



THEM-OMEGA-TECH

ISO 9001 CERTIFIED

MODEL TV/HAT

IN-LINE TEMPERATURE CONTROL

**FREEZE PROBLEMS?
CALL THE GURU 1-877-FRZ-VALVE**

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
- ◆ Eliminates live steam losses
- ◆ Operates in narrow temperature band
- ◆ Downstream actuator for greater sensitivity
- ◆ Unaffected by pressure variations
- ◆ Wide choice of set points
- ◆ Easy to install
- ◆ Operates in any position



ADVANTAGES

These valves save space and are easy and inexpensive to install. The unique ram-type plug & seat provide reliable, tight shut off longer than any other design available. **TV/HAT** valves are covered with our standard 36 month prorated warranty & service policy to further reduce maintenance cost. Since **TV/HAT** valves discharge condensate well below steam temperature, live steam losses are eliminated. For heating of temperature sensitive instruments or process fluids, the reduced temperature available for tracing simplifies operations and eliminates overheating problems. For other heat transfer fluids, **TV/HAT** valves maintain a constant discharge temperature, thus providing benefits of accurate process temperature control and improved efficiency.

OPERATION

The **TV/HAT** valve responds only to temperature. After condensate forms and cools to near the setpoint, the **TV/HAT** valve modulates the flow to maintain a constant condensate discharge temperature. **TV/HAT** valves are wide open at start-up for rapid venting and initial heat-up. **TV/HAT** valves are self-draining after shutdown, to eliminate freeze damage.

APPLICATIONS

TV/HAT (Tube Valve/Heat Actuated Trap) valves are ideal for use in conjunction with tracer tubing and tracing systems using pretraced tubing bundles. These versatile valves are compatible and are made to be used in combination with the Therm-Omega-Tech **TV** series valves as well as standard tubing and tubing fittings. Therm-Omega-Tech **TV/HAT** valves are ideal for replacing conventional steam traps on winterization tracing, instrument tracing, condensate return system freeze protection, tracing for processes under 150°F (65°C), and other applications requiring in-line flow control based on temperature.

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PARTS AND MATERIALS

	ITEM	DESCRIPTION	MATERIAL
	1	TUBING NUT (Note 2)	300 SERIES STAINLESS
	2	FERRULE (Notes)	300 SERIES STAINLESS
	3	SEAT HOUSING	300 SERIES STAINLESS
	4	SEALING O-RING	EPDM
	5	OPERATING SPRING	300 SERIES STAINLESS
	6	SEAT SEAL	PTFE
	7	LOCKNUT	300 SERIES STAINLESS
	8	RETAINER	300 SERIES STAINLESS
	9	VALVE BODY	300 SERIES STAINLESS
10	ACTUATOR	BRASS or SS	

SPECIFICATIONS

Size (Tube OD)	D		L		Weight		Cv	Maximum Pressure	Maximum Temperature
	in	mm	in	mm	Lb	Kg			
1/4"	1.0	25	3.5	89	0.30	0.14	0.5	300 PSIG (20.7 BAR)	300°F (149°C)
3/8"	1.0	25	3.8	97	0.33	0.15			
1/2"	1.0	25	4.0	102	0.35	0.16			

TO ORDER, SPECIFY:

Part Number	Description
212 - 000000 - XXX	1/4" TV/HAT
212 - 100000 - XXX	1/4" TV/HAT-S/S (Note 5)
212 - 010000 - XXX	1/4" TV/HAT (Note 2)
212 - 110000 - XXX	1/4" TV/HAT-S/S (Notes 2 and 5)
213 - 000000 - XXX	3/8" TV/HAT
213 - 001000 - XXX	3/8" TV/HAT-LP 1/8 GPM Leak Port (Note 3)
213 - 002000 - XXX	3/8" TV/HAT-LP 1/4 GPM Leak Port (Note 3)
213 - 100000 - XXX	3/8" TV/HAT-S/S (Note 5)
213 - 010000 - XXX	3/8" TV/HAT (Note 2)
213 - 110000 - XXX	3/8" TV/HAT-S/S (Notes 2 and 5)
214 - 000000 - XXX	1/2" TV/HAT
214 - 100000 - XXX	1/2" TV/HAT-S/S (Note 5)
214 - 010000 - XXX	1/2" TV/HAT (Note 2)
214 - 110000 - XXX	1/2" TV/HAT-S/S (Notes 2 and 5)

NOTES:

- Standard 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, 125°F, 130°F, 140°F, 150°F,
155°F, 160°F, 170°F, 180°F, 190°F and 200°F.
Note: Closing temperature is typically 10°F above
opening temperature.
- Swagelok fittings replace standard Parker fittings.
- Leak port discharge rate determined @ 60 PSIG.
- A #20 mesh strainer is recommended for use with all
port sizes.
- All stainless steel construction except seals.

Therm-Omega-Tech, Inc. reserves the right to change the design and specifications without notice



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