

CorrosionRADAR CUI RISK MONITORING SOLUTION

REMOTELY DETECT, MONITOR
& PREDICT CORROSION UNDER
INSULATION (CUI)



The **CR CUI Risk Monitoring Solution** consists of a full IoT platform of a combined moisture and corrosion sensing system, for easy localization of high CUI risk location on the asset.

The system is capable of continuously monitoring CUI in the most inaccessible locations, in the assets with the most complex geometries and extreme operating temperatures. The system is designed for use in the oil, gas, chemical and petrochemical industries. Output is presented in the form of CUI RISK levels to guide inspection planning and help operators improve the effectiveness of their inspection strategies.

FEATURES

- Modular system, Battery powered with plug and play installation
- Can be used on all asset types (e.g. vessels, dryers, columns, pipelines)
- Suitable for Offshore and Onshore applications (ATEX, IECEx)
- Suitable for assets with cyclic temperature operation ranging from -90°C to +260°C (-130°F to +500°F)
- Automated data analysis, visualized as risk levels on correlated asset locations
- High measurement resolution with +/- 1m anomaly localization on a 50m sensor
- Scalable and flexible pricing options for high ROI
- Continuous data analysis dashboard.



BUSINESS BENEFITS:

- Up to 65% saving of CUI management budgets
- Reducing unscheduled shutdowns
> increases production time
- Increase the effectiveness of the inspection programs
> avoids "Over Inspection" and "Under-Inspection".

CorrosionRADAR's CUI Risk Analytics

Continuously assesses the potential risks due to CUI by combining live data from CR Sensors with existing knowledge of industry standards.



FEATURES

- CUI Risk dashboard at three levels:
 - 1. Site Level:** High-level traffic-light risk visualisation for all monitored assets
 - 2. Asset Level:** Asset specific historical measurement data from all sensors
 - 3. Sensor Level:** Detailed analysis and data of every individual sensor
- Using Moisture sensors you get the probability of failure due to CUI correlated with asset location, day count of wet location and dry-wet cycles calculator
- Using corrosion sensors you get the location of highest CUI corrosivity and value of corrosivity
- CUI Risk platform deployed on Cloud or On-Prem

IoT CR Node

Ex Compliance Certification:	ATEX and IECEx Installation Zone: Class 1 Zone 2 Sensor Connections: Class 1 Zone 2
Marking:	II 3 (3) G Ex ec [ic Gc] nR IIC T6 Gc
Power Source:	Battery powered: 6V with 5-7 years life depending on data acquisition cycle
Communications:	Wireless: LoRAWAN to Gateway/Gateway to Cellular or Ethernet BLE: for short range manual configurations using a Tablet
Sensors input:	Two channels: up to 50m per channel, 100m coverage using corrosion or moisture sensors

CR Sensors Specifications

Type:	Corrosion Sensor	Moisture Sensor
Detecting:	Corrosion	Moisture
Temperature:	-90°C to +260°C (-130°F to +500°F)	-90°C to +260°C (-130°F to +500°F)
Configuration:	Linear, Helical	Linear, Helical
Sensor Length:	Up to 100 meters	Up to 100 meters
Applicable Assets:	Pipes, Vessels, Columns, Storage Tanks, Production Columns	Pipes, Vessels, Columns, Storage Tanks, Production Columns

Our Customers



INEOS

