ThermOmegaTech®

TV/SC-I & TV/SC-IR

INSTRUMENT ENCLOSURE TEMPERATURE CONTROL

BENEFITS

- Maintains enclosure temperature within specified range
- Self-operating, no power or signal required
- Eliminates danger of overheating and explosion hazard
- Long service life
- Unaffected by pressure variations
- Quick and easy installation



DESIGN FEATURES

- Exclusive Thermoloid® thermal actuator
- Direct acting (No pilot valve)
- Stainless Steel body, fittings, spring & plug
- Compact low mass - fast response
- Corrosion resistant - long service life
- Ram-type plug for reliable tight shut-off
- Compatible with standard tubing and connections

OPERATION

A thermostatic element located at one end of the **TV/SC-I** (inside the enclosure) regulates the steam supply to the heater to accurately maintain the desired temperature, operating like the thermostat in an oven. Heat radiating from the steam coil heater reaches the actuator causing it to quickly shut off the steam supply when the desired temperature is reached, regardless of outside ambient. In cooling applications, the **TV/SC-IR** opens on rising temperature to regulate the flow of cooling media to the enclosure. The **TV/SC-I** comes complete with a weather-tight bulkhead fitting for the valve body; optional bulkhead fittings for 3/8 tubing connections are available.

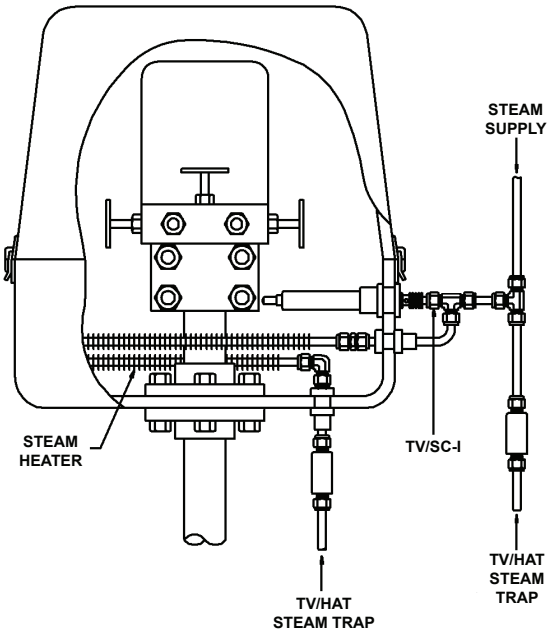
Also available is a short configuration for installations with the valve and all connections completely within the enclosure (see **TV/SC-A** and ITCH product fact sheets). These economical valves are available with set points from 40°F to 210°F (4.4°C to 98.9°C).

APPLICATIONS

The **TV/SC-I** assures accurate temperature control in an instrument or analyzer enclosure. It's a reliable, economical alternative to costly, hazardous electric heating. This compact thermostatic control valve senses enclosure temperature and automatically regulates the flow of steam to maintain the temperature.

In cooling applications the reverse-acting **TV/SC-IR** can be used to regulate the flow of glycol, water, air or other cooling media.

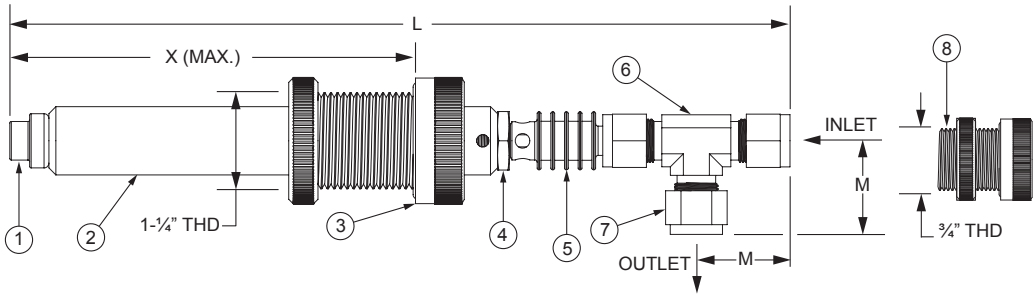
SAMPLE APPLICATION



TV/SC-I & TV/SC-IR

INSTRUMENT ENCLOSURE TEMPERATURE CONTROL

PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	THERMAL ACTUATOR	300 Series SS
2	THERMAL ISOLATION EXTENSION	300 Series SS
3	VALVE MOUNTING BULKHEAD FITTING	Acetal Copolymer
4	CALIBRATION LOCKNUT	300 Series SS
5	YOKE	300 Series SS
6	TEE BODY	300 Series SS
7	TUBING COMPRESSION NUT	300 Series SS
8	3/8 TUBING BULKHEAD FITTING (OPTIONAL)	Acetal Copolymer

DIMENSIONS & CAPACITIES

Tube O.D. SIZE	L		M		X		Weight		C_V	Maximum Operating Pressure	Maximum Temperature	
	in	mm	in	mm	in	mm	Lb	Kg			Valve End	Sensing End
3/8"	10	254	1.2	30	5.2	132	0.7	0.3	0.5	200 PSIG (13.8 BAR)	388°F (198°C)	Range 150°F (83.3°C) over set-point with a limit of 300°F (149°C)
1/2"	10.5	267	1.4	36			1.2	0.6	0.9			

ORDERING

Part Number[1]	Description
733 - 0X1000 - XXX	3/8" TV/SC-I-S-SS
734 - 0X1000 - XXX	1/2" TV/SC-I-S-SS
743 - 0X1000 - XXX	3/8" TV/SC-IR-S-SS
744 - 0X1000 - XXX	1/2" TV/SC-IR-S-SS

NOTES

1. Full open temperatures "XXX" available:
   a. **I Series:** 035°F, 040°F, 050°F, 055°F, 060°F, 065°F, 075°F, 085°F, 090°F, 095°F, 100°F, 105°F, 110°F, 120°F, 125°F, 130°F, 140°F, 150°F, 155°F, 160°F, 170°F, 180°F, 190°F and 200°F.
   b. **IR Series:** 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.
   c. ***Note: Closing temperature is typically 10°F above opening temperature for Direct Acting valves and 10°F below opening temperature for Reverse Acting valves.***
2. 0 = Parker fittings are standard. 1 = Swagelok fittings are available
3. A #20 mesh strainer is recommended.
4. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

ThermOmegaTech®, Inc.
353 Ivyland Road
Warminster, PA 18974
1-877-379-8258
www.ThermOmegaTech.com

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