

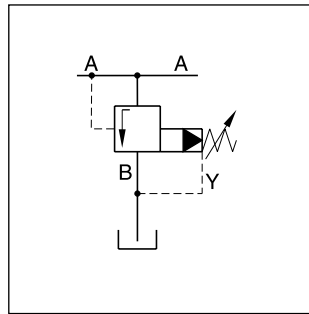
Characteristics

Pilot operated pressure unloading valves series R5U have a similar design to the subplate mounted R4U series. The SAE flanges allow to mount the valve directly on the outlet flanges of pumps.

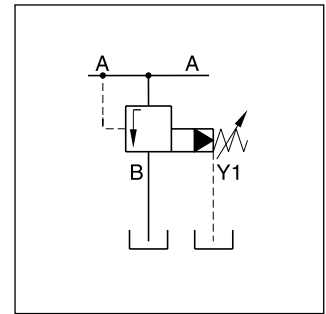
A typical application is the unloading of a pump in an accumulator circuit. The combination of an R5U, C5V and R5V on a double pump generates a high pressure / low pressure pump system without the need of a manifold block or piping between the valves.

Features

- Pilot operated unloading valve
- 3-port body with SAE61 flange
- 4 sizes (SAE 3/4", 1", 1 1/4", 1 1/2")
- 3 pressure stages
- 3 adjustment modes
 - Hand knob
 - Acorn nut with lead seal
 - Cylinder lock
- With optional vent function

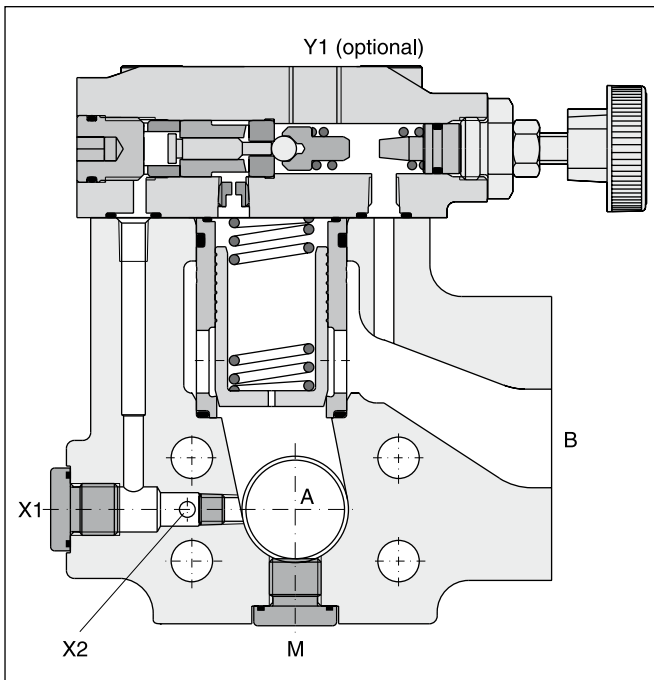


R5U 3-port internal drain

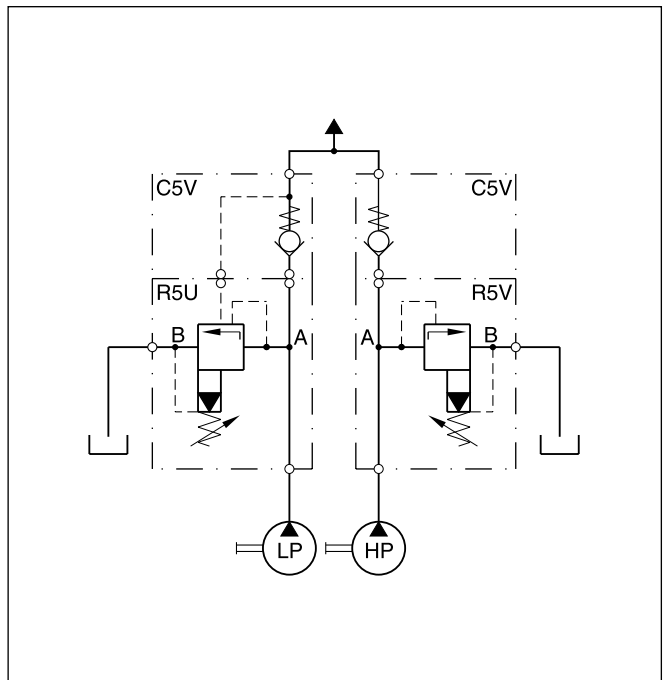


R5U 3-port external drain

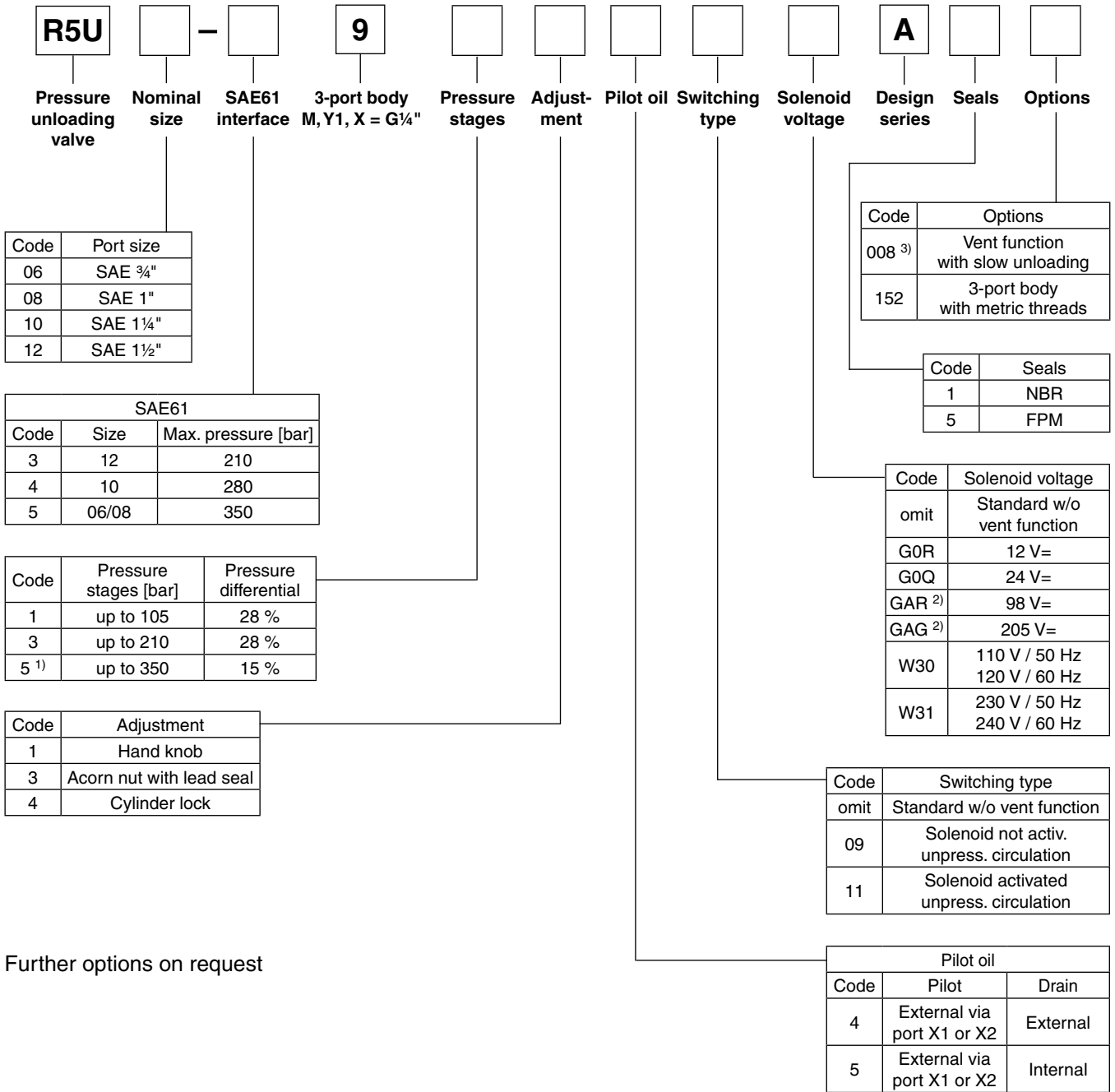
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High pressure / low pressure system



Ordering Code



Further options on request

¹⁾ R5U10-495 up to 280 bar.

²⁾ To be used in combination with rectifier plugs at 120 VAC / 230 VAC power supply.

³⁾ Only for vent valve function code 09.

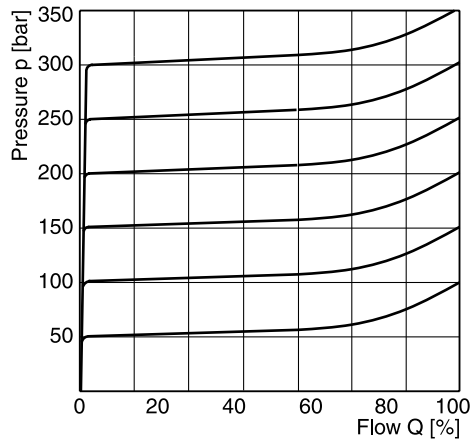
Technical Data / Characteristic Curves

Technical data

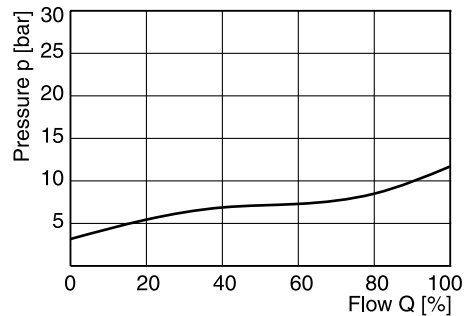
General						
Size		06 (3/4")	08 (1")	10 (1 1/4")	12 (1 1/2")	
Mounting	Flanged according to SAE61					
Mounting position	unrestricted					
Ambient temperature	[°C]	-20...+60				
MTTF _D value	[years]	75				
Weight	[kg]	3.6	4.6	5.2	8.0	
Hydraulic						
Max. operating pressure	[bar]					
	Ports A, B, X	350	350	280	210	
	Ports Y, 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] / [mm ² /s]	20 ... 400				
	recommended [cSt] / [mm ² /s]	30...80				
Filtration	ISO 4406 (1999); 18/16/13					
Electrical						
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 120 at 60 Hz
	[V]					230 at 50 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
	in rush [A]	2.72	1.29	0.33	0.13	2.5 / 2.4
Power consumption	hold [W]	32.7	31	31.9	28.2	70/70 VA
	in rush [W]	32.7	31	31.9	28.2	280/290 VA
Solenoid connection	Connector as per EN175301-803, solenoid identification as per ISO 9461					
Wiring min.	[mm ²]	3 x 1.5 recommended				
Wiring length max.	[m]	50 recommended				

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p/Q performance curve



Minimum pressure curve

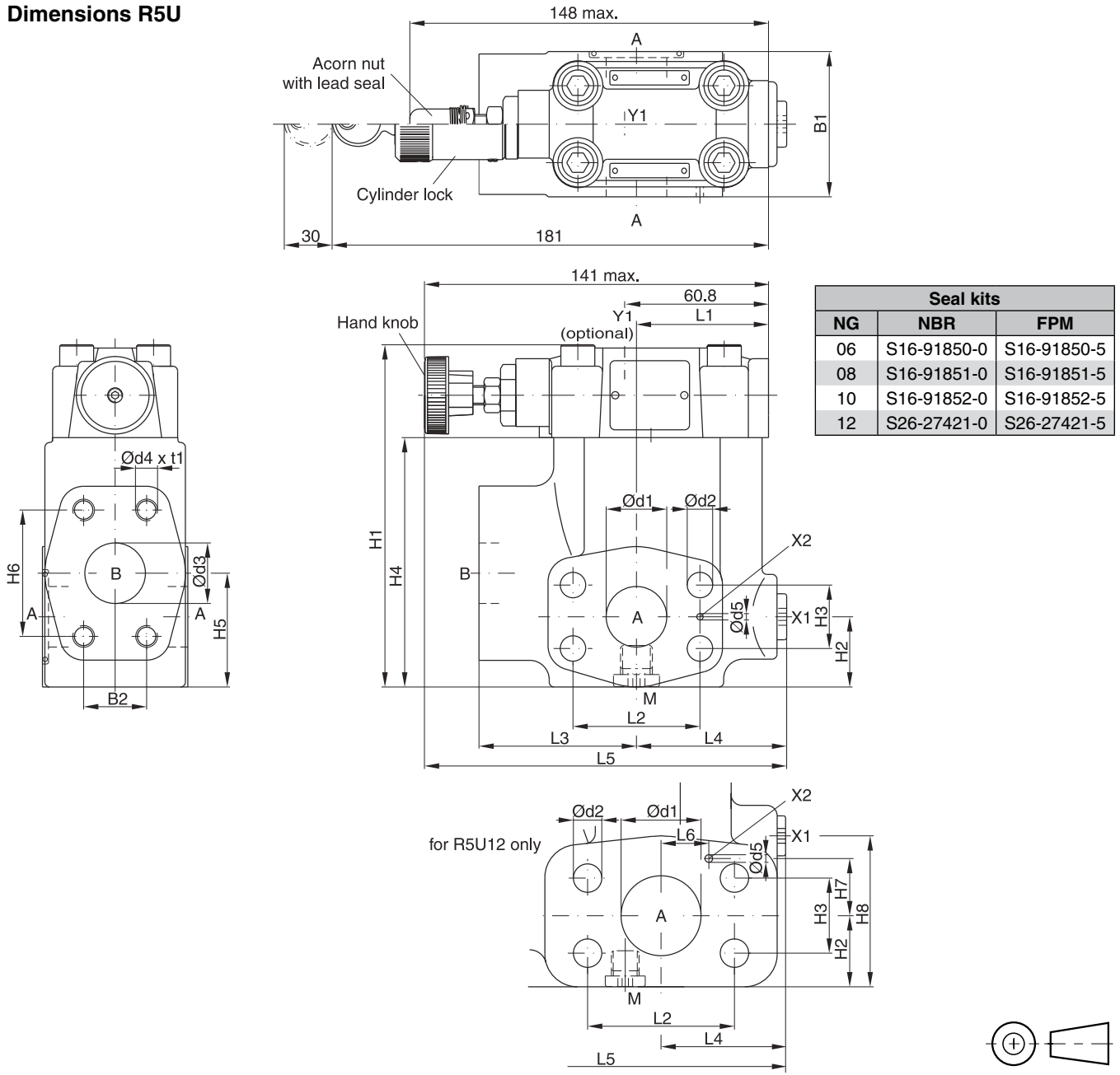


All characteristic curves measured with HLP46 at 50 °C.

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

Dimensions

Dimensions R5U



Seal kits		
NG	NBR	FPM
06	S16-91850-0	S16-91850-5
08	S16-91851-0	S16-91851-5
10	S16-91852-0	S16-91852-5
12	S26-27421-0	S26-27421-5

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NG	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	d1	d2	d3	d4	t1	d5	L6	H7	H8
06	60	22.2	119	29.5	22.2	81	41	47.6	50.3	47.6	63	60	152	19	10.5	19	3/8"-16 UNC	20	3.0	-	-	-
08	60	26.2	141	30.5	26.2	103	47	52.4	55.8	52.4	65	62	149	25	10.5	25	3/8"-16 UNC	23	3.0	-	-	-
10	75	30.2	151	37.5	30.2	113	65	58.7	57.8	58.7	61	68	150.5	32	12.5	30	7/16"-14 UNC	22	3.0	-	-	-
12	80	35.7	178	35.5	35.7	140	73	69.8	37.3	69.8	92.5	59.2	171.2	38	13.5	38	1/2"-13 UNC	27	3.0	22.4	27.2	72

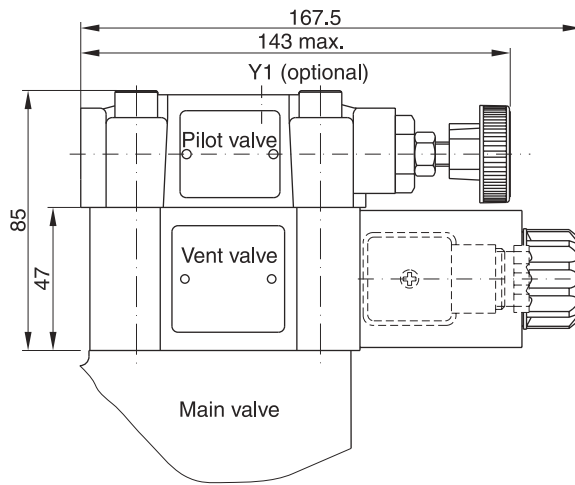
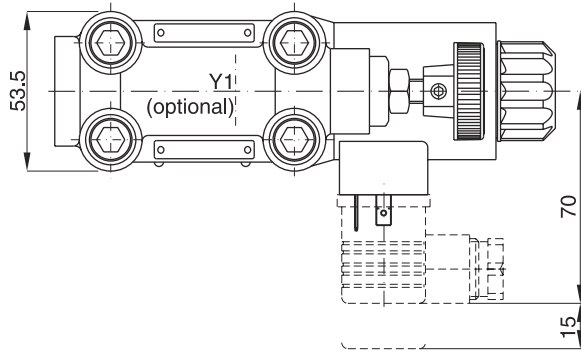
Port	Function	Port size			
		R5U06	R5U08	R5U10	R5U12
A (2)	Pressure	3/4" SAE61	1" SAE61	1 1/4" SAE61	1 1/2" SAE61
B	Tank	3/4" SAE61	1" SAE61	1 1/4" SAE61	1 1/2" SAE61
X1	External pilot port ¹⁾	G 1/4"	G 1/4"	G 1/4"	G 1/4"
Y1	External drain	G 1/4"	G 1/4"	G 1/4"	G 1/4"
M	Pressure gauge	G 1/4"	G 1/4"	G 1/4"	G 1/4"

¹⁾ Closed when supplied.

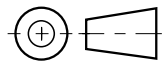


Dimensions

Dimensions R5U 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		