Innovative Wireless Sensing™
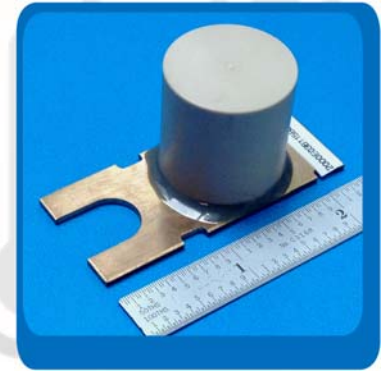
PHASE IV ENGINEERING INC.

SensTAG™ UHF RFID Passive Temperature Sensor Kit
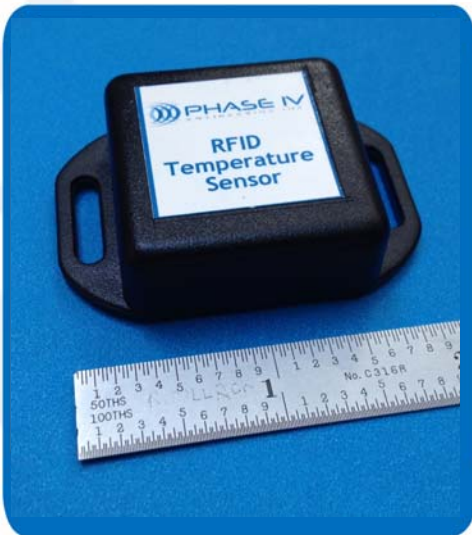## Product Description (41-100042-00 Rev. 1.0)

⊞ UNIQUE BREAK-THROUGH FEATURES

- **Kit Includes -** Ten passive temperature tags, ThingMagic® M6 industry standard UHF EPC reader, UHF Antenna, Cables, PC Software, and User Manual.

- **Long Read Range -** 2 feet to 5 feet, depending on configuration.

- **Passive Temperature Tags -** No Battery -> no maintenance.

- **Two Standard Tag Types Available:** High Temperature and Low Temperature

- **Metal Mount -** Bolt or use adhesive attachment directly to metal to be measured.

- **Rugged & Mobile -** read sensors as they pass by a reader.

- **Totally Sealed -** waterproof, rugged.

High Temperature Tag (250°F)
Bolt-On

Experts in RFID Sensing
that We Invented.

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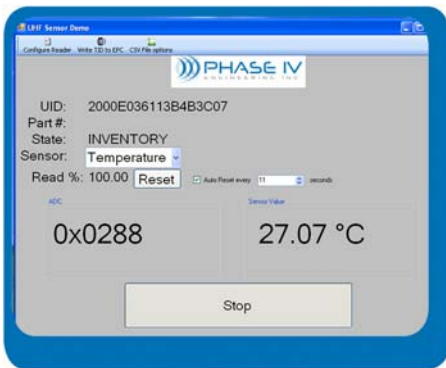Adhesive or Screw Mount

*We specialize in providing innovative sensing systems for hard-to-solve sensing problems. In addition, we offer a range of semi-custom products and complete turnkey manufacturing of custom sensing solutions for volume commitments.

m a i n t e n a n c e - f r e e | m i n i a t u r e | m o b i l e | r u g g e d

Innovative Wireless Sensing ™

PHASE IV
ENGINEERING INC.

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

Call 1-303 443-6611
X1 01 or x 114

Software Interface for passive *Sens*TAG RFID Temperature Sensor.

Questions?
Call 1-303 443-6611
x101 or x 114

*Sens*TAG™ UHF RFID Specifications (Passive)

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.
	Sizes, form factors and mounting can be customized per customer requirements.
Environmental:	Reader: IP 52: Indoor or Outdoor use, dust and drip tight
	Tag: Waterproof 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 Cl1, 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

Sensor Performance*

Temperature Measurement Range	High Temp: -20°F to +220°F (-29°C to +105°C) Low Temp: -20°F to +180°F (-29°C to +82°C) Range may be extended with tethered sensors.*
Temperature Accuracy	±2°F (+/-1°C) typical. Greater accuracy is available at additional cost. Gradient in actual application may create an error between surface temperature and measured temperature.
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.*

Software*

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

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

maintenance-free | miniature | mobile | rugged