

TEMPERATURE

ROOM TEMPERATURE THERMISTOR AND RTD SENSORS KTR* SERIES



DESCRIPTION

The **Kele Model KTR* Room Temperature Thermistor and RTD Sensor** is a cost-effective room temperature sensor with an accuracy of $\pm 0.5^{\circ}\text{F}$ (0.28°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 ohm and 1000 ohm and is compatible with most HVAC systems. All sensors come with a three-year warranty.

FEATURES

- Economical
- Attractive new design
- Three-year warranty
- $\pm 0.5^{\circ}\text{F}$ (0.28°C) accuracy
- 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 drywall or on standard electrical boxes. It comes in all the most common thermistors or RTDs. Options may be mixed and matched for each application.



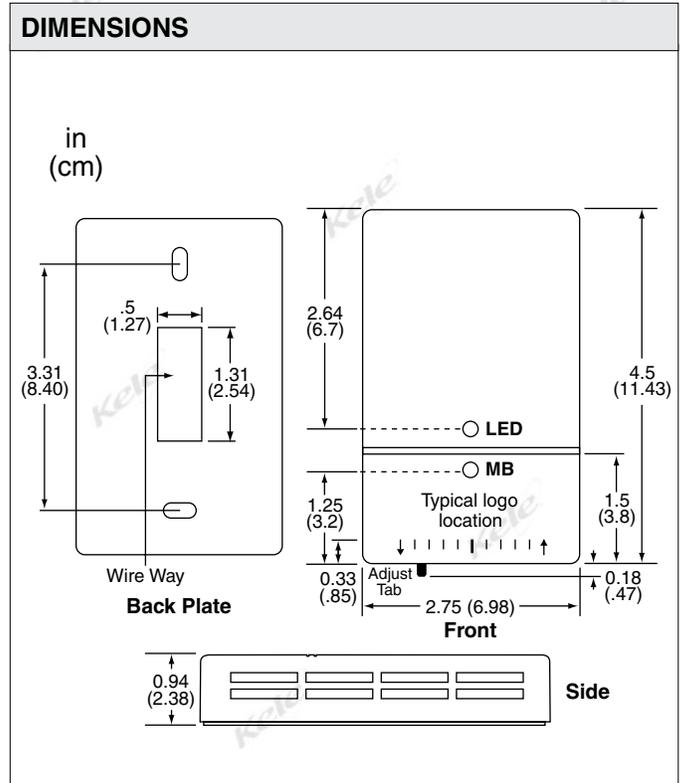
KTR*



KTR*-A10K-J1-LED-MB



SPECIFICATIONS	
Accuracy	
Thermistor	$\pm 0.50^{\circ}\text{F}$ (0.28°C)
RTD	$\pm 0.60^{\circ}\text{F}$ (0.33°C)
Sensor Type	
Thermistor	2.252 k Ω , 3 k Ω , 10 k Ω Type II, III & III w/11K shunt, 20 k Ω , 100 k Ω
RTD	
Type 71, 81	100 Ω Pt 385 Curve
Type 85	1000 Ω Pt 385 Curve
Type 91	1000 Ω 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 $^{\circ}\text{F}$ (0.13°C) over five years
RTD	Max 0.04% after 1k hours @ 500 $^{\circ}\text{C}$
Heat Dissipation	
	2.7 mW/ $^{\circ}\text{C}$ (power needed to raise the temperature 1 $^{\circ}\text{C}$)
Enclosure Rating	
	NEMA 1, White plastic
Mounting	
	Directly to wall or single gang back box
Wiring Terminations	
	Terminals
Weight	
	0.2 lb (0.09 Kg)
Approvals	
	CE
Warranty	
	3 years





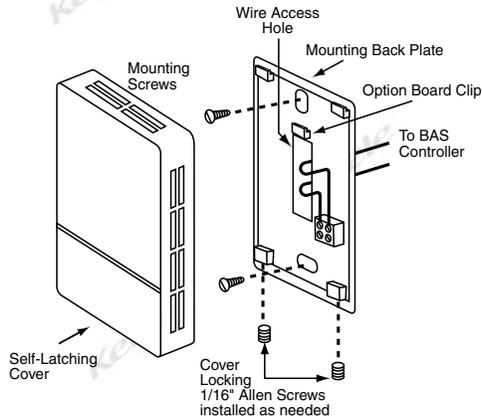
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MOUNTING AND SENSOR ONLY WIRING

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.

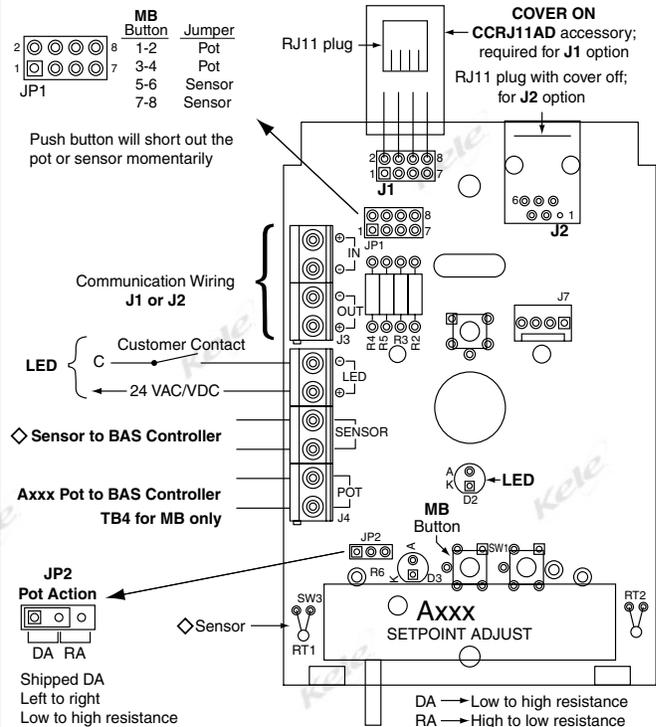
Basic model comes with screw terminal block, white decorator faceplate, two #6-32 screws for handy-box mounting, and two #6 x 1" screws for direct wall mounting. Locking cover screws are #6-32 with a 1/16" Allen key head, installed as needed.



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
SENSOR SELECTION	
3	10,000Ω thermistor @ 77°F (25°C), Type III
11K	10,000Ω thermistor @ 77°F (25°C), Type III with 11K shunt
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
71	100 ultra high accurat RTD @ 32°F (0°C), 385 platinum curve (gray leads)
81	100Ω RTD @ 32°F (0°C), 385 platinum curve (yellow leads)
91	1000Ω RTD @ 32°F (0°C), 375 platinum curve (green leads)
ROOM SENSOR OPTIONS	
XA100K	Setpoint adjust with 100,000Ω span
XA20K	Setpoint adjust with 20,000Ω span
XA400	Setpoint adjust with 400Ω span (R5 for offset)
XCL1	Custom logo one color (CL2=two color, CL3=three color)
XD	Dual sensors
XJ1	RJ11 externally-accessible communication jack (CCRJ11AD required)
XJ2	Internal RJ11 communication jack
XLED	LED lamp indicator, standard 24 VAC/VDC voltage
XM	Momentary pushbutton switch, jumpered across sensor or pot (JP1)
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)
TB4	Separate termination for MB option
XP	Matched sensor pair, matched to ±0.1°F, 0.05°C (must order two sensors)
XPA	Ultra high accuracy, thermistors only ±0.135°F, 0.075°C
XPL	Red LED lamp externally powered 24VAC/VDC

Sample Order

KTR3 Kele room sensor with 10,000Ω Type III thermistor

RELATED PRODUCTS

- 10-531 White adaptor plate
7" x 5.25" (KTR,KHR)
- CC-RJ11AD Adapter cable for XJ1 option with female RJ11 8-pin connector
- KT1 Mounting screwdriver
1/16" allen key
- 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