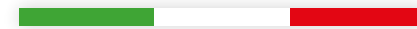


MADE IN ITALY



# CREATIVITY TECHNOLOGIES MATERIALS

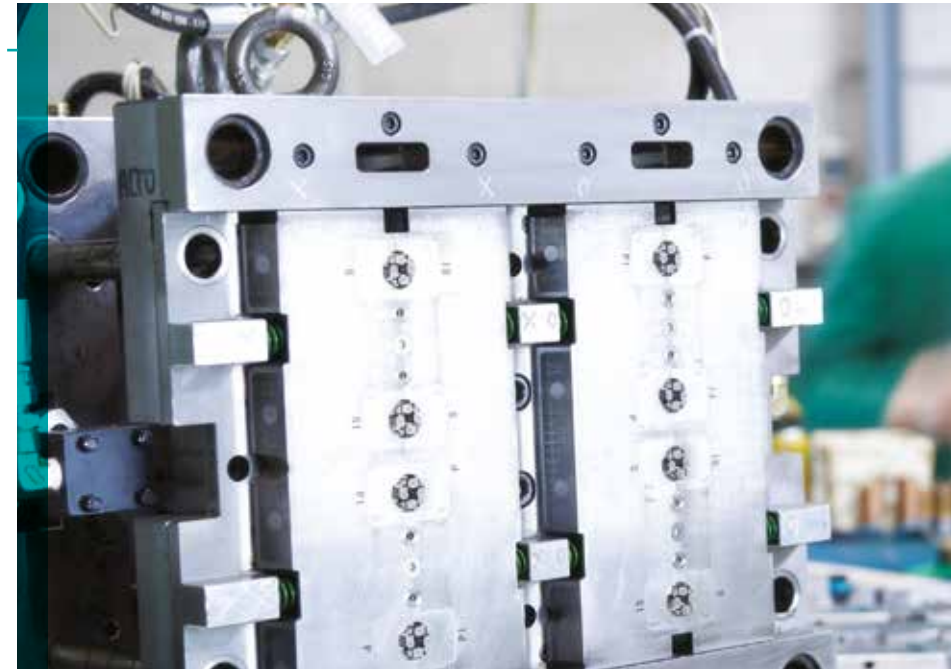
**High-performance  
electrical connections**



Prestigious highlights in partnership with international groups.

# 30 years of experience

**a single target:**  
to increase knowledge of the electrical connections market to develop high-performance and high-reliability solutions, which guarantee higher cost-effectiveness in use.



**Founded in:** 1986

Company privately held and family owned.

**Background:** specialization in the design and manufacture of small high-tech articles in plastic.

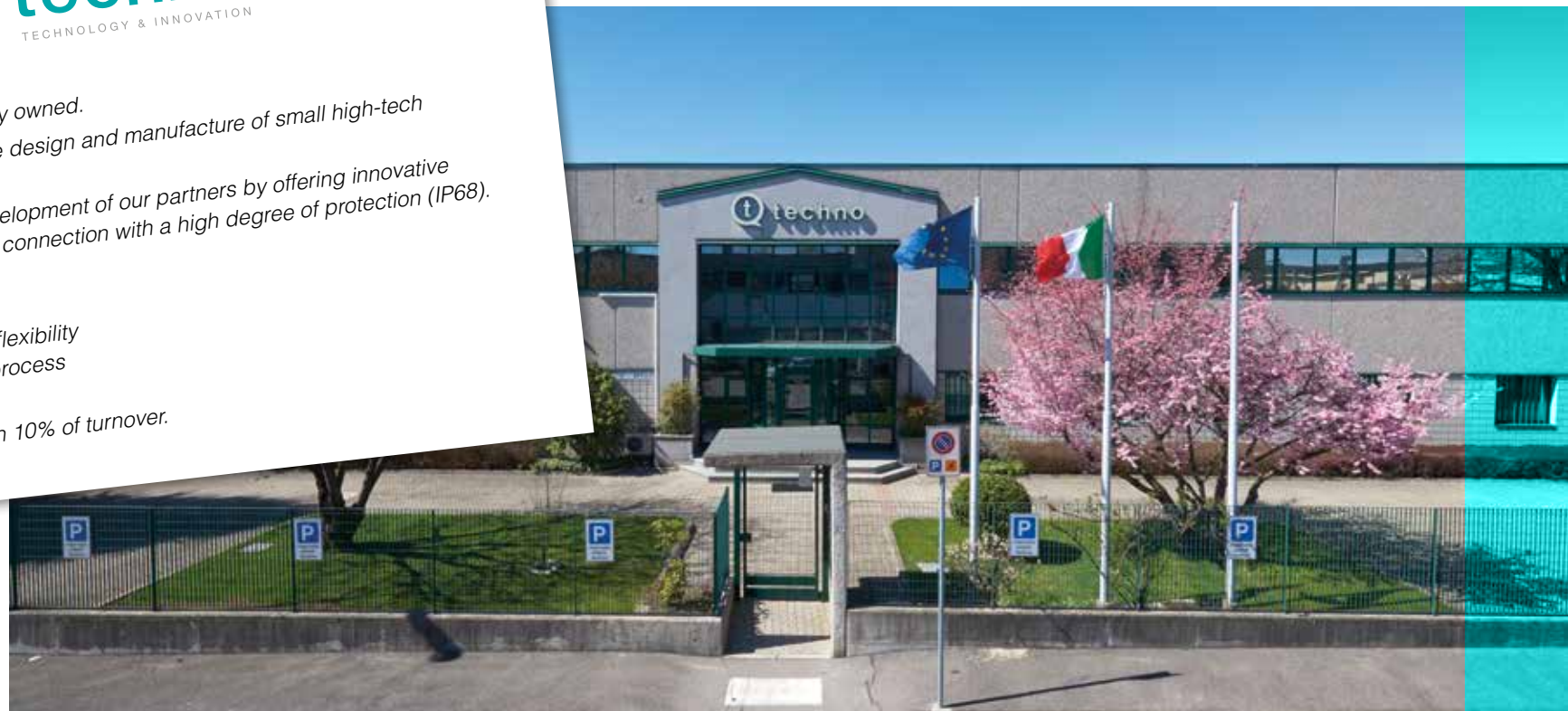
**Mission:** to contribute to the development of our partners by offering innovative solutions in the field of electrical connection with a high degree of protection (IP68).

**Strengths:**

- Short time-to-market
- Operational and commercial flexibility
- High quality of product and process
- Reliability

**Investment in R&D:** more than 10% of turnover.

Exporting to 60 countries.





## 1986

### F1 Ferrari ignition engine system

In cooperation with DuPont. Use of PET material with mineral charges to ensure dimensional stability and concentricity tolerance between the two components of the ignition system.



## 1990

### Washing machine filter

Use of molds with Vascomax special steels to ensure maximum productive efficiency and minimize the wear and tear of the mold over time. This resulted in a top quality production, that is none of the holes of the filter got blocked during manufacturing.



## 1994

### Industrial Multipole Connector

In order to prevent overheating of the mold, VORTEC cooling systems were applied on the injection molding press.



## 1998

### Mobile component for Olivetti printers

In cooperation with LATI. Search for a self-lubricating plastic material to reduce the wear and tear of the mobile parts of Olivetti printers.



## 2000

### Linear junction connector (IP68)

In&out screw connector suitable for fast and reliable wiring in outdoor installations (even if submerged).

-40°C  
+125°C

-30m  
(3bar/2h)

RESIN-GEL  
FREE



## 2004

### Compact T-shaped junction box (IP67)

Installation of a IP67 junction box in a terminal box for the connection of LED devices.



## 2010

### Water-proof junction boxes (IP68)

Their high adaptability combined with their excellent technological value make our connections an effective solution to various needs.



## 2012

### Plug and Socket connectors (IP68)

More poles in less space. The conception of circular connectors allowed us to obtain compact size solutions and electrical performance up to 25A.



## 2016

### Miniaturization at the highest level

TH 381 is the smallest 2 poles plug and socket connector in the market with IP68 protection.



# Creativity, technologies, materials

Three development and research areas which allowed us to offer such high-level products, increasing their global cost-effectiveness in use.

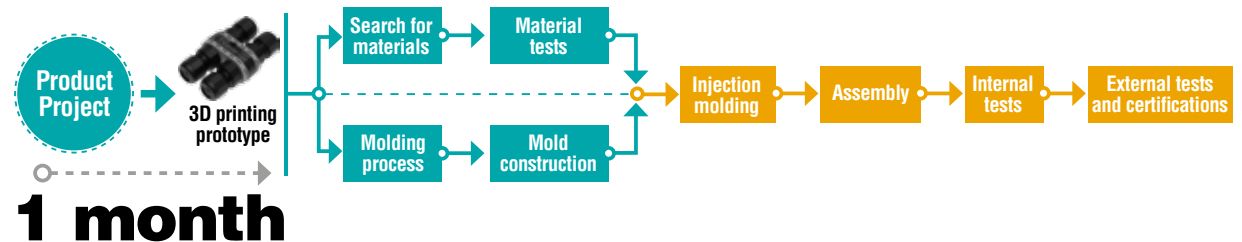


## A clear strategic vision.

It ensures a continuous growth that represents a long-term guarantee for industrial and commercial partners. Creating long-lasting partnerships is a real competitive advantage.

The quality of materials, innovative proprietary technologies and an accurate analysis of the operative conditions of application allow our different teams of experts to design, prototype, realize and test solutions for electrical connections under the most extreme conditions.

The continuous research, the close partnership with customers, the constant investments in people and plants make Techno a strategic element in the plant design and supply chain.



## Process standard.

Techno develops new products rapidly thanks to process verticalization, ensuring guarantees at all operative levels.

## Reliability.

Techno designs upon specific customers' requests putting its deep electrical and mechanical know-how at their disposal, as well as its knowledge of international regulations.

## Time-TO-market.

The modularity of the productive process guarantees a further benefit in terms of time and delivery methods in each development and production phase.

## Flexibility.

The meticulous productive procedures and the layout of the industrial plants ensure both quality and flexibility.



*Forefront processes and technologies.*

*100% quality starting from the search for raw materials.*



**The construction of the tools is verticalized**

A high-level mold makes up 50% of the quality of the product. The mold construction phases are monitored internally to guarantee quality. The construction of molds for micro-objects molding with extremely low tolerance margins is the know-how which gives us competitive advantage.

**Innovative automated plant for the dehumidification and heating of materials**

The preparation of the materials is strategic. The automation of the process ensures productive efficiency and allows the management of various materials, as well as the automated distribution of the materials to the presses. The full-electronic management allows an energy-saving of 30%.

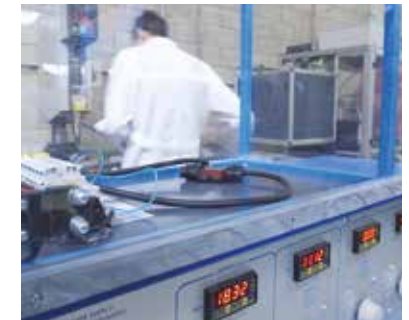


**Rotational molds for the co-injection of two or more materials**

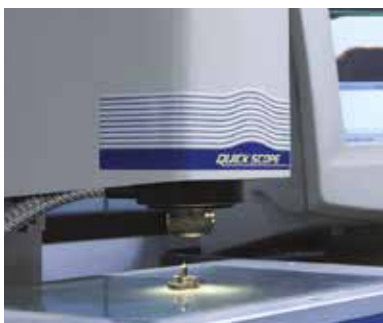
Complex molding that needs high-quality production. The productive process is more efficient. Thanks to a product design which reduces the number of components and production phases, we can obtain more functional products. We provide end users with added value, reducing the cost of the product.

**Electric tests for high-level performance**

Our laboratory is able to perform electrical tests to ensure thermal parameters (to prevent overheating) and under stress tests beyond the requirements of legislation. It is also able to do personalized tests for every customer.



*Station for electrical and thermal testing up to 150V and 50A (AC/DC)*



### Maximum quality guarantee

A team of experts performs a testing protocol on the products every day in accordance with the international legislation (e.g. dimensional survey, analysis on materials, mechanical tests on molded items).



### Material tensile and compressive strength testing

We have acquired high know-how on testing to ensure the best use of materials. The continuous research and the cooperation with the biggest international polymer manufacturers enable us to obtain more and more performing products.



### Product impact resistance testing up to IK10

We perform testing to guarantee the product resistance to unexpected impact and check that the product is suitable for installation under heavy mechanical conditions.

### Fast customized "Private labelling" by using laser

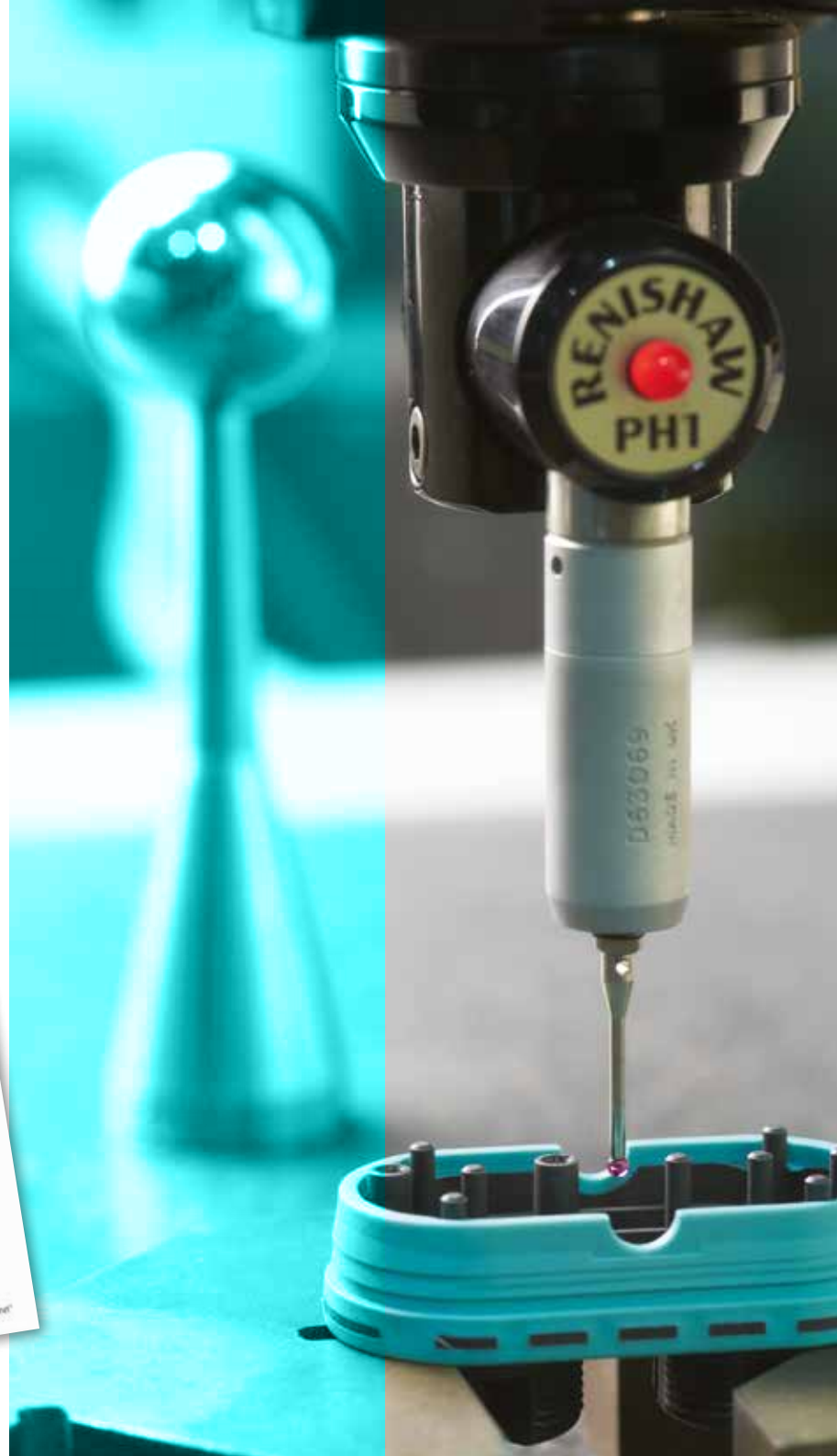
For over 30 years we have been designing and realizing new electrical connections solutions upon international customers' specifications, taking very short time to develop, prototype and produce them. This paves the way to potential strategic collaborations with companies involved in the supply chain of all industrial sectors.

### Forefront logistics, next day delivery

The "lean" philosophy is an essential part of our culture. The production management performed using the KAN-BAN system allow us to provide products "just in time." We make use of all our energy to increase the value of the relationship with our customers in terms of trust, punctuality and professional fairness.

### Patents and certifications

Techno has been certified ISO9001 since 1992, the first company in its sector.



# Co-molding of gaskets

The study and the choice of materials, together with the use of new generation machines and technologies, allowed us to put in action a definitely revolutionary idea to eliminate the resin sealing of boxes and connectors: **to mold the entire connector in only one solution.**



**RESIN-GEL FREE**

**IP68**



**Excellent sealing property of gaskets**

**Fewer installation failures**

**Chemical-mechanical adherence**

**Higher resistance to external stresses**

**Fewer components**

**Quick installation**

# A wide range of standard products: **TEEfamily<sup>®</sup> solutions**

Thanks to our solid expertise in the production of molded plastic components, we have designed and manufactured a range of connectors that has ensured top performance and extremely high reliability in thousands of applications for years, reducing the installation costs.



**Circular junctions**



**Junction boxes**



**Current distributors**



**Plug&socket connectors**



## High protection (IP68).



Techno's international experience has resulted in the TEEfamily®, an innovative range of products based on four variable costs.

### 1. Lean manufacturing.

**Purchasing and storage:** the same performance given by a Techno IP68 connector, needs more products (a box, cable glands, a terminal block, a resin IP68 kit and processing techniques to assemble the product). With lean manufacturing processes, Techno ensures maximum storage optimization.

### 2. Full Proof.

**Simplicity, functionality, quickness,** often eliminating additional processes (e.g. resin sealing) and standardizing operational modalities. It is important to underline that the quality level of the plant is guaranteed independently of the operator.

### 3. Maintenance:

It is the plant to require maintenance, not the product supplied by Techno which does not add critical points. **Techno's connections simplify also planned operations** and emergency intervention.

### 4. Reliability.

**The quality of the materials,** the continuous stress tests and the technologies applied make sure that the products are resistant to any stress, even in the most adverse environments.

## Circular connections      Linear connections



# Compact.

## Innovative IP68 cable glands



## Quick cable ties



# Cable glands.

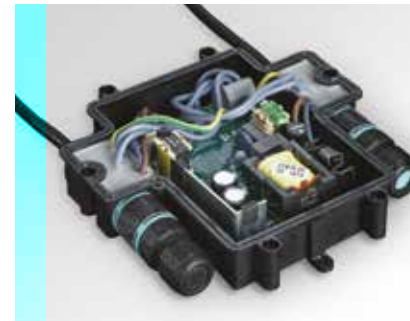
Transparent, colored, branded products, designed with specific dimensions.

# Ad hoc solutions for every partner

With such a wide range of standard products designed with dimensions and functional characteristics upon customers' specifications, offering ad hoc customized solutions was the next step for a company which was born to be a partner. Thanks to the change of material it was possible to meet the compatibility specifications required by installations in special environments.



*Manufacturing and configuration of the product upon Targetti's specifications.*

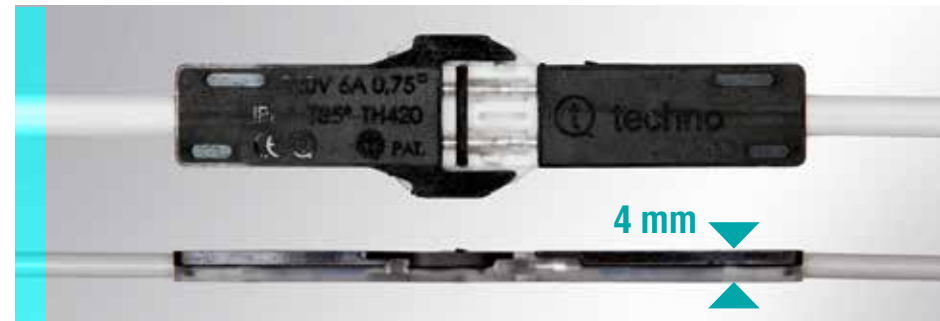


## Targetti.

In cooperation with Targetti we have designed and produced a junction box to contain the control circuit of a LED device. IP68, equipped with TH387 connectors (4-way plug&socket) has been supplied wired and designed to prevent water infiltration and potential condensation in the wire (xDRY technology).

## TH420 plug&socket connector.

This is the only IP67 4mm thick connector on the international market. It was expressly designed and produced for floor heating applications.





### **Lighting.**

LED, architectural, urban, street, walkable, water submersion, events, swimming pools, trade fair stands, lighting display, stadiums.



### **Installation.**

Indoor/outdoor electrical installation, junction boxes, switchboards, cable trays, gate and door automation, CCTV.



### **Industry.**

Automation, industrial machines (wood, food and drinks, packaging, bottling, assembly, etc.), Robots, control systems, industrial cleaning, engines.

## **Partners**

**Philips • Osram/Siteco • Schreder • EBM-Papst • Gewiss • Targetti • Ensto • Disano • Ares • Performance in Light/SBP • Simes • iGuzzini • Fivep/Cariboni • Artemide • Mareco • Detas • Lapp • Bft • OBI • LeroyMerlin**

### **Infrastructures.**

Road, Tunnel, airport, port, underground, railway, bridge, emergency signs, dam, sports facilities, cable car.



### **Transport/ Navigation.**

Railway, tram, underground, navigation, shipbuilding, marine lighting, yacht, bus, caravan, light signaling, cable car.



### **Energy production plants.**

Wind, solar, biogas plants, inverters.

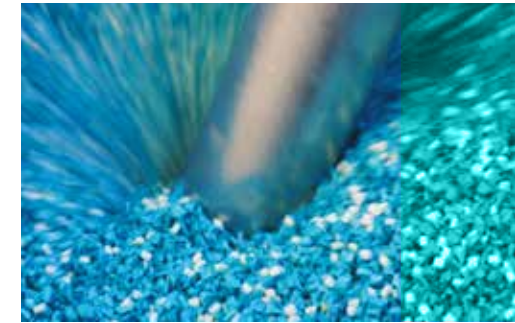
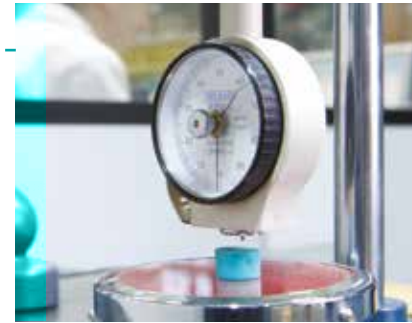


Tested and certified high-performance.

# Ozone, UV, chlorine, ammonium and hydrocarbons are not a problem anymore



Environmental and UV test.



In order to provide electrical connection solutions **in compliance with the international regulations**, we have invested in the search for materials and productive technologies which have given our designers the opportunity to **improve the quality levels continuously**.

The experiments carried out in our laboratories and the testing procedures in adverse environments have led us to activate specific testing protocols. **Testing our products under stress** is a peculiarity which has allowed us to obtain extremely high performance as for our standard connectors as well, which have been tested in the field to **resist to humidity, water, dust and aggressive chemicals**.

**UL94 V2/V0 Yellow Card materials:** their exceptional mechanical and temperature resistance increases the advantages of use further in all sectors.

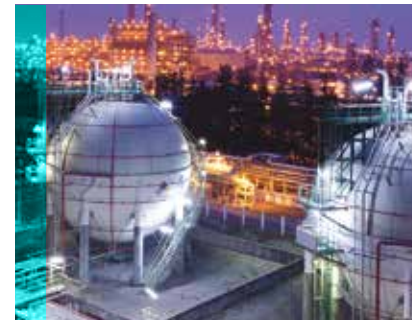
The new **anti condensation xDRY and IP68** models without additional resins sort out all the connection problems even in submersion or with wires of different dimensions.



Halogen Free



Silicon Free



## Use of special materials with the following characteristics:

- Resistant to hydrocarbons
- EMC material for shielding
- High resistance to chemical agents
- Excellent characteristics as for abrasion and sliding
- Low water absorption and good dimensional stability
- Excellent resistance to impact at low temperatures

The materials used by Techno are **Glow Wire** capable up to **960°C**.



*Products made with antistatic materials for use in equipments according to ATEX 94/9/CE.*



*Innovation  
in the raw material  
management.*

The cheapest system to keep  
the maximum quality standard.

# - costs + reliability

## The strategic impact of connections.

The connection systems designed and manufactured by Techno for the most extreme conditions, represent the definitive, cheapest, customized and complete solution for those who design and make distribution plants, public and private lighting and also for those who produce and install operating machinery, household electrical appliances, vehicles and boats, as well as special plants which need a guarantee of maximum reliability.

**Easy to install and maintain, safe and reliable over time. Also electrical connections become a source of profit.**





# Market specialization

We develop ad hoc electrical connections which are not present in our high-performance range yet. Techno has always aimed to provide a quick response to the needs of customers who have to include high-quality electrical connections in their own products list.

This is why the design upon specifications, the development of particular solutions with innovative materials and technologies, and finally precision production are characterized by wide knowledge and the constant development of three key sectors.

## Lighting.

Public lighting and LED lights are applications where the solution provided by Techno offer great certainties. In outdoor installations, the reliability offered by a range of connectors which are resistant to water, mud, organic substances, moisture and corrosion, together with easy and quick high-quality connection, ensures a considerable saving in terms of installation and maintenance.

LED, instead, means compatibility with new generation devices, small dimensions and the elimination of junction boxes, as well as extremely high performance in tiny spaces.

**Urban or industrial,  
always small and easier  
to use connectors.**

## Automation.

Also in the industrial sector Techno provides alternative connection solutions.

Industrial applications on operating machinery often require wiring with screw connectors, small and light plastic solutions, compact and quick cable junctions and also resistance to external agents typical of some industrial processes and environments (industrial cleaning, submersible pumps, processing machines, diggers).



## OEM.

- Operating machinery, engines, pumps
- Utilities
- Water, Oil, Gas
- Naval, marine
- Agriculture, livestock, gardens
- Wellness, swimming pools, air conditioning, heating cables
- Energy production plants, renewable energies
- Transport
- Vending
- Household electrical appliances



# xDRY

ELECTRICAL  
CONNECTORS IP68  
ANTICONDENSATION

## Smaller, faster, error-proof

A specific technology of twin-injection of seals for waterproof installations (IP68) which also guard against condensation inside the cable. Smaller, faster, error-proof: Innovative design and insulation piercing screw terminal blocks. Compact for installation in tight spaces. Versatile for use in a variety of plant and machinery and especially in harsh conditions.

[www.xdry.it](http://www.xdry.it)



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TECHNOLOGY & INNOVATION

Techno s.r.l. Via Bancora e Rimoldi, 27 • 22070 Guanzate (CO), Italy • +39 031 976445 • [www.techno.it](http://www.techno.it)