

Wise Ally Holdings Limited Units 3203-3207, Tower 1, Enterprise Square Five, 38 Wang Chiu Road, Kowloon Bay Hong Kong S.A.R. www.defond.com

# Sigfox Water Rope Detection Sensor (Model: AM52)

### **General Descriptions**

- When insert battery, the Green LED and Red LED will turn on, after self-test finished all LED turn OFF. If there is any error after self-test the "Red LED" will blink for 10 seconds (1second on, and 1 second off)
- 2. System will be wakeup if there is a change in the water Leak state (From Leak to No Leak, or from no leak to leak). The water leak status will report by the Sigfox channel.
- 3. To save up the energy, If there is no change in the water state, the CPU will go to the Deep-halt mode, and the Sigfox module will go to the Sleep mode
- 4. If the device is in the leak state, system will wake up for every "schedule time period" (Default is 15mins) for reporting. If it is no leak, the device will stay in the sleep mode
- 5. The Keep Alive Message will send once per day, to notify the device is still alive.

#### **LED Status**

- 1. When system sending the Sigfox message, the Green LED will blink for 10 seconds
- 2. When system is in Carrier mode, Both Green and Red light will blink, until Carrier Mode exit
- 3. When battery of the system is low, the Red light will keep on blinking (Optional)
- 4. Any error for the Sigfox communication, Red LED(\*No Green LED) will blink for 10 seconds \*All LED blinking style is On for 1second, and then Off for 1second.

## Sigfox Message for Water Leak Detection:

| Uplink Message |      |      |        |         |              |         |         |
|----------------|------|------|--------|---------|--------------|---------|---------|
| 0              | 1    | 2    | 3      | 4       | 5            | 6       | 7       |
| 0x7B           | 0x06 | 0x02 | Water  | Battery | Reserved     | Not use | Not use |
|                |      |      | Status | Level   | for Internal |         |         |
|                |      |      |        |         | Use          |         |         |

#### 0x7B, 0x6C and 0x02 are Hardcoded

Water Detection status:

- 0x55: Mean no water leak
- 0xAA: Means water leak detected

#### FCC statement

*This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:* 

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

*Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.* 





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- This device must be used in fixed locations and in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.
- NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - —Reorient or relocate the receiving antenna.
  - -Increase the separation between the equipment and receiver.
- —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - -Consult the dealer or an experienced radio/TV technician for help.
  - Model Name : Sigfox Water Leakage Rope Sensor (RCZ2)
  - model number : NA
  - The name and address, and telephone number, or internet contact information of the responsible party's contact located in the United States.

#### CE statement

- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a Battery that can result in an explosion;

- leaving a battery in an extremely high temperature surrounding environment that can Result in an explosion or the leakage of flammable liquid or gas;

- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.