



THEM-OMEGA-TECH

ISO 9001 CERTIFIED

MODELS US/S-X & -XR

SURFACE SENSING TEMPERATURE CONTROL

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

DESIGN FEATURES

- ◆ All stainless steel construction
- ◆ Narrow temperature band
- ◆ Compact low mass - fast response
- ◆ Ram-type plug for reliable shut off
- ◆ Unaffected by pressure variations
- ◆ Quick, easy installation
- ◆ NPT threaded connections
- ◆ Long service life
- ◆ Direct acting (no pilot valve)
- ◆ **Thermoloid**[®] sensor/controller



ADVANTAGES

Models **US/S-X** and **US/S-XR** provide a low cost, effective means of accurate temperature control regardless of available steam pressure or available heating/cooling media temperature. The **US/S-X** and **US/S-XR** valves need no user adjustment and can be installed in minutes, saving time and money in an unlimited number of control applications. **US/S-X** and **US/S-XR** valves are covered with our standard 36 month prorated warranty.

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**[®] sensor/controller 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-M 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.

MODEL US/S-X & US/S-XR

SURFACE SENSING TEMPERATURE CONTROL

PARTS AND MATERIALS

ITEM	DESCRIPTION	MATERIAL
2	THERMAL ISOLATION SECTION	CF8M (316 SS)
3	YOKE	300 SERIES STAINLESS
4	BUSHING SEALS	VITON (STANDARD)
5	3/4" NPT BUSHING	300 SERIES STAINLESS
6	THERMAL ACTUATOR	300 SERIES STAINLESS
7	OPTIONAL BAND-O-LET FITTING	300 SERIES STAINLESS

SPECIFICATIONS

Size (NPTF)	L		A		C		Weight		Cv	Maximum Pressure PSIG (BAR)	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	0.55	1.3	200 (13.8)	388°F (198°C)	150°F over setpoint
3/4"	8.7	221	1.8	45.7	1.8	45.7	1.4	0.64	2.0			

TO ORDER SPECIFY:

Part Number	Description
654-000000-XXX	1/2US/S-X-S
654-010000-XXX	1/2US/S-X-S-BAND (note #2)
655-000000-XXX	3/4US/S-X-S
655-010000-XXX	3/4US/S-X-S-BAND (note #2)
664-000000-XXX	1/2US/S-XR-S
664-010000-XXX	1/2US/S-XR-S-BAND (note #2)
665-000000-XXX	3/4US/S-XR-S
665-001000-XXX	3/4US/S-XR-S-LP 1/4GPM
665-010000-XXX	3/4US/S-XR-S-BAND (note #2)

NOTES:

1. Standard open set point temperatures "XXX" available:

For X Series: 035F, 040F, 050F, 055F, 060F, 065F, 075F, 085F, 090F, 095F, 100F, 105F, 110F, 125F, 130F, 140F, 150F, 155F, 160F, 170F, 180F, 190F and 200F.

For XR Series: 040F, 045F, 050F, 060F, 070F, 075F, 085F, 095F, 100F, 105F, 110F, 115F, 120F, 125F, 130F, 140F, 150F, 160F, 170F, 175F, 180F, 190F, 200F and 210F.

Note: Closing temperature is typically 10F above opening temperature for Direct Acting valves and 10F below opening temperature for Reverse Acting valves.

2. Includes Band-O-Let fitting

3. A #20 mesh strainer is recommended for use with all port sizes

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



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CALL THE VALVE GURU TOLL FREE

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