ThermOmegaTech

US/S-X & US/S-XR

SURFACE SENSING TEMPERATURE CONTROL VALVE

BENEFITS

- Maintains optimal process temperature
- Prevents process overheating
- Self-operating, no power or signal required
- Discharges minimum amount of media for temperature control
- Quick and easy installation
- Long service life



DESIGN FEATURES

- All stainless steel construction
- Exclusive **Thermoloid**® thermal actuator
- Narrow temperature band
- Compact low mass - fast response
- Ram-type plug for reliable shut off
- Unaffected by pressure variations

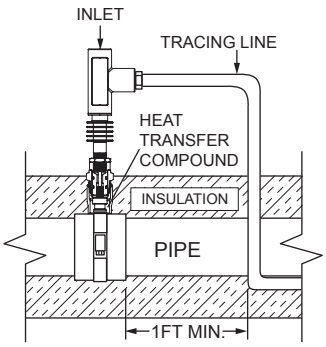
APPLICATIONS

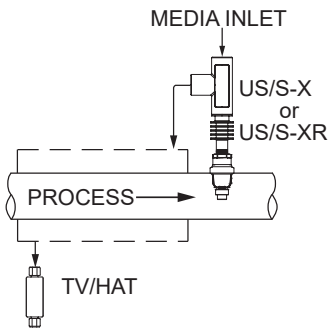
These compact self contained control valves can maintain very tight temperature control of any number of control loops using steam, liquid phase heat transfer media such as Dowtherm®, hot water, hot oil, glycol, etc. In general they can be used whenever accurate but low cost control is required. The reverse acting model, **US/S-XR** can be used to control cooling media to economically remove heat from equipment or a process

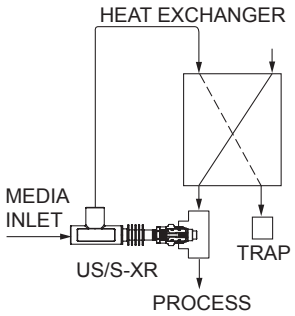
OPERATION

The **US/S-X** and **US/S-XR** valves' **Thermoloid**® thermal actuator element may be placed in contact with the process line or pipe with the optional band-o-let, or in the line with the integral 3/4" NPT bushing. This allows the temperature element to be in contact with the process to control the valve and regulate the inflow of heating media (or cooling media with the **US/S-XR**). Input temperatures or steam supply can vary widely, but the control temperature is maintained within desired limits.

SAMPLE APPLICATIONS



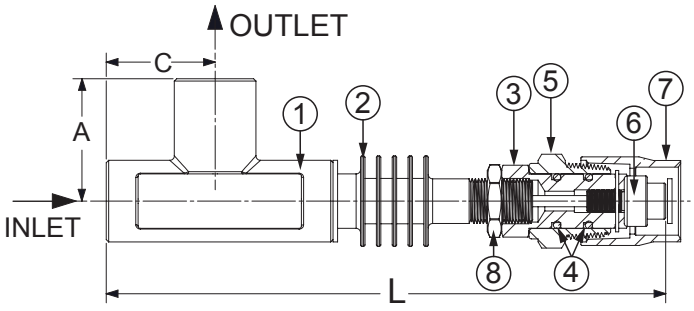




US/S-X & US/S-XR

SURFACE SENSING TEMPERATURE CONTROL VALVE

PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	VALVE BODY	CF8M (316 SS)
2	YOKE	300 Series SS
3	ADAPTER	300 Series SS
4	BUSHING SEALS	See Note #3
5	3/4" NPT BUSHING	300 Series SS
6	THERMAL ACTUATOR	300 Series SS
7	OPTIONAL BAND-O-LET FITTING	300 Series SS
8	LOCKNUT	300 Series SS

DIMENSIONS & CAPACITIES

SIZE (NPT)	L		A		C		Weight		C_V	Maximum Operating Pressure	Maximum Temperature	
	in	mm	in	mm	in	mm	Lb	Kg			Valve End	Sensing End
1/2"	7.9	201	1.7	43	1.5	38	1.2	0.5	1.3	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)
3/4"	8.7	221	1.8	45.7	1.8	45.7	1.4	0.6	2.0			

ORDERING

Part Number[1]	Description
654 - 000000 - XXX	1/2" US/S-X-S
654 - 010000 - XXX	1/2" US/S-X-S-BAND[2]
655 - 000000 - XXX	3/4" US/S-X-S
655 - 010000 - XXX	3/4" US/S-X-S-BAND[2]
664 - 000000 - XXX	1/2" US/S-XR-S
664 - 010000 - XXX	1/2" US/S-XR-S-BAND[2]
665 - 000000 - XXX	3/4" US/S-XR-S
665 - 010000 - XXX	3/4" US/S-XR-S-BAND[2]

NOTES

1. Full open temperatures "XXX" available:
   a. **X 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, 125°F, 130°F, 140°F, 150°F, 155°F, 160°F, 170°F, 180°F, 190°F, and 200°F
   b. **XR 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. Includes Band-O-Let fitting
3. Buna is standard; Viton, EPDM, and Kalrez are available. Consult our engineers for ordering information.
4. A #20 mesh strainer is recommended.
5. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

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