

# None-Position Rope Type Water Leak Controller

## OVERVIEW:

The Dragino WL03A series is a **None-Position Rope Type Water Leak Controller**. User can lay the **WL03A + Water Leak Cable** on the ground to detect water leakage. The water leak cable is sensitivity, when there is water over the leak cable. It will indicate a **water leak event** and uplink to IoT server via **LoRaWAN**, **NB-IoT** or **CAT-M1** network.

The Dragino WL03A series will send periodically data every 2 hours as well as for each water leak event. It also counts the water leak times and calculate last water leak duration.

It supports **BLE configure** and **wireless OTA update** which make user easy to use.

The Dragino WL03A series is powered by **8500mAh Li-SOCI2 battery** or **solar panel with Li-ion battery**, it is designed for long-term use up to several years.



## Applications:



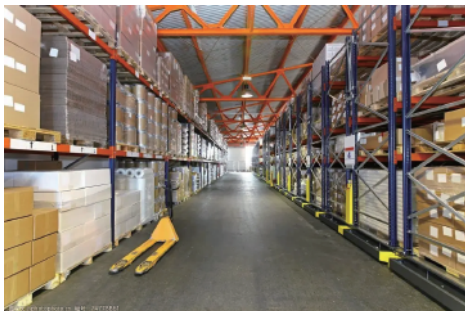
IDC



Smart Building



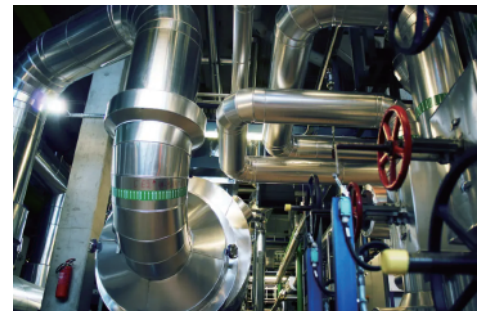
Factory



Warehouse



Air Condition



Industrial Piping

# DR-WLN Datasheet

## OVERVIEW:

The DR-WLN detection cable is made of two light high-density polyethylene (HDPE) wires around the spiral axis. Compared with the parallel structure of the detection line, the spiral structure can reduce the environmental electromagnetic interference and false alarm rate, and greatly improve the strength and service life of the cable.













With a unique manufacturing process, the cable is fast and dry, enabling the detection host to be quickly and accurately reset and easy to use. The cable is made of anti-corrosion, halogen-free, non-toxic materials, meeting environmental standards.



## Technical Parameters:

- Color: Yellow
- Weight: 18g/m
- Cable diameter: 6.0mm
- Breaking strength: 60KG
- Conductor diameter: 1.0mm
- Maximum exposure temperature: 105 °C
- External resistance of conductor: 5 Ohms/PREFIX=ST1200m
- Fire resistance rating: Secondary pressure ventilation cable

# Model Variants

Variants	WL03A-LB	WL03A-LS	WL03A-NB	WL03A-NS	WL03A-CB	WL03A-CS
Connectivity						
Configure Method	TTL, BLE, LoRaWAN	TTL, BLE, LoRaWAN	TTL, BLE, NB-IoT	TTL, BLE, NB-IoT	TTL, BLE, NB-IoT, LTE-M	TTL, BLE, NB-IoT, LTE-M
Upgrade Method	TTL, BLE, LoRa	TTL, BLE, LoRa	TTL, BLE	TTL, BLE	TTL, BLE	TTL, BLE
Features	<p><b>Sensor /Probe:</b></p> <ul style="list-style-type: none"> <li>* Water Leak detect</li> </ul> <p><b>General Features:</b></p> <ul style="list-style-type: none"> <li>* Ultra-low power consumption</li> <li>* Support Bluetooth v5.1 remote configure and OTA update firmware</li> <li>* Uplink on periodically</li> <li>* GNSS for Location Report ( for -CB &amp; -CS models only)</li> <li>* Downlink to change configure</li> </ul>					
Battery & Power	 * 8500 mAh Li/SOCI2 Battery	 * Solar + 3000 mAh Li-ion Battery	 * 8500 mAh Li/SOCI2 Battery	 * Solar + 3000 mAh Li-ion Battery	 * 8500 mAh Li/SOCI2 Battery	 * Solar + 3000 mAh Li-ion Battery
Power Consumption	* Sleep Mode: 5uA @ 3.3v * LoRa Transmit Mode: 125mA @ 20dBm, 82mA @ 14dBm	* Sleep mode: 74uA@3.8V * LoRa Transmit Mode: 206mA@14dBm, 236mA@20dBm	* Sleep mode: 14uA@3.3V * Max Transmit power: 350mA@3.3V	* Sleep mode: 74uA@3.4V * Max Transmit power: 350mA@3.4V	* Sleep mode: 14uA@3.3V * Max Transmit power: 350mA@3.3V	* Sleep mode: 74uA@3.4V * Max Transmit power: 350mA@3.4V
Supply Voltage	2.5v ~ 3.6v	3.7v ~ 4.2v	2.5v ~ 3.6v	3.7v ~ 4.2v	2.6v ~ 3.6v	3.7v ~ 4.2v
Operating Temperature	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C

## Battery & Enclosure Option:



### Li-SOCI2 Battery & Enclosure:

- Li/SOCI2 un-chargeable battery
- Capacity: 8500mAh
- Self-Discharge: <1% / Year @ 25°C
- Max continuously current: 130mA
- Max boost current: 2A, 1 second



### Solar Version & Enclosure:

- 3000mAh Re-chargeable battery
- 0.9W on board solar pannel Suitable to used in the place where sun is sufficient



- This icon means support location feature by: GPS/ GLONASS/BDS/Galileo/ QZSS

## Wireless Option:



- LoRaWAN 1.0.3 Class A
- Bands: CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865
- OTAA or ABP Mode.
- World Wide Unique LoRaWAN Key
- RX sensitivity: down to -139 dBm.
- Max +22 dBm - 100 mW RF output



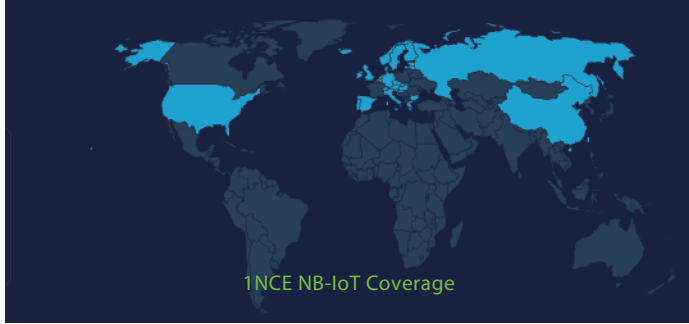
- **CAT NB2 Bands:**
  - For -NB & -NS: B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B20/B25/B28/B66/B70/B85
  - For -CB & -CS: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85
- Uplink via MQTT, MQTTs, TCP, UDP or CoAP
- Multiply Sampling and one uplink



- CAT-M1 / LTE-M Bands: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85
- Uplink via MQTT, MQTTs, TCP, UDP or CoAP
- Multiply Sampling and one uplink

# What is 1T version for NB-IoT version?

The 1T version of NB-IoT None-Position Rope Type Water Leak Controller is with 1) 1NCE SIM Card & 2) ThingsEye Pre-configured. 1NCE SIM Card (10 Years Cellular service with 500MB Data Traffic, Enough for devices to uplink 10 years at 1hour interval).



NB-IoT Network : Austria, Belgium, Bulgaria, China, Croatia, Czech Republic, Denmark, Estonia, Finland, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Malta, Netherlands, Norway, Portugal, Puerto Rico, Russia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, USA, US Virgin Islands.



LTE-M Network : Argentina, Austria, Australia, Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Ireland, Japan, Jersey, Korea, Republic of, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Puerto Rico, Romania, Spain, Sweden, Switzerland, Taiwan, USA, US Virgin Islands.

## ThingsEye.io platform:

1T version with ThingsEye IoT service pre-installed. This save a lot of work from user side to configure IoT server.

Below is Dash Board is the demo in ThingsEye.io.



## Order Info:

**Notice:** Water Leak Controller includes a one meter water leak cable, If user want to extend the length, please choose Water Leak Cable **DR-WLN-XX**.



Part Number: WL03A-LB-XX

XX: The default frequency band

- XX: Frequency Bands, options: EU433,CN470, EU868,IN865,KR920,AS923,AU915,US915

Part Number: WL03A-LS-XX

XX: The default frequency band

- XX: Frequency Bands, options: EU433,CN470, EU868,IN865,KR920,AS923,AU915,US915



Part Number: WL03A-NB-XX

XX:

- **GE:** General version (Exclude SIM card)
- **1T:** with 1NCE\* 10 years 500MB SIM card Pre-configure to ThingsEye server

Part Number: WL03A-NS-XX

XX:

- **GE:** General version (Exclude SIM card)
- **1T:** with 1NCE\* 10 years 500MB SIM card Pre-configure to ThingsEye server



Part Number: WL03A-CB-XX

XX:

- **GE:** General version (Exclude SIM card)
- **1T:** with 1NCE\* 10 years 500MB SIM card Pre-configure to ThingsEye server

Part Number: WL03A-CS-XX

XX:

- **GE:** General version (Exclude SIM card)
- **1T:** with 1NCE\* 10 years 500MB SIM card Pre-configure to ThingsEye server

Cable Part Number: **DR-WLN-XX**

XX: Cable Length Options

- **1M:** 1 meter water leak cable
- **5M:** 5 meters water leak cable
- **10M:** 10 meters water leak cable

## Dragino Technology Co., Limited

Room 202, Block B, BCT Incubation Bases (BaoChengTai), No.8 CaiYunRoad LongCheng Street, LongGang District ; Shenzhen 518116,China  
Direct: +86 755 86610829 | Fax: +86 755 86647123

**WWW.DRAGINO.COM**  
sales@dragino.com