Building sustainable future

Bin Level Sensor

(AJV-IOT-BLS-001)

Introduction

Bin Level sensor is installed in waste containers and detects the fill level, regardless of what has been deposited inside. This technology is qualified for reliability and intelligence. It automatically adapts to changing surfaces and different kinds of waste. On a regular basis, measured data and sensor information are transmitted to the cloud via the mobile communication network. The filling level sensor is equipped with a SIM card. The advantage: existing telecommunication networks can be used for data transmission.

Uses

Designed to measure dry materials, including grain, feed, and chips — ultrasonic sensors are an accurate, cost-effective solution for bin level measurement. Browse our selection of sensors hand-picked for use in this environment.

Features

- This device is fixed on waste bin at garbage collection point.
- BIN ID with Level can be sent to server on Real-time basis.
- This device is powered by Li-polymer 4000MAh battery with chargeable with Solar.
- This device will automatically push encrypted data into a secure server.
- IP65 enclosure to sustain in harsh environment
- Micro SIM Support

Building sustainable future

Bin Level Sensor
(AJV-IOT-BLS-001)

Technical Specifications:

S. No.	Parameter	Value
A	**Physical**	
1	Dimension	100 mm x 80 mm x 50 mm.
2	Weight	210 g
B	**Processor and Communication**	
1	Microcontroller	Arm 32-bit Microcontroller, 64 kb Program memory 20 kb RAM.
2	I/O pins	Total 48 pins, Low power consumption 3.3V
3	GSM/GPRS Band	2G Band GSM: 900 MHZ, 1800 MHz, Narrow band
4	Multi Internet Protocols	TCP / UDP / FTP / PPP / HTTP / NITZ / NTP / PING / HTTPS / SSL / MQTT
5	2G antenna	On board antenna
6	Interface	UART Data bits: 8, Stop bits: 1, 2 , Checksum: none, odd, even Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400,57600
7	Antenna connector	SMA female / Antenna Pad/U.FL, the characteristic impedance of 50 ohms
8	Level sensor	Frequency 40 KhZ, Range 20CM to 2 M , Measuring Angel– 15 degree, Voltage Supply 3.3V
9	Sensor type	Ultrasonic sensor
C	**Device Related**	
1	Device Identification	Every device has unique registered IMEI (International MobileEquipment Identity) number.
2	Device critical zone	In case absence of GPRS network the device stored up to 1000 data and when it has proper GPRS signal strengths comes its ends the data to the server.
3	Device methodology	When the bin fill-up the waste, device senses & detects how much its been filled. If bin is filled more than the target level, then it will send data to web server.
D	**Operating Temperature**	
1	Operating Temperature	-20°C to +80°C
E	**Power and Backup**	
1	Power source	5-12 v solar panel

2	Battery Charging Voltage /current (Max.)	4.2±0.03 V /0.5C 5A ,weight 45.0±2.0 g
3	Battery back-up	Up to 30 days. Never gets discharged when connected with solar.
F	**Certification**	
1	Certificate	CE, RoHS