ThermOmegaTech®

HAT

IN-LINE TEMPERATURE CONTROL VALVE

BENEFITS

- Controls fluid return temperatures - ideal for glycol tracing
- Maintains constant discharge temperatures
- Self-operating, no power or signal required
- Improves system efficiency
- Unaffected by pressure variations
- Two wrench flats for easy installation
- Some valves are NSF/ANSI/CAN 61 & 372 Certified



DESIGN FEATURES

- Exclusive **Thermoloid**® thermal actuator
- Stainless steel body, fittings, spring, and plug
- Compact low mass - fast response
- Corrosion resistant - long service life
- Ram-type plug for reliable shut-off
- Operates in narrow temperature band
- Optional leak port (LP) available

APPLICATIONS

HAT valves will maintain the discharge temperature in glycol heat tracing systems. When the glycol temperature exceeds the valve's set point, the valve will modulate closed. As heat loss occurs and the glycol cools to below the set point, the valve reopens to allow warmer glycol to circulate.

HAT valves can act as freeze protection for condensate systems. The valves open when temperatures fall to allow condensate to discharge before freezing.

On commercial aircraft, high temperature water can unexpectedly travel to the cold water lines. **HAT** valves installed on cold water lines will limit flow when excessive temperatures are detected, preventing scalding of passengers and crew.

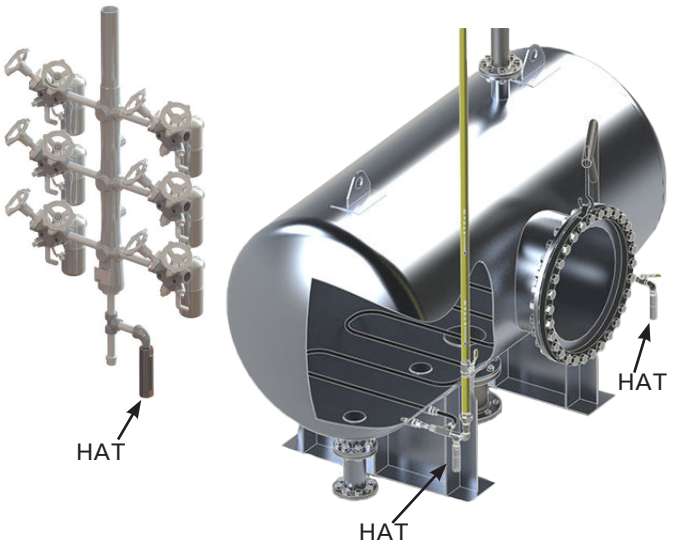
HAT valves used on tank heating coils limit the temperatures of the heating element. By closing before coil temperatures are too high, the the valves reduce the risk of over-temperature damage. When used as a subcooling steam trap, **HAT** valves reduce problems associated with overheating.

In a sampling system, **HAT** valves will remain open under normal conditions. However, if the sample temperature goes above the valves' set point, it automatically shuts off flow to prevent potential damage to the analyzing equipment.

OPERATION

Within the valve, a thermal actuator constantly monitors the fluid temperature. When the temperature drops below the valve's set point, the valve opens to initiate flow. Conversely, when the temperature increases to the set point, the valve modulates closed. **HAT** valves can be equipped with built-in leakage to enable bypass flow when necessary.

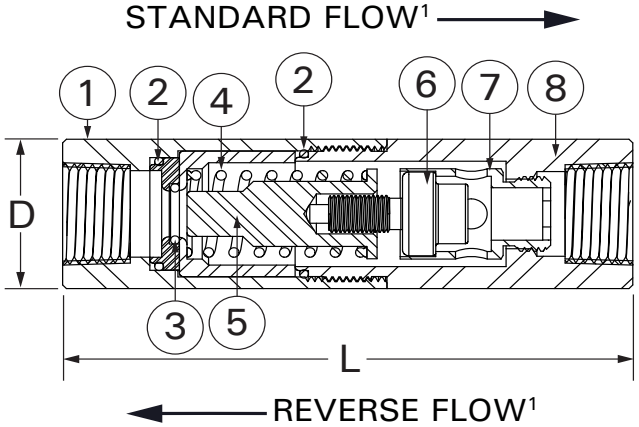
SAMPLE APPLICATIONS



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PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	BODY - HALF	300 Series SS
2	BODY SEAL (QTY 2)	EPDM or Viton[2]
3	SEAT RING SEAL	PTFE
4	OPERATING SPRING	300 Series SS
5	RAM-TYPE PLUG	300 Series SS
6	THERMAL ACTUATOR	Brass or 300 Series SS
7	ACTUATOR CARRIER	Brass or 300 Series SS
8	BODY - HALF	300 Series SS

DIMENSIONS & CAPACITIES

SIZE (NPT)	D		L		Weight		Port Size	C_v	Maximum Operating Pressure[1]	Maximum Temperature
	in	mm	in	mm	Lb	Kg				
1/2"	1.3	33	4.5	114	0.9	0.4	C	1.3	300 PSIG (20.7 BAR)	Range 150°F (83.3°C) over set-point with a limit of 300°F (149°C)
3/4"	1.5	38	5.5	140	1.4	0.6	D	2.0		

ORDERING

Part Number[2,4,6]	Description
134 - 302X00 - XXX	1/2" HAT C-Port Brass internals
134 - 312X00 - XXX	1/2" HAT C-Port, all 300 Series SS[6]
134 - 502X00 - XXX	1/2" HAT C-RF Brass internals
134 - 324X20 - XXX	1/2" HAT C-Port, 316 SS Passivated
135 - 502X00 - XXX	3/4" HAT D-Port Brass internals
135 - 512X00 - XXX	3/4" HAT D-Port, all 300 Series SS[6]

NOTES

1. Flow direction is reversed in valves that close over 210°F (98.9°C). Reverse flow valves are rated for 150 PSIG (10.3 BAR).
2. Seal Material compatibility:
   a. EPDM - air, glycol, water, steam, ketones, and synthetic hydraulic oils.
   b. Viton - air, fuel, oil, gas, petroleum-based hydraulic oils.
   c. Kalrez
   d. Silicone
3. Full open temperatures "XXX" available: 040°F, 050°F, 055°F, 060°F, 065°F, 075°F, 085°F, 090°F, 095°F, 100°F, 105°F, 110°F, 120°F, 125°F, 130°F, 140°F, 150°F, 155°F, 160°F, 170°F, 180°F, 190°F and 200°F.
   a. Note: Closing temperature is typically 10°F above opening temperature.
4. Replace singular "X" with 1 for EPDM body seals; 2 for Viton body seals. Other options available, consult our engineers.
5. For optional leak port, consult sales department.
6. This valve is NSF/ANSI/CAN 61 & 372 Certified.
7. A #20 mesh strainer is recommended.
8. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

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