

WT-L1XXA

Irrigation Module



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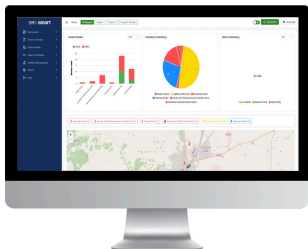
Zenosmart irrigation control unit is a hybrid IoT solution capable of providing data transmission and command management across different network topologies, thanks to its flexible communication layer supporting NB-IoT, LoRaWAN, and Mesh protocols. Standing out with its energy-efficiency-oriented design, the module offers long-lasting use with 6xAA batteries while also supporting 9V DC external power supply, ensuring complete independence in remote sites without energy infrastructure.



Irrigation Module

The device's versatile connectivity architecture offers uninterrupted communication even in harsh field conditions, while Bluetooth support provides field teams with the advantage of on-site configuration and rapid control. Equipped with autonomous operation capability, the module instantaneously scales temperature and humidity values via integrated soil sensors and automatically performs irrigation processes according to specified needs.

Communication Protocols	NB-IoT, LoRaWAN, Mesh (Hybrid Support), Bluetooth
Coverage Area	800m - 15km (Depending on protocol and environmental conditions)
Controller Features	4x Latching Solenoid Control Module
Battery	9V DC / 6x AA Battery
Frequencies	EU433, EU868, AS923, AU915, KR920, US915
Sensor Inputs	Soil Moisture, Soil Temperature, and Water Meter (Flow Meter)
Monitoring	Web and Mobile Based Remote Monitoring/Management
Protection Class	IP67 (Resistant to Outdoor Conditions)
Dimensions	(H×W×D): 154×67×60 mm



You can manage your irrigation process via our web management platform at zenosmart.com or through your own servers.

Installation

Once the battery is installed, the irrigation module connects to the nearest **LoRaWAN gateway** and transmits data to the **IoT server**. The operating temperature must be between **-20°C and 60°C**.

Usage

The module is **100% waterproof (IP67 protection class)** and offers easy operation with **AA batteries**. When used with appropriate protection, it provides a battery life of **up to 10 years**. Additionally, it offers a LoRaWAN wireless communication range of **up to 800 meters underground**.

Autonomous Irrigation and Smart Decision Mechanism




The Autonomous Irrigation System analyzes temperature and moisture data in real time from both directly connected sensors and external sensors on the network. Thanks to user-defined smart threshold values, the system automatically detects the current saturation rate of the soil; if the soil is already at a sufficient moisture level, it suspends scheduled irrigation programs to prevent unnecessary water consumption. This data-driven approach not only protects plant health but also maximizes operational efficiency by providing significant savings in water and energy resources.


ORDER CODE	WT	L	1	X	X	A
Communication Type						
LoRaWAN						
Nb-IoT						
Mesh						
Supply Voltage Type						
110-220VAC			1			
24VDC			2			
Powered by Battery (6xAA)			3			
Soil Temperature and Moisture Sensor						
Not available				X		
Available				S		
Pals verici girişi						
Not available					X	
Available					P	
Frequency						
EU868						A
AU915						B
US915						C
AS923						D

Devices are equipped with Bluetooth, OTAA (Over-the-Air Activation), and a tilt sensor as default for fast configuration.



Zenosmart makes your life easier by increasing energy efficiency and sustainability with advanced, AI-powered, IoT-based solutions.

 info@zenopix.com  +90 312 911 26 46  zenopix.com

 Konutkent Mah. 3028 Sok. Elmar Towers C Blok, No: 8C/120 Çankaya/Ankara/Türkiye