

CONNECTORS FOR THE LIGHTING TECHNOLOGY INDUSTRY





OVERVIEW

Lighting technology continues to evolve at a rapid pace, with new and innovative designs constantly emerging to help massively reduce our energy consumption. LED lighting is one of the most important of these innovations, reducing carbon footprints by as much as 70% compared to conventional lighting technologies.

At Northern Connectors, we supply industrial connectivity solutions for a wide range of lighting applications to help facilitate the continued growth and development of this market. Offering high-quality connectors and wiring systems from leading manufacturers, we provide solutions for both stable and harsh environments, helping companies to unlock the significant benefits of LED lighting.

All of the connectors we supply are manufactured to the highest standards, using special plastics and other high-grade materials, and offer guaranteed durability and regulatory compliance.

Our range includes widely-used products from leading manufacturers, including:



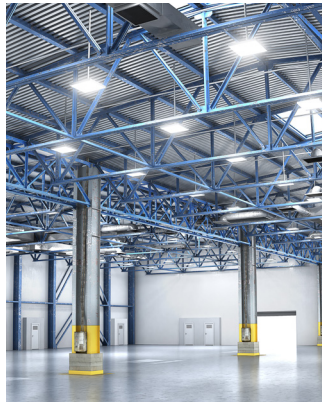
No matter what your specific requirements may be, Northern Connectors can provide you with tailored guidance and advice across the entire buying process, helping you make the best decisions and purchase the right products for your business.

SECTORS AND FIELDS OF APPLICATION

Products from Northern Connectors are utilised across a wide range of lighting applications, helping to provide advanced LED solutions for indoor and outdoor use. Specific applications include:



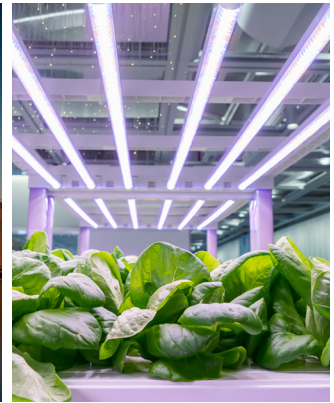
Architectural Lighting



High Bay Lighting



Leisure



Smart Agriculture



Smart Motorway Gantries



Stage Lighting



Street Lighting



Tunnel Lighting

OUR CONNECTORS

Northern Connectors supplies a broad selection of durable, high-performance connectors for lighting technology applications, including products from some of the industry's leading manufacturers. We explore some of these below:

Binder Snap-in IP67 Connectors (720 Series)

Binder's snap-in IP67 series of waterproof miniature connectors are designed to be suitable for harsh environments, using a simple locking mechanism to deliver reliable performance across a wide range of applications.

With its aesthetically pleasing modern design principles, the 720 series has proven a popular choice since its introduction. Its field-attachable cable connectors feature solder cup termination, with two-metre single-ended overmoulded cable versions also available for all pin configurations.

One unique aspect of these connectors is the design of the panel receptacles, which are front-mounted and rear-fastened as standard. With two optional panel adapters, they can be easily switched to a rear-mounted, front-fastening configuration or flush-mounted to reduce the risk of accidental damage.

Features and Specifications:

- No. of Contacts: **3-12**
- Locking Mechanism: **Snap In**
- Termination: **Solder Cup, Dip Solder**
- Wire Gauge Max: **0.75mm²**
- Cable Diameter Range: **2.5-8mm**
- Voltage: **60-250V**
- Current: **2-7A**
- Ingress Protection: **IP67**



Binder M16 IP40 Miniature Connectors (581, 680, 682 Series)

The Binder M16 IP40 miniature connector range includes a broad selection of low-cost circular components, offering IP40 environmental protection and balancing cost, durability and versatility.

With a wide variety of pin counts, shieldable or non-shieldable backshells and termination options, the M16 x 0.75mm locking face has become an industry standard across all sorts of industrial applications, including lighting technology.



Additionally, M16 connectors are available with IP67 environmental protection (the 423, 723 and 425 Series) for applications that require robust waterproofing.

Features and Specifications:

- No. of Contacts: **2-24**
- Locking Mechanism: **Screw**
- Termination: **Solder Cup, Dip Solder, Screw, Crimp**
- Wire Gauge Max: **1.5mm²**
- Cable Diameter Range: **4-8mm**
- Voltage: **60-250V**
- Current: **1-7A**
- Ingress Protection: **IP40**



Hummel M16 Connectors - Signal & Power

The Hummel M16 Signal & Power connector series is optimised for the harshest environments, including lighting applications, thanks to its industry-standard M16x0.75 screw-locking mechanism and IP67/IP69K ingress protection.

These robust waterproof connectors are available in either straight or angled orientation and with a number of cable clamping options. They provide a constant, ruggedised sealed connection across a variety of pin counts and mounting options.

Additionally, inventory levels can be reduced thanks to inserts, contacts and shells all containing their own individual part numbers, allowing users to adjust the setup according to their specific needs.



Features and Specifications:

- No. of Contacts: **3-18**
- Locking Mechanism: **Screw**
- Termination: **Crimp, Dip Solder**
- Wire Gauge Max: **2.5mm²**
- Cable Diameter Range: **2-11mm**
- Voltage: **24-630V**
- Current: **3-20A**
- Ingress Protection: **IP67, IP69K**

Hummel M23 Connectors - Signal

The Hummel M23 connector range features IP67/IP69K ingress protection and industry-standard M23x1 screw locking mechanisms, making them ideal for harsh or challenging environments.

A number of variant options are available, with cable connectors offered in both straight or angled orientations, as well as pin counts ranging from six to 19 providing a current-carrying capacity of up to 20A.

Additionally, inserts, contacts and shells all contain their own individual part numbers, allowing users to adjust the setup according to their specific needs and therefore keep their inventory levels to a minimum.

Features and Specifications:

- No. of Contacts: **6-19**
- Locking Mechanism: **Screw**
- Termination: **Crimp, Solder Cup, Dip Solder**
- Wire Gauge Max: **2.5mm²**
- Cable Diameter Range: **3-17mm**
- Voltage: **100-300V**
- Current: **8-20A**
- Ingress Protection: **IP67, IP69K**



Lumberg Automation M8 Connectors

Lumberg Automation's M8 range includes a wide selection of miniature circular sensor and automation connectors with screw-lock coupling, proving a popular choice with engineers due to its compact design and versatility.

They are available in panel receptacle, field-attachable and overmoulded cordsets, with 3, 4 and 8-way variants. They also offer sealing to IP67 standard in mated conditions, making them suitable for use even in harsh environments.

The field-attachable cable connectors offer improved flexibility and the capacity for users to wire them up onsite using screw termination cavities, without expensive tooling. Meanwhile, the overmoulded cable plugs provide especially good protection from moisture and dirt, and continual compatibility testing with modern chemical substances, cold lubricants and cleaners.



Features and Specifications:

- No. of Contacts: **3-18**
- Locking Mechanism: **Screw**
- Termination: **Solder Cup, Screw, Dip-Solder, IDC**
- Wire Gauge Max: **0.5mm²**
- Cable Diameter Range: **3.5-5mm**
- Voltage: **30-60V**
- Current: **4A**
- Ingress Protection: **IP467**

Lumberg Automation M12 Connectors

Lumberg Automation's M12 range includes a wide selection of miniature circular sensor and automation connectors with screw-lock coupling, and represents the leading product in the manufacturer's connector portfolio.

These connectors were originally designed for automation applications, but have come to be widely used in other industries - including lighting technology - thanks to their compact design and versatile performance.

They are available in panel receptacle, field-attachable and overmoulded cable plugs, with 3, 4, 5, 8 and 12-way variants. They boast a compact and neat shell and sealing to IP67 in mated conditions, making them suitable for use even in harsh environments.

The field-attachable cable connectors offer improved flexibility and the capacity for users to wire them up onsite using screw termination cavities, without expensive tooling. Meanwhile, the overmoulded cable plugs have the option of EMC shielding or stainless steel shells, and most variants can be supplied in straight or angled orientation.

Features and Specifications:

- No. of Contacts: **3-12**
- Locking Mechanism: **Screw**
- Termination: **Screw, Spring, IDC, Solder Cup, Dip-Solder**
- Wire Gauge Max: **0.75mm²**
- Cable Diameter Range: **3-9mm**
- Voltage: **30-240V**
- Current: **2-4A**
- Ingress Protection: **IP67**



Souriau SMS Series (Quick Mating Connectors)

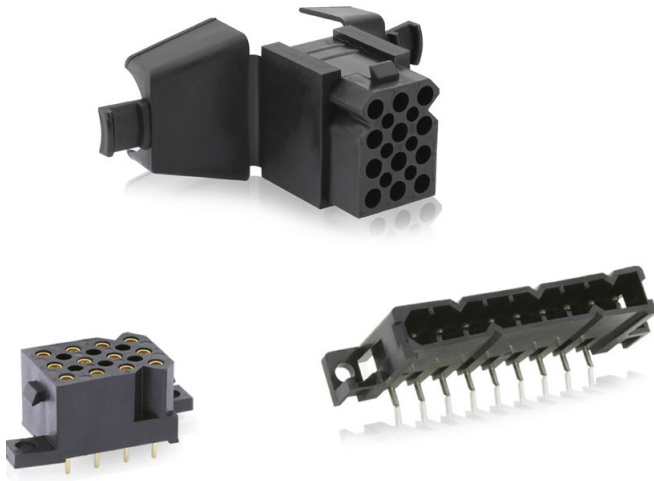
Souriau's SMS Series of lightweight, low-cost connectors allow simple cable to cable or cable to board connections, and are frequently used in lighting and rail infrastructure applications.

Also known as Qikmate or Quick-Mating connectors, these devices offer a cost-effective multiway setup with an easy fit retention latch that allows simple and swift mating and unmating.

Additionally, they offer excellent fire & smoke resistance, while their compact design accommodates up to 36 contacts and is ideal for tight space integration. The connectors also include positive polarisation keys to prevent mismating.

Souriau SMS is one of the most well-established and proven brands in this sector, with product variants available for a range of applications.





Features and Specifications:

- No. of Contacts: **2-36**
- Locking Mechanism: **Latch**
- Termination: **Crimp, Solder Cup, Dip Solder**
- Wire Gauge Max: **2.5mm²**
- Cable Diameter Range: **0.5-24.5mm**
- Voltage: **UL, CSA, IEC Ratings Available on Request**
- Current: **UL, CSA, IEC Ratings Available on Request**
- Ingress Protection: **IP40**

Souriau UTL Series

Souriau's UTL series is a range of circular connectors for use in harsh environments, using a unique latching mechanism to provide the user with a simple but secure connection.

The connectors are made using high-quality plastics and offer IP68/IP69K protection in mated condition as standard, or with the use of a dust cap. An IP68 sealed unmated option is also available, and can be achieved when the standard version is coupled with sealed contacts.

The shape of the UTL's shell allows for blind mating, ideal for areas with restricted access or dark conditions, while the latching mechanism uses an audible click to alert the user that the connection is secure.

This product range series uses Souriau size 16 contacts in the 3+Ground and 5-way layouts, whereas a mixture of both size 16 and the smaller size 20 signal contacts are used in the 6 and 8-way versions developed for DMX lighting applications.

Features and Specifications:

- No. of Contacts: **4,5,6,8**
- Locking Mechanism: **Latch**
- Termination: **Crimp, Solder Cup, Dip Solder, Screw**
- Wire Gauge Max: **2.5mm²**
- Voltage: **UL, CSA, IEC Ratings Available on Request**
- Current: **UL, CSA, IEC Ratings Available on Request**
- Ingress Protection: **IP67, IP68, IP69K**



Souriau UTS Series

The Souriau UTS series is a range of circular connectors optimised for harsh environments, made of high quality plastics. As standard, they offer IP68/IP69K protection in mated condition or with the use of a dust cap.

These connectors predominantly use crimp termination, with options for solder cup, screw termination (12-4 & 14-7 layout) and dip solder for PCB use also available. A bayonet locking system offers significant security, while flexibility is afforded by a choice of five shell sizes, with a total of 36 different pin configurations/layouts.

Souriau UTS also offers a Hi-Seal variant, with solder bucket contacts pre-loaded. This allows the unit to be sealed in the manufacturing process, therefore offering IP68/IP69K environmental protection in both mated and unmated state.

Northern Connectors can assemble the majority of the UTS series' crimp variants in-house from stocked piece parts, avoiding lengthy lead times and minimum order quantities.



Features and Specifications:

- No. of Contacts: **2-32**
- Locking Mechanism: **Bayonet**
- Termination: **Crimp, Solder Cup, Dip Solder**
- Wire Gauge Max: **10mm²**
- Cable Diameter Range: **1.5-18mm**
- Voltage: **UL, CSA, IEC Ratings Available on Request**
- Current: **UL, CSA, IEC Ratings Available on Request**
- Ingress Protection: **IP68, IP69K**



CONTACT US

If your business operates in the lighting technology sector, we can help you find the best solution for your specific needs. Get in touch by calling us on [01744 815 001](tel:01744.815.001), or complete the [online enquiry form](#) to request a call back at your convenience.

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