

Wireless Water Presence Area (Rope) Sensor - 109

Part Number: SS3-109

Overview

Swift Sensors Wireless Water Presence Area (Rope) Sensor can detect both the presence of water or lack of water anywhere along the surface of the rope. When a detection event occurs, notifications can be sent via SMS text, email, and phone call. The sensor enclosure is water-resistant and dustproof with a rating of IP66. A 3-meter (~10') lead comes attached to the sensor enclosure, with a 3-meter orange water detection rope that connects to the 3-meter lead with a waterproof connector. The 3-meter lead allows for more placement options of the actual water detection rope.

For water presence to be detected, the water detection rope must sense at least 10% or 0.3+ meters (1'+) of saturation. Therefore, the SS3-109 is most useful for flood detection, or larger leak detection. The rope may be coiled or extended at the discretion of each application to optimize performance. For example, water leaking from above would benefit most from a coiled rope placed on the ground. This gives a smaller point of water detection. However, if water is leaking up through the ground, an extended rope may perform better, as a coiled rope would require a higher water-level threshold to trigger detection (or will detect water falling onto it).

Simple, Plug-and-Play Deployment





Place the small battery-powered sensor in the location or on the equipment you need to monitor. The Swift Sensors Gateway instantly identifies the sensor and establishes secure communication. No wires to connect. No software to install. Additional features include:

- Secure, scalable cloud architecture (256-bit AES Encryption)
- Cloud-based console software with data trending, analysis, and reporting tools
- Set thresholds and trigger notifications via SMS text, email, or phone
- View your data and analysis from anywhere - computer, tablet, or smart phone

Applications

- ✓ Manufacturing and Production
- ✓ Facility Monitoring
- ✓ Museums
- ✓ Datacenters
- ✓ Warehouses
- ✓ Greenhouses
- ✓ Restaurants and Food Service
- ✓ Cold Chain Monitoring
- ✓ Transportation
- ✓ Building Management

Operational Specifications:

Power	1.8 - 3.6VDC, 0.085mW Average
Battery Type	AAA x2 Replaceable "L92" Lithium Polymer
Operating Voltage	1.8VDC - 3.6VDC
Avg. Current Consumption	18uA (Active, Open), 500uA (Command ACK), <5uA(Sleep)
Operating Temperature	-40°C to +60°C (-40°F to +140°F) Defined by Batteries
Operating Environment	Indoor/Outdoor, 0-95%+ RH
Battery Life (Average)	3 - 6 Years
Communication Protocol	BLE/BT5 2.4Ghz
BLE Chipset	nRF52840
TX Strength	Default +8dBm
Range	70m - 90m (250ft - 300ft) Line-of-Sight 30m - 45m (100ft - 150ft) Non Line-of-Sight
Encryption	128-Bit AES Encryption
Button Press	Click to turn on. Press and Hold 2 sec to put in sleep mode
LED	Green LED: 2 sec. blinking when turning on Green LED: 2 sec. solid when entering sleep mode
Find My Sensor	Command from Console to blink sensor LED
Weight	56g (2 oz)
Dimensions	77.5mm x 57.5mm x 44mm (2.26in. x 1.73in. x 0.73in.)
Enclosure Material	ABS PA-765+
IP Rating	Sensor: IP66, Cable/Probe Junction: IP68
Cable Specifications	3-Meter Lead Cable 3-Meter Liquid Detection Rope ASC2100 Water-Sensitivity Standard
Certifications    	FCC ID: X8WBT840F IC ID: 4100A-BT840F CE Compliance: 2014/35/EU, 2014/53/EU, 2014/30/EU



Operational Specifications Cont.:

EMC Compliance	FCC Part 15 Class B
Flammability Rating	UL94-0V
Warranty	2-years

Measurements Specs:

General Use Indications	Monitoring the Active Presence of Water
Output	Binary, Water Present "Yes" or "No"
Inspection Rate	Continuous

Swift Sensors Gateway

The Swift Sensors Gateway collects encrypted data from sensors located within the specified communication range (< 90m/300ft) and then transmits the sensor data to the Swift Sensors Cloud through either Ethernet, Wi-Fi, or cellular. The gateway auto-detects all sensors within range and will immediately establish secure communication without any user configuration or setup. Each gateway can support up to 150 Series 3 sensors.

Swift Sensors Console

All sensor data is logged and stored in the Swift Sensors Cloud. The Swift Sensors Console is configured to monitor and track all sensor data in the cloud. Multiple thresholds and alerts can be set separately for each sensor to supply notification via SMS text, email, or phone call. The console can be viewed in a web browser on a computer, tablet, or smartphone.

No programming is required to configure the console. An API to the Swift Sensors Platform allows integration with other data sources and 3rd-party data analytics tools.