



# Groundbreaking data connectors for smart networks

Phoenix Contact is your key partner  
for reliable data connections

# Groundbreaking data connectors for smart networks

The requirements in terms of the connection technology performance in the field are growing constantly. Phoenix Contact is continuously developing its portfolio for all communication interfaces and future technologies, such as SPE, for networking intelligent devices. The quality of the data transmission depends on the interaction of all cables and connector components. Phoenix Contact will support you during design-in with excellent services – from CAx download files through to a sample service.



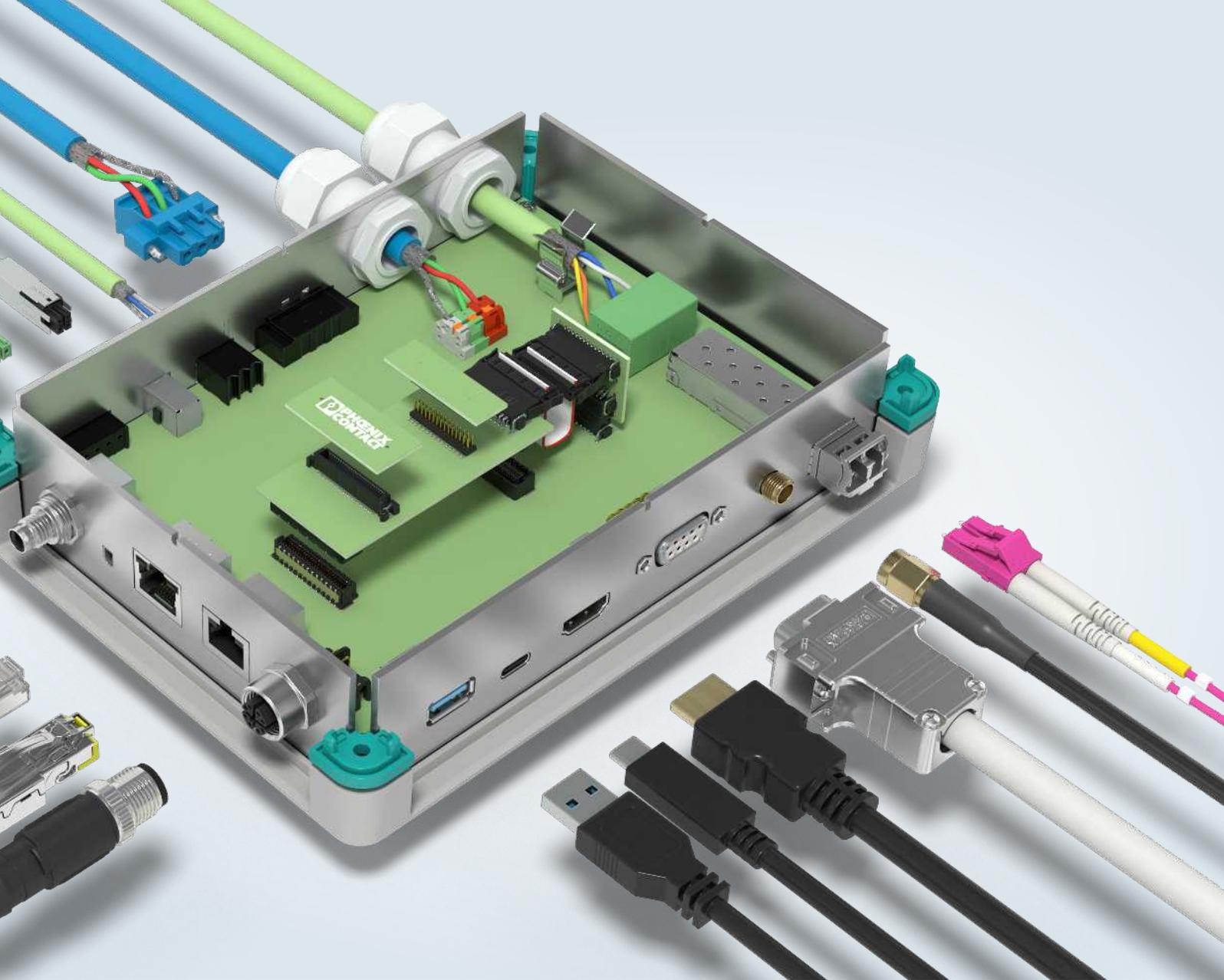
Drives



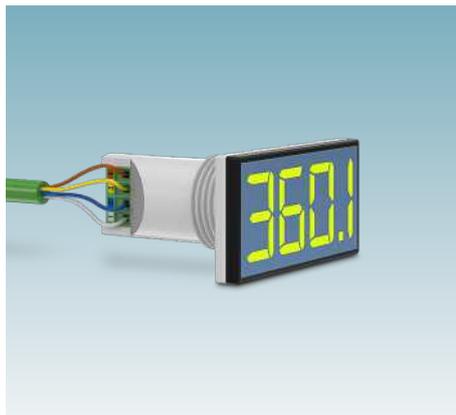
Controllers



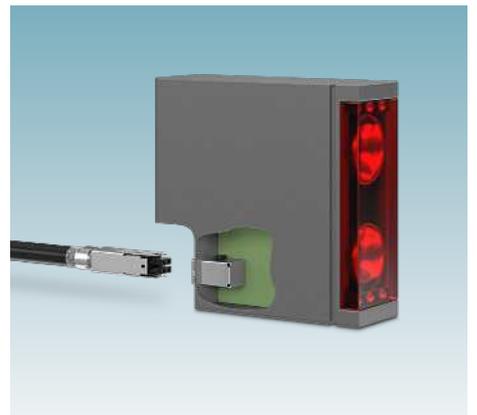
5G routers



Cameras



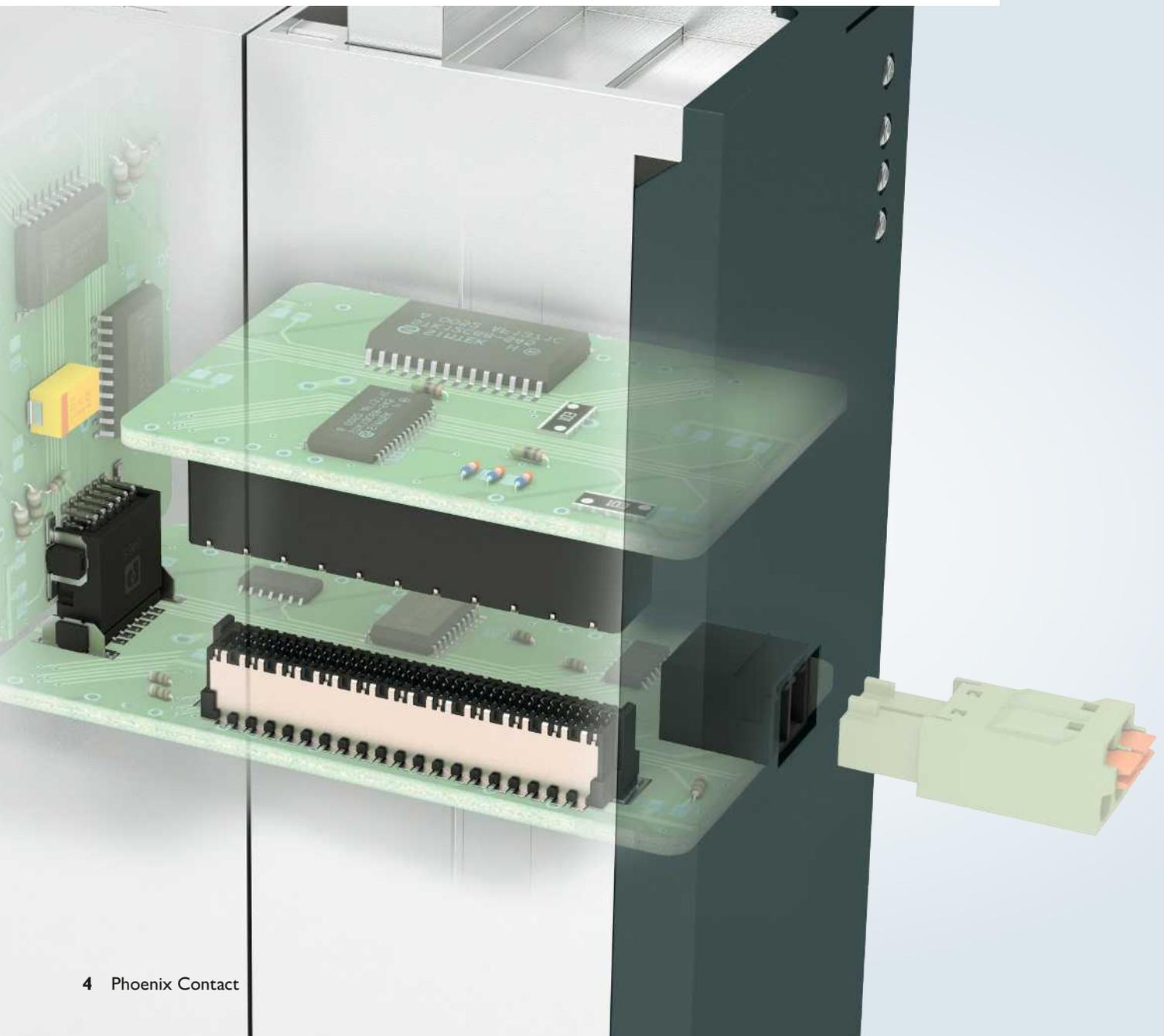
Digital displays

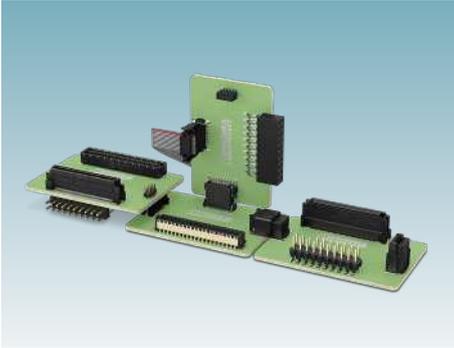


Photoelectric barriers

# Our portfolio for data transmission in detail

We offer the right solution for your individual device design. Whether Ethernet or fieldbus-based transmission protocols – choose the right solution. Discover our innovative connector portfolio with board-to-board, wire-to-board, Single Pair Ethernet, and RJ45 connectors and the matching cabling. Take advantage of the new possibilities when designing your application. Rely on the simplicity in use as well as the robustness in operation.

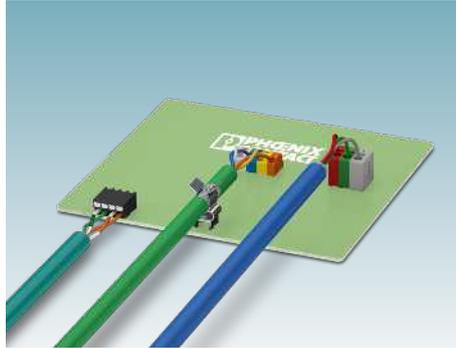




### Board-to-board connectors

Shielded and unshielded data transmission in tight spaces: Easily implement PCB alignments in all dimensions with board-to-board connectors.

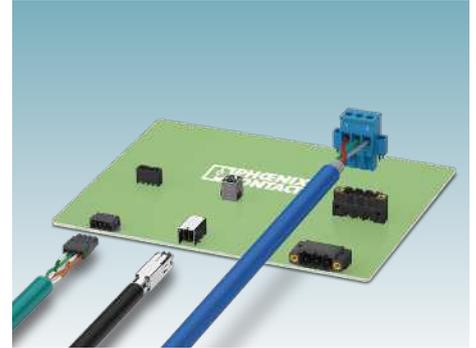
**i** Web code: #2492



### PCB terminal blocks

From process interfaces, through automation components, all the way to frequency converters: PCB terminal blocks for data transmission offer ideal connection solutions for your application.

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### PCB connectors

PCB connectors for data transmission are available with innovative connection technologies and in numerous versions. Assembled solutions are also possible.

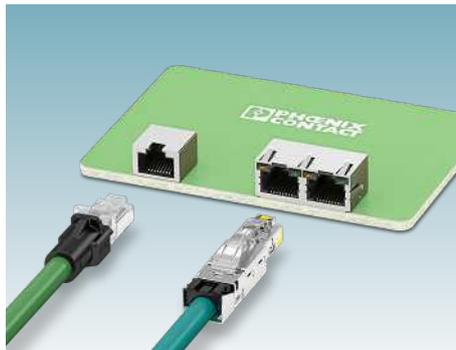
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### Connectors for Single Pair Ethernet

IP20 PCB connectors and patch cables in the ONEPAIR series for single pair Ethernet are ideal for efficient data transmission in factory and building automation.

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### RJ45 connectors

With RJ45 BUILDING and RJ45 INDUSTRIAL, Phoenix Contact offers future-proof cabling solutions for both building automation and Industrial Ethernet applications.

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### V6 and V14 connectors

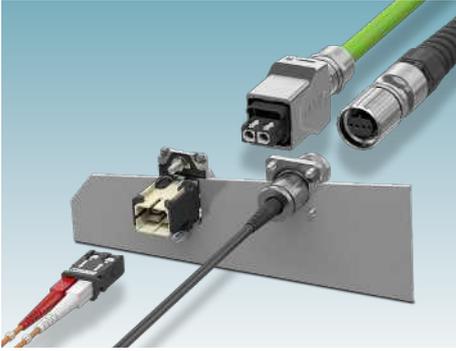
Connectors of the V6 and V14 series are ideally suited for PROFINET and Ethernet cabling with the high IP65/IP67 protection class. Robust individual components provide maximum safety during use in the field.

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# Our portfolio for data transmission in detail

The world is becoming increasingly networked. And that means more interfaces on devices. For this, Phoenix Contact provides data connectors from RJ45 to USB, HDMI, and D-SUB, up to coaxial and FO connections as well as for SPE. Splice boxes, distributors, and adapters round out the solution range. Benefit from the high product quality. All connectors from Phoenix Contact are ideal for reliable and long-lasting device communication. The quality is confirmed by laboratory tests that go beyond the standard and international approvals.





### FO-based data connectors

Implement flexible, consistent data transmission solutions with fiber-optic cables based on a comprehensive range of standardized data connectors.

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### Fiber-optic cable distributor solutions

Fiber-optic cable distributor boxes for mounting on the DIN rail or in the 19" rack are ideal as resilient distributors in demanding environments.

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### M8 and M12 data connectors

For fast and reliable data communication in industrial and infrastructure applications, we offer shielded circular connectors in sizes M8 and M12 for all common fieldbuses and networks.

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### HDMI and USB connectors

The high-quality items from the HDMI and USB portfolio are ideal for reliable transmission.

**i** Web code: #2924



### Coaxial connectors

The portfolio for coaxial cabling is ideal for the transmission of WLAN, Bluetooth, LTE, and 5G signals.

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### D-SUB connectors

With an extensive portfolio of robust D-SUB sleeve housings and D-SUB contact carriers, Phoenix Contact offers solutions for the proven cabling of bus systems.

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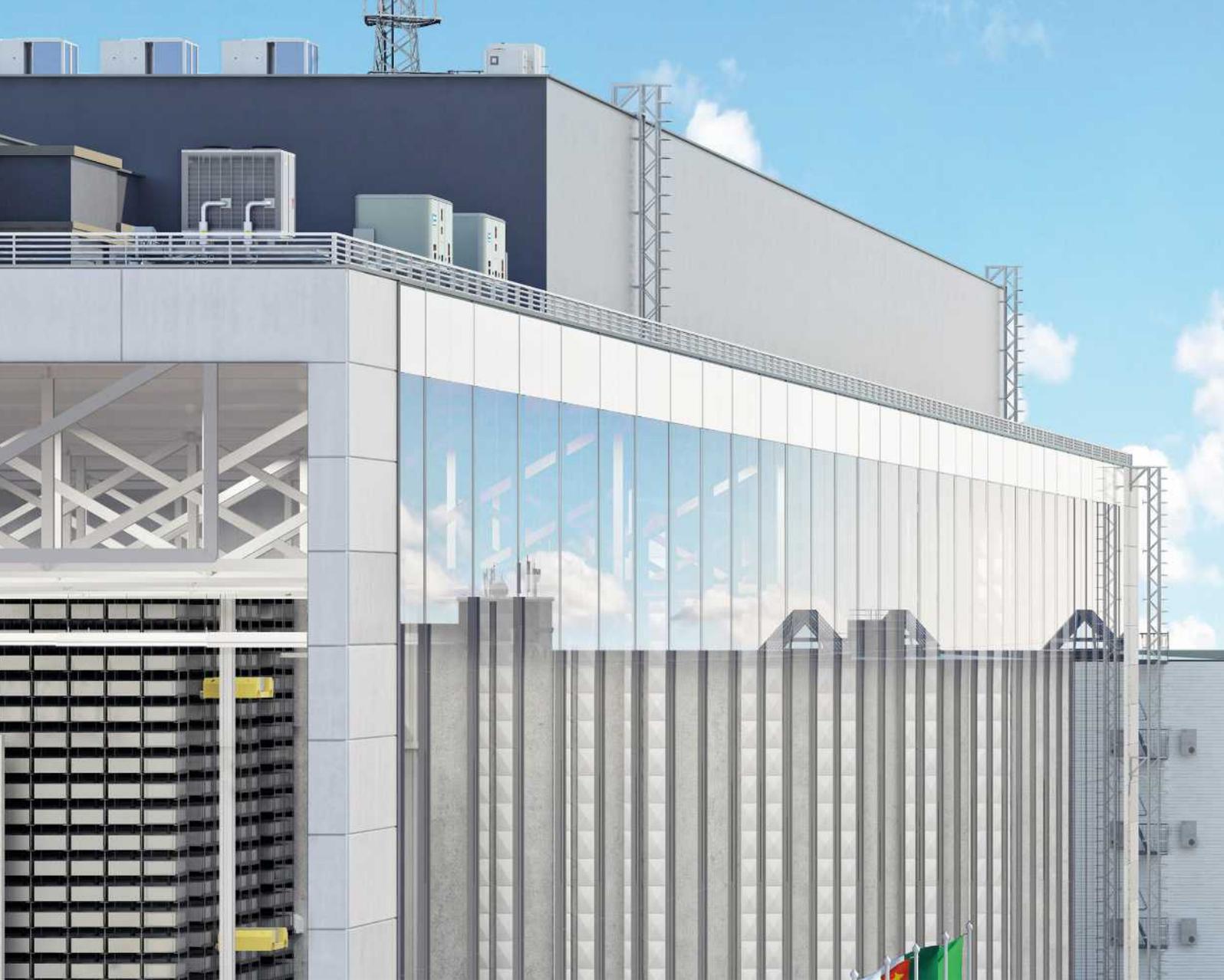
# Data connectors for industrial automation

Data connectors that are designed for the special requirements of industrial use are required to ensure the reliable operation of production lines and machine cells. Here, simplicity and robustness are required even during installation. In subsequent operation, shocks and vibrations for example pose a challenge to the reliability of the data connectors. By using the innovative product portfolio from Phoenix Contact, you increase the efficiency of your machines and systems with long-lasting, stable, and precise data transmission



## Robust connections for drive technology

Vibration and shock resistance with RJ45 INDUSTRIAL and board-to-board connectors with ScaleX technology.



### Consistent connectors for Single Pair Ethernet

Miniaturized and universal connection technology for the integration of all automation devices from the control cabinet through to the field.



### Industrial cameras with IP6X

Data connectors from our M8/M12 portfolio with different codings for all conventional data protocols.



### High-speed connections for routers and switches

Our standardized data interfaces make easy integration possible and guarantee rapid device networking.



# Data connectors for building automation

Building Intelligence is also changing device connection. In Smart Buildings, various applications are networked together as decentral units. To achieve this, standardized device connections are required so that the individual building systems and their applications can communicate with each other quickly and easily. Phoenix Contact solutions enable you to secure your long-term competitive edge in building automation.





### Easy installation of monitoring equipment

Connectors for high data rates and long distances for security-relevant applications, for example for camera and monitoring systems, intrusion systems, and fire alarm systems.



### Flexibility in the connection of sensors

Whether for initial installation, replacement, or maintenance: We provide you with maximum flexibility with pre-assembled cables and connectors with IDC fast-connection technology.



### Smart connectors for building control

Device communication thanks to connections suitable for IP-based protocols such as BACnet IP, Modbus/TCP, REST, and MQTT.

# Data connectors for power transmission, distribution, and storage

The characteristics of an All Electric Society include renewable energies such as solar and wind power and efficient power transmission and distribution via smart grids. All devices in the new power grids are particularly efficient if they are intelligently managed. Here, the data connectors from Phoenix Contact meet all the necessary requirements for a sustainable solution and for a world worth living in.



## Universal marshalling solutions for the control cabinet

Splice boxes from Phoenix Contact are characterized by long-term secure real-time data transmission. Compact and yet with a spacious interior, the splice boxes ensure the reliable connection of fiber-optic cables.



### Reliable connections for sensors

Phoenix Contact provides you with innovative automation and connection technology to equip your wind turbine generator or your entire wind farm – both for copper and FO-based cabling.



### High packing densities in fiber-optic cable distribution systems

The robust interfaces feature high-quality fiber optics which ensure stable bandwidths over long transmission distances.



### Flexible connection technologies for battery storage systems

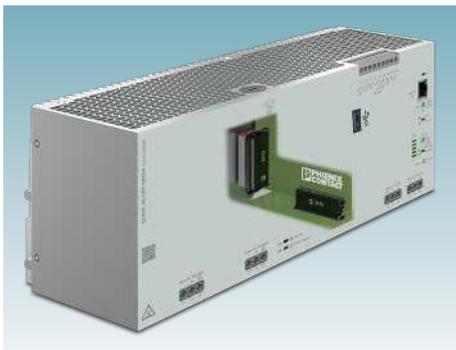
Electrical energy storage devices play a crucial role in the implementation of sector coupling. Data connections in accordance with the latest product standards ensure high-level protection against failures.



# Data connectors for process automation

Measured values and process data are the backbone of modern and resource-saving process engineering. The networking of system components and the continuous acquisition of data guarantee stable processes. Whether in the chemicals and pharmaceuticals or oil and gas sector, the complex processing plants must be controllable and adjustable even under extreme conditions.





### Compact and versatile for power supplies and UPSs

FINEPITCH series board-to-board connectors are powerful and, above all, small. They take up little space and guarantee a compact device design.



### Easy Ethernet device connection

PCB terminal blocks for Ethernet applications simplify connection in numerous applications. Different outlet directions and connection technologies enable ideal device solutions.



### Connection technology for the Advanced Physical Layer

The PCB connection technology for the Advanced Physical Layer is ideal for applications in process automation.



# Data connectors for e-mobility and infrastructure

Safe and flexible power charging: With our data connectors, you can network and automate the charging infrastructure in a smart way. Various interfaces and communication protocols between devices and higher-level systems require smart networking. Data is often exchanged in encrypted form for energy management and billing purposes. Whether on the highway or in front of the shopping mall, data connectors from Phoenix Contact are the best choice for your network.





### Flexibility for home chargers

RJ45 connectors for field assembly can be adapted to the conditions on site. Just like the FINEPITCH series which allows boards to be stacked and displays connected.

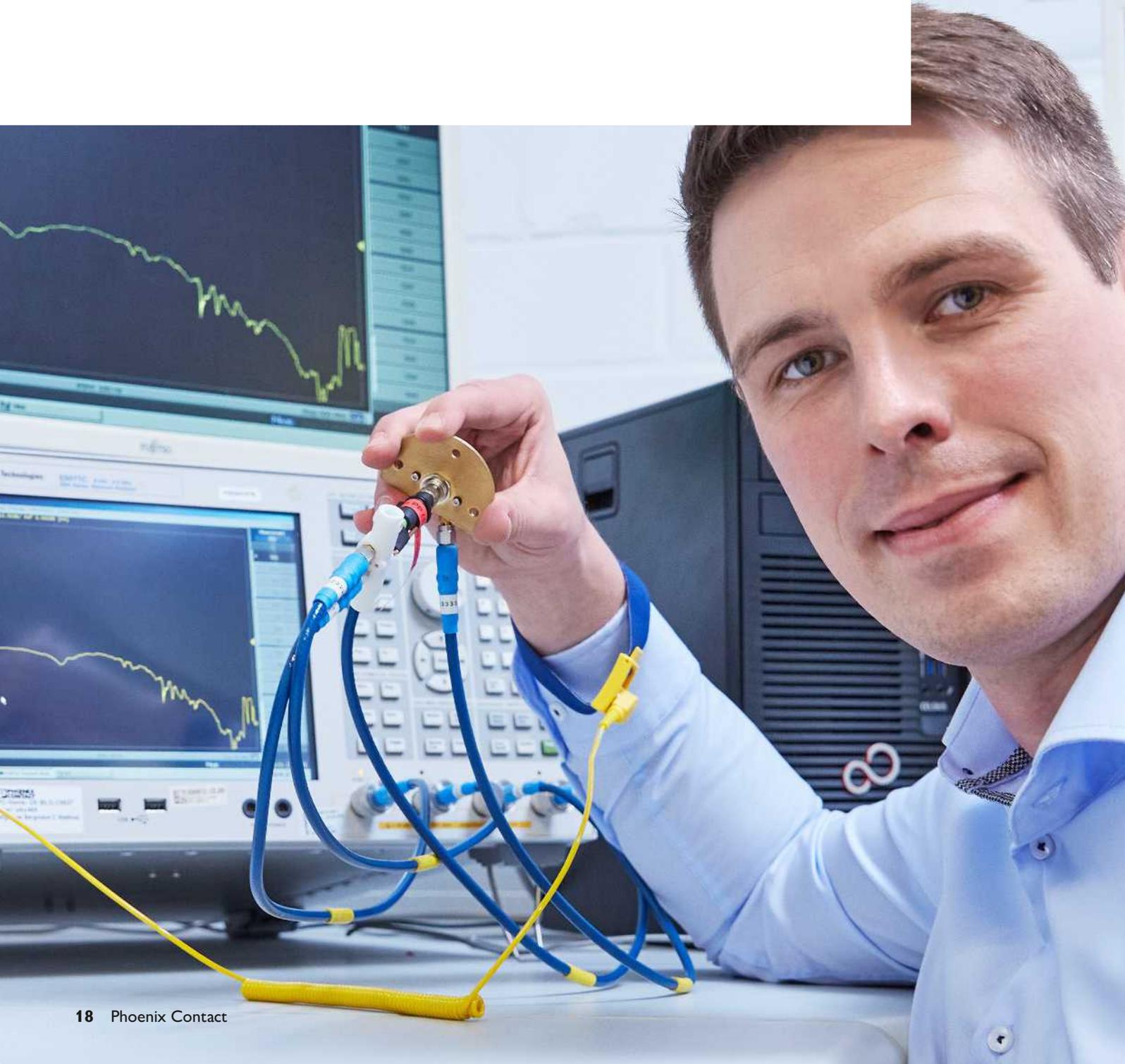


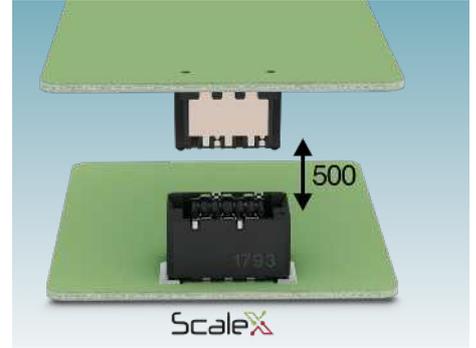
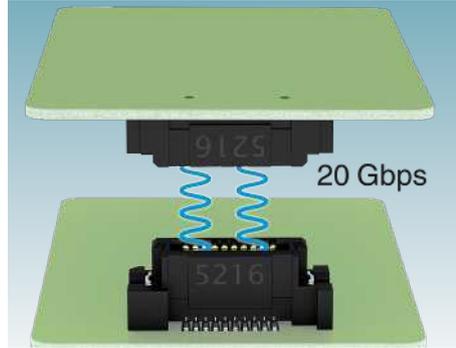
### Reliable connection technology for charging controllers

Phoenix Contact has an extensive portfolio for setting up powerful charging stations or entire charging parks. Data connectors enable communication during the charging process and also in the case of service.

# Top quality for the reliability of your devices

Top quality connection technology for device manufacturers – high quality, reliable, durable, and safe. This is the Phoenix Contact guarantee for PCB terminal blocks, connectors, and electronics housings – the key elements in device manufacturing. With a zero-error tolerance, we make a promise to our customers. Quality is not only checked in the development and production process, but is already taken into account at an early stage through methods of advance quality planning, such as FMEA.





### Best EMC properties

Optionally with a closed shielding concept, high EMC protection guarantees the safe operation of your devices.

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### High data rates

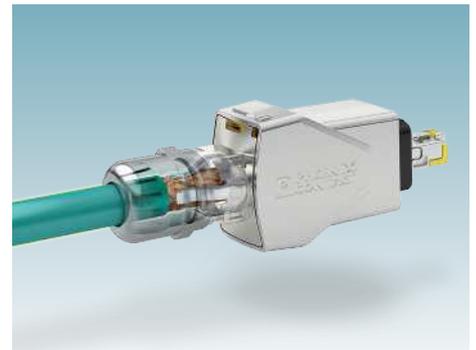
With our high-speed connectors, you can realize mezzanine PCB arrangements with data transfer rates of up to 20 Gbps.

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### Durable

Reliable mechanical and electrical connections through innovative contact technology with up to 500 plugging and unplugging cycles.

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### Reliable protection

Protection against extreme temperatures, liquids, vibrations, and UV light.

**i** Web code: #0296

### Fast data transmission

Data rates up to 10 Gbps and components in accordance with the CAT6<sub>A</sub> standard.

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### Special shielding concepts

360° EMC shielding guarantees a high level of resistance to EMI and ESD.

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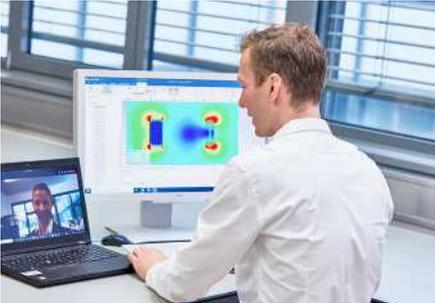
## High quality, produced in series

Our motivation is to provide you with maximum added value in our products. We have therefore established high quality standards for product development and production which go far beyond the standard. Intensive quality tests ensure high transmission rates, for example.

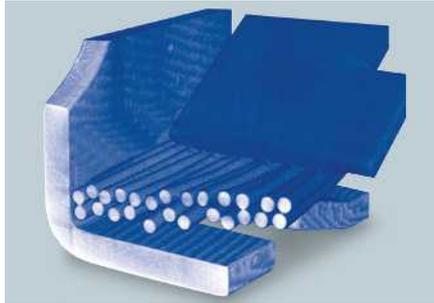


## Computer simulations

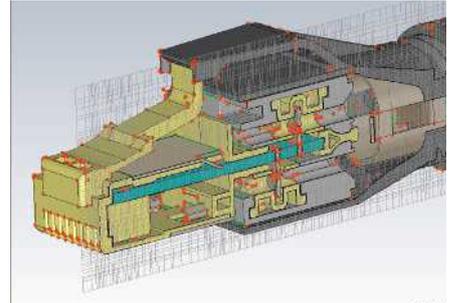
New computer technologies and simulation methods provide us with insights and findings down to the details.



Simulation and calculation of data connectors



X-ray of the correct conductor position in a spring-cage terminal block



Simulation of the high-frequency behavior of RJ45 connectors

## Qualification tests

All of our products must pass regular tests and inspections. This guarantees high quality and reliable use.



Durability test under extreme climatic conditions



Prevention of attenuations and reflections through end-face testing in fiber-optic cables



Inflection test

## Process monitoring

Only by carrying out consistent and multi-stage process monitoring do we meet, maintain, and improve high quality requirements.



Quality inspection using optical camera systems



Vibration and shock test



Including employees in the ongoing quality improvement process

## Excellent services

Along your development process, Phoenix Contact offers excellent services that make the difference. Discover how modern configurators, comprehensive technical data, and free product samples can make your daily work easier. As your partner, we will support you in the design-in process all the way to the development of customized connection and housing solutions.

### The easy way to more choice

Choose online from 60,000 products and find the right solution quickly:

- Intuitive filter and search functions
- Comprehensive technical data and downloads such as drawings and 3D models
- Personal on-site consultation

### The easy way to more individuality

Customize your products with colors, printing, and special designs:

- Customized versions
- Customized new products
- Intuitive online configurators

### The easy way to more flexibility

Use our different procurement channels and benefit from worldwide availability:

- All products can easily be ordered online
- Free online sample service
- Globally reliable logistics through direct shipping or distribution

### The easy way to more expertise

Always stay up-to-date on technologies and trends with us as your reliable partner:

- Technology, industry, and design-in experts at your side
- We will provide you with custom training programs – either on site or digitally
- Free webinars, seminars, and video tutorials



More information on the Phoenix Contact services: Simply enter the web code into the search field on our website.

 Web code: #2594



Simple selection with filters and technical data



There is a separate detail page for every product



A data sheet is available to download for every item



With our global network, Phoenix Contact is always nearby



Device connection technology comprehensively configured



Housing parts and connection technology are easy to configure



Cable and assembly systems can be configured easily



Phoenix Contact supports you from the initial idea to series production



The online sample service is available in a large number of countries



Find the desired product quickly with intuitive filters



Product samples are available with free shipping



Reliable logistics worldwide



Stay updated on new products, trends, and technologies



We will provide you with custom training programs – either on site or digitally



Stay up to date via YouTube, LinkedIn, Twitter, and Facebook



Remain reliably updated with the Phoenix Contact newsletter

## Open communication with customers and partners worldwide

Phoenix Contact is a global market leader based in Germany. We are known for producing forward-thinking products and solutions for the comprehensive electrification, networking, and automation of all sectors of the economy and infrastructure. With a global network, we maintain close relationships with our customers, something we believe is essential for our common success.

You can find your local partner at  
[phoenixcontact.com](https://phoenixcontact.com)

