ThermOmegaTech[®]

HST

IN-LINE HIGH SAMPLE TEMPERATURE VALVE

BENEFITS

- Automatically controls flow based on fluid temperature
- Protects expensive and delicate sample analyzers
- Automatically resets when sample cools
- Self-operating, no power or signal required
- Superior value vs. more expensive electric valves
- Easy installation

DESIGN FEATURES

- Exclusive **Thermoloid**[®] thermal actuator
- All stainless steel construction corrosion resistant
- Ram-type plug provides tight shutoff
- Operating temperatures unaffected by variable inlet pressures
- Wide choice of set-points available

OPERATION

The **HST** (High Sample Temperature) safety shutoff valve is used to sense the sample temperature after the sample cooler. The sample passes through this normally open valve whenever the sample temperature is below the valve set-point.

If the sample temperature exceeds the valve set-point, the **HST** closes to protect expensive and delicate analyzers and other instruments from over-temperature damage. When the **HST** cools below the set-point, it will automatically reset open again.

Low coolant flow or total loss of cooling water or unusually high sample temperatures are typical reasons why the **HST** self-operating protective device should be considered.



APPLICATION

Excessively hot samples can cause damage to expensive and sensitive hardware and electronics. For process analyzers and similar instrumentation, it is important to assure that the process samples fluids are always below the maximum allowable temperature for such instruments.

Sample coolers are commonly used to reduce sample temperatures to the acceptable limits. In the event of a loss of cooling fluid to the sample cooler, or if the desired sample temperature is exceeded for any reason, the **HST** valve will close to prevent equipment damage.



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PARTS & MATERIALS



| ITEM | DESCRIPTION | MATERIAL | | |
|------|------------------|----------------------------|--|--|
| 1 | VALVE BODY | 300 Series SS | | |
| 2 | THERMAL ACTUATOR | 300 Series SS | | |
| 3 | OPERATING SPRING | 300 Series SS | | |
| 4 | RAM-TYPE PLUG | 300 Series SS | | |
| 5 | ENGINE SEAL | EPDM or Viton ³ | | |
| 6 | SEAT RING SEAL | PTFE | | |

DIMENSIONS & CAPACITIES

| SIZE (NPT) | D | | L | | Weight | | | Maximum Operating | Maximum |
|---------------|------|----|-----|----|--------|------|---------|------------------------|------------------|
| | in | mm | in | mm | Lb | Kg | C_{v} | Pressure ¹ | Temperature |
| 1/2″ | 1.38 | 35 | 3.4 | 86 | 1.14 | 0.52 | 0.075 | 3000 PSIG (207 BAR) | 300°F (149°C) |

ORDERING

| Part Number ² | Description ^{3,4} |
|--------------------------|----------------------------|
| 254-000000-XXX | 1/2 HST-XXX-SS-E |
| 254-001000-XXX | 1/2 HST-XXX-SS-V |
| 254-002000-XXX | ½ HST-XXX-SS-K |
| 254-110000-XXX | 1/2 HST-XXX-S6-E |
| 254-111000-XXX | 1/2 HST-XXX-S6-V |
| 254-112000-XXX | 1/2 HST-XXX-S6-K |

NOTES

- 1. Body rating: 3000 PSIG at 600°F
- Full open temperatures "XXX" available: 100°F, 105°F, 115°F, 120°F, 125°F, 130°F, 140°F, 170°F, 185°F. (Other temperatures are available upon request.)
 - a. Note: Closing temperature is typically 10°F above opening temperature.
- 3. Seal material compatibility:
 - E EPDM air, water, steam, ketones and synthetic hydraulic oils.
 - V $Viton^{\circ}$ air, fuel, oil, gas and petroleum based hydraulic oils.
 - K Kalrez $^{\circ}$ Special order option.
- 4. Valve material:
 - SS 303 stainless steel
 - S6 Dual Grade 316/316L stainless steel
- 5. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

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HST 4/8/2025

Because of continuous improvements, ThermOmegaTech®, Inc. reserves the right to change the design and specifications without notice