

HAT

INLINE TEMPERATURE CONTROL VALVE



BENEFITS

- · Controls fluid return temperatures ideal for glycol tracing
- Maintains constant discharge temperatures
- Improves system efficiency
- Unaffected by pressure variations

DESIGN FEATURES

- Stainless steel body, fittings, spring, and plug
- Corrosion resistant long service life
- Exclusive *Thermoloid*® sensor/controller
- Operates in narrow temperature band
- · Compact low mass fast response
- Two wrench flats for easy installation
- Ram-type plug for reliable shut-off
- Optional leak port available



TYPICAL APPLICATIONS

- To control temperatures in glycol heat tracing systems, HAT valves will maintain the discharge temperature. When glycol temperature exceeds the setpoint, the valve will modulate closed. As heat loss occurs and glycol cools to below the setpoint, the valve will open to allow warmer glycol to circulate.
- HAT valves can act as freeze protection for condensate systems. HAT valves open when temperatures fall to allow condensate to discharge before freezing.
- In commercial aircraft, high temperature water can unexpectedly travel to the cold water lines. HAT valves 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 HAT valves reduce the risk of over-temperature damage. When used as a subcooling steam trap, HAT valves reduce problems associated with overheating.
- When used as a sampling system safety shutoff,
 HAT valves will remain open as long as sample
 temperatures are under the setpoint. If the sample
 temperature increases, the valve will shut off,
 protecting analyzing equipment from damage due to
 high temperature.

OPERATION

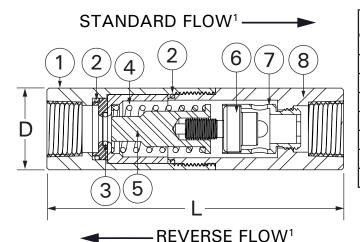
A thermostatic element inside the valve senses temperature and if this falls below the setpoint, the valve modulates open to allow flow. When the temperature increases to near the setpoint, the *HAT* valve modulates closed. *HAT* valves are available with built-in leakage to allow bypass flow.

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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	[)	l	_	We	ight	Port	_	Maximum Operating	Maximum
(NPT)	in	mm	in	mm	Lb	Kg	Size	U _V	Pressure ¹	Temperature
1/2"	1.3	33	4.5	114	0.9	0.4	С	1.3	300 PSIG (20.7 BAR)	300°F (149°C)
3/4"	1.5	38	5.5	140	1.4	0.6	D	2.0		

ORDERING

Part Number ^{3,4,6}	Description
134 - 302X00 - XXX	1/2" HAT C-Port
134 - 312X00 - XXX	1/2" HAT C-Port, all SS
134 - 502X00 - XXX	1/2" HAT C-RF-E
135 - 502X00 - XXX	3/4" HAT D-Port
135 - 512X00 - XXX	3/4" HAT D-Port, all SS

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.
- 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. A #20 mesh strainer is recommended.
- 7. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

