TEMPERATURE

DECORATOR ROOM THERMISTOR AND RTD SENSORS
ST-S*K SERIES

DESCRIPTION

The **PreCon Model ST-S*K White Decorator Thermistor and RTD Sensor** provides precision room temperature sensing for building automation systems. The thermistor element is made of a highly stable, pre-aged precision thermistor material accurate to within ±0.36°F (0.2°C) while the platinum RTD is avaialble in 100Ω and 1000Ω models. Both are compatable with most HVAC systems.

FEATURES

- *Lifetime warranty*
- *Attractive new design*
- *±0.36°F (0.2°C) thermistor accuracy*
- *±0.27°F (0.15°C) or 0.54°F (0.30°C) RTD accuracy*
- *Durable housing*
- *White color*
- *Thermistor or RTD*
- *Locking cover screws*

OPTIONS

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

APPLICATION

The **ST-S*K 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 is available in all common thermistors or RTDs.
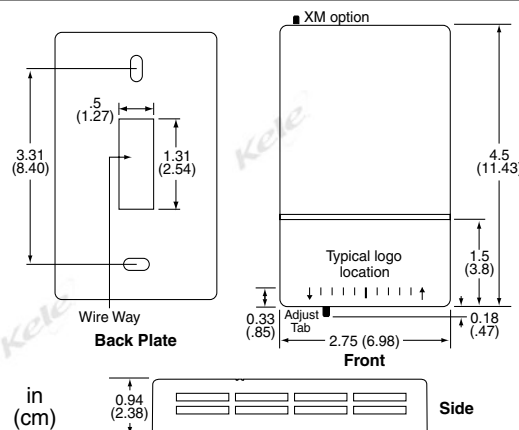
ST-S*K

DIMENSIONS

in (cm)

SPECIFICATIONS

Accuracy
Thermistor	±0.36°F (0.2°C)
RTD	
Type 63	±0.72°F (0.40°C)
Type 71	+/-0.0774°F (0.043°C)
Type 81, 85	±0.27°F (0.15°C)
Type 91	±0.54°F (0.30°C)

Sensor Type
Thermistor	2.252 kΩ, 3 kΩ, 10 kΩ Type II, III & III w/11K shunt, 20 kΩ, 100 kΩ
RTD	
Type 63	1000Ω Nickel
Type71, 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 by 1°C)
Enclosure Rating	NEMA 1, White plastic
Mounting	Directly to wall or single gang box
Wiring Terminations	Terminals
Weight	0.15 lb (0.07 Kg)
Approvals	CE
Warranty	Lifetime

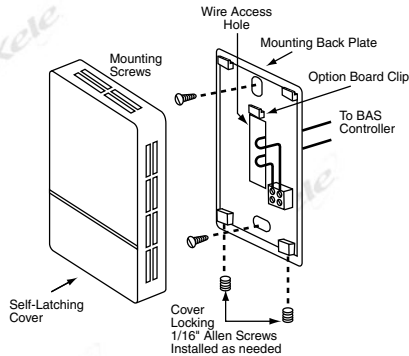877-826-9037 USA | kele.com   *FREE TECH SUPPORT FOR THE LIFE OF YOUR PRODUCTS*   September 2016

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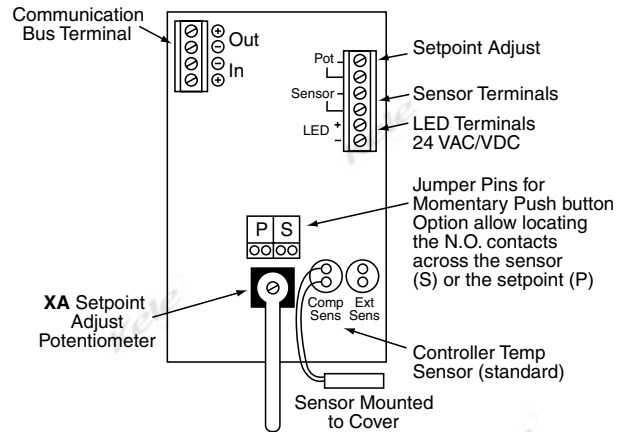
Basic model comes with screw terminal block, white decorator faceplate, two #6-32 screws for handy-box mounting, and two #6 x 1" screws for direct-wall mounting. Locking cover screws are #6-32 with a 1/16" Allen key head, installed as needed.

Wire Access Hole
Mounting Back Plate
Option Board Clip
Mounting Screws
To BAS Controller
Self-Latching Cover
Cover Locking 1/16" Allen Screws 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

Communication Bus Terminal
Out
In
Pot — Setpoint Adjust
Sensor — Sensor Terminals
LED + — LED Terminals 24 VAC/VDC
Jumper Pins for Momentary Push button Option allow locating the N.O. contacts across the sensor (S) or the setpoint (P)
XA Setpoint Adjust Potentiometer
Comp Sens   Ext Sens
Controller Temp Sensor (standard)
Sensor Mounted to Cover

Optional Board Terminations (multiple options shown)

ORDERING INFORMATION

MODEL	DESCRIPTION
ST-S3K	10,000Ω decorator thermistor @ 77°F (25°C), Type III (gray leads)
ST-11KK	10,000Ω decorator thermistor @ 77°F (25°C), Type III with 11K shunt (gray leads)
ST-S21K	2252Ω decorator thermistor @ 77°F (25°C), Type II (green leads)
ST-S22K	3000Ω decorator thermistor @ 77°F (25°C), Type II (blue leads)
ST-S24K	10,000Ω decorator thermistor @ 77°F (25°C), Type II (yellow leads)
ST-S27K	100,000Ω decorator thermistor @ 77°F (25°C), Type II (gray leads)
ST-S42K	20,000Ω decorator thermistor @ 77°F (25°C), Type IV (green leads)
ST-S63K	1000Ω nickel decorator RTD @ 32°F (0°C), (yellow leads)
ST-S71K	100Ω ultra high accurate decorator RTD @ 32°F (0°C), 385 platinum curve (blue leads)
ST-S81K	100Ω decorator RTD @ 32°F (0°C), 385 platinum curve (yellow leads)
ST-S85K	1000Ω decorator RTD @ 32°F (0°C), 385 platinum curve (blue leads)
ST-S91K	1000Ω decorator RTD @ 32°F (0°C), 375 platinum curve (green leads)

OPTIONS		
XA	*	Setpoint adjustment (10,000Ω to 35,000Ω, resistance input)
XA10K	*	Setpoint adjustment (1,000Ω to 3,000Ω, resistance input)
XA2K	*	Setpoint adjustment (920Ω to 1,278Ω, resistance input)
XD		Dual sensors in one probe
XK		Custom Logo
XM		Momentary switch wired N.O. to terminal block
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)
XPA		Ultra high accuracy, thermistors only, ±0.135°F (0.075°C)
XPL	*	Red LED lamp externally powered 24VAC/VDC

ST-S3K — XA

Example: ST-S3K-XA 10,000Ω Type III decorator sensor with setpoint adjustment
* Circuit board option

RELATED PRODUCTS

10-531	White adaptor plate 7" x 5.25" (KTR,KHR)
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

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