

## Product Data

### I-592 Series I-592-10K Series Temperature Sensor

#### Product Description

The I-592 Series semiconductor type temperature sensors provide accurate temperature measurement and control.

The I-592 provides a 248 to 378 uA output throughout the temperature range of -25 to 105°C (-13 to 221°F).

The I-592-10K uses a precision 10K (0.1%) resistor to convert the current output to a three-wire 2.48 to 3.78 VDC output.


These units are calibrated using a NIST traceable thermometer to ensure the highest possible accuracy. Each unit will be individually calibrated and labeled, with its offset never to exceed 2.2°C (4°F).

These units are offered in Room, Room with Set Point, Room with Override, Room with Setpoint and Override, Duct, Immersion, Stainless Plate, Raw, Averaging, Strap-On, and Outdoor Air Configurations.

#### Product Specifications

Supply Voltage	+4 to 30 VDC
Output	I-592 - 248 to 378 uA
Output	I-592-10K - 2.48 to 3.78 VDC
Temperature Coefficient	I-592 - 1 uA/°C (0.556 uA/°F)
Temperature Coefficient	I-592-10K - 10 mV/C (5.556 mV/°F)
Sensor Accuracy	+/- 1.26°F @ 77°F (+/- 0.70C @ 25C)
Repeatability	+/- 0.18°F (+/- 0.10°C)
Linearity	+/- 0.27°F max from 32 to 158°F
Temperature Range	-13 to 221°F (-25 to 105°C)
Offset	+/- 4°F max (+/- 2.2°C max)
For sensors with Display option, see the <b>LCD Series</b> cut sheet	

## Semiconductor



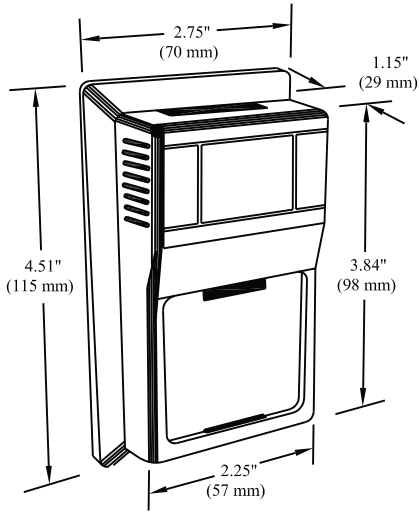
**Attributes**

- System Specific Sensor
- uA and mV output

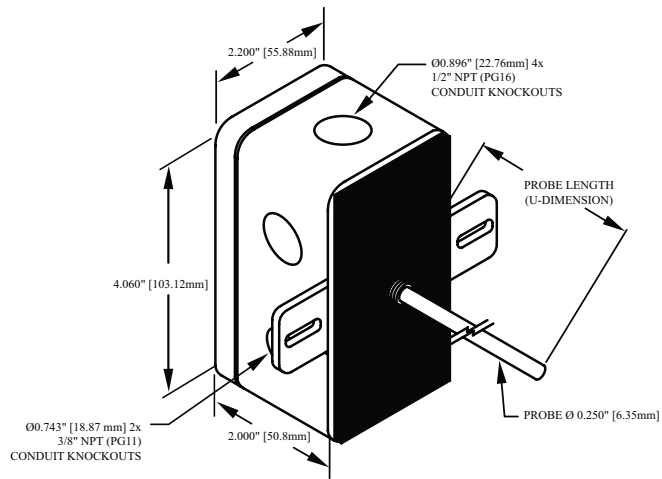
**Applications**

- OEM / Industrial
- Light Industrial
- DDC Systems

### Room

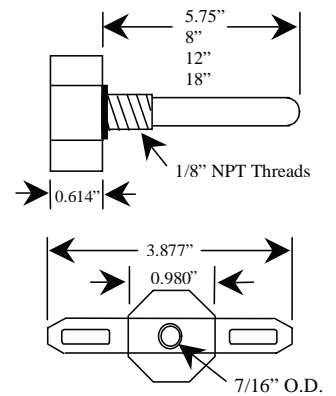


### Duct / Averaging

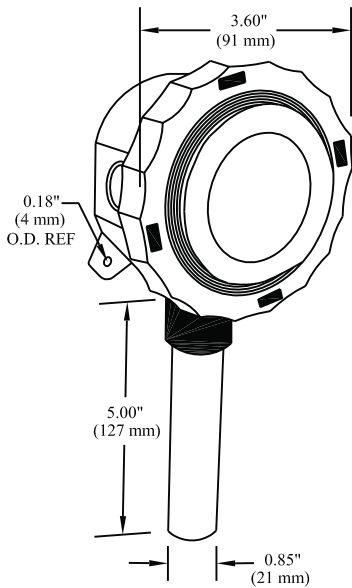


- Duct Insertion (U-Dimension)**  
 5.5" (89 mm)  
 7.5" (191 mm)  
 11.5" (292 mm)  
 17.5" (445 mm)
- Bendable Averaging**  
 8' (2.4 m)  
 12' (3.7 m)  
 24' (7.3 m)

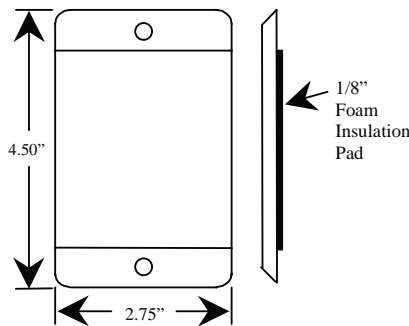
### Duct without Box



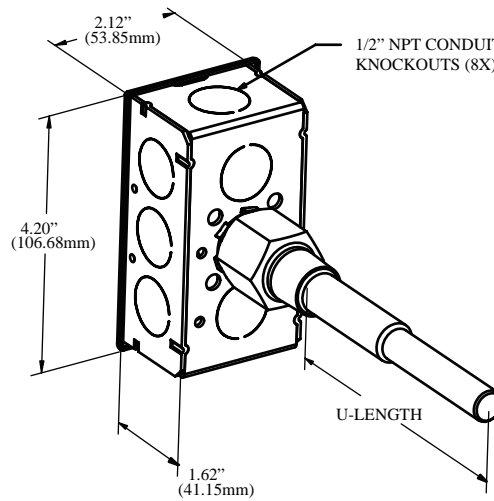
### Outside Air



### Stainless Plate

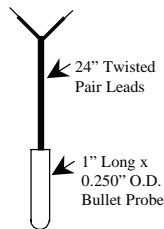


### Immersion

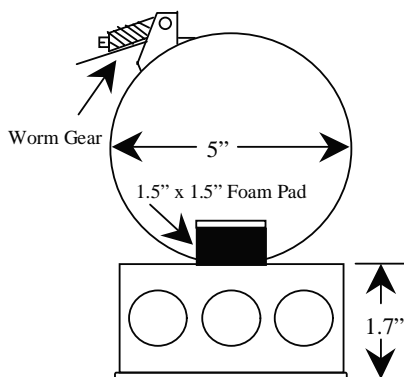


- Well Insertion (U-Length)**  
 2.50" (64 mm)  
 4.00" (102 mm)  
 6.25" (158.75 mm)

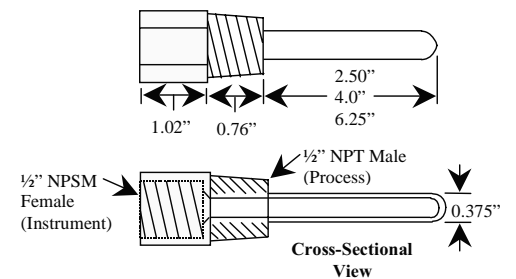
### Bullet Probe



### Strap-On



### Thermowell



## Ordering Information

Sensor  
**I-** [ ]  
 ↑  
**592**  
**59210K**

Configuration  
 -[ ]  
 ↑  
**R** - Room  
**RS** - Room w/ Setpoint \*\*\*  
**RO** - Room w/ Override  
**RSO** - Room w/ Setpoint & Override \*\*\*  
**D** - Duct 4", 8", 12", 18"  
**DO** -Duct without box 4", 8", 12", 18"  
**I** - Immersion 2.5", 4", 6"  
**A** - Bendable Copper Averaging 8', 12', 24'  
**S** - Strap On  
**O** - Outdoor Air  
**RP** - Remote Probe w/6' Leads  
**SP** - Stainless Plate  
**BP** - Bullet Probe  
**W** - Raw  
**W-6'** - Raw Sensor w/6'Leads

Display<sup>1</sup>  
 -[ ]  
 ↑  
 ( ) No Display  
 (Standard)  
 ( **L** ) LCD Display  
 (Degrees F)  
 ( **LC** ) LCD Display  
 (Degrees C)

Housing Type<sup>2</sup>  
 -[ ]  
 ↑  
 Add-On Options  
 ( **BB** ) NEMA 3R  
 ( **4X** ) NEMA 4X

<sup>1</sup>These Options are only available on INTEC's Room Configurations.

<sup>2</sup>Standard Housing Types:

- Plastic Housing for Duct and Averaging sensors
- Galvanized Junction Box for Immersion and Strap-On sensors

Add-on option (BB) NEMA 3R housing is not available for Strap-On sensors

**RS / RSO** \*\*\* setpoint adjuster option requires additional ordering decisions for the following:

Pot Value <sup>1</sup>	Setpoint Indicator <sup>1</sup>	Pot Action <sup>1</sup>
-[ ]	-[ ]	-[ ]
↑	↑	↑
<b>400</b>	<b>Cool   Warm</b>	<b>DA (Direct)</b>
<b>1K</b>	<b>55 to 85</b>	<b>RA (Reverse)</b>
<b>2K</b>	<b>10 to 30° C</b>	
<b>3K</b>		
<b>5K</b>		
<b>8.5K</b>		
<b>10K</b>		
<b>20K</b>		
<b>100K</b>		