

91000XT Series Tank Thermostat

for Oil Field Heaters, Treaters & Separators

TEMPERATURE REGULATORS



91000XT shown

- ▶ Self-Operating Design
- ▶ Heavy Duty Die Cast Aluminum Housing
- ▶ 3/4 & 1 NPT Valve Sizes
- ▶ Soft Seated Valve for Tight Shut-Off
- ▶ Fully Enclosed Bellows

The **91000XT Tank Thermostat** is specifically designed to control the temperature of heaters, treaters and separators within the petroleum industry. It is entirely self-contained, requires no external power source, and is the most widely preferred unit of its kind. When installed in a treater, the normally open valve will automatically close off the flow of gas as temperature increases, thereby regulating temperature within the treater. The Trerice 91000XT is ruggedly constructed with a heavy duty, die cast aluminum actuator housing and fully enclosed bellows assembly. Its single seated, cast-iron valve body is fitted with a stainless steel plug assembly and soft seating Viton o-ring to provide tight shut-off.

Warning: This valve may only be installed in outdoor applications. The Teflon v-ring packing will allow fugitive emissions to escape. Improper application may cause failure of the valve, resulting in possible personal injury or property damage.

For applications where the process media may be corrosive or contained under pressure, the use of a thermowell is required to prevent damage to the sensing bulb and facilitate its removal from the process.

For replacement or service parts please see Accessories and Replacement Parts in the Regulators and Control Valves section of the list price sheet.

Specifications

Model	91000XT
Power Requirements	Fully self-contained – no external power required
Housing	Die cast aluminum, epoxy powder coated blue finish
Set Point Scale	Integral to housing
Bellows	High pressure brass, corrosion resistant, tin plated finish
Adjustment Screw	Brass
Adjustment Screw Bushing	Lubricant impregnated sintered bronze
Range Adjustment Spring	Cadmium plated
Overrange Protection	Upper range limit +100°F for temporary situations
Thermal System	Bulb: Copper, .80" x 8", with 3/4 NPT union connection for thermowell Capillary: Copper, available in 10' or 20' lengths
Thermowell	Steel, 1 NPT connection
Valve	Single seat, normally open Body: Cast-iron Trim: Stainless steel plug assembly with soft seating Viton o-ring, iron seat Port Size: 1/2" Connection: 3/4 NPT or 1 NPT threaded ends
Approximate Shipping Weight	10.3 lbs [4.68 kg]

HOW TO ORDER

Sample Order Number: **91000XT X01 10 W02-X75**

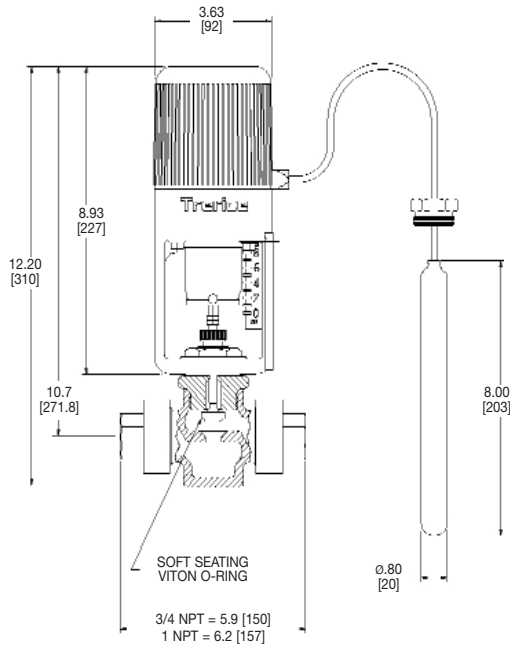
Model	Range	Capillary Length	Thermowell	Valve Size
91000XT	See Standard Ranges	10 10 Feet	W02 Steel Thermowell (omit if not required)	X75 3/4 NPT X10 1 NPT
		20 20 Feet		



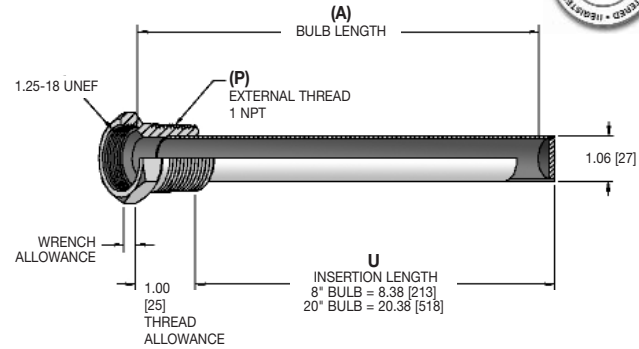
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All dimensions are nominal. Dimensions in [] are in millimeters.

Thermostat



Thermowell



TEMPERATURE REGULATORS

Pressure Rating (psi)

Material	Operating Temperature		
	70°F	300°F	500°F
Carbon Steel	780	780	600

HOW TO ORDER

Thermowell Style	(P) External Thread	Bulb Length	Material
53 Tank Thermostat	5 1 NPT	L 8" Bulb We 20" Bulb*	3 Steel

* For ranges X07 and X08 only.

Selection of the proper thermowell is the sole responsibility of the user. Temperature and pressure limitations must be considered. Improper application may cause failure of the thermowell, resulting in possible personal injury or property damage.

If Thermowells are to be purchased as a separate item, or if a Special Thermowell is required, please refer to this page. If a complete Temperature Regulator is purchased, the proper Thermowell to match the sensing bulb ordered will be supplied.

Standard Ranges

Range Code	Nominal Range	Recommended Working Span	Bulb Length (A)
X13	85° to 115°F & 30° to 45°C	85° to 115°F & 30° to 45°C	8"
X11	80° to 140°F & 25° to 60°C	110° to 140°F & 45° to 60°C	8"
X15	130° to 160°F & 50° to 70°C	130° to 160°F & 50° to 70°C	8"
X01	110° to 190°F & 45° to 90°C	160° to 190°F & 70° to 90°C	8"
X03	125° to 215°F & 55° to 100°C	180° to 210°F & 80° to 100°C	8"
X12	200° to 280°F & 95° to 135°C	250° to 280°F & 120° to 140°C	8"
X10	225° to 315°F & 110° to 155°C	280° to 310°F & 135° to 155°C	8"
X16	310° to 365°F & 155° to 185°C	310° to 365°F & 155° to 185°C	8"
X14	295° to 420°F & 145° to 215°C	360° to 420°F & 180° to 215°C	8"
X08*	45° to 115°F & 10° to 45°C	85° to 115°F & 30° to 45°C	20"
X07*	65° to 140°F & 20° to 60°C	110° to 140°F & 45° to 60°C	20"

*Except for Range Codes X07 and X08, the actuator housing and capillary tubing must always be exposed to a temperature lower than the required control point for proper thermostat operation.

Valve Capacities

Gas (Specific Gravity = 0.6)						
Inlet Pressure (PSIG)	5	10	20	30	40	50
Outlet Pressure (PSIG)	4 2 0	8 5 0	15 10 5	25 20 10	30 20 15	40 30 25
Capacity (scfh)	970 1585 1935	1450 2140 2700	2685 3480 3870	3100 4120 5030	4650 6000 6200	5320 6870 7250