



# TEMPERATURE

## OSA THERMISTOR AND RTD SENSORS KTOSA\* SERIES

### DESCRIPTION

The Kele KTOSA\* Series OSA Temperature Thermistor and RTD Sensors are very economical and are specifically designed for HVAC applications. The mounting styles are based on proven techniques for installation efficiency and use stainless steel probes for durability. The sensors come with a three year warranty and are made with the highest quality material that offers the reliability needed in HVAC systems.



KTOSA\*

### FEATURES

- Economical
- Proven mounting designs
- Three-year warranty
- NEMA 3R enclosure

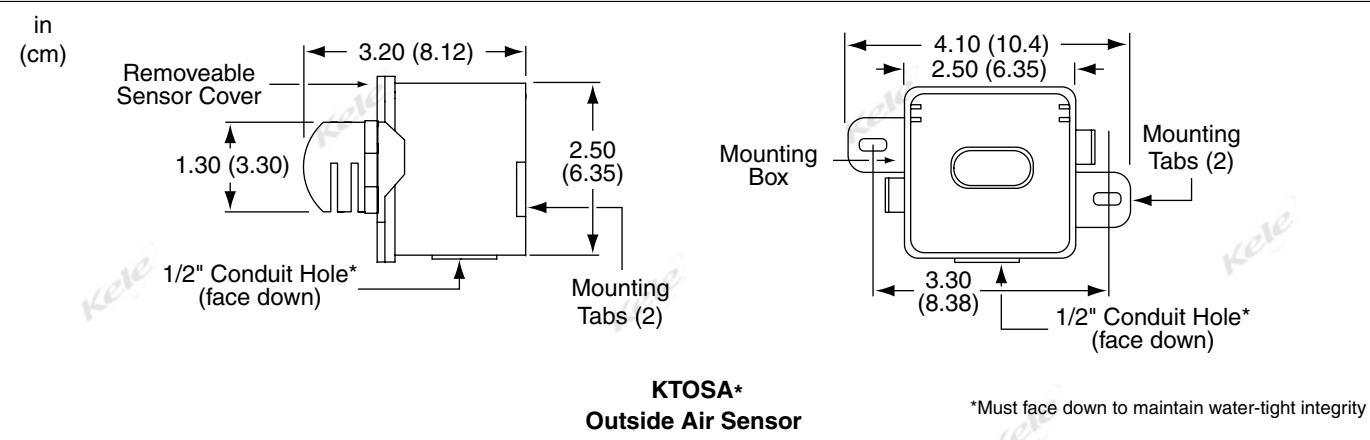
### APPLICATION

The KTOSA\* Series Sensors are used for outside air temperature sensing. The design allows for two-point mounting. The weather shield protects the encapsulated sensor probe from the effects of rain, sleet, and snow.

### SPECIFICATIONS

|                                |  |                            |  |
|--------------------------------|--|----------------------------|--|
| <b>Accuracy</b>                |  | <b>RTD</b>                 | Positive temperature coefficient   |
| <b>Thermistor</b>              | ±0.50°F (0.28°C)   | <b>Temperature Range</b>   | -40° to 221°F (-40° to 105°C)  |
| <b>RTD</b>                     | ±0.60°F (0.33°C),  | <b>Thermistor/RTD</b>      | NEMA 3R, White plastic   |
| <b>Temperature Stability</b>   |  | <b>Enclosure Rating</b>    | Directly to wall   |
| <b>Thermistor</b>              | 0.24°F (0.13°C) over five years                                | <b>Mounting</b>            | 8', 24 AWG gray wire leads, type 71 & 81 sensors have 18" leads              |
| <b>RTD</b>                     | 100% (no drift platinum)                                       | <b>Wiring Terminations</b> | Seamless 304 stainless steel tube with 1.5" (3.8 cm) diameter weather shield |
| <b>Heat Dissipation</b>        | 2.7 mW/°C (power needed to raise the temperature 1°C)          | <b>Probe</b>               | 0.25 lb (0.11 Kg) w/o options  |
| <b>Sensor Type</b>             |  | <b>Weight</b>              | CE   |
| <b>Thermistor</b>              | 2.252kΩ, 3kΩ, 10kΩ Type II, III & III w/11K shunt, 20kΩ, 100kΩ | <b>Approvals</b>           | 3 years  |
| <b>RTD</b>                     |  | <b>Warranty</b>            |  |
| <b>Type 71, 81</b>             | 100Ω Pt 385 Curve  |                            |  |
| <b>Type 85</b>                 | 1000Ω Pt 385 Curve   |                            |  |
| <b>Type 91</b>                 | 1000Ω PT 375 Curve   |                            |  |
| <b>Temperature Coefficient</b> |  |                            |  |
| <b>Thermistor</b>              | Negative temperature coefficient                               |                            |  |

### DIMENSIONS





### ORDERING INFORMATION

| MODEL           | DESCRIPTION  |
|-----------------|--|
| <b>KTOSA3</b>   | OSA temperature sensor, 10,000Ω thermistor Type III, (gray leads)                |
| <b>KTOSA11K</b> | OSA temperature sensor, 10,000Ω thermistor Type III with 11K shunt, (gray leads) |
| <b>KTOSA21</b>  | OSA temperature sensor, 2250Ω thermistor Type II, (gray leads)                   |
| <b>KTOSA22</b>  | OSA temperature sensor, 3,000Ω thermistor Type II, (gray leads)                  |
| <b>KTOSA24</b>  | OSA temperature sensor, 10,000Ω thermistor Type II, (gray leads)                 |
| <b>KTOSA27</b>  | OSA temperature sensor, 100,000Ω thermistor Type II, (gray leads)                |
| <b>KTOSA42</b>  | OSA temperature sensor, 20,000Ω thermistor Type IV, (gray leads)                 |
| <b>KTOSA71</b>  | 100 ultra high accurat RTD @ 32°F (0°C), 385 platinum curve (gray leads)         |
| <b>KTOSA81</b>  | OSA temperature sensor, 100Ω RTD 385 platinum curve (gray leads)                 |
| <b>KTOSA85</b>  | OSA temperature sensor, 1,000Ω RTD 385 platinum curve (gray leads)               |
| <b>KTOSA91</b>  | OSA temperature sensor, 1,000Ω RTD 375 platinum curve (gray leads)               |
| <b>OPTIONS</b>  |  |
| <b>QD¼</b>      | Nylon insulated quick disconnect ¼"  |
| <b>X25</b>      | 25' (7.6m) lead length 24 AWG  |
| <b>XC25</b>     | 25' (7.6m) lead length 24 AWG jacketed cable                                     |
| <b>XCP25</b>    | 25' (7.6m) non-shielded 22AWG plenum cable                                       |
| <b>XD</b>       | Dual sensors   |
| <b>XN</b>       | Certificate of conformance   |
| <b>XN1</b>      | NIST certificate, one reference point 32°F(0°C)                                  |
| <b>XN2</b>      | NIST certificate, two reference points 32°F/158°F(0°C/70°C)                      |
| <b>XN3</b>      | NIST certificate, three reference points 32°F/77°F/158°F(0°C/25°C/70°C)          |
| <b>XP</b>       | Matched sensor pair, matched to ±0.1°F, 0.05°C (must order two sensors)          |
| <b>XZ</b>       | Three wire RTD connections (Type 81 only) (Not with XC25, XCP25)                 |

### RELATED PRODUCTS

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