



WLRI-V11

Wireless Automatic Valve closure for Quarter-turn valves

This automatic wireless valve closure can be used to shut off water/gas in event of an emergency. It can be activated from a smartphone or can be paired with smart gateway and water leak/gas detectors. Robust and high power gearbox gives up to 7.5kg (Output force) to close any stubborn valve.

Features:

- Super Long Range Signal Penetration
- 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



Applications:

- Water main shut off upon leak detection
- Automatic irrigation by timer
- Smart irrigation with a soil moisture sensor
- Emergency gas shut off
- Works online/offline with smart gateway

Schematic Diagram:

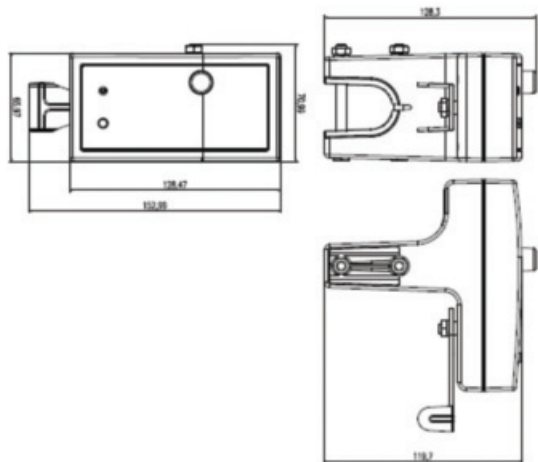


Technical Specifications

Electrical	
Power Supply	DC12V
Working Voltage	12 VDC
Standby Current	25 mA
Maximum Load Current Consumption	550 mA
Frequency	
Frequency Range	863MHz-928MHz 470MHz-510MHz
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	152.99mm x 70.99mm x128.3mm / 6.023" x 2.79" x 5.05"
Drive Arm End Maximum Output Force	7.5kg
Protection Level	IP43
Operating Temperature	-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
Applicable Pipe Diameter	6 points (3/4 inch)
Switching Angle	90 degrees

* Actual signal range may vary depending on the environment.

Dimensions



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