

# Senenergy Sensors & Controls



## Superior Accuracy & Performance (SAP®)

Senenergy manufactures SAP sensors & transmitters for superior accuracy and performance. A Class A, thin film Platinum RTD is at the heart of every Senenergy Transmitter/RTD (single point). With most of the industry using a 2 wire Class B RTD as a standard, Senenergy is clearly shattering the industry standard for accuracy and performance with a Class A RTD coupled with a Transmitter producing a linear output with precision accuracy. With rising energy costs, industry standards are no longer acceptable. Senenergy Sensors and Controls is setting new performance standards for HVAC RTD's and Transmitters. Higher accuracy constants and better stability means more accurate temperature sensing. This exceptional accuracy combined with finely tuned PID loops means less over and under shooting and ultimately translates into substantial energy savings. NIST Traceable Certification is available as an option for projects that require supporting documentation. Senenergy Sensors are only available through premier System Integrators and Control Contractors.

Senenergy Sensors and Controls is concerned with saving energy in your facility, as well as preserving our planet. Senenergy has "stepped up" and outside the box in manufacturing in an effort to reduce the carbon footprint each and every sensor leaves on the planet. The true cost of a sensor must include; initial acquisition cost, long term energy waste due to sensor inaccuracies, as well as the fuel & emissions from packaging & transportation getting the sensors from production to their final destination. Senenergy is setting new standards in accuracy and utilizing new, lighter weight materials in the production of its sensors in an effort to minimize fuel and emissions from transportation to the installation site. Senenergy's packaging is sensitive to the environment including recycled boxes and biodegradable packing material.

## Product Specifications

<b>Transmitter Supply Voltage</b>	8 to 35 VDC, No Polarity Sensitivity 249 Ohm Load: +12 to 35VDC 499 Ohm Load: +17 to 35VDC
<b>Temp. Transmitter Input</b>	2-wire Platinum 100/1K Ohm Class A RTD
<b>Temp. Transmitter Output</b>	2-wire, Linear 4 to 20mA DC Current (Std.) 1 to 5 VDC or 2 to 10VDC
<b>Temp. Transmitter Accuracy</b> NIST Certification Option available	Specified by customer to +/-0.5°F
<b>Temp. Sensor Operating Range</b>	
<b>Single Point</b>	-58 to 392°F (-50 to 200°C)
<b>Averaging</b>	-50 to 275°F (-45.5 to 135°C)
<b>Transmitter Operating Temp. Range</b>	32 to 158°F (0 to 70°C)

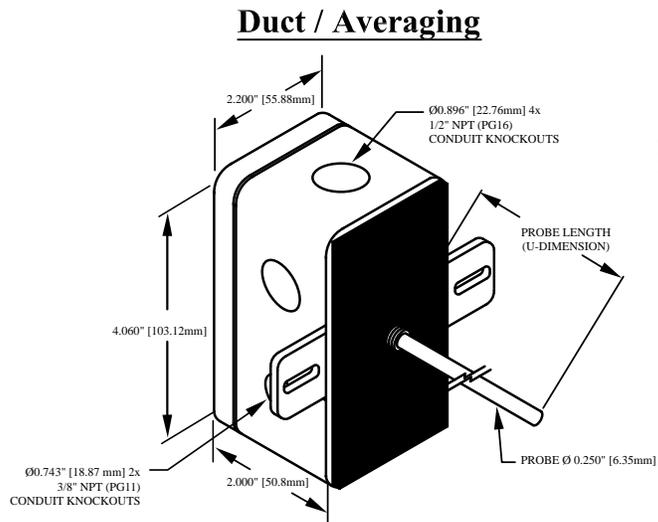
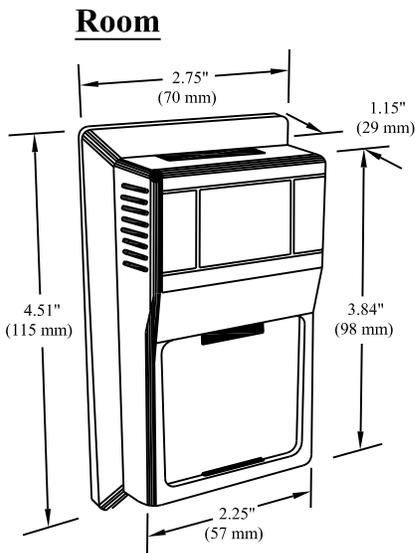
## Product Data

**SAP-T100 Series**  
**SAP-T1k Series**

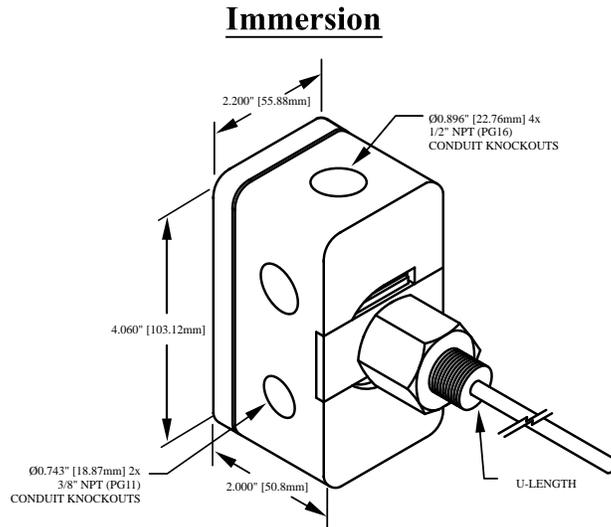
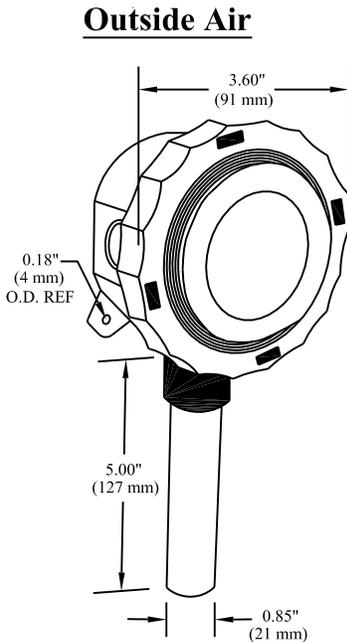
## Transmitters



**Senenergy Sensors & Controls**  
800-893-4846 (Phone)  
800-797-0806 (Fax)  
[www.senenergycontrols.com](http://www.senenergycontrols.com)



- Duct Insertion (U-Dimension)**  
 3.5" (89 mm)  
 7.5" (191 mm)  
 11.5" (292 mm)  
 17.5" (445 mm)
- Averaging**  
 8' (2.4 m)  
 12' (3.7 m)  
 24' (7.3 m)



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

## Ordering Information

SAP- [ ]	Sensor	Configuration	Communication Jack <sup>1</sup>	Pot Value <sup>1</sup>	Setpoint Indicator <sup>1</sup>	Pot Action <sup>1</sup>	Display <sup>1</sup>	Housing Type <sup>2</sup>
↑	↑	↑	↑	↑	↑	↑	↑	↑
T100	T100	R - Room	RJ11 (4 Pin)	400	Cool   Warm	DA (Direct)	( ) No Display	(ABS) Plastic Housing
T1K	T1K	RS - Room w/ Setpoint	RJ12 (6 Pin)	1K	55 to 85	RA (Reverse)	(Standard)	(MB) Metal Box
		RO - Room w/ Override	3.5mm (Stereo Jack)	2K	10 to 30° C		(D) LCD Display	(WP) NEMA3R Bell Box
		RSO - Room w/ Setpoint & Override		3K			Specify Degrees	(RD) Weatherproof
		D - Duct 4", 8", 12", 18"		5K			Celcius if required.	Round ABS
		DNB - Duct no box 4", 8" with		8.5K				(RDO) Weatherproof
		I - Immersion 2.5", 4", 8"		10K				Round UV
		A - Bendable Copper Averaging 12', 24'		20K				resistant
		RA - Rigid Averaging 18", 24", 36"		100K				
		FA - Flexible Averaging (Cable) 18", 24", 36"						
		S - Strap On						
		O - Outdoor Air						
		RP - 1 1/4" SS Probe specify lead length						
		SP - Stainless Plate						
		PP - Prepot						
		BBS - Brass Button Sensor						
		SBS - Stainless Button Sensor						
		PO - Probe Only 2.5", 4", 6", 8", 12", 18"						

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

<sup>2</sup>Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA3R (WP), Weatherproof Round (RD) or Weatherproof Round (RDO). Strap-On Sensors are available with an optional Weatherproof (RDO) enclosure