TEKON
WIRELESS SENSORS TECHNOLOGY

Overcome distances and obstacles with hassle-free wireless transmitters for all kind of industrial sensors outputs

PLUS
WIRELESS SMART TRANSMITTERS

Start your business Digitalization

Eliminate wired connections and lead your application to wireless communications

UP TO 4KM (LoS)

TRANSMITTER

REPEATER
* OPTIONAL

GATEWAY

MODBUS
RS485

IoT Module
PIM101

MODBUS
TCP/IP

CLOUD

IOT PLATFORM

PLC

Transmitters

- Analog, digital and temperature inputs
- Digital outputs - Generic, link lost indication and external power control
- Analog inputs with 15-bit resolution
- Digital inputs configuration - pulse counter or discrete
- Configurable communication period
- Multi-hop mesh network with self-forming, self-healing and self-optimizing features
- Long range wireless Communication

TWP-4AI

- 4 analog inputs (0..20 mA / 0..10 V)
- 3 digital outputs: generic, RF link lost and external power control
- Event trigger via digital input
- Dual operational mode (transmitter or transmitter/repeater)
- Site survey features
- IP65 protection

TWPH-1UT

- 1 Universal temperature input (PT100 and Thermocouples)
- 6 status LEDs
- Dual operational mode (transmitter or transmitter/repeater)
- Site survey features
- IP40 protection

TWP-4AI4DI1UT

- 4 analog inputs (0..20 mA / 0..10 V)
- 4 digital inputs
- 1 universal temperature input (PT100 or Thermocouple)
- 3 digital outputs: generic, RF link lost and external power control
- Event trigger via digital input
- Dual operational mode (transmitter or transmitter/repeater)
- Site survey features
- IP65 protection
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TWP-1AI / TWP-2AI

- 1 or 2 analog inputs (0..20 mA / 0..10 V)
- 1 digital output: remote control (NPN)
- Dual operational mode (transmitter or transmitter/repeater)
- Site survey features
- IP65 protection

TWP-1DI / TWP-2DI

- 1 or 2 digital inputs (Discrete / Pulse Counter)
- 1 digital output: remote control (NPN)
- Dual operational mode (transmitter or transmitter/repeater)
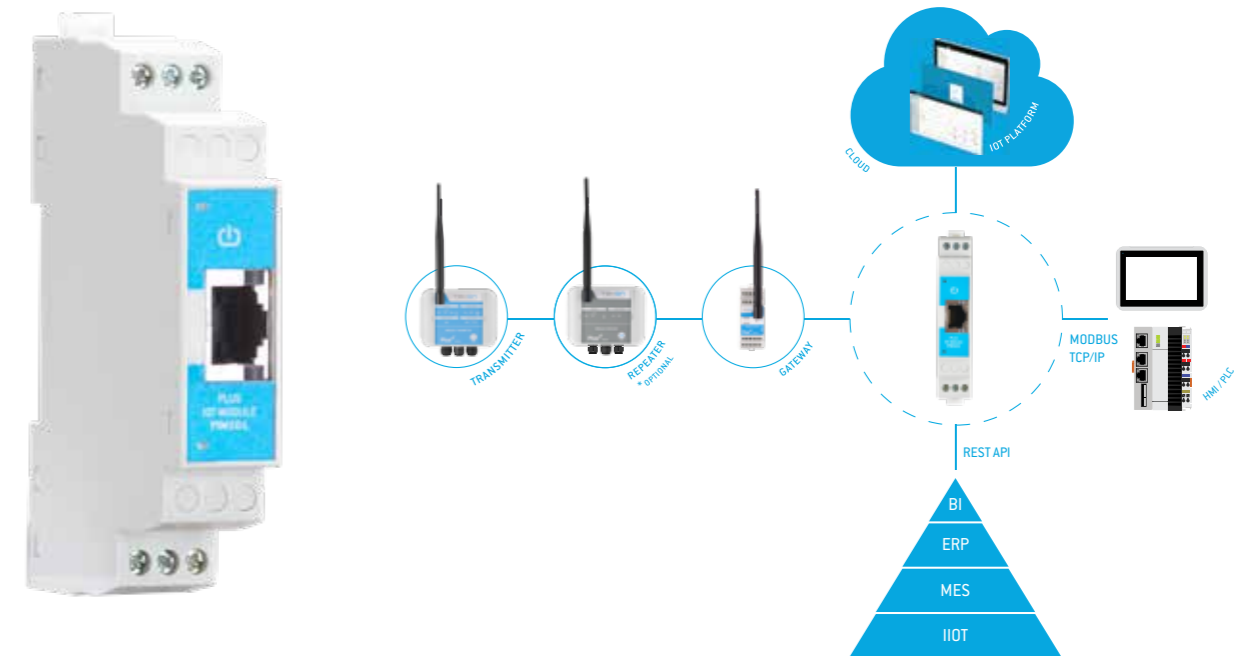- Site survey features
- IP65 protection

TWP-1UT / TWP-2UT

- 1 or 2 temperature inputs (PT100 / Thermocouples)
- 1 digital output: remote control (NPN)
- Dual operational mode (transmitter or transmitter/repeater)
- Site survey features
- IP65 protection

 temperature   analog input   digital input   pulse counter   digital output

IoT Module

Middleware technology to deliver data from PLUS wireless system into the cloud and Tekon IoT Platform.

PIM101 IoT Module

- Modbus TCP/IP communication;
- Ethernet TCP/IP communication;
- Integration with Tekon IoT Platform;
- REST API for third-party integrations;
- IP40 protection;

Transmitters Comparison

MODELS	TEMPERATURE	ANALOG INPUT	DIGITAL INPUT	PULSE COUNTER	DIGITAL OUTPUT	BATTERY POWERED BUILT-IN	POWER BOX
TWP-1AI / TWP-2AI		●			●	●	
TWP-1DI / TWP-2DI			●	●	●	●	
TWP-1UT / TWP-2UT	●				●	●	
TWP-4AI4DI1UT	●	●	●		●		●
TWP4AI		●			●		●
TWPH-1UT	●					●	

Gateway

Main endpoint of PLUS wireless network is tasked to manage the communications between all the devices of PLUS wireless network

WGW420

- Scalable network up to 55 PLUS transmitters
- Up to 13 repeaters in one network
- Modbus RTU communication protocol
- 8 analog outputs (4..20 mA)
- IP40 protection

Repeater

Improve PLUS wireless network redundancy and robustness with repeaters to ensure a reliable communication between end points.

WRP001

- Up to 12 repeaters in series for extra-long range
- Multi-hop mesh network with self-forming, self-healing and self-optimizing features
- Site survey features
- IP65 protection

Hot dip galvanizing
PORTUGAL

Application of an IIoT temperature monitoring solution in the various stages of steel and iron galvanizing process, enabling greater control and problem prevention.

Vibration monitoring
AUSTRALIA

Wireless solution for vibration monitoring in mining applications. Measurement of vibration in remote machinery using a vibration sensor with analog output and PLUS TWP-2AI transmitter with battery pack to provide a reliable and real-time measurement of vibration that will prevent machine downtime.

Biodegradable waste composting monitoring
PORTUGAL

Monitoring of the composting process of biodegradable waste to produce organic soil fertilizer. Analyze and monitor the fermentation process through the platform to ensure process compliance and registration.

Expelled lava from volcano
SPAIN

Wireless system to monitor the temperature of the cooling process of lava expelled from Cumbre Vieja volcano in La Palma island. Data is available in real time and provides valuable insights to geologists, as well as aiding authorities in the decision process of safely removing the lava.

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