



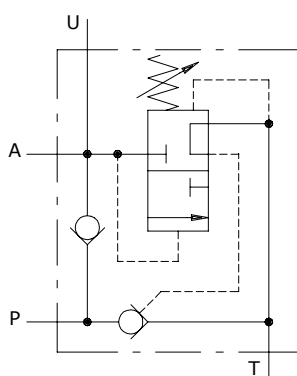
## Type VDA unloader valves

- Single acting
- Built-in check

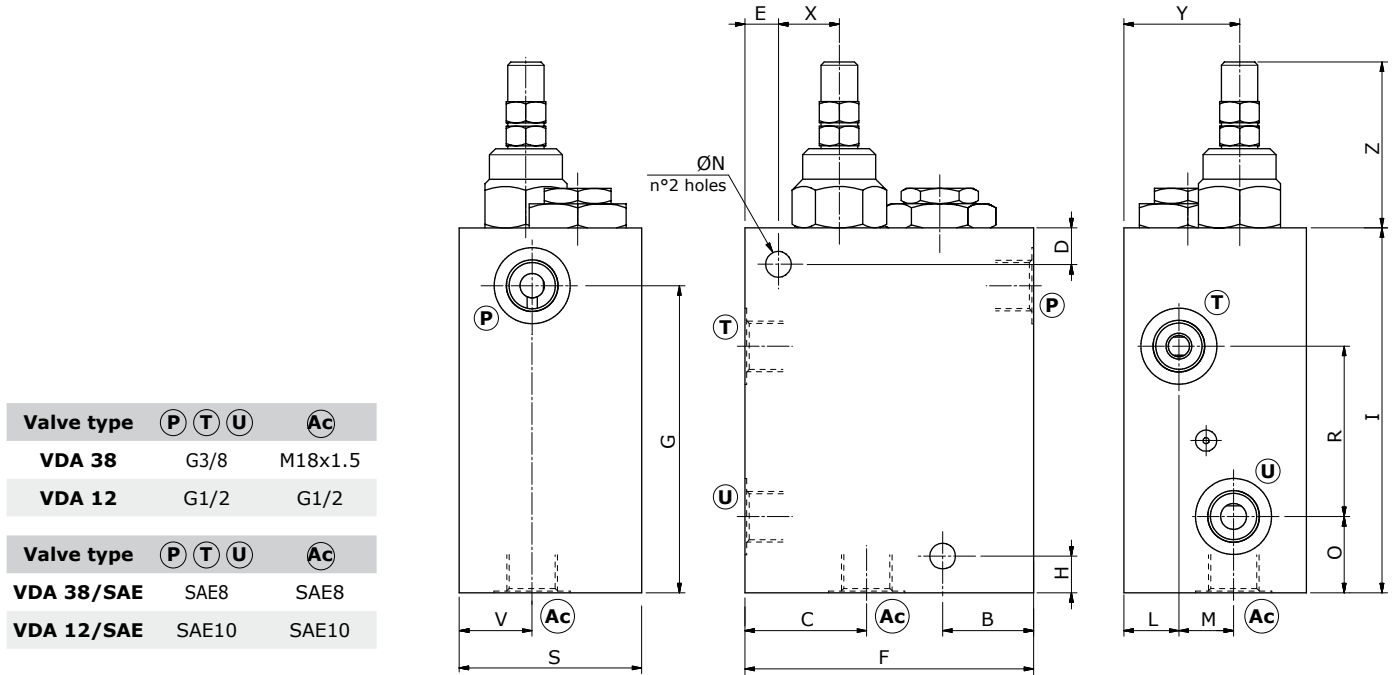
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	VDA 38	VDA 12	VDA 34
Nominal flow	25 l/min (6.6 US gpm)	50 l/min (13.2 US gpm)	100 l/min (26.4 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	2.15 kg (4.73 lb)	2.35 kg (5.18 lb)
	steel	5.05 kg (12.13 lb)	5.57 kg (12.28 lb)
		3.24 kg (7.14 lb)	8.10 kg (17.86 lb)

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



Dimensions

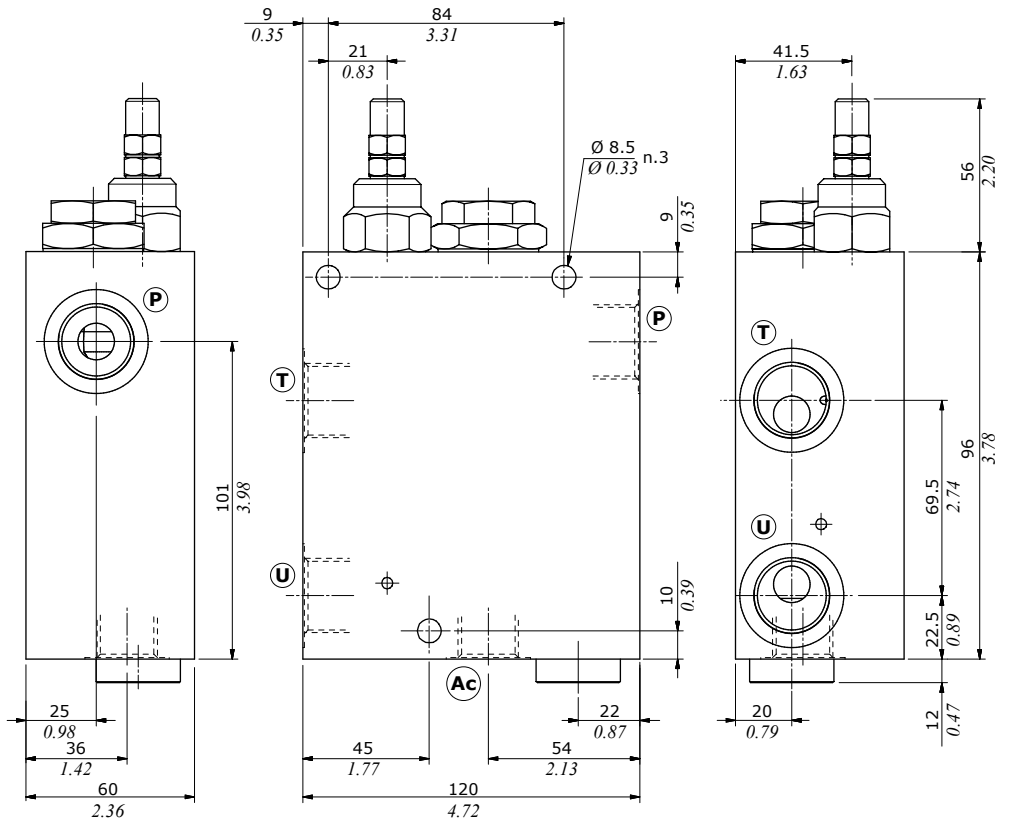


Valve type	P	T	U	Ac
VDA 38	G3/8	M18x1.5		
VDA 12	G1/2	G1/2		
Valve type	P	T	U	Ac
VDA 38/SAE	SAE8	SAE8		
VDA 12/SAE	SAE10	SAE10		

Dimensions are in mm-in

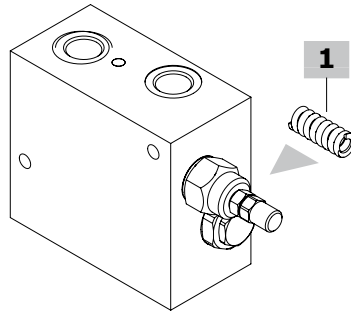
Valve type	B	C	D	E	F	G	H	I	L	M	ØN	O	R	S	V	X	Y	Z
VDA 38	30-1.18	40-1.57	12-0.47	11-0.43	95-3.74	101-3.98	12-0.47	120-4.72	18-0.71	18-0.71	8.5-0.33	25-0.98	56-2.20	60-2.36	24-0.94	20-0.79	38-1.50	56-2.20
VDA 38/SAE																		
VDA 12	42-1.65	42-1.65	13-0.51	12-0.47	108-4.25	101-3.98	11-0.43	120-4.72	19-0.75	11-0.43	8.5-0.33	25-0.98	56-2.20	60-2.36	23-0.91	22-0.87	38-1.50	56-2.20
VDA 12/SAE																		

Valve type	P	T	U	Ac
VDA 34	G3/4	G1/2		
Valve type	P	T	U	Ac
VDA 34/SAE	SAE12	SAE10		



**Ordering codes and description composition**

Port size  
**VDA 38/TR.S.VRR**  
**1**



**VDA complete valves**

*Single type valve configuration*

*Standard setting 200 bar at 5 l/min (2900 psi at 1.32 US gpm)*

*Standard differential pressure 15%*

TYPE	CODE	DESCRIPTION
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**Configuration with G3/8 standard thread**

<b>VDA 38/TR.S.VRR</b>	1210021101	Aluminium body, setting range 100-250 bar (1450-3600 psi)
<b>VDA 38/DR/TR.S.VRR</b>	1210021113	As previous one, with Drain port
<b>VDA 38/TR.S.VRR/ac</b>	1210022101	Steel body, setting range 100-250 bar (1450-3600 psi)

**Configuration with G1/2 standard thread**

<b>VDA 12/TR.S.VRR</b>	1210031101	Aluminium body, setting range 100-250 bar (1450-3600 psi)
<b>VDA 12/DR/TR.S.VRR</b>	1210031104	As previous one, with Drain port
<b>VDA 12/TR.S.VRR/ac</b>	1210032101	Steel body, setting range 100-250 bar (1450-3600 psi)

**Configuration with G3/4 standard thread**

<b>VDA 34/TR.S.VRR</b>	1210041101	Aluminium body, setting range 100-250 bar (1450-3600 psi)
<b>VDA 34/DR/TR.S.VRR</b>	1210041108	As previous one, with Drain port
<b>VDA 34/TR.S.VRR/ac</b>	1210042100	Steel body, setting range 100-250 bar (1450-3600 psi)

**Configuration with SAE8 standard thread**

<b>VDA 38/TR.S.VRR/SAE</b>	1210021200	Aluminium body, setting range 100-250 bar (1450-3600 psi)
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**Configuration with SAE10 standard thread**

<b>VDA 12/TR.S.VRR/SAE</b>	1210031200	Aluminium body, setting range 100-250 bar (1450-3600 psi)
<b>VDA 12/TR.S.VRR/ac/SAE</b>	1210032102	Steel body, setting range 100-250 bar (1450-3600 psi)

**Configuration with SAE12 standard thread**

<b>VDA 34/TR.S.VRR/SAE</b>	1210041200	Aluminium body, setting range 100-250 bar (1450-3600 psi)
<b>VDA 34/TR.S.VRR/ac/SAE</b>	1210042200	Steel body, setting range 100-250 bar (1450-3600 psi)

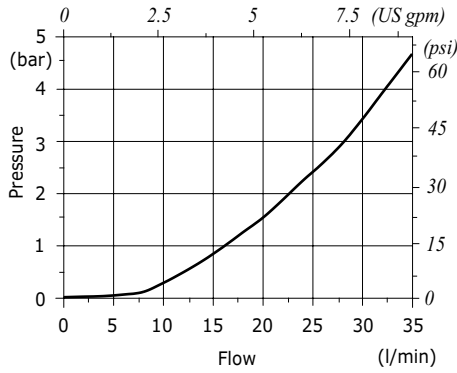
For other steel body configurations, SAE thread and configurations with FPM (Viton) seals, contact our Sales Dpt.

**1 Pressure setting springs**

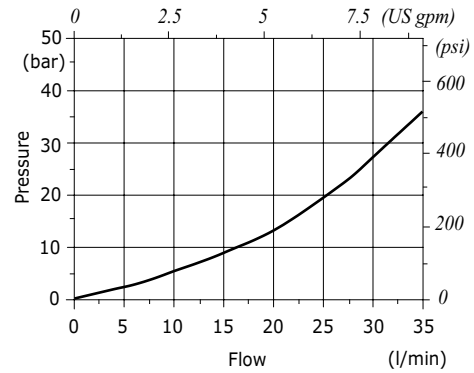
TYPE	CODE	DESCRIPTION
<b>TV</b>	3ML1164000	Setting range 5-110 bar (72.5-1600 psi)
<b>TR</b>	3ML1164001	Setting range 100-250 bar (1450-3600 psi)

Rating diagrams

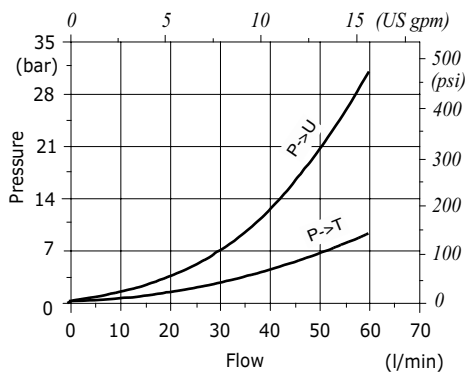
VDA 38 P→T pressure drop vs. flow



VDA 38 P→U pressure drop vs. flow



VDA 12 and VDA 12/DR pressure drop vs. flow



VDA 34 pressure drop vs. flow

