

Innovative **Wireless Sensing**™

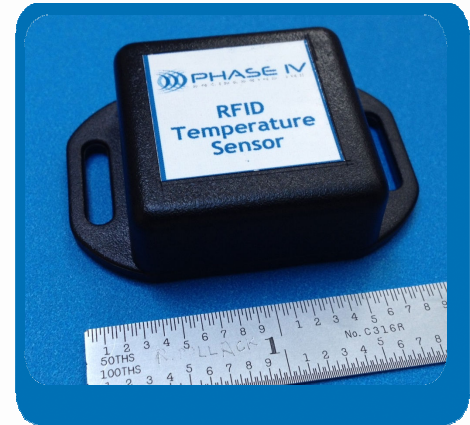


SensTAG™ UHF Passive RFID Energy Harvesting Pressure Sensor **Battery-free, UHF EPC RFID**

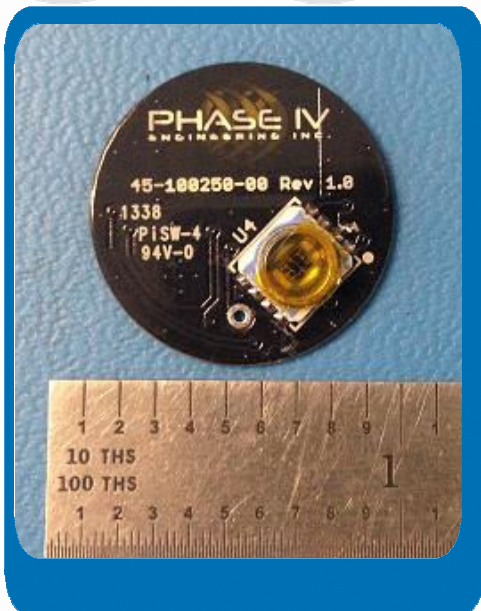


UNIQUE BREAK-THROUGH BENEFITS

Phase IV's revolutionary Energy Harvesting technology leverages our 20 years of experience with battery-free wireless sensors. The Energy Harvesting technology allows conversion of low density energy fields to higher potentials that are useful for driving sensors and RFID tags, ultimately expanding the Passive RFID **SensTAGs™** read-ranges by a factor of 2 while increasing sensor accuracy. The resultant system is a highly flexible, maintenance-free and low-cost industrial solution with short to mid read range something previously unavailable with standard RFID technologies.



Low Temperature Tag (180°F)
Adhesive or Screw Mount



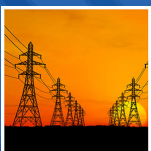
Passive Tag
Custom packaging available



KEY FEATURES

- Energy Harvesting read range with a 6" square metal mount:
 - 9' with 20 second rep rate.
 - 10' with 30 second rep rate.
- Energy Harvesting read range free air:
 - 7.5' with 20 second rep rate
- Available pressure ranges:
 - 14.5 PSIA up to 1015 PSIA
- Standard UHF EPC RFID Technology.
- Compatible with fixed and handheld readers from Intermec, Thing Magic and other major RFID readers manufactures.
- Wireless communication allows for multiple embedded installation options:
 - Metal mount
 - Inside wall
 - Under concrete
- Battery-free sensor allows for long life with no required maintenance.
- Highly customizable sensor for specific environments.
- Small form factor for tight spaces or moving applications.

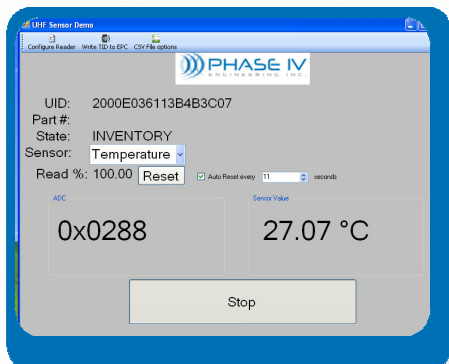
installed in minutes | long life | web-based alerts



Innovative Wireless Sensing™

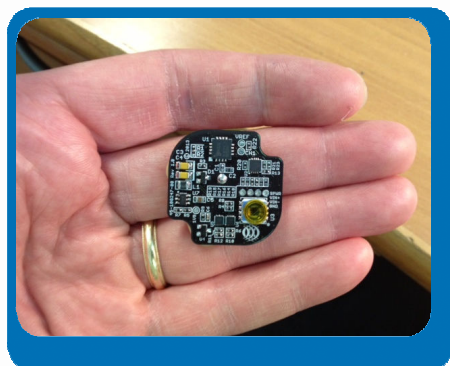


Contact Phase IV Engineering to explore how our innovative wireless sensing technology can work for your organization.



Software Interface for passive SensTAG RFID Temperature Sensor.

Combining Core Competencies
Our Expertise in Wireless Sensor Systems
+ Your Inside Industry Knowledge
= Successful Custom Solutions



Passive Tag with Energy Harvesting
Custom packaging available

Questions?
Custom Requirements?
Call 1-866-608-6168

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SensTAG™ UHF RFID Specifications (Passive)

Sensor Performance*

Temperature Measurement Range	High Temp: -20°F to +248°F (-29°C to +120°C) Low Temp: -20°F to +180°F (-29°C to +82°C) Range may be extended with tethered sensors.*
Temperature Accuracy	±3.6°F (+/-2°C) typical. Greater accuracy is available at additional cost. Gradient in actual application may create a difference between surface temperature and measured temperature.
Pressure Resolution	0.05 to 3.7 PSIA (sensor range dependent)
Pressure Error Band	Typically +/-1 PSIA (sensor range dependent)
Calibration	Tags are individually calibrated. Calibration factors stored onboard.
ID	Unique ID number with each RFID sensor.
Additional Sensor Options	Two external temperature sensors, strain, pressure, humidity and other versions can be custom developed.*

Physical

Reader	7.5 in L x 7.0 in W x 1.3 in H.
Reader Antenna	Typical = 7.5" x 7" x 1". Size and gain chosen per order.
Cable (Antenna)	Length Up to 30 feet. Chosen per order.
Sensor Size, High Temp	Standard Bolt-On = 2.3" L x 1.0" W x 1.1" H.
Sensor Size, Low Temp	Screw-On or Adhesive Mount = 2.0" L x 1.4" W x 0.6" H.
Environmental:	Sizes, form factors and mounting can be customized per customer requirements. Reader: IP 52: Indoor or Outdoor use, dust and drip tight Tag: Splash proof and dust tight

Reader & RF Specifications

Operating frequency	902-928 MHz Band (USA) (All countries are available.)
Read/Write Range	2 feet typical; 5+ feet with high gain antenna.
Reader Power	100 - 240V, 10W power supply included.
Protocol	EPC Global C11, Gen 2 (ISO 18000-6C) with Anti-Collision. (Up to 12 sensor tags can be in the field.)
Reader Radiated Power	FCC certified. Adjustable up to 4 watt EIRP.
PC Connection	USB or Ethernet connection to reader. WiFi available. Connecting to PLCs or user networks may require added non-recurring engineering

Software*

Software provided for Windows 7. Includes GUI for reader control, data display and database.

***UHF SensTAGs are highly configurable. We specialize in custom RFID Sensors. Call us with your unique sensing challenges.**

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