



# HAT/SP

## SCALD PROTECTION VALVE

### DESIGN FEATURES

- ◆ HAT/SP-105 meets OSHA temperature guidelines
- ◆ Stainless steel body, fittings, spring and plug
- ◆ Corrosion resistant - Long service life
- ◆ Narrow temperature band
- ◆ Compact, low mass - Fast response
- ◆ Ram-type plug for reliable tight shutoff
- ◆ Sensitive to temperature only
- ◆ Unaffected by pressure variations
- ◆ Easy installation with pipe wrench
- ◆ Installs in any orientation
- ◆ Discharges the minimum amount of water required to keep water temperature within safe limits



### ADVANTAGES

The **HAT/SP** valve continually senses and automatically bleeds excessively hot water from safety shower/eyewash systems. Protection is provided with minimal water consumption. The unique plug and seat design offers the most reliable, tight shutoff available. All **HAT/SP** valves are factory tested and covered by a 36 month prorated warranty.

### APPLICATIONS

Solar radiation or overheating caused by steam or electric tracing can cause extremely high temperatures at the point of use, resulting in a safety hazard for plant personnel. When installed in safety showers, eyewash stations, and other locations exposed to the same source of overheating as the system, the **HAT/SP** will be heated just as the pipe system. The valve will open to establish flow until the overtemperature water is eliminated and it will then modulate closed.

### OPERATION

When the water temperature rises above safe limits, and a danger of scalding exists, the thermal actuator modulates the valve open. A small sample of the water from the pipe system then flows past the sensor. If the water is above the acceptable range, the valve will continue to modulate open until the overtemperature water is eliminated. When the water temperature returns to the safe range, the valve then modulates closed, minimizing water loss. The **HAT/SP** opens only when the water exceeds safe limits. The **HAT/SP-105** is open at 105°F(41°C) and remains open until water temperature is 95°F (35°C) or below. The **HAT/SP-115** is open at 115°F(46°C) and closed at 105°F(41°C) and below.

# HAT/SP

## SCALD PROTECTION VALVE



### PARTS AND MATERIALS

ITEM	DESCRIPTION	MATERIAL
1	BODY - INLET HALF	300 SERIES STAINLESS
2	SEAT SEAL	PTFE
3	RAM-TYPE PLUG	300 SERIES STAINLESS
4	OPERATING SPRING	300 SERIES STAINLESS
5	BODY SEAL	EPDM
6	THERMAL ACTUATOR	BRASS or SS
7	ACTUATOR CARRIER	BRASS or SS
8	BODY - OUTLET HALF	300 SERIES STAINLESS

### SPECIFICATIONS

SIZE (NPTF)	D		L		Weight		Port Size	C <sub>v</sub>	Maximum Pressure	Maximum Temperature
	in	mm	in	mm	Lb	Kg				
1/2"	1.25	32	4.5	114	0.9	0.41	C	1.5	200 PSIG (13.8 BAR)	300°F (149°C)
3/4"	1.5	38	5.5	140	1.4	0.64	D	2.0		

### TO ORDER SPECIFY:

Part Number	Description
124-302100-XXX	1/2" HAT/SP C-Port
124-312100-XXX	1/2" HAT/SP C-Port all SS
125-502100-XXX	3/4" HAT/SP D-Port
125-512100-XXX	3/4" HAT/SP D-Port all SS

### NOTES:

- Standard open temperature, "XXX", is 105°F. Optional open temperatures, "XXX": 095°F, 100°F, 110°F and 115°F.  
Note: Closing temperature is typically 10°F below opening temperature.
- Seal Material compatibility:
  - EPDM - air (to 300F), water, steam, ketones and synthetic hydraulic oils.
- A #20 mesh strainer is recommended for use with all port sizes.

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**THERM-OMEGA-TECH, INC.**





## 3/4" IC/SP

### INTERCHANGEABLE CARTRIDGE/SCALD PROTECTION

## DESIGN FEATURES

- ◆ IC/SP-105, -100 & -95 meets OSHA temperature guidelines
- ◆ Easily maintained
- ◆ Corrosion resistant - long service life
- ◆ Most clog-resistant design available
- ◆ Most narrow temperature band available
- ◆ Sensitive to fluid temperature only
- ◆ Unaffected by pressure variations
- ◆ Easy installation with pipe wrench



## ADVANTAGES

The 3/4" **IC/SP** valve continually senses water temperature and automatically bleeds excessively hot water from safety shower/eyewash systems. Protection is provided with minimal water consumption. The unique plug and seat design offers the most reliable, tight shutoff available. The easily replaceable precalibrated cartridge minimizes downtime during maintenance. **IC/SP** valves are covered by an 18 month prorated warranty.

## APPLICATIONS

Solar radiation or overheating caused by steam or electric tracing can cause extremely high temperatures at the point of use, resulting in a safety hazard for plant personnel. When installed in safety showers, eyewash stations, and other locations exposed to the same source of overheating as the system, the **ICSP** will be heated just as the pipe system. The valve will open to establish flow until the overtemperature water is eliminated and it will then modulate closed.

## OPERATION

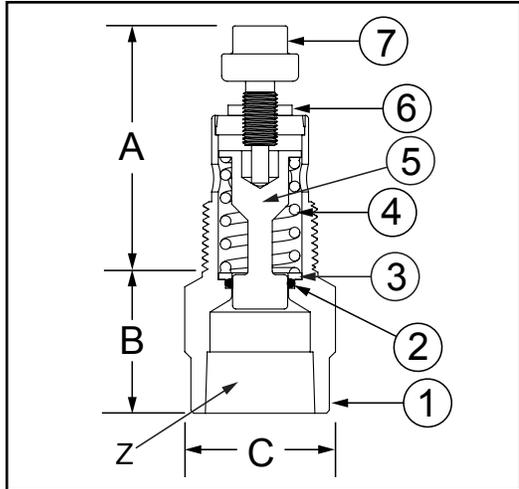
Under normal operating conditions, water passes through a virtually unobstructed 1" or larger NPT tee, allowing this valve to be used in higher flow lines. The 3/4" **IC/SP** will screw into any 3/4" NPT threaded opening with adequate internal clearance (see drawing at "Parts and Materials"). When the water temperature rises above safe limits, and a danger of scalding exists, the thermal actuator located in the fluid stream modulates the valve open. When the water temperature returns to the safe range, the valve then modulates closed, minimizing water loss. Due to the actuator's placement in the fluid stream this valve is unaffected by ambient air temperature and is open at 105°F (41°C) and will remain open until water temperature is 95°F (35°C) or below.

# 3/4" IC/SP

## INTERCHANGEABLE CARTRIDGE/SCALD PROTECTION



### PARTS AND MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	CARTRIDGE BODY	BRASS
2	SEAT SEAL	PTFE
3	SPACER	BRASS
4	OPERATING SPRING	300 SERIES STAINLESS
5	RAM-TYPE PLUG	300 SERIES STAINLESS
6	CALIBRATION LOCKNUT	300 SERIES STAINLESS
7	ACTUATOR	BRASS

### SPECIFICATIONS

Connection	A		B		C		Z (Drain)	C <sub>v</sub>	Weight		Maximum Pressure	Maximum Temperature
	in	mm	in	mm	in	mm			Lb	Kg		
3/4" NPT	2.31	58.7	1.33	33.8	1.38	35.1	3/4 NPTF	1.3	0.5	0.23	100 PSIG (6.9 BAR)	200°F (93°C)

### TO ORDER SPECIFY:

Part Number	Description
195-000000-XXX	3/4" IC/SP-105 Cartridge

### NOTES:

- Standard open temperature, "XXX", is 105°F. Optional open temperatures, "XXX": 095°F, 100°F, 110°F and 115°F.  
Note: Closing temperature is typically 10°F below opening temperature.
- A #20 mesh strainer is recommended.

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