

## HAT/RA-HP

### HIGH PRESSURE IN-LINE TEMPERATURE CONTROL VALVE

#### BENEFITS

- Protects pump and pump seals from over-temperature damage
- Rated for higher pressure systems - up to 1000 PSIG
- Self-operating, no power or signal required
- Maintains constant discharge temperature
- Improves system efficiency
- Unaffected by pressure variations
- Discharges minimum amount of water required to keep water temperature within safe limits
- NSF/ANSI/CAN 61 & 372 Certified

#### DESIGN FEATURES

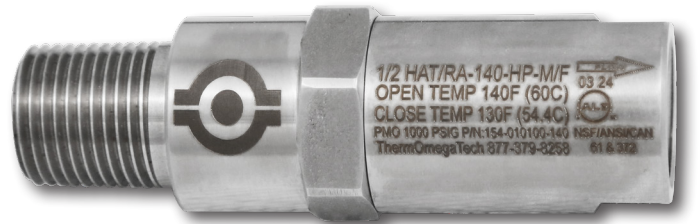
- Thermostatically actuated relief at set-point
- All stainless steel body, fittings, spring, and plug
- Compact low mass - fast response
- Corrosion resistant - long service life
- Ram-type plug for reliable shut-off
- Operates in narrow temperature band
- Easy to install

#### APPLICATIONS

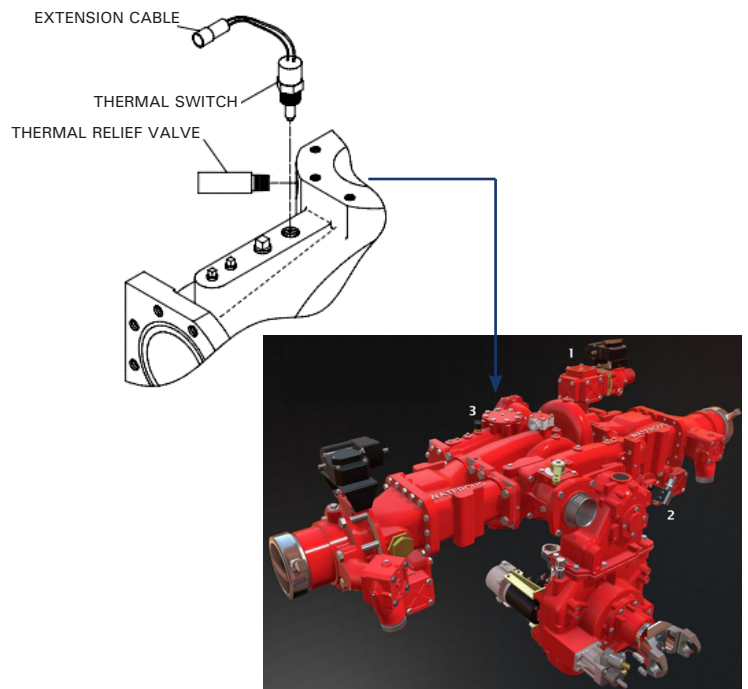
The **HAT/RA-HP** (Heat Actuated Trap/Reverse Acting – High Pressure) valve is commonly used as a thermal relief valve on fire pumps and high pressure water pumps to keep them cool during idling. It may be used to regulate the flow of glycol, water, or other media in critical cooling applications and to economically remove heat from equipment or a process.

#### OPERATION

As the fluid temperature increases to within the operating range of the **HAT/RA-HP**, 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.



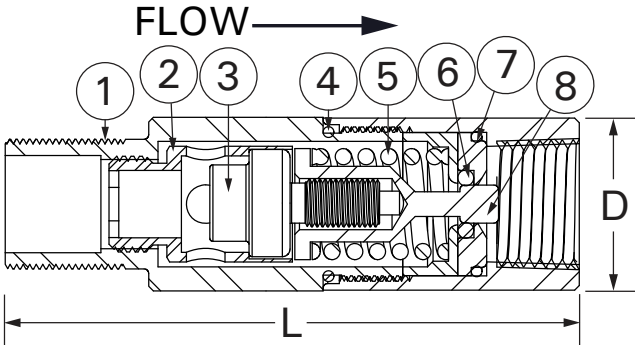
#### SAMPLE APPLICATION



# HAT/RA-HP

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### PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	VALVE BODY	300 Series SS
2	RETAINER CARRIER	300 Series SS
3	THERMAL ACTUATOR	300 Series SS
4	BODY SEAL	EPDM or Viton <sup>3</sup>
5	OPERATING SPRING	300 Series SS
6	PORT SEAL	PTFE
7	SEAT RING SEAL	EPDM or Viton
8	RAM-TYPE PLUG	300 Series SS

### DIMENSIONS & CAPACITIES

SIZE (NPT)	D		L		Weight		C <sub>v</sub>	Maximum Operating Pressure	Maximum Temperature
	in	mm	in	mm	Lb	Kg			
1/2"	1.1	28	3.8	97	1	0.5	0.7	1000 PSIG (69 BAR)	150°F (66°C) over set-point limit 250°F (121°C)

### ORDERING

Part Number <sup>1,2</sup>	Description
154 - 010X00 - XXX	1/2" HAT/RA-HP-M/F

### NOTES

- Full open temperatures "XXX" available: 090°F, 095°F, 100°F, 105°F, 110°F, 125°F, 130°F, 140°F. Other temperatures available, consult factory.
  - Note: Closing temperature is typically 10°F below opening temperature.**
- Replace singular "X" with 1 for EPDM body seals; 2 for Viton body seals
- Seal material compatibility:
  - EPDM - air, water, steam, ketones and synthetic hydraulic oils
  - Viton - air, fuel, oil, gas and petroleum based hydraulic oils
- A #20 mesh strainer is recommended.
- Warranty information disclosed at [www.thermomegatech.com/terms-conditions/](http://www.thermomegatech.com/terms-conditions/)



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