



## Heavy Duty 596 Series Iron Type MI Control Valve



### Valve Specifications:

- Body Sizes:  
2 1/2" – 6"
- Body Material:  
Cast Iron (per ASTM  
A126-93 Class B)
- End Connections:  
125 # Flanged (per ANSI  
B16.1–1993)
- Trim:  
Bronze
- Packing:  
Spring loaded TFE packing
- Seat :  
ANSI Class III; <0.1 %
- Cv Range:  
2-1/2" .....74  
3 .....101  
4 .....170  
5 .....290  
6 .....390
- Rangeability:  
100:1
- Characteristics:  
Linear/Mixing
- Maximum Pressure:  
200 psi @ Temp. <150°F
- Max. Differential Pressure:  
50 psi
- Temperature Range:  
40° – 281° F

Powers Flowrite II Water Mix (MI) Valves combine hot and cold water proportionally to satisfy the demands of the controlling instrument. The valve's linear inherent characteristic produces equal changes in flow per unit of valve stroke regardless of plug position. The valve is air operated and can be used in a variety of mixing applications.

# Actuator Specifications:

- **Housing Construction:**  
Die cast aluminum
- **Diaphragm Construction:**  
Replaceable molded neoprene
- **Diaphragm Area:**  
46 in<sup>2</sup>, 100 in<sup>2</sup>
- **Maximum Pressure and Temperature:**  
35 psi and 200°F
- **Ambient Shipping Limits:**  
- 40 to 220° F

**Ambient Operating Limits:**  
- 20 to 220° F

- **Air Connection:**  
46 in<sup>2</sup> 1/4" NPT  
100 in<sup>2</sup> 1/8" NPT
- **Position Indication:**  
1/8" increments
- **Mounting:**  
In any upright position with actuator head above 45° of the center line of the valve body. Actuator head may be swiveled to any convenient position.

## ORDERING INFORMATION

596- **M** **I**

| Size        | Order Code |
|-------------|------------|
| 2 1/2"..... | 250        |
| 3".....     | 300        |
| 4".....     | 400        |
| 5".....     | 500        |
| 6".....     | 600        |

| End Connections   |   |
|-------------------|---|
| 125# Flange ..... | F |

| Valve Trim  |   |
|-------------|---|
| Bronze..... | B |

| Action       |   |
|--------------|---|
| Mixing ..... | M |

| Packing      |   |
|--------------|---|
| Teflon ..... | T |

**ACCESSORIES SELECT CODE**  
(see below)

**ACTUATOR SELECT CODE**  
(see below)

### ACTUATOR SELECT CODE

| CODE | PNEUMATIC DIAPHRAGM ACTUATORS   |
|------|---|
| 46   | 46 in <sup>2</sup> , 1" Max Valve Stroke with Stainless Steel Springs, adjustable start w/ 7 - 12 lb. Fixed span.     |
| 4X   | 46 in <sup>2</sup> , 1" Max Valve Stroke with Extended Springs (requires positioner), adjustable start w/22 lb. span. |
| 1M   | 100 in <sup>2</sup> , 5-10 psi Spring Range (Mixing Valves)   |

### ACCESSORIES SELECT CODE

| CODE                              | DESCRIPTION    |
|-----------------------------------|----------------|
| <b>Bellofram 1000 I/P'S</b>       |                |
| IS                                | 3-15 psi       |
| TS                                | 1-17 psi       |
| US                                | 3-27 psi       |
| <b>CONTROL/AIR TYPE 900X I/P</b>  |                |
| ES                                | 0-30 psi       |
| <b>UTILITY POSITIONER AND I/P</b> |                |
| BS                                | 4-20 mA        |
| <b>UTILITY POSITIONER</b>         |                |
| PS                                | 3-15 psi       |
| RS                                | 3-9 psi        |
| SS                                | 9-15 ps        |
| <b>NO ACCESSORIES</b>             |                |
| OS                                | No Accessories |

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Temperature Switches  
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