

## CONNECTORS FOR LAMPS, STREET LIGHTING, LUMINAIRES, ...



Adels-Contact connectors are among the best on the OEM lighting market.

Adels-Contact is an internationally recognized waterproof connectors manufacturer based in Germany.

From connectors for lamps, luminaires for building systems to connectors for LEDs and low-voltage lighting applications to standard terminal blocks and terminal blocks with fuse-holder, the Adels-Contact connector range is complete.

Adels-Contact components are suitable for a wide range of applications such as:

- Connectors for Shop lighting lamps, luminaires, LED panels, ...
- Connectors for Building installations lamps, luminaires, LED panels, ...
- Connectors for Advertising lighting LED Floodlight
- Connectors for Industrial lighting like LED hoods,

All Adels-Contact connectors can be found within Omega Connection Catalogue ([www.ermec.es/omega](http://www.ermec.es/omega))

## QUESTIONS AND ANSWERS ABOUT LIGHTING CONNECTORS:



### What solutions are available for the electrical connection of luminaires?

One-time connections are made by means of terminal blocks. Depending on the type of internal connection (assembly at the luminaires manufacturer) and the the type of external connection (installation of a luminaire on site), difference is made between screw terminal blocks, screw-screwless terminal blocks and screwless terminal blocks. Their easy and quick installation helped above all establish screwless terminal blocks, so that they are nowadays also known as “luminaire connectors”.

Connections of pre-assembled cables (flexible electrical installation as well as multiple connections) are made by plug and socket connectors. Here, a panel mount plug is mounted into the luminaire housing so that electricians may use a pre-assembled connecting cable with a matching socket to make connection.

### What solutions does Adels-Contact offer for one-time luminaire connections?

For a one-time connection type LK 980 luminaire connectors may be used. The product range includes 2 to 5 pole connectors to be fixed by catch pins, screws or rivets and offers 4 different options to make PE contact.

Luminaires with the higher IP rating 65 and beyond (f.i. water-proof luminaires, street lighting) should be connected from the outside. Here connectors type LCS 75 (currently available as 2 or 3 pole version) or connectors of the AC 179 series (up to 5 poles) may be used.

### **What solutions does Adels-Contact offer for multiple luminaire connections?**

Building installation connectors of the AC 166® series are particularly designed for luminaires connection. Panel mount plugs are available as 3 to 5 pole versions with various codings (f.i. for DALI lights). Luminaires with a smaller design should preferentially be connected by means of panel mount plugs of the AC 164 series (2 to 5 pole) which only are half the size of the AC 166® series.

For luminaires of a higher IP rating Adels-Contact also offers two series of IP68 plug and socket connectors: AC 170 basic (2 to 6 pole) as the bigger variant and AC 169 kompakt (2 to 5 pole) as a smaller design.

### **What standards have to be complied with?**

Connectors should be manufactured and approved according to EN 60998 "Connecting devices for low voltage circuits" and EN 60999 "Requirements for clamping units for electrical copper conductors" that are referred to in the EN 60598 standard "Luminaires - requirements and testing". Correspondingly, for plug and socket connectors the EN 61984 "Connectors - safety regulations and testing" resp. the EN 61535 "Installation couplers intended for permanent connection in fixed installations". For international usage, however, terminal blocks should additionally be approved according to UL 1059 "Standard for terminal blocks" and, plug and socket connectors according to UL 1977 "Standard for component connectors for use in data, signal, control and power applications".

### **What particular solutions are available for the electrical connection of continuous row lighting systems?**

Continuous row lighting systems are mainly used in industry and trade where large-scale areas (warehouses, sales rooms) are to be illuminated as uniformly as possible. Depending on the continuous row lighting systems, connection types are different:

linear systems (interlockable individual luminaires)

busbar systems

systems with through-wiring in mounting rails and snap-on device supports

### **What solution does Adels-Contact offer for the connection of continuous row lighting systems?**

For continuous row lighting systems with mounting rails, Adels-Contact offers their LEDtrack product range up to 11 poles, consisting of axial plugs and sockets ("ST" and "BU") and cable holders ("POD") for their in-house assembly of through-wiring or, as an alternative readily assembled through-wiring from a reel ("REEL") and taps on the snap-on device support/luminaire insert ("TAP")

**What solutions are available for the electrical connection of LED boards?**

For the connection of printed circuit boards there are SMD connectors available. The SMD technique allows quick and reliable production of boards. Other components within the SMD technique on a LED board are i.a. processors, LEDs and capacitors.

**What connection does Adels-Contact offer for the electrical connection of LED boards?**

For the connection up to 6 A and cables up to 0.75 mm<sup>2</sup> Adels-Contact offers with their SMDflat 345 the connector type with the lowest total height for a pin spacing of 4 mm which allows minimum shadow effect.

This is even optimised by the SMDblank type connectors which, are without moulding and have a lower connection range (0.2 resp. 0.5 mm<sup>2</sup>). Additionally, connection can be made either horizontally or vertically.

For the mains supply with 16 A and cables up to 2.5 mm<sup>2</sup> Adels-Contact offers their type SMDflat 545 which is also available in a variant with bridged contacts that allow through-wiring of the PE contact compliant to standards.

**Related products: fuses, switches, cord-sets.**