ThermOmegaTech

TV/HAT-RA

IN-LINE TEMPERATURE CONTROL VALVE

ISO9001 CERTIFIED

BENEFITS

- Regulates coolant flow to maintain constant temperature
- Fully wetted actuator assures sensitivity to fluid temperature
- Unaffected by pressure variations
- Wide choice of set points
- Operates in any position

DESIGN FEATURES

- Compact, low mass for fast response
- Corrosion resistant - Long service life
- Stainless steel body, fittings, spring and plug
- Ram-type plug for tight reliable shutoff
- Operates in narrow temperature band
- Easy to install

APPLICATIONS

The ***TV/HAT-RA*** reverse acting valve can 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 ***TV/HAT-RA*** valves open on rising temperatures, they can be used in many thermal relief valve applications. The ***TV/HAT-RA*** continually senses fluid temperature and automatically modulates to maintain desired temperature. Optimum operating temperature improves efficiency, reduces wear and conserves energy. Therm-Omega-Tech valves are designed around our exclusive ***Thermoloid***® sensor/controller which is the most advanced and reliable thermal actuator of its type available today.

OPERATION

As the fluid temperature increases to within the operating range of the ***TV/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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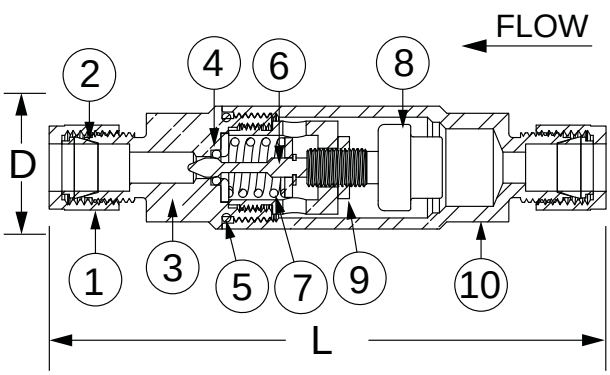
PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	TUBING NUT[2]	300 Series S/S
2	FERRULES[2]	300 Series S/S
3	SEAT HOUSING	300 Series S/S
4	SEAT SEAL	PTFE
5	SEALING O-RING	EPDM or Viton[4]
6	RAM-TYPE PLUG	300 Series S/S
7	OPERATING SPRING	300 Series S/S
8	ACTUATOR	300 Series S/S
9	LOCK NUT	300 Series S/S
10	VALVE BODY	300 Series S/S

DIMENSIONS & CAPACITIES

TUBE O.D. SIZE	D		L		Weight		C_V	Maximum Operating Pressure	Maximum Temperature
	in	mm	in	mm	Lb	Kg			
3/8"	1.0	25	4.4	112	0.52	0.24	0.5	150 PSIG (10 BAR)	150°F over setpoint
1/2"	1.0	25	4.7	119	0.54	0.25			

ORDERING

Part Number[3]	Description
223 - 100X00 - XXX	3/8" TV/HAT-RA-SS
223 - 110X00 - XXX	3/8" TV/HAT-RA-SS-SW[2]
224 - 100X00 - XXX	1/2" TV/HAT-RA-SS
224 - 110X00 - XXX	1/2" TV/HAT-RA-SS-SW[2]

NOTES

1. Standard 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. Swagelok fittings replace standard Parker fittings.
3. Replace singular "X" with 1 for EPDM body seals; 2 for Viton body seals
4. Seal material compatibility:
   a. EPDM - air, water, steam, ketones, and synthetic hydraulic oils.
   b. Viton - air, fuel, oil, gas, petroleum-based hydraulic oils.
5. All TV/HAT-RA valves are factory tested and covered by a 36 month prorated warranty.
6. A #20 mesh strainer is recommended for use with all port sizes

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