

The diagrams show the top view as though you were looking down on the stem. White areas indicate the path available for process flow. Shaded areas indicate unused ports for a given flow position.

Diverter Port Patterns

By specifying a T-Port, Double T-Port, Angle Port (L) or Double Angle Port (LL) Ball, different flow configurations are possible. For example, a DP valve with a T-Port Ball might be used to control flow to one or two simultaneous operations. The side entry Angle Port Ball and the bottom entry Double Angle Port Ball are ideal for connecting two relief valves to a system. The Double Angle Port Ball diverts flow from one outlet to another outlet 180° away, with only 90° stem rotation. This allows use of 90° double acting or spring return actuation, instead of 180°.

SIDE ENTRY				
Code	03 T-Port 90° Turn	04 T-Port 90° Turn	06 T-Port 180° Turn	10 L-Port 90° Turn
Position A				
Position B				
Position C				

BOTTOM ENTRY					
	14 L-Port 360° Turn	15 L-Port 180° Turn	16 T-Port 90° Turn	17 TT-Port 180° Turn	18 LL-Port 90° Turn
Position A					
Position B					
Position C					
Position D					

3-Way Multi-Port Patterns

3-way Multi-Ports are a popular choice in a variety of industries. A seal at every port distinguishes the 3-way MP/MI Series valve from diverting-type valves. In some applications, the 3-way MP/MI valve can take the place of two or three 2-way valves, with corresponding savings in piping and fittings. For applications requiring simultaneous process line changes, two 3-way MP/MI Series valves may be mounted in tandem and controlled with a single actuator or handle for greater control and additional savings. Additional flow patterns are possible by using manifolds of two or more valves.

SIDE ENTRY							
	01 T-Port 90° Turn	02 T-Port 90° Turn	03 T-Port 90° Turn	04 T-Port 90° Turn	05 T-Port 180° Turn	06 T-Port 180° Turn	07 T-Port 180° Turn
Position A							
Position B							
Position C							
	08 T-Port 180° Turn	09 T-Port 360° Turn	10 L-Port 90° Turn	11 L-Port 180° Turn	12 L-Port 180° Turn	13 L-Port 360° Turn	
Position A							
Position B							
Position C							
Position D							
BOTTOM ENTRY							
	14 L-Port 360° Turn	15 L-Port 180° Turn	16 T-Port 90° Turn	17 TT-Port 180° Turn	18 LL-Port 90° Turn	19 L-Port 90° Turn	
Position A							
Position B							
Position C							
Position D							

4-way Multi-Ports are a true multi-port valve with seals at every port. This design makes the 4-way MP/MI Series ideal for flow switching operations. In some applications, this valve can replace as many as four ordinary 2-way valves, with corresponding savings in piping and fittings. The following illustrations show how different ball and port configurations create many flow patterns with a single 4-way Multi-Port.

4-Way Multi-Port Patterns

**BOTTOM
ENTRY**

20	21	22	23	24	25	26	27
Double L-Port 90° Turn	Double L-Port 180° Turn	Double L-Port 180° Turn	Double L-Port 180° Turn	Double L-Port 180° Turn	Double L-Port 360° Turn	L-Port 360° Turn	T-Port 90° Turn

28	29	30	31	32	33	34	35
Double T-Port 180° Turn	Double T-Port 180° Turn	Double T-Port 180° Turn	Double T-Port 180° Turn	Double T-Port 360° Turn	Double T-Port 90° Turn	Double T-Port 90° Turn	Double T-Port 90° Turn

36
Double T-Port 90° Turn

4-Way Multi-Port Patterns

SIDE ENTRY

	37	38	39	40	41	42	43
	Double L-Port 90° Turn	L-Port 180° Turn	L-Port 360° Turn	T-Port 180° Turn	Straight Port 90° Turn	T-Port 90° Turn	T-Port 90° Turn
Position A							
Position B							
Position C							
Position D							

5-Way Multi-Port Patterns

5-way Multi-Ports are 5-seated to provide positive shut-off and flow control at each port. This design is not only versatile, but extremely economical. In some applications, this valve can replace as many as four ordinary 2-way valves, with corresponding savings in piping and fittings. The following illustrations show available flow patterns with a single 5-way Multi-Port valve.

**BOTTOM
ENTRY**

	44	45	46	47	48	49	50	51
	L-Port 360° Turn	Double L-Port 180° Turn	T-Port 90° Turn	Double T-Port 90° Turn	Double T-Port 90° Turn	Double T-Port 180° Turn	Double T-Port 360° Turn	Double L-Port 360° Turn
Position A								
Position B								
Position C								
Position D								

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Y-120°