Sound Level Sensor

Featuring LoRaWAN®

WS302



Milesight WS302 is a LoRa sound level sensor with integrated microphone. WS302 can not only measure a wide range of noise levels and send various kinds of noise level values via LoRaWAN® network, but also supports multiple weighting measurements for different application scenarios. Compliant with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can manage all sensor data and trigger other sensors or appliances easily via webpage or mobile App remotely.

WS302 can be widely used in smart buildings, smart cities, schools, heath monitoring, etc.

◆ Features

- Support multiple weighting measurements to suit different scenes: A weighting, C weighting, fast weighting
- Support measuring various kinds of values to judge the sound level accurately: actual value, equivalent continuous value and max value
- Equipped with an LED indicator to indicate threshold alarms
- More than 4 years battery life
- Built-in NFC for easy configuration
- Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with Milesight IoT Cloud solution

◆ Specifications

Wireless Transmission	
Technology	LoRaWAN®
Antenna	Internal Antenna
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16 dBm (868 MHz)/22 dBm (915 MHz)/19 dBm (470 MHz)
Sensitivity	-137 dBm @300bps
Mode	OTAA/ABP Class A
Measurement	
Range	30 dBA to 120 dBA, 35 dBC to 120 dBC
Accuracy	± 3 dB (0°C to +45°C)
Resolution	0.1 dB
Frequency Range	30 Hz to 8 kHz
Frequency Weighting	A and C Weighting (Software Switchable)
Time Weighting	Fast Weighting
Measurement Unit	SPL Actual, Leq, Lmax
Others	
Button	1 × Power/Reset Button
LED	1 × Status/Alarm Indicator
Software	
Power On/Off	Mobile App via NFC or Power Button
Configuration	Mobile App via NFC or Downlink
Advanced Feature	Threshold Alarm
Physical Characteristics	
Power Supply	2 × 2700 mAh ER14505 Li-$SOCl_2$ Replaceable Batteries
Battery Life* (10 min interval, 25 °C)	Fast time weighting disabled: Around 5 Years (SF7, EU868 & US915) Around 3.3 Years (SF10, EU868) Around 2.4 Years (SF10, US915)
	Fast time weighting enabled: Around 1.7 Years (SF7, EU868 & US915) Around 1.5 Years (SF10, EU868) Around 1.3 Years (SF10, US915)
Operating Temperature	-20°C to +60°C

Relative Humidity	≤95% (Non-condensing)
Ingress Protection	IP30
Dimension	68 × 65 × 20.5 mm (2.68 × 2.56 × 0.81 in)
Material & Color	PC+ABS, White
Weight	79.1g (Batteries Included)
Installation	On the flat surfaces with screws or 3M tapes
Approvals	
Regulatory	CE, FCC, Telec
Environmental	RoHS

* Tested under laboratory conditions and for guideline purposes only.

◆ Dimensions (mm)

