

TEMPERATURE

SUBMERSIBLE THERMISTOR AND RTD SENSORS ST-TS* SERIES



DESCRIPTION

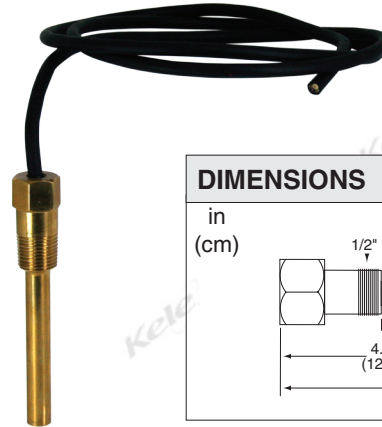
The **Precon ST-TS* Series Tank Thermistor and RTD Sensors** provide precision remote temperature sensing for cooling tower tanks for use in building automation systems. The active sensing element is a highly stable precision thermistor material or platinum RTD.

The sensing element is rugged and sealed in a thermally conductive compound. The housing is a standard brass immersion well that has the weight to keep the sensor submersed and is compatible for all liquids suitable with brass. Water resistant cable is used.

FEATURES

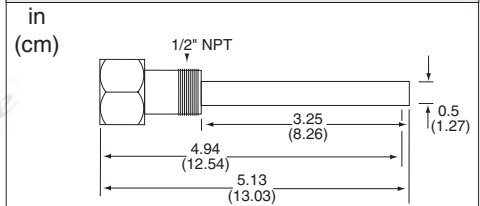
- **Lifetime warranty**
- **Wide selection of thermistor and RTD curves**
- **Brass thermowell for quick temperature response**
- **Water resistant cable**
- **Ultra high accuracy optional**
- **One piece design**

Precon



ST-TS*

DIMENSIONS



SPECIFICATIONS

Accuracy		Temperature Coefficient	
Thermistor	±0.36°F (0.2°C)	Thermistor	Negative temperature coefficient
RTD		RTD	Positive temperature coefficient
Type 63	±0.72°F (0.40°C)	Temperature Stability	
Type 71	±0.054°F (0.03°C)	Thermistor	0.24°F (0.13°C) over five years
Type 81, 85	±0.27°F (0.15°C)	RTD	<0.09°F (0.05°C) over 5 years
Type 91	±0.54°F (0.30°C)	Heat Dissipation	2.7 mW/°C (power needed to raise the temperature by 1°C)
Sensor Type		Mounting	Lower sensor into cooling tower tank, support cable at wiring box, use water proof connectors
Thermistor	2.252 kΩ, 3 kΩ, 10 kΩ Type II & III, 20 kΩ, 100 kΩ	Wiring Terminations	8' (2.44m) 2 conductor for SJO 18/2 water resistant cable
RTD		Approvals	CE
Type 63	1000Ω Nickel	Weight	0.8 lb (0.36 kg)
Type 71, 81	100Ω Pt 385 Curve	Warranty	Lifetime
Type 85	1000Ω Pt 385 Curve		
Type 91	1000Ω Pt 375 Curve		
Temperature Range			
Thermistor/RTD	-40° to 221°F (-40° to 105°C)		

ORDERING INFORMATION

MODEL	DESCRIPTION
ST-TS3	10,000Ω tank sensor thermistor @ 77°F (26°C), Type III (gray leads)
ST-TS21	2252Ω tank sensor thermistor @ 77°F (26°C), Type II (green leads)
ST-TS22	3000Ω tank sensor thermistor @ 77°F (26°C), Type II (blue leads)
ST-TS24	10,000Ω tank sensor thermistor @ 77°F (26°C), Type II (yellow leads)
ST-TS27	100,000Ω tank sensor thermistor @ 77°F (26°C), Type II (gray leads)
ST-TS42	20,000Ω tank sensor thermistor @ 77°F (26°C), Type IV (green leads)
ST-TS63	1000Ω nickel tank sensor RTD @ 70°F (21°C) (yellow leads)
ST-TS71	100Ω tank sensor RTD @ 32°F (0°C) (blue leads)
ST-TS81	100Ω tank sensor RTD @ 32°F (0°C) (yellow leads)
ST-TS85	1000Ω tank sensor RTD @ 32°F (0°C) (blue leads)
ST-TS91	1000Ω tank sensor RTD @ 32°F (0°C) (green leads)
OPTIONS	
XC25	25' (7.6m) lead length cable
XD	Dual sensors
XN1	NIST Certificate, one reference point 32°F (0°C)
XN2	NIST Certificate, two reference point 32°F (0°C)
XN3	NIST Certificate, three reference point 32°F (0°C)
XP	Matched pair
XPA	Ultra high accuracy, thermistors only, ±0.135°F (0.075°C)
S	Stainless steel thermowell

ST-TS3 - XN1 Example: ST-TS3-XN1 10,000Ω tank sensor thermistor with NIST one reference point certificate

T85U-XR
T81U-XR
T91U-XR
UR

RELATED PRODUCTS

1000 ohm, Type 85 4-20 mA temperature transmitter, custom rangeable
100 ohm, Type 81 4-20 mA temperature transmitter, custom rangeable
1000 ohm, Type 91 4-20 mA temperature transmitter, custom rangeable
Moisture-resistant three-wire butt splice

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