

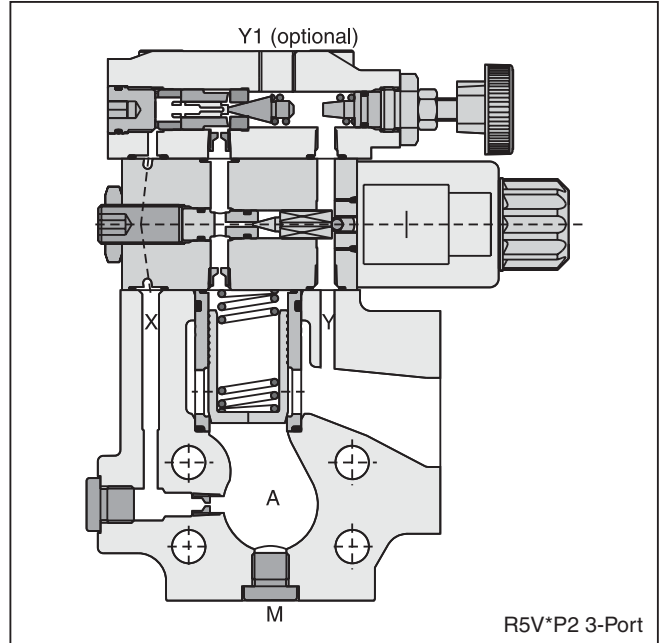
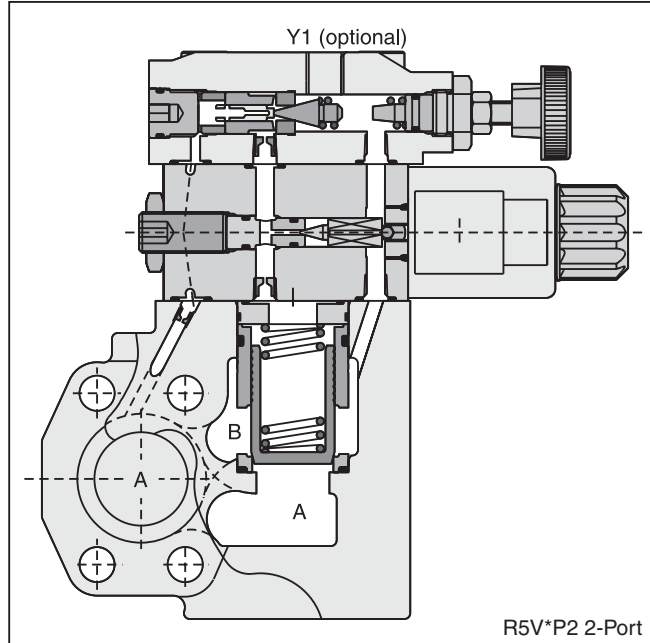
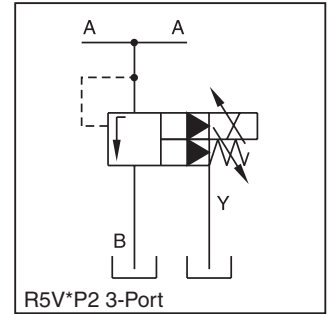
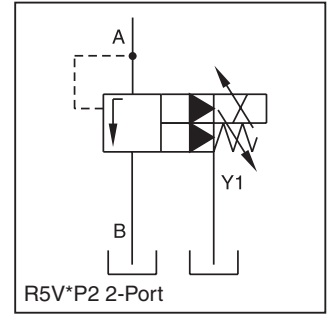
General Description

Series R5V*P2 proportional pressure relief valves are based on the mechanical 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

- Pilot operated with manual adjustment.
- Continuous adjustment by proportional solenoid.
- R5V with 2-port body:
 - 3 sizes (SAE 3/4", 1", 1-1/4")
 - SAE 61 flange
- R5V with 3-port body:
 - 4 sizes (SAE 3/4", 1", 1-1/4", 1-1/2")
 - SAE 61 and SAE 62 flange
- 3 pressure ranges.
- With mechanical maximum pressure adjustment.

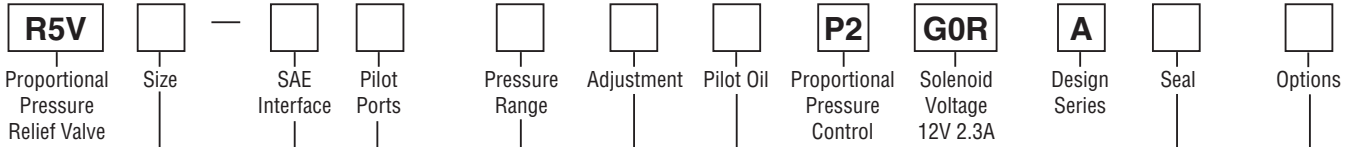


B

General					
Size		06 (3/4")	08 (1")	10 (1-1/4")	12 (1-1/2")
Mounting	Flanged according to SAE 61				
Mounting Position	Unrestricted				
Ambient Temperature Range	-20°C to +50°C (-4°F to +122°F)				
Hydraulic					
Maximum Operating Pressure	SAE 61 Ports A, B	350 Bar (5075 PSI)	350 Bar (5075 PSI)	280 Bar (4060 PSI)	210 Bar (3045 PSI)
	SAE 61 Port Y1	30 Bar (435 PSI)	30 Bar (435 PSI)	30 Bar (435 PSI)	30 Bar (435 PSI)
	SAE 62 Ports A, B	350 Bar (5075 PSI)	350 Bar (5075 PSI)	350 Bar (5075 PSI)	350 Bar (5075 PSI)
	SAE 62 Port Y1	30 Bar (435 PSI)	30 Bar (435 PSI)	30 Bar (435 PSI)	30 Bar (435 PSI)
Pressure Range	105 Bar (1523 PSI), 210 Bar (3045 PSI), 350 Bar (5075 PSI)				
Nominal Flow		90 LPM (23.8 GPM)	300 LPM (79.4 GPM)	600 LPM (158.7 GPM)	600 LPM (158.7 GPM)
Fluid	Hydraulic oil as per DIN 51524...51535, other on request				
Fluid Temperature	-20°C to +80°C (-4°F to +176°F)				
Viscosity	Permitted	10 to 650 cSt / mm ² /s (46 to 3013 SSU)			
	Recommended	30 to 80 cSt / mm ² /s (139 to 371 SSU)			
Filtration	ISO Class 4406 (1999) 18/16/13 (acc. NAS 1638: 7)				
Electrical (Proportional Solenoid)					
Duty Ratio	100% ED; CAUTION: Coil temperature up to 150°C (302°F) possible				
Nominal Voltage	12 VDC				
Max. Current	2.3 amps				
Coil Resistance	4 Ohm at 20°C (68°F)				
Solenoid Connection	Connector as per EN175301-803				
Protection Class	IP65 in accordance with EN60529 (plugged and mounted)				
Power Amplifier	PCD00A-400				

B

Ordering Information



Code	Description
06	SAE 3/4"
08	SAE 1"
10	SAE 1-1/4"
12*	SAE 1-1/2"

* R5V 3-Port only

SAE 61		
Code	Size	Maximum Pressure
3*	12	210 Bar (3045 PSI)
4	10	280 Bar (4060 PSI)
5	06/08	350 Bar (5075 PSI)

SAE 62		
Code	Size	Maximum Pressure
6*	06/08/ 10/12	350 Bar (5075 PSI)

* R5V 3-Port only

Code	Drain Line
2	Internal
6	External from Y1-Port

Code	Description
1	Hand Knob
3	Acorn Nut with Lead Seal

Code	Description
1	up to 105 Bar (1523 PSI)
3	up to 210 Bar (3045 PSI)
5	up to 350 Bar (5075 PSI)

Code	Description
1	Nitrile
5	Fluorocarbon

Code	Description
Omit	Standard
152	3-Port body with metric threads

2-Port Body	
Code	Description
3*	No Ports
7	Y1 = G1/4"

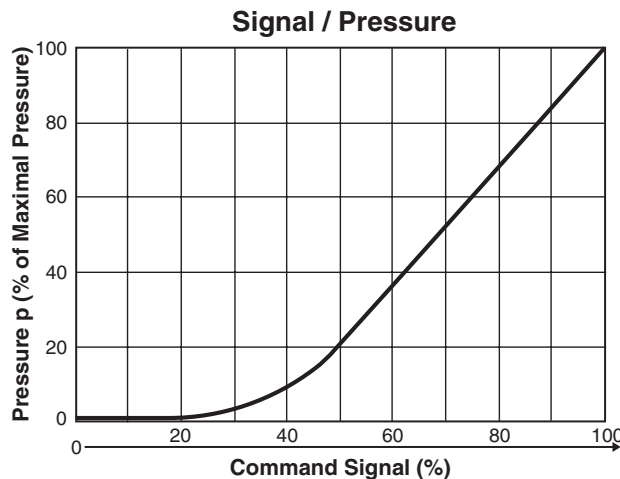
3-Port Body	
Code	Description
9	Y1**, X1, M = G1/4"

* 2-Port: only in combination with pilot oil code 2.

** 3-Port: Y1 only available at external drain (pilot oil code 6).

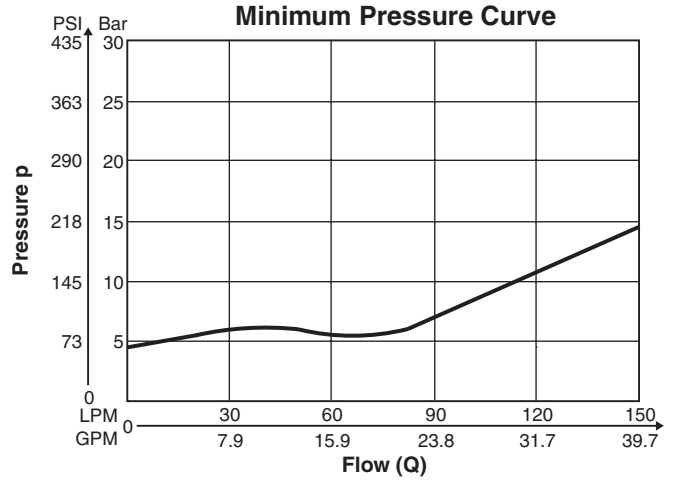
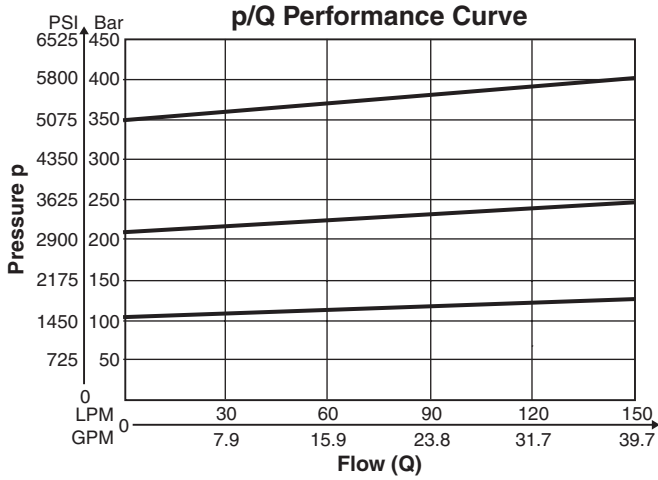
Weight:	2-Port	3-Port
R5V06*P2	5.8 kg (12.8 lbs.)	5.4 kg (11.9 lbs.)
R5V08*P2	6.4 kg (14.1 lbs.)	6.4 kg (14.1 lbs.)
R5V10*P2	7.7 kg (17.0 lbs.)	7.0 kg (15.4 lbs.)
R5V12*P2	—	9.8 kg (21.6 lbs.)

Performance Curve

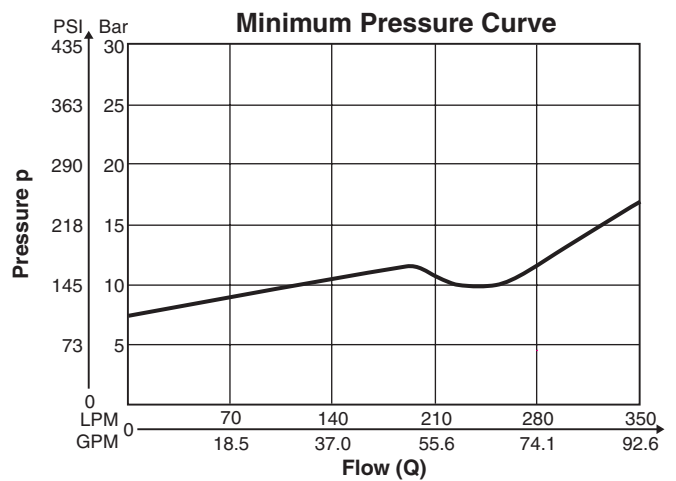
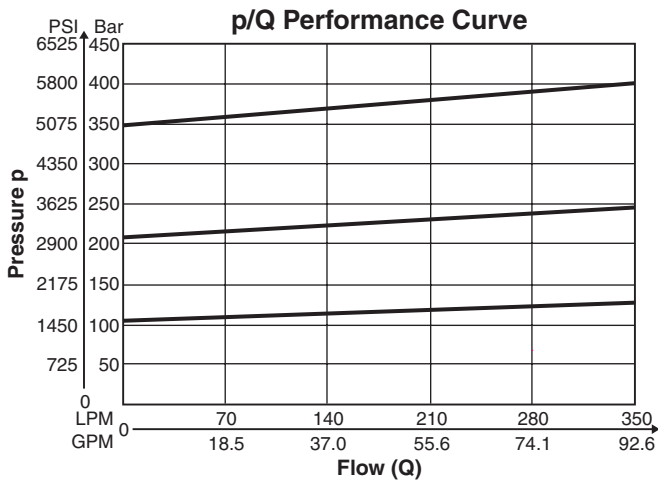


B

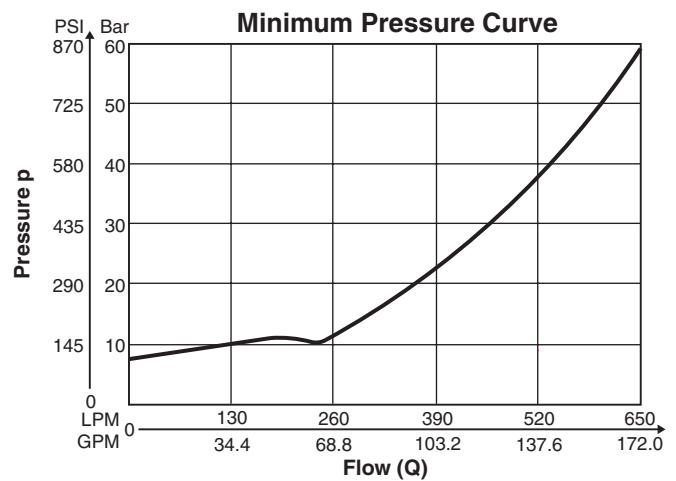
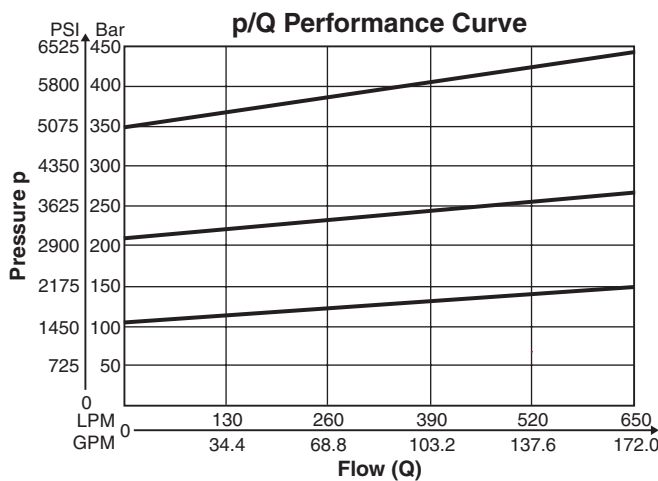
R5V06*P2 1)



R5V08*P2 1)



R5V10*P2 1)



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

Dimensions

**Proportional Pressure Relief Valves
Series R5V*P2 (Flange Mounted)**

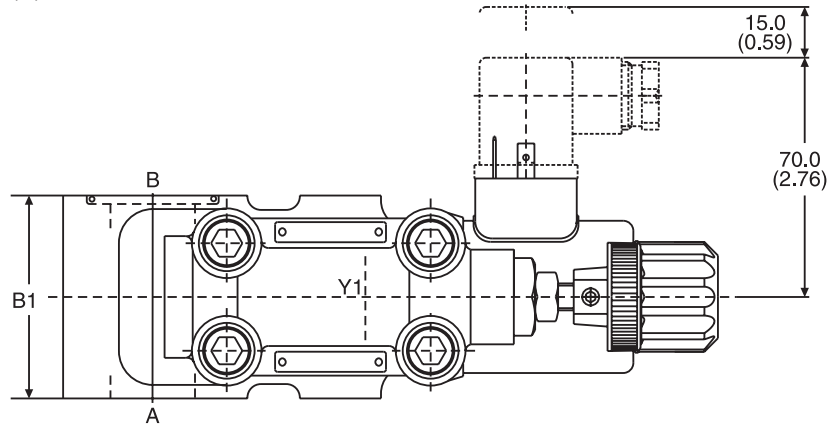
Inch equivalents for millimeter dimensions are shown in (**)

2-Port

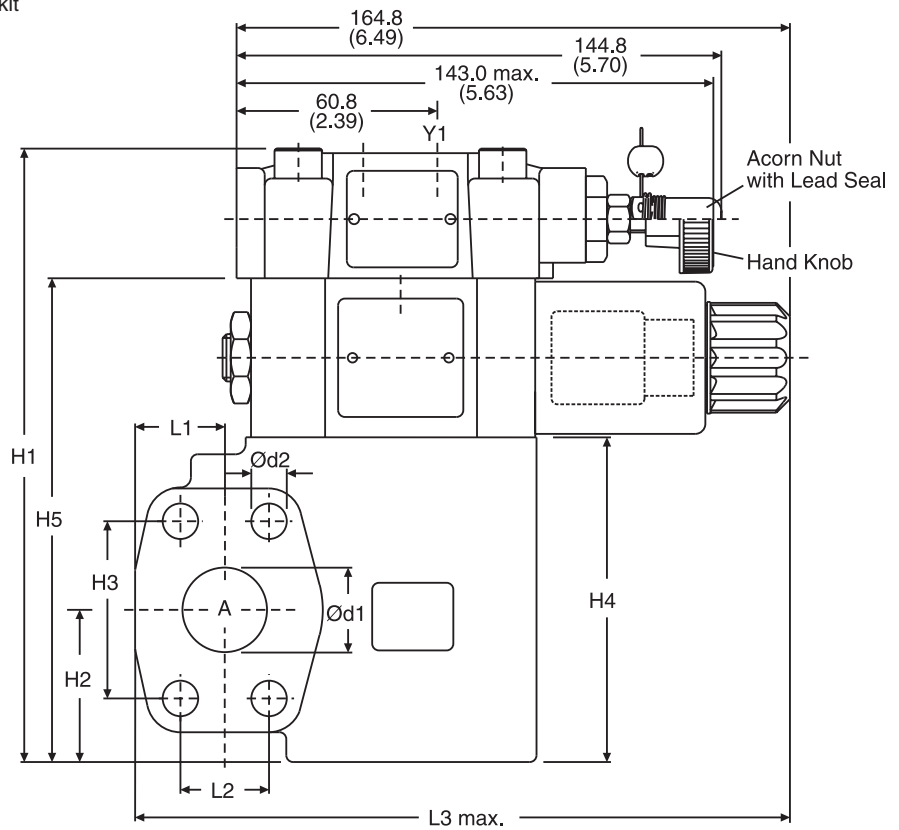
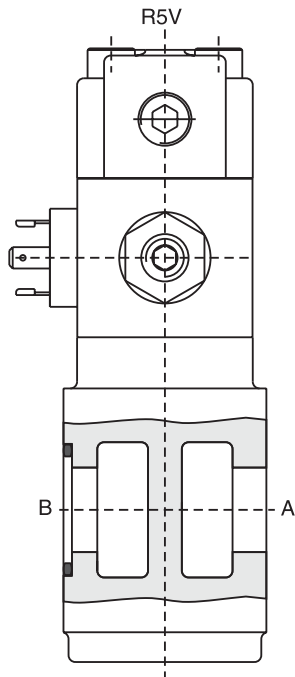


Seal Kits		
Size	Nitrile	Fluorocarbon
06	S16-91850-0	S16-91850-5
08	S16-91851-0	S16-91851-5
10	S16-91852-0	S16-91852-5
Prop. Section P2*	S26-58473-0	S26-58473-5

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



B



SAE 61

Size	B1	H1	H2	H3	H4	H5	L1	L2	L3	d1	d2
06	60.0 (2.36)	175.0 (6.89)	37.0 (1.46)	47.6 (1.87)	90.0 (3.54)	137.0 (5.39)	24.6 (0.97)	22.2 (0.87)	174.0 (6.85)	19.0 (0.75)	10.5 (0.41)
08	60.0 (2.36)	181.0 (7.13)	45.0 (1.77)	52.4 (2.06)	96.0 (3.78)	143.0 (5.63)	26.5 (1.04)	26.2 (1.03)	193.6 (7.62)	25.0 (0.98)	10.5 (0.41)
10	75.0 (2.95)	194.0 (7.64)	48.0 (1.89)	58.7 (2.31)	109.0 (4.29)	156.0 (6.14)	34.0 (1.34)	30.2 (1.19)	201.0 (7.91)	32.0 (1.26)	12.5 (0.49)

Port	Function	Port size		
		R5V06	R5V08	R5V10
A	Pressure	3/4" SAE 61	1" SAE 61	1-1/4" SAE 61
B	Tank	3/4" SAE 61	1" SAE 61	1-1/4" SAE 61
Y1	External Drain	G1/4"		

R5V_P2.indd, ddp



Dimensions

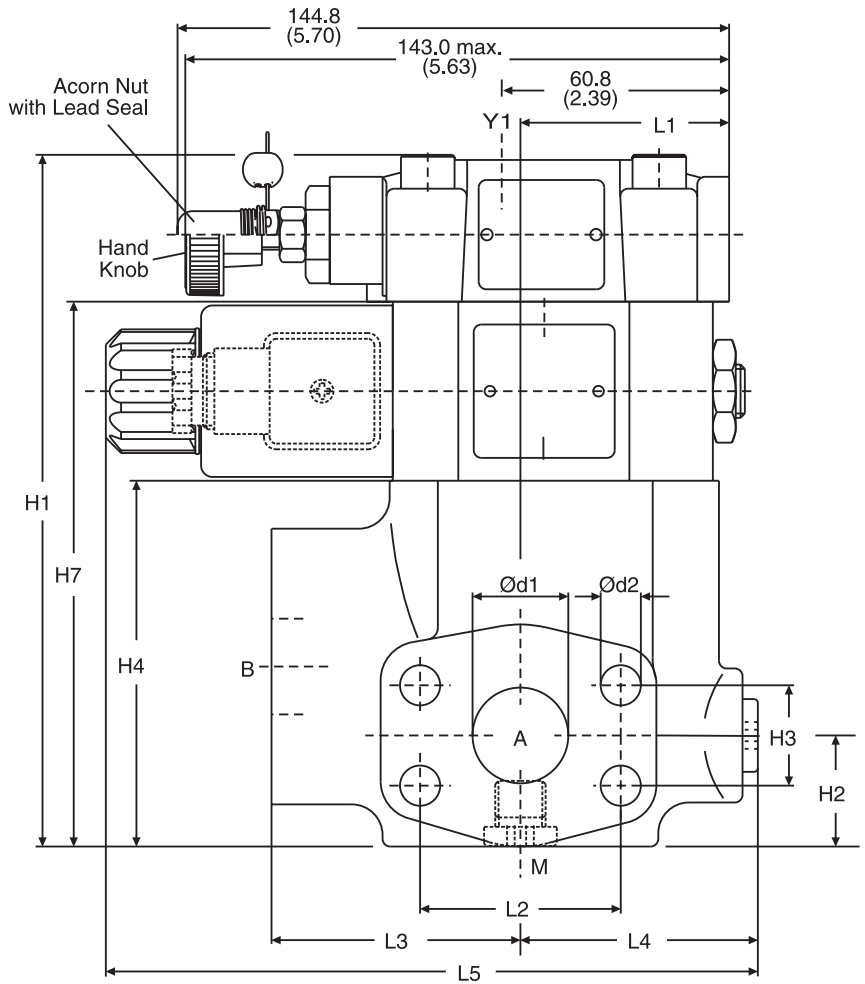
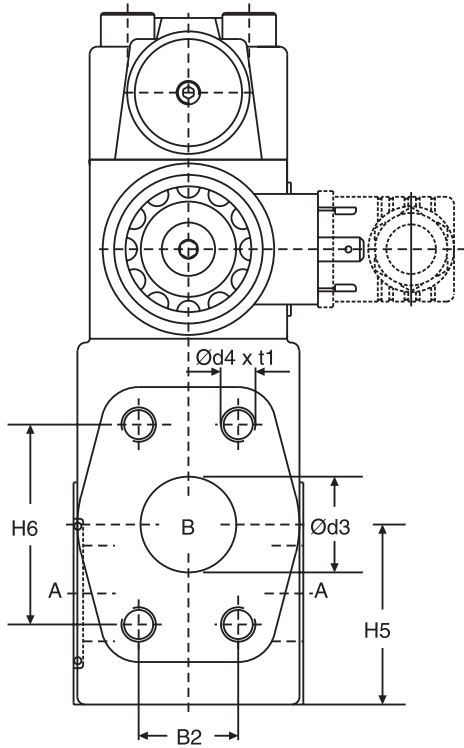
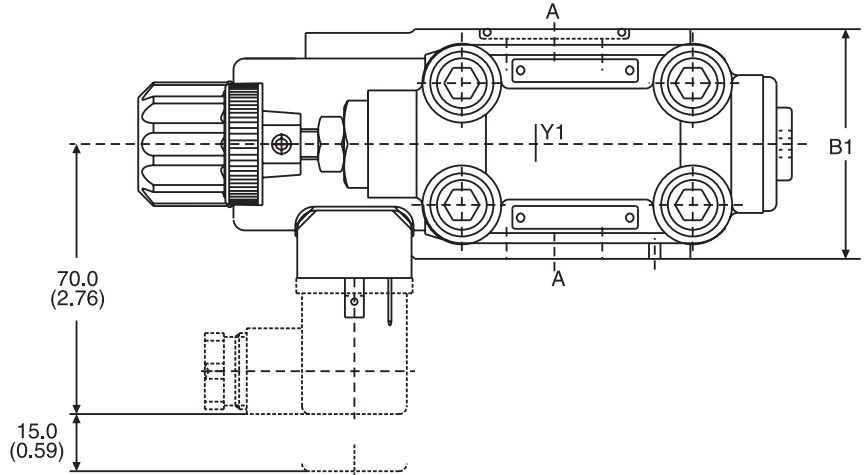
**Proportional Pressure Relief Valves
Series R5V*P2 (Flange Mounted)**

Inch equivalents for millimeter dimensions are shown in (**)

3-Port



B



Inch equivalents for millimeter dimensions are shown in (**)

3-Port

SAE 61

Size	B1	B2	H1	H2	H3	H4	H5	H6	H7	L1	L2	L3	L4	L5	d1	d2	d3	d4 (option 152)	t1
06	60.0 (2.36)	22.2 (0.87)	166.0 (6.54)	28.0 (1.10)	22.2 (0.87)	81.0 (3.19)	41.6 (1.64)	47.6 (1.87)	128.0 (5.04)	50.3 (1.98)	47.6 (1.87)	63.0 (2.48)	56.0 (2.20)	174.6 (6.87)	19.0 (0.75)	10.5 (0.41)	19.0 (0.75)	3/8"-16 UNC (M10)	20.0 (0.79)
08	60.0 (2.36)	26.2 (1.03)	188.0 (7.40)	29.0 (1.14)	26.2 (1.03)	103.0 (4.06)	47.0 (1.85)	52.4 (2.06)	150.0 (5.91)	55.8 (2.20)	52.4 (2.06)	65.0 (2.56)	58.0 (2.28)	177.0 (6.97)	25.0 (0.98)	10.5 (0.41)	25.0 (0.98)	3/8"-16 UNC (M10)	23.0 (0.91)
10	75.0 (2.95)	30.2 (1.19)	198.0 (7.80)	34.5 (1.36)	30.2 (1.19)	113.0 (4.45)	64.0 (2.52)	58.7 (2.31)	160.0 (6.30)	57.8 (2.28)	58.7 (2.31)	61.0 (2.40)	62.0 (2.44)	179.1 (7.05)	32.0 (1.26)	12.5 (0.49)	32.0 (1.26)	7/16"-14 UNC (M12)	22.0 (0.87)
12	80.0 (3.15)	35.7 (1.41)	225.0 (8.86)	34.0 (1.34)	35.7 (1.41)	140.0 (5.51)	73.0 (2.87)	69.8 (2.75)	187.0 (7.36)	37.3 (1.47)	69.8 (2.75)	92.5 (3.64)	55.2 (2.17)	186.8 (7.35)	38.0 (1.50)	13.5 (0.53)	38.0 (1.50)	1/2"-13 UNC (M12)	27.0 (1.06)



SAE 62

Size	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	d1	d2	d3	d4 (option 152)	t1
06	60.0 (2.36)	23.8 (0.94)	119.0 (4.69)	28.0 (1.10)	23.8 (0.94)	81.0 (3.19)	41.6 (1.64)	50.8 (2.00)	50.3 (1.98)	50.8 (2.00)	63.0 (2.48)	56.0 (2.20)	152.0 (5.98)	19.0 (0.75)	10.5 (0.41)	19.0 (0.75)	3/8"-16 UNC (M10)	20.0 (0.79)
08	60.0 (2.36)	27.8 (1.09)	141.0 (5.55)	29.0 (1.14)	27.8 (1.09)	103.0 (4.06)	47.0 (1.85)	57.2 (2.25)	55.8 (2.20)	57.2 (2.25)	65.0 (2.56)	58.0 (2.28)	149.0 (5.87)	25.0 (0.98)	12.5 (0.49)	25.0 (0.98)	7/16"-14 UNC (M12)	22.0 (0.87)
10	75.0 (2.95)	31.8 (1.25)	151.0 (5.94)	34.5 (1.36)	31.8 (1.25)	113.0 (4.45)	64.0 (2.52)	66.7 (2.63)	57.8 (2.28)	66.7 (2.63)	61.0 (2.40)	62.0 (2.44)	150.5 (5.93)	32.0 (1.26)	13.5 (0.53)	32.0 (1.26)	1/2"-13 UNC (M12)	24.0 (0.94)
12	80.0 (3.15)	36.5 (1.44)	178.0 (7.01)	34.0 (1.34)	36.5 (1.44)	140.0 (5.51)	73.0 (2.87)	79.4 (3.13)	37.3 (1.47)	79.4 (3.13)	92.5 (3.64)	55.2 (2.17)	171.2 (6.74)	38.0 (1.50)	17.0 (0.67)	38.0 (1.50)	5/8"-11 UNC (M16)	33.0 (1.30)

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	G1/4"			
M	Pressure Gauge	G1/4"			

Seal Kits		
Size	Nitrile	Fluorocarbon
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

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