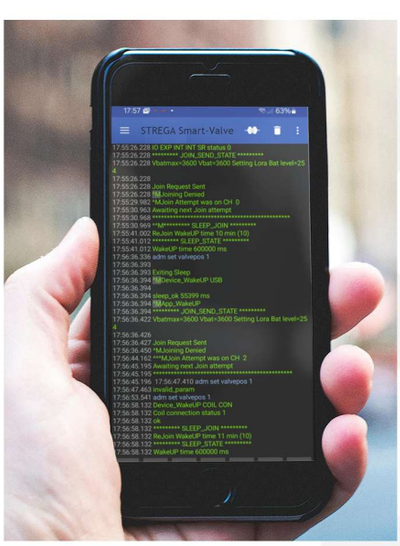
STREGA
WIRELESS SMART-VALVE

NEW GENERATION

Extreme range LoRaWAN® Shut-off Valve Actuator

- LoRaWAN wireless shut-off valve actuator
- Extreme range signal propagation
- Fully battery operated with ultra-low consumption – 10+ years autonomy - or externally powered
- Smart operations: programmable scheduling, pulse counting, prepaid water
- Bluetooth communication for local control and LoRa monitoring
- Integrated AMI Endpoint with water meter pulse counting
- Lorawan Class A and/or Class C
- Partial aperture from 0 to 100% (motorized valves)
- Pipe size from DN10 to DN250 (3/8'' to 10'') - stainless steel or brass
- Industrial grade (IP68, fluid up to 100°C/212°F, conformal coating…)
- License free operation on EU868, US915, AU915 and AS923
- IoT ready (compliant with all Internet of Things platforms)
- Exceptional signal penetration through obstacles
- Controls DC latching solenoid valves or motorized valves

The new **STREGA time-controlled valve actuator** is a battery-operated wireless valve controller with embedded **LoRaWAN®** technology. With its ultra-low-power consumption, the Smart-Valve can be triggered for remote OPEN/CLOSE operations. The valve is working on batteries during 10+ years (Class A) or limitless on external power supply (Class C). Automatic smart operations can be programmed on any IO status change. It communicates on extreme long distances with exceptional deep indoor signal penetration.



Operate your valve securely from your smartphone or tablet via local Bluetooth or remotely via Internet

- **Extreme range:** ultra-long range propagation of the signal with deep indoor penetration
- **Automatic scheduling:** time-controlled OPEN/CLOSE sequences
- **Smart operations: water meter** pulse counting up to 20 Hz, automatic shut-off on IO change, anti-sediment flush, prepaid water support
- **Industrial grade:** IP68, cold and hot fluids, PN20/25
- **Low consumption:** ultra-low power with 10+ years autonomy
- **Digital sensors:** 1 x pulse input at max. 20 Hz, 1 x limit switch Open and 1 x limit switch Close (motorized) or 2 x Digital inputs (solenoid)
- **Bluetooth:** extra wireless communication for control and debug at site
- **Mobile Control:** operate your shut-off valve directly from your smartphone or tablet (LoRaWAN or Bluetooth)

Specifications GENERATION TWO

STREGA
WIRELESS SMART-VALVE

Features	Specifications
Product ID	Time-controlled wireless valve actuator (Gen2)
Radio technologies	- LPWAN LoRaWAN 1.04 Class A and Class C - star-of-stars topology - Bluetooth (BLE) for settings /LoRa debugging/valve control at site
Working t°	-20°C...+70°C / -4°F...160°F
Body and ball	Stainless steel (100% Lead-free) or brass
Valve technologies	Motorized ball valve or Solenoid
Maximum fluid pressure	20 Bar/290 Psi (rated PN20/25)
Pipe Section	Solenoid valves: DN10 to DN250 Motorized valves: DN10 to DN50
Maximum fluid t°	-20°C..+100°C/-4°F..212°F
Fluid support	Liquids, compressed air, oil-free or dry neutral gases
Connectivity tamper	Valve disconnection or wire cut is immediately reported in UPLINK
Extra sensors	Motorized valves: 1 x fully open limit switch 1 x fully close limit switch 1 x counter pulse input Solenoid valves: 2 x digital inputs 1 x counter pulse input
IP protection	IP68 + conformal coated
Valve positions (Motorized valves)	Programmable apperture from 0 to 100% with visual position window
Position feed-back (Motorized valves)	Limit switches feed-back for fully open and fully close
Manual override	Press button for local OPEN/CLOSE or by magnet
Power supply Class "A"	1 x (replaceable) Lithium battery type-D
Valve threads	BSPP or NPT
Certifications	CE, UL, FCC, NSF61-FDA, RCM, ROHS, etc.
Product reference	SV2-DNXX-YYYYY-ZZZ (XX= pipe size, YYYYY EU868, AS923 (-1,-2,-3,-4), AU915 and US915 - ZZZ = BSP or NPT

Features	Specifications
Max. valves per project	Not limited: each valve has a unique IEEE identification number
Range	15+km/10mi. LOS (line of sight) 2+km/1.5mi. in urban environment 22+ floors in a building
Security	128-bit AES encryption key
Max. valves per gateway	128-1000 depending on duty cycle
Smart operations	Programmable schedulers, pulse counting, prepaid water algorithm, anti-sedimentation flushing, time-sync, etc.
AMI endpoint	Pulse counting up to 20Hz - Counter value can be retrieved on demand or on periodical UL
Frequency	License free EU868, US915, AU915, AS923 (1/2/3/4)
Antenna	On-board
Maximum output power	+14dBm (+20dBm for US915)
Data rate	290 bps – 50 Kbps
Data Read	OPEN/CLOSE status – battery level, DI, radio signal health, counter value, limit switches position (motorized valves), etc.
Data Write	OPEN/CLOSE command, partial opening (motorized), transmit frequency, periodic flush, schedulers, magnet control enable, time synchronization, counter set, etc.
Board protection	Supplied with conformal coating or (optional) epoxy potting
Form factor	Segregated (cabling through sealing gland)
Power supply Class "C"	External 12VDC (with battery backup)
Mobile App	Mobile App for Android using local Bluetooth (settings/debug/valve control)
Payload format	Ready-to-use JSCRIPT Decoder/Encoder and CODECS
LNS interoperability	ChirpStack, Kerlink-Wanesy, Loriot, Meshed, TTN, The Things Industries, The Things Stack, Orbiwise, Tektelic-NS, Orange, NNNCo, Actility ThingPark, Senet, Digita, Helium, etc.

* battery life depends on UPLINK frequency and number of Open/Close operations

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

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