

TEMPERATURE

ROOM THERMISTOR AND RTD TEMPERATURE SENSOR KTES* SERIES



DESCRIPTION

The **Kele KTES* Series Room Thermistor and RTD Temperature Sensor** is a cost-effective room temperature thermistor with an accuracy of $\pm 0.5^{\circ}\text{F}$ ($\pm 0.28^{\circ}\text{C}$). The thermistor is made of a very stable, pre-aged material that offers the reliability needed in most HVAC systems, and it comes with a three-year warranty.

FEATURES

- **Economical**
- **Attractive design**
- **Three-year warranty**
- **$\pm 0.5^{\circ}\text{F}$ ($\pm 0.28^{\circ}\text{C}$) accuracy**
- **Durable housing**
- **White color**

OPTIONS

- **Setpoint slide adjust**
- **Momentary override switch**

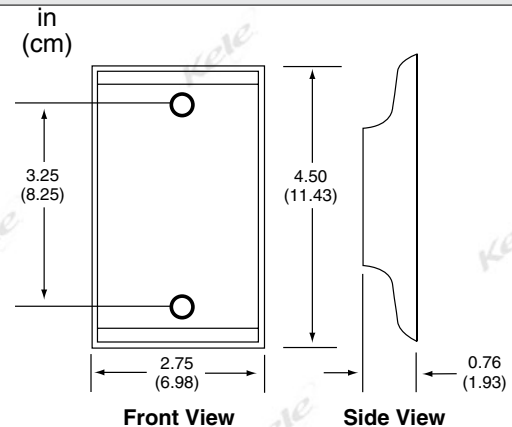
APPLICATION

The **KTES* Series** is designed to be wall mounted indoors where appearance is important. The sensor may be mounted directly to the drywall or on a standard US electrical outlet box without adapters.



KTES*

DIMENSIONS



TEMPERATURE

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SPECIFICATIONS

| | | | |
|--------------------------|--|--------------------------------|--|
| Accuracy | | Temperature Coefficient | |
| Thermistor | $\pm 0.50^{\circ}\text{F}$ (0.28°C) | Thermistor | Negative temperature coefficient |
| RTD | $\pm 0.60^{\circ}\text{F}$ (0.33°C) | RTD | Positive temperature coefficient |
| Sensor Type | | Temperature Stability | |
| Thermistor | 2.252 k Ω , 3 k Ω , 10 k Ω Type II, III & III w/11k shunt, 20 k Ω , 100 k Ω | Thermistor | Negative temperature coefficient |
| RTD | | RTD | Max 0.04% after 1k hours @ 500 $^{\circ}\text{C}$ |
| Type 71, 81 | 100 Ω Pt 385 Curve | Heat Dissipation | 2.7 mW/ $^{\circ}\text{C}$ (power needed to raise the temperature 1 $^{\circ}\text{C}$) |
| Type 85 | 1000 Ω Pt 385 Curve | Enclosure Rating | NEMA 1, White plastic |
| Type 91 | 1000 Ω Pt 375 Curve | Mounting | Directly to wall or single gang box |
| Temperature Range | | Wiring Terminations | Terminals |
| Thermistor/RTD | -40 $^{\circ}$ to 221 $^{\circ}\text{F}$ (-40 $^{\circ}$ to 105 $^{\circ}\text{C}$) | Weight | 0.12 lb (0.05 Kg) |
| | | Approvals | CE |
| | | Warranty | 3 years |



TEMPERATURE

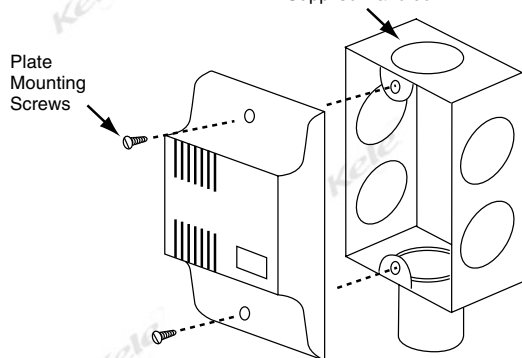
ROOM THERMISTOR TEMPERATURE SENSOR

KTES* SERIES

MOUNTING

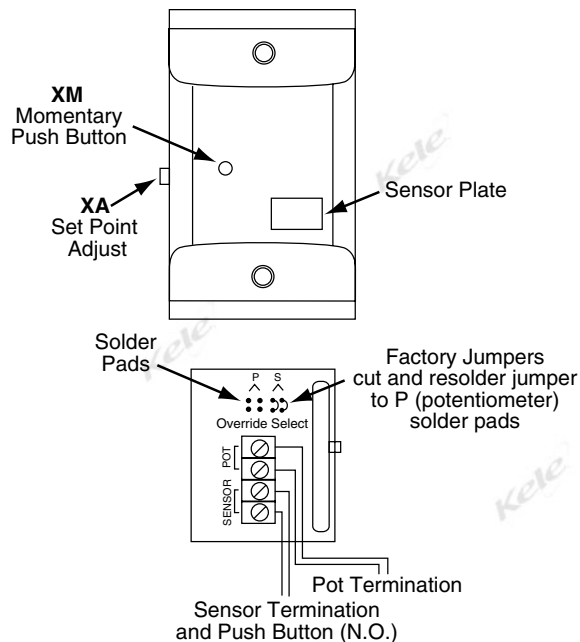
Toggle bolts or other direct wall-mount screws can be used where conduit is not required. Adapters are not required when mounting directly to electrical outlet boxes.

Basic model comes with screw terminal block, two #6-32 screws for handibox mounting or for direct wall mounting. Optional wall mounting. Supplied Handibox



The sensor should be mounted approximately 5' (1.5m) above the floor, on an interior wall, away from any heating or cooling generating devices.

DIMENSIONS



ORDERING INFORMATION

| MODEL | DESCRIPTION |
|---------|---|
| KTES3 | 10,000Ω Room Thermistor @ 77°F (25°C), Type III Material (gray leads) |
| KTES21 | 2252Ω Room Thermistor @ 77°F (25°C), Type II Material (green leads) |
| KTES22 | 3000Ω Room Thermistor @ 77°F (25°C), Type II Material (blue leads) |
| KTES24 | 10,000Ω Room Thermistor @ 77°F (25°C), Type II Material (yellow leads) |
| KTES27 | 100,000Ω Room Thermistor @ 77°F (25°C), Type II Material (gray leads) |
| KTES42 | 20,000Ω Room Thermistor @ 77°F (25°C), Type IV Material (green leads) |
| KTES81 | 100Ω Room RTD @ 32°F (0°C), 385 platinum curve, (yellow leads) |
| KTES85 | 1000Ω Room RTD @ 32°F (0°C), 385 platinum curve, (blue leads) |
| KTES91 | 1000Ω Room RTD @ 32°F (0°C), 375 platinum curve, (green leads) |
| OPTIONS | |
| XA | Setpoint adjustment (10,000 to 30,000, resistance input) |
| XA2K | Setpoint adjustment (1,000 to 1,400, resistance input) |
| XA10K | Setpoint adjustment (1,000 to 3,000Ω, resistance input) |
| XD | Dual sensors |
| XM | Momentary switch (jumped across sensor) |
| 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 |

KTES27 - **XA** Example: KTES27-XA 100,000Ω Type II room sensor thermistor with set point adjust option

RELATED PRODUCTS

T85U-XR
T81U-XR
T91U-XR
UR

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