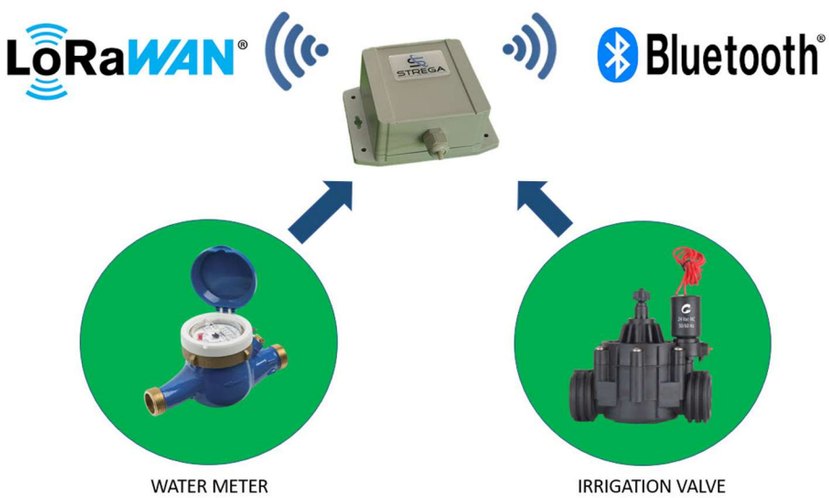
STREGA
WIRELESS SMART-EMITTER

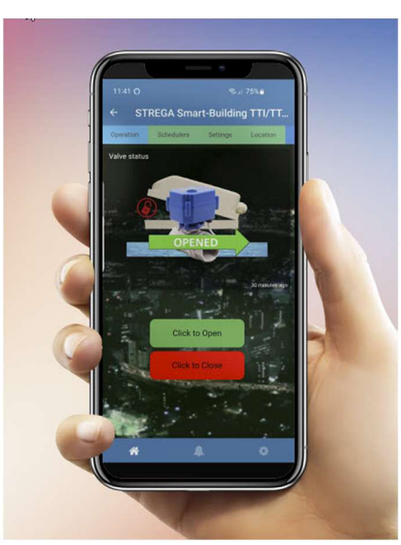
NEW GENERATION

LoRaWAN® Time-controlled Actuator for irrigation valve

- LoRaWAN wireless actuator for irrigation valve
- Extreme range signal propagation
- Battery operated with ultra-low consumption – 7+ years autonomy or externally powered
- Embedded agenda: programmable irrigation scheduling for each day of the week
- Bluetooth communication for local wireless control and debug
- Integrated water meter pulse counting
- Lorawan Class A and Class C
- Fits any reverse polarity latching 9/12VDC solenoid valves
- Industrial grade (IP68, conformal coating…)
- License free operation on EU868, US915 and AS923
- IoT ready (compliant with all Internet of Things platforms)
- Exceptional signal penetration through obstacles
- Can also be use to control motorized valves



The new STREGA LoRaWAN Time-controlled Actuator remotely operates an irrigation valve thanks to its embedded **LoRaWAN** technology. With its ultra-low-power consumption, the Smart-Actuator triggers Open or Close operations of any irrigation valve equipped with a DC latching solenoid. Watering schedules can be programmed directly at the zone level, avoiding the necessity to use an irrigation controller. The STREGA Smart-Actuator is working on one battery providing 7+ years of autonomy or endlessly if powered externally.



Operate your valve securely from your smartphone or tablet, locally through Bluetooth or remotely via Internet

- **Extreme range:** ultra-long range propagation of the signal with deep indoor penetration
- **Embedded agenda:** time-controlled irrigation sequences
- **Smart operations: water meter** pulse counting up to 10 Hz, automatic shut-off on IO change
- **Industrial grade:** IP68, conformal coated
- **Low consumption:** ultra-low power with 7+ years autonomy
- **Digital sensors:** 1 x pulse counting + 2 x digital inputs dry contacts
- **Bluetooth:** extra wireless communication for control and debug at site
- **Mobile Control:** operate your irrigation valve directly from your smartphone or tablet

Specifications

GENERATION-2

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Features	Specifications
Product ID	Time-controlled wireless actuator for irrigation valve “2nd Gen”
Radio technology	LPWAN LoRaWAN 1.0.4 Class A and class C– star-of-stars topology
Working t°	-20°C...+70°C / -4°F...160°F
Valve brand support	TORO, Hunter, RainBird, Bermad, Signature, Hidroconta, Irritrol, K-Rain, Rivulis, Raphael,,,.
Solenoid	2 wires DC latching solenoids – 9-12VDC with min. 10 Ohm coil resistance
Manual override	Press button for local Open/Close or by approaching a magnet on a dedicated spot
Extra sensors	2 x dry contacts 1 x pulse counting input (up to 20 Hz)
Duty Cycle	100% continuous rating
Connectivity tampering	Valve disconnection is immediately reported in Uplink
Humidity	Supplied with conformal coating (or optional epoxy potting)
IP protection	IP68
Power supply	Lithium battery type-D and/or external 9-60VDC
Network and Network Server interoperability	Orange, ChirpStack, Loriot, Kerlink-Wanesy, Meshed, TTN/TTI, NNNCo, Actility ThingPark, Orbiwise, Senet, Helium, CityKinect, Digita, ...
Product reference	SE2-YYYYY (YYYYY: for regional frequencies EU868, US915 and AS923 (AS923 support for -1, -2,-3 and -4)

Features	Specifications
Smart Operation	Time-controlled scheduling (max. 4 per day), automatic shut-off on DI, Incrementing/decrementing counter, etc.
Range	15+km/10+mi. LOS (line of sight) - 2+km/1.5mi. in urban environment
Security	128-bit AES encryption key
Max. emitters per concentrator	128-1000 depending on duty cycles
Max. emitters per project	not limited (each emitter has a unique ID key)
Frequency	License free EU868, US915, AS923
Bluetooth	Local communication (max.100m) for valve control or debugging
Maximum output power	+14dBm (+20dBm for US915)
Data rate	290 bps – 50 Kbps
Data Read (UL)	Open/Close status, battery level, Digital Input status, counter value, etc.
Data Write (DL)	Open/Close command, transmit frequency, automatic scheduling, time synchronization, counter setpoint, radio tuning, etc.
Solenoid connection	Via sealing gland
Mobile App	Free of charge mobile application for Android and iOS based on TagoIO (max. 5 devices/5 dashboard on free plan)
Antenna	Embedded

Use Bluetooth communication at site to control your valve and check live the different actions performed by the processor