

COOLING TOWERS

Water treatment and industrial process solutions



Your reliable partner for dosing solutions

About us

With a **legacy spanning decades**, Injecta specializes in the design and manufacture of dosing systems for diverse industrial sectors.

Safety is at the heart of our mission: we understand the risks associated with chemical handling, therefore we provide **solutions engineered to mitigate critical operational risks.**

Leveraging our **technical expertise**, we guide clients in **optimal material selection** and the **integration of dedicated safety systems.**



Cooling Systems

Open cooling systems operate in continuous exchange with the surrounding environment, harnessing the natural power of evaporation to reduce fluid or air temperatures within the tower. Typically, these systems function in tandem with a closed secondary circuit, which efficiently transfers thermal loads from the facility to the cooling tower.

To guarantee operational longevity and peak efficiency, the implementation of a **rigorous, professional water treatment** program is paramount.

Importance of Water Treatment

In wet cooling towers, the evaporative process poses a critical challenge: the potential dissemination of microorganisms into the environment. The **warm, humid** atmosphere within these systems creates an ideal breeding ground for pathogens, including **Legionella**, which can be airborne and carried over vast distances.

To mitigate these risks, rigorous biocide treatment managed by **Injecta dosing systems** is essential, ensuring optimal hygiene standards for both operators and the surrounding ecosystem.

Furthermore, as water circulates, the concentration of dissolved solids inevitably rises. Without intervention, the combination of heat, oxygen, and humidity accelerates corrosion and promotes the accumulation of **scale** and **biofilm**. Injecta's **precise, continuous dosing** technology is the key to neutralizing these threats—preventing structural degradation and guaranteeing the long-term **reliability, efficiency, and sustainability** of your infrastructure.



Dosing Systems



NIKE STEP



- Materials**

Peristaltic Tube:
Pharmed, B Wall,
Santoprene, EPDM
- Operating mode**

6 modes;
Conductivity with
integrated control
(100–15,000 µS, ±1%)
- Range**

Pressure: from 0.1 to 4 bar
- Power Supply**

100-240 vac 50/60 Hz

ATHENA AM



- Materials**

Pump Head: PVDF
Ceramic Balls
O-Rings: FPM/EPDM
Diaphragm: PTFE
Wall mounting bracket
included in the kit
- Range**

Flow rate: From 2.5 to 110 l/h

Pressure: From 0.1 to 20 bar
- Power Supply**

Stabilized Multi Power Supply
100÷240 Vac 50/60 Hz
with reduced consumption

GEA R MT



- Materials**

PVDF Head with anti-
seepage system
PTFE diaphragm
Reinforced PP casing
Wall-mount bracket included
- Operating mode**

Manually Adjustable Stroke:
1–100%
Display-Adjustable Frequency:
1–100% (up to 300 strokes/min)
Accuracy: ±2%
- Range**

Flow Rate: 2.5–18 l/h
Accuracy: ≤ 2.0 %
Maximum Pressure: 16 bar
(232 psi)
- Power Supply**

100 - 240 Vac, 50/60 Hz

MODELLI NIKE STEP

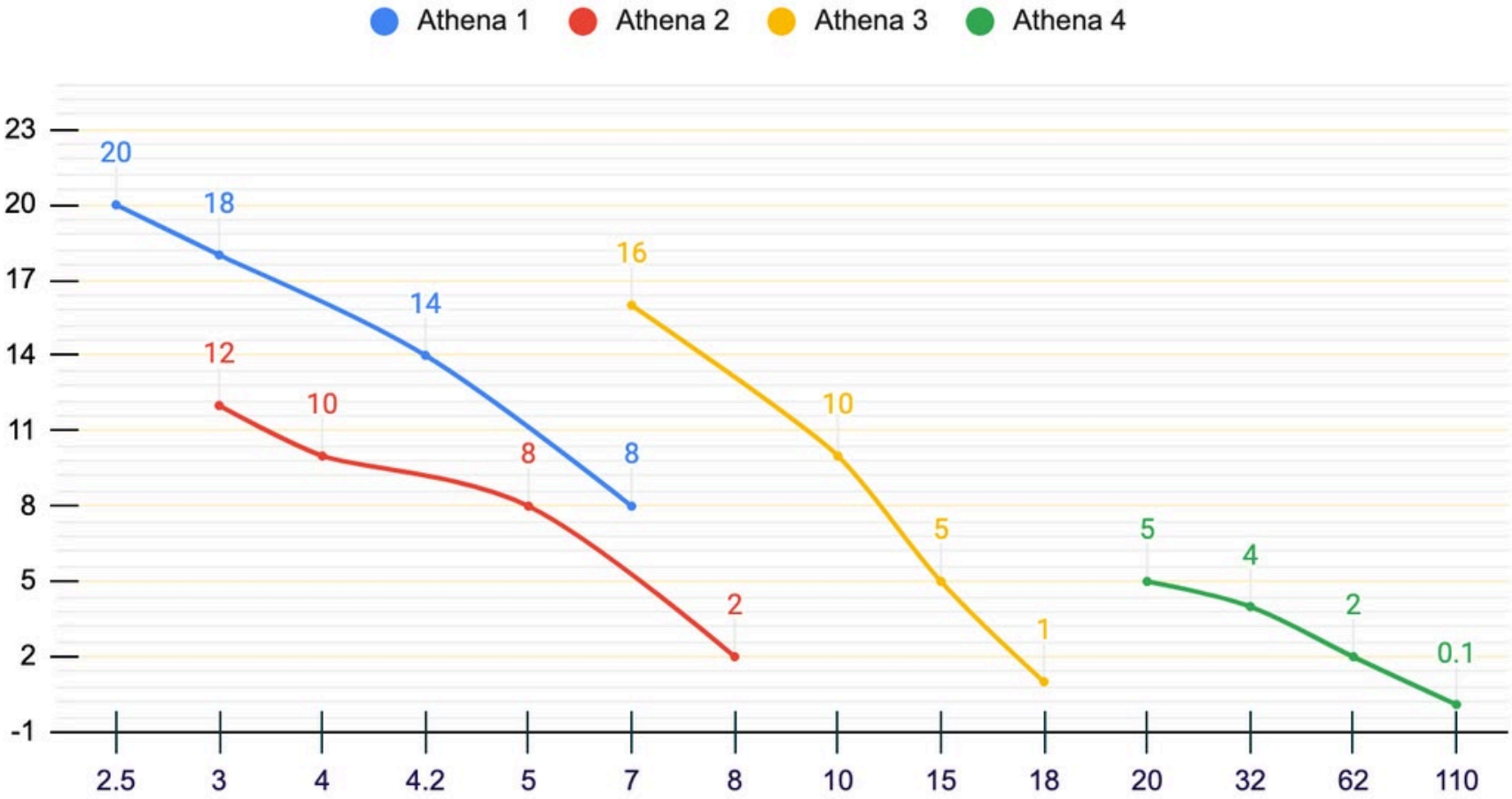
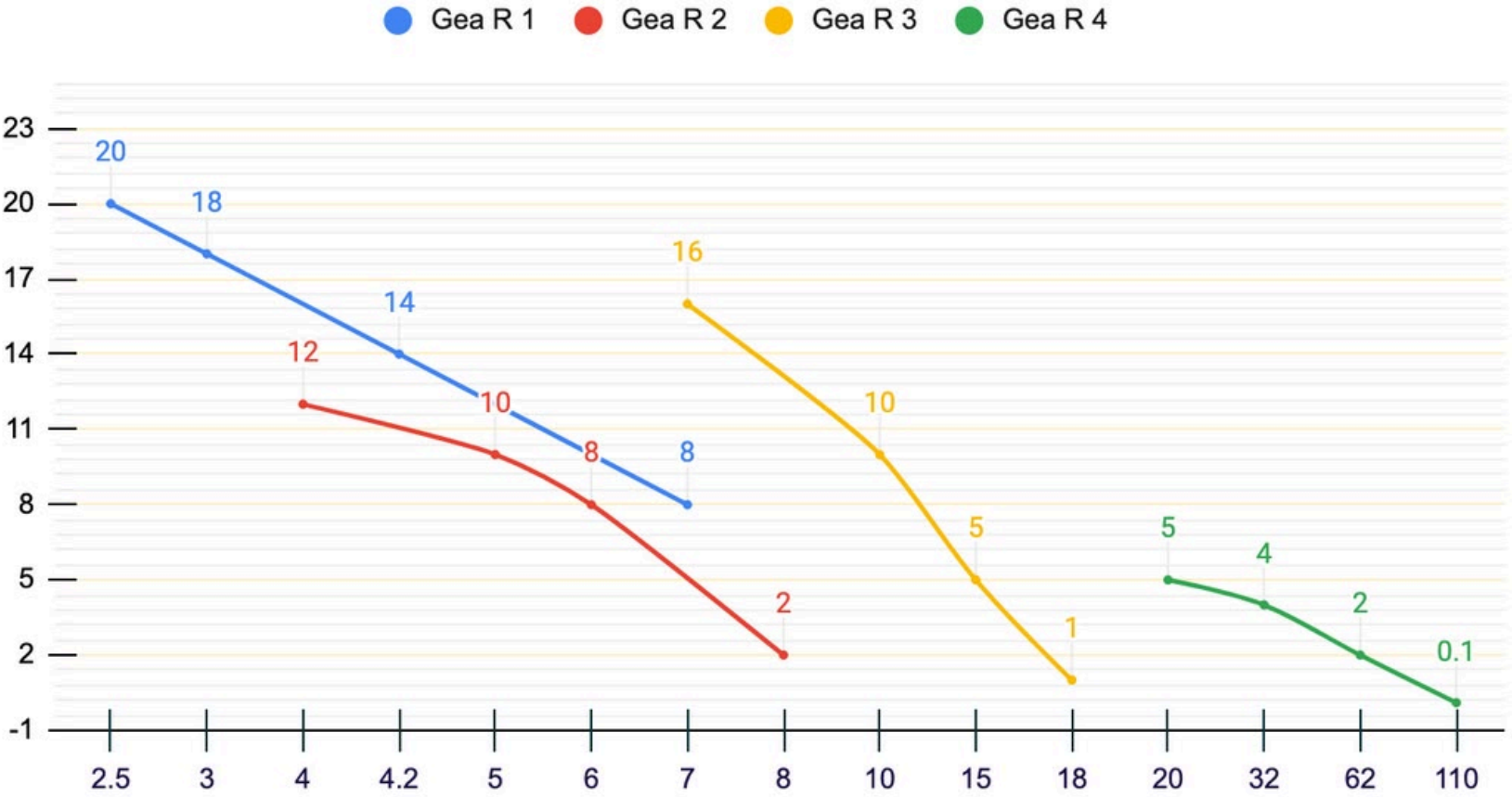
	Configurations / Range	Features
MULTIFUNCTION	6 configurations (Manual, mA, PPM, 1:N, N:1, Batch)	Multiple operating modes for various applications
CONDUCTIVITY	-Manual (constant dosing), -Range: 100-15 mS, -Accuracy: ±1%	-Integrated Conductivity Controller -Conductivity Probe KI (CI) not included
COOLING TOWER	Flow Rate / Pressure: 10l/h @ 2bar – 6 × 10 Pharmed Power Supply: 100–240Vac, 20 W Notes: Conductivity probe and buffer are not included	

ATHENA

	Pressure	Flow Rate	CC per stroke	Pressure	Flow Rate	CC per stroke
SERIES 1	20 ÷ 14 bar	2,5 l/h ÷ 4,2 l/h	0,35 ÷ 0,58	20 ÷ 14 bar	2,5 l/h ÷ 4,2 l/h	0,35 ÷ 0,58
SERIES 2	12 ÷ 2 bar	3 l/h ÷ 8 l/h	0,31 ÷ 0,83	12 ÷ 2 bar	4 l/h ÷ 8 l/h	0,42 ÷ 0,83
SERIES 3	16 ÷ 2 bar	7 l/h ÷ 16 l/h	0,39 ÷ 1	16 ÷ 1 bar	7 l/h ÷ 18 l/h	0,38 ÷ 1
SERIES 4	5 ÷ 0,1 bar	20 l/h ÷ 110 l/h	1,11 ÷ 6,11	5 ÷ 0,1 bar	20 l/h ÷ 110 l/h	1,11 ÷ 6,11

GEA

Flow rate curves





NEXUS 3000



Single parameter reading

Power Supply

230Vac, 115Vac o 24Vac 50/60Hz

Operating mode

Two independent relays, alarm remote and back washing probe setting by softwar

- **One Frequency output signal:** 0 ÷ 400 pulse/min, pulse duration 100 msec
- **Outputs:** 4 ÷ 20 mA programmable (max load 500 Ω)
- **NAMUR Alarm Output:** 3.6 mA (low alarm) or 22 mA (high alarm)

NEXUS 5000



Single parameter reading

Power Supply

100÷240 Vac 50/60 Hz
12÷32 Vdc or 24 Vac

Operating mode

- **2 Relays:** 250 VAC, 5 A
- **2 SSR** (Solid State Relays)
- **2 Current Outputs:** 4–20 mA 800 Ω

NEXUS 5500



Multiparameter Instrument

Power Supply

100-240 Vac 50/60 Hz

Operating mode

- **Four independent relays** (dry contact) for SetPoint, alarm config andprobe washing routine setting by main menu. On/Off, Timed and proportional (PWM) routine function setting
- **Two frequency output** signal with two independent SetPoints, pulse numbers and PropBand setting
- **Two independent current outputs** (4 - 20 mA)

NEXUS 7000



Multiparameter Instrument

Power Supply

100 ÷ 240 VAC 50/60 Hz

Operating mode

- **3 relays** with power supply for dosing pumps
- **2 dry contact relay** for the alarm state
- **2 current outputs** (4 to 20 mA)
- **2 frequency channels** "open collectors"

General Overview

	Nexus 3000		Nexus 5000		Nexus 5500		Nexus 7000	
	Range	Accuracy	Range	Accuracy	Range	Accuracy	Range	Accuracy
pH	0-14	⊗	0-14	± 0,01 pH	0-14	± 0,01 pH	0-14	±0,1 pH
ORP- Rx	± 2000 mV	⊗	± 2000 mV	± 1 mV	± 2000 mV	± 1 mV	± 1500 mV	±5 mV
Conductivity	0,054 ÷ 200.000 µS	⊗	0,054 ÷ 200.000 µS	± 2%	0,05 µS - 400 mS	± 2%	1 ÷ 200 µS / 10 ÷ 2000 µS / 100 ÷ 20.000 µS	⊗
Amperometric Cl	0,00 ÷ 5 ppm	⊗	⊗	⊗	0 ÷ 5 ppm	± 0,1 ppm	⊗	⊗
Flow Rate	0÷99,999 L/s, L/min, L/H, m3/H, GPM	⊗	0 ÷ 99,999 ppm	± 0,5 Hz	⊗	⊗	0 ÷ 1500 Hz	⊗
Temperature	⊗	⊗	-50 ÷ 150 °C	± 0,2 °C	-50 ÷ 150 °C	PT100 ± 0.5°C, PT1000 ± 0.2°C	0 ÷ 100°C (32 ÷ 212°F)	⊗
Input 4-20 mA	⊗	⊗	0 ÷ 99,999 ppm	± 0,01 ppm	24 Vdc - max 30 mA	± 0,1 °C	⊗	⊗
Remote ready	⊗		✓		✓		✓	
Dimensions	Wall mounting size:: 144 × 144 mm, IP65 Panel mounting size: 96 × 96 mm, front IP65, rear IP20		Wall mounting size: 144 × 144 mm IP65 Panel mounting size: 96 × 96 mm (front IP65, rear IP20)		Wall mounting size: 220 × 144 × 122,5 mm Panel mounting size: 96 × 96 × 100 mm, Snail Lock System		290 x 300 x 170 mm	



HELIOS 06 CT PRCD



Multiparameter instrument

Power Supply

100-240 Vac 50/60 Hz, 15 Watt (Class 1 electrical insulation)

Operating mode

4 Relays 100–240 Vac
2 Independent Relays
2 canali, 0/4–20 mA, max load 500 Ω , accuracy $\pm 0,01$ mA
2 Pulse Channels (NPN/PNP Open Collector), 0–120 pulses/min, accuracy 0,016 Hz

BI weekly timer

Inputs

Flow Module: Pull-up (Reed Sensor)
Data Transmission Modules: RS485 Modbus
Clock Module: with backup battery

Measures

	Range	Accuracy
pH	0-14	$\pm 0,01$ pH
ORP	± 2000 mV	± 1 mV
Conductivity	0÷20 mS	$\pm 1\%$ (1*)
Flow Rate	0,0000÷99.999 Liters/Sec.(2*)	$\pm 2\%$ (1*)
Temperature	0÷100°C (+32÷+212 °F $\pm 0,4^\circ\text{F}$)	$\pm 0,2^\circ\text{C}$
Dimensions	700 mm x 420 mm	
Bypass port for PSS-Tube probe	50–90 L/h, PVC 8×12 mm, Maximum Pressure 5 bar, Maximum Temperature 60°C	
Remote ready		

Accessories

PSD4 TS



Materials	Head: Black PP, Cup: Transparent PMMA
pH	4÷10pH
Pressure	From 2 bar to 40°C
Inlet/Outlet / Probe Connection	8x12 mm Tube / 24 mm
Compatible probes	Chlorine (CL), Peracetic Acid (PAA), H2O2, Bromine (Br), Ozone (O3)

AC VM



Materials	PVDF valve body, PTFE diaphragm
Seals	Available in FPM or EPDM
Tube Diameter	4-6 mm or 8x12 mm
Relief Pressure	0 ÷ 18 bar
Adjustable Back-Pressure	0 ÷ 5 bar

WM-R



Threaded Water meter with reed-type pulse emitter with flow rate reading

Dry Dial	
Pulses output	4 or 1 pulse/liter
Connections	½" ÷ 2" (13 mm ÷ 50 mm)
Nominal diameter	Up to 2" (50 mm)

AC VSA



Degassing head with adjustment screw for controlled gas purge (e.g., concentrated sodium hypochlorite, chlorine dioxide)

Materials	PVDF, compatible with all chemicals
Seals	FPM or EPDM (for acidic or alkaline products)
Chemical Compatibility	Suitable for all main industrial reagents
Pump Compatibility	ATHENA 1 – 2 – 3 Series

Sensors

PH/RX SENSORS



	pH	Rx
Parameter	pH	Potential (ORP)
Measure	0 ÷ 14 pH	±1000 mV
Body	Glass	Glass
Diaphragm	Open-channel	Single open hole
Electrolyte	GEL	GEL
Pressure	Up to a 6 bar	Up to 6 bar
Conductivity	≥ 5 µS/cm	⊗
Connection	PG 13.5 mm (1/4")	PG 13.5 mm
Cable and connections	S7 con connettore BNC (not included) 5-10 mm	S7 (not included) *High-temperature cable, 5-10 mm

ORGANIC/INORGANIC CHLORINE SENSOR



	Range
pH	4 ÷ 10
Chlorine	0 ÷ 10 ppm
Conductivity	0,1 ÷ 60 mS
Pressure	0 ÷ 3 bar
Temperature	0 ÷ 45 °C
Flow Rate	Circa 30 l/h
Cable and connections	15 m Ø 25 mm

E.CT K1 GR



	Range
Measure	0 ÷ 50.000 µS
Temperature	5 ÷ 100 °C
Pressure	5 bar
Materials	Glass-filled PP (PP 30% GF)
Electrolyte	Graphite, 2 cylindrical
Cable and connections	1/2" G M threaded 5 m (on request)
Cell Constant	K = 1 cm / C = 1 cm ⁻¹

FLUX PROBEHOLDER, Potentiostatic CL



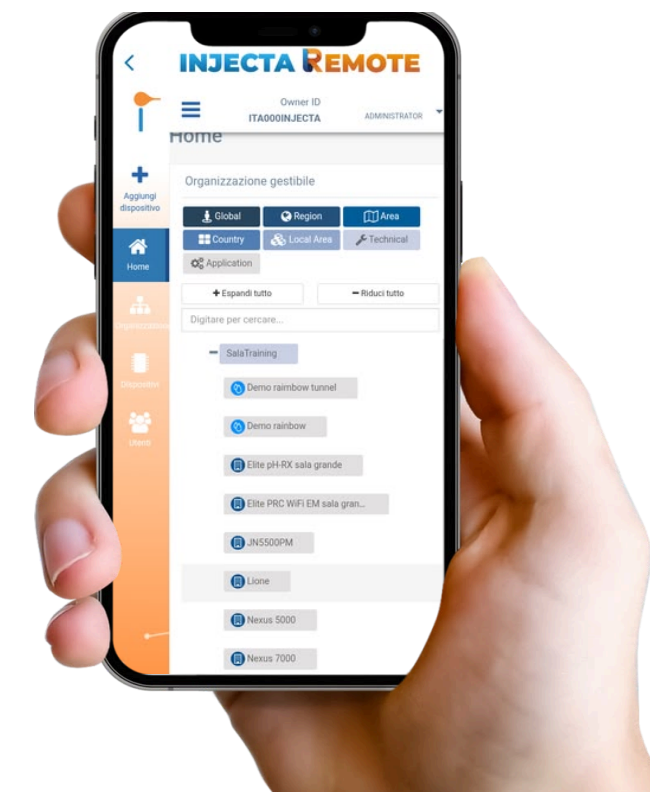
Inlet/Outlet Connection	8x12 mm tube
Probe Connection	Ø 24 mm
Pressure	5 bar
Materials	Plexiglas
Temperature	60 °C
Hydraulic connections	By-pass

Injecta Remote

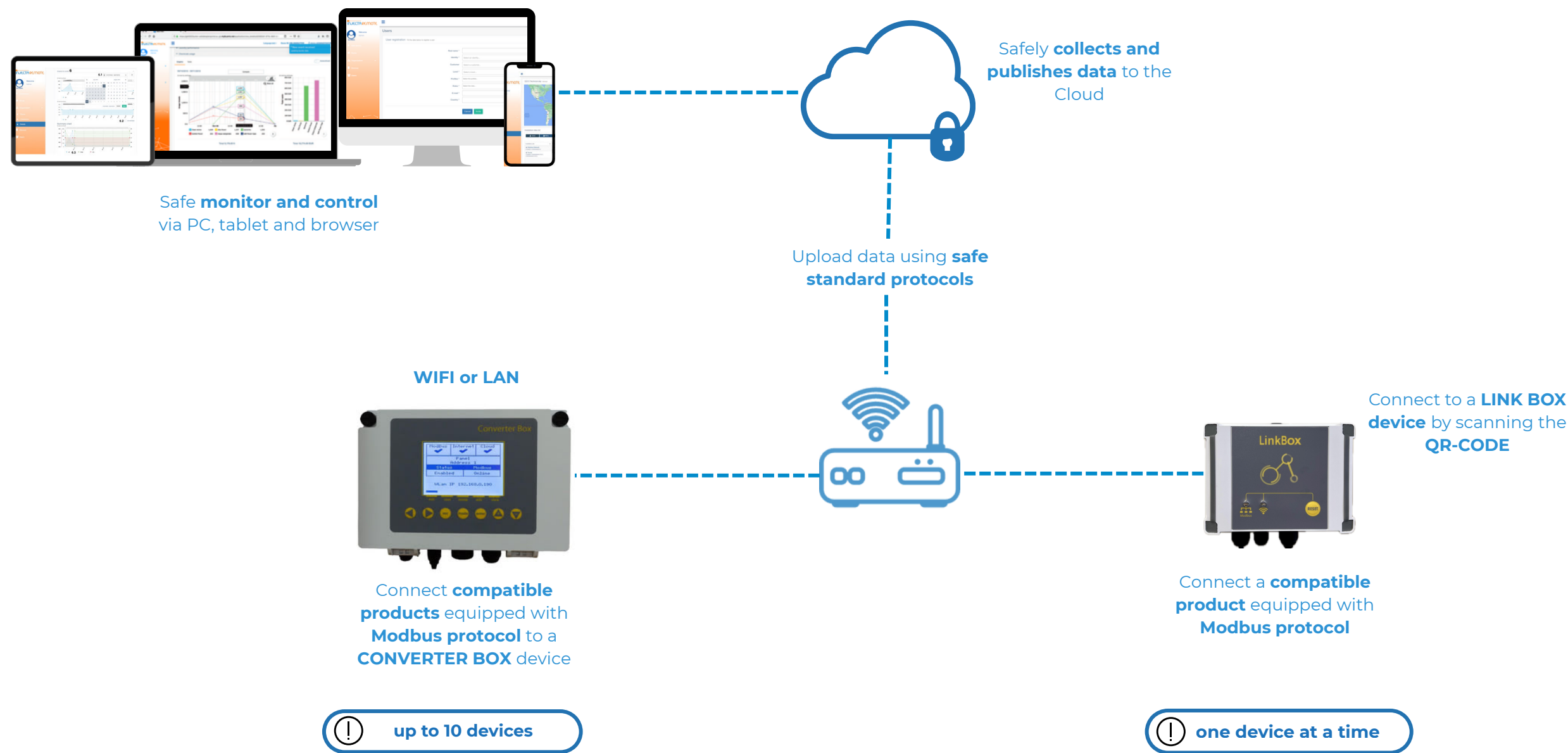
Injecta Remote is the advanced digital platform empowering users to monitor and control installations remotely, from any location globally.

Engineered for managers of **multi-site operations**, it provides a **unified interface** to **supervise processes, take immediate action, and optimize system performance**.

- Delivers centralized, real-time control
- Enables efficient, proactive management
- Facilitates remote diagnostics, minimizing the need for on-site visits
- Ensures a comprehensive user experience backed by continuous support and reliability



Remote Connection: Converter and Link Box



Serving as the gateway between Injecta systems and the **local network**, the Converter Box facilitates seamless data transfer to the Injecta Remote platform.

Compatible with any standard Internet connection, it **ensures secure remote control for authorized users**.

The device is capable of managing **up to 10 units** on a **shared RS485** wired network via the Modbus protocol.

Via an RS485 connection, the Link Box enables Modbus-equipped devices to interface seamlessly with a Wi-Fi network. Designed for dedicated single-device management, it ensures focused connectivity. An integrated QR code facilitates instant connection to the Link Box, granting users the ability to:

- Instantly access the **local WebServer**, even in the absence of an Internet connection.
- Configure **Internet settings**
- **Monitor operating values** in real time



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