



# Connection technology for lights and lighting systems

In dialog with  
customers and  
partners worldwide

Phoenix Contact is a global market leader in the field of electrical engineering, electronics, and automation. Founded in 1923, the family-owned company now employs around 12,800 people worldwide. A sales network with over 45 sales subsidiaries and more than 30 additional sales partners guarantees customer proximity directly on site, anywhere in the world.

Our range of services consists of products surrounding various different electrotechnical applications. This includes numerous connection technologies for device manufacturers and machine building, components for modern control cabinets, and tailor-made solutions for many applications and industries, such as automobile production, wind energy, photovoltaics, the process industry or applications in the field of water supply, power distribution, and transportation infrastructure.



### Global player with personal customer contact

Company independence is an integral part of our corporate policy. Phoenix Contact therefore relies on in-house competence and expertise in a range of contexts: the design and development departments constantly come up with innovative product ideas, developing special solutions to meet customer requirements. Numerous patents emphasize the fact that many of Phoenix Contact's products have been developed in-house.





# Your strong partner for lighting connection technology

The lighting industry is changing and the global market requires efficient and progressive lighting concepts. As such, the focus is firmly placed on the design, cost-effectiveness, quality, sustainability, and flexibility of the lights. Bringing more than 90 years of experience and expertise to the table, Phoenix Contact offers you a comprehensive range of connectors in the field of connection technology.



## Contents

<b>Introduction</b>	<b>4 – 5</b>
<hr/>	
<b>Connection technology for</b>	
LED PCBs	6 – 7
Flexible PCBs	8 – 9
Ballast and LED drivers	10 – 11
Industry and outdoor applications	12 – 13
<b>Service</b>	<b>14 – 15</b>

# The right solution for every application

Regardless of whether it is for flexible LED PCBs, modern office lighting, or outdoor lighting – Phoenix Contact offers you the right connection solution.

Over the next few pages, gain an overview of our comprehensive range of connectors, consisting of more than 50,000 articles.



## Professional solutions for every application



Domestic application



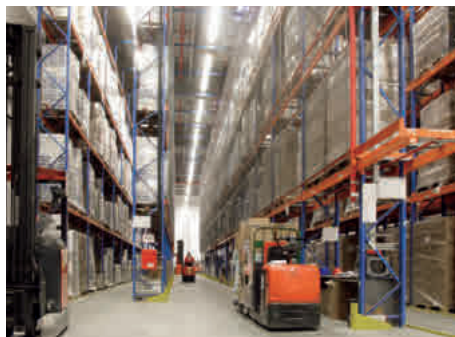
Office



Architectural lights



Outdoors



Industry



Signal and display technology



# Wire modern LED PCBs efficiently and safely

Benefit from the advantages of the connectors from the PTSM series, optimized for LED applications and only 5 mm high. Integrate numerous components in a confined space, e.g., a PCB. This means you save time when installing due to the fast push-in connection.

## Your advantages

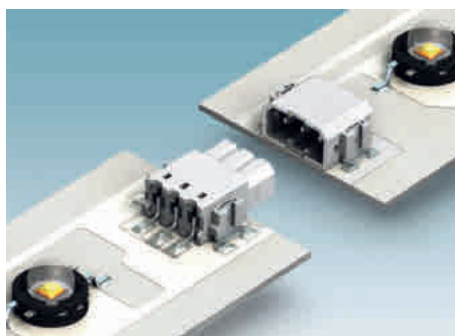
- ✓ Comprehensive range with wire-to-board and board-to-board connectors
- ✓ Powerful push-in connection for currents up to 6 A
- ✓ High mechanical safety, thanks to the stable lateral solder anchor
- ✓ Designed for automated SMD and THR processes

## Main features

- Currents up to 6 A
- Voltages up to 320 V
- Conductor cross sections up to 0.75 mm<sup>2</sup>
- 2 to 8-pos.
- 5 mm design height
- Pitch 2.5 mm
- White and black versions available



## Two connection solutions – one design



### PTSM board-to-board

Connect PCBs safely and durably to one another



### PTSM wire-to-board

Connect and release solid and stranded conductors easily, by means of the push-in connection

# Connect flexible PCBs easily on site

With the new connectors from the PTF series, you can quickly and easily connect flexible LED PCBs. The extremely flat design only has a minimal impact when the strips are attached and casting unwanted shadows is thereby prevented.

## Your advantages

- ✓ Soldering connection litz wires onto the contact surfaces is no longer necessary
- ✓ Secure hold on the PCB, thanks to integrated locking mechanism
- ✓ Available as a supply element or as a butt connector for 8 mm and 10 mm wide LED strips
- ✓ High current carrying capacity enables long LED strips to be connected without an additional supply





### Main features

- Currents up to 10 A per plug
- Voltages up to 25 V
- 22 AWG cables for the supply
- 2 and 4-pos. supply version
- Operating temperature from -30°C to +70°C

### The innovative connection for flexible LED PCBs



**PTF supply element**

Two or four-pos. plugs with connected cables for energy supply



**PTF butt connector**

Safe PCB connection, thanks to integrated locking mechanism

# Compact connection solutions for ballast and LED drivers

Integrate compact and innovative connection solutions from the comprehensive COMBICON range into your ballast and LED drivers. As such, you ensure your customers use lighting technology efficiently.

## Your advantages

- ✓ Flexible choice of connection and mounting technology
- ✓ Easy integration into fully-automated production, thanks to components for THR/SMD processes
- ✓ Long service life, thanks to fully tested contact geometries and surfaces
- ✓ Developed and produced according to the latest standards

## Main features

- Screw, spring or IDC connection
- Available as PCB terminal block and plug
- Soldering, reflow soldering, and press-in technology
- Optional color coding
- Mixed pitches possible

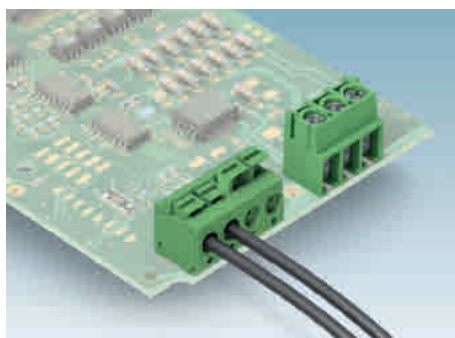


## Versatile connection solutions for your devices



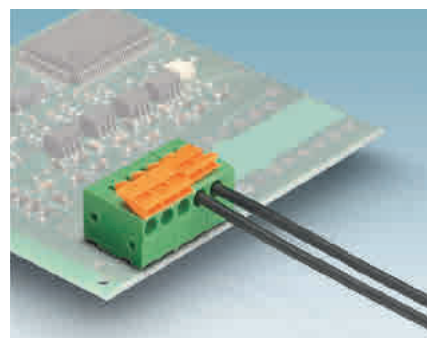
### PTSA

Customizable color coding for easy conductor assignment



### PT and PTS

Freely selectable connection technology with the same size



### FFKDS

Easy and fast connection, thanks to integrated push-in connection



# Robust connection technology for industrial and outdoor lighting

High demands are placed on lighting concepts for the harsh industrial environment or on outdoor applications. For this reason, Phoenix Contact offers a comprehensive range of IP-protected circular connectors. Select the right connector based on screw or IDC connection technology.

## Your advantages

- ✓ High level of reliability, thanks to robust connectors with IP65, IP68, and IP69K protection
- ✓ Powerful connection solutions for currents up to 35 A and voltages up to 690 V
- ✓ Connectors with screw and IDC connection for flexible on-site installation
- ✓ Pre-assembled cables for fast cabling
- ✓ Wide variety of device connectors for easy integration into your devices



### Main features

#### M12 POWER

- Currents up to 12 A
- Voltages up to 630 V
- Conductor cross sections of 0.14 mm<sup>2</sup> up to 0.75 mm<sup>2</sup>

#### PRC

- Currents up to 35 A (3-pos.) and up to 30 A (5-pos.)
- Voltages up to 690 V
- Conductor cross sections of 1.5 mm<sup>2</sup> to 6 mm<sup>2</sup>

#### QPD

- Currents up to 20 A
- Voltages up to 690 V
- Conductor cross sections up to 5 × 2.5 mm<sup>2</sup>

## Reliable circular connectors for harsh environments



#### M12 POWER

Connectors with S and T coding for the compact connection of AC and DC applications



#### PRC

3 and 5-pos. circular connectors from the PRC series with screw connection technology



#### QPD

4 and 5-pos. circular connectors from the QPD series with IDC fast connection

# Professional service

In addition to our comprehensive range of standard products, we can also offer a high degree of flexibility when it comes to customer-specific modifications. From color versions, to printing, right through to special packaging, we can provide you with almost anything – even brand new product developments.

## Flexible versions

Whether it's individual colors, modern special printing, a specific number of contacts or complete cable assembly – our service centers will be happy to support you in quickly implementing your requirements.

## Innovation expertise

Benefit from our extensive development and manufacturing expertise for your individual solution – from the initial idea right through to series production.

## Professional service and support

During the design-in process, we'll offer advice and support from the initial inquiry right up to the finished product, wherever you are in the world.



*An example of outstanding individual customer solutions: LED street lighting from Hella*





Wide range of color versions



Customer-specific cable assembly



Individual printing



Special punching, coding, and pin lengths



Connection block for temperature sensors



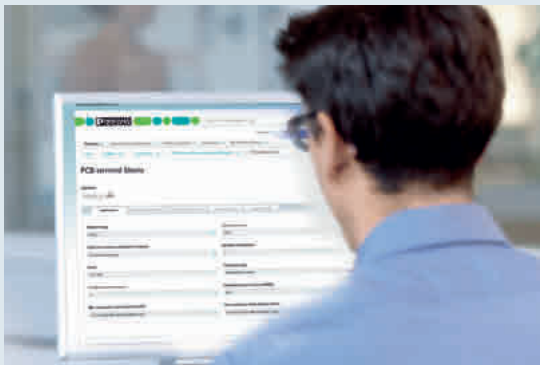
Hybrid connector for charging stations



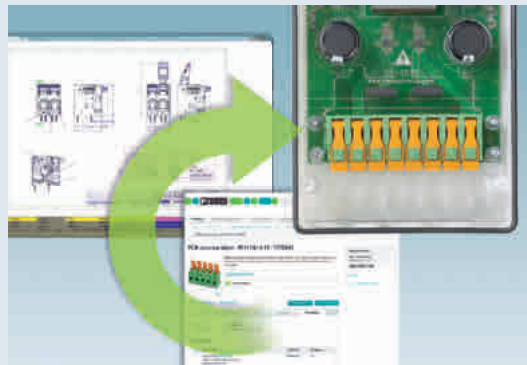
Connection system for LED street lighting



Controller housing with front connection technology



Fast product selection using web tools



Convenient 3D data download



International training on products and technologies



Always up-to-date, always available to you. Here you'll find everything on our products, solutions and service:

[phoenixcontact.com](http://phoenixcontact.com)

## Product range

- Cables and wires
- Connectors
- Controllers
- Electronics housing
- Electronic switchgear and motor control
- Fieldbus components and systems
- Functional safety
- HMIs and industrial PCs
- I/O systems
- Industrial communication technology
- Industrial Ethernet
- Installation and mounting material
- Lighting and signaling
- Marking and labeling
- Measurement and control technology
- Modular terminal blocks
- Monitoring
- PCB terminal blocks and PCB connectors
- Power supply units and UPS
- Protective devices
- Relay modules
- Sensor/actuator cabling
- Software
- Surge protection and interference filters
- System cabling for controllers
- Tools
- Wireless data communication

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