

# TEMPERATURE

## RANGEABLE PLATINUM ROOM TEMPERATURE TRANSMITTER ST-T91 SERIES



### DESCRIPTION

The **Kele ST-T91 Rangeable Platinum Room Temperature Transmitter Series** provides stable, accurate room sensing for temperature control and building automation systems, and it is CE approved for level-one applications. The attractive vented housing mounts easily and is constructed of a durable plastic with a tan enameled aluminum faceplate. The **ST-T91E** is the Executive style room transmitter and the **ST-T91K** is the Design style room transmitter.

The **ST-T91 Series** has a loop-powered 4-20 mA output with a standard temperature range of 40° to 90°F (4° to 32°C), although other ranges can be field calibrated between -30° to 250°F (-34° to 121°C). To adjust the **ST-T91 Series**, set the DIP switches to match the desired range, and use the zero and span pots to fine tune. A high accuracy digital ohmmeter and decade box are required.

The **ST-T91 Series** has a special 20 mA loop calibration test signal to provide easy system verification. Simply move the bottle plug jumper from norm to 20, and the transmitter will output a constant 20 mA. The loop up LED provides power indication for the 4-20 mA output.



ST-T91E

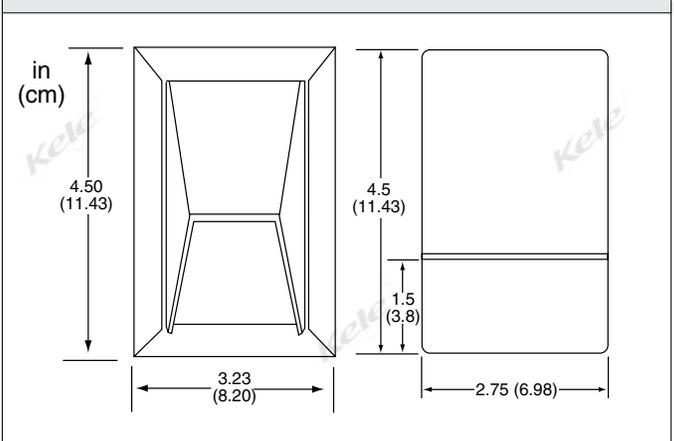


ST-T91K

### FEATURES

- **High accuracy**
- **No-drift platinum**
- **Loop calibration test signal**
- **Low cost**
- **Decorative enclosure**
- **Loop power LED indication**
- **CE approved (commercial and industrial)**

### DIMENSIONS



### SPECIFICATIONS

<b>Supply Voltage</b>	10.5-45 VDC	<b>Zero</b>	-30° to 210°F (-34.4° to 98.9°C)
<b>Signal Output</b>	4-20 mA @ 675Ω, two-wire, loop-powered	<b>Minimum Span</b>	40°F (22°C)
<b>Sensor Element</b>	1000Ω thin film platinum TCR 0.00375Ω/Ω/°C	<b>Usable Range</b>	-30° to 250°F (-34.4° to 121.1°C)
<b>Accuracy</b>	Sensor accuracy: ±0.2% of 1000Ω at 0°C	<b>Sensitivity</b>	2.1Ω/°F @ 32°F
<b>Transmitter accuracy</b>	0.1°F or 0.2% of span	<b>Operating Temperature</b>	0° to 140°F (-18° to 60°C)
<b>Rangeability</b>	-30° to 250°F (34° to 121°C) (Min span of 40°F (22°C)) Standard: 40° to 90°F (4° to 32°C)	<b>Operating Humidity</b>	0% to 95%, non-condensing
<b>Range</b>		<b>Enclosure Rating</b>	NEMA 1, Plastic
		<b>Weight</b>	0.3 lb (0.14 Kg) either style "E" or "K"
		<b>Approvals</b>	CE (EN50081-1, EN50082-1); Optional CE (EN50081-2, EN50082-2) Industrial RF/EM hardened
		<b>Warranty</b>	1 year



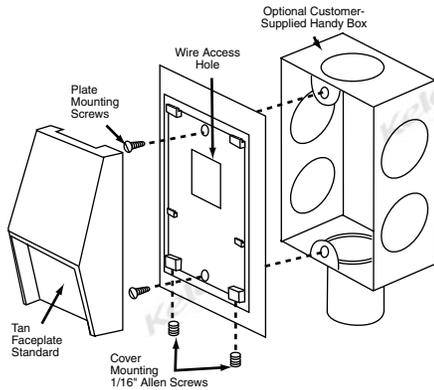
# TEMPERATURE

## RANGEABLE PLATINUM ROOM TEMPERATURE TRANSMITTER ST-T91 SERIES

### MOUNTING

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

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

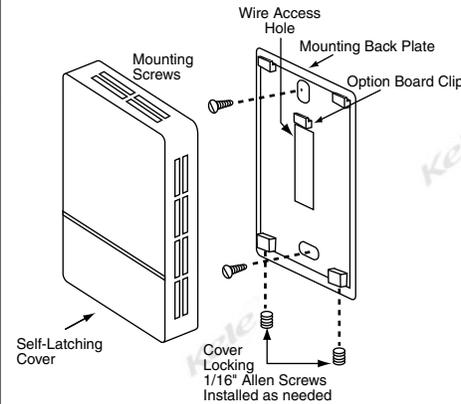


Basic model comes with screw terminal block, tan decorator faceplate, two #6-32 screws for handy-box mounting, and two #6 x 1" screws for direct wall mounting. Cover screws are #6-32 with a 1/16" Allen key head.

**ST-T91E**

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.

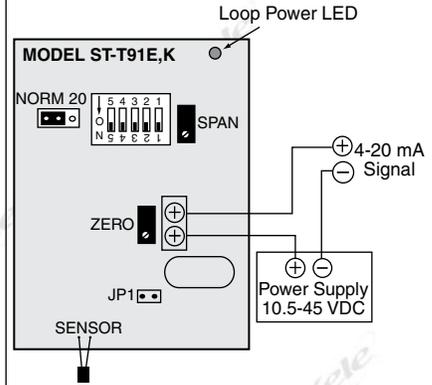
The sensor should be mounted approximately 5' (1.5m) above the floor, on an interior wall, out of the sun, and away from any heating or cooling generating devices.



Basic model comes with screw terminal block, 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.

**ST-T91K**

### WIRING



Norm = Normal operation  
20 = Forced 20 mA output  
Loop LED indicates proper loop and power connections

### ORDERING INFORMATION

MODEL	DESCRIPTION
ST-T91K	Designer room temperature transmitter, 4-20 mA = 40° to 90°F (4.4° to 32.2°C)
ST-T91E	Executive room temperature transmitter, 4-20 mA = 40° to 90°F (4.4° to 32.2°C)
<b>CE CERTIFICATION</b>	
-	Commercial CE (EN50081-1 and EN50082-1)
EMC	Industrial CE, RF/EM hardened (EN50081-2 and EN50082-2)
<b>OPTIONS</b>	
XR	Custom range (specific range)
XR1	Range option = 20° to 120°F (-6.7° to 48.8°C)
XR2	Range option = 0° to 100°F (-17.7° to 37.8°C)
XR3	Range option = 30° to 100°F (-1.1° to 37.8°C)
XR11	Range option = 32° to 95°F (0° to 35°C)
XR14	Range option = 32° to 122°F (0° to 50°C)

**ST-T91E** - **XR1** *Example:* ST-T91E-XR1 Rangeable platinum room temperature transmitter with calibration 20° to 120°F

### RELATED PRODUCTS

DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT
DCPA-1.2	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT
KT1	Mounting screwdriver 1/16" allen key