

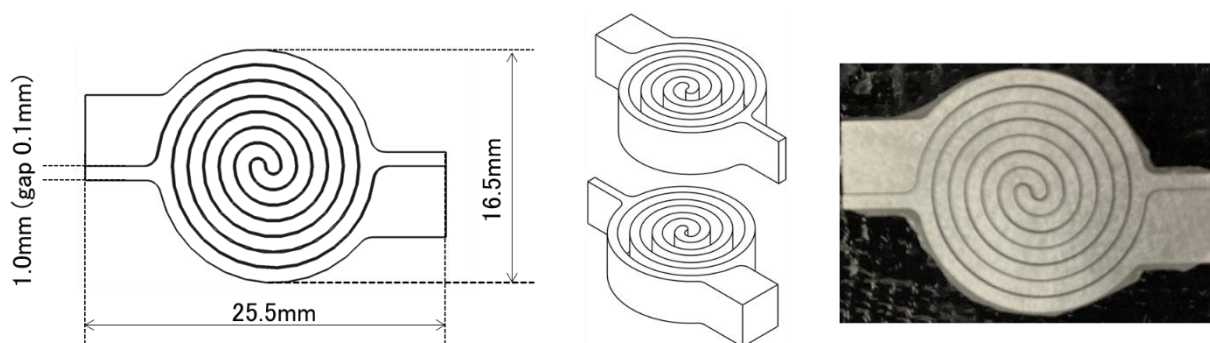
# ICM(Intelligent Corrosion Monitor) Sensor Specifications

## 【Overview】

This sensor features an optimized design for continuous high-precision monitoring of impedance and galvanic currents. You can analyze various corrosion behaviors, such as Aluminum corrosion and coating degradation.

Atmospheric corrosion monitoring is commonly performed using sensors that have two pairs of electrodes, such as plate-shaped, concentric-circular, or comb-shaped sensors. The width, spacing, and facing length of the two electrodes greatly affect the measurement accuracy, so machining and precision were issues. To overcome these issues, spiral-shaped electrode was invented.

## 【Structure and Appearance】



The electrode width is 1 mm, and the electrode distance is 0.1 mm, with a flange structure to suppress the movement in the rotational direction of the spiral shape. This shape eliminates anisotropy and allows accurate evaluation of corrosion behavior. By applying surface treatment to the metal in advance, we suppress the occurrence of crevice corrosion when filling epoxy resin between the electrodes.

## 【Specification】

Material	Carbon steel, Stainless steel, Aluminum alloy, Magnesium alloy, etc. *Can be made from supplied materials. (consultation required)
Electrode Surface area	Approx. 1cm <sup>2</sup> (2 pieces)
Electrode Thickness	1mm~5mm ※Custom-made is also available
Lead Wire	1.5m Attached to the side or bottom of the electrode flange
Supported Devices	• ICM Logger: SICM-714B, SICM-718B, etc. (impedance) • ACM Logger: SACM-312B/314B, SACM-31FB, etc. (galvanic current)