



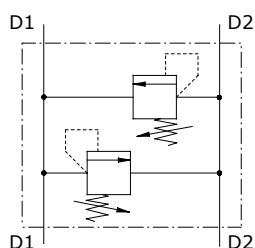
Type VAIL pressure relief valves

- Double antishock direct acting relief valve

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

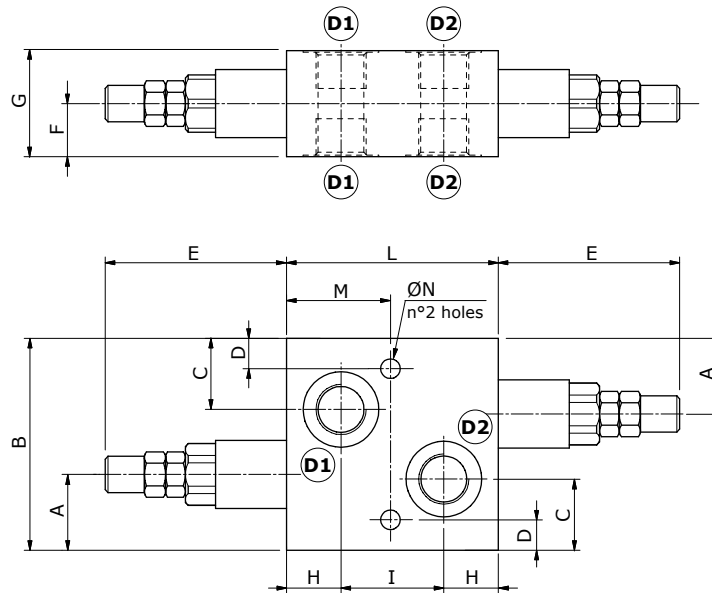
	VAIL 5-38	VAIL 5-12	VAIL 10-12	VAIL 10-34	VAIL 20-34	VAIL 20-100	
Nominal flow	25 l/min (6.6 US gpm)	35 l/min (9.2 US gpm)	70 l/min (18.4 US gpm)	70 l/min (18.4 US gpm)	100 l/min (26.4 US gpm)	120 l/min (31.7 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)						
Oil leakage at 80% of max. setting	3 cm³/min (0.18 in³/min)						
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	0.67 kg (1.48 lb)	0.69 kg (1.52 lb)	1.12 kg (2.47 lb)	1.10 kg (2.43 lb)	1.87 kg (4.12 lb)	1.85 kg (4.08 lb)
	steel	1.31 kg (2.89 lb)	1.35 kg (2.98 lb)	2.20 kg (4.85 lb)	2.11 kg (4.65 lb)	3.55 kg (7.83 lb)	3.93 kg (8.66 lb)

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



Dimensions

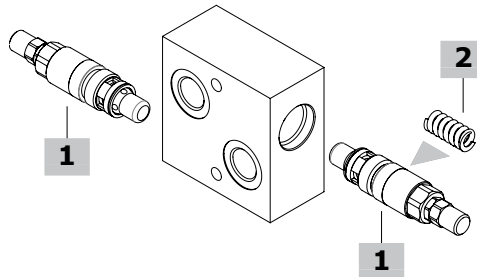
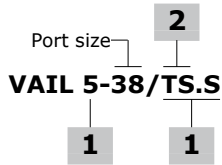
Valve type	All ports
VAIL 5-38	G3/8
VAIL 5-12	G1/2
VAIL 10-12	G1/2
VAIL 10-34	G3/4
VAIL 20-34	G3/4
VAIL 20-100	G1
Valve type	All ports
VAIL 5-38/SAE	SAE8
VAIL 5-12/SAE	SAE10
VAIL 10-12/SAE	SAE10
VAIL 10-34/SAE	SAE12
VAIL 20-34/SAE	SAE12
VAIL 20-100/SAE	SAE16



Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I	L	M	ØN
VAIL 5-38	25-0.98	70-2.75	23.5-0.92	10-0.39	60-4.92	17.5-0.69	35-1.38	18-0.70	34-1.34	70-2.75	35-1.38	6.5-0.25
VAIL 5-38/SAE												
VAIL 5-12	25-0.98	70-2.75	23.5-0.92	10-0.39	60-4.92	17.5-0.69	35-1.38	18-0.70	39-1.53	75-2.95	37.5-1.48	6.5-0.25
VAIL 5-12/SAE												
VAIL 10-12	29-1.41	82-3.23	25-0.98	8.5-0.33	67-2.64	20-0.79	40-1.57	20-0.79	50-1.97	90-3.54	45-1.77	8.5-0.33
VAIL 10-12/SAE												
VAIL 10-34	29-1.41	82-3.23	25-0.98	8.5-0.33	67-2.64	20-0.79	40-1.57	20-0.79	50-1.97	90-3.54	45-1.77	8.5-0.33
VAIL 10-34/SAE												
VAIL 20-34	31.5-1.84	95-3.74	30.5-1.2	10-0.39	76.5-3.01	25-0.98	50-1.97	22-0.87	56-2.20	100-3.93	50-1.97	8.5-0.33
VAIL 20-34/SAE												
VAIL 20-100	31.5-1.84	95-3.74	30.5-1.2	10-0.39	76.5-3.01	25-0.98	50-1.97	32-1.26	56-2.20	120-4.72	60-2.36	8.5-0.33
VAIL 20-100/SAE												

Ordering codes and description composition



VAIL complete valves

With direct acting valves: standard setting 160 bar @ 5 l/min (2300 psi at 1.32 US gpm)

TYPE	CODE	DESCRIPTION
Configuration with G3/8 standard thread		
VAIL 5-38/TS.S	1140021102	Aluminium body, range 50-220 bar (725-3200 psi)
VAIL 5-38/TS.S/ac	1140022100	Steel body, as previous one
Configuration with G1/2 standard thread		
VAIL 5-12/TS.S	1140021152	Aluminium body, setting range 50-220 bar (725-3200 psi)
VAIL 5-12/TS.S/ac	1140022150	Steel body, as previous one
VAIL 10-12/TS.S	1140031102	Aluminium body, setting range 50-220 bar (725-3200 psi)
VAIL 10-12/TS.S/ac	1140032101	Steel body, as previous one
Configuration with G3/4 standard thread		
VAIL 10-34/TS.S	1140031152	Aluminium body, setting range 50-220 bar (725-3200 psi)
VAIL 10-34/TS.S/ac	1140032150	Steel body, as previous one
VAIL 20-34/TS.S	1140041102	Aluminium body, setting range 50-220 bar (725-3200 psi)
VAIL 20-34/TS.S/ac	1140042101	Steel body, as previous one
Configuration with G1" standard thread		
VAIL 20-100/TS.S	1140041152	Aluminium body, setting range 50-220 bar (725-3200 psi)
VAIL 20-100/TS.S/ac	1140042151	Steel body, as previous one
Configuration with SAE8 standard thread		
VAIL 5-38/TS.S/SAE	1140021200	Aluminium body, range 50-220 bar (725-3200 psi)
Configuration with SAE10 standard thread		
VAIL 5-12/TS.S/SAE	1140021250	Aluminium body, setting range 50-220 bar (725-3200 psi)
VAIL 10-12/TS.S	1140031200	Aluminium body, setting range 50-220 bar (725-3200 psi)
Configuration with SAE12 standard thread		
VAIL 10-34/TS.S/SAE	1140031250	Aluminium body, setting range 50-220 bar (725-3200 psi)
VAIL 20-34/TS.S/SAE	1140041200	Aluminium body, setting range 50-220 bar (725-3200 psi)
Configuration with SAE16 standard thread		
VAIL 20-100/TS.S/SAE	1140041250	Aluminium body, 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 Direct acting pressure relief valves

Standard setting 160 bar @ 5 l/min (2300 psi at 1.32 US gpm)

TYPE	CODE	DESCRIPTION
For G1/2 and G3/4 ports configuration		
VMP 5/TS.S	1100520400	Setting range 50-220 bar (725-3200 psi)
VMP 10/TS.S	1100530400	Setting range 50-220 bar (725-3200 psi)
For G3/4 and G1" ports configuration		
VMP 20/TS.S	1100540400	Setting range 50-220 bar (725-3200 psi)

2 Pressure setting spring

CODE	TYPE	DESCRIPTION
For VMP 5 valve		
TB	3MOL314311	Setting range 5-40 bar (72.5-580 psi)
TV	3MOL314330	Setting range 20-80 bar (290-1160 psi)
TS	3MOL315330	Setting range 50-220 bar (725-3200 psi)
TR	3ML1143600	Setting range 180-350 bar (2600-5100 psi)
For VMP 10 valve		
TB	3ML1154100	Setting range 5-40 bar (72.5-580 psi)
TV	3ML1154300	Setting range 20-80 bar (290-1160 psi)
TS	3ML1164200	Setting range 50-220 bar (725-3200 psi)
TR	3ML1164400	Setting range 180-350 bar (2600-5100 psi)
For VMP 20 valve		
TB	3MOL316410	Setting range 5-40 bar (72.5-580 psi)
TV	3ML1154300	Setting range 20-80 bar (290-1160 psi)
TS	3MOL317420	Setting range 50-220 bar (725-3200 psi)
TR	3MOL317440	Setting range 180-350 bar (2600-5100 psi)

Rating diagrams

