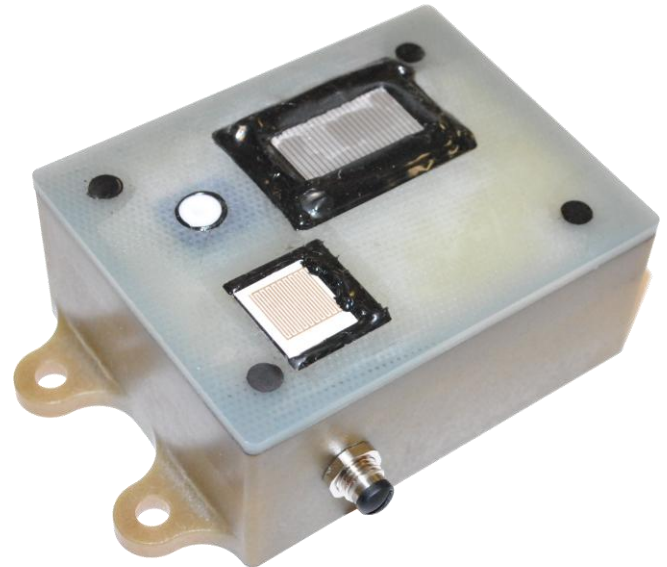


The Luna sensor suite for aircraft corrosion monitoring (LS2A) has been developed to provide **long duration, autonomous measurements of environmental parameters and corrosion of aircraft alloys.** The LS2A system consists of a network of smart sensor nodes that can be distributed throughout an airframe at critical locations and corrosion hotspots. Corrosivity classification models are embedded within the system so that **maintainers can assess environmental severity without the need for post processing or expert analysis.** Billions of dollars each year are spent on maintenance due to corrosion; the LS2A system is an important part of any corrosion prevention and control program.

PRODUCT HIGHLIGHTS

- Continuous monitoring of corrosivity
- Low cost modular network for distributed sensing
- Flight ready, easily installed, compact sensor nodes
 - Weight – 5.3 oz
 - Size – 1.5" x 4" x 2.5"
- Choice of wired RS-485 or wireless IEEE 802.15.4 interface
- Ultralow power design for long term maintenance free operation
 - Battery life of three years
 - Indefinite battery life with energy harvesting



LS2A Sensor Node

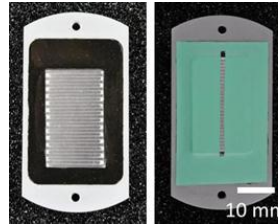
APPLICATIONS

- Identify and correct high corrosivity conditions at critical locations within airframes
- Characterize service environments for individual aircraft tracking and fleet management
- Predict alloy corrosion damage based on usage environment
- Optimize corrosion prevention and control activities
- Anticipate damage and schedule maintenance, repair, and overhaul activities
- Quantify benefits of corrosion control strategies

KEY FEATURES

- Continuous monitoring of environmental conditions and corrosion rates within an airframe
- Easily retrofit using adhesive or mechanical fasteners
- Modular system to support a variety of transducers
 - Environmental parameters
 - Coating performance
 - Galvanic corrosion
- Embedded classification algorithms for immediate determination of environmental severity
- Covered under US Patent No. 9,518,915

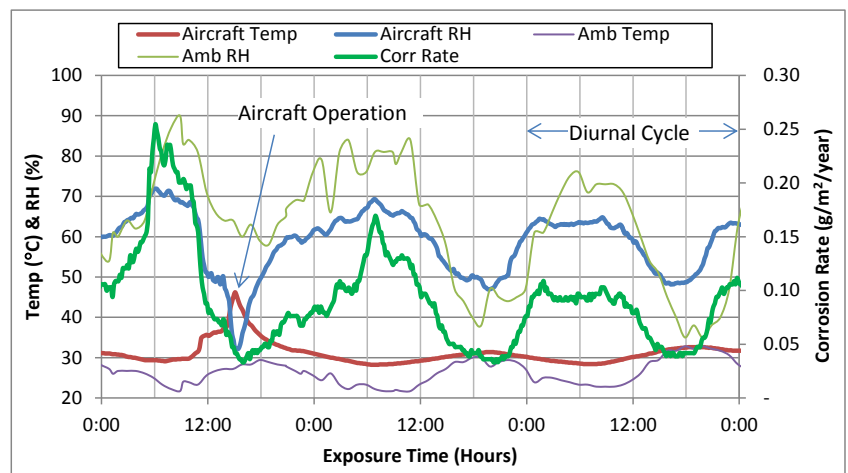
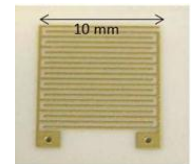
Aluminum 7075-T6



RH and Air Temp



Conductivity



Parameter	Description
Sensor Channels	Up to six channels of data
Sensors	Relative humidity
	Air temperature
	Surface temperature
	Wetness / conductivity
	Corrosion rate
Interface	RS-485
	IEEE 802.15.4
Sampling Rate	Factory setting is twenty minutes for long term environmental and corrosion monitoring. Every two minutes is suggested for accelerated laboratory tests. User selectable.
Power	3.7 VDC lithium ion battery
Dimensions	3.02" (4" with mounting flange) x 2.39" x 1.42"; 10.3 in ³ (7.7 cm (10.2 cm with mounting flange) x 6.1 cm x 3.6 cm; 169 cm ³)
Weight	150 g (5.29 oz) without battery, 172.5 g (6.08 oz) with battery

For more information and pricing visit <https://devstore.lunainc.com/collections/luna-sensor-suite>.