

TEMPERATURE

UNIVERSAL-MOUNT THERMISTOR AND RTD SENSORS KTU* SERIES



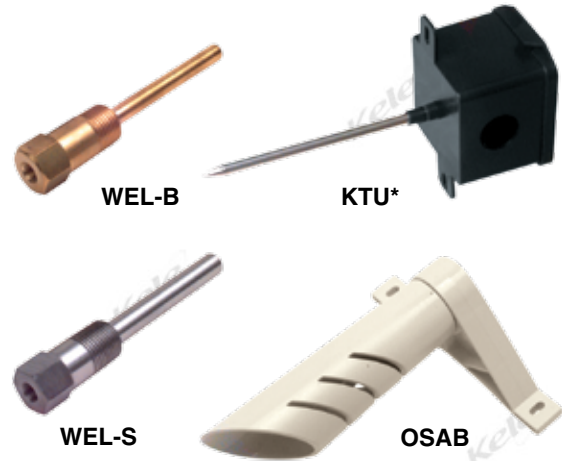
DESCRIPTION

The Kele KTU* Series Universal-Mount Thermistor and RTD Sensors provide remote temperature sensing in multiple applications such as duct, OSA, and immersion installations for building automation systems. The active sensing element is a highly stable thermistor material or platinum RTD.

The sensing element is sealed with a thermally conductive compound in a 4-7/8" (12.38 cm) long stainless steel probe and is attached to a 2.5" (6.35 cm) square enclosure. The tabs on the enclosure provide mounting ears for direct duct mounting and are easily removable if they are not needed. This multipurpose enclosure minimizes the number of stock parts required to handle multiple applications.

FEATURES

- Three-year warranty
- Flame retardant, plenum rated
- Adaptable with many mounting options
- 304 stainless steel waterproof probes
- Paintable plastic
- NEMA 3R, IP22



MOUNTING	PROBE APPLICATIONS
<p>Duct: Drill a 9/16" (1.43 cm) hole for insertion into the duct. Attach probe snug to the duct with self tapping screws.</p> <p>Well Insertion: Install the well into the customer-supplied 1/2" saddle (Thredolet®), then thread the sensor into the well. For better heat transfer you may apply thermal compound to the tip of the sensor before insertion. Mounting tabs may be removed.</p> <p>OSA: Insert the shield into the bracket and thread the KT-U* through the gasket to the shield. Secure the assembly to the wall using the appropriate hardware for the wall surface. The ideal orientation of the sensor is horizontal with the knockout facing down and located on an outside wall with a shaded exposure. Mounting tabs may be removed. The sensor and shield may be painted to the architect's specifications.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Shaded Exposure</p> </div> <div style="text-align: center;"> <p>Do not mount sensor in vertical position with the weather shield pointing up.</p> </div> </div> <p>When choosing location for any outdoor air temperature sensors:</p> <ol style="list-style-type: none"> 1. Do not mount above building openings (windows, doors) 2. Keep sensor out of direct sunlight 	<p>The Duct Temperature application is designed for direct mounting on sheet metal duct systems. The sensor is point sensitive and comes standard with a 4-7/8" (12.38 cm) insertion depth. The XL option is available for custom lengths up to 36" (91.44 cm).</p> <p>The Immersion Temperature application is designed to be threaded directly into a 1/8" NPT well. The wells are available in brass or 304 stainless steel and are designed for pipe insertion using a 1/2" threaded saddle (Thredolet®).</p> <p>The Outside Air Temperature application uses a wall bracket with a vented weather shield to minimize the effect of rain, snow, or other weather-related influences. This rugged enclosure and bracket will ensure long life even in severe weather conditions.</p>

SPECIFICATIONS	
Accuracy	
Thermistor	±0.50°F (0.28°C)
RTD	±0.60°F (0.33°C)
Sensor Type	
Thermistor	2.252 kΩ, 3 kΩ, 10 kΩ Type II, III & III w/11K shunt, 20 kΩ, 100 kΩ
RTD	
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 1°C)
Enclosure Rating	NEMA 3R, UL 94V-0, plenum-rated plastic, IP22, UV protected with snap-off cover
Mounting	Directly to duct, immersion well, or OSA wall mount with appropriate bracket
Wiring Terminations	8', 24 AWG gray wire leads, type 71 & 81 sensors have 18" leads
Probe	Seamless 304 stainless steel tube, 1/4" OD, 4.87" long
Weight	0.25 lb (0.11 Kg) w/o options
Approvals	CE
Warranty	3 years

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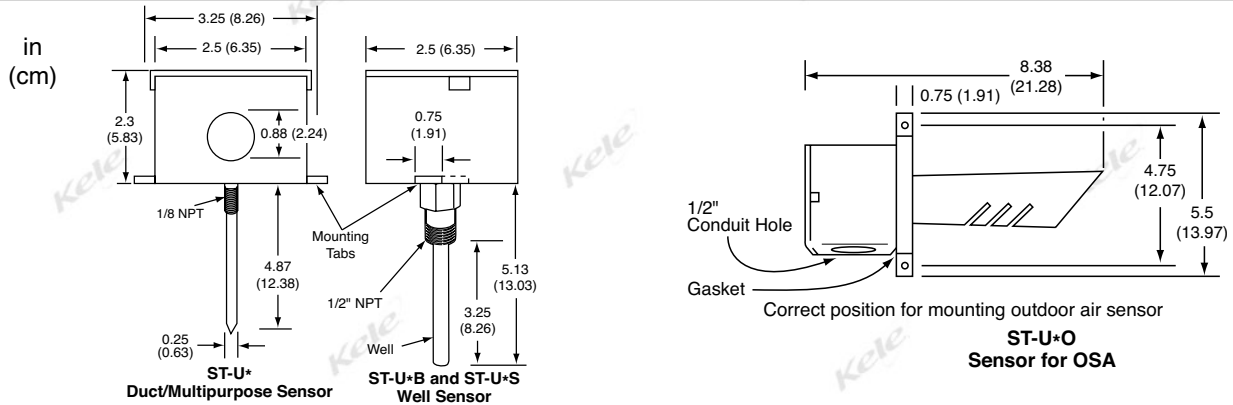
19



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DIMENSIONS



ORDERING INFORMATION

MODEL	DESCRIPTION
KTU3	10,000Ω universal-mount thermistor @ 77°F (25°C), Type III (gray leads)
KTU11K	10,000Ω universal-mount thermistor @ 77°F (25°C), Type III with 11K shunt (gray leads)
KTU21	2252Ω universal-mount thermistor @ 77°F (25°C), Type II (gray leads)
KTU22	3000Ω universal-mount thermistor @ 77°F (25°C), Type II (gray leads)
KTU24	10,000Ω universal-mount thermistor @ 77°F (25°C), Type II (gray leads)
KTU27	100,000Ω universal-mount thermistor @ 77°F (25°C), Type II (gray leads)
KTU42	20,000Ω universal-mount thermistor @ 77°F (25°C), Type IV (gray leads)
KTU71	100 ultra high accurat RTD @ 32°F (0°C), 385 platinum curve (gray leads)
KTU81	100Ω universal-mount RTD @ 32°F (0°C), 385 platinum curve (gray leads)
KTU85	1000Ω universal-mount RTD @ 32°F (0°C), 385 platinum curve (gray leads)
KTU91	1000Ω universal-mount RTD @ 32°F (0°C), 375 platinum curve (gray leads)

OPTIONS

B	WEL-B brass well included
O	OSAB outside weathershield, gasket, and bracket for wall mount included
QD1/4	Nylon insulated quick disconnect 1/4"
S	WEL-S 304 stainless steel well included
X25	25' (7.6m) lead length 24 AWG
XC25	25' (7.6m) lead length jacketed cable
XCP25	25' Non-shielded plenum cable
XD	Dual sensors in one probe
XG	Greenfield fitting (not installed)
XL	Custom length insertion probes 1" to 108"
XL2 in	Custom length insertion probe, 2"(5.08 cm)
XL9	Custom length insertion probe, 9"(22.86 cm)
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 (Type 81 only) (Not with XC25, XCP25)

KTU3 - B Example: KTU3B 10,000Ω Type III immersion sensor with brass well

RELATED PRODUCTS

F-1000-331	Nylon bushing for open wiring
OSAB	OSA weather shield, gasket, and bracket
T81U-XR	100 ohm, Type 81 4-20 mA temperature transmitter, custom rangeable
T85U-XR	1000 ohm, Type 85 4-20 mA temperature transmitter, custom rangeable
T91U-XR	1000 ohm, Type 91 4-20 mA temperature transmitter, custom rangeable
TCC-111	Thermal conductive compound 111 ml tub
TCC-12	Thermal conductive compound tube, 12 ml