

STRIP WATER LED

68 IP LED

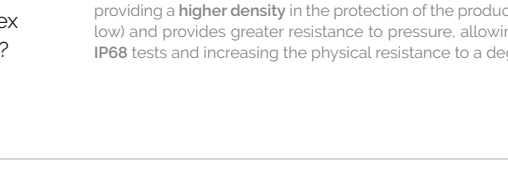


THE PERFECT LINEAR SOLUTION FOR SWIMMING POOLS

The new generation of Strip Water Led has managed to bring together the three main objectives pursued by Tecsoled: a **high quality product**, **customisable and with immediate delivery**. Technological advances in the field of silicone extrusion have been key to the production of our submersible linear solution, but also a commitment to our own infrastructure. By doing so, waiting times are highly reduced and we can offer customers a unique service in which all the elements of the product are made to measure.

SILICONE EXTRUSION

Features and advantages of manufacturing using this technology



What does silicone extrusion manufacturing consist of?

The components that will form the product are joined together and passed through moulds that provide the final shape. Strip Water Led is made up of a flexible strip, a plastic safety film and two different parts of semi-solid silicone with different degrees of opacity that will react to the temperature by contracting.

What are the advantages of the manufacturing technology itself?

Silicone extrusion is not subject to maximum length limits as it is a process carried out without liquid materials. This makes it possible to manufacture flexible LED strips with larger dimensions than traditional standards. In addition, it allows to reserve an empty space between the plastic material and the light source, which minimises the variations in temperature and tonality of the original colours and those obtained after the sealing process of the flexible strip.

What are the main characteristics of silicone?

The flash point of the silicone used in these processes is very high and does not generate toxic gases by combustion. This fact greatly increases the safety of the installations where it is used. The thermal conductivity of silicone (0.27 w/mK) is higher than other materials applied with similar products, which favours the circulation of heat on the metal profile, increasing the longevity of the product. The silicone can withstand aggressive conditions such as saline environments, acids and UV rays. It can be installed in special environments such as areas near the sea, laboratories, heavy industries and mines without yellowing or ageing.

What is the difference between the silicone extrusion of the flex strips and the Strip Water Led?

The strips made especially for swimming pools are manufactured with a **double extrusion**, providing a **higher density** in the protection of the product. This reduces the porosity already very low and provides greater resistance to pressure, allowing it to meet the depth standards of the IP68 tests and increasing the physical resistance to a degree of IK08.

CUSTOM-MADE MANUFACTURING

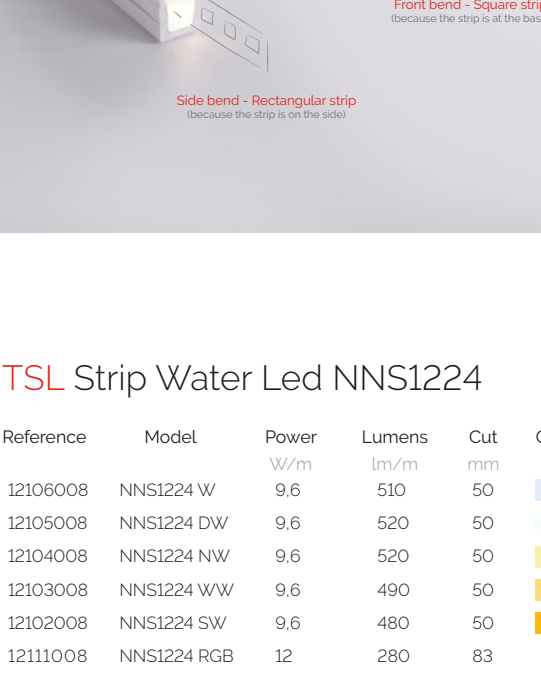
Advantages, manufacturing times and product customisation

Tecsoled's made-to-measure manufacturing process means that the final product is only conditioned by the minimum cut of the inner strip and the size of the end sealing. In this way, the customer can adjust the length of the lighting in their pool.

The purchase of machinery for the final sealing of the product gives the customer the possibility of carrying out this customised work with immediate production. We are able to cut to the desired length, the type and length of cable chosen and finalise the sealing of the product thanks to the contribution through moulds, of a combination of time, pressure and temperature resulting in a final product. **Immediate delivery.**

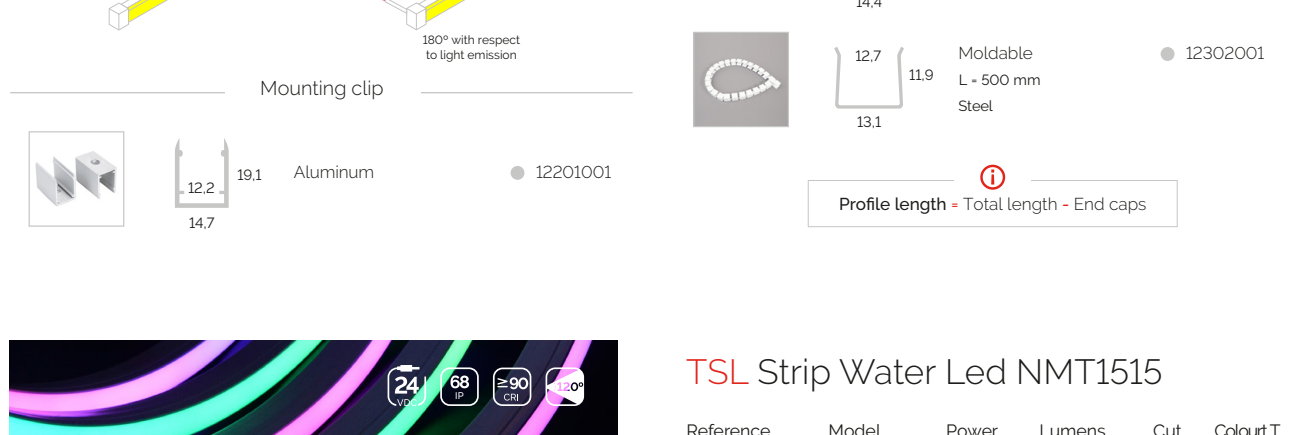
The customer can choose the length of the strip, up to 30m if feeding from one end, or up to 20m if there is feedback. The length of the cable can also be chosen in order to facilitate the installation and the safety of the connections.

We can also manufacture complex products, i.e. we have the ability to continuous strips can be manufactured with interleaved wiring to facilitate the turns or different types of installation.



THE PRODUCT

Product range, models and accessories available



This is an all-rounder item, whose only requirement is taking care during installation and ensuring that it is correctly sealed, since forcing it while bending can damage the product.

Side bend
Normally applied under the side diagrams and not used for feedback corner turning. The strip is placed transversely with respect to the base of the product, creating a reflected emission and allowing it to function contrary to the nature of the same.

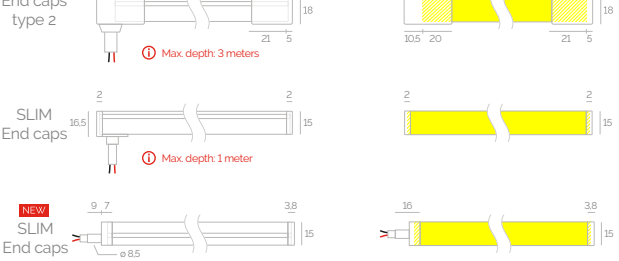
Front bend
It is generally used recessed in the pool wall. The inner flexible strip is placed at the base of the product, projecting the light perpendicularly with respect to the lighting surface, allowing the same light loss.

TSL SWL NNS1224
TSL SWL NMT1515

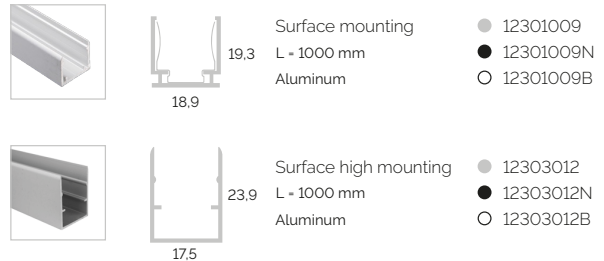
TSL Strip Water Led NNS1224

Reference	Model	Power W/m	Lumens lm/m	Cut mm	Colour T.
12106008	NNS1224 W	9.6	510	50	6000K
12105008	NNS1224 DW	9.6	520	50	5000K
12104008	NNS1224 NW	9.6	520	50	4000K
12103008	NNS1224 W/W	9.6	490	50	3000 K
12102008	NNS1224 SW	9.6	480	50	2700K
12111008	NNS1224 RGB	12	280	83	RGB

Design detail



Bend



Profiles

Surface mounting	12301001
L = 1000 mm	12301009N
Aluminum	12301001B
Surface high mounting	12303001
L = 1000 mm	12303012N
Aluminum	12303001B
Moldable	12302001
L = 500 mm	
Steel	

Profile length = Total length - End caps



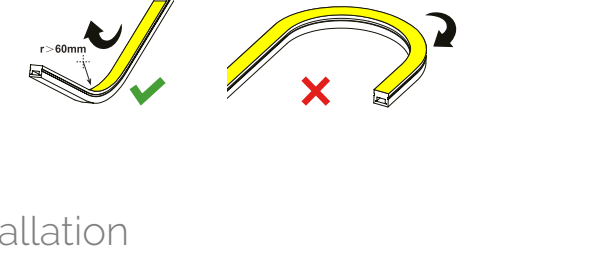
TSL Strip Water Led NMT1515

Reference	Model	Power W/m	Lumens lm/m	Cut mm	Colour T.
12106012	NMT1515 W	9.6	580	50	6000K
12104012	NMT1515 NW	9.6	600	50	4000K
12103012	NMT1515 W/W	9.6	580	50	3000 K
12102012	NMT1515 SW	9.6	560	50	2700K
12107012	NMT1515 RGB	12	280	83	RGB





Design detail



Bend



Profiles

	
Strip placement	
	

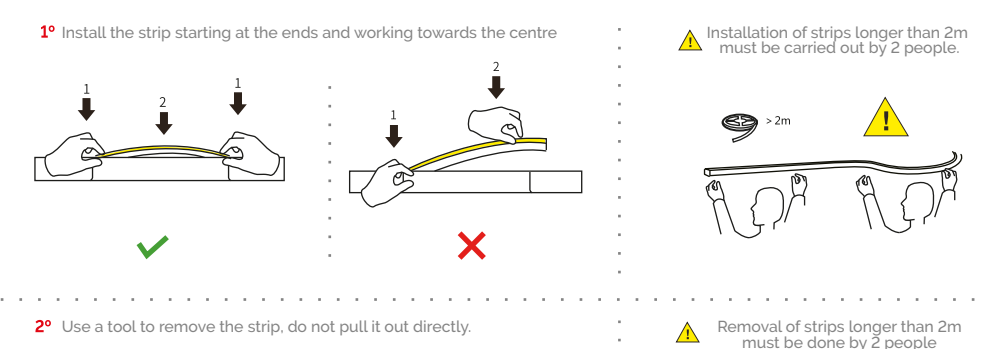
Profile length = Total length - End caps

Mounting clip

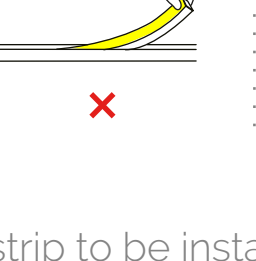
19.3	Aluminum	12201012
18.9		

INSTALLATION

Precautions before installation



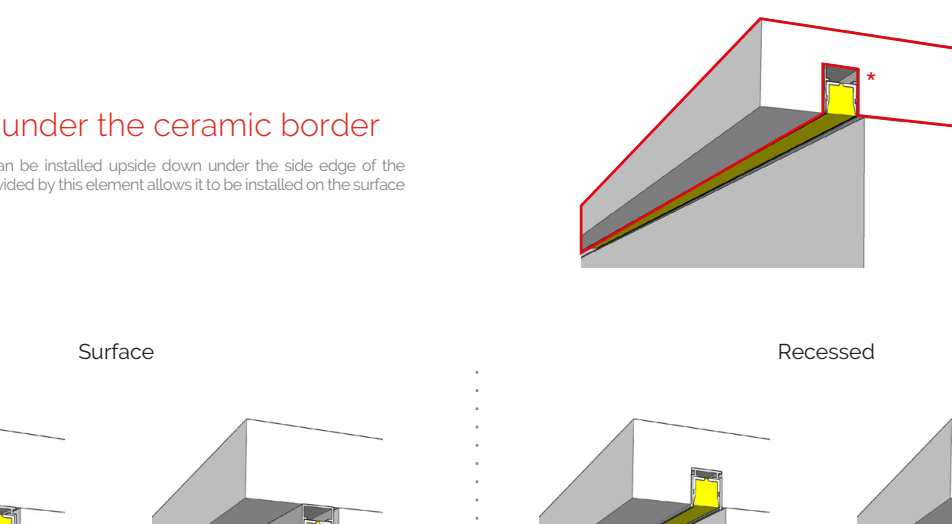
TSL SWL NNS1224 Side bend



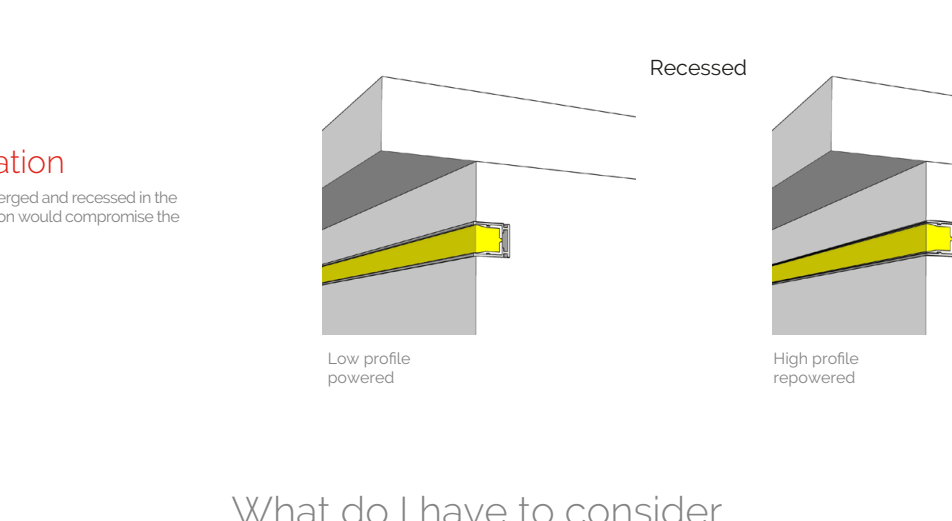
TSL SWL NMT1515 Front bend



Profile installation



Strip installation



Where is the strip to be installed and what is the appropriate profile for each application?

Depending on the dimensions of our installation, we will determine the places to feed or re-feed the Strip Water Led. It is important to establish beforehand the necessary conduits to bring the wiring to the ends of the strip. In the case of being necessary re-feeding, these can be done through secondary conduits or using the special aluminum profile for parallel wiring.

Low profile

For strip with a single feed or parallel feed around the outside perimeter of the pool.



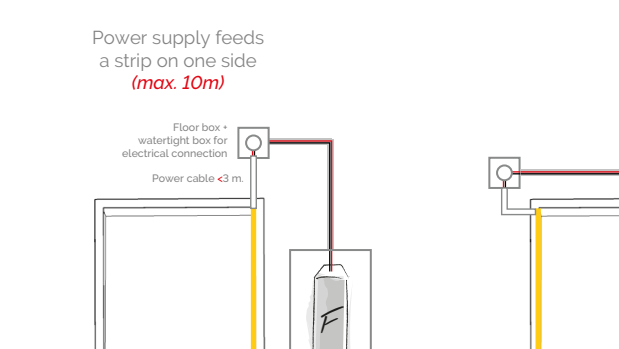
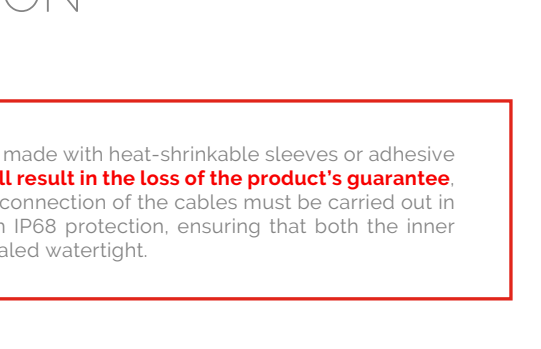
High profile

For strips with the need for a feedback, allows parallel wiring to be housed inside the strip.



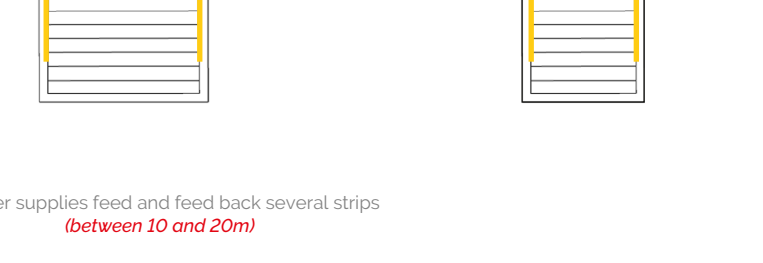
Installation under the ceramic border

The Strip Water Led can be installed upside down under the side edge of the pool. The protection provided by this element allows it to be installed on the surface or recessed installation.



Wall installation

This application is submersed and recessed in the wall, as surface installation would compromise the integrity of the product.



What do I have to consider for recessed installation?

Recessed

New pool

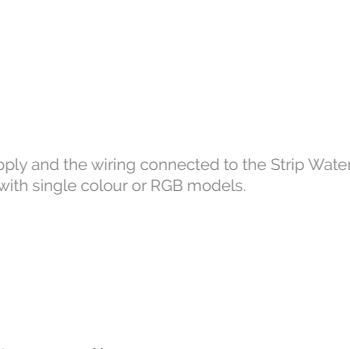
When applying the mortar, cement or concrete on the wall of our swimming pool, it is important to foresee the place where the Strip Water Led will be placed. Using removable wooden or foam strips, with the dimensions of the chosen aluminum profile.

Existing pool

On the other hand, if our installation was not foreseen, we must make a cut and empty a cavity of similar dimensions to those of the chosen profile. In addition, the cavity must be uniform so that the elements fit firmly and do not suffer once they are in place.

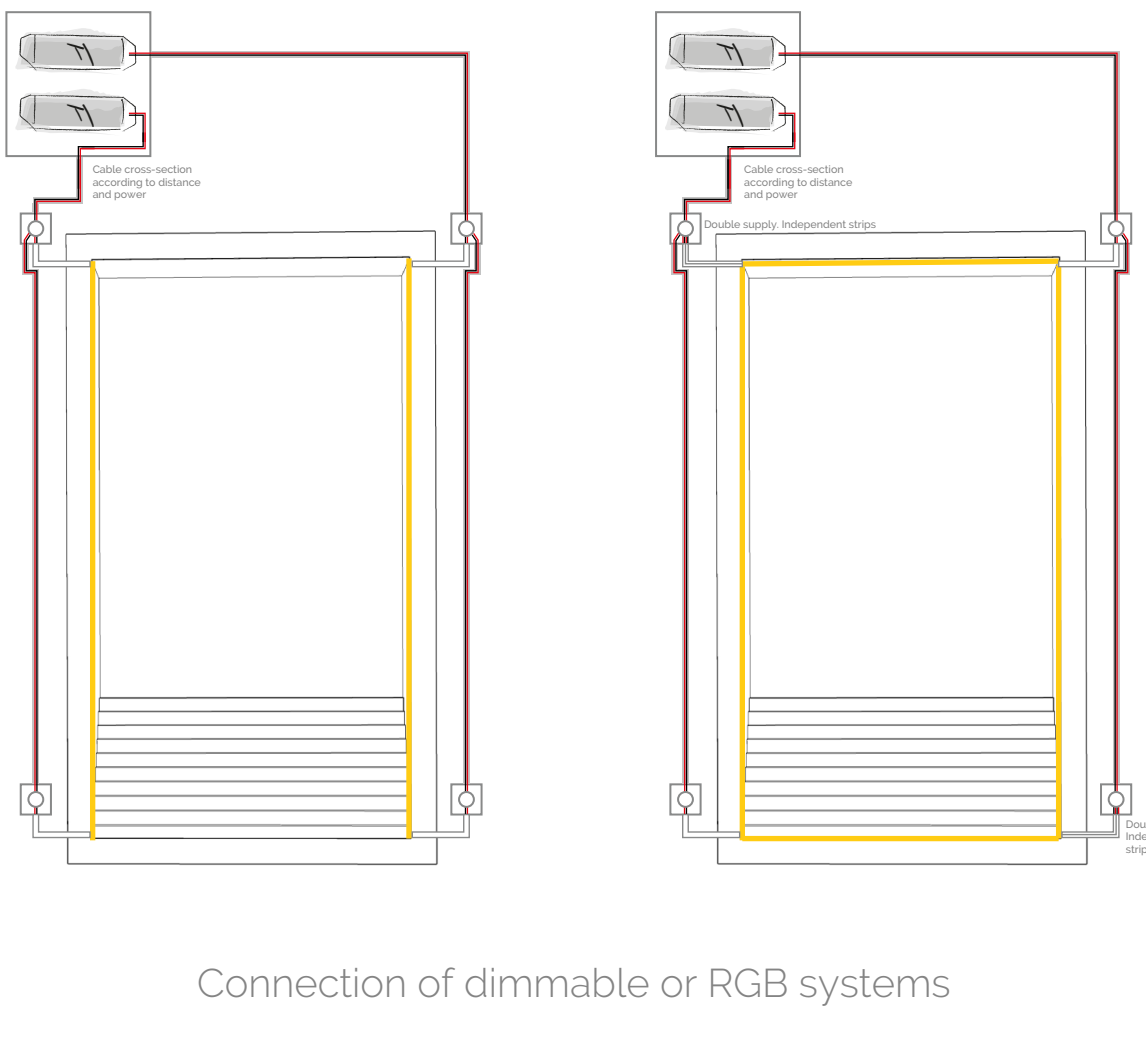
Reserve space for wiring and end caps

The dimensions of the end caps of the strips should be taken into account in order to adapt the cavity, hide the ends or any other similar action. The system allows for scenarios to be created that produce atmospheres and, at the same time, save energy.



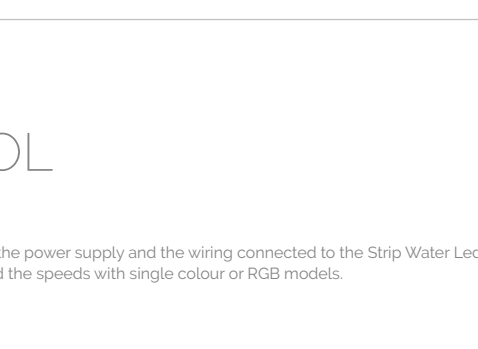
CONNECTION

Connections inside the pool tank (even if they are out of the water), made with heat-shrinkable sleeves or adhesive tapes or using connectors or boxes without adequate protection **will result in the loss of the product's guarantee** as well as all from the connected to the same power supply line. The connection of the cables must be carried out in a place away from the pool tank, using connectors or boxes with IP68 protection, ensuring that both the inner cables and the outer sheath are sealed watertight.



Connection of dimmable or RGB systems

In this type of installation, the control devices are placed between the power supplies and the Strip Water Led, respecting the connection diagrams and arrangements explained above. The number of controllers or amplifiers shall be the same as the number of sources required.



CONTROL

The user can choose a simple lighting, without dimming, or insert controllers between the power supply and the wiring connected to the Strip Water Led. In this way he can control the intensity, the tone, the play of light and the speeds with single colour or RGB models.

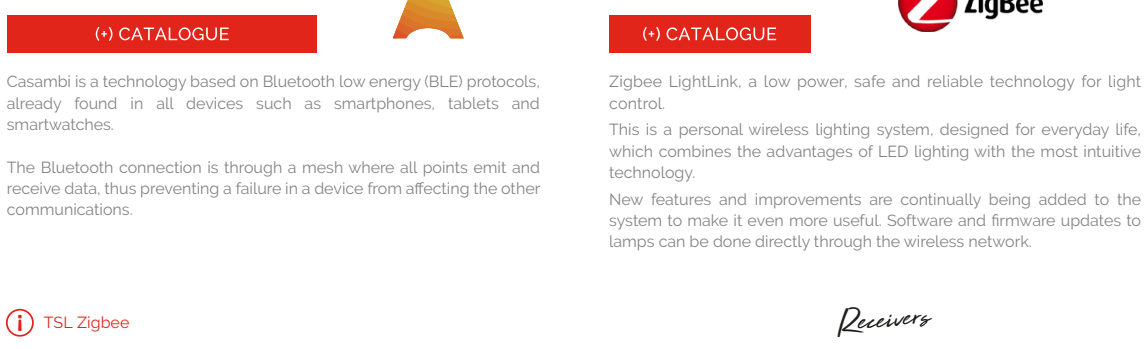
Radio frequency control

TSL 1009 Family

Designed for RGBW and CCT control, colour controls and CCT change controls. It consists of simple emitters, and you can change the intensity, colour and other more complex aspects with automatic changes and scene memory. Mechanisms can use touch, a wheel or a remote, and the entire family is compatible with WiFi systems.

TSL 2501 Family

A wide range of single colour controllers that combines receivers with built-in, surface and remote control emitters. This family allows for lights to be controlled from different points or from a single emitter towards several lights.



Domotic systems

TSL DALI Family

DALI is an interface for all types of professional lighting solutions. This is an open-protocol standard for adjustable electronic device with easy communication and individual or joint control of up to 64 groups. The entire installation is undertaken with two-wire electrical cabling, facilitating the installer's work.

TSL KNX Family

KNX is a protocol for communication between electronic devices that encompasses all possible areas, from safety, communication, and blind control to irrigation control, climate control and lighting. Nowadays, this type of installation is mainly undertaken in industrial and office buildings, for the purpose of energy management and system automation.

Tecsoled has begun its KNX system journey with two decoders that allow for single colour and RGBW strips to be integrated into installations.

Wireless systems

TSL Casambi

Casambi is a technology based on Bluetooth low energy (BLE) protocols, already found in all devices such as smartphones, tablets and smartwatches. The Bluetooth connection is through a mesh where all participants send and receive data, thus preventing a failure in a device from affecting the other communications.

TSL Zigbee

ZigBee is a personal wireless lighting system, designed for everyday life, which combines the advantages of LED lighting with the most intuitive technology. New features and improvements are continually being added to the system to make it even more useful. Software and firmware updates to lamps can be done directly through the wireless network.

