

LORAWAN SMART LOAD CONTROL SYSTEM

Lorawan smart load control system that allows to manage electrical loads up to 480 VAC.
 Lorawan allows to connect devices with distances higher than 10Km in LOS allowing to automate actions and reducing displacements.

- Inputs:
 - 2 analogs inputs for external sensors.
 - 1 digital input available
- 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

Easy integration in Solar water pump for agriculture irrigation system.
 Remote panel control up to 480Vac of switching supply.
 Any kind of industrial and home automation (doors, blinds, light control, swimming pools,...)

System

The LoRaWAN smart load control system is composed by 2 devices for a better performance.

- 1) Relay box unit: ready to be deployed inside the panel or near the load.
 To avoid electrical hazards.
- 2) External control unit: for maximum coverage

RELAY BOX UNIT

- 2 inputs to be connected to the control unit:
- 2 NO relay outputs .
 - Maximum switching voltage up to 480Vac.
 - Output protected against overvoltage (inductive loads).
 - Safety Electrical CAT III.
 - Designed according to UL, VDE and IEC safety requirements .

CONTROL UNIT

- 2 outputs must be connected to the relay box unit :
- Start and stop output to control water pumps, electrical motors,....
 - activation schedule in 15 minutes slots.
 - long life battery .
 - NFC interface for commissioning and maintenance.



Benefits & Key features

Compact dimensions

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

Digital Inputs.

NFC communication for setting configuration. Reduce installation times and maintenance.

Systems ready to work in a easy way with several platforms.

Like UBIDOTS: You can review in the link [QR code].

Long life battery (2 Daily switchings for 10 years with no need maintenance.

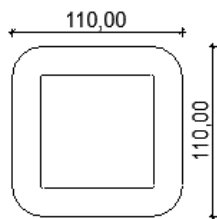
Saving cost:

- Reduction in installation (Significative reduction in wiring connections)
- Reduction of maintenance costs



Technical characteristics

RELAY BOX



Outputs	2 NO relay outputs
Maximum switching voltage	480 V AC
Maximum switching current	10 A AC
Maximum switching power	4800 VA
Dielectric strength – between input and output-.....	4000Vrms lmin
Expected life (Mechanical)	1.10^6 operations
Protection	Contacts protected for inductive loads by Varistor
Electrical category	CAT III

LORAWAN COMMUNICATION v1.0.2

LoRaWAB Specification

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

Maximum wire length recommended current	2m
Dimensions[mm] Device 1	110x150x40
Dimensions[mm] Device 2	110x110x40
IP class	IP67

ENVIRONMENTAL

Operating temperature [°C]	[-20 / +50]
Storage temperature [°C]	[0 / +30]

(*) Conditions.

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