



TEMPERATURE

STAINLESS STEEL SHEATH THERMISTOR AND RTD SENSOR KTM*S, KTM*SC SERIES

DESCRIPTION

The **Kele Stainless Steel Sheath Thermistor and RTD 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

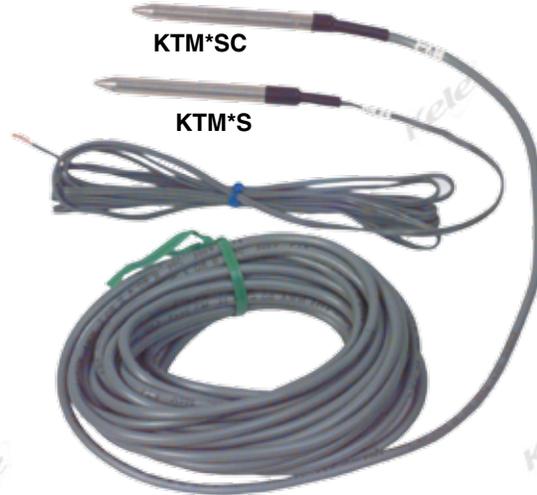
The **KTM*SC Stainless Steel Sheath Sensors** come with a rugged, 25' (7.6m) cable that allows for termination away from areas of condensation. It is an ideal choice for freezer case applications.

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*

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.



SPECIFICATIONS

Accuracy		Temperature Stability	
Thermistor	±0.50°F (0.28°C)	Thermistor	0.24°F (0.13°C) over five years
RTD	±0.60°F (0.33°C)	RTD	Max 0.04% after 1k hours @ 500 °C
Sensor Type		Heat Dissipation	2.7 mW/°C (power needed to raise the temperature 1°C)
Thermistor	2.252 kΩ, 3 kΩ, 10 kΩ Type II, III & III w/11K shunt, 20 kΩ, 100 kΩ	Mounting	Directly to wall or customer supplied enclosure using customer-supplied clips
RTD		Wiring Terminations	8', 24 AWG gray wire leads, type 71 & 81 sensors have 18" leads
Type 71, 81	100Ω Pt 385 Curve	Weight	
Type 85	1000Ω Pt 385 Curve	KTM*S	0.15 lb (0.07 Kg) w/o options with no options
Type 91	1000Ω Pt 375 Curve	KTM*SC	0.45 lb (0.2 Kg) with no options
Temperature Range		Approvals	CE
Thermistor/RTD	-40° to 221°F (-40° to 105°C)	Warranty	3 years
Temperature Coefficient			
Thermistor	Negative temperature coefficient		
RTD	Positive temperature coefficient		



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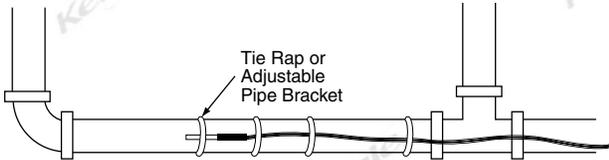
MOUNTING

Mounting

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

Wiring

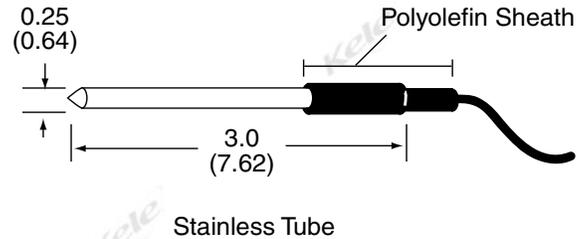
Terminate with butt splices or solder connections. Twist on wire connectors are not recommended.



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

in
(cm)



ORDERING INFORMATION

MODEL	DESCRIPTION
KTM3S	10,000Ω stainless steel thermistor @ 77°F (25°C), Type III (gray leads)
KTM11KS	10,000Ω stainless steel thermistor @ 77°F (25°C), Type III with 11K shunt (gray leads)
KTM21S	2252Ω stainless steel thermistor @ 77°F (25°C), Type II (gray leads)
KTM22S	3000Ω stainless steel thermistor @ 77°F (25°C), Type II (gray leads)
KTM24S	10,000Ω stainless steel thermistor @ 77°F (25°C), Type II (gray 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 (gray leads)
KTM71S	100 ultra high accurat RTD @ 32°F (0°C), 385 platinum curve (gray leads)
KTM81S	100Ω stainless steel RTD @ 32°F (0°C), 385 platinum curve (gray leads)
KTM85S	1000Ω stainless steel RTD @ 32°F (0°C), 385 platinum curve (gray leads)
KTM91S	1000Ω stainless steel RTD @ 32°F (0°C), 375 platinum curve (gray leads)
OPTIONS	
C	25'(7.6m) 22 AWG cable non-pleum (not available with XZ option)
QD ¼	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 (not with "c" models)
XD	Dual sensors in one probe (Not with "c" models)
XL	Custom length insertion probes 1" to 60"
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)
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

#20
APB-28
PN-46
T81U-XR
T85U-XR
T91U-XR
TCC-111
TCC-12
UR

Self-vulcanizing stretch tape, 6' (1.83m) roll, 1" (2.54 cm) wide
Adjustable pipe bracket 2"-8" diameter
Aluminum sensor holder with adhesive backing
100 ohm, Type 81 4-20 mA temperature transmitter, custom rangeable
1000 ohm, Type 85 4-20 mA temperature transmitter, custom rangeable
1000 ohm, Type 91 4-20 mA temperature transmitter, custom rangeable
Thermal conductive compound 111 ml tub
Thermal conductive compound tube, 12 ml
Moisture-resistant three-wire butt splice