ThermOmegaTech®

HAT/RA & HAT/RA-LP

INLINE TEMPERATURE CONTROL VALVES

ISO9001 CERTIFIED

BENEFITS

- Controls cooling fluid return temperatures - ideal for glycol and water
- Maintains constant discharge temperatures
- Improves system efficiency
- Unaffected by pressure variations
- Conserves water

DESIGN FEATURES

- Stainless steel body, fittings, spring, and plug
- Corrosion resistant - long service life
- Operates in narrow temperature band
- Compact low mass - fast response
- Two wrench flats for easy installation
- Ram-type plug for reliable shut-off
- Leak port (LP) option senses changing upstream temperature

TYPICAL APPLICATIONS

The ***HAT/RA*** reverse acting valve may be used to regulate the flow of cooling water, glycol or other cooling media in applications requiring economical removal of heat from equipment or a process. Since the ***HAT/RA*** valves open on rising temperatures, they can be used in many thermal relief valve applications.

HAT/RA-LP valves are ideal for controlling cooling water for compressors and die-casting equipment, engines, heat exchangers, welding equipment, electrical equipment, and molding equipment.

OPERATION

As the fluid temperature increases to within the operating range of the ***HAT/RA*** and ***HAT/RA-LP***, the thermal actuator modulates the valve open. If the fluid temperature is above the acceptable range, the valve will continue to modulate open allowing additional fluid discharge. As the outlet temperature falls, the valve then modulates toward the closed position, reducing flow. This modulating action maintains a relatively constant fluid temperature even as operating conditions vary.

At start-up, the ***HAT/RA-LP*** is closed except for its control leakage, which allows a small flow so that the actuator inside the valve can sense the changing equipment temperature.

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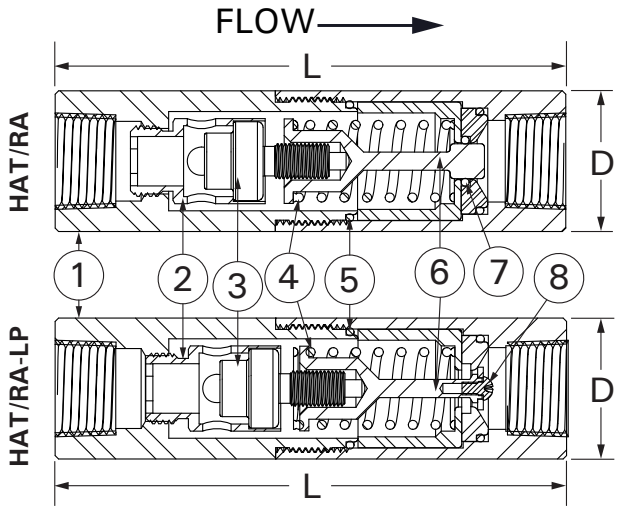
HAT/RA and HAT/RA-LP PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	BODY	300 Series SS
2	ACTUATOR CARRIER	Brass or SS
3	THERMAL ACTUATOR	Brass or SS
4	OPERATING SPRING	300 Series SS
5	BODY SEAL	EPDM or Viton[3]
6	PLUG	300 Series SS
7	SEAT SEAL RING	EPDM or Viton[3]
8	LP WASHER	300 Series SS

DIMENSIONS & CAPACITIES

SIZE (NPT)	D		L		Weight		Port Size	C_v	Maximum Operating Pressure	Maximum Temperature
	in	mm	in	mm	Lb	Kg				
1/2"	1.3	33	4.5	114	0.9	0.4	B	1.1	200 PSIG (13.8 BAR)	150°F (66°C) over set point
							C	1.5	150 PSIG (10.3 BAR)	
3/4"	1.5	38	5.5	140	1.4	0.6	D	2.0	70 PSIG (4.8 BAR)	

ORDERING

Part Number[1, 4]	Description
144 - 202X00 - XXX	1/2" HAT/RA B-Port
144 - 212X00 - XXX	1/2" HAT/RA B-Port all SS
144 - 302X00 - XXX	1/2" HAT/RA C-Port
144 - 312X00 - XXX	1/2" HAT/RA C-Port all SS
145 - 502X00 - XXX	3/4" HAT/RA D-Port
145 - 512X00 - XXX	3/4" HAT/RA D-Port all SS

Part Number[1,4]	Description[2]
144 - 202X02 - XXX	1/2" HAT/RA-LP B-Port 1/4 GPM
144 - 212X02 - XXX	1/2" HAT/RA-LP B-Port, all SS 1/4 GPM
144 - 302X02 - XXX	1/2" HAT/RA-LP C-Port, 1/4 GPM
144 - 312X02 - XXX	1/2" HAT/RA-LP C-Port, all SS 1/4 GPM
145 - 502X02 - XXX	3/4" HAT/RA-LP D-Port 1/4 GPM
145 - 502X04 - XXX	3/4" HAT/RA-LP D-Port 1 GPM
145 - 512X02 - XXX	3/4" HAT/RA-LP D-Port, all SS 1/4 GPM
145 - 512X04 - XXX	3/4" HAT/RA-LP D-Port, all SS 1 GPM

NOTES

1. Full open temperatures "**XXX**" available: 040°F, 045°F, 050°F, 060°F, 070°F, 075°F, 085°F, 095°F, 100°F, 105°F, 110°F, 115°F, 120°F, 125°F, 130°F, 140°F, 150°F, 160°F, 170°F, 175°F, 180°F, 190°F, 200°F and 210°F.
   a. ***Note: Closing temperature is typically 10°F below opening temperature.***
2. Leak port flow rate specifications:
   a. 1/4 GPM (.9 L/min) at 60 PSIG (4.1 BAR)
   b. 1 GPM (3.8 L/min) at 40 PSIG (2.8 BAR)
3. Seal material compatibility:
   a. EPDM - air, water, steam, ketones, and synthetic hydraulic oils.
   b. Viton - air, fuel, oil, gas, petroleum-based hydraulic oils.
4. Replace singular "X" with 1 for EPDM body seals; 2 for Viton body seals
5. A #20 mesh strainer is recommended.
6. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

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MADE IN THE USA

HATRA-RALP
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