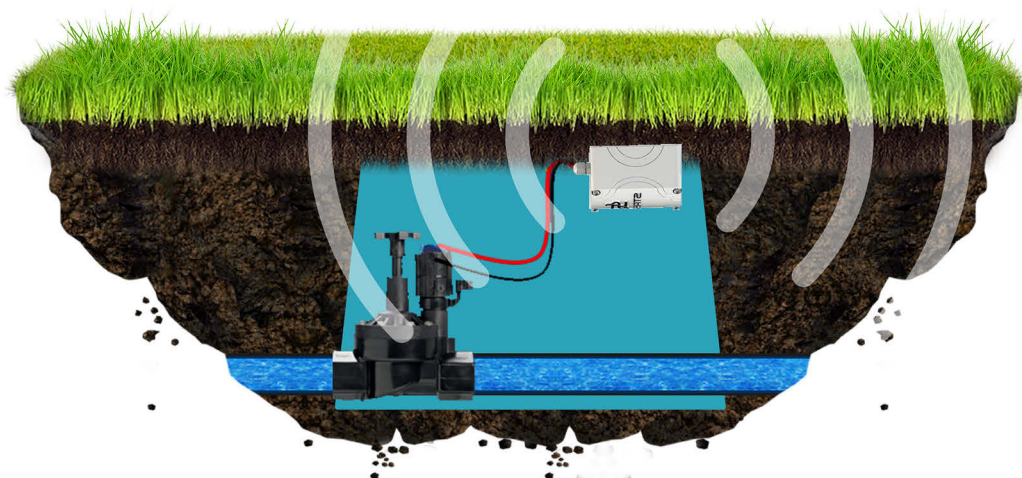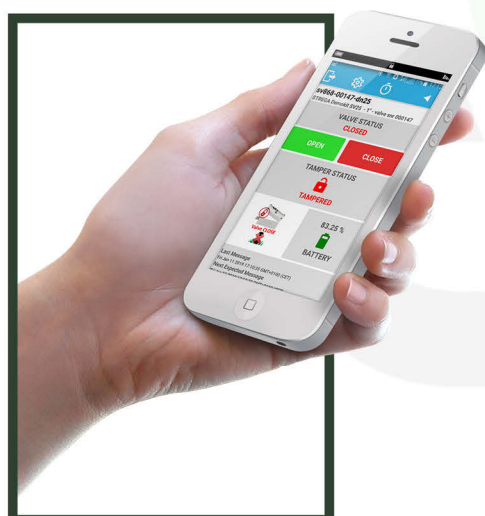# STREGA
WIRELESS SMART-EMITTER

Extreme range wireless emitter for Irrigation valves

- LoRaWAN time-controlled emitter for irrigation valves
- Extreme range propagation even buried below ground surface
- Battery operated with ultra-low consumption - 7+ years autonomy
- Time-controlled watering schedulers
- Fraud resistant with tamper
- License free operation on EU868, US915 and AS923
- IoT ready (compliant with all Internet of Things platforms)
- Exceptional signal penetration through obstacles
- Provided with free of charge Android and iOS App
- Available in LoRaWAN 1.02 Class A and Class C

STREGA LoRaWAN Time-controlled Emitter for Irrigation valve is a battery-operated wireless device with embedded **LoRaWAN**© technology. With its ultra-low-power consumption, the Smart-Emitter can trigger Open or Close operations of any irrigation valve equipped with a DC latching solenoid. The emitter is working on batteries during 7+ years and through extreme long distances with exceptional obstacles penetration.

- **Extreme range:** ultra-long range propagation of the signal with deep obstacles penetration (15km+ / 10+mi. LOS)

- **Compatible with standard irrigation valve suppliers:** connects directly to any DC latching solenoids (TORO, RainBird, Hunter, Irritrol, Bermad, Galcon, Weathermatic, Signature,etc.)

- **Watering schedulers:** preloaded watering schemes

- **Industrial grade:** IP67 waterproof up to 70°C/160°F operation

- **Low consumption:** ultra-low power with 7+ years autonomy

- **Tampering:** any misuse is immediately reported

- **Mobile Control:** operate your valve from your smartphone or tablet

Operate your valves securely from your smartphone or tablet

Specifications

STREGA
WIRELESS SMART-EMITTER

Features	Specifications
Product ID	Time-controlled wireless emitter for irrigation valve
Radio technology	LPWAN LoRaWAN 1.0.2 Class A (*LITE* version) – star-of-stars topology – Class C (*FULL* version)
Working t°	-20°C...+70°C / -4°F...160°F
Valve brand support	TORO, Hunter, RainBird, Bermad, Signature, Irritrol, K-Rain,….
Solenoid	2 wires DC latching solenoids – 9-12VDC with min. 10 Ohm coil resistance
Manual override	Press buttons for local Open/Close or by approaching a magnet on a dedicated spot
Extra sensors	Temperature and hygrometry, dry contacts, 0-10VDC, humidity, etc.
Duty Cycle	100% continuous rating
Tamper	Enclosure opening is immediately reported to the Concentrator
Humidity	Supplied with conformal coating or optional epoxy potting
IP protection	IP67
Power supply	One or two Lithium batteries type-D
Network and Network Server interoperability	Orange, Objenious, ChirpStack, Loriot, Kerlink-Wanesy, Comcast MachineQ, Meshed, TTN, NNNCo, Actility ThingPark, Senet, CityKinect, Digita, …
Product reference	SEZ-YYY (Z: LITE or FULL, YYY: regional frequencies EU868, US915, AS923)

Features	Specifications
Smart Operation	Preloaded schedulers (max. 4 per day)
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
Cable health monitoring	Detection of faulty solenoid or wire disconnection
Maximum output power	+14dBm (+20dBm for US915)
Data rate	290 bps – 50 Kbps
Data Read	Open/Close status, battery level, Humidity sensor, enclosure tampering alarm , DI, AI, Temperature/hygrometry, etc.
Data Write	Open/Close command – transmit frequency – schedulers - time synchronization
Solenoid connection	Via sealing gland
Mobile App	Free of charge mobile application for Android and iOS
Antenna	+2.1dB gain - embedded