IOT-S500UDL

Ultrasonic Distance Sensor

Data Sheet

IOT-S500UDL is designed for objects distance or level detection in harsh environments and transmitting data using LoRaWAN® technology. With this low power consumption technology, IOT-S500UDL can work up to 10 years with 19000 mAh battery. Combining with Linovision LoRaWAN® gateway and Linovision IoT Cloud solution, users can manage all sensor data remotely and visually.

IOT-S500UDL is widely used for outdoor applications like flood monitoring, granary level monitoring, etc.

◆ Features

- Object distance or level detection without touch
- Ultra-wide-distance transmission up to line of sight of 10km
- IP66 waterproof enclosure for harsh environment applications
- Built-in 19000 mAh replaceable battery and work for 10 years without replacement
- Equipped with NFC for easy configuration
- Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with Linovision IoT Cloud solution

◆ Applications

- Water level monitoring
- Flood monitoring
- Level/depth monitoring in tanks
- Snow level monitoring
- Smart agriculture: fill level monitoring in grain, fertilizer or pellets silos

◆ Specifications

Wireless Transmission	
Technology	LoRaWAN®
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP Class A
Measurement	
Range	0.3 - 5m/0.5-10m (Ordinary/Snow detection Version)
Accuracy	±1% FS
Resolution	1 mm
Operation	
Power On & Off	NFC, power button (Internal)
Configuration	Mobile APP(via NFC)
Physical Characteristics	
Power Supply	19000 mAh Li-$SOCL_2$ battery (ER34615)
Battery Life*	5.5 years (10 min interval, SF12) >10 years (10 min interval, SF7)
Operating Temperature	-30°C to +65°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	IP67
Dimension	156.1 × 71 × 69.5 mm (6.1 × 2.8 × 2.7 in)
Installation	Pole, wall or DIN Rail Mounting
Approvals	
Regulatory	CE, FCC, LoRaWAN® Certified
EMC	EN 55032, EN 55035
EMS	IEC 61000-4-2 Level 3, IEC 61000-4-3 Level 2, IEC 61000-4-8 Level 4
Radio Frequency	FCC Part 15B, FCC Part 15.247, EN 300 330, EN 301 489-1/3, EN 300 220-1/2
Safety	EN62368-1

* Tested under laboratory conditions and for guideline purposes only.