



# TEMPERATURE

## KELE ROOM THERMISTOR AND RTD TEMPERATURE SENSOR

### KTR\* SERIES

#### DESCRIPTION

The **KTR\* Room Temperature Sensor** is a cost-effective room temperature sensor 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 control systems. The platinum RTD comes in 100 $\Omega$  and 1000 $\Omega$  and is compatible with most HVAC systems. All sensors come with a three-year warranty.

#### FEATURES

- **Economical**
- **Attractive new design**
- **Three-year warranty**
- **Durable housing**
- **White color**
- **Thermistor or RTD**
- **Locking cover screws**

#### APPLICATION

The **KTR\* Series** is designed to be wall mounted indoors where appearance and accuracy are important. The sensor may be mounted directly to the dry-wall or on standard electrical boxes. It comes in all the most common thermistors or RTDs. Options may be mixed and matched for each application.



KTR\*-A10K-J1-LED-MB

KTR\*



#### SPECIFICATIONS

##### Accuracy

**Thermistor**  $\pm 0.50^{\circ}\text{F}$  ( $\pm 0.28^{\circ}\text{C}$ )

**RTD**  $\pm 0.60^{\circ}\text{F}$  ( $\pm 0.33^{\circ}\text{C}$ )

##### Sensor types

**Thermistor @ 77°F** 2.252 k $\Omega$ , 3 k $\Omega$ , 10 k $\Omega$ , 20 k $\Omega$ , 100 k $\Omega$

**RTD @ 32°F**  
 Platinum 100 $\Omega$ , 385 curve  
 Platinum 1000 $\Omega$ , 385 curve  
 Platinum 1000 $\Omega$ , 375 curve

##### Temperature range

**Thermistor** 10°F to 230°F (-12° to 110°C)

**RTD** -67° to 240°F (-55° to 115°C)

**Temperature response** NTC - Thermistors, PTC - RTDs

**Sensitivity** See Sensor Resistance Charts in the Technical Reference section

##### Stability

**Thermistor** 0.24°F (0.13°C) over five years

**RTD** 100% (no drift platinum)

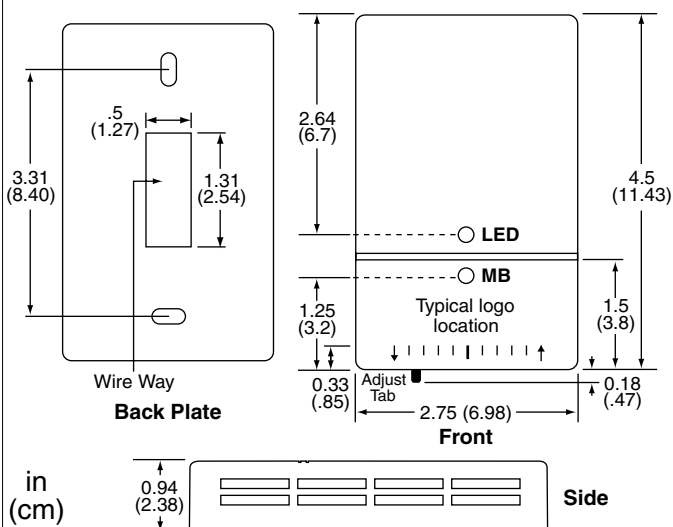
**Connections** Terminals

**Enclosure** White plastic

**Weight** 0.2 lb (0.09 kg)

**Warranty** 3 years

#### DIMENSIONS

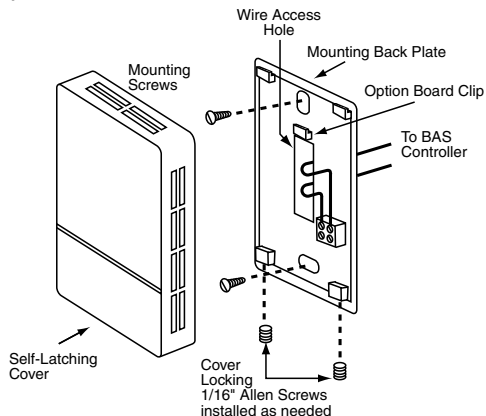




### MOUNTING AND SENSOR ONLY WIRING

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

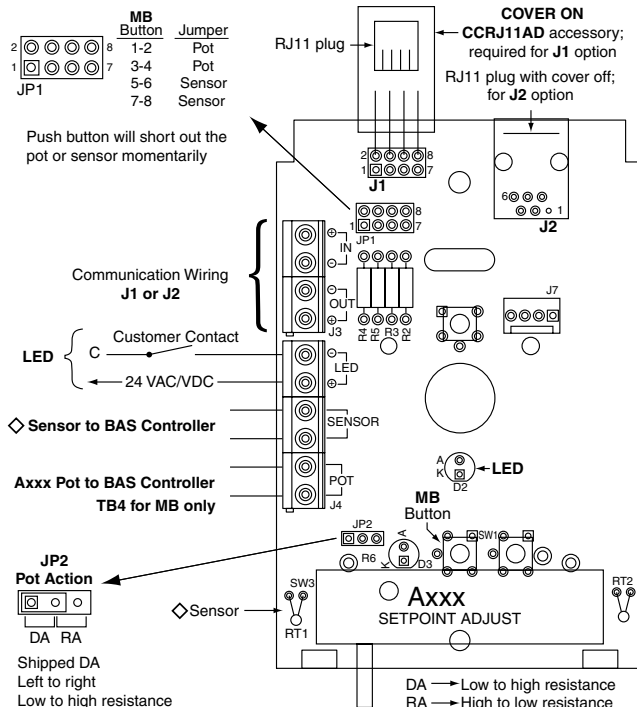
Basic model comes with screw terminal block, white decorator face-plate, two #6-32 screws for handy-box mounting, and two #6 x 1" screws for direct wall mounting. Locking cover screws are #6-32 with a 1/16" Allen key head, installed as needed.



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

Note: Adjust option requires option board removal to mount back plate.

### WIRING TYPICAL COVER OPTIONS



### ORDERING INFORMATION

MODEL	DESCRIPTION
KTR	Kele room sensor housing
<b>SENSOR SELECTION</b>	
3	10,000Ω thermistor @ 77°F (25°C), Type III
21	2252Ω thermistor @ 77°F (25°C), Type II
22	3000Ω thermistor @ 77°F (25°C), Type II
24	10,000Ω thermistor @ 77°F (25°C), Type II
27	100,000Ω thermistor @ 77°F (25°C), Type II
42	20,000Ω thermistor @ 77°F (25°C), Type IV
81	100Ω RTD @ 32°F (0°C), 385 platinum curve (yellow leads)
85	1000Ω RTD @ 32°F (0°C), 385 platinum curve (blue leads)
91	1000Ω RTD @ 32°F (0°C), 375 platinum curve (green leads)
<b>ROOM SENSOR OPTIONS</b> (List options alphabetically with dashes)	
A100K	Setpoint adjust with 100,000Ω span
A10K	Setpoint adjust with 10,000Ω span
A20K	Setpoint adjust with 20,000Ω span
A400	Setpoint adjust with 400Ω span (R5 for offset)
CL1	Custom logo one color (CL2=two color, CL3=three color)
D	Dual sensors
J1	RJ11 externally-accessible communication jack( CCRJ11AD required)
J2	Internal RJ11 communication jack
LED	LED lamp indicator, standard 24 VAC/VDC voltage
MB	Momentary pushbutton switch, jumpered across sensor or pot (JP1)
N	NIST Certificate of conformance
N1	NIST certificate, one reference point 32°F(0°C)
N2	NIST certificate, two reference points 32°F/158°F(0°C/70°C)
N3	NIST certificate, three reference points 32°F/77°F/158°F(0°C/25°C/70°C)
R	Rugged moistureproof coating 3.5"
R#	Rugged moistureproof coating. # equals number of feet of the coating
TB4	Separate termination for MB option
XP	Matched sensor pair, matched to ±0.1°F, 0.05°C (must order two sensors)
XZ	Three wire RTD connections(Type 81 only)

#### Sample Order

##### KTR3

Kele room sensor with 10,000Ω Type III thermistor

##### KTR85-A10K-MB

Kele room sensor with 1000Ω 385 RTD with 10kΩ adjust pot and momentary switch

#### RELATED PRODUCTS

10-531 Wall adapter plate 7" x 5.25"  
CCRJ11AD J1 option adaptor  
KT-1 Cover mounting screwdriver