The Most Advanced, Reliable and Compact Self-Actuating Thermostatic Valves Available for Temperature Control, Freeze Protection, Steam Tracing and Conservation of Energy

www.ThermOmegaTech.com
**MIXING AND DIVERTING VALVES**

ThermOmegaTech®’s M/D temperature control valve is designed for 3-way mixing or diverting applications. For fast response, the valve is compact and low mass. ThermOmegaTech®’s valves are designed around our exclusive Thermoloid® sensor/controller that automatically and accurately proportions the flow in response to fluid temperature. The Thermoloid® sensor/controller is the most advanced and reliable thermal actuator of its type available today.

For mixing applications, the M/D will proportion the flow from two inlet ports to produce the desired outlet port temperature. For diverting applications, the M/D will divert or switch the inlet flow to either of two outlet ports depending on the fluid temperature.

**TYPICAL APPLICATIONS**

- Cooling water control-Radiator
- Cooling water control-Heat Exchanger
- Hydraulic fluid cooling systems
- Direct cooling with raw water
- Lube oil cooling control
- Constant temperature baths, wash basins & sinks
- Loop-type circulation systems
- Direct injection water heating
- Hot water washdown stations
- Make-up water
- Electric system cooling
- Air conditioning
- Water conservation

**SAMPLE APPLICATIONS**

**COOLING WATER CONTROL USING RADIATOR OR HEAT EXCHANGER**

Valve shown in “diverting” position to control outlet temperature. In dotted position, valve will “mix” to control inlet water to engine.

**DIRECT COOLING WITH RAW WATER**

Valve shown in “mixing” position to control temperature of inlet water to refrigeration system condenser. Valve in dotted position controls outlet temperature.

**WATER SAVING APPLICATION**

Valve as shown maintains minimum flow through cooler to conserve water, requires internal leak port to permit small flow for sensing.

**LUBE OIL CONTROL**

Valve shown in “diverting” position to control oil sump temperature. In dotted position, valve will “mix” to control oil temperature to bearings or manifold.

**PLUMBING DIAGRAMS**

**FOR MIXING APPLICATIONS:**

(Cold Inlet) C → (Hot Inlet) B → (Controlled Temperature Outlet) A

**FOR DIVERTING APPLICATIONS:**

(Hot Outlet) C → (Cold Outlet) B

*See note 4
PART NUMBERS AND ORDERING

1/2” M/D

<table>
<thead>
<tr>
<th>Part Number1</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>353-00X000-XXX</td>
<td>1/2” M/D Valve - 316 SS Body, 300 Series SS Internals</td>
</tr>
<tr>
<td>353-02X000-XXX</td>
<td>1/2” M/D Valve - all 316 SS construction</td>
</tr>
<tr>
<td>353-01X000-XXX</td>
<td>1/2” M/D Valve - Bronze</td>
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1” M/D

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<tr>
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<td>1” M/D Valve - Bronze</td>
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<tr>
<td>356-01X000-XXX</td>
<td>1” M/D Valve - 303 SS</td>
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<tr>
<td>356-02X000-XXX</td>
<td>1” M/D Valve - 316 SS Special Order Only</td>
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2” M/D

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<td>359-0X4000-XXX</td>
<td>2” M/D Valve - SS</td>
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</tbody>
</table>

NOTES

1. Seal material compatibility “X” available | replace singular X of part number with corresponding number below

   - Buna-N for air (to 250°F), water, fuel, oil, gas, and petroleum-based hydraulic oils
   - EPDM for air (to 300°F), water, steam, ketones, and synthetic hydraulic oils
   - Viton for air (to 450°F), fuel, oil, gas, and petroleum-based hydraulic oils
   - Fluorosilicone for air (to 400°F), aerospace industry petroleum oils/fuels, and diester-based lubricants

2. For most applications, pressure difference between the hot and cold ports should not exceed 10 PSI.

3. Set point temperatures “XXX” available: 035°F, 045°F, 050°F, 060°F, 070°F (+/- 8°F), 085°F, 090°F, 100°F, 105°F, 110°F, 125°F, 135°F, 147°F (+/- 8°F), 152°F (+/- 8°F), 160°F, 170°F, 190°F, 200°F, 205°F, 210°F. Note: Unless otherwise noted, during operation the valve will modulate the Cold side (C port) closed at 5°F below the set point, and the Hot side (B port) closed at 5°F above the set point.

4. Customized temperature, materials, and port positions available upon request.
ThermOmegaTech®, Inc. is an industry expert and leading manufacturer of self-actuated thermostatic technology including Thermostatic Valves, Actuators and Controls serving domestic and international markets for over 35 years.

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Your local representative