



SOLUTIONS
assembly & connectors

FOR LIGHTING

SOLUTIONS DESIGNED AROUND YOUR BUSINESS

A&C Solutions is a connector & harness distribution specialist that offers a tailor made solution to any application and delivers high quality supply chain services to its customers anywhere in the world.



Connector specialist for lighting

A&C Solutions specialises in connector solutions for the lighting industry. With a small team of professionals with over 35 years of experience in connectivity, we help you find the right connector solution for your lighting application. Lighting involves a broad spectrum of applications that vary a lot in their functionality and requirements. A&C Solutions works together with complementary connector manufacturers that each have a leading reputation in their lighting business field. This means we can offer you the latest connector technologies & designs for your market. These include:

- A piercing technology to connect wires directly to a PCB board
- Watertight connector series with anti-condensation features
- A great variety of board-to-board/wire-to-board connectors

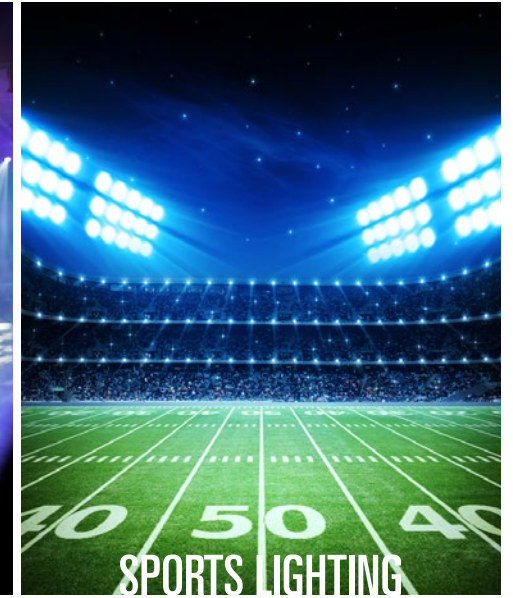
Your partner in customization & logistics

Besides the broad scope of connector solutions, A&C Solutions can also further assist you with designing your connector into a customized cable assembly. Also when you require a tailor made connector solution, you can count on our flexibility and short lead times to bring your project to a successful end.

Besides this, A&C Solutions works with you to reduce your stock and to ensure a timely delivery of each consignment. And of course, you can always rely on A&C Solutions' on-going stock for a large part of the conventional lighting connector solutions, delivered to you within 24 hours. Altogether, this makes A&C Solutions a real partner for the lighting industry.



CONNECTOR SOLUTIONS FOR A BROAD SCOPE OF LIGHTING SEGMENTS



OUTDOOR LIGHTING

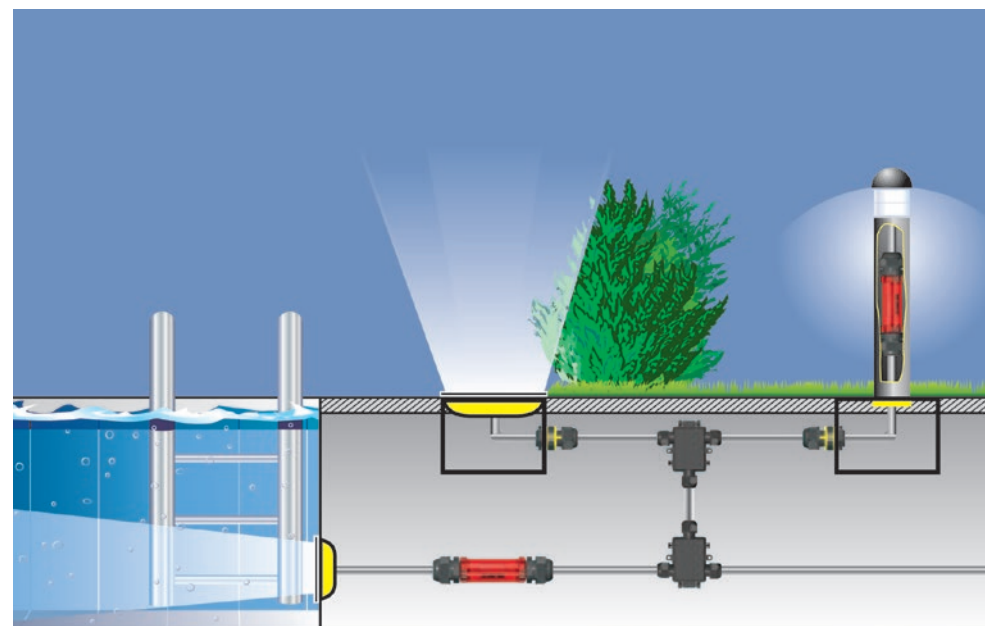
Outdoor lighting applications all have one thing in common: the need for high degree water protection connectors.

This is the drive behind connector brand Techno who has developed a broad range of innovative injection moulded connector solutions that offer the highest degree of protection (up to IP68). Part of the range even has an extra anti-condensation shield. This shield prevents moisture condensation, which runs through the cable, from entering the connector, thereby protecting your application in critical conditions of use.

What makes Techno connectors even more attractive for many lighting applications is the fact that they offer:

- compact designs to operate in tight spaces
- reliable connections resistant to the most demanding environments, including chlorine
- quick installations due to the use of insulation piercing clip terminal blocks
- error proof connections due to the co-moulding of gaskets which prevent seal leakage and improper installation from happening

Techno connectors can also be easily pre-mounted onto your lighting application to make an electrician's work child's play and to prevent installation errors from occurring.



By far the main strength of the whole line is its multi usability throughout many lighting segments. The range includes in-line cable joiners, junction connectors & boxes, plug & socket connectors and terminal blocks, all available as separate components.

TECHNO



OUTDOOR LIGHTING

Junction connector

available as anti-condensation version



Plug & socket connector

available as panel mount/
moulded cable version



In-line cable joiner

available as anti-condensation
version/moulded cable



Tube connectors

are available in I,L,T,Y type

xDRY connectors

xDRY contains a wide range of fixed and plug & socket connectors for quick, reliable and flexible installations. Plug & socket connectors from Techno have a threaded locking nut and special designed gaskets to ensure a safe locking and maximum protection of your application. These connectors also offer interchangeable terminal blocks allowing for maximum user flexibility. Besides, they are all perfectly resistant to humidity, chlorine and fluctuations in temperature (-50°C up to +110°C).

Plug & socket connector



TECHNO

OUTDOOR LIGHTING



IP68 junction box and current distributor

A reliable and fast connection is obtained by a built-in connector. The co-moulded gasket prevents seal leakage or improper installation.



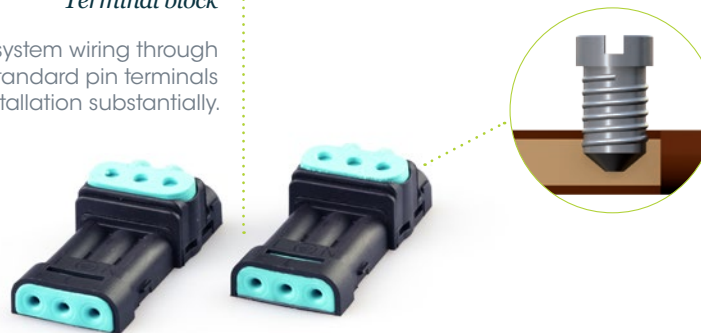
Ultra slim plug & socket connector

This ultra slim plug & socket connector is only 4 mm thick and has 2 poles / 6A with an IP67 degree of protection



Terminal block

These terminal blocks offer a double system wiring through insulation piercing clip terminals and standard pin terminals thereby speeding up the installation substantially.



TECHNO



OUTDOOR LIGHTING



*Higo signal connector
mini B-type*



*Higo signal connector
mini C-type*

Higo

Higo has a compact range of connector solutions up to 6 poles with a high level of protection (IP66/67), available with a push or threaded locking system. The main strength of Higo lies in the fields of R&D excellence and flexibility in developing customized connector solutions and cable harnesses on demand. Higo connectors are ideal for bike lighting and outdoor use of LED strips.

Shield

Shield offers an extensive range of M8, M12 and 7/8 inch connectors allowing a high level of customization in material, size and colour.



*Shield range of 7/8
inch connectors*

Shield M12 connector



JST

The JWPF square/rectangular connector from JST incorporates a unique technology to seal wires individually. This non-moulded connector is available in wire-to-wire and wire-to-board version and offers an IPX7 level of protection.

*JWPF connector with a solid rubber
seal for wire sealing*

HIGO/SHIELD/JST

PROJECT IN THE SPOTLIGHTS

Developing a modular system to illuminate a passage way

A&C Solutions received a request to build a flexible modular system to reduce field installation time. The system's requirements were to have a tailor made chain of connections with a flexible number of branches and different cable lengths. This project was set up by A&C Solutions in conjunction with our brands Techno and Shield. A&C Solutions decided to go for the Techno in-line cable joiner with an adjusted sealing to allow a multi cable entry at one side. The compact M12 connector from Shield was chosen to connect each LED with the loom. By using this plug and play system, our customer was able to illuminate a long passage way. Meanwhile they managed to reduce field installation time to a minimum since these looms were already pre-assembled at our partners' production location.

This project clearly illustrates the multi-usability of A&C Solutions' outdoor lighting assortment and the complementary character of brands.



An illuminated passage way

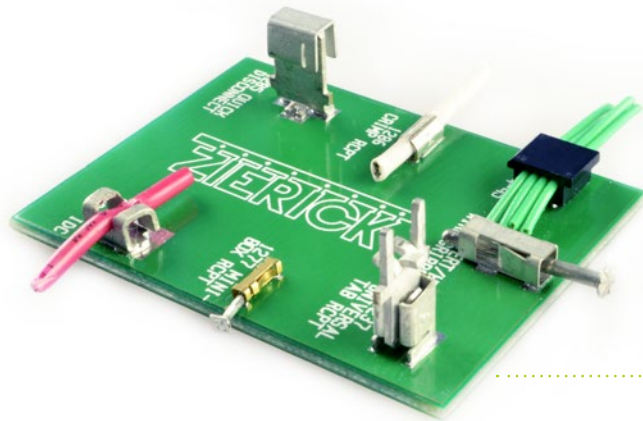


Loom with Techno in-line cable joiner & Shield M12 connector

TECHNO/SHIELD



INDOOR LIGHTING

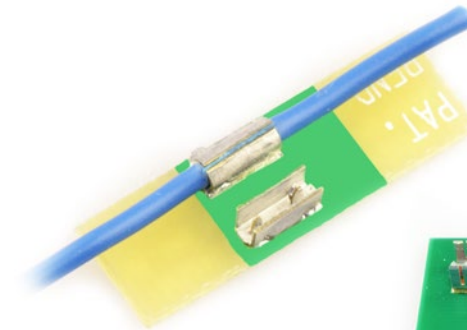
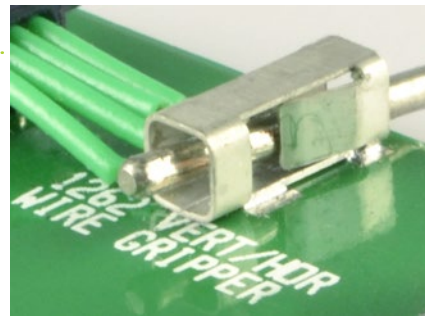


Tab receptacles and surface mount IDC

When it comes to LED strips, it is very important to have compact connector designs that don't affect the luminescence angle of the strip. Just as important is the easy and reliable interconnection of LED strips as it enhances installation and guarantees the long term quality of your application. A&C Solutions' range in this field focuses on smart solutions to connect wires to a PCB and PCB to PCB.

Wire gripper

Wire grippers from Zierick allow customers to easier terminate a stripped wire to a PCB, thereby offering a cost- and time saving alternative for traditional soldering.



Insulation piercing terminal

One of the most innovative technologies of today is the insulation piercing terminal from Zierick where wires are connected to a PCB through an automated process. This technology replaces the labour-intensive soldering process and increases the reliability and the continuous quality of your application substantially. Zierick's piercing terminal is particularly interesting for LED lighting series as the insulation doesn't need to be stripped from the wire and the termination can be made at any place on the length of the wire.

ZIERICK

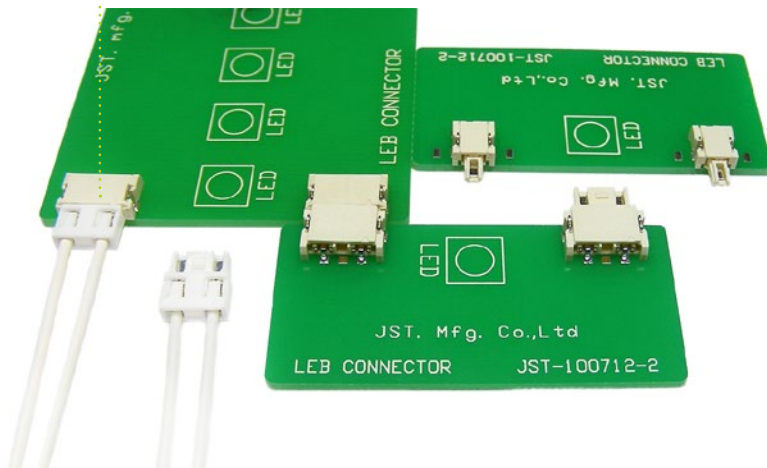
INDOOR LIGHTING



JST offers an extensive range of low profile, space saving solutions to connect wire-to-board and board-to-board. These subminiature connectors offer a reliable contact construction for high-density applications. With extremely small pitches, varying from 1,1 mm to 4 mm, and rated currents upto 4A, they are ideal solutions for LED lighting applications.

LEB connector

With a wire-to-board and wire-to-wire connector in one, JST's LEB connector is probably the most versatile solution within the range. It has a 4 mm pitch size and is available in 1 or 2 poles with a rated current of 3A.



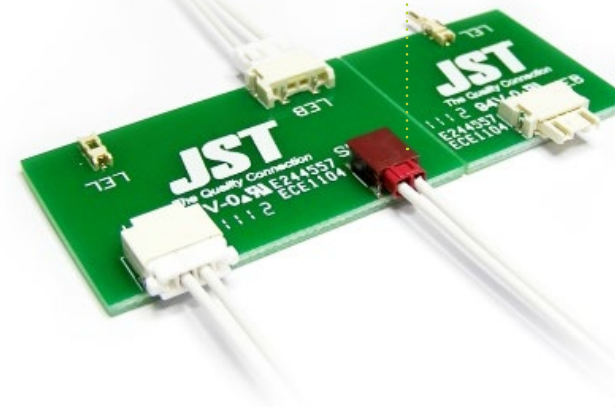
LEL connector

This two piece (plug and receptacle) SMT connector, with a mating height of 1,2 mm and a rated current of 1,6A, offers a simple and direct connection between PC boards and has a mechanism for preventing wrong insertion. These connectors are supplied in tape and reel packaging enabling high speed processing.



SFH connector

With a pitch size of 1,8 mm and rated current of 4A, SFH wire-to-board connectors combine super compact, low profile design with a relatively high current rating compared to its brothers within JST's LED connector range.



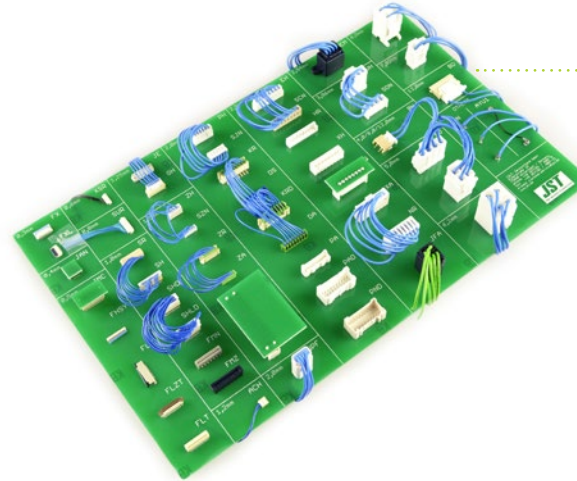
JST



INDOOR LIGHTING

LEH Connector

Due to its top entry style, the LEH connector system offers excellent operating advantages and increased flexibility towards lighting designers. This 1,8 mm pitch, 2 way wire-to-board connector has a mounting height of 3 mm and is therefore perfectly suitable for all general LED lighting applications.



Wire-to-board crimp style/
IDC connectors



LEX Connector

The LEX connector is a 2,5 mm pitch, bottom entry SMT connector and available in 2 circuits. It is designed for maximum PCB flexibility with a mated height of only 3 mm and a 3A current rating.



LEN Connector

The LEN connector is a 3 mm pitch, side entry SMT connector and available in 2 and 3 circuits. It is designed for maximum PCB flexibility with a mated height of only 3 mm and a 3A current rating.

ACH connector

ACH is a connector ideal for DC power supply. In spite of the small pitch size (1,2 mm), rated current is still 2A for 1, 2 and 3 circuits and 1,5A for 4 circuits.



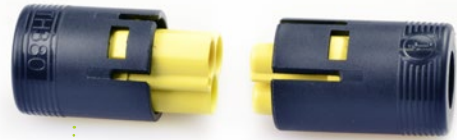
JST

INDOOR LIGHTING



A&C Solutions also offers a variety of compact, flexible, high-performing connector solutions for all kinds of indoor LED lighting applications.

Part of this range are the mini-plug & socket connectors from Techno which are able to provide a protected installation in very small spaces. These connectors are available with interchangeable terminal blocks, various types of locking and are quick and easy to install. They offer easy wiring and are perfect to couple lighting internally.



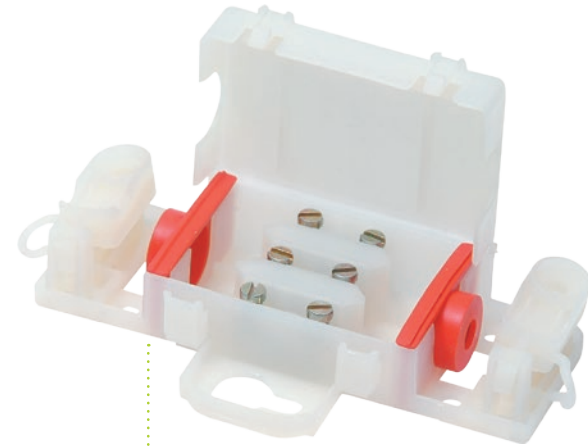
Mini plug & socket connector
without cable clamp



Mini plug & socket connector
with cable clamp



Internal lighting



Terminal block

With its small dimensions (only 13,5 mm thick), this compact terminal block is ideally suited for small spaces. It offers a reliable solution for a great variety of lighting applications because of:

- the use of special seals that ensure a firm hold to different cable types.
- the integration of a dual-use cable clamp (one side for flat cables, the other for cables with a diameter up to 9 mm).



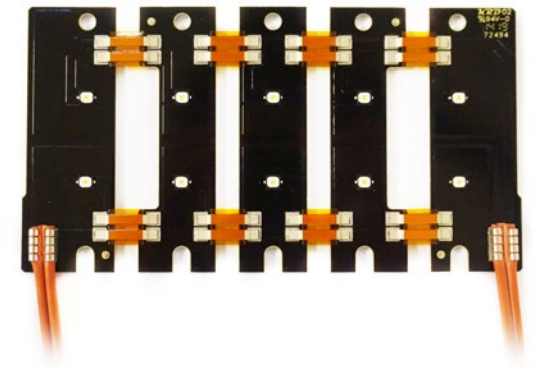
*Navigation lighting
for small vessels*

Navigation lighting for vessels

A company active in navigation lighting for maritime applications spent a lot of time hand-soldering wires to PCB's. When we met them they were looking for an alternative, time-saving connector solution that could also help them enhance the quality of the connection. For the first lighting application used in small vessels, A&C Solutions advised to use the wire gripper from Zierick to simplify and speed up wire insertion on a PCB. For the lighting application used in large vessels, our customer worked with a twin cable that up to now had always been hand-soldered one by one. By introducing Zierick's piercing terminal, they were now able to crimp the two wires simultaneously through an automated process which resulted in significant time savings. Both connector solutions also allowed them to achieve a higher reliability and continuous quality of their navigation lighting systems.



*Navigation lighting
for large vessels*



CABLE HARNESSES



When you need to design your connector into a cable assembly, A&C Solutions can provide you with an interesting alternative to do this in-house at attractive conditions.

A&C Solutions works with various, certified (ISO9001) production locations in Eastern Europe and China. These plants are specialised in cable assemblies and are fully equipped with the latest technology to ensure optimal cost-efficiency.

Being a connector distributor, A&C Solutions is able to offer you the best match in custom assembly because it has:

- the stock
- the right knowledge
- the right connector tooling
- and the best price

This means that by assembling your connector with A&C Solutions, you will decrease your direct- and indirect costs substantially and at the same time you are assured that your connector is assembled according to your specifications.



Production site China



TAILOR-MADE LIGHTING SOLUTIONS



You can find the following brands through **A&C Solutions**:



Higo



Binder



Zierick



JST



Provertha



Hummel



Techno



Shield



Westec



Amphenol



Essentra



Glenair



Stocko



Lear

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