

# HAT/FP

## FREEZE PROTECTION VALVE

ISO 9001 CERTIFIED

### DESIGN FEATURES

- ◆ 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
- ◆ Downstream actuator for greater sensitivity
- ◆ Sensitive to temperature only
- ◆ Unaffected by pressure variations
- ◆ Easy installation with pipe wrench
- ◆ Discharges the minimum amount of water required to prevent freeze damage



### ADVANTAGES

Typically freeze protection is effected by cracking open manual bleed valves. This method is at best risky. Human error or plugging of partially cracked valves annually accounts for large amounts of freeze damage to expensive equipment. **HAT/FP** valves eliminate this type of problem by automating freeze protection, reducing water consumption, and eliminating damage and down time. The unique ram-type plug and seat provide reliable, tight shutoff longer than any other design available. All **HAT/FP** valves are factory-tested and covered by a 36 month prorated warranty.

### APPLICATIONS

**HAT/FP** (Freeze Protection) valves are ideal for protection of piping, valves, fittings, pumps, condensate systems, safety showers, fire lines, spray nozzles, freeze sensitive equipment, or as backup protection on traced systems/equipment.

### OPERATION

A thermostatic element inside the valve senses temperature and if this falls below 35°F (1.7°C) the valve modulates open allowing water to flow. The valve will remain open as long as the water flowing by the sensor is less than 40°F (4.4°C). However, when the water flowing by the sensor becomes greater than 40°F (4.4°C) the valve will close.

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### PARTS AND MATERIALS

ITEM	DESCRIPTION	MATERIAL
1	BODY - INLET HALF	300 SERIES STAINLESS
2	SEAT SEAL	PTFE
3	OPERATING SPRING	300 SERIES STAINLESS
4	RAM-TYPE PLUG	300 SERIES STAINLESS
5	BODY SEAL	EPDM / VITON
6	THERMAL ACTUATOR	BRASS or SS
7	ACTUATOR CARRIER	300 SERIES STAINLESS
8	BODY - OUTLET HALF	300 SERIES STAINLESS
9	SEAT INSERT	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	1.3	200 PSIG (13.8 BAR)	300°F (149°C)
3/4"	1.5	38	5.5	140	1.4	0.64	D	2		

### TO ORDER, SPECIFY:

Part Number		Description
EPDM	VITON	
114 - 302100 - 035	114 - 302200 - 035	1/2" HAT/FP-35 C-Port
114 - 312110 - 035	114 - 312210 - 035	1/2" HAT/FP-35 C-Port SS - all Stainless Steel (note #1)
115 - 502100 - 035	115 - 502200 - 035	3/4" HAT/FP-35 D-Port
115 - 512100 - 035	115 - 512200 - 035	3/4" HAT/FP-35 D-Port SS - all Stainless Steel (note #1)

### NOTES:

- Valve is rated for 300 PSIG (20.7 BAR)
- Open / Close temperatures: 35°F / 40°F
- Seal material compatibility:
  - EPDM - air (to 300°F), water, steam, ketones, and synthetic hydraulic oils.
  - Viton - air (to 450°F), fuel, oil, gas, petroleum-based hydraulic oils.
- A #20 mesh strainer is recommended for use with all port sizes.



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