Wireless Water Leak Detection and Location Sensor



RA07W Datasheet

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Introduction

RA07W is a water leak detector leak locating equipment, which can be connected to water leak sensor through the external four-core positioning leak detection sensor line to detect the water leak location, and transmit the detected data to other devices through the wireless network.

Fully compatible with LoRaWANTM protocol.

Main features

- Compatible with LoRaWANTM protocol
- Detection of water leak detection line contact with the water location
- Power supply: DC 12V
- Adopt SX1276 wireless communication module
- Compatible with LoRaWANTM Class A
- Frequency hopping spread spectrum technology
- Configuring parameters and reading data via the third-party software platforms, and set alarms via
 SMS text and email (optional)
- Applicable to the third-party platforms: Actility/ ThingPark/ TTN/ MyDevices/ Cayenn

Electric

Power Supply	Adapter DC powered (12V/1A)
Operating Current 1	40mA (no radio frequency signal transmission)
Operating Current 2	80mA (a radio frequency signal emission)
Line Length	Water leak detector line 3m+ extension line 1m (default)
	(Water leak detector line is up to 100m)
Leak Detection Error Range	$1\% \pm 0.5$ meters of sensor line length



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Frequency

Frequency Range	863MHz-928MHz, 470MHz-510MHz
TX Power	US915 20dbm;
	AS923 16dbm;
	AU915 20dbm;
	CN470 19.15dbm;
	EU868 16dbm;
	KR920 14dbm;
	IN865 20dbm;
Rx Sensitivity	-121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
	-136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps)
Antenna Type	Build-in antenna
Communication Range	10km (visible linear obstacle-free transmission distance, actual
	transmission distance depending on the environment)
Data Transfer Rate	0.3kbps~50kbps
Modulation	LoRa / FSK
Support LoRaWAN Band	EU863-870,US902-928,AU915-928,KR920-923,AS923-1,
	AS923-2,AS923-3,IN865-867,CN470-510
	(Note: The frequency band is optional and needs to be configured
	before shipment)

Physical

Dimension	111mm*86mm*41mm
Working Temp	-20°C ∼ 55°C
Humidity Detecting Range	5%RH~95%RH
Storage Temp	-40°C ∼ 85°C