TEMPERATURE

STAINLESS STEEL SHEATH THERMISTOR AND RTD SENSORS

*KTM*S, KTM*SC SERIES*

DESCRIPTION

The Precon **Stainless Steel Sheath Sensors** provide remote temperature sensing for building automation systems and mechanical equipment room instrumentation. The active sensing element is a highly stable thermistor material or platinum RTD.

The sensing element is rugged and sealed with a thermally conductive compound in a versatile 3" (7.6 cm)-long stainless steel tube. The probe is waterproof, and the sensor is ideal for use in refrigeration cases or as a strap-on sensor for pipes.

KTM*S

The **KTM*S Stainless Steel Sheath Sensors** are suitable for direct application to pipe surfaces for chilled or hot water measurement. They are also used for freezer cases where moisture protection is important. These rugged strap-on sensors come with 8' (2.4m), 24-gauge zipcord leads.

KTM*SC

The **KTM*SC Stainless Steel Sheath Sensors** come with a rugged, 25' (7.6m) cable that allows for termination away from areas of condensation. It is an ideal choice for freezer case applications.

APPLICATION

Strap-on Applications: Where it is not practical to install immersion wells, the **Stainless Steel Sheath Sensors** may be strapped to the pipe. The **-C** option provides a 25' (7.6m) rugged cable that may be strapped on the outside of the pipe insulation. Pipe strap accessory (**APB-28**) provides a bracket under the insulation to hold the sensor securely in place.

FEATURES

- ***Three-year warranty***
- ***Wide selection of thermistor and RTD curves***
- ***Tip sensitive for precise temperature response***
- ***Durable 304 stainless steel casing***
- ***Easy to mount to wall, box, or pipe***
- ***Waterproof probe***

SPECIFICATIONS

Accuracy	
Thermistor	±0.50°F (±0.28°C)
RTD	±0.60°F (±0.33°C)
Sensor types	
Thermistor @ 77°F	2.252 kΩ, 3 kΩ, 10 kΩ, 20 kΩ, 100kΩ
RTD @ 32°F	Platinum 100Ω, 1000Ω, 385 curve Platinum 1000Ω, 375 curve
Temperature range	
Thermistor	-30° to 230°F (-34° to 110°C)
RTD	-68° to 240°F (-55° to 115°C)
Temperature response	
Thermistor	Negative temperature coefficient
RTD	Positive temperature coefficient
Stability	
Thermistor	0.24°F (0.13°C) over five years
RTD	<0.09°F (0.05°C) over five years
Heat dissipation	2.7 mW/°C (power needed to raise the temperature by 1°C)
Connections	8' (2.44m), 24 AWG zipcord using crimp or solder connection, type 71 & 81 have 18" leads
Mounting	Directly to wall or pipe using standard clips and brackets
Warranty	3 years

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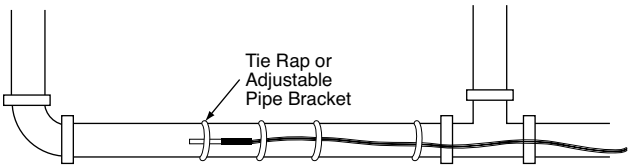
MOUNTING/WIRING

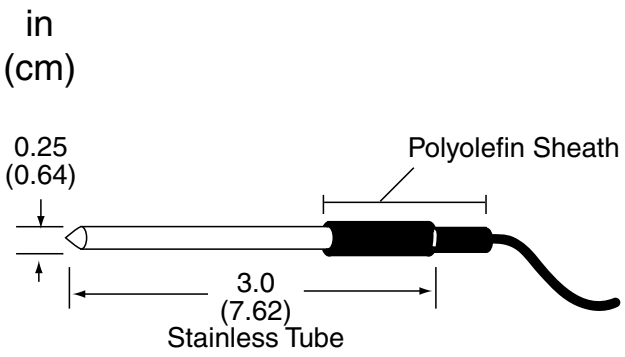
Mounting
Secure to wall or pipe using cable ties, clips, or brackets.

Wiring
Terminate with butt splices or solder connections. Wire nuts are not recommended.



When used as a strap-on sensor, best results are obtained when conductive compound (**TCC-12**) is applied between the sensor and the pipe. In addition, the sensor should be inserted under insulation with at least 2' (0.61m) on each side of the sensor. Adjustable pipe bracket **APB-28** is available for use with this sensor.

DIMENSIONS



MODEL	DESCRIPTION
KTM3S	10,000Ω stainless steel thermistor @ 77°F (25°C), Type III (gray leads)
KTM21S	2252Ω stainless steel thermistor @ 77°F (25°C), Type II (green leads)
KTM22S	3000Ω stainless steel thermistor @ 77°F (25°C), Type II (blue leads)
KTM24S	10,000Ω stainless steel thermistor @ 77°F (25°C), Type II (yellow leads)
KTM27S	100,000Ω stainless steel thermistor @ 77°F (25°C), Type II (gray leads)
KTM42S	20,000Ω stainless steel thermistor @ 77°F (25°C), Type IV (green leads)
KTM81S	100Ω stainless steel RTD @ 32°F (0°C), 385 platinum curve (yellow leads)
KTM85S	1000Ω stainless steel RTD @ 32°F (0°C), 385 platinum curve (blue leads)
KTM91S	1000Ω stainless steel RTD @ 32°F (0°C), 375 platinum curve (green leads)
	OPTIONS (List options in alphabetical order with dashes)
C	25'(7.6m) 22 AWG cable (not available with **XZ** option)
QD¼	Nylon insulated Quick Disconnect ¼"
X25	25' (7.6m) lead length 24 AWG (KTM*S only)
XCP25	25' (7.6m) Non-shielded 22AWG plenum cable
XD	Dual sensors in one probe (Not with XC, XCP25)
XL	Custom length insertion probes 1" to 60"
XN	NIST 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)
XP	Matched sensor pair, matched to ±0.1°F, 0.05°C (must order two sensors)
XZ	Three wire RTD connections (optional only on Type 81, standard on Type 71, not available with XC25 and XCP25)

KTM3S — **C** ***Example:*** **KTM3S-C** 10,000Ω stainless steel sheath thermistor with 25' (7.6m) cable

RELATED PRODUCTS

UR	**Moisture-resistant three-wire butt splice**
APB-28	**Adjustable pipe bracket 2" to 8" (5.1 to 20.3 cm)**
TCC-12	**Single application thermal conductive compound**
TCC-111	**Thermal conductive compound 111 ml tub**
PN-46	**Aluminum mounting clip**
#20	**Strap-on sensor self-vulcanizing stretch tape, 6' (1.83m) roll, 1" (2.54cm) wide**