

LoRaWAN/NB-IoT Contact Sensor

OVERVIEW:

The Dragino CPL03 series is a **Contact Sensor** for Internet of Things solution. It detects **dry contact status**, **open time**, **open counts**, and then upload to IoT server via **LoRaWAN** and **NB-IoT** network.

The Dragino CPL03 series will send periodically data every day as well as for each dry contact action. It also counts the contact open times and calculate last open duration. User can also disable the uplink for each open/ close event, instead, device can count each open event and uplink periodically.

It supports **open alarm feature**, user can set open alarm for instant notice. The sensor supports **Datalog feature**, it can save the data when there is no network and uplink when network recover.

The Dragino CPL03 series is designed for outdoor use. It has a weatherproof enclosure and industrial level battery to work in low to high temperatures.

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

The Dragino CPL03 series is powered by **8500mAh Li-SOCI2 battery** or **solar panel with li-on battery**, it is designed for long-term use up to several years.



Applications:











Gas Meter



Water Meter

Model Variants

Variants	CPL03-LB	CPL03-LS	CPL03-NB	CPL03-NS
Appearance				
Connectivity				
Configure Method	TTL, BLE, LoRaWAN	TTL, BLE, LoRaWAN	TTL, BLE, NB-IoT	TTL, BLE, NB-IoT
Upgrade Method	TTL, BLE, LoRa	TTL, BLE, LoRa	TTL, BLE	TTL, BLE
Features	<ul style="list-style-type: none"> * Ultra-low power consumption * Open/Close detect * Open/Close statistics * Support Datalog Feature, Open Alarm Feature * Support Bluetooth v5.1 remote configure and OTA update firmware * Downlink to change configure 			
Battery & Power	* Li/SOCI2 Battery	* Solar + Li-on Battery	* Li/SOCI2 Battery	* Solar + Li-on Battery
Power Consumption	<ul style="list-style-type: none"> * Sleep Mode: 5uA @ 3.3v * LoRa Transmit Mode: 125mA @ 20dBm, 82mA @ 14dBm 	<ul style="list-style-type: none"> * Sleep mode: 74uA@3.8V * LoRa Transmit Mode: 206mA@14dBm, 236mA@20dBm 	<ul style="list-style-type: none"> * Sleep mode: 14uA@3.3V * Max Transmit power: 350mA@3.3V 	<ul style="list-style-type: none"> * 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
Operating Temperature	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C

Battery & Enclosure Option:



Li-SOCI2 Battery:

- 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:

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

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



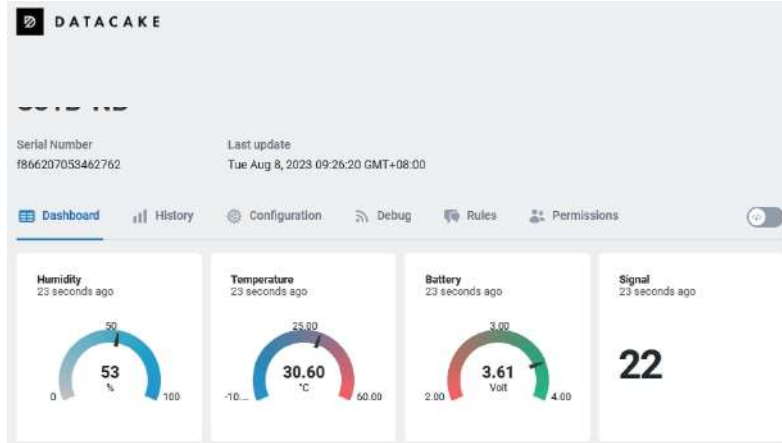
- NB-IoT Bands, B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B20/B25/B28/B66/B70/B85 @H-FDD
- Uplink via MQTT, MQTTs, TCP, or UDP
- Multiply Sampling and one uplink

What is 1D version for NB-IoT version?

The 1D version of CPL03 NB-IoT is with 1NCE SIM Card and DataCake IoT Service.

1NCE card provides 10 years lifetime for NB-IoT connection and Includes 500MB data traffic which is enough for 10 years normal uplink for the NB-IoT Sensor.

Coverage of 1NCE card is NB-IoT network coverage: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Malta, Netherlands, Norway, Puerto Rico, Russia, Slovak, Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, USA, US Virgin Islands.



1D version with DataCake 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 DataCake.

Order Info:

Part Number: CPL03-LB-XX

XX: The default frequency band

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

Part Number: CPL03-NB-XX

XX:

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

Part Number: CPL03-LS-XX

XX: The default frequency band

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

Part Number: CPL03-NS-XX

XX:

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

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