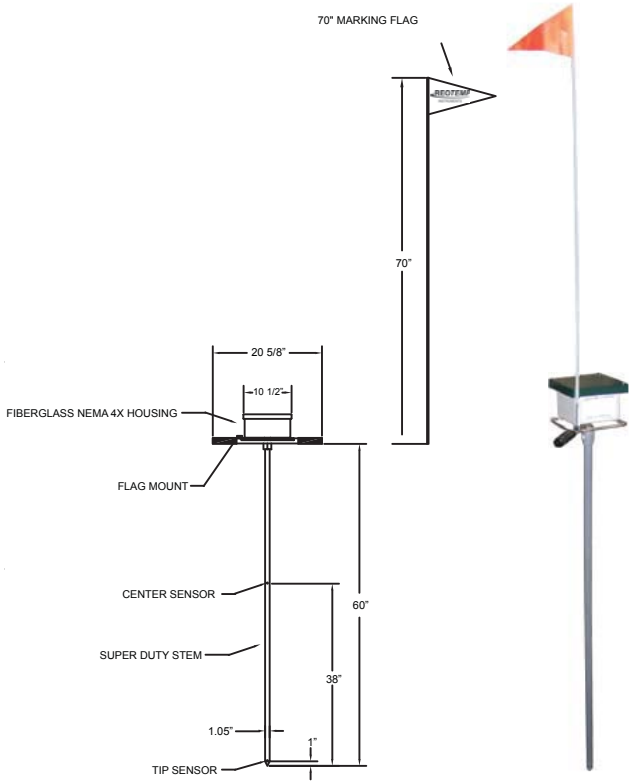
EcoProbe™ System

Wireless Temperature Monitoring

REOTEMP INSTRUMENTS

REOTEMP's wireless temperature monitoring system is perfectly suited for large and medium scale composting operations. Our system consists of only extremely reliable equipment that you can depend on year after year. The EcoProbe system can be used as a stand alone PC based wireless solution or can be integrated into a complex PLC control system. The system can be customized for your specific needs and budget. Our EcoProbes are manufactured in the USA under ISO-9002 guidelines to ensure the highest quality of product.

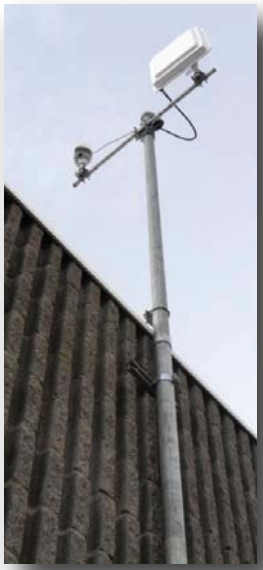


Features/Benefits

- Saves time
- Lowers labor costs
- Accurate and consistent data
- Temperatures transmitted every 15 minutes (or as specified by customer)
- Robust battery life: 1.5 years (at 15 min. intervals).
- Rugged and reliable:
  - NEMA 4X enclosure
  - Stainless steel stem with CPVC sheath for extreme corrosion protection.
  - Stainless steel "roll cage" to protect enclosure.
  - Coated electronic components for added protection
- Output options:
  - PLC based system: Modbus, DeviceNet, or Ethernet/IP
  - Windows based system: Compost Watch™ Software
- Field proven in some of the harshes composting applications in the industry. (case studies available upon request)
- Suitable for indoor and outdoor applications
- Range of 1,000 ft line of sight. Longer distances may require repeaters.
- Point-to-point wireless topology
- Our 70" orange marking flag increases visibility for operators.
- Can be integrated into existing control system or used as stand alone temperature monitoring system.
- Two temperature sensors in each probe. One at the tip and one 38" above the tip.
- Large vinyl labels with Probe ID #'s on exterior of enclosure.
- 2 YEAR LIMITED WARRANTY

EcoProbes:

Antenna:

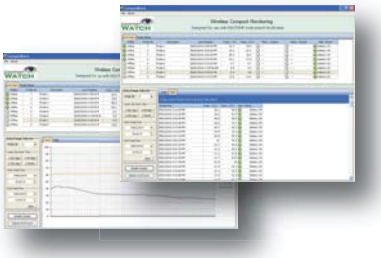


Receiver:

Output:

Option 1) PLC Output...
- Modbus
- DeviceNet
-Ethernet/IP

Option 2) Computer Software...
- Compost Watch Software



REOTEMP Instruments
Ph (800)648-7737
Fx (858)784-0720
San Diego, CA U.S.A.
sales@reotemp.com
www.reotemp.com

EcoProbe System Specifications

Overall System	
RF Scheme	902-928 MHz, non-licensed, duplex
Modulation	Frequency hopping, Spread Spectrum
Range	Up to 1,000 ft. line of sight
Operating Temperature Range	0 to 200°F or 0 to 100°C. Customer to specify.
Warranty	24 months
EcoProbe Terminal Receiver	
Physical Data/dimensions	4.5" W x 10.5" H x 5.5" D WT <2.5lbs. Fiberglass reinforced plastic composite, UV hard
Power Supply	7-32 VDC - provided through DeviceNet network; 0.07A consumption per terminal node
RF Sensitivity	-96 dBm @ 902-928 MHz
Inputs	RF only from EcoProbe temperature probes. Up to 200 probes (400 temperatures) maximum per terminal receiver. Up to 12 total terminal receivers.
Antenna Connection	TNC female bulkhead connector on enclosure
Antenna	3dB Gain Omnidirectional: 902-928 MHz (standard)
Output	Option 1) PLC Output: DeviceNet, Modbus, Ethernet, call for others. Option 2) Computer software (Compost Watch Software) All outputs will include: Temperatures; Date; Time; Probe I.D.; Battery status; RF link status. Call for detailed information.
Polling Response Time	5 ms
Error Correction	Proprietary coding scheme. Multi-level error checking with retries.
EcoProbe Temperature Probes	
Physical data/dimensions	4.5"H x 7.625W x 7.625" L (enclosure) O.A.L.: 72" WT 12 lbs. Enclosure - fiberglass / insertion probe - Stainless Steel w/CPVC Shealth
Power Supply	Internal 3.6 VDC lithium battery
Battery Life	1.5 years (at 15 min. intervals). Dependant upon data point transmission frequency and extreme low temperatures.
RF Power	100 mW @ 902-928 MHz
RF Sensitivity	-96 dBm @ 902-928 MHz
Antenna	Internal Unity Gain Omnidirectional 1/4ë
Input	Two (2) RTD sensors per probe; Class B; 0.385TC
Output	RF only to terminal receivers
Sensor Temp. Measurement Range	0 to 200°F or 0 to 100°C. Customer to specify.
Probe Electronics Operating Temp.	-40 to 185°F (-40 to 85°C)
System Accuracy	+/- 2°F (+/- 1°C)