Cloudleaf Sensor™
Model S3.3 (Relay Digital Sensor)

The Relay/Contact Digital Sensor is an industrial grade sensor that allows high precision sensors to connect to existing machines with relays/contacts.

A sophisticated, lightweight, battery-operated device, the Model S3.3 (Relay Digital Sensor) is part of the full stack Cloudleaf Sensor Fabric™—providing asset location and sensory data, while collecting (end-node) information, such as environmental conditions in real-time.

Utilizing proven wireless technology standard (BLE) to communicate between zone sensors and gateways, all security features in the Bluetooth specifications can be enabled, including native 128-bit AES encryptions for end-to-end communications.

Each sensor carries a unique ID that links the tracked material. During the setup process, additional asset data like serial number, name or category can be assigned. Sensors can be provisioned in bulk via a .csv file upload and or individually using a mobile app.

Sensors can be mounted onto assets in a variety of ways to track them across indoor, outdoor and in-transit environments, providing a range of applications.

Features

- **Long Range**
  Up to 150 Ft. omni-directional line-of-sight (LOS) range

- **Configurable Sampling**
  Event or time based sampling and data transport

- **External Inputs**
  Two Relay/contact discrete inputs from external control systems

- **Read Only**
  Read-only module included

- **Easily Portable**
  All wireless and self-powered

- **Industrial Interfaces**
  Interfaces to thousands of industrial external sensors

- **Easy Deployment**
  Enables quick deployment without complex engineering or integration

- **Location Tracking**
  Location tracking along with external sensor data measurement

- **Bidirectional Communication**
  Supports bidirectional communication and over-the-air (OTA) configuration and update

- **Easy Provisioning**
  Quick mobile and/or bulk provisioning

Specifications

- Dimensions: 53mm x 105mm x 22 mm
- Operating Temperature: -10 to 55ºC
- 2 year battery life
- 12 bit data sampling
- IP-52 compliant
- Two Relay/Contacts (0-3.3V “Off” 3.3V – 30V “On”) Discrete DC Voltage Sensing inputs
- Operating Humidity: 0 to 95% RH
- Security: AES-128 CCM and HASH Lite encryption
- Tracking capabilities: location, seismic, temperature, carbon monoxide/dioxide, rel. humidity, fluid dynamics, G-force measurements, etc.