HYVAIR

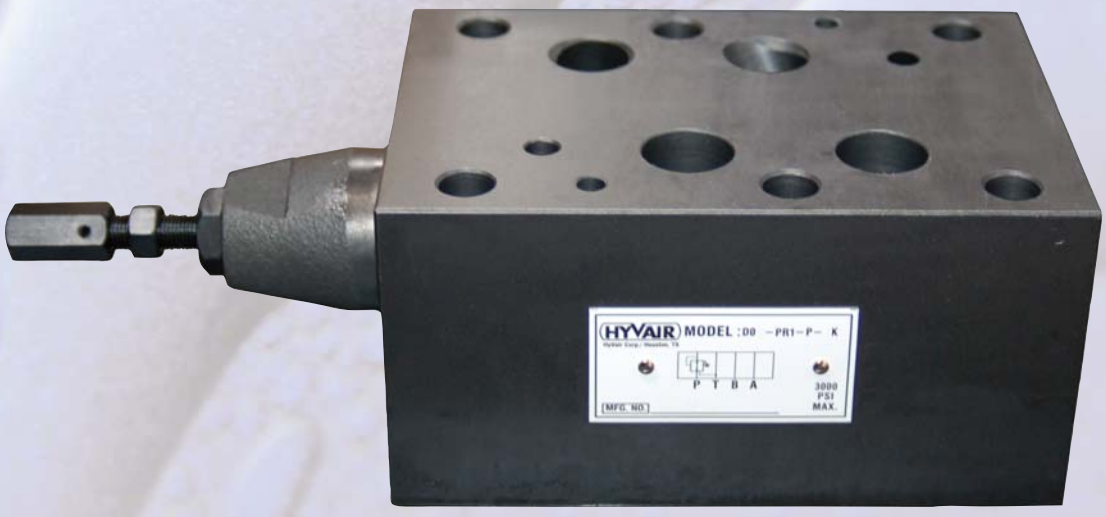
INDUSTRIAL FLUID POWER COMPONENTS AND SYSTEMS

# D03, D05 & D08 SERIES

## Modular/ Stackable Valves

*D03-DPC1-AB70*

*D05-SQ1-B-1K*




*D08-PR1-P-3K*

31341 Friendship Drive, Magnolia, TX 77355 • Tel.: 281-259-7768 Fax: 281-259-7249 • www.hyvair.com

# D03, D05 & D08 Series

Modular/ Stackable Valves

## Features

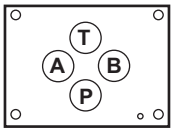
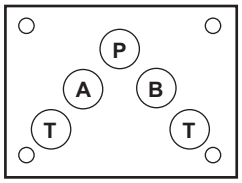
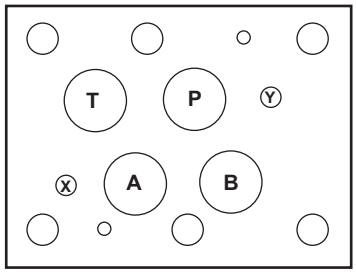
1. **Rugged Steel Body Designs:** Designed for high cycle and quick response applications
2. **Uniform Height:** Valve body thickness is the same for each series and provides a clean, neat uniform appearance. This also reduces the number of bolt kits.
3. **Better Performance:** Modular valving eliminates leaky connections, reduces plumbing costs and places controls together.
4. **Space Savings:** Manifold mounted control circuits greatly reduce space requirements from conventional line mounted valves.
5. **Adjustment:** Hand knobs with locknuts provided standard- tools are not required for adjustments.

D08-DPC1-AB

D05-POR1-PT

D03-FC1-AB-MO

## Specifications

| Size | | D03 | D05 | D08 |
|---|---|---|---|---|
| Mounting Surfaces: General Patterns | |  |  |  |
| Mounting Surface | NFPA | T3.5.1.MR1-D03 | T3.5.1.MR1-D05 | T3.5.1.MR1-D08 |
| | ISO | ISO 4401-03 | ISO 4401-05 | ISO 4401-08 |
| Nominal Flow Rates* | | 5 gpm (19 lpm) | 12 gpm (45 lpm) | 50 gpm (190 lpm)<br>35 gpm (130 lpm) for PR1 & DPC1 |
| Maximum Pressure | | 3000 psi (210 bar) | | |
| Operating Conditions | Working Temperature | 40- 160° F (5- 70°C) | | |
| | Operating Viscosity | 80- 300 SUS (17- 65 cSt) | | |
| | Max. Start-up Viscosity | 1500 SUS (315 cSt) | | |
| | Filtration | 25 micron or less, (ISO 18/15) | | |
| | Recommended Fluids | Petroleum Based Fluids- ISO VG32-68, Most Vegetable Oils | | |

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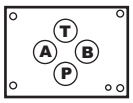
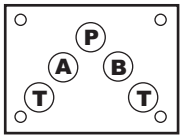
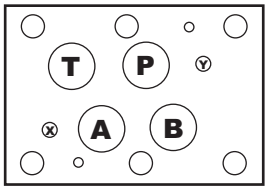
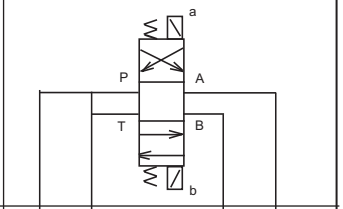
## Common Models

|  D03 Series |  D05 Series |  D08 Series | Function |  |
|---|---|---|---|---|
| D03-PR1-B-✲K | D05-PR1-B-✲K | N/A | Pressure Reducing B Port | |
| D03-SPC1-B-70 | D05-SPC1-B-70 | N/A | Single Pilot Check B Port | |
| D03-SPC1-A-70 | D05-SPC1-A-70 | N/A | Single Pilot Check A Port | |
| D03-DPC1-AB-70 | D05-DPC1-AB-70 | D08-DPC1-AB-70 | Double Pilot Check A & B Ports | |
| D03-POR1-ABBA-✲K | D05-POR1-ABBA-✲K | N/A | Double P.O. Relief B to A & A to b (Cross Port) | |
| D03-SQ1-B-✲K | D05-SQ1-B-✲K | N/A | Sequence Valve B Port | |
| D03-SQ1-A-✲K | D05-SQ1-A-✲K | N/A | Sequence Valve A Port | |
| D03-POR1-BT-✲K | D05-POR1-BT-✲K | N/A | Pilot Operated Relief B to T Port | |
| D03-POR1-AT-✲K | D05-POR1-AT-✲K | N/A | Pilot Operated Relief A to T Port | |
| D03-POR1-ATBT-✲K | D05-POR1-ATBT-✲K | N/A | Double P.O. Relief A to T & B to T | |
| D03-FC1-AB-MO | D05-FC1-AB-MO | D08-FC1-AB-MO | MeterOut Flow Control A & B Ports | |
| D03-N1-P | D05-N1-P | D08-NC1-P (w/ Check) | Needle Valve P Port | |
| D03-PR1-P-✲K (6 gpm max.) | D05-PR1-P-✲K(12 gpm max.) | D08-PR1-P-✲K | Pressure Reducing P Port | |
| D03-C1-P-7 | D05-C1-P-7 | D08-NC1-P (w/needle valve) | Check Valve P Port | |
| D03-POR1-PT-✲K | D05-POR1-PT-✲K | D08-POR1-PT-✲K | Pilot Operated Relief P to T Port | |
| SD03-MD03- ⇨ See subplates and multiple valve manifolds | SD05-MD05- ⇨ See subplates and multiple valve manifolds | SD08-MD08- ⇨ See subplates and multiple valve manifolds | Subplate/ Manifold | |

✲= 1K (120-1000 psi) or -3K (500-3000 psi) adjustment

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## Ordering Information

**D03 - PR 1 - P - 1K - H**

| Size |
|---|
| D03 |
| D05 |
| D08 |

| Function |
|---|
| **C** = Check |
| **CB** = Counter Balance |
| **DPC** = Double Pilot Check |
| **DR** = Direct Acting Relief |
| **EFC** = Elect-Prop. Flow Control |
| **FC** = Flow Control |
| **N** = Needle Valve |
| **NC** = Needle w/ Check |
| **PCFC** = Press Comp F. C. |
| **POR** = Pilot Operated Relief |
| **PR** = Press Reducing |
| **SQ** = Sequence |
| **SPC** = Single Pilot Check |

| Design Code |
|---|

| Location/ Flow Path |
|---|
| **A** = A port |
| **B** = B port |
| **AB** = A and B |
| **P** = P port |
| **T** = T port |
| **PT** = P to T port |
| **AT** = A to T port |
| **BT** = B to T port |
| **ATBT** = A to T and B to T port |
| **ABBA** = A to B and B to A |

| Function |
|---|
| **omit** = Not Applicable |
| **7** = 7 psi cracking |
| **70** = 70 psi cracking |
| **.5K** = Adj. 50-500 |
| **1K** = Adj. 120-1000 |
| **3K** = Adj. 500-3000 |
| **MI** = Meter in |
| **MO** = Meter out |

**Hex Adjuster:**

(Hex size) 9/16" U.S.
14 mm Metric

**D03-N1-P**

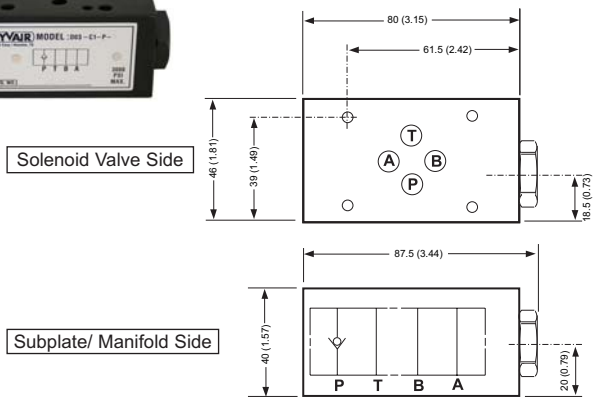
Shown with optional hex adjustment.

**Hex Adjuster (No Knob)**

## Dimensional Data

### Series D03-C1-P
### Check Valve

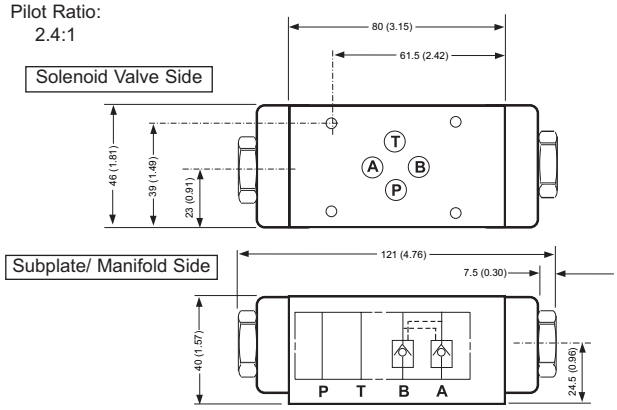
Units: mm/ (Inch)
Weight: 2.9 lbs/ 1.15 kgs




### Series D03-DPC1-AB-70
### Double Pilot Operated Check Valve

Units: mm/ (Inch)
Weight: 2.9 lbs/ 1.3 kgs

Pilot Ratio:
2.4:1

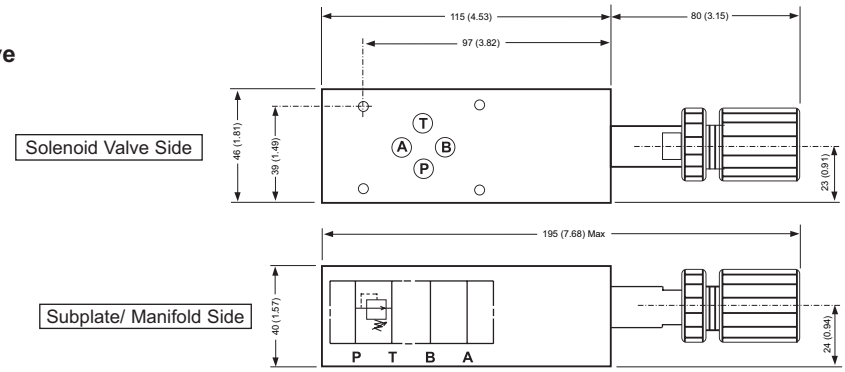



Note: Dimensions are identical for D03-SPC1 (Single Pilot Check)- subtract left or right hex end cap.

### Series D03-POR1-PT
### Pilot Operated Relief Valve

Note- Dimensions are identical for:
D03-POR1-AT
D03-POR1-BT

Units: mm/ (Inch)
Weight: 3.5 lbs/ 1.6 kgs



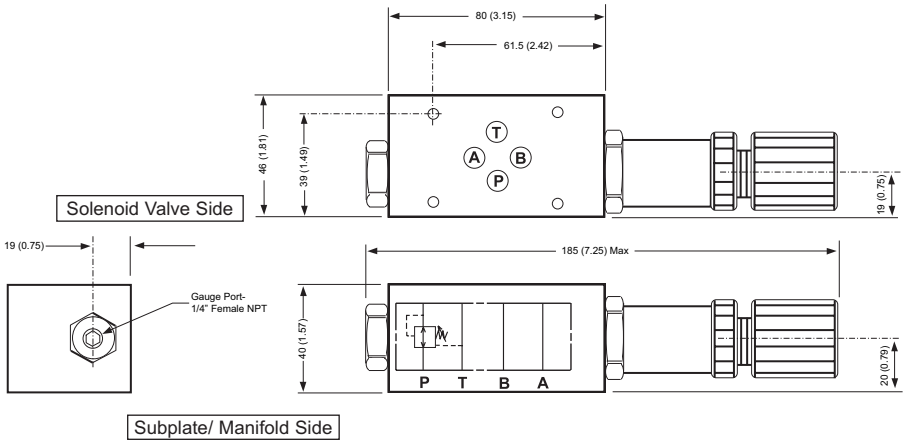

Note- Add this dimension to left side for models:
D03-POR1-ABBA
D03-POR1-ATBT

## Dimensional Data

### Series D03-PR1-P
### Pressure Reducing Valve

Note- Dimensions are identical for:
D03-PR1-A
D03-PR1-B

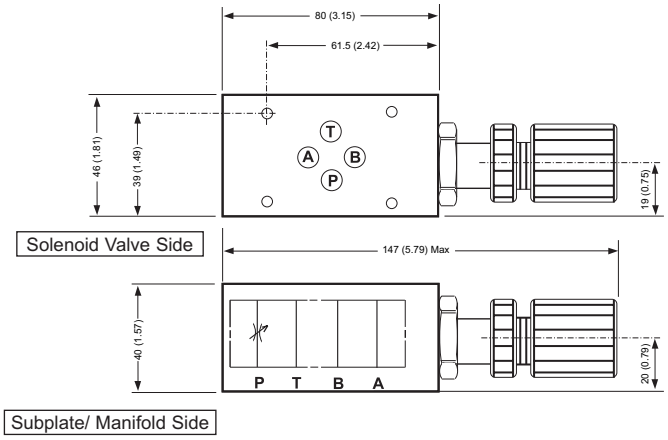
Units: mm/ (Inch)
Weight: 2.9 lbs/ 1.3 kgs




### Series D03-N1-P
### Needle Valve

Shown with standard hand knob.

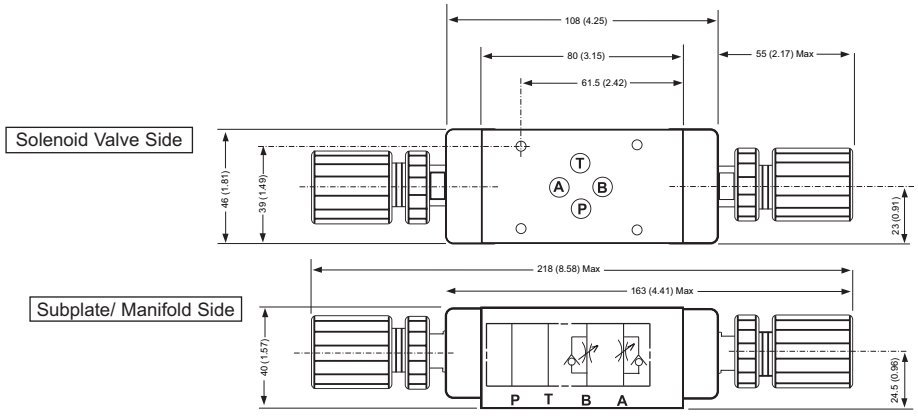
Units: mm/ (Inch)
Weight: 2.42 lbs/ 1.1 kgs




### Series D03-FC1-AB-MO
### Flow Control

Note- Dimensions are identical for:
D03-FC1-AB-MI

Units: mm/ (Inch)
Weight: 2.8 lbs/ 1.25 kgs

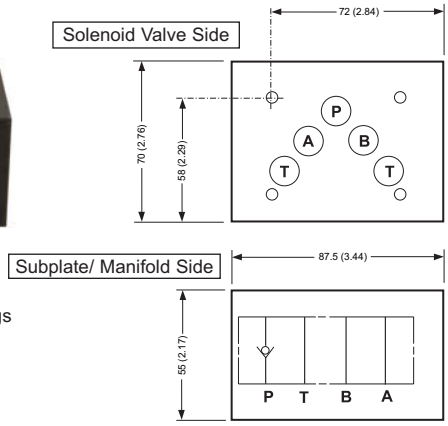



Note: Dimensions are identical for single flow control valve- subtract left or right adjusting knob dimension.

## Dimensional Data

### Series D05-C1-P
### Check Valve

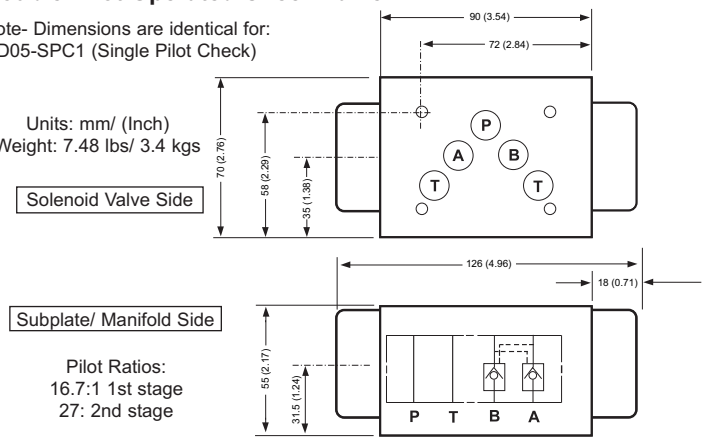
Units: mm/ (Inch)
Weight: 5.28 lbs/ 2.4 kgs




### Series D05-DPC1-AB-70
### Double Pilot Operated Check Valve

Note- Dimensions are identical for:
D05-SPC1 (Single Pilot Check)

Units: mm/ (Inch)
Weight: 7.48 lbs/ 3.4 kgs

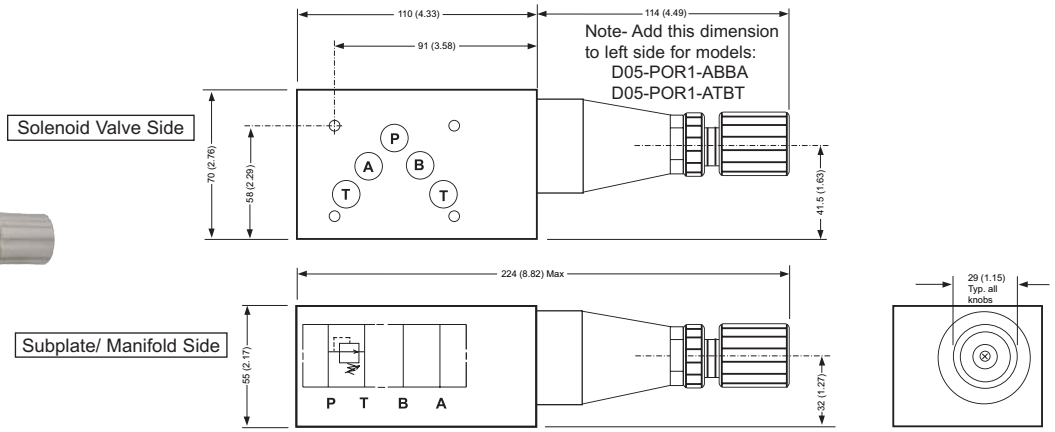



Pilot Ratios:
16.7:1 1st stage
27: 2nd stage

### Series D05-POR1-PT
### Pilot Operated Relief Valve

Note- Dimensions are identical for:
D05-POR1-AT
D05-POR1-BT

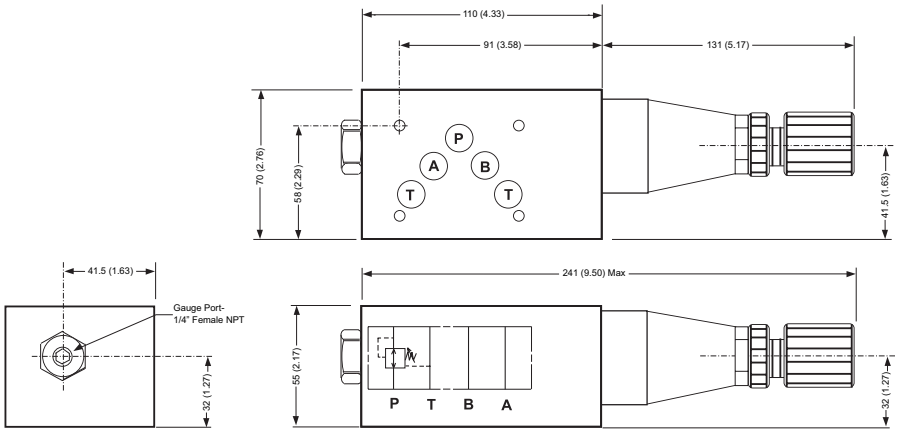
Units: mm/ (Inch)
Weight: 7.7 lbs/ 3.5 kgs




### Series D05-PR1-P
### Pressure Reducing Valve

Note- Dimensions are identical for:
D05-PR1-A

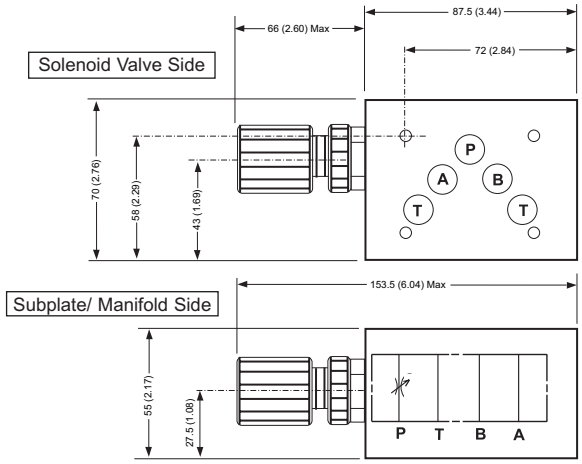
Units: mm/ (Inch)
Weight: 7.7 lbs/ 3.5 kgs



## Dimensional Data

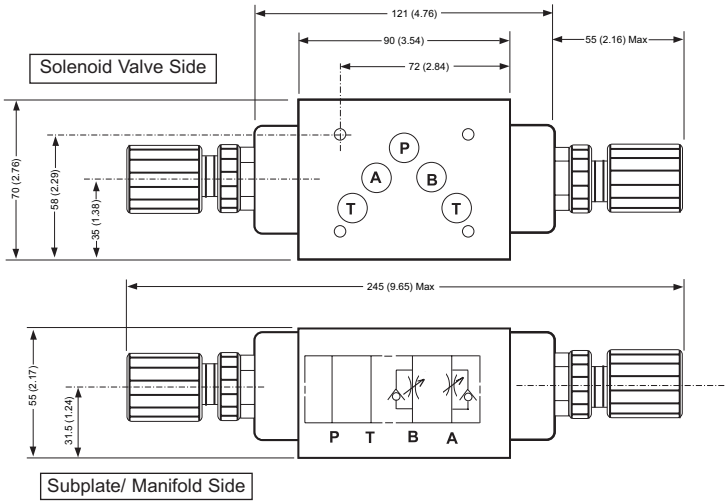
### Series D05-N1-P
### Needle Valve

Units: mm/ (Inch)
Weight: 6.2 lbs/ 2.8 kgs




### Series D05-FC1-AB-MO
### Flow Control

Units: mm/ (Inch)
Weight: 7.7 lbs/ 3.5 kgs

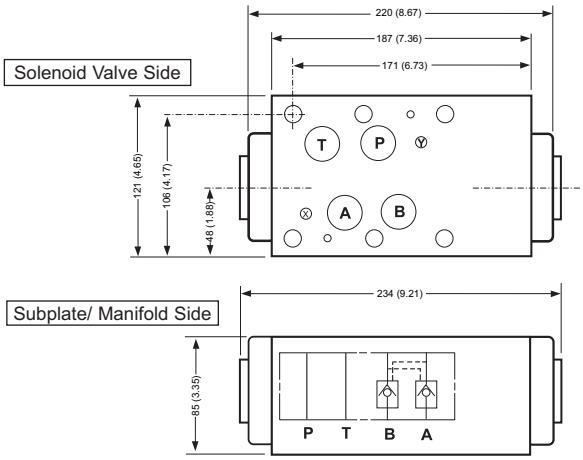



Note: Dimensions are identical for single flow control- subtract left or right adjusting knob dimension.

### Series D08-DPC1-AB-70
### Double Pilot Operated Check Valve

### Series D08-C1-P
### Check Valve

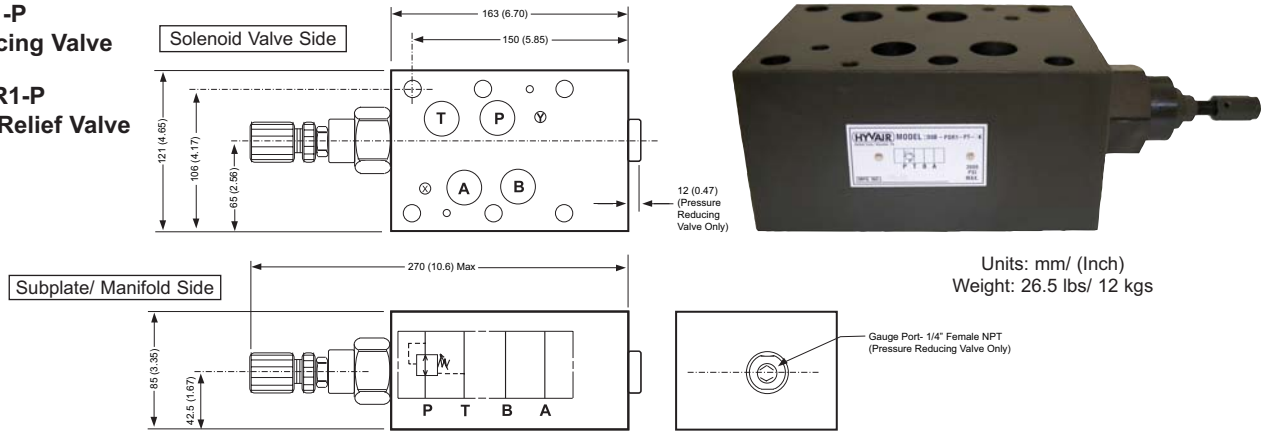
Units: mm/ (Inch)
Weight: 27.5 lbs/ 12.5 kgs



## Dimensional Data

**Series D08-PR1-P**
**Pressure Reducing Valve**

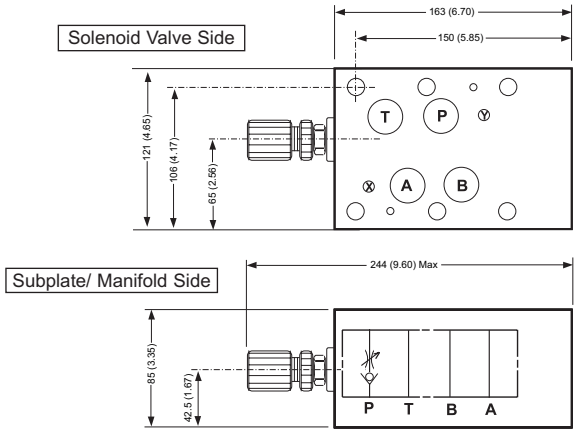
**Series D08-POR1-P**
**Pilot Operated Relief Valve**



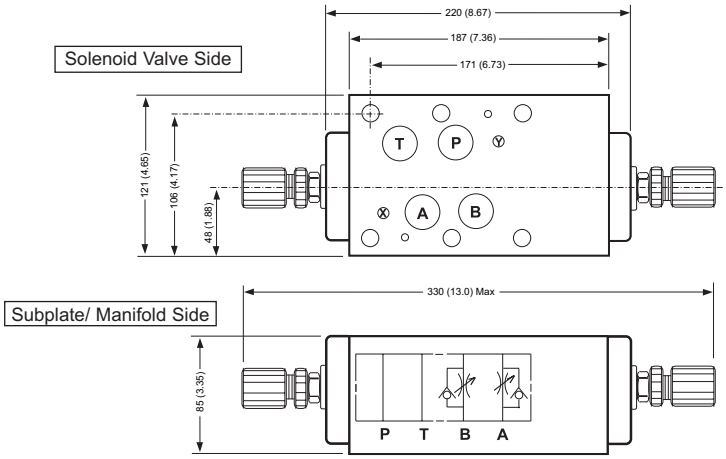

Units: mm/ (Inch)
Weight: 26.5 lbs/ 12 kgs

**Series D08-NC1-P**
**Nedle Valve w/ Check**

Units: mm/ (Inch)
Weight: 24.2 lbs/ 11 kgs




**Series D08-FC1-AB-MO**
**Flow Control**

Units: mm/ (Inch)
Weight: 24.4 lbs/ 12.2 kgs

Note: Dimensions are identical for single flow control or needle valve- subtract left or right adjusting knob dimension.