

Characteristics

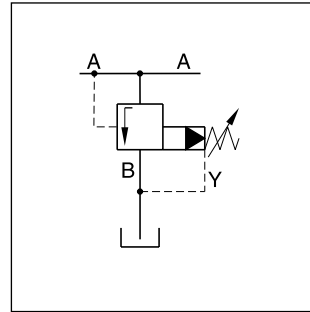
Pilot operated pressure unloading valves series R5U have a similar design to the subplate mounted R4U series. The SAE flanges allow to mount the valve directly on the outlet flanges of pumps.

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.

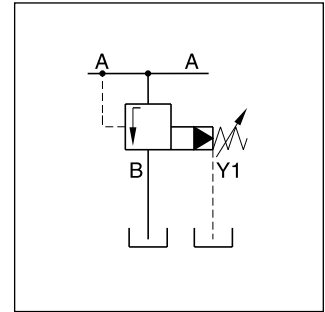
Features

- 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
 - DIN lock
- With optional vent function

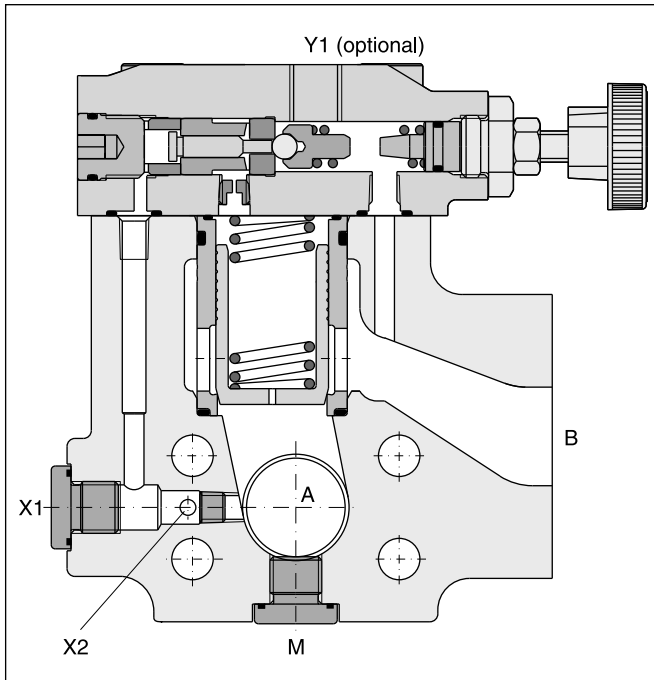
Pilot Operated Pressure Unloading Valve Series R5U (Denison)



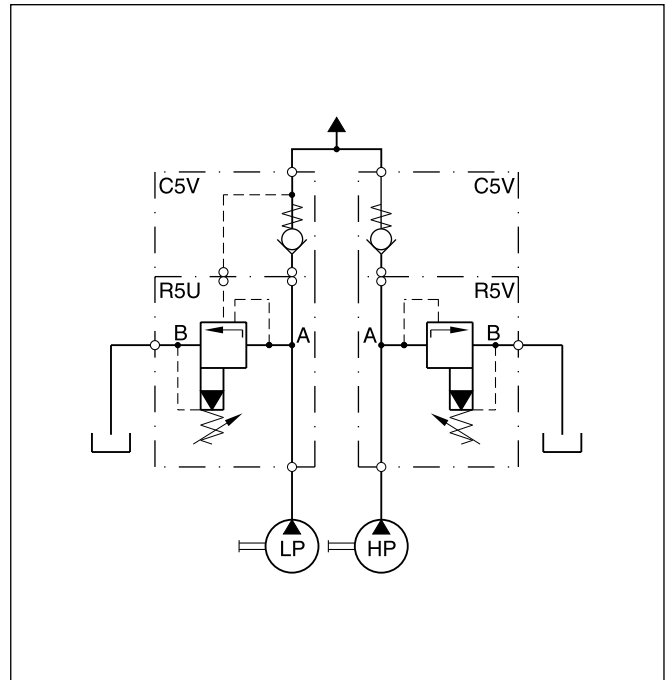
R5U 3-port internal drain



R5U 3-port external drain

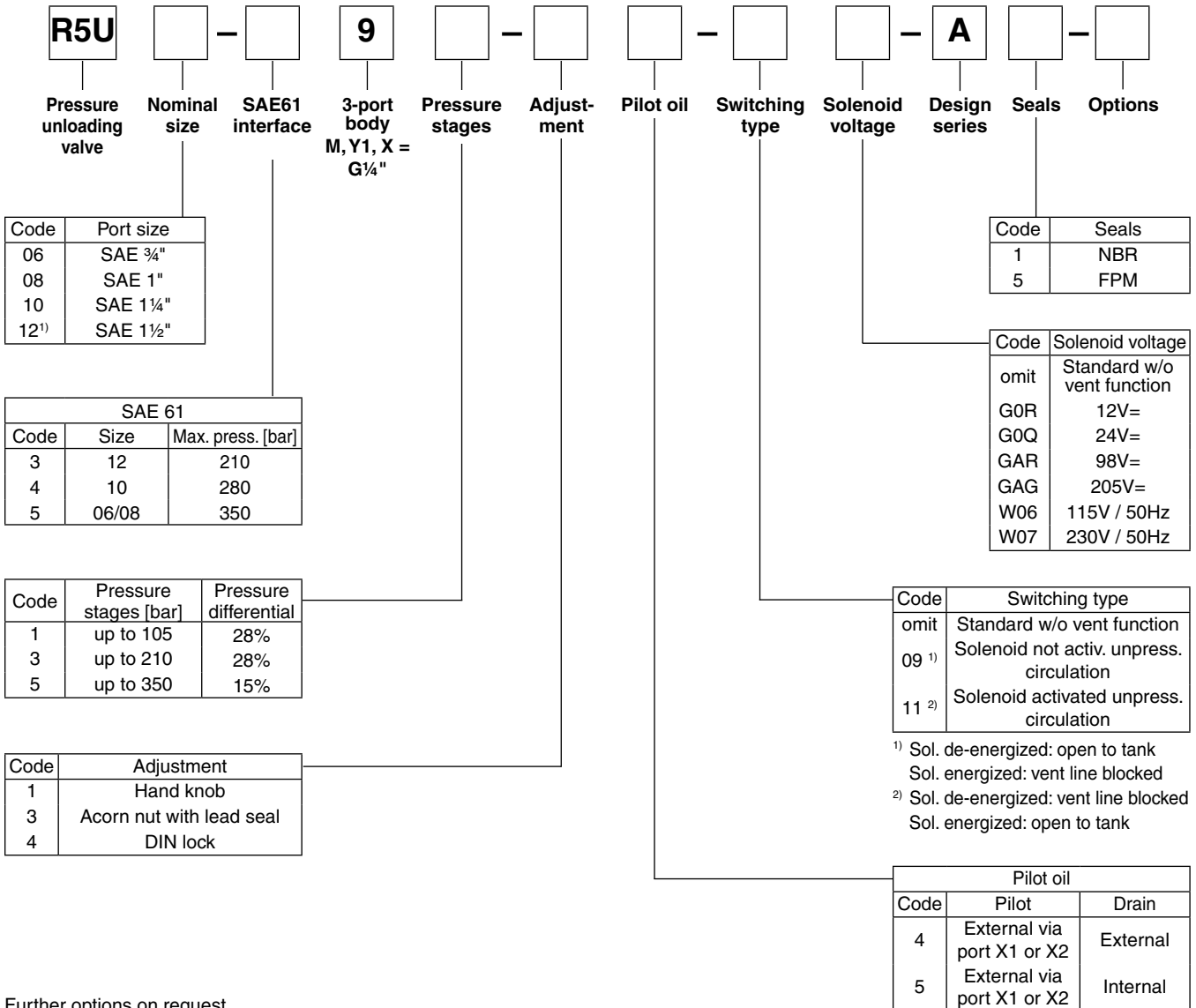


High pressure / low pressure system



Ordering Code

Ordering code

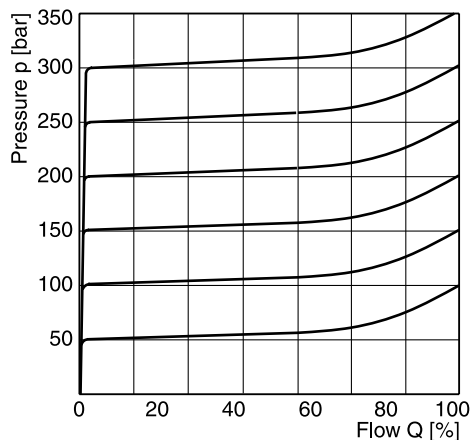


Further options on request

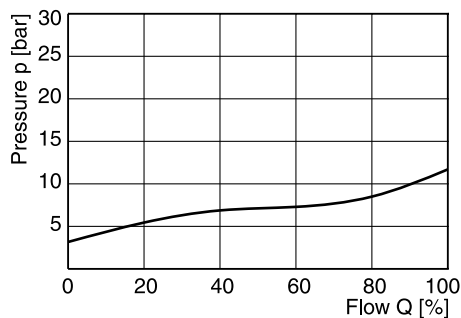
Technical data

General		06 (¾")	08 (1")	10 (1¼")	12 (1½")		
Size							
Mounting		Flanged according to SAE 61					
Mounting position		unrestricted					
Ambient temperature	[°C]	-20...+50					
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 as per DIN 51524...525					
Fluid temperature	[°C]	-20...+80					
Viscosity permitted	[cSt] [mm²/s]	10...650					
Viscosity recommended	[cSt] [mm²/s]	30					
Filtration		ISO 4406 (1999) 18/16/13 (acc. NAS 1638: 7)					
Electrical							
Duty ratio	[%]	100					
Solenoid connection		Connector as per EN175301-803					
Protection class		IP65 in accordance with EN 60529 (plugged and mounted)					
		G0R	G0Q	GAR	GAG	W06	W07
Direct current		12V = +5...-10 31 31	24V = +5...-10 31 31	98V = +5...-10 31 31	205V = +5...-10 31 31	150 at 50Hz +5...-10 78 264	230 at 50Hz +5...-10 78 264
Response time	[ms]	Energized / De-energized AC: 20/18 , DC: 46/27					
Max. switching frequency		AC: up to 7200, DC: up to 16000 switchings/hour					
Coil insulation class		H (180 °C)					

p/Q performance curve

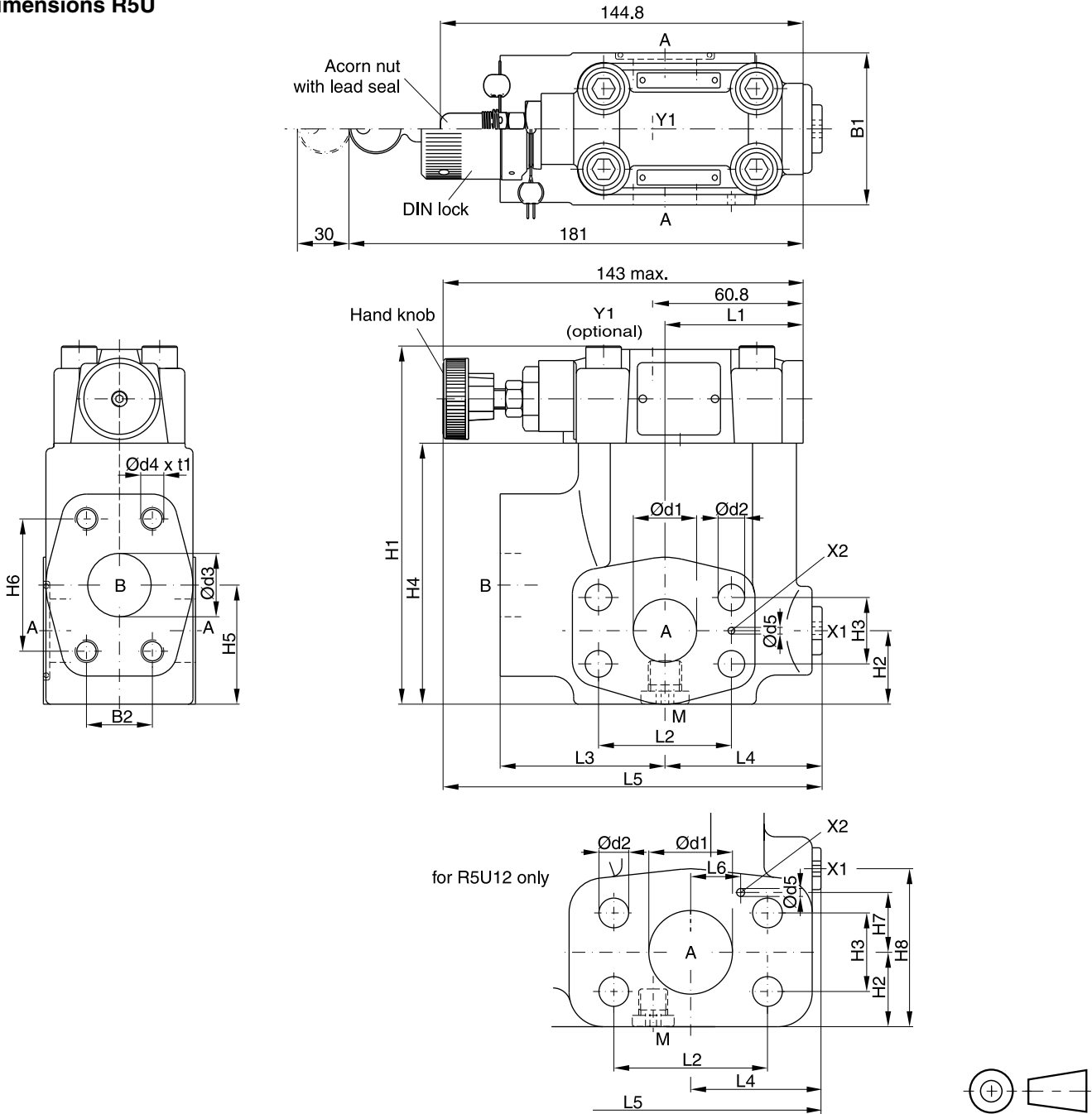


Minimum pressure curve



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

Dimensions R5U



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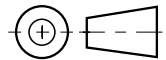
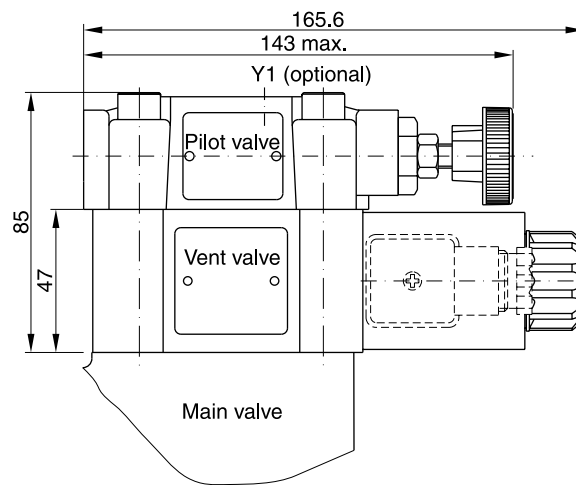
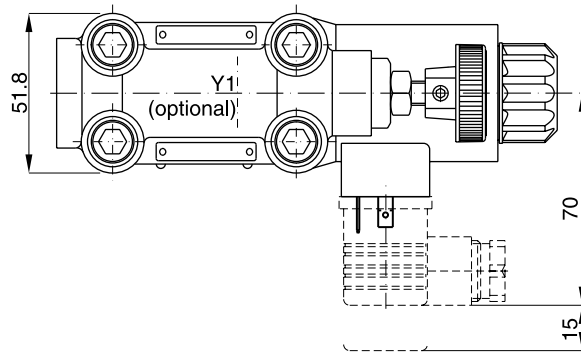
NG	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	d1	d2	d3	d4	t1	d5	L6	H7	H8
06	60	22.2	119	28	22.2	81	41.6	47.6	50.3	47.6	63	56	152	19	10.5	19	3/8"-16 UNC	20	3.0	-	-	-
08	60	26.2	141	29	26.2	103	47	52.4	55.8	52.4	65	58	149	25	10.5	25	3/8"-16 UNC	23	3.0	-	-	-
10	75	30.2	151	34.5	30.2	113	64	58.7	57.8	58.7	61	62	150.5	32	12.5	32	7/16"-14 UNC	22	3.0	-	-	-
12	80	35.7	178	34	35.7	140	73	69.8	37.3	69.8	92.5	55.2	171.2	38	13.5	38	1/2"-13 UNC	27	3.0	34.9	27.2	73

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"			
Y1	External drain	G 1/4"			
M	Pressure gauge	G 1/4"			

¹⁾ closed when supplied

Dimensions

Dimensions R5U with vent function



9

Code	Internal drain	External drain
11		
09		

R5U_UK.INDD RH

