

Characteristics

Proportional pressure relief valves series R5V*P2 are based on the mechanically adjusted series R5V. The additional proportional unit between the mechanical pilot valve and the main stage allows continuous pressure adjustment.

The optimum performance can be achieved in combination with the digital amplifier module PCD00A-400.

Features

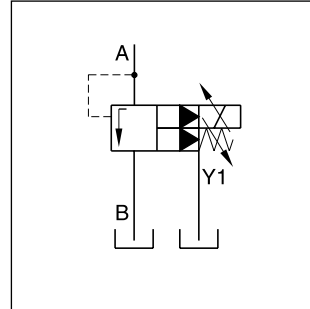
- Continuous adjustment by proportional solenoid
- R5V with 2-port body
 - 3 sizes (SAE 3/4", 1", 1 1/4")
 - SAE61 flange
- R5V with 3-port body
 - 4 sizes (SAE 3/4", 1", 1 1/4", 1 1/2")
 - SAE61 and SAE62 flange
- 3 pressure stages
- With mechanical maximum pressure adjustment



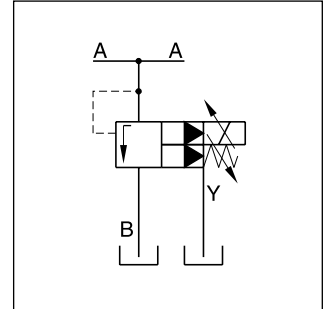
R5V*P2 2-port



R5V*P2 3-port

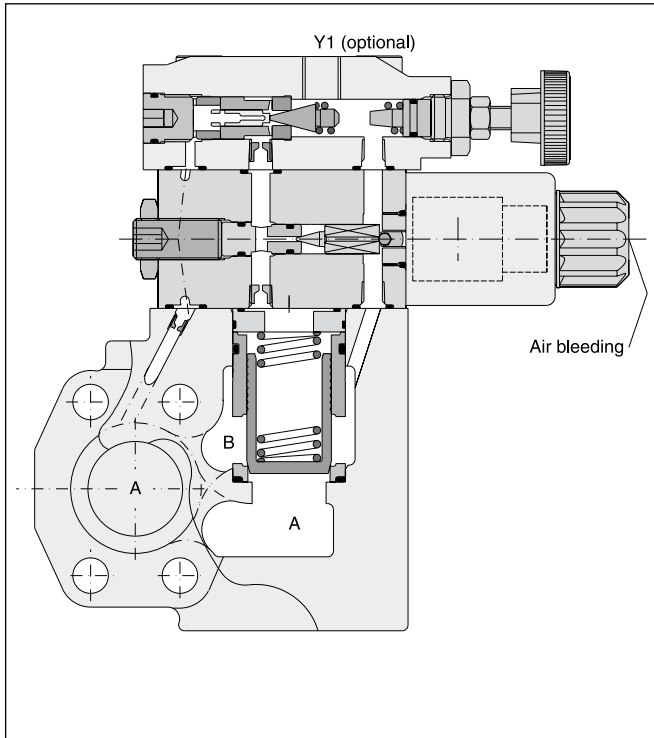


R5V*P2 2-port

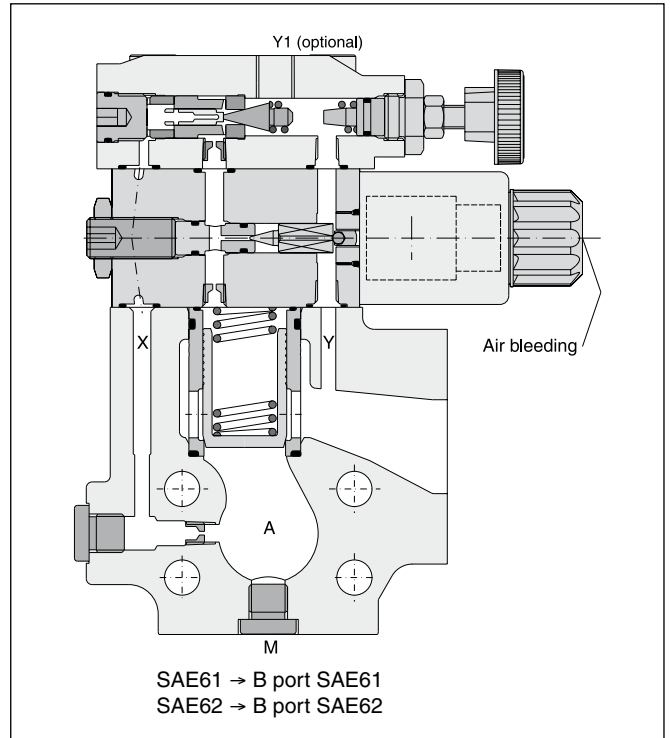


R5V*P2 3-port

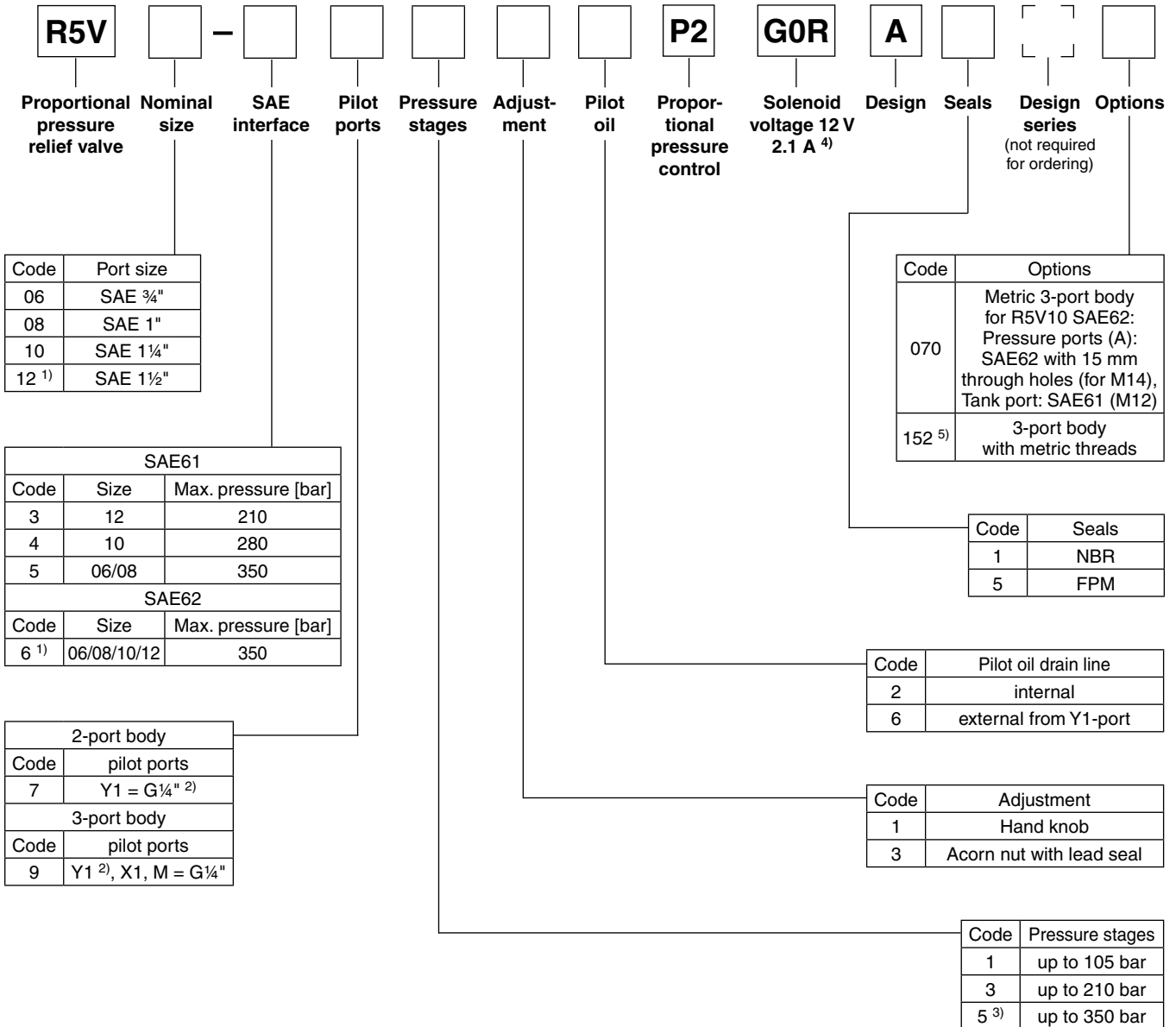
R5V*P2 2-port



R5V*P2 3-port



Ordering Code

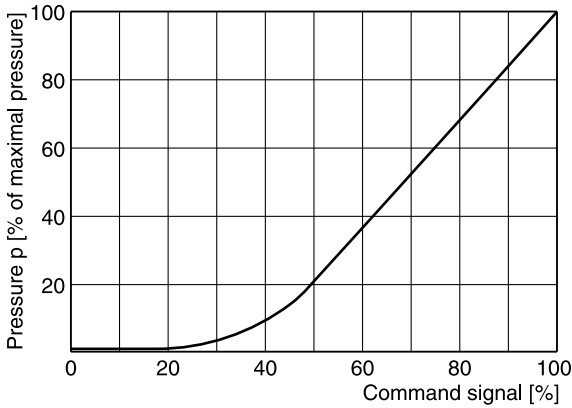


¹⁾ Only R5V 3port.
²⁾ Y1 only available at external drain (pilot oil code 6).
³⁾ R5V10-4*5 up to 280 bar.
⁴⁾ Onboard electronics on request.
⁵⁾ R5V08 SAE62: Tank port SAE61 (M10).

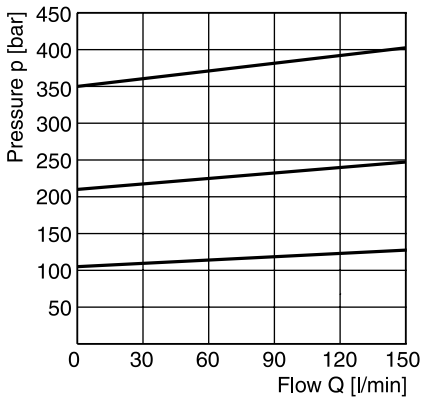
Technical Data

General						
Size			06 (¾")	08 (1")	10 (1¼")	12 (1½")
Mounting	Flanged according to SAE61 (size 12 = SAE62)					
Mounting position	unrestricted					
Ambient temperature	[°C]	-20...+60				
MTTF _D value	[years]	75				
Weight	R5V 2-port	[kg]	5.8	6.4	7.7	—
	R5V 3-port	[kg]	5.4	6.4	7.0	9.8
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] / [mm ² /s]	20...400				
Viscosity recommended	[cSt] / [mm ² /s]	30...80				
Filtration	ISO 4406 (1999); 18/16/13					
Electrical (proportional 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					
Supply voltage	[V]	12 V =				
Max. current	[A]	2.1				
Coil resistance at 20 °C	[Ohm]	4.28				
Solenoid connection	Connector as per EN 175301-803					
Power amplifier, recommended	PCD00A-400					

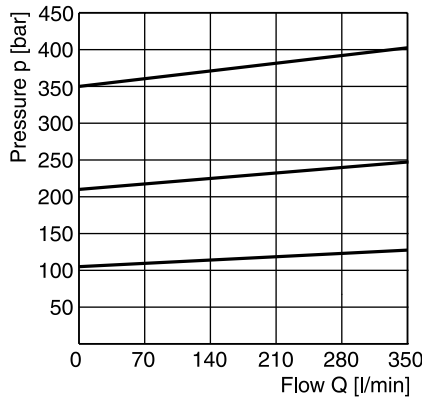
Signal/pressure curve R5V*P2



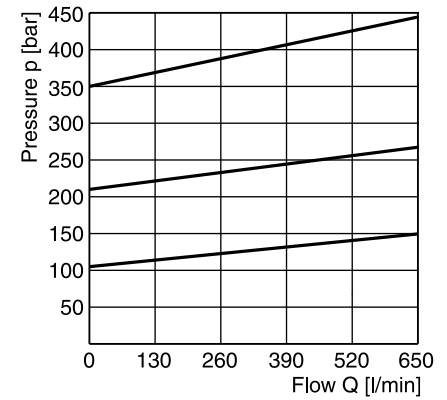
**p/Q performance curve 1)
R5V06*P2**



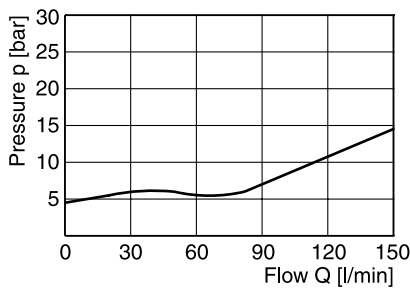
R5V08*P2



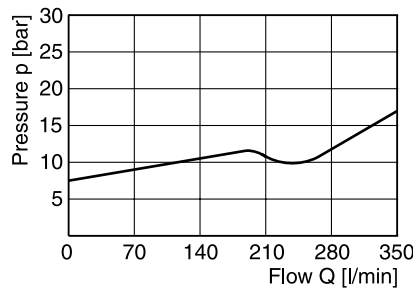
R5V10*P2



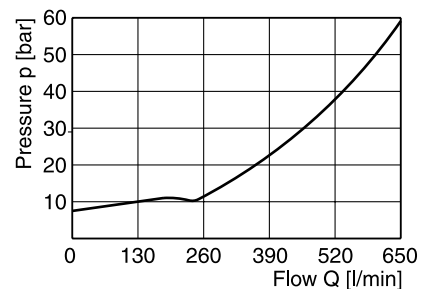
**Minimum pressure curve 1)
R5V06*P2**



R5V08*P2



R5V10*P2



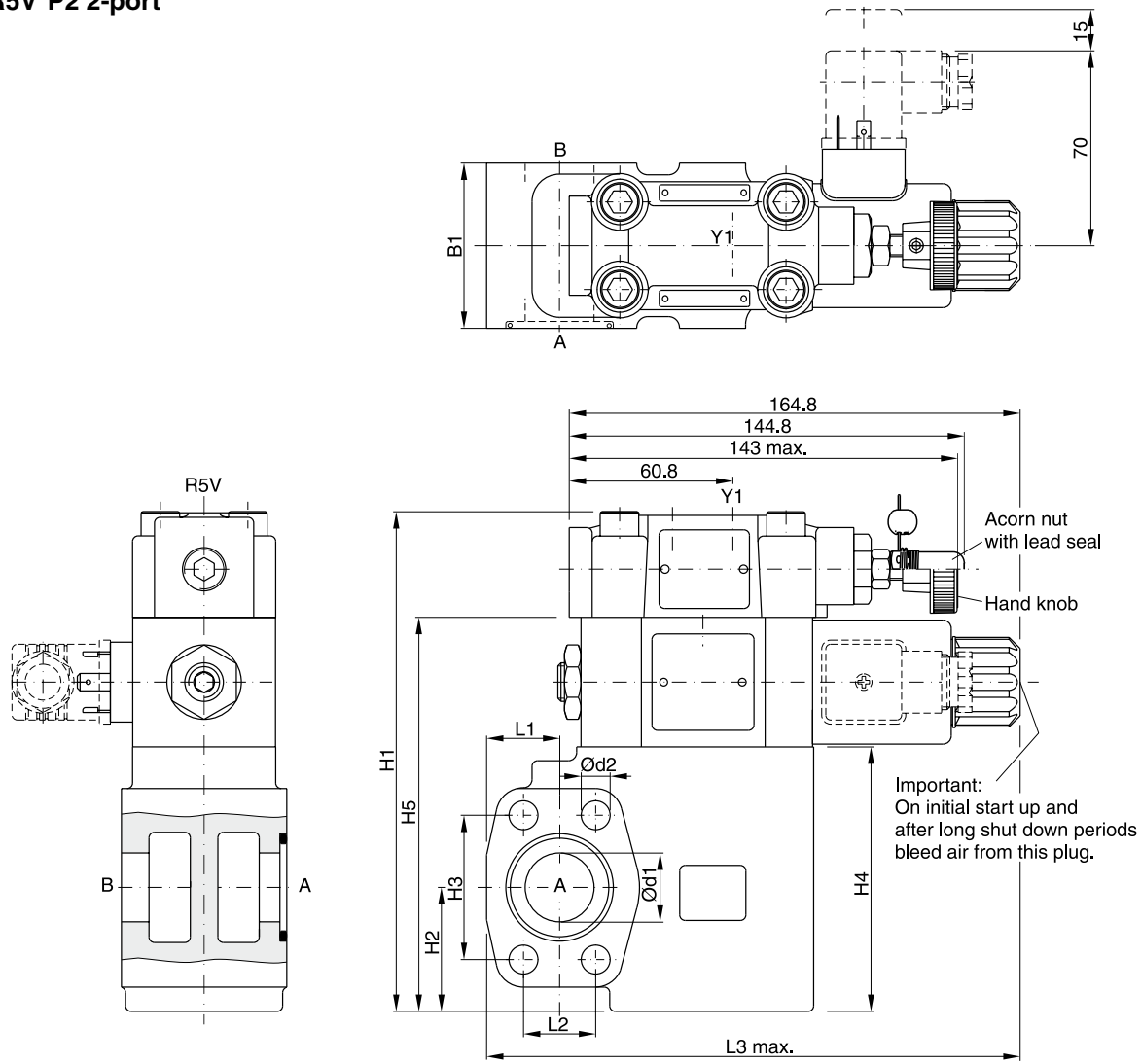
All characteristic curves measured with HLP46 at 50 °C.

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

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Dimensions

R5V*P2 2-port



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SAE61

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
Prop. section P2 *	S26-58473-0	S26-58473-5

NG	B1	H1	H2	H3	H4	H5	L1	L2	L3	d1	d2
06	60	175	37	47.6	90	137	24.6	22.2	174	19	10.5
08	60	181	45	52.4	96	143	26.5	26.2	193.6	25	10.5
10	75	194	48	58.7	109	156	34.0	30.2	201	32	12.5

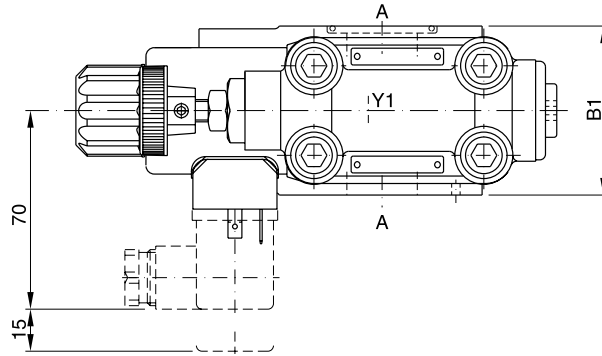
Port	Function	Port size		
		R5V06	R5V08	R5V10
A	Pressure	¾" SAE61	1" SAE61	1¼" SAE61
B	Tank	¾" SAE61	1" SAE61	1¼" SAE61
Y1	External drain	G¼"	G¼"	G¼"

* Please combine seal kit of one size with seal kit of Prop. section P2 for complete seal kit.

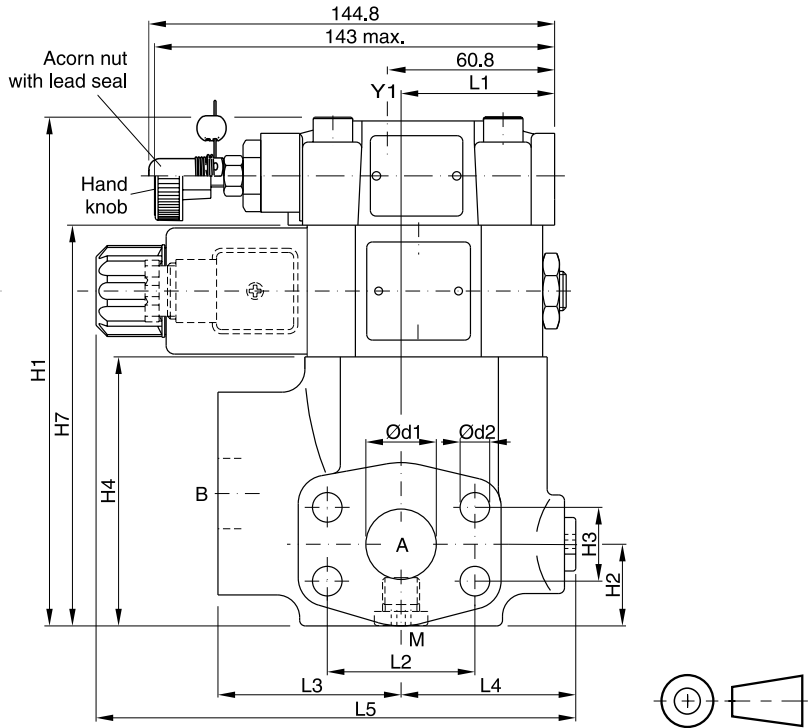
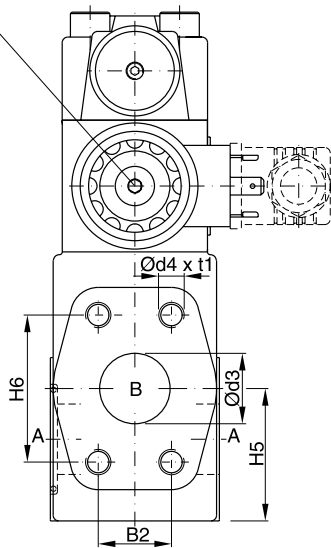
Dimensions

R5V*P2 3-port

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
Prop. section P2 *	S26-58473-0	S26-58473-5



Important:
On initial start up and after long shut down periods bleed air from this plug.



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SAE61

NG	B1	B2	H1	H2	H3	H4	H5	H6	H7	L1	L2	L3	L4	L5	d1	d2	d3	d4 (option 152)	t1
06	60	22.2	166	29.5	22.2	81	41	47.6	128	50.3	47.6	63	60	174.6	19	10.5	19	3/8"-16 UNC (M10)	20
08	60	26.2	188	30.5	26.2	103	47	52.4	150	55.8	52.4	65	62	177	25	10.5	25	3/8"-16 UNC (M10)	23
10	75	30.2	198	37.5	30.2	113	65	58.7	160	57.8	58.7	61	68	179.1	32	12.5	30	7/16"-14 UNC (M12)	22
12	80	35.7	225	72	35.7	140	73	69.8	187	37.3	69.8	92.5	59.2	186.8	38	13.5	38	1/2"-13 UNC (M12)	27

SAE62

NG	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	d1	d2	d3	d4 (option 152)	t1
06	60	23.8	119	29.5	23.8	81	41	50.8	50.3	50.8	63	60	152	19	10.5	19	3/8"-16 UNF (M10)	20
08	60	27.8	141	30.5	27.8	103	47	57.2	55.8	57.2	65	62	149	25	12.5	25	7/16"-14 UNC (M10) ¹⁾	22
10	75	31.8	151	37.5	31.8	113	65	66.7	57.8	66.7	61	68	150.5	32	13.5	30	1/2"-13 UNC (M12)	24
12	80	36.5	178	72	36.5	140	73	79.4	37.3	79.4	92.5	59.2	171.2	38	17	38	5/8"-11 UNC (M16)	33

Port	Function	Port size			
		R5V06	R5V08	R5V10	R5V12
A (2)	Pressure	3/4" SAE61/62	1" SAE61/62	1 1/4" SAE61/62	1 1/2" SAE61/62
B	Tank	3/4" SAE61/62	1" SAE61/62	1 1/4" SAE61/62	1 1/2" SAE61/62
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"

* Please combine seal kit of one size with seal kit of Prop. section P2 for complete seal kit.

¹⁾ T-port SAE61.