

LORAWAN WIRELESS SMART WATER SYSTEM CONTROL

WaterSens is a Compact Smart Water Control, able to manage up to 4 external latch valves remotely over LoRaWAN.

- LoRaWAN allows to connect devices with distances higher than 10Kms in line of the sight allowing to automate actions reducing displacements.
- Inputs:
 - 2 analogs inputs for externals sensors (Soil moisture, T^a).
 - 1 digital input available for pulse metering.
- Easy commissioning and maintenance through NFC communication.
- Totally open to be integrated in any platform.
- Ready to be deployed in the field with no need of maintenance in 10 years.
- Saving Cost reducing external wiring supply.



Uses cases

- Smart agriculture.
- Smart cities. Landscaping.
- Smart Irrigation in Golf courts & Resort



parks and gardens



Golf



Resorts



Smart Agriculture



Benefits & Key features

Compact dimensions ready to be deployed with different options: (pole, directly in the water valve box, ...)

Digital inputs for pulse meter reading for:

- Water Consumption control.
- Automatic water switch off in case of leak detection.
- Remote water service cut off for users not paying their water bills.
- NFC communication for setting configuration. Reduce installation times and maintenance.
- Long life battery (2 daily switchings for 10 years with no need of maintenance)

Saving Costs:

- Significant reduction in wiring connections during installation.
 - Water consumption saving.
 - Reduction of maintenance costs.
- Systems ready to work in a easy way with several platforms.
 - Like UBIDOTS: You can review in the link [QR code].



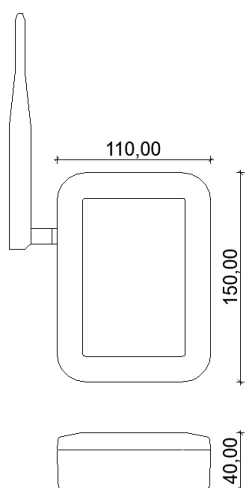
Technical features

LORAWAN COMMUNICATION	LoRaWAN Specification.....	v1.0.2
	End device type	Class A
	Frequency plan.....	EU868,US915,CN779,AU915,AS923,KR920, IN865

NFC COMMUNICATION	Frequency.....	13.56Mhz
	Interface	Passive NFC

POWER SUPPLY	Type	2x Type C battery
	Voltage	3,6[V]
	Maximum pulse current	2500mA
	Life expected.....	10 years (*)

MECHANICAL FEATURES



Dimensions	110x150x40mm
Weight.....	320g
IP class	IP67
Housing material	ABS UL94 V-0

INPUTS

External Temperature	Analog signal. Range [0...3,3V]. Protected against ESD
External Humidity	Analog signal. Range [0...3,3V]. Protected against ESD
External water pulse counter....	Digital signal. Range [0...3,3V] or free potential Protected against ESD. Maximum frequency 1KHz

OUTPUTS

Number of electrovalves	4
Output pulse activation voltage (Vab)	+9V
Output pulse deactivation voltage (Vab))	-9V
Protection against ESD and voltages peaks originated by solenoid switching	
Maximum output current	1.2A
Pulse duration current	20ms.200ms
Maximum wire length recommended current	2m

ENVIRONMENTAL FEATURES	Operating temperature [°C]	[-10 / +50]
	Storage temperature [°C]	[-20 / +60]

MECHANICAL FEATURES	Dimensions[WHD]	[110x150x40]
	Weight[g]	320g

(*) Conditions. 2 irrigation operations/day.
1 latch electrovalve connected (9V-2W)
No external sensors connected