

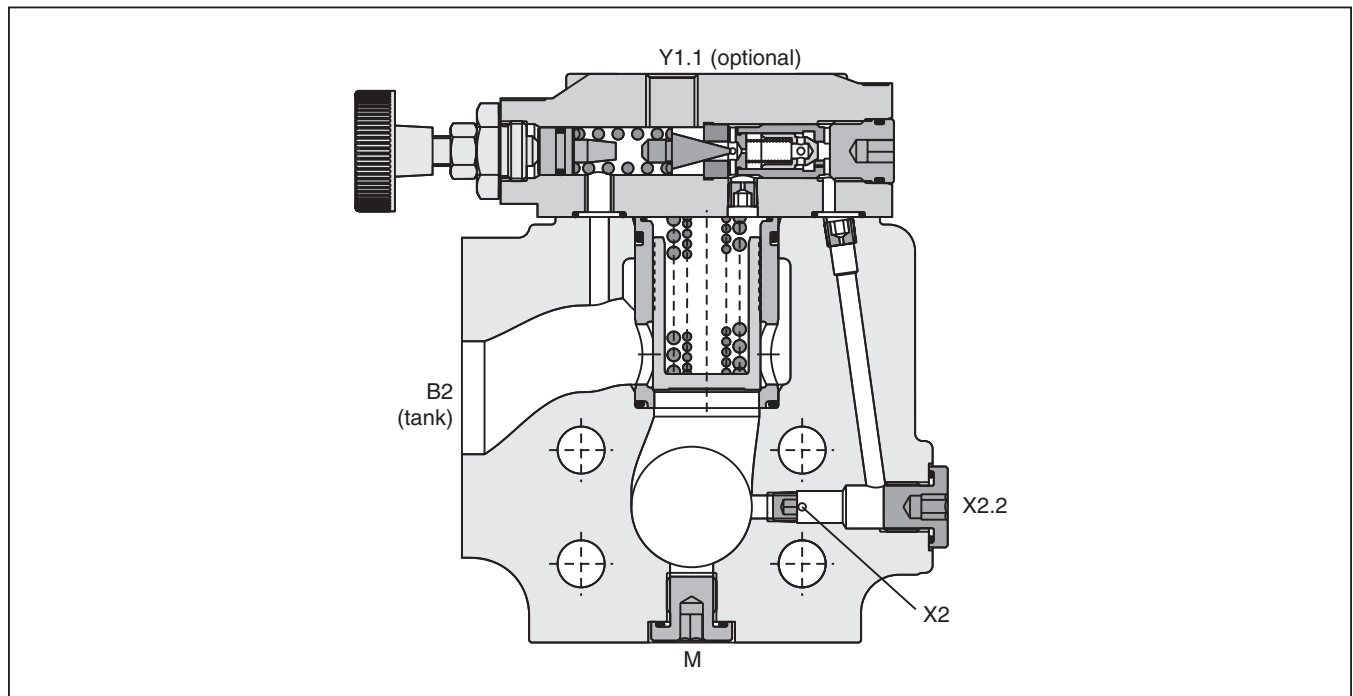
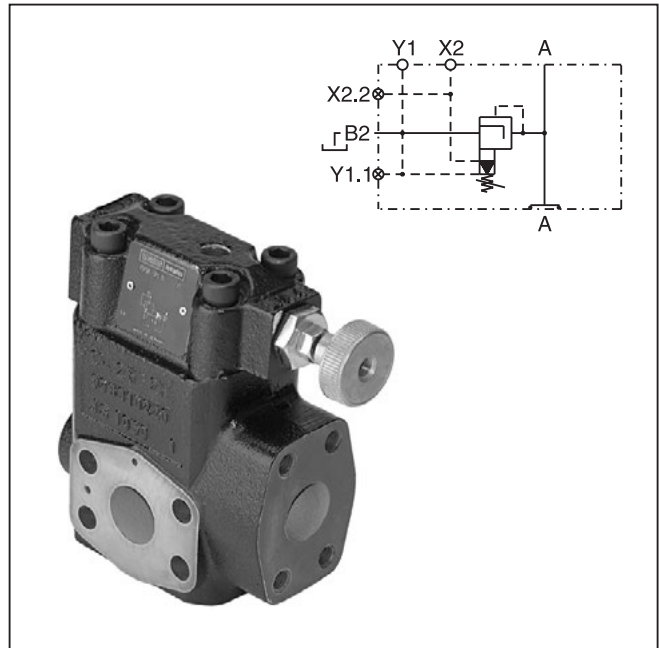
General Description

Series R5P direct operated, 3-way pressure compensators can be combined with any type of fixed or adjustable flow resistor (throttle) to provide a load compensated flow. The combination with the proportional throttle valve F5C serves as a compact 3-way flow control unit in SAE flange design. The R5P is typically used as meter-in compensator in front of the flow resistor.

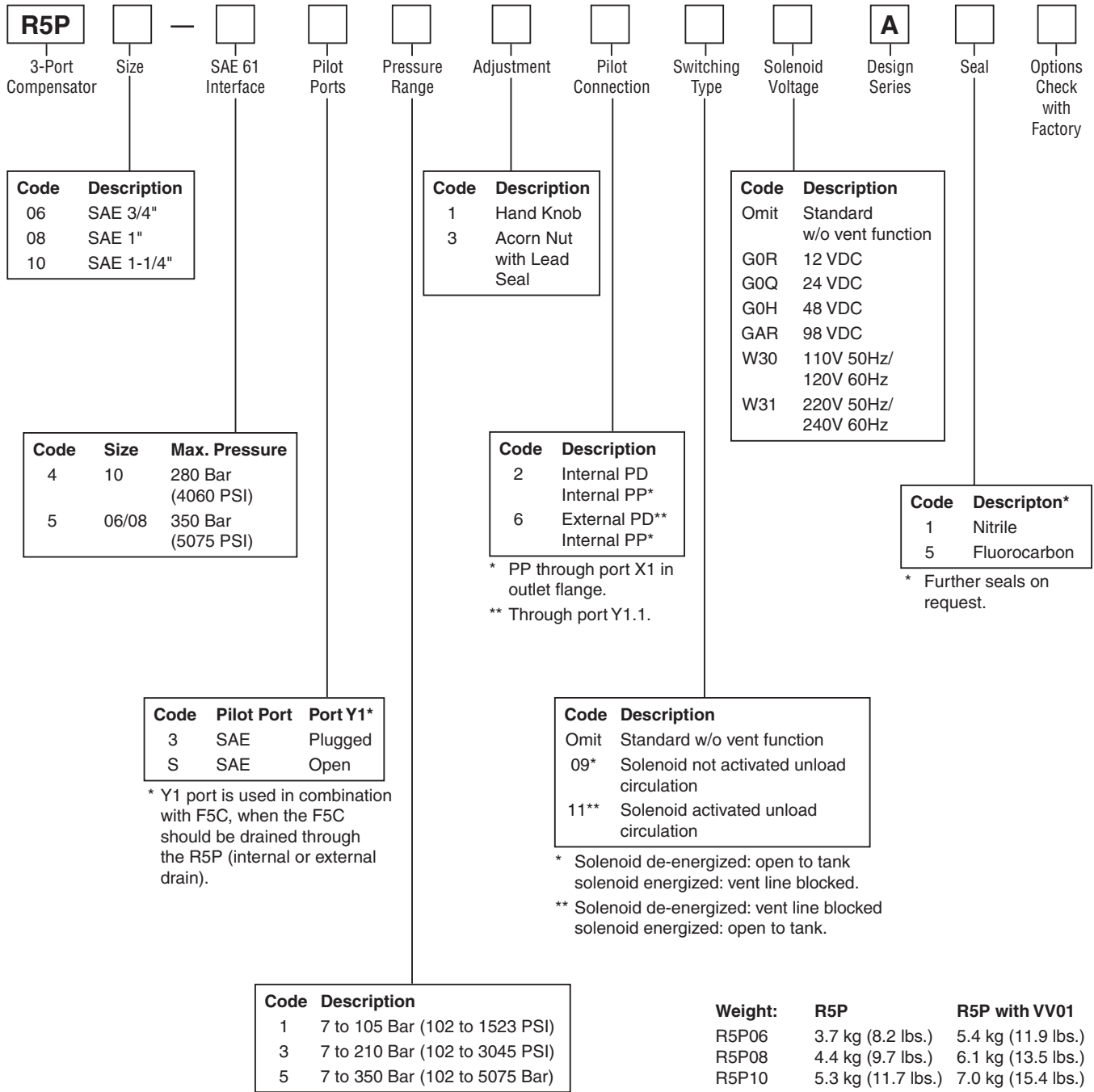
The R5P is additionally equipped with a pressure relief pilot that controls the compensator cartridge and operates a system pressure relief valve. The R5P*P2 provides a proportional relief function.

Features

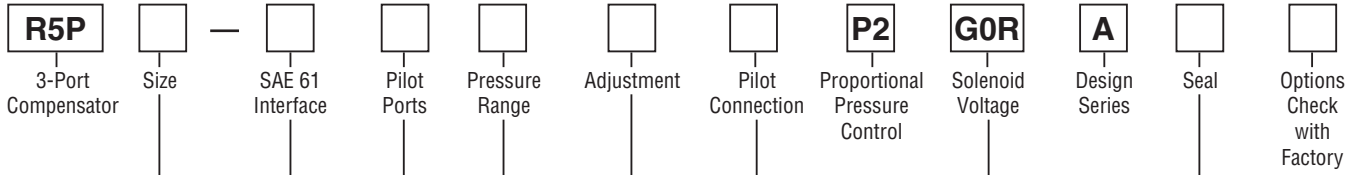
- Seated type 3-way pressure compensator
- SAE 61 flange
- 8.4 Bar (121.8 PSI) control pressure
- Pressure relief function (optionally proportional)
- With optional vent function
- 3 sizes (SAE Code 61 3/4", 1", 1-1/4")
- Load compensated flow in combination with F5C



WARNING: This product can expose you to chemicals including Lead, Nickel (Metallic), or 1,3-Butadiene which are known to the State of California to cause cancer, and Lead or 1,3-Butadiene which is known to the State of California to cause birth defects and other reproductive harm. For more information go to www.P65Warnings.ca.gov.
 B01_Cat2550.indd, ddp, 04/19



B



| Code | Description |
|------|-------------|
| 06 | SAE ¾" |
| 08 | SAE 1" |
| 10 | SAE 1¼" |

| Code | Description |
|------|--------------------------|
| 1 | Hand knob |
| 3 | Acorn nut with lead seal |

| Code | Description |
|------|-------------|
| G0R | 12V, 2.3A |

| Code | Description |
|------|--------------|
| 1 | Nitrile |
| 5 | Fluorocarbon |

Further seals on request

| Code | Size | Max. Pressure |
|------|-------|-----------------------|
| 4 | 10 | 280 Bar (4060 PSI) |
| 5 | 06/08 | 350 Bar (5075 PSI) |

| Code | Description |
|------|--|
| 2 | Internal PD Internal PP ⁴⁾ |
| 6 | External PD ³⁾ Internal PP ⁴⁾ |

³⁾ Through port Y1.1
⁴⁾ PP through port X1 in outlet flange

| Code | Pilot Ports | Port Y1 ¹⁾ |
|------|-------------|-----------------------|
| 3 | SAE | Plugged |
| S | SAE | Open |

¹⁾ Y1 port is used in combination with F5C, when the F5C should be drained through the R5P (internal or external drain)

| Code | Description |
|-----------------|--------------------------------|
| 1 | 7 to 105 Bar (102 to 1523 PSI) |
| 3 | 7 to 210 Bar (102 to 3045 PSI) |
| 5 ²⁾ | 7 to 350 Bar (102 to 5075 Bar) |

²⁾ R5P10-4*5 up to 280 Bar (4060 PSI)

| | |
|----------------|--------------------|
| Weight: | R5P*P2 |
| R5P06*P2 | 5.5 kg (12.1 lbs.) |
| R5P08*P2 | 6.2 kg (13.7 lbs.) |
| R5P10*P2 | 7.1 kg (15.7 lbs.) |

R5P

| General | | | | | | | | |
|-------------------------------------|---|---|--------------------|--------------------|---------------------|------------------------------|------------------------------|--|
| Size | | | 06 (3/4") | | 08 (1") | | 10 (1 1/4") | |
| Mounting | Flanged according to SAE 61 | | | | | | | |
| Mounting Position | Unrestricted | | | | | | | |
| Ambient Temperature Range | -20°C to +50°C (-4°F to +122°F) | | | | | | | |
| MTTF _D | 150 years | | | | | | | |
| Hydraulic | | | | | | | | |
| Max. Operating Pressure | Ports A, B | 350 Bar (5075 PSI) | | 350 Bar (5075 PSI) | | 280 Bar (4060 PSI) | | |
| Pressure Ranges | 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) | | | |
| 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 (Solenoid) R5P with VV01 | | | | | | | | |
| Duty Ratio | 100% ED; CAUTION: Coil temperature up to 150°C (302°F) possible | | | | | | | |
| Solenoid Connection | Connector as per EN175301-803 | | | | | | | |
| Protection Class | IP65 in accordance with EN60529 (plugged and mounted) | | | | | | | |
| | Code | G0R | G0Q | GAR | G0H | W30 | W31 | |
| Supply Voltage | | 12 VDC | 24 VDC | 98 VDC | 48 VDC | 110V at 50Hz 120V at 60Hz | 230V at 50Hz 240V at 60Hz | |
| Tolerance Supply Voltage | [%] | ±10 | ±10 | ±10 | ±10 | ±5 | ±5 | |
| Power Consumption | Hold | [W] | 32.7 | 31 | 32 | 30 | 70 / 70 VA | |
| | In Rush | [W] | 32.7 | 31 | 32 | 30 | 280 / 290 VA | |
| Response Time | Energized / De-energized AC 20/18ms, DC 46/27 ms | | | | | | | |
| Maximum Switching Frequency | AC up to 7200, DC 70 to 16,000 switchings/hour | | | | | | | |
| Coil Insulation Class | H (180°C) (356°F) | | | | | | | |

R5P*P2 (Proportional)

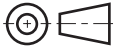
| General | | | | | | | | |
|-------------------------------------|--|---|--------------------|--------------------|---------------------|--------------------|-------------|--|
| Size | | | 06 (3/4") | | 08 (1") | | 10 (1-1/4") | |
| Mounting | Flanged according to SAE 61 | | | | | | | |
| Mounting Position | Unrestricted | | | | | | | |
| Ambient Temperature Range | -20°C to +50°C (-4°F to +122°F) | | | | | | | |
| MTTF _D | 150 years | | | | | | | |
| Hydraulic | | | | | | | | |
| Max. Operating Pressure | Ports A, B | 350 Bar (5075 PSI) | | 350 Bar (5075 PSI) | | 280 Bar (4060 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) | | | |
| 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 380 cSt / mm ² /s (46 to 1761 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 (Solenoid) R5P with VV01 | | | | | | | | |
| Duty Ratio | 100% ED; CAUTION: Coil temperature up to 150°C (302°F) possible | | | | | | | |
| Nominal Voltage | 12 VDC | | | | | | | |
| Maximum Current | 2.3 A | | | | | | | |
| Coil Resistance | 4 Ohm at 20°C (68°F) | | | | | | | |
| Solenoid Connection | Connector as per EN175301-803, Solenoid identification as per ISO 9461 | | | | | | | |
| Protection Class | IP65 in accordance with EN60529 (plugged and mounted) | | | | | | | |
| Power Amplifier | PCD00A-400 | | | | | | | |

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Dimensions

**Proportional Pressure Relief Valves
Series R5P (SAE Flange Mounted)**

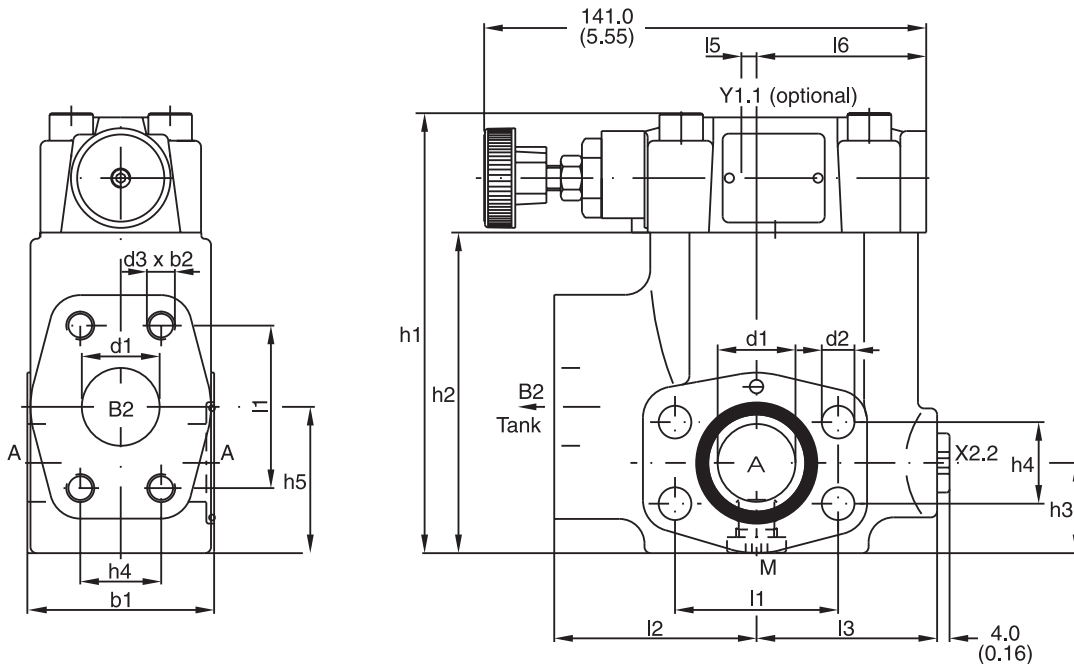
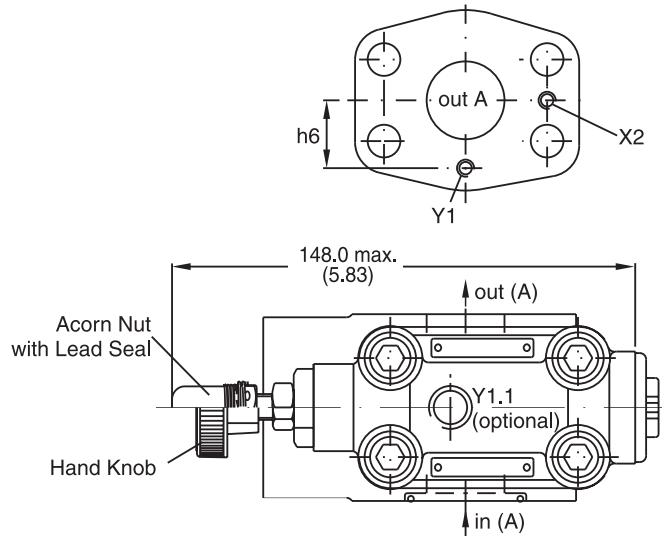
Inch equivalents for millimeter dimensions are shown in (**)



B

| Seal Kits* | | |
|------------|-------------|--------------|
| Size | Nitrile | Fluorocarbon |
| 06 | S16-91461-0 | S16-91461-5 |
| 08 | S16-91460-0 | S16-91460-5 |
| 10 | S16-91459-0 | S16-91459-5 |

* Does not include P2 seal kit.



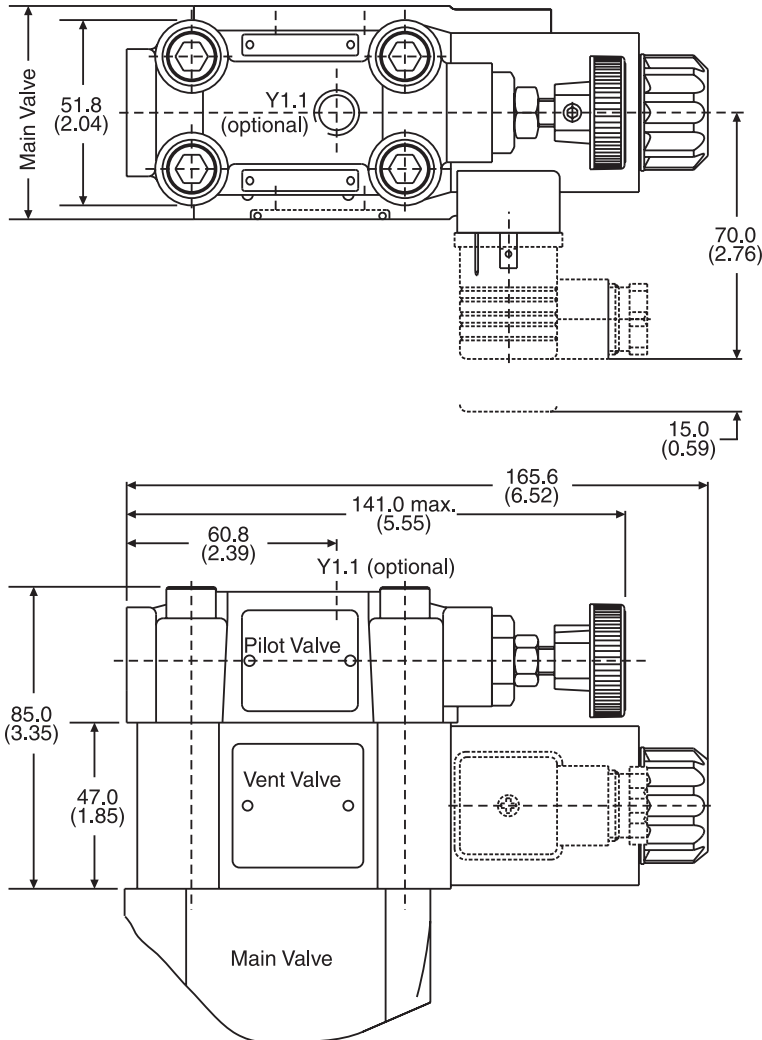
| Size | l1 | l2 | l3 | l4 | l5 | l6 | b1 | b2 | h1 | h2 | h3 | h4 | h5 | h6 | d1 | d2 | d3 |
|------|----------------|----------------|----------------|-----------------|---------------|----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------|
| 06 | 47.6 (1.87) | 63.0 (2.48) | 56.0 (2.20) | 148.0 (5.83) | 1.0 (0.04) | 49.0 (1.93) | 60.0 (2.36) | 20.0 (0.79) | 119.0 (4.69) | 81.6 (3.21) | 28.5 (1.13) | 22.2 (0.87) | 41.6 (1.64) | 20.8 (0.82) | 19.0 (0.75) | 10.5 (0.41) | 3/8" UNC |
| 08 | 52.4 (2.06) | 65.0 (2.56) | 58.0 (2.28) | 144.6 (5.69) | 5.0 (0.20) | 54.5 (2.15) | 60.0 (2.36) | 23.0 (0.91) | 142.0 (5.59) | 103.0 (4.06) | 30.5 (1.20) | 26.2 (1.03) | 48.6 (1.91) | 24.3 (0.96) | 25.0 (0.98) | 10.5 (0.41) | 3/8" UNC |
| 10 | 58.7 (2.31) | 61.0 (2.40) | 62.0 (2.44) | 146.6 (5.77) | 3.0 (0.12) | 56.5 (2.22) | 75.0 (2.95) | 22.0 (0.87) | 149.0 (5.87) | 111.5 (4.39) | 37.5 (1.48) | 30.2 (1.19) | 64.1 (2.52) | 29.3 (1.15) | 32.0 (1.26) | 12.5 (0.49) | 7/16" UNC |

| Port | Function | Port size | | |
|------|-------------------------|-----------|-------|--------|
| | | R5P06 | R5P08 | R5P10 |
| A | Inlet/Outlet | 3/4" | 1" | 1-1/4" |
| B2 | Tank | 3/4" | 1" | 1-1/4" |
| X2 | Internal Pilot Pressure | M3 | | |
| X2.2 | External Pilot Pressure | G1/4" | | |
| Y1 | Internal Pilot Drain | M3 | | |
| Y1.1 | External Pilot Drain | G1/4" | | |
| M | Pressure Gauge | G1/4" | | |



R5P with Vent Function

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



| Seal Kits* | |
|--------------------|--------------|
| Nitrile | Fluorocarbon |
| DC solenoid | |
| S26-58515-0 | S26-58515-5 |
| AC solenoid | |
| S26-35237-0 | S26-35237-5 |

* For vent valve only.

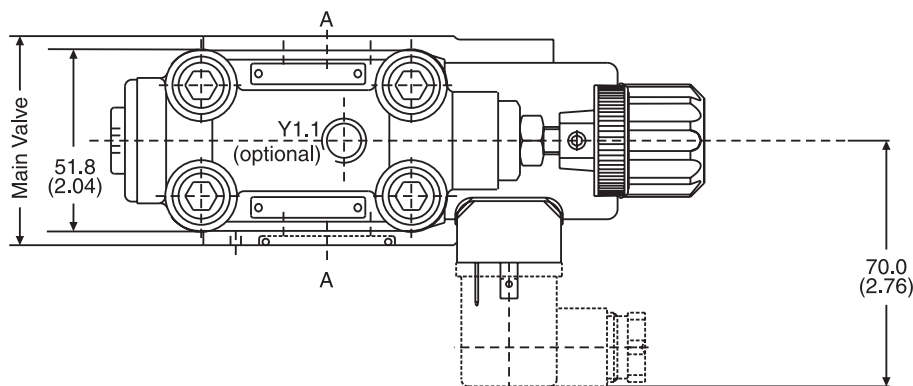


| Code | Internal Drain | External Drain |
|------|----------------|----------------|
| 11 | | |
| 09 | | |

R5P with Proportional Function

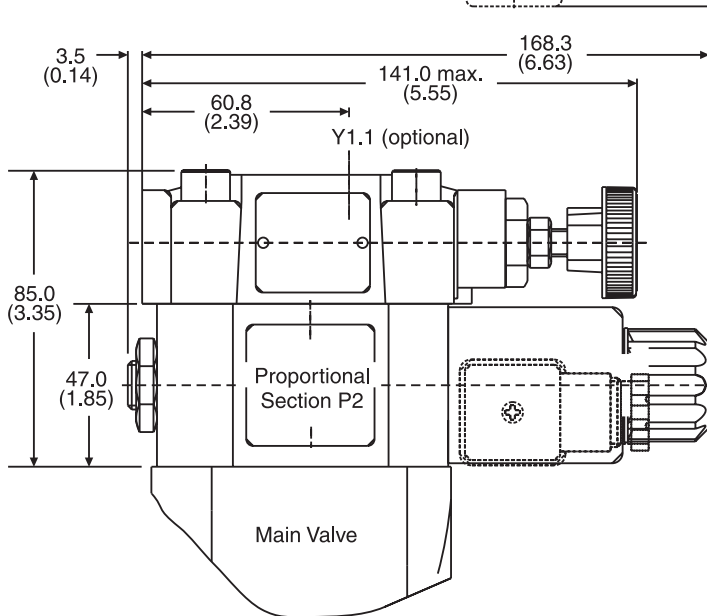
Inch equivalents for millimeter dimensions are shown in (**)

B



Drain line only external from the pilot head (Y1.1). The pilot drain port must be connected to a stable low pressure tank line. Pressure variations in the drain port should be avoided.

Space for plug removal



Note: On initial start-up and after long shutdown periods, bleed air from this plug.



| | Seal Kit * | |
|------------------|-------------|--------------|
| | Nitrile | Fluorocarbon |
| Prop. Section P2 | S26-58473-0 | S26-58473-5 |

* P2 seal kit only.

See previous page for full valve seal kit