

## ECONO/HAT-RA

PUMP THERMAL RELIEF VALVE



### ***BENEFITS***

- Protects pump and pump seals from over-temperature damage
- Prevents potentially scalding water from being distributed to users
- Totally self-operating, no power or signal required
- Completely mechanical thermal relief for booster pumps and cooling jackets.
- Temperature response is unaffected by pressure variations
- Wrench flats for easy installation

### ***DESIGN FEATURES***

- Compact, low mass
- Corrosion resistant, long service life
- Ram-type plug for tight, reliable shutoff
- Narrow temperature band

### ***APPLICATIONS***

The **ECONO/HAT-RA** valve is perfect for thermal relief of booster pumps; controlling cooling water outlet temperature; and controlling flow of cooling water, glycol or other cooling media in applications requiring economical removal of heat from equipment or a process. Since the **ECONO/HAT-RA** valves open on rising temperatures, they can be used in many other thermal relief valve applications.



### ***OPERATION***

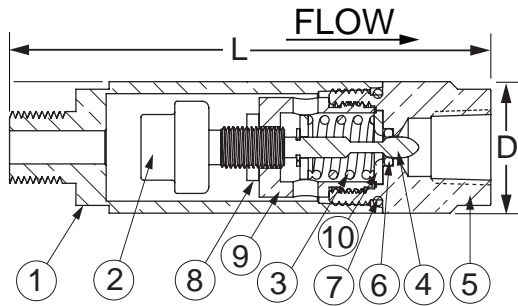
As the fluid temperature increases to within the operating range of the **ECONO/HAT-RA**, the thermal actuator modulates the valve open. If the fluid temperature is above the acceptable range, the valve will continue to modulate open allowing additional fluid discharge. As the outlet temperature falls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

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### PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	VALVE BODY	Brass or 300 Series SS
2	THERMAL ACTUATOR	Brass or 300 Series SS
3	OPERATING SPRING	300 Series SS
4	RAM-TYPE PLUG	300 Series SS
5	SEAT FITTING	Brass or 300 Series SS
6	SEAT SEAL	PTFE
7	BODY SEAL	BUNA (NSF-61 Certified)
8	CALIBRATION LOCKNUT	300 Series SS
9	SEAT RETAINER	Brass or 300 Series SS
10	SEAT INSERT	Brass or 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			
1/4" Brass	1.0	25	3.6	89	0.4	0.2	0.5	300 PSIG (20.7 BAR)	250°F (121°C)
1/4" SS								400 PSIG (27.6 BAR)	

### ORDERING

Part Number	Description
242 - 000000 - XXX	1/4" ECONO/HAT-RA M/F
242 - 010000 - XXX	1/4" ECONO/HAT-RA M/F SS

### NOTES

- 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.**
- 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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ECONOHATRA  
 Rev: 7/10/18

