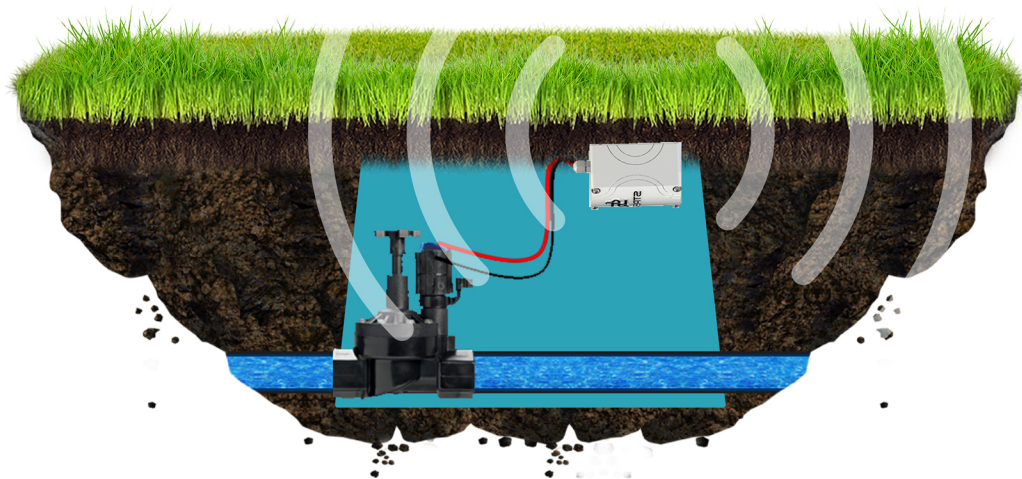# STREGA
WIRELESS SMART-EMITTER

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

STREGA LoRaWAN Time-controlled Emitter for Irrigation valve is a battery-operated wireless device with embedded **LoRaWANT®** 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.

Operate your valve securely from your smartphone

- ⊙ **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:** IP68 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

Specifications

Features	Specification
Product ID	Time-controlled wireless emitter for irrigation valve
Radio technology	LPWAN LoRaWAN 1.0.2 Class A – star-of-stars topology – Class C on demand
Working t°	-20°C...+70°C / -4°F...160°F
Valve brand support	TORO, Hunter, RainBird, Bermad, Signature, Irritrol, ….
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
Duty Cycle	100% continuous rating
Tamper	Enclosure opening is immediately reported to the Concentrator
Humidity	Supplied with conformal coating (IP68 rated) or optional epoxy potting
IP protection	IP67
Power supply	One or two Lithium batteries type-D 3.0VDC or 3.6VDC
Network and Network Server interoperability	Orange, Objenious, Kerlink-Wanesy, Comcast, Meshed, TTN, NNNCo, Actility ThingPark, Senet, Digita, …
Reference	SE-XXX (XXX for regional frequency EU868, US915, AS923)

Features	Specification
Smart Operation	Preloaded schedulers (max. 4 per day)
Range	15+km LOS (line of sight) - 2+ km 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
Data rate	290 bps – 50 Kbps
Data Read	Emitter Open/Close status – battery level – device ID – enclosure tampering, alarm, RSSI, etc.
Data Write	Open/Close command – transmit frequency – schedulers- time sync
Solenoid connection	Via sealing gland
Mobile App	Free of charge mobile Application for Android and iOS
Antenna	embedded