CODE	DESCRIPTION
VT14	1323012100	Steel body, G1/4 ports
VT38	1323022100	Steel body, G3/8 ports
VT12	1323032100	Steel body, G1/2 ports
VT34	1323042100	Steel body, G3/4 ports
VT100	1323052100	Steel body, G1 ports

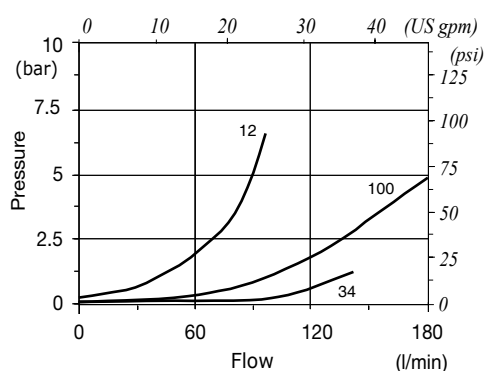
For different configurations and SAE thread please contact our Sales Dpt.

Rating diagrams

VT14-38 pressure drop vs. flow



VT12-34-100 pressure drop vs. flow





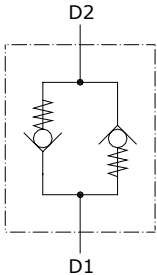
**Type VBD-VBD/VP
check valves**

- Double acting

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

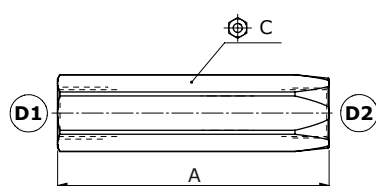
	VBD/VP 38		VBD 38	VBD 12	VBD 34
Nominal flow		20 l/min (5.2 US gpm)	40 l/min (10.5 US gpm)	60 l/min (15.8 US gpm)	90 l/min (23.8 US gpm)
Max. pressure			350 bar (5100 psi)		
Oil leakage			0.5 cm ³ /min (0.030 in ³ /min) at 75% of pressure setting		
Fluid			mineral based oil		
Viscosity			from 10 to 200 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	Steel	0.21 kg (0.46 lb)	0.46 kg (1.01 lb)	0.54 kg (1.19 lb)	1.51 kg (3.33 lb)

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

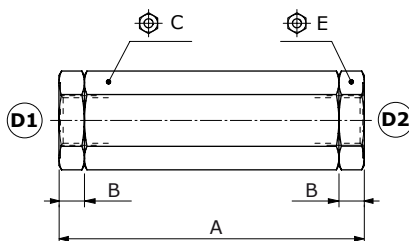


Dimensions

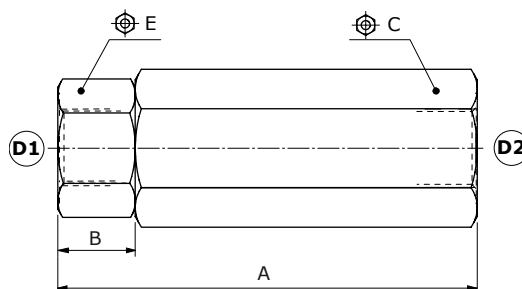
VBD/VP 38



VBD 38-VBD 12



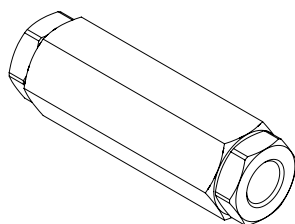
VBD 34



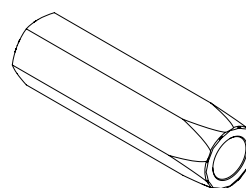
Valve type	All ports	Valve type	A	B	⌀C	⌀E
VBD/VP 38	G 3/8	VBD 38/VP	87-3.43	/	22	/
VBD 38	G 3/8	VBD 38	102-4.02	8.5-0.335	30	27
VBD 12	G 1/2	VBD 12	129-5.08	22-0.87	30	27
VBD 34	G 3/4	VBD 34	141-5.55	26-1.02	46	46
Valve type	All ports	Valve type	A	B	⌀C	⌀E
VBD 38/VP/SAE	SAE8	VBD 38/VP/SAE	87-3.43	/	22	/
VBD 38/SAE	SAE8	VBD 38/SAE	102-4.02	8.5-0.335	30	27

Ordering codes and description composition

Port size
VBD 38/Pa0.5-8
 Opening pressure D1-D2 (bar)



Port size
VBD/VP 38/Pa0.5-15
 Opening pressure D1-D2 (bar)



VBD complete valves

TYPE	CODE	DESCRIPTION
VBD 38/Pa0.5-8	1313020100	Steel body, opening pressure 0.5 bar (7.25 psi) and 8 bar (116 psi), G3/8 ports
VBD 12/Pa0.5-8	1313030100	Steel body, opening pressure 0.5 bar (7.25 psi) and 8 bar (116 psi), G1/2 ports
VBD 34/Pa0.5-8	1313040100	Steel body, opening pressure 0.5 bar (7.25 psi) and 8 bar (116 psi), G3/4 ports
VBD 38/Pa0.5-8/SAE	1313020100	Steel body, opening pressure 0.5 bar (7.25 psi) and 8 bar (116 psi), G3/8 ports

For configurations with special opening pressure or SAE threads please contact our Sales Dpt.

VBD/VP complete valves

TYPE	CODE	DESCRIPTION
Only G3/8 port configuration		
VBD/VP 38/Pa0.5-15	1313020902	Steel body, opening pressure 0.5 bar (7.25 psi) and 15 bar (217 psi)
VBD/VP 38/Pa0.5-20	1313020907	Steel body, opening pressure 0.5 bar (7.25 psi) and 20 bar (290 psi)
VBD/VP 38/Pa0.5-40	1313020900	Steel body, opening pressure 0.5 bar (7.25 psi) and 40 bar (580 psi)
VBD/VP 38/Pa0.5-60	1313020905	Steel body, opening pressure 0.5 bar (7.25 psi) and 60 bar (870 psi)
VBD/VP 38/Pa0.5-80	1313020901	Steel body, opening pressure 0.5 bar (7.25 psi) and 80 bar (1160 psi)

SAE8 port configuration

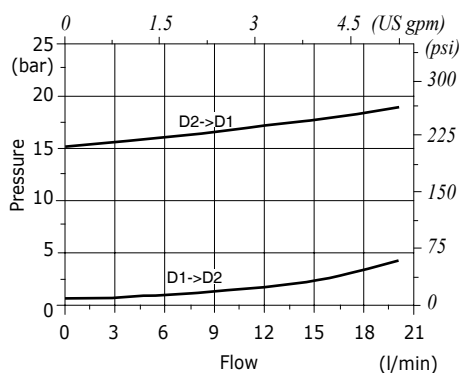
VBD/VP 38/Pa0.5-40/SAE	1313020909	Steel body, opening pressure 0.5 bar (7.25 psi) and 40 bar (580 psi)
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For configurations with special opening pressure or SAE threads please contact our Sales Dpt.

Rating diagrams

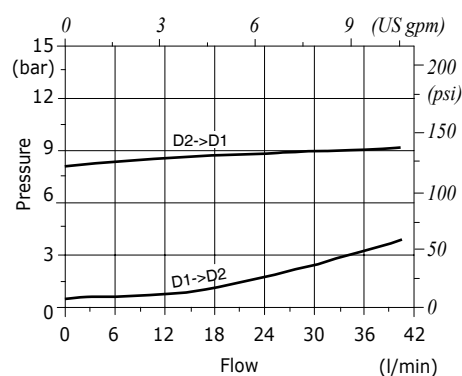
VBD/VP 38 pressure drop vs. flow

Opening pressure 0.5 bar (7.25 psi) and 15 bar (217 psi)



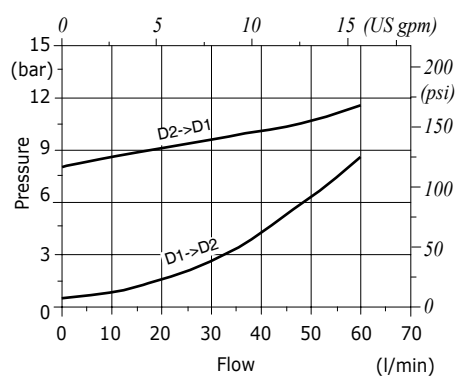
VBD 38 pressure drop vs. flow

Opening pressure 0.5 bar (7.25 psi) and 8 bar (116 psi)



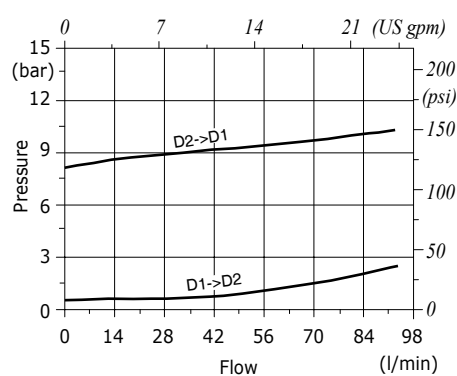
VBD 12 pressure drop vs. flow

Opening pressure 0.5 bar (7.25 psi) and 8 bar (116 psi)



VBD 34 pressure drop vs. flow

Opening pressure 0.5 bar (7.25 psi) and 8 bar (116 psi)





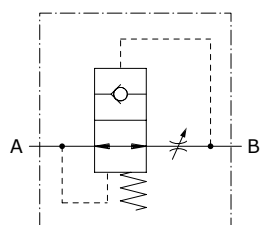
Type VB check valves

- Hose burst valve
- Automatic stop for sudden flow increase

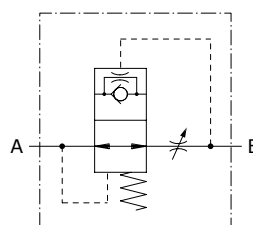
Technical specifications and diagrams are measured with mineral oil ISO VG32 at 40°C (104°F) temperature.

	VB 14	VB 38	VB 12	VB 34	VB 100	
Max. flow	30 l/min (7.9 US gpm)	45 l/min (11.9 US gpm)	65 l/min (17.2 US gpm)	170 l/min (44.9 US gpm)	225 l/min (59.4 US gpm)	
Max. pressure	350 bar (5100 psi)					
Fluid	mineral based oil					
Viscosity	10-200 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	0.01 kg (0.022 lb)	0.015 kg (0.033 lb)	0.025 kg (0.055 lb)	0.045 kg (0.099 lb)	0.098 kg (0.22 lb)

NOTES - Replace the valve after each operation. For different conditions, please contact Walvoil Sales Dpt.



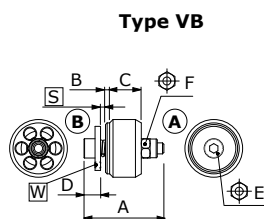
With metering hole



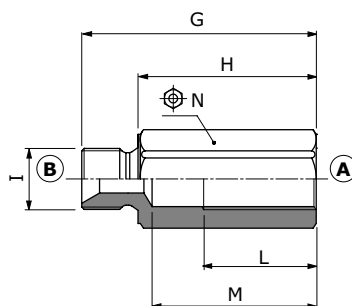
NOTE - For valve with optional calibration hole, please contact our Sales Dpt.

Dimension

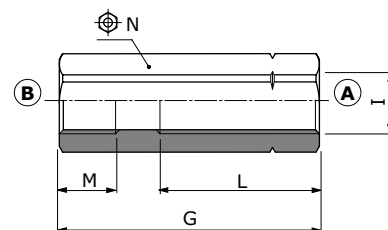
Valve type	All ports
VB 14	G 1/4
VB 38	G 3/8
VB 12	G 1/2
VB 34	G 3/4
VB 100	G 1



Housing type VB/M



Housing type VB/F



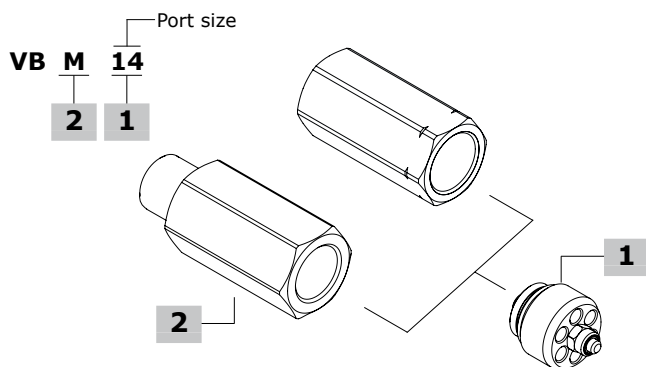
Dimensions are in mm-in

Valve type	A	B	C	D	E	F
VB 14	19 0.75	1 0.039	7 0.27	5 0.2	5.5	2.5
VB 38	23 0.9	1.5 0.059	9.5 0.37	5 0.2	5.5	2.5
VB 12	29 1.14	1.5 0.059	11.5 0.45	6 0.23	7	3
VB 34	34 1.34	2.5 0.098	15.5 0.61	6 0.23	7	3
VB 100	40 1.57	1.5 0.059	18.5 0.73	8.5 0.33	8	4

NOTE - The setting of **S** is recommended to be 1.5 - 2 times the maximum descent flow
W= optional calibration hole

Housing type	G	H	I	L	M	N
M	01 50 - 1.97	38 - 1.50	G 1/4	23 - 0.9	31 - 1.22	19
	02 60 - 2.36	48 - 1.89	G 3/8	30 - 1.18	43 - 1.69	22
	03 63 - 2.48	49 - 1.93	G 1/2	33 - 1.30	45 - 1.77	27
	04 75 - 2.95	59 - 2.32	G 3/4	36 - 1.42	50 - 1.97	32
	05 88 - 3.46	70 - 2.75	G 1	46 - 1.81	60 - 2.36	41
F	01 50 - 1.97	-	G 1/4	21 - 0.83	12.5 - 0.49	19
	02 58 - 2.28	-	G 3/8	27 - 1.06	12.5 - 0.49	22
	03 60 - 2.36	-	G 1/2	33 - 1.30	19 - 0.75	27
	04 76 - 2.99	-	G 3/4	36 - 1.42	19 - 0.75	32
	05 85 - 3.35	-	G 1	46 - 1.81	19 - 0.75	41

Ordering codes and description composition



VB complete valves

Cartridge with steel housing

TYPE	CODE	DESCRIPTION
VB/M 14 S=1	1431210100	Male-female G1/4 ports
VB/F 14 S=1	1431110100	Female-female G1/4 ports
VB/M 38 S=1,5	1431220100	Male-female G3/8 ports
VB/F 38 S=1,5	1431120100	Female-female G3/8 ports
VB/M 12 S=1,8	1431230100	Male-female G1/2 ports
VB/F 12 S=1,8	1431130100	Female-female G1/2 ports
VB/M 34 S=2,2	1431240100	Male-female G3/4 ports
VB/F 34 S=2,2	1431140100	Female-female G3/4 ports
VB/M 100 S=2,6	1431250100	Male-female G1 ports
VB/F 100 S=2,6	1431150100	Female-female G1 ports

For different configurations, SAE thread and valve with optional calibration hole, please contact our Sales Dpt.

1 Cartridge

TYPE	CODE	DESCRIPTION
VB 14 S=1	1431010100	G1/4, "S" standard setting 1, standard flow rate 18.5 l/min (4.89 US gpm)
VB 38 S=1,5	1431020100	G3/8, "S" standard setting 1.5, standard flow rate 35.5 l/min (9.38 US gpm)
VB 12 S=1,8	1431030100	G1/2, "S" standard setting 1.9, standard flow rate 60 l/min (15.85 US gpm)
VB 34 S=2,2	1431040100	G3/4, "S" standard setting 2.2, standard flow rate 149 l/min (39.36 US gpm)
VB 100 S=2,6	1431050100	G1, "S" standard setting 2.6, standard flow rate 190 l/min (50.19 US gpm)

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

2 Housing

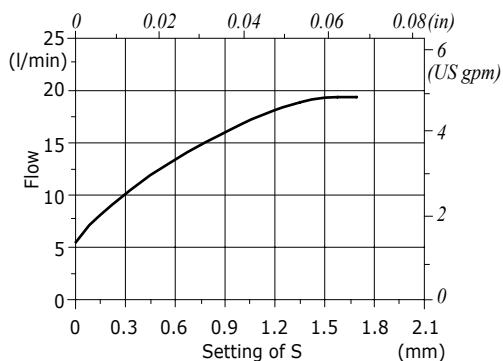
M-F (male-female) or F-F (female-female) steel housing

TYPE	CODE	DESCR.	TYPE	CODE	DESCR.
MF14	CMFVUBA01	G1/4, M-F	MF04	CMFVUBA04	G3/4, M-F
FF14	CFFVUBA-VSC01	G1/4, F-F	FF04	CFFVUBA04	G3/4, F-F
MF02	CMFVUBA02	G3/8, M-F	MF05	CMFVUBA05	G1, M-F
FF02	CFFVUBA02	G3/8, F-F	FF05	CFFVUBA04	G1, F-F
MF03	CMFVUBA03	G1/2, M-F			
FF03	CFFVUBA03	G1/2, F-F			

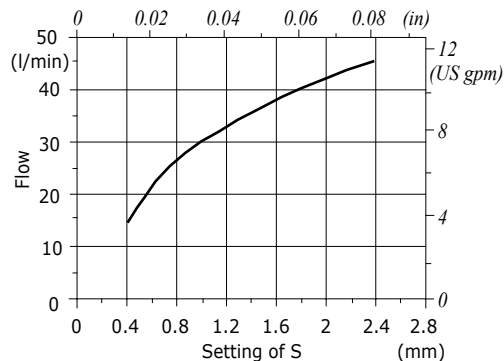
Rating diagrams

The diagrams represent nominal values measured by the manufacturer (with $\pm 10\%$ tolerance) which must be adapted to the customer's actual working conditions; please contact Walvoil Sales Dpt.

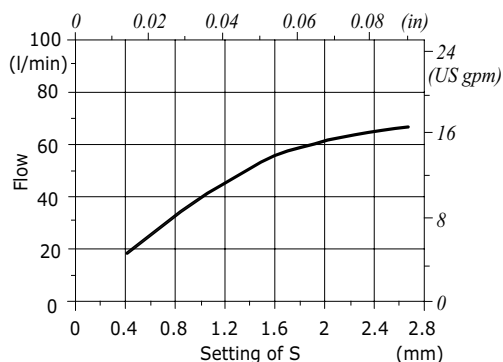
VB G 1/4 flow vs. setting of S



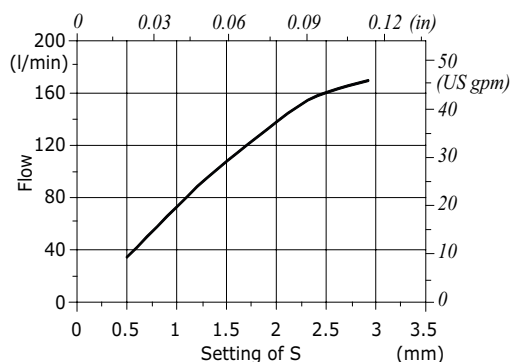
VB G 3/8 flow vs. setting of S



VB G 1/2 flow vs. setting of S



VB G 3/4 flow vs. setting of S



VB G 1 flow vs. quote S

