

CorrosionRADAR: LR

Remotely Detect, Monitor & Predict Corrosion Under Insulation (CUI)

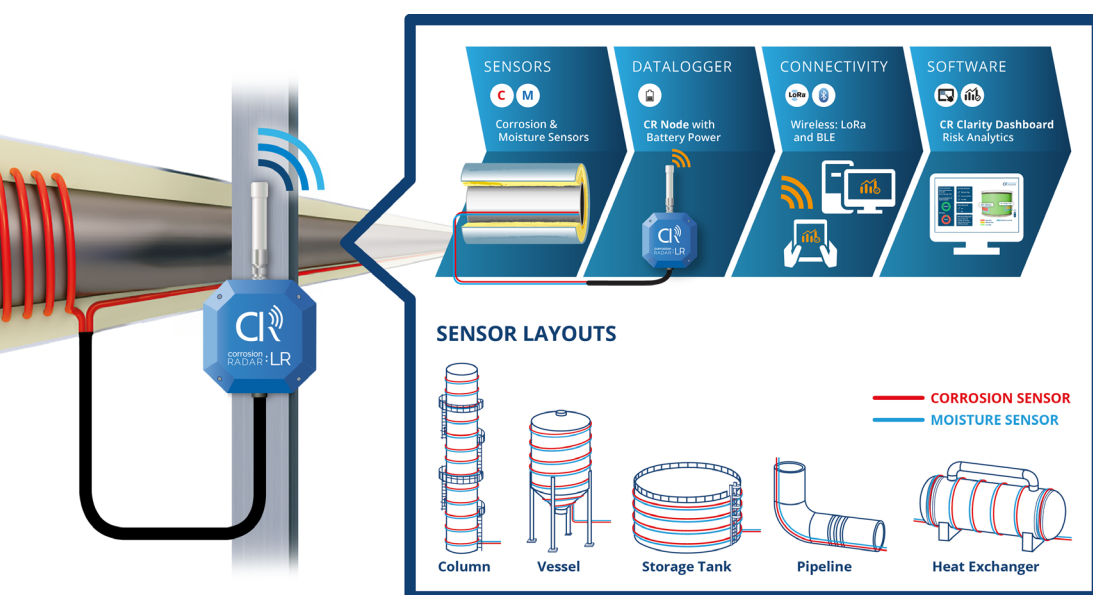


The **CR CUI Risk Monitoring Solution** consists of a full IoT platform of a combined Corrosion and Moisture sensing system, for easy localisation of high CUI risk location on the asset.

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

- Suitable for Offshore and Onshore applications
- Suitable for assets with cyclic temperature operation ranging from -190 °C to +300 °C, (-310 F to 572 F)
- Automated data analysis, visualised as risk levels on correlated asset locations
- High measurement resolution with +/- 1 m anomaly localisation on a 50m sensor
- Continuous data analysis dashboard



Key Benefits

Immediate:

- Insulation QA/QC
- Enabling digitalisation and Industry 4.0
- Increased safety

Medium Term:

- Rapid scalability
- Reduced CUI risk - predictive maintenance
- Decrease inspection costs by up to 65%

Long Term:

- Optimised turnaround scope

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 Zone 2 and 22
Power Source:	Battery powered: 6V up to 5 years life depending on data acquisition cycle
Communications:	LoRA
	BLE: for manual configurations using a Tablet
Sensors input:	Two channels: upto 50m per channel, 100m coverage using corrosion or moisture sensors

CR Sensors Specifications

Type:	Corrosion Sensor	Moisture Sensor
Detecting:	Corrosion	Moisture
Temperature:	-190 °C to +300 °C, (-310 F to 572 F)	-190 °C to +300 °C, (-310 F to 572 F)
Configuration:	Linear, Helical	Linear, Helical
Sensor Length:	Upto 50 meters	Upto 50 meters
Applicable Assets:	Pipes, Vessels, Columns, Storage Tanks, Production Columns	Pipes, Vessels, Columns, Storage Tanks, Production Columns

Deployed by



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