

**General Description**

Series CM check valves provide an integral, full flow check valve in the pressure 'P' port, 'A' port, 'B' port, or the tank 'T' port of the directional valve. Reverse flow is blocked. The CM2 and CM3 sizes offer a combination P&T check version.

**Features**

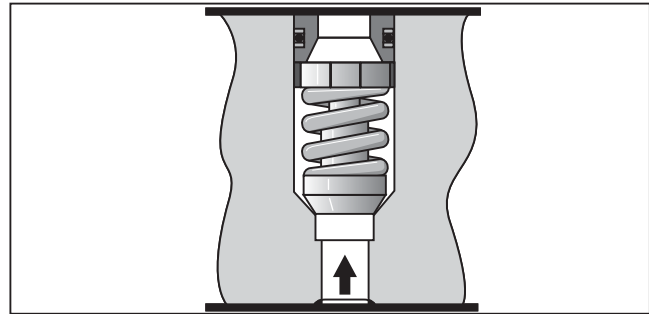
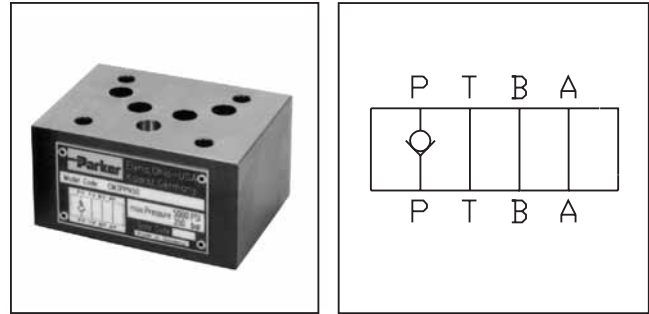
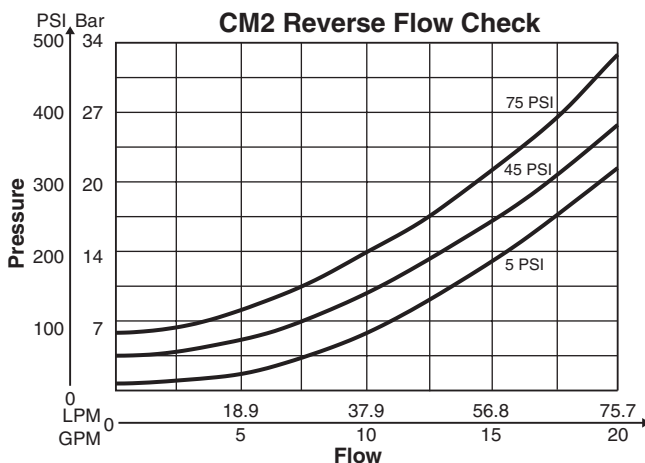
- Valve bodies are manufactured from steel which provides extra strength and durability for longer life. Internal hardened steel components also provide longer life.
- Positive shut-off is provided by a fully guided poppet and allows full flow in the unchecked position.
- Parker CM sandwich style check valves can be used either on the 'P', 'A', 'B', 'T' ports, or combinations.
- Large internal flow paths allow high flow at low pressure drop.

**Specifications**

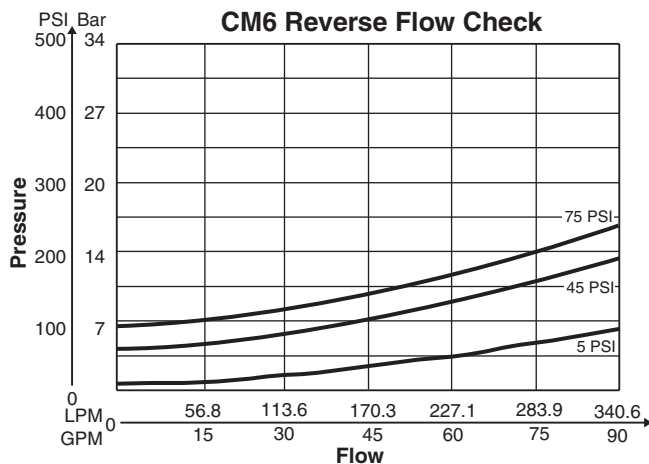
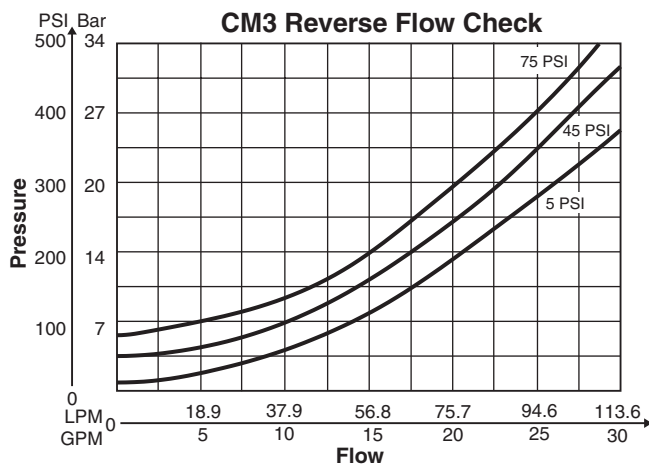
	<b>CM2</b>	<b>CM3</b>	<b>CM6</b>
<b>Mounting Pattern</b>	NFPA D03, CETOP 3, NG6	NFPA D05, CETOP 5, NG10	NFPA D08, CETOP 8, NG25
<b>Maximum Pressure</b>	345 Bar (5000 PSI)	345 Bar (5000 PSI)	345 Bar (5000 PSI)
<b>Maximum Flow</b>	76 LPM (20 GPM)	113 LPM (30 GPM)	340 LPM (90 GPM)
<b>Cracking Pressure</b>	0.3 Bar (5 PSI), 3 Bar* (45 PSI), 5 Bar* (75 PSI)	0.3 Bar (5 PSI), 3 Bar* (45 PSI), 5 Bar* (75 PSI)	0.3 Bar (5 PSI)

\* Optional

**Performance Curves**



**B**



<b>VISCOSITY CORRECTION FACTOR</b>							
Viscosity (SSU)	75	150	200	250	300	350	400
% of ΔP (Approx.)	93	111	119	126	132	137	141

Curves were generated using 100 SSU hydraulic oil. For any other viscosity, pressure drop will change per chart.

**CM**

Check Valve

Size

Port

Cracking Pressure

Seal

Design Series

NOTE:  
 Not required when ordering.

Code	Description
<b>2</b>	<b>NFPA D03 Subplate Mounting</b>
<b>3</b>	<b>NFPA D05 Subplate Mounting</b>
<b>6</b>	<b>NFPA D08 Subplate Mounting</b>

Code	Description
PP*	P Port Check
PT*	P and T Port Checks
TT*	T Port Check
<b>DD</b>	<b>A and B Port Checks</b>
<b>AA</b>	<b>A Port Check</b>
<b>BB</b>	<b>B Port Check</b>
AAF	A Port Inverted
BBF	B Port Inverted
DDF	A and B Ports Inverted

Code	Type
Omit	5 PSI
Y	45 PSI*
Z	75 PSI*

\* Not available on 6 size.

Code	Type
<b>V</b>	<b>Fluorocarbon</b>
<b>N</b>	<b>Nitrile</b>

\* Not available on 6 size

**Bold: Designates Tier I products and options.**

**Non-Bold: Designates Tier II products and options. These products will have longer lead times.**

**Manapak Bolt Kits**

Size "2"				Size "3"			
No. of Sandwich	Sandwich & Valve Combination	Bolt Kit	Bolt Length mm (in)	No. of Sandwich	Sandwich & Valve Combination	D3W-30 D3DW & D31*W*	Bolt Length mm (in)
1	Sandwich & D1	BK243	73.2 (2.88)	1	Sandwich & D3	BK141	88.9 (3.50)
2	Sandwich & D1	BK225	111.3 (4.38)	2	Sandwich & D3	BK142	139.7 (5.50)
3	Sandwich & D1	BK244	152.4 (6.00)	3	Sandwich & D3	BK143	190.5 (7.50)
4	Sandwich & D1	BK245	190.5 (7.50)				

Bolt Kits must be ordered separately. \*D31VW with internal pilot and internal drain only.

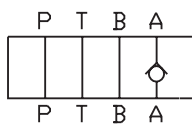
Size "6"					
Sandwich & Valve Combination	Bolt Kit	Description	Qty/Kit	Torque IN-LBS	
1 Sandwich & D6*VW Valve	BK121	1/2 - 13 x 5.25	6	80	
2 Sandwich & D6*VW Valve	BK122	1/2 - 13 x 8.00	6	80	
3 Sandwich & D6*VW Valve	BK123	1/2 - 13 x 10.75	6	80	
4 Sandwich & D6*VW Valve	BK124	1/2 - 13 x 13.50	6	80	

**Unit Weight:**

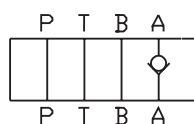
CM2 0.8 kg (1.7 lbs.)  
 CM3 1.8 kg (3.9 lbs.)  
 CM6 7.7 kg (17 lbs.)

**Note:** Bolt Kits must be ordered separately.

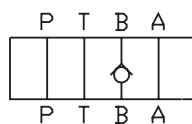
**Schematics**



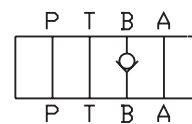
AA Option



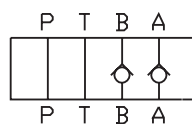
AAF Option



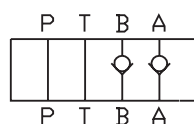
BB Option



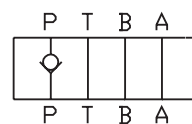
BBF Option



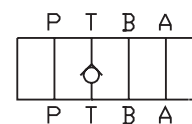
DD Option



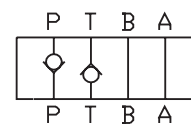
DDF Option



PP Option

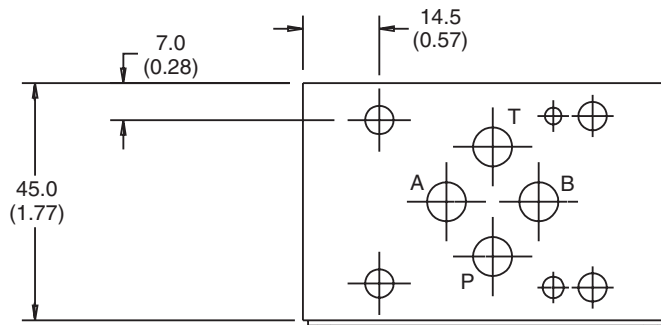


TT Option

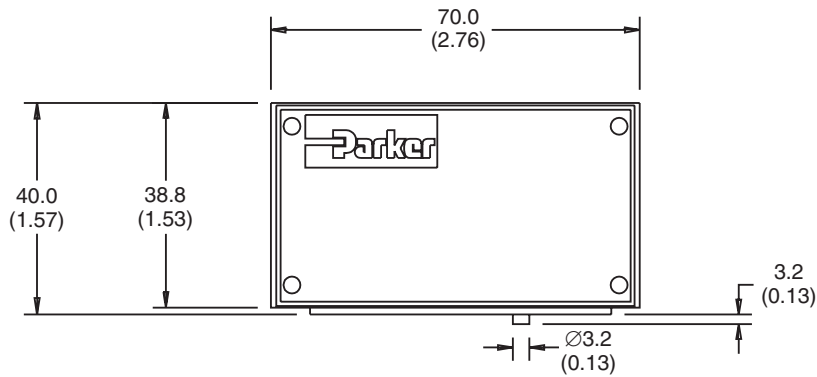


PT Option

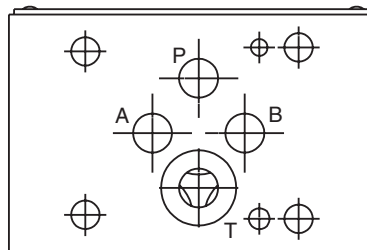
Inch equivalents for millimeter dimensions are shown in (\*\*)



**Top View**



**Face View**



SHOWN WITHOUT O-RING PLATE

**Bottom View**

**B**

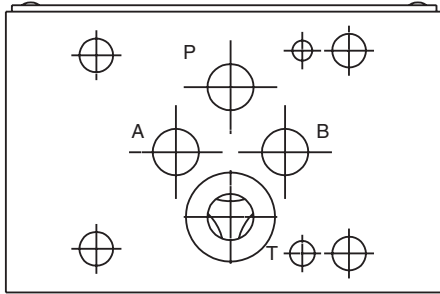


Note: Transfer the locating pin to the hole on the opposite side of the valve body for 'T' port option.  
(Invert body 180°)

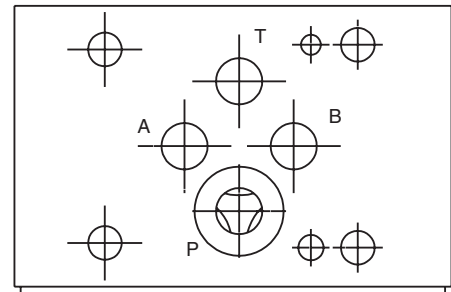
**B**

**Bottom Views**

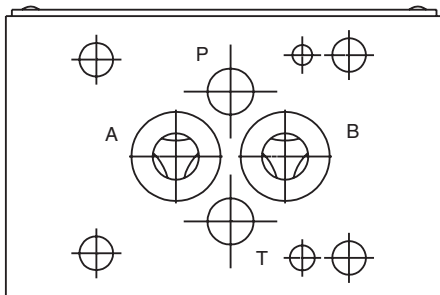
**Top Views**



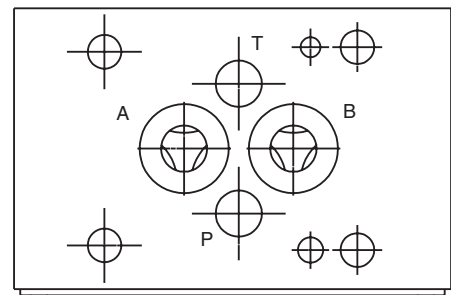
**TT**



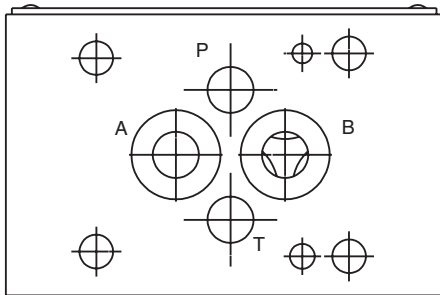
**PP/PT**



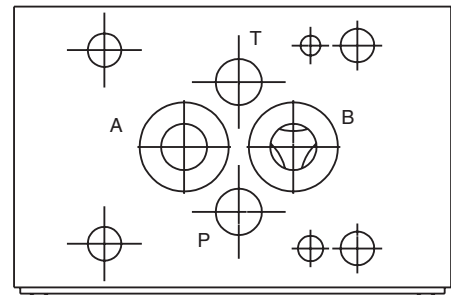
**DD**



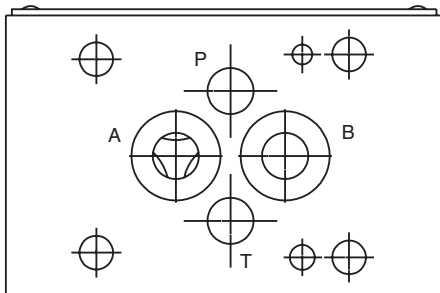
**DDF**



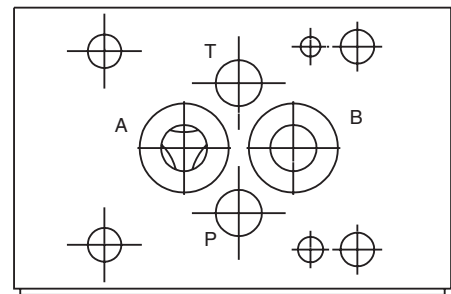
**BB**



**BBF**

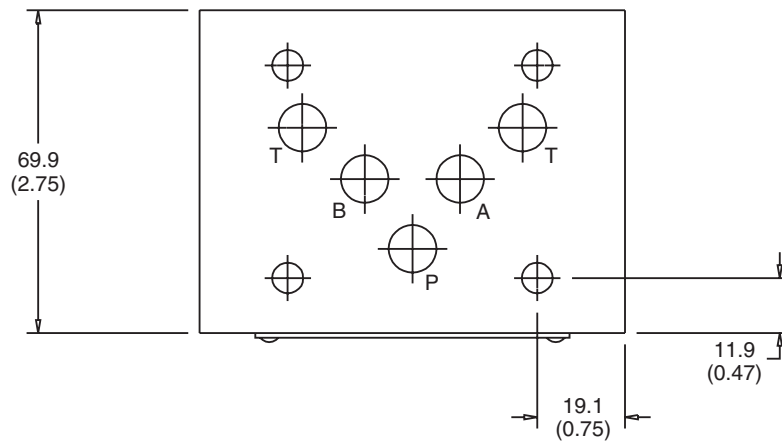


**AA**

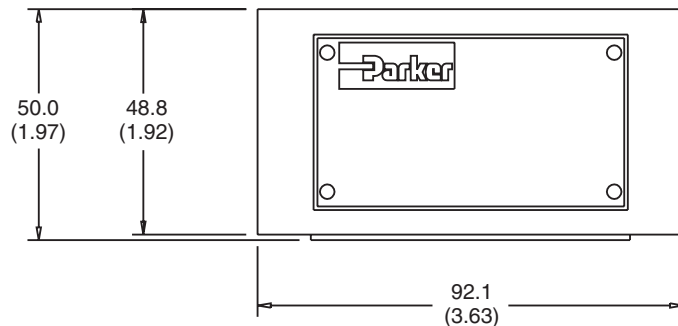


**AAF**

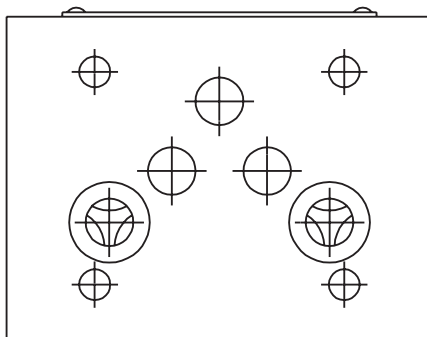
Inch equivalents for millimeter dimensions are shown in (\*\*)



**Top View**



**Face View**



SHOWN WITHOUT O-RING PLATE

**Bottom View**

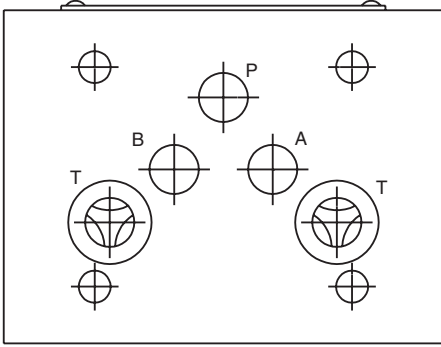
**B**



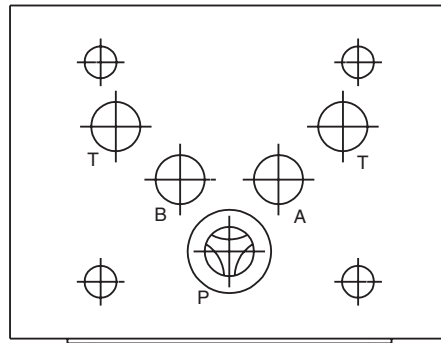
**B**

**Bottom Views**

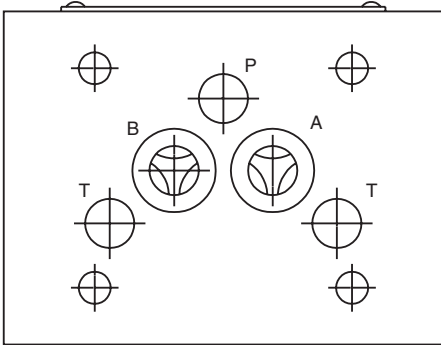
**Top Views**



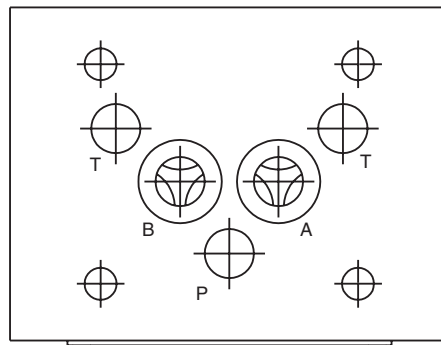
**TT**



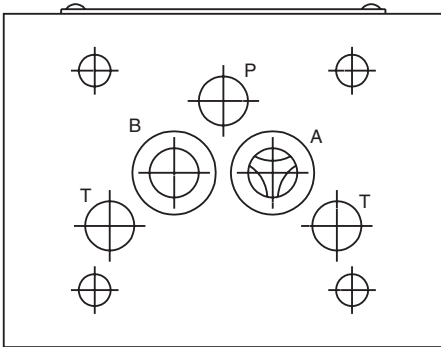
**PP/PT**



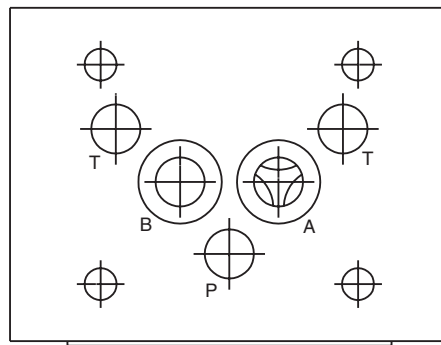
**DD**



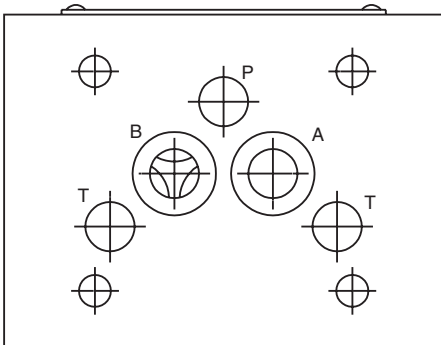
**DDF**



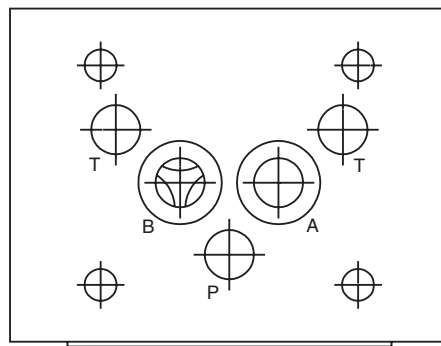
**AA**



**AAF**

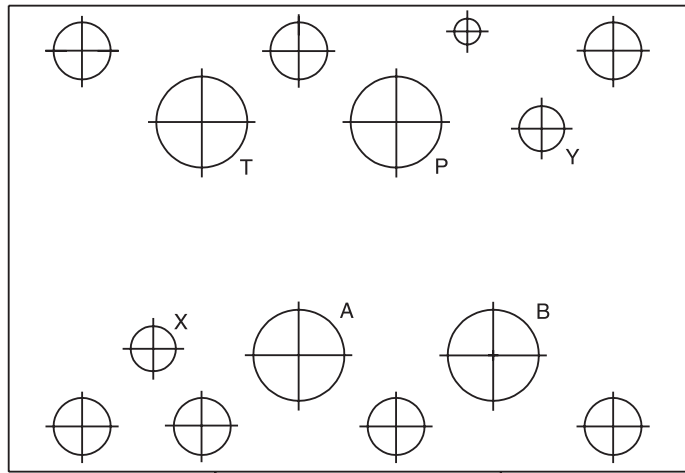


**BB**

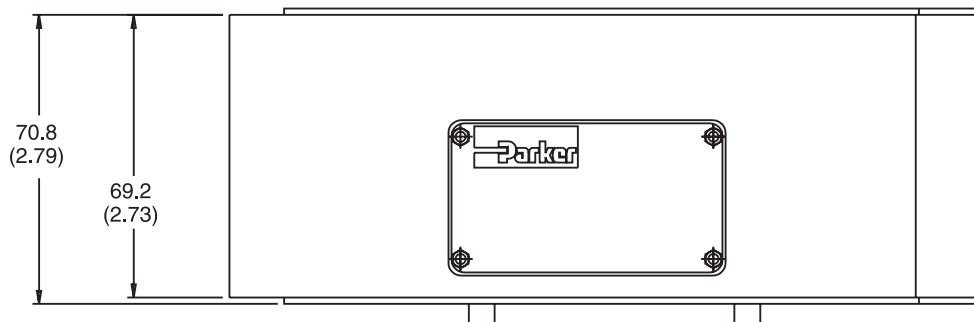


**BBF**

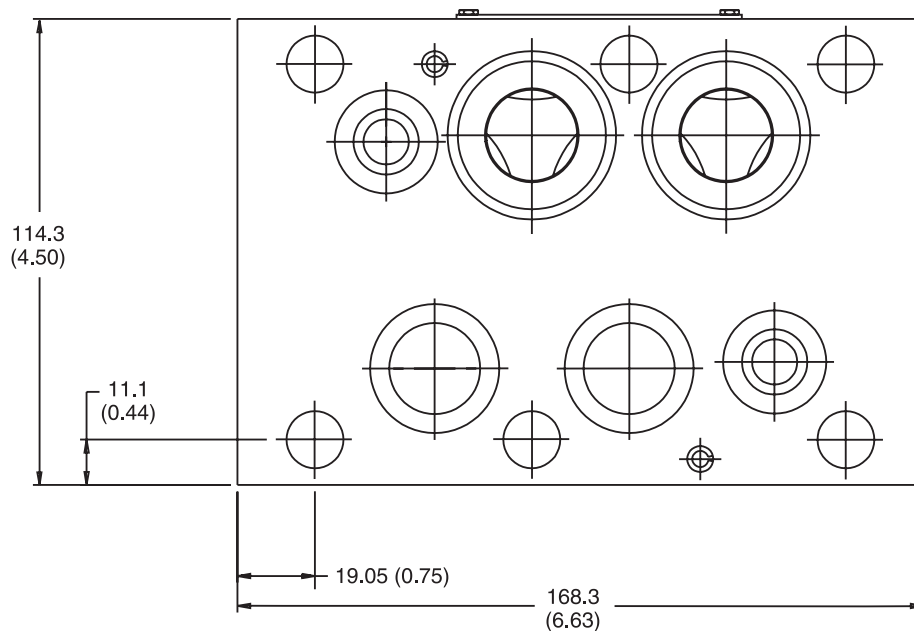
Inch equivalents for millimeter dimensions are shown in (\*\*)



**Top View**



**Face View**



**Bottom View**

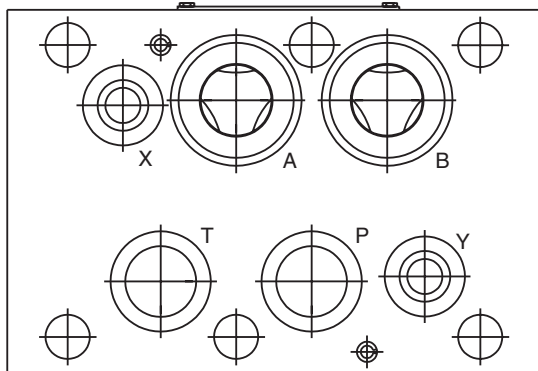
**B**



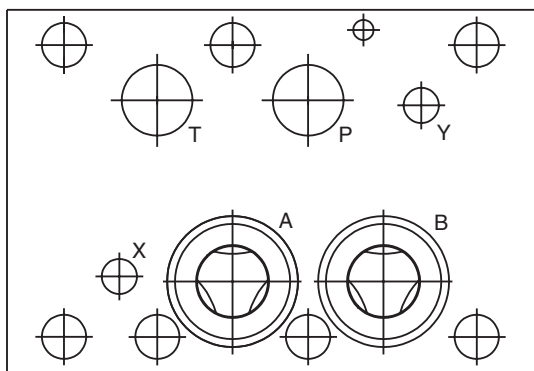
**B**

**Bottom Views**

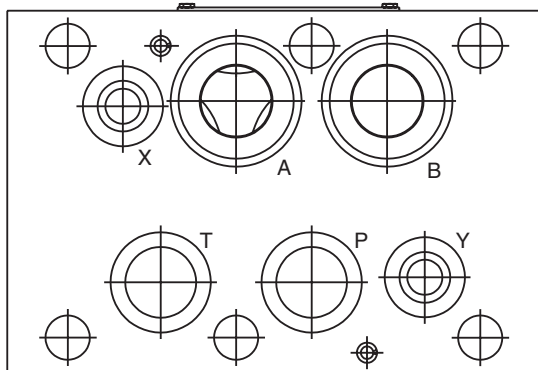
**Top Views**



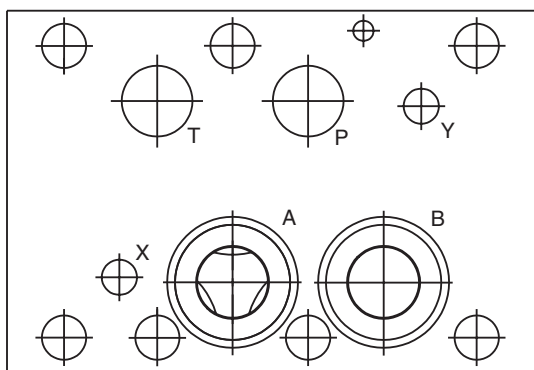
**DD**



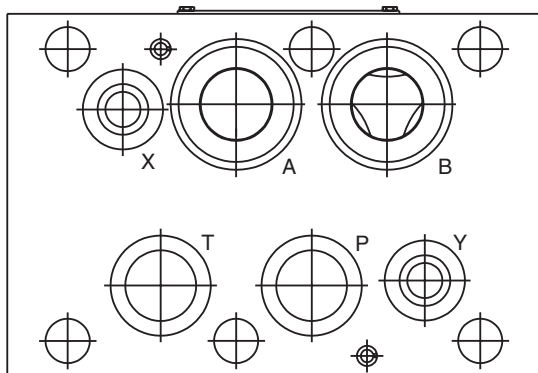
**DDF**



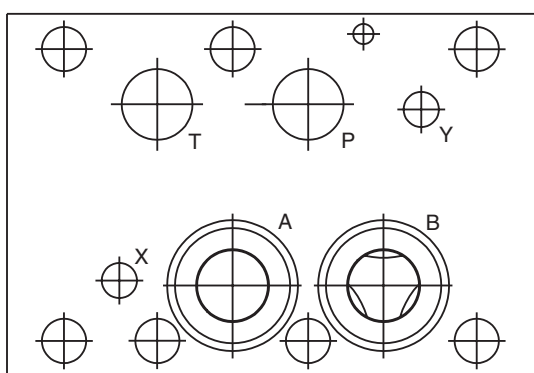
**AA**



**AAF**



**BB**



**BBF**