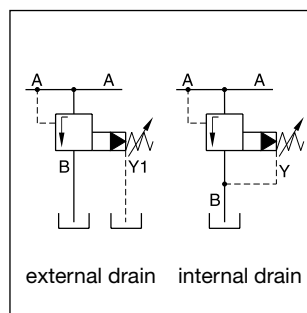
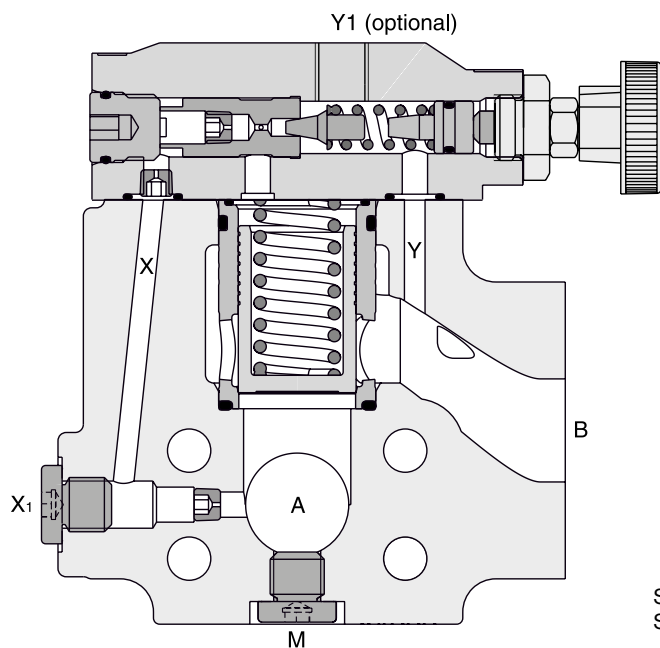


Pilot operated pressure relief valves series R5V have a similar design to the subplate mounted R4V series. The SAE flanges allow to mount the valves directly on the outlet flanges of pumps or inlet flanges of actuators to achieve a very compact design.

Valves with SAE flanges can also be bolted together to combine functions without the need of a manifold block.

Features

- Pilot operated with manual adjustment
- Body with 3-ports
 - 4 sizes (SAE $\frac{3}{4}$ ", 1", 1 $\frac{1}{4}$ ", 1 $\frac{1}{2}$ ")
 - SAE61 and SAE62 flange
- 3 pressure stages
- 3 adjustment modes
 - Hand knob
 - Acorn nut with lead seal
 - Cylinder lock
- With optional vent function

**R5V**

SAE61 → B-port SAE61
SAE62 → B-port SAE62

Ordering Code

Pilot Operated Pressure Relief Valve
Series R5V

R5V		—	9							A			
Pressure relief valve	Nominal size	SAE Interface	Pilot ports ¹⁾ Y1, X1, M = G 1/4"	Pressure stages	Adjustment	Pilot oil	Switching type	Solenoid voltage	Design	Seals	Design series (not required for ordering)	Options	

Code	Port size
06	SAE 3/4"
08	SAE 1"
10	SAE 1 1/4"
12	SAE 1 1/2"

SAE61		
Code	Size	Max. pressure [bar]
3	12	210
4	10	280
5	06/08	350

SAE62		
Code	Size	Max. pressure [bar]
6	06/08/10/12	350

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5 ²⁾	up to 350 bar

Code	Adjustment
1	Hand knob
3	Acorn nut with lead seal
4	Cylinder lock

Pilot oil	
Code	Drain line
2	internal
6	external from Y1-port

Code	Options
008 ⁴⁾	Vent function with slow unloading
070	Metric 3-port body for R5V10 SAE62: Pressure ports (A): SAE62 with 15 mm through holes (for M14), Tank port: SAE61 (M12)
152 ⁵⁾	3-port body with metric threads

Code	Seals
1	NBR
5	FPM

Code	Solenoid voltage
omit	Standard w/o vent function
G0R	12 V=
G0Q	24 V=
GAR ³⁾	98 V=
GAG ³⁾	205 V=
W30	110 V / 50 Hz 120 V / 60 Hz
W31	230 V / 50 Hz 240 V / 60 Hz

Code	Switching type
omit	Standard w/o vent function
09	Solenoid not activated, unpress. circulation
11	Solenoid activated unpress. circulation

Further options on request

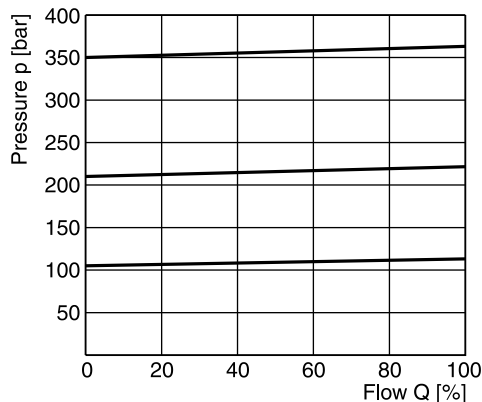
¹⁾ Y1 only available at external drain (pilot oil code 6).²⁾ R5V10-495 up to 280 bar.³⁾ To be used in combination with rectifier plugs at 120 VAC / 230 VAC power supply.⁴⁾ Only for vent valve function code 09.⁵⁾ R5V08 SAE62: Tank port SAE61 (M10).

Technical data

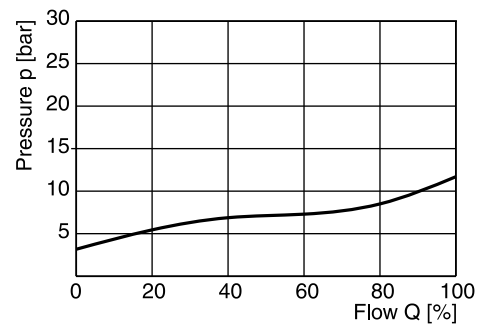
General							
Size			06 (¾")	08 (1")	10 (1¼")	12 (1½")	
Mounting			Flanged according to SAE61 and SAE62				
Mounting position			unrestricted				
Ambient temperature	[°C]	-20...+60					
MTTF _D value	[years]	75					
Weight	[kg]	3.6		4.6	5.2	8.0	
Hydraulic							
Max. operating pressure	[bar]						
SAE61 Ports A, B		350		350	280	210	
Port Y1		30		30	30	30	
SAE62 Ports A, B		350		350	350	350	
Port Y1		30		30	30	30	
Pressure stages	[bar]	105, 210, 350					
Nominal flow	[l/min]	90		300	600	600	
Fluid	Hydraulic oil according to DIN 51524						
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)					
Viscosity, permitted	[cSt] / [mm²/s]	20 ... 400					
recommended	[cSt] / [mm²/s]	30...80					
Filtration	ISO 4406 (1999); 18/16/13						
Electrical (solenoid)							
Duty ratio	100 % ED; CAUTION: coil temperature up to 150 °C possible						
Protection class	IP65 in accordance with EN 60529 (with correctly mounted plug-in connector)						
	Code	G0R	G0Q	GAR	GAG	W30	W31
Supply voltage	[V]	12 V =	24 V =	98 V =	205 V =	110 at 50 Hz	230 at 50 Hz
	[V]					120 at 60 Hz	240 at 60 Hz
Tolerance supply voltage	[%]	±10	±10	±10	±10	±5	±5
Current consumption hold	[A]	2.72	1.29	0.33	0.13	0.6 / 0.55	0.3 / 0.27
in rush	[A]	2.72	1.29	0.33	0.13	2.5 / 2.4	1.25 / 1.2
Power consumption hold	[W]	32.7	31	31.9	28.2	70/70 VA	70/70 VA
in rush	[W]	32.7	31	31.9	28.2	280/290 VA	280/290 VA
Solenoid connection	Connector as per EN175301-803, solenoid identification as per ISO 9461						
Wiring min.	[mm²]	3 x 1.5 recommended					
Wiring length max.	[m]	50 recommended					

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p/Q performance curve

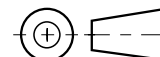


Minimum pressure curve



All characteristic curves measured with HLP46 at 50 °C.

The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.



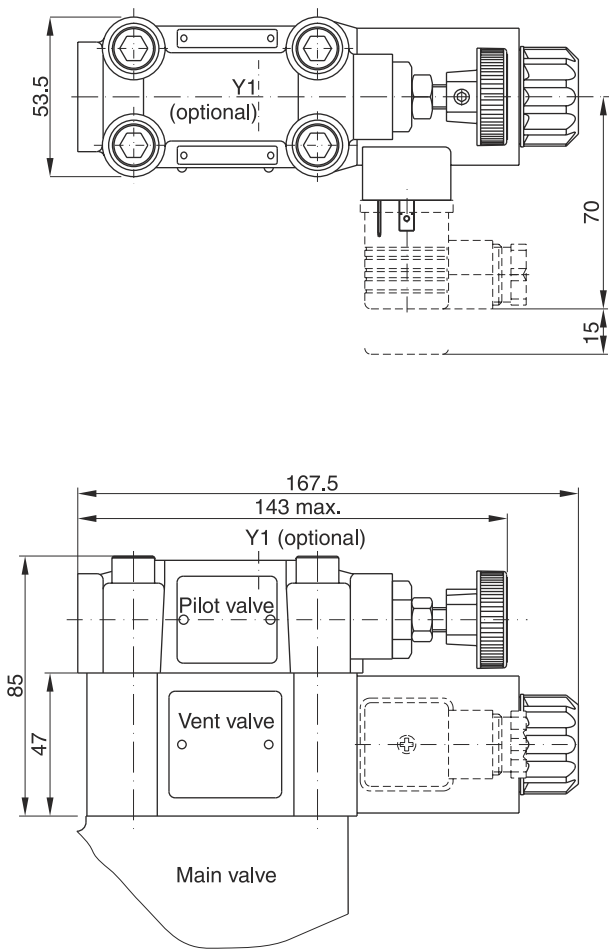
9

SAE62

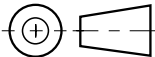
Port	Function	Port size			
		R5V06	R5V08	R5V10	R5V12
A (2)	Pressure	¾" SAE61/62	1" SAE61/62	1¼" SAE61/62	1½" SAE61/62
B	Tank	¾" SAE61/62	1" SAE61/62	1¼" SAE61/62	1½" SAE61/62
X1	External pilot port ²⁾	G¼"	G¼"	G¼"	G¼"
Y1	External drain	G¼"	G¼"	G¼"	G¼"
M	Pressure gauge	G¼"	G¼"	G¼"	G¼"

2) Closed when supplied.

Dimensions R5V with vent function



Seal kits	
NBR	FPM
DC solenoid	
S56-40609-0	S56-40609-5
AC solenoid	
S26-35237-0	S26-35237-5



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Code	Internal drain	External drain
11		
09		