

The image shows the Tekon logo in blue 3D letters mounted on a grey stone building facade. The logo consists of the word 'tekon' in lowercase, followed by a stylized blue symbol resembling a lowercase 'n' or a similar character. The building is viewed from a low angle, looking up towards the sky.

tekon

TEKON WIRELESS SENSORS TECHNOLOGY

2018

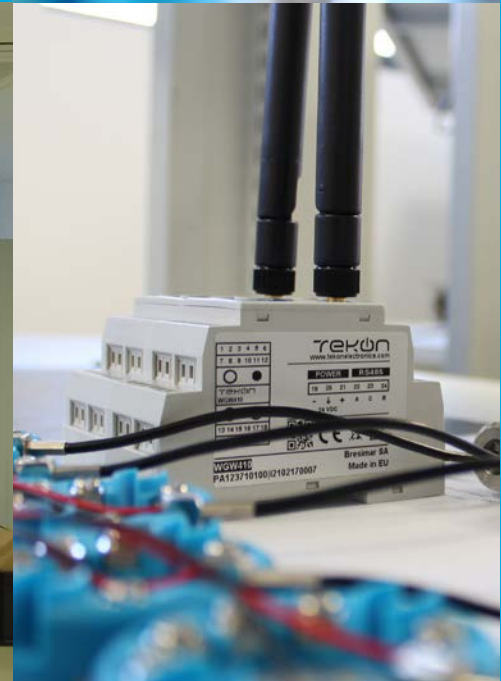
1<sup>ST</sup> SEMESTER

PRODUCT CATALOGUE

[TEKONELECTRONICS.COM](http://TEKONELECTRONICS.COM)

## TEKON ELECTRONICS

Tekon Electronics is an European brand, specialized in the manufacture and development of innovative wireless sensors technology. It is a business unit of Bresimar Automação, S.A., with 35 years of experience in automation, industrial control solutions and engineering.



## APPLICATIONS OF TEKON ELECTRONICS' PRODUCTS



**AGRO-INDUSTRY**



**DATA CENTER**



**FOOD INDUSTRY**



**COLD CHAIN**



**BUILDING AUTOMATION**



**HVAC**



**PROCESS INDUSTRY**



**RENEWABLE ENERGY**






**RETAIL**








**PHARMACEUTICAL INDUSTRY**

**WIRELESS SYSTEMS**

**PLUS**

PRODUCT	DESCRIPTION
<p>PA164510110</p> 	<p><b>PLUS TWP4AI WIRELESS TRANSMITTER 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• 4 configurable analog inputs (0..20 mA or 0..10 V) providing cable replacement features;</li> <li>• 3 configurable digital outputs: generic, RF link lost indication and external power control;</li> <li>• Configurable communication period and/or event trigger via digital input;</li> <li>• Up to 4 Km communication distance (LoS) with 868 MHz and 128-bit AES encryption;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Internal temperature, battery voltage and wireless link quality (RSSI) monitoring;</li> <li>• Extreme operating temperature range -30°C to 80°C and IP65 protection;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul> <p><b>NEW</b></p>
<p>PA164510210</p> 	<p><b>PLUS WGW420 WIRELESS GATEWAY 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Scalable network up to 55 PLUS transmitters;</li> <li>• Up to 4 Km communication distance (LoS) with 868 MHz and 128-bit AES encryption;</li> <li>• Multiple networks with extra gateways and extra long range with several repeaters;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Modbus RTU communication protocol via RS-485 interface;</li> <li>• 8 analog outputs (4..20 mA current loop);</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> <li>• DIN rail mounting.</li> </ul> <p><b>NEW</b></p>
<p>PA164510310</p> 	<p><b>PLUS WRP001 WIRELESS REPEATER 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Up to 12 repeaters in series for extra-long range;</li> <li>• Extra repeaters for network redundancy and robustness;</li> <li>• Up to 4 Km communication distance (LoS) with 868 MHz and 128-bit AES encryption;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul> <p><b>NEW</b></p>
<p>PA164510410</p> 	<p><b>PLUS TWP4AI 868MHZ STARTER KIT FOR NEW CUSTOMERS</b></p> <ul style="list-style-type: none"> <li>• PLUS TWP4AI Wireless Transmitter 868 MHz;</li> <li>• PLUS WGW420 Wireless Gateway 868 MHz;</li> <li>• Antennas and accessories;</li> <li>• RS485-USB Converter Cable;</li> <li>• Suitcase.</li> </ul> <p><b>NEW</b></p>

DUOS		
PRODUCT	DESCRIPTION	
PA160410110 	<p><b>DUOS TEMP WIRELESS TRANSMITTER 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Dual temperature probe: internal and external;</li> <li>• Up to 4 Km communication distance (LoS) with 128-bit AES encryption;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Battery voltage and wireless link quality (RSSI) monitoring;</li> <li>• Low power and long battery life;</li> <li>• Extreme operating temperature range -40°C to 80°C and IP67 protection;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul> <p>* external probe not included</p>	
PA160410210 	<p><b>DUOS WIRELESS GATEWAY 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Scalable network up to 55 DUOS transmitters;</li> <li>• Up to 4 Km communication distance (LoS) with 128-bit AES encryption;</li> <li>• Multiple networks simultaneously with extra gateways;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Modbus RTU communication protocol via RS-485 interface;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul>	
PA160410310 	<p><b>DUOS WIRELESS REPEATER 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Up to 12 repeaters in series for extra-long range;</li> <li>• Extra repeaters for network redundancy and robustness;</li> <li>• Up to 4 Km communication distance (LoS) with 128-bit AES encryption;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul>	
PA164520110 	<p><b>DUOS HYGROTEMP WIRELESS TRANSMITTER 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Dual probe: external temperature and humidity + internal temperature;</li> <li>• Up to 4 Km communication distance (LoS) with 128-bit AES encryption;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Battery voltage and wireless link quality (RSSI) monitoring;</li> <li>• Low power and long battery life;</li> <li>• Extreme operating temperature range -40°C to 80°C and IP67 protection;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul> <p>* external probe not included</p>	
PA160411110 	<p><b>DUOS CO2 WIRELESS TRANSMITTER 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Dual probe: external CO2 and internal temperature;</li> <li>• Up to 4 Km communication distance (LoS) with 128-bit AES encryption;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Battery voltage and wireless link quality (RSSI) monitoring;</li> <li>• Low power and long battery life;</li> <li>• Extreme operating temperature range -40°C to 60°C and IP67 protection;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul> <p>* external probe not included</p>	
PA160411210 	<p><b>DUOS DI+TEMP WIRELESS TRANSMITTER 868 MHZ</b></p> <ul style="list-style-type: none"> <li>• Dual temperature probe: internal and external;</li> <li>• External digital input for event detection;</li> <li>• Up to 4 Km communication distance (LoS) with 128-bit AES encryption;</li> <li>• Multi-hop mesh network with self-forming, self-healing and self-optimizing features;</li> <li>• Battery voltage and wireless link quality (RSSI) monitoring;</li> <li>• Low power and long battery life;</li> <li>• Extreme operating temperature range -40°C to 80°C and IP67 protection;</li> <li>• Simple and intuitive USB configuration via Tekon Configurator (free software).</li> </ul> <p>* external probe not included</p>	


PRODUCT	DESCRIPTION	
<p>PA160410610</p> 	<p><b>DUOS TEMP HW STARTER KIT FOR NEW CUSTOMERS</b></p> <ul style="list-style-type: none"> <li>• DUOS TEMP Wireless Transmitter 868 MHz;</li> <li>• DUOS Wireless Gateway 868 MHz;</li> <li>• Temperature probe;</li> <li>• Antennas and accessories;</li> <li>• DUOS RS485 to USB configuration cable;</li> <li>• Suitcase.</li> </ul>	
<p>PA164520210</p> 	<p><b>DUOS HYGROTEMP HW STARTER KIT FOR NEW CUSTOMERS</b></p> <ul style="list-style-type: none"> <li>• DUOS HYGROTEMP Wireless Transmitter 868 MHz;</li> <li>• DUOS Wireless Gateway 868 MHz;</li> <li>• Temperature and humidity probe (TK07-PFT5);</li> <li>• Antennas and accessories;</li> <li>• DUOS RS485 to USB configuration cable;</li> <li>• Suitcase.</li> </ul>	
<p>PA160411310</p> 	<p><b>DUOS CO2 868MHZ STARTER KIT FOR NEW CUSTOMERS</b></p> <ul style="list-style-type: none"> <li>• DUOS CO2 Wireless Transmitter;</li> <li>• DUOS Wireless Gateway;</li> <li>• DUOS Humidity + Temperature Probe TK07-PFT5;</li> <li>• Antennas and accessories;</li> <li>• DUOS RS485-USB Converter Cable;</li> <li>• Suitcase.</li> </ul>	<p><b>NEW</b></p>
<p>PA160411410</p> 	<p><b>DUOS DI + TEMP 868MHZ STARTER KIT FOR NEW CUSTOMERS</b></p> <ul style="list-style-type: none"> <li>• DUOS DI + TEMP Wireless Transmitter;</li> <li>• DUOS Wireless Gateway;</li> <li>• DUOS Digital Temperature Probe;</li> <li>• Antennas and accessories;</li> <li>• DUOS RS485-USB Converter Cable;</li> <li>• Suitcase.</li> </ul>	<p><b>NEW</b></p>
<p>900000800</p> 	<p><b>SOFTWARE TEKON DATALOGGER</b></p> <ul style="list-style-type: none"> <li>• HMI;</li> <li>• Datalogger;</li> <li>• Alarm management;</li> <li>• Profile management;</li> <li>• Dashboards;</li> <li>• Reports.</li> </ul>	

ONE



PRODUCT	DESCRIPTION
<p>PA123720200 (A) PA123720100 (B)</p>	<p><b>THW401 - IN HEAD WIRELESS UNIVERSAL TEMPERATURE TRANSMITTER 868 MHZ (A) / 2.4 GHZ (B)</b></p> <ul style="list-style-type: none"> <li>• Long distance range (4 Km LoS for 868 MHz and 2 Km LoS for 2.4 GHz);</li> <li>• Extreme low power (5 to 30 VDC power supply);</li> <li>• 1 sec. to 24h configurable communication period;</li> <li>• Universal sensor input (RTD, Thermocouple: E, J, K, N, R, S, T);</li> <li>• RF link quality (RSSI) and battery voltage transmission.</li> </ul>
<p>PA123730100 (A) PA123710100 (B)</p>	<p><b>WGW410 - WIRELESS MODBUS GATEWAY WITH 8 ANALOG OUTPUTS 868 MHZ (A) / 2.4 GHZ (B)</b></p> <ul style="list-style-type: none"> <li>• Supports up to 16 THW401 Temperature Transmitters;</li> <li>• 1 sec network refresh time;</li> <li>• RS485 interface with MODBUS protocol;</li> <li>• 8 Analog Outputs;</li> <li>• Configurable over USB;</li> <li>• DIN rail mounting.</li> </ul>
<p>PA144010200 (A) PA144010100 (B)</p>	<p><b>THW401 STARTER KIT FOR NEW CUSTOMERS - 868 MHZ (A) / 2.4 GHZ (B)</b></p> <ul style="list-style-type: none"> <li>• THW401 Wireless Transmitter;</li> <li>• WGW410 Wireless Gateway;</li> <li>• BUZ head including 6X50 mm "K" thermocouple probe;</li> <li>• Antennas and accessories;</li> <li>• RS485 to USB configuration cable;</li> <li>• Suitcase.</li> </ul>

## TRANSMITTERS

### IN HEAD

PRODUCT	DESCRIPTION
 <p>PA132720110</p>	<p><b>THP101 - PT100 TEMPERATURE HEAD TRANSMITTER WITH 4..20 MA OUTPUT</b></p> <ul style="list-style-type: none"> <li>• PT100 sensor input;</li> <li>• High precision and accuracy with low operating temperature drift;</li> <li>• Status LED's and test pads;</li> <li>• Configurable via Tekon Configurator free software;</li> <li>• NAMUR NE43 compliant for fault detection and signaling;</li> <li>• Sensor cable resistance and current output compensation;</li> <li>• Type DIN B connection head compatible.</li> </ul>
 <p>PA132720210</p>	<p><b>THT201 - THERMOCOUPLE TEMPERATURE HEAD TRANSMITTER WITH 4..20 MA OUTPUT</b></p> <ul style="list-style-type: none"> <li>• Universal thermocouple sensor input: E, J, K, N, R, S and T;</li> <li>• High precision and accuracy with low operating temperature drift;</li> <li>• Status LED's and test pads;</li> <li>• Configurable via Tekon Configurator free software;</li> <li>• NAMUR NE43 compliant for fault detection and signaling;</li> <li>• Cold-junction and output current compensation;</li> <li>• Type DIN B connection head compatible.</li> </ul>
 <p>PA110020100</p>	<p><b>THU1102 - UNIVERSAL TEMPERATURE HEAD TRANSMITTER WITH 4..20 MA OUTPUT</b></p> <ul style="list-style-type: none"> <li>• Universal sensor input (RTD, thermocouple, etc);</li> <li>• High precision and accuracy with low operating temperature drift;</li> <li>• Status LED's and test pads;</li> <li>• Configurable via Tekon Configurator free software;</li> <li>• NAMUR NE43 compliant for fault detection and signaling;</li> <li>• Cold-junction, sensor cable resistance and output current compensation;</li> <li>• Type DIN B connection head compatible.</li> </ul>
 <p>PA151700100</p>	<p><b>THM501 - PT100 TEMPERATURE HEAD TRANSMITTER WITH MODBUS RTU OUTPUT</b></p> <ul style="list-style-type: none"> <li>• PT100 sensor input;</li> <li>• 256 Modbus RTU slave addresses available;</li> <li>• High precision and accuracy with low operating temperature drift;</li> <li>• Configurable via RS485 with Tekon Configurator free software;</li> <li>• Sensor cable resistance and output current compensation;</li> <li>• Type DIN B connection head compatible.</li> </ul>

### DIN RAIL

PRODUCT	DESCRIPTION
 <p>PA121800100</p>	<p><b>TDU1218 - UNIVERSAL TEMPERATURE DIN RAIL TRANSMITTER WITH 4..20 MA OUTPUT</b></p> <ul style="list-style-type: none"> <li>• Universal sensor input (RTD, thermocouple, etc);</li> <li>• High precision and accuracy with low operating temperature drift;</li> <li>• USB configurable via Tekon Configurator free software;</li> <li>• NAMUR NE43 compliant for fault detection and signaling;</li> <li>• Cold-junction, sensor cable resistance and output current compensation.</li> </ul>
 <p>PA121900100</p>	<p><b>TDU1219 - ISOLATED UNIVERSAL TEMPERATURE DIN RAIL TRANSMITTER WITH 4..20 MA OUTPUT</b></p> <ul style="list-style-type: none"> <li>• Universal sensor input (RTD, thermocouple, etc);</li> <li>• 3 KVAC galvanic isolation;</li> <li>• High precision and accuracy with low operating temperature drift;</li> <li>• USB configurable via Tekon Configurator free software;</li> <li>• NAMUR NE43 compliant for fault detection and signaling;</li> <li>• Cold-junction, sensor cable resistance and output current compensation.</li> </ul>





## ACCESSORIES





### DUOS ACCESSORIES

PRODUCT	DESCRIPTION	
PA160410004 	<p><b>DUOS RS485-USB CONVERTER</b></p> <ul style="list-style-type: none"> <li>• DUOS gateway configuration cable (to use with Tekon Configurator);</li> <li>• USB connection to PC for Tekon Software integration.</li> </ul>	
PA160410005 	<p><b>DUOS TRANSMITTER SARC</b></p> <ul style="list-style-type: none"> <li>• DUOS transmitter configuration cable (to use with Tekon Configurator).</li> </ul>	
PA160410006 	<p><b>DUOS POWER SUPPLY</b></p> <ul style="list-style-type: none"> <li>• DUOS repeater and transmitter 110-230 VAC / 50-60 Hz EU plug power supply;</li> <li>• 2 meter cable with snap-in plug.</li> </ul>	
PA160410007 	<p><b>DUOS GATEWAY EXTERNAL CABLE</b></p> <ul style="list-style-type: none"> <li>• DUOS gateway communication (via RS-485) and power supply cable.</li> <li>• 2 meter cable with M8 industrial connector.</li> </ul>	
PA160410008 	<p><b>DUOS EXTERNAL POWER CABLE</b></p> <ul style="list-style-type: none"> <li>• DUOS repeater and DUOS transmitter power supply cable;</li> <li>• 2 meter cable with M8 industrial connector.</li> </ul>	
PA160410910 	<p><b>DUOS TRANSMITTER MOUNTING CLIP</b></p> <ul style="list-style-type: none"> <li>• Stainless steel wall mounting clip;</li> <li>• Mounting accessories included (screws and plugs, double sided tape and zip ties).</li> </ul>	
PA160410810 	<p><b>DUOS TRANSMITTER MOUNTING BRACKET</b></p> <ul style="list-style-type: none"> <li>• Stainless steel wall mounting bracket;</li> <li>• Mounting accessories included (screws and plugs, double sided tape, and zip ties).</li> </ul>	
PA160411010 	<p><b>DUOS GATEWAY/REPEATER MOUNTING CLIP</b></p> <ul style="list-style-type: none"> <li>• Stainless steel wall mounting clip;</li> <li>• Mounting accessories included (screws and plugs, double sided tape and zip ties).</li> </ul>	



## DUOS TEMP ACCESSORIES

PRODUCT	DESCRIPTION
PA160410001 	<b>DUOS DIGITAL TEMPERATURE PROBE</b> <ul style="list-style-type: none"> <li>• ±0.25°C typical accuracy with 0.1°C resolution digital sensor;</li> <li>• -40°C to +80°C operating temperature;</li> <li>• Stainless steel probe with M8 industrial connector.</li> </ul>
PA160410002 (A) PA160410003 (B) 	<b>DUOS DIGITAL TEMPERATURE PROBE WITH 2M (A) OR 5M (B) CABLE</b> <ul style="list-style-type: none"> <li>• ±0.25°C typical accuracy with 0.1°C resolution digital sensor;</li> <li>• -40°C to +125°C operating temperature;</li> <li>• 2 or 5 meter cable variants with stainless steel probe and M8 industrial connector.</li> </ul>



## DUOS HYGROTEMP ACCESSORIES

PRODUCT	DESCRIPTION	
PA164520001 (A) PA164520004 (B) 	<b>DUOS HUMIDITY + TEMPERATURE PROBE TK07-PFT5 (A) WITH 2M CABLE (B)</b> <ul style="list-style-type: none"> <li>• 0..100 % RH and -40..80 °C T measurement ranges;</li> <li>• Accuracy: ±2 % (0..90 % RH) and ±3% (90..100 % RH)</li> <li>• Accuracy: ±0.1 °C @ 20 °C (max. ±0.5 °C @ range extremes);</li> <li>• -40..+80°C operating temperature;</li> <li>• Polycarbonate housing with PTFE filter;</li> <li>• Special sensor coating extends lifetime and sensor performance;</li> <li>• IP65 M12 industrial connector with flange coupling + 2 meter cable (B).</li> </ul>	
PA164520003 (A) PA164520006 (B) 	<b>DUOS HUMIDITY + TEMPERATURE PROBE TK07-MFT9-HC01 (A) WITH 2M CABLE (B)</b> <ul style="list-style-type: none"> <li>• 0..100 % RH and -40..80 °C T measurement ranges;</li> <li>• Accuracy: ±2 % (0..90 % RH) and ±3% (90..100 % RH)</li> <li>• Accuracy: ±0.1 °C @ 20 °C (max. ±0.5 °C @ range extremes);</li> <li>• -40..+80°C operating temperature;</li> <li>• Metal housing with metal grid filter;</li> <li>• Special sensor coating extends lifetime and sensor performance;</li> <li>• IP65 M12 industrial connector with flange coupling + 2 meter cable (B).</li> </ul>	


## DUOS CO2 ACCESSORIES

PRODUCT	DESCRIPTION	
PA160410010 (A) PA160410011 (B) 	<b>DUOS TK871-HR5000J2 CO2 PROBE (A) WITH 2M CABLE (B)</b> <ul style="list-style-type: none"> <li>• Measurement range: 0..5000 ppm;</li> <li>• Accuracy: ±50 ppm @ 25 °C;</li> <li>• Operating conditions:-40..60 °C / 0..100 % RH / 85..110 kPa.</li> <li>• Dual wavelength NDIR (non-dispersive infrared technology);</li> <li>• M12 connector, PTFE filter cap with IP65 housing + 2 meter cable (B).</li> </ul>	



## DUOS DI+TEMP ACCESSORIES

PRODUCT	DESCRIPTION	
PA160410009 	<b>DUOS DI+TEMP EXTERNAL CABLE</b> <ul style="list-style-type: none"> <li>• DUOS DI+TEMP digital input cable.</li> <li>• 2 meter cable with snap-in industrial connector.</li> </ul>	


## ONE ACCESSORIES

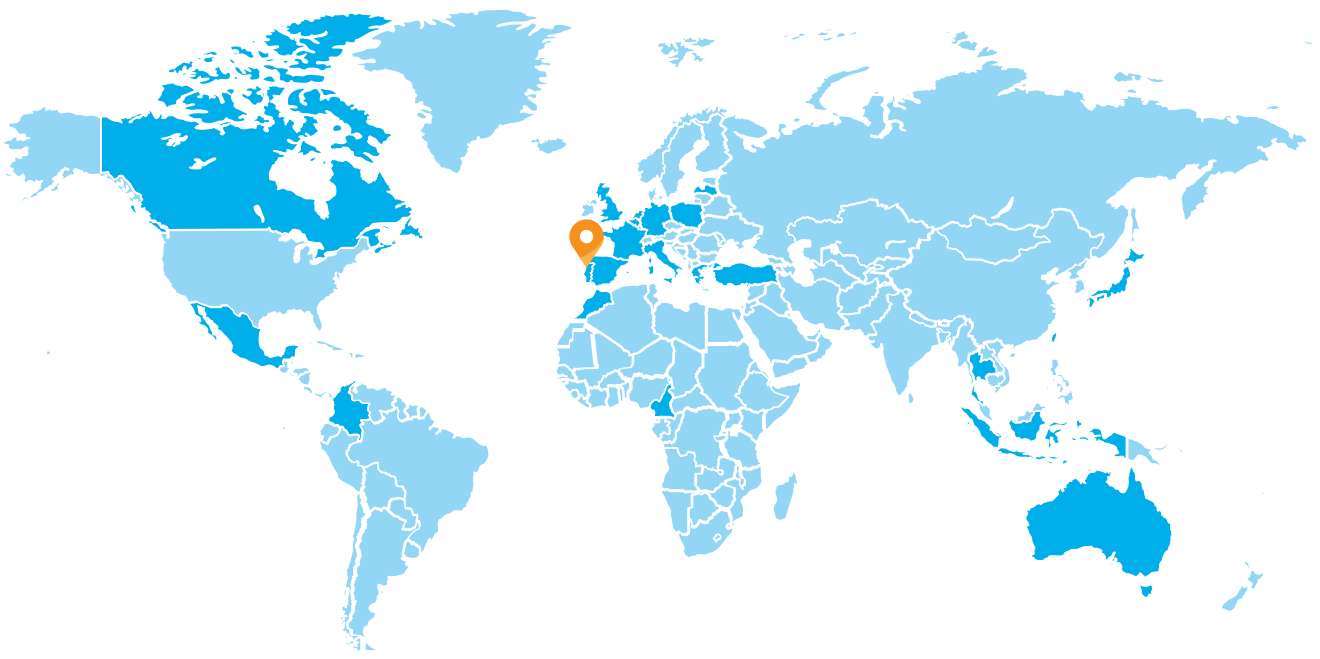
PRODUCT	DESCRIPTION
PA123790400 	<b>RS485 TO USB CONVERTER CABLE</b> Cable to connect WGW410 Gateway to an USB port.


## IN HEAD ACCESSORIES

PRODUCT	DESCRIPTION
PA110050100 	<b>SARC1105 - USB CONFIGURATOR</b> <ul style="list-style-type: none"> <li>• Connection between a PC USB port and THU1102 universal temperature head transmitter;</li> <li>• USB powered for easy off-process configuration.</li> </ul>
PA132720310 	<b>SARC2 - USB CONFIGURATOR</b> <ul style="list-style-type: none"> <li>• Connection between a PC USB port and THP101/THT201 universal temperature head transmitters;</li> <li>• USB powered for easy off-process configuration.</li> </ul>

## PROBES

PRODUCT	DESCRIPTION
	<b>CUSTOMIZABLE TEMPERATURE AND LEVEL PROBES</b> <ul style="list-style-type: none"> <li>• Customization service provides a full solution for all measurement and process applications;</li> <li>• Designed, manufactured and tested with high quality standards;</li> <li>• Certification service on demand for all probes;</li> <li>• All type of sensors (RTD, thermocouples, thermistors) and applications (thermowell, insulation materials, connections heads, process specific).</li> </ul>



-  Headquarters
-  Product Presence

**FIND US AT**  
[WWW.TEKONELECTRONICS.COM](http://WWW.TEKONELECTRONICS.COM)

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