

Steam Trap Monitoring (STM)

Continuous Insight on All Steam Traps
with Everactive Batteryless, Wireless Sensors



Features

Monitored Parameters

- » Real-time steam trap operating state
 - Good
 - Suspected Blowthrough
 - Intermittent Blowthrough
 - Suspected Cold Failure
 - Steam Off
- » Ambient temperature
- » Steam trap inlet temperature
- » Steam trap outlet temperature

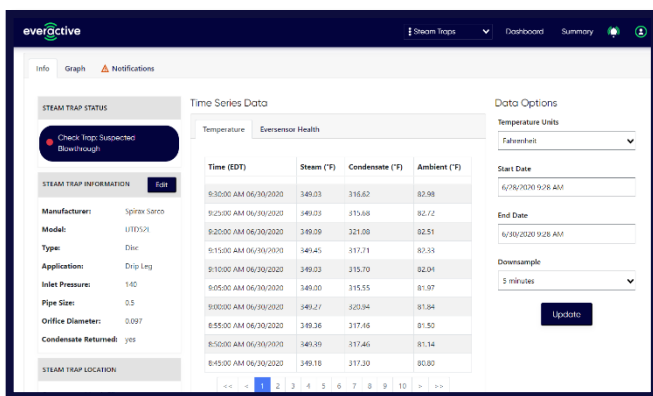
Everactive batteryless sensors continuously stream data to the cloud, providing a **24/7 analytics service** for steam trap health.

Intended Use

- » All steam trap makes & models
- » All steam trap applications

Evercloud User Interface

- » Dashboard view of steam system
 - Triage list of traps that require attention
 - Losses and savings to date
- » Detailed view of each steam trap
- » Real-time interactive data display & charts
- » Email alerts and status updates based on user-configurable settings
- » Access to all time-series temperature data



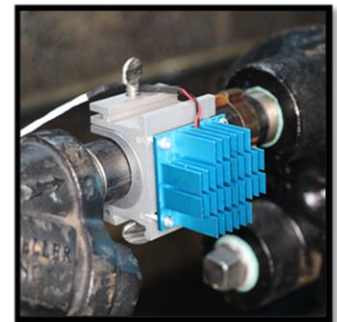
Specifications

Eversensor

Data Measurement & Transmission	
Measurement interval	Configurable, default every 60 seconds
Transmission interval	
Temperature Measurements	
Remote measurement range	-40°F to 392°F (-40°C to 200°C)
Remote accuracy	+/- 1.8 °F (1°C)
Ambient measurement range	-40°F to 185°F (-40°C to 85°C)
Ambient accuracy	+/- 1.8 °F (1°C)
Power	
Thermoelectric generator	Min. 15°F (8°C) Δ btwn surface & ambient
Energy storage	8 hrs. @ 60s sample rate, no power source
Wireless Communication (Eversensor ↔ Evergateway)	
Protocol	Evernet 1.0, proprietary link
Certification(s)	US (FCC)
Range (non-line-of-sight)	Up to 100 ft. (30m)
Range (line-of-sight)	> 300 ft. (100m)
Mechanical	
Ingress protection class	IP66
Hazardous location	Class I, Division 2
Operating temperature (Eversensor)	-40°F to 185°F (-40°C to 85°C)
Operating temperature (TEG harness + thermistors)	-40°F to 392°F (-40°C to 200°C)
Storage temperature	-40°F to 185°F (-40°C to 85 °C)
Vibration resistance	10-60Hz @ 0.44mm peak displacement 60-2,000Hz @ 3.0g
Shock & impact resistance	100g @ 6mS
Dimensions (Eversensor)	2.9" x 3.8" x 0.9" (76mm x 96mm x 25mm)
Dimensions (TEG Harvester)	1.6" x 3.8" x 2.5" (40mm x 97mm x 64mm)
Weight (Eversensor)	0.19 lbs. (88g)
Mounting	Zip tie (Eversensor), thumb screw (TEG harness), copper clips (thermistors)
Material	PC-ABS



Eversensor (above) connects to harvesting source TEG harness (below) for power and remote temperature measurements.



Evergateway

Power Supply Options	
AC main power	AC Input 85-264V~, 0.35A/115V 0.25A/230V, 47-63 Hz
Power-over-Ethernet	Compliant with IEEE 802.3af
Wireless Communication	
Protocol to Eversensor	Evernet, proprietary sub-GHz/2.4GHz link
Protocol to Evercloud	LTE, Wi-Fi, or Ethernet
Data transmission interval	Configurable, default every 60 seconds
Range (non-line-of-sight)	Up to 100 ft. (30m)
Range (line-of-sight)	> 300 ft. (100m)
Mechanical	
Ingress protection class	IP66
Hazardous location	Class I, Division 2 with added enclosure
Operating temperature	-22°F to 158°F (-30°C to 70 °C)
Storage temperature	-40°F to 185°F (-40°C to 85 °C)
Vibration resistance	10-60Hz @ 0.295mm peak displacement 60-500Hz @ 2.0g
Shock & impact resistance	100g @ 6ms
Dimensions	10.5" x 8.7" x 5.3" (267mm x 221mm x 133mm)
Weight	5.8 lb. (2.64 kg)
Mounting	Mounting tabs
Material	Polycarbonate

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STM System Schematic

