

TEMPERATURE

RING LUG THERMISTOR AND RTD SENSOR ST-L* SERIES



Precon



DESCRIPTION

The **Precon ST-L* Series Thermistor and RTD Ring Lug Sensors** provide precision equipment temperature sensing for building automation systems. The active sensing element is made of a highly stable, precision thermistor material or platinum RTD.

The ring lug design allows the sensor to be mounted to a bolt or stud to monitor equipment temperature. A common use is to monitor motor winding temperature by mounting to the motor housing. It comes in sizes to accommodate 1/4", 5/16" and 3/8" studs or bolts.



ST-L*

FEATURES

- Lifetime warranty
- Wide selection of thermistor and RTD curves
- Ring lug mounting for equipment monitoring
- Three stud sizes available
- Ultra high accuracy optional



SPECIFICATIONS	
Accuracy	
Thermistor	±0.36°F (0.2°C)
RTD	
Type 63	±0.72°F (0.40°C)
Type 71	±0.054°F (0.03°C)
Type 81, 85	±0.27°F (0.15°C)
Type 91	±0.54°F (0.30°C)
Sensor Type	
Thermistor	2.252 kΩ, 3 kΩ, 10 kΩ Type II, III & III w/11K shunt, 20 kΩ, 100 kΩ
RTD	
Type 63	1000Ω Nickel
Type 71, 81	100Ω Pt 385 Curve
Type 85	1000Ω Pt 385 Curve
Type 91	1000Ω Pt 375 Curve
Temperature Range	
Thermistor/RTD	-40° to 221°F (-40° to 105°C)
	Temperature Coefficient
	Thermistor Negative temperature coefficient
	RTD Positive temperature coefficient
	Temperature Stability
	Thermistor 0.24°F (0.13°C) over five years
	RTD Max 0.04% after 1k hours @ 500 °C
	Heat Dissipation 2.7 mW/°C (power needed to raise the temperature by 1°C)
	Mounting Directly to stud or bolt
	Wiring Terminations 24 AWG, UL low voltage to 105°C Connections 8' (2.4m) of 24 AWG prestripped pigtails, type 71 & 81 sensors have 18" leads
	Weight 0.1 lb (0.05 Kg) w/o options w/o options
	Approvals CE
	Warranty Lifetime

TEMPERATURE

19



TEMPERATURE

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ORDERING INFORMATION

MODEL	DESCRIPTION
ST-L3	10,000Ω lug thermistor @ 77°F (25°C), Type III (gray leads)
ST-L11K	10,000Ω lug thermistor @ 77°F (25°C), Type III with 11K shunt (gray leads)
ST-L21	2252Ω lug thermistor @ 77°F (25°C), Type II (green leads)
ST-L22	3000Ω lug thermistor @ 77°F (25°C), Type II (blue leads)
ST-L24	10,000Ω lug thermistor @ 77°F (25°C), Type II (yellow leads)
ST-L27	100,000Ω lug thermistor @ 77°F (25°C), Type II (gray leads)
ST-L42	20,000Ω lug thermistor @ 77°F (25°C), Type IV (green leads)
ST-L63	1000Ω nickel lug RTD @ 32°F (0°C) (yellow leads)
ST-L71	100Ω lug RTD @ 32°F (0°C) 385 Platinum Curve (blue leads)
ST-L81	100Ω lug RTD @ 32°F (0°C) 385 Platinum Curve (yellow leads)
ST-L85	1000Ω lug RTD @ 32°F (0°C) 385 Platinum Curve (blue leads)
ST-L91	1000Ω lug RTD @ 32°F (0°C) 375 Platinum Curve (green leads)

OPTIONS

25	1/4" Stud Size
31	5/16" Stud size
38	3/8" Stud size
XN1	NIST certificate, one reference point 32°F(0°C)
QD¹/₄	Nylon insulated quick disconnect 1/4"
X25	25' (7.6m) lead length 24 AWG
XC25	25' (7.6m) lead length 24 AWG jacketed cable
XCP25	25' (7.6m) non-shielded 22AWG plenum cable
XN	Certificate of conformance
XN1	NIST certificate, one reference point 32°F(0°C)
XN2	NIST certificate, two reference points 32°F/158°F(0°C/70°C)
XN3	NIST certificate, three reference points 32°F/77°F/158°F(0°C/25°C/70°C)

ST-L3 — 25 — XN1

Example: ST-L3-25-XN1 10,000Ω mini probe sensor with NIST one reference point certificate

RELATED PRODUCTS

T85U-XR	1000 ohm, Type 85 4-20 mA temperature transmitter, custom rangeable
T81U-XR	100 ohm, Type 81 4-20 mA temperature transmitter, custom rangeable
T91U-XR	1000 ohm, Type 91 4-20 mA temperature transmitter, custom rangeable