

TEKON
WIRELESS SENSORS TECHNOLOGY

Turn-key wireless solution for
lightweight monitoring applications
of temperature, humidity,
CO₂, barometric pressure
and air-quality



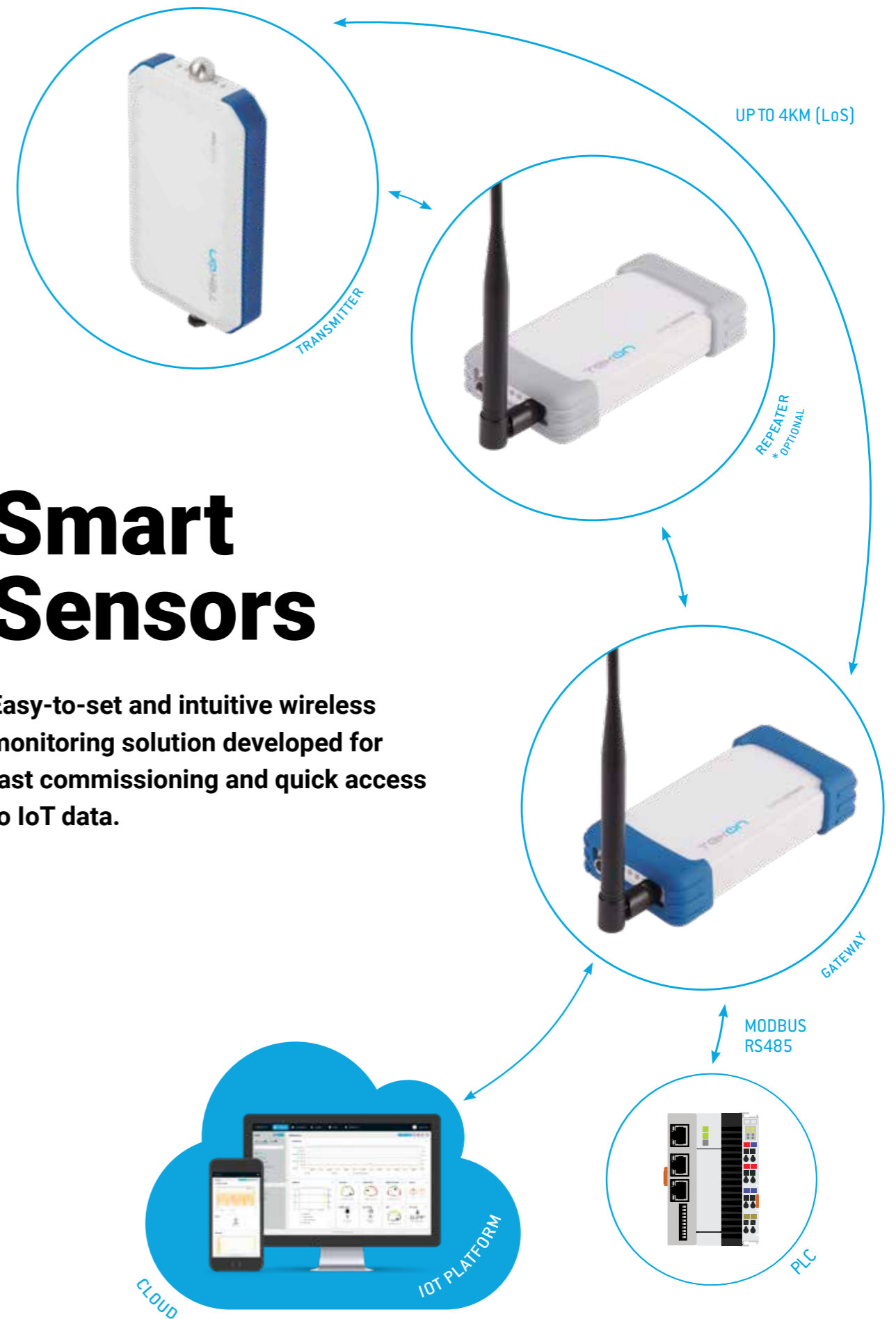
DUOS

WIRELESS SMART SENSORS



Smart Sensors

Easy-to-set and intuitive wireless monitoring solution developed for fast commissioning and quick access to IoT data.





Transmitters

Smart IoT solutions with external sensors for a reliable wireless monitoring of environmental variables.

DUOS Hygrotemp



Temperature and Humidity

- -40°C to 60°C Temperature range
- 0% to 100% Humidity range
- Calibration options
- IP67 protection
- Integration with Tekon IoT Platform
- External sensor up to 2m

DUOS CO2



Temperature, CO2 and CO2 Average

- -40°C to 60°C Internal Temperature range
- 0 to 10000 ppm CO2 range
- Calibration options
- IP67 protection
- Integration with Tekon IoT Platform
- External sensor up to 2m



DUOS Temp



Temperature

- -40°C to 60°C Temperature range
- Multiple probe options (*)
- Calibration options
- IP67 protection
- Integration with Tekon IoT Platform

(*) Probe with 125°C range available

DUOS Di+Temp



Temperature and Digital Input

- -40°C to 60°C Temperature range
- Dry contact digital input
- Calibration options
- IP67 protection
- Integration with Tekon IoT Platform

DUOS uTemp



Universal Temperature and Digital Input

- RTD, Thermocouples, mv and ohm sensors
- -40°C to 60°C Internal Temperature range
- Calibration options
- IP67 protection
- Integration with Tekon IoT Platform



DUOS inTemp



Temperature and Digital Input

- -40°C to 60°C Temperature range
- Built-in sensor
- Dry contact digital input
- Calibration options
- IP65 protection
- Integration with Tekon IoT Platform

DUOS InHygrotemp



Temperature Humidity and Digital Input

- -40°C to 60°C Temperature range
- 0% to 100% Humidity range
- Built-in sensor
- Dry contact digital input
- Calibration options
- IP65 protection
- Integration with Tekon IoT Platform

Duos InCO2



Temperature, CO2, Average CO2, Barometric Pressure and Digital Input

- -40°C to 60°C Temperature range
- 0 to 5000 ppm CO2 range
- 700mbar to 1100mbar Barometric Pressure
- Dry contact digital input
- Calibration options
- IP65 protection
- Integration with Tekon IoT Platform

inSensors

Smart IoT solutions with built-in sensors for a reliable wireless monitoring of environmental variables.

DUOS InAir



Temperature, CO2, Average CO2, Humidity, Barometric Pressure and Digital Input

- -40°C to 60°C Temperature range
- 0 to 5000 ppm CO2 range
- 0 to 100% Humidity range
- 700mbar to 1100mbar Barom. Press.
- Dry contact digital input
- Calibration options
- IP65 protection
- Integration with Tekon IoT Platform

MODELS

	TEMPERATURE		DIGITAL INPUT	CO ₂		HUMIDITY		BAROM. PRESSURE	mV	Ω
	EXTERNAL	INTERNAL		EXTERNAL	INTERNAL	EXTERNAL	INTERNAL			
TEMP	●	●								
HYGROTEMP	●	●		●		●				
DI+TEMP	●	●	●							
CO ₂		●		●						
UTEMP	●	●	●						●	●
INTEMP		●	●							
INHYGROTEMP		●	●				●			
INCO ₂		●	●		●			●		
INAIR		●	●		●		●	●		

Gateways

Smart end points of DUOS wireless solutions for Modbus data transmission or TCP/IP communication.



DUOS IoT Gateway

- Ethernet TCP/IP communication
- Modbus TCP/IP communication
- Integration with Tekon IoT Platform
- Scalable network up to 55 smart sensors
- Up to 13 repeaters in series
- IP40 protection
- AES-128 bits data encryption

DUOS Gateway

- Modbus RTU via RS485
- Scalable network up to 55 smart sensors
- Up to 13 repeaters in series
- IP40 protection
- AES-128 bits data encryption

Repeater

Wireless signal repeater for network redundancy and ensure an efficient communication in any application.



DUOS Repeater

- Compatible with all smart sensors and gateways
- Up to 13 repeaters in series
- IP40 protection
- AES-128 bits data encryption

APPLICATIONS



Offices PORTUGAL

Temperature, humidity, CO₂ and barometric pressure are some of the critical variables that need to be measured in order to keep the environment in safe patterns. Wireless monitoring with alarms and user notifications to ventilate the area allows to keep all the values in a healthy standard.



Pharmaceutical UNITED KINGDOM

DUOS wireless smart sensors are being used to monitor and report temperature and humidity values in a pharmaceutical application with a restricted quality control of product and workplace.



Blood Bank LATVIA

DUOS wireless sensors were integrated in a blood bank, to monitor temperature, humidity and digital input state to ensure the security of blood and derivatives assets. All data was available in the local automation and stored in a cloud service.



Museums PORTUGAL

Our temperature and humidity monitoring solutions are helping to preserve our history. Tekon Electronics implemented wireless solutions in museum's exhibition and storage rooms, in order to minimize the interference of these variables in the preservation process. The solution was backed with our Tekon IoT Platform to establish a real-time monitoring system to ensure a timely intervention in the temperature control of this spaces.

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