



WLRC-D14 / WLRC-D142



Wireless Water Leak Detector with Rope Sensor

Accurate water leak detection with immediate notification. Supervised online/offline status and battery monitoring ensure product readiness when it occurs. Water detection rope can be extended up to 300m (1000ft) for larger room monitoring.

Features:

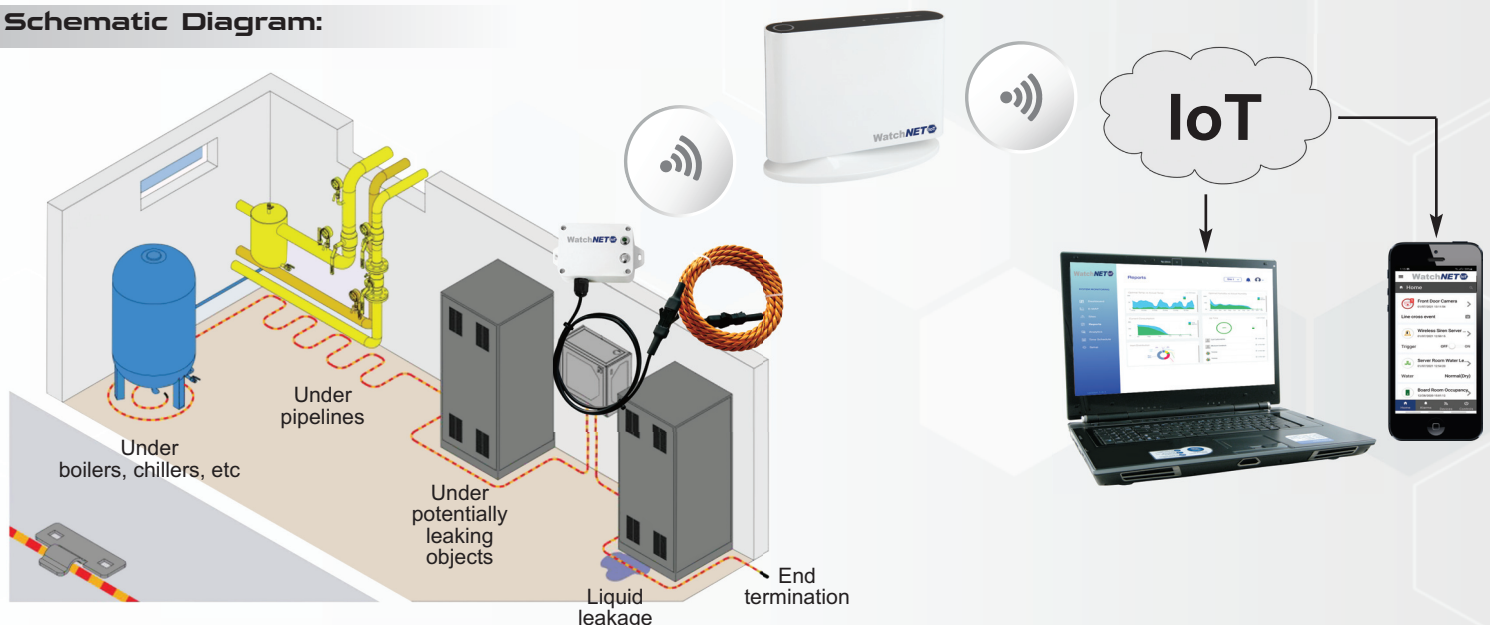
- Super Long Range Signal Penetration
- 5 years plus Battery Life*
- Easy Installation
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Over-the-air updates
- Interactive WatchNET IoT platform with dashboard, search and notification settings
- * Magnetized ABS enclosure for easy installation



Applications:

- Utility room floor monitoring
- Laundry and kitchen floor monitoring
- Pump rooms and boiler room floor
- Elevator pit/sump pump water presents
- Air handling units (AHU) and compressor room floor
- Any location where water leak or presents to be detected

Schematic Diagram:



Technical Specifications

Electrical	
Input Power	2 x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)*
Battery Life	5 years (Conditions: ambient temperature 25°C/77°F 15 min heartbeats, txpower = 20dBm, LoRa spreading factor SF = 10)
Sleeping Mode	20uA
Wake up Mode	6.3mA@3.3V
Low Voltage Threshold	3.2V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Voltage Measurement Accuracy	±0.1V

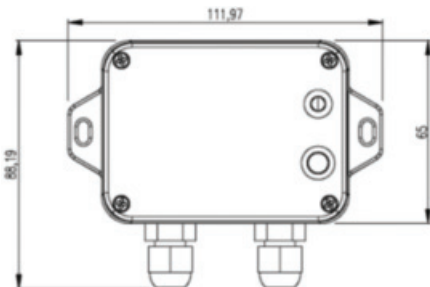
*The actual electrical characteristics will vary depending on the power supply voltage.

Non-positioning Leakage Rope Sensor	
Material	Conductive Polyethylene + Alloy Wire
Working Temperature (Max.)	75°C / 167°F
Diameter	5.5mm / 0.22"
Rope Length	3m / 10ft (each gang)
Fire Rating Grade	2 Pressure Vent Cable
Quality	18g/m
Color	Orange
Breaking Strength	60kg / 132.28lb
Detect Core Resistance	Less than 5 ohms/100 meters (328ft)
Recommended Max. Length	300meters/984ft (Approximate value)

Frequency	
TX Power	19dBm±1dBm
Rx Sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps) -121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Built-in antenna
Communication Range	Up to 500m/0.310miles, the actual transmission distance depends on the environment*
Data Transfer Rate	0.3kbps~50kbps
Spread Technique	LoRa/FSK
Available Frequency	EU863-870, US902-928, Configured before shipment

Physical	
Dimension	L:112mm x W:65mm x H:32mm / L:4.41" x W:2.56" x H:1.26"
Weight	141g / 0.31lb
Protection class	Main Part IP65 / External Sensor IP65
Environment Temperature Range	-20°C ~ 55°C / -4°F ~ 131°F
Environment Humidity Range	<90%RH (No condensation)
Storage Temperature	-40°C ~ 85°C / -40°F ~ 185°F

Dimensions



* Actual signal range may vary depending on the environment.

* Battery life is determined by sensor reporting frequency and other variables.

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Rev Dec, 2021
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