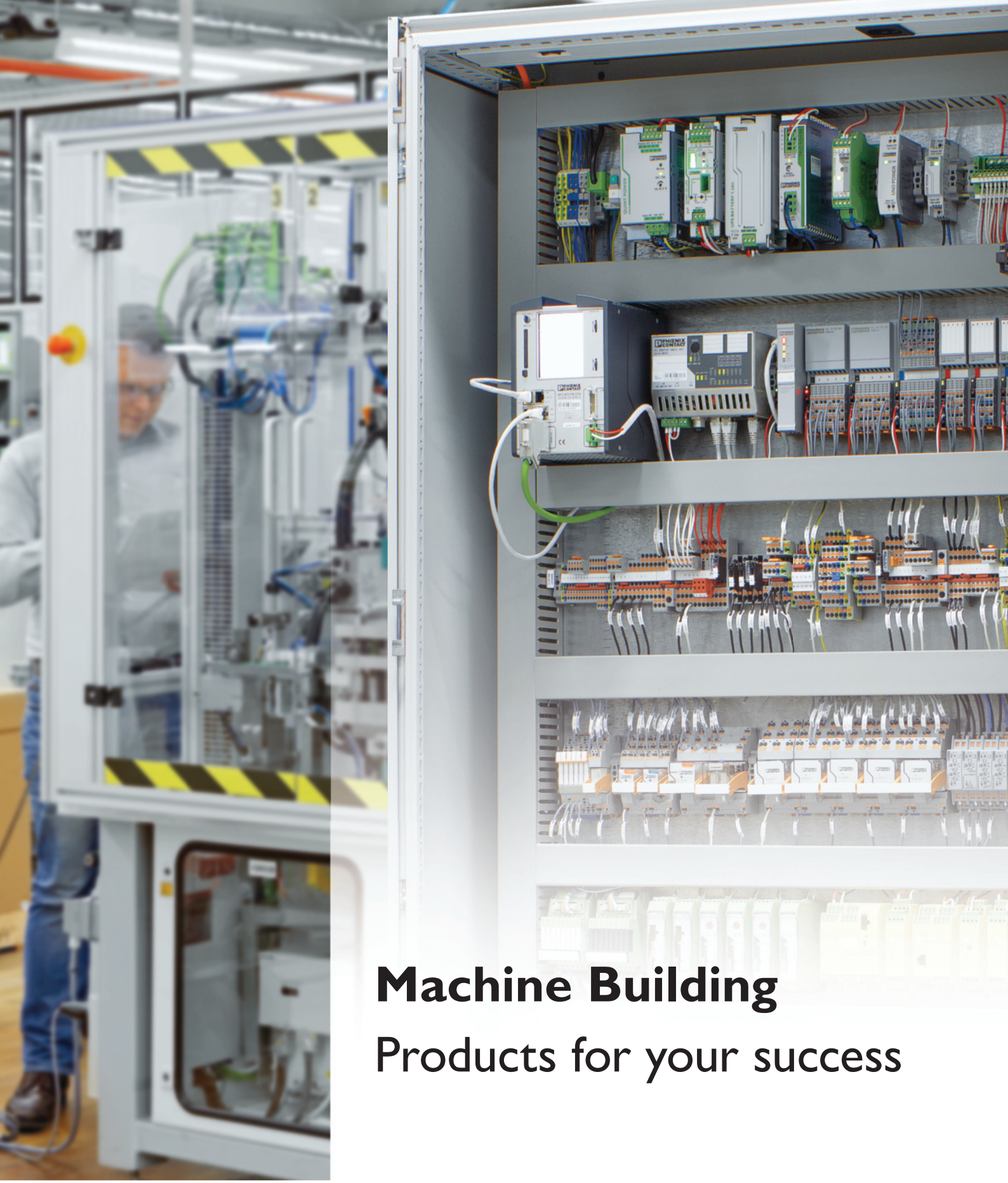


Machine Building

Products for your success

PHOENIX CONTACT
INSPIRING INNOVATIONS

In dialogue with customers and partners worldwide

Phoenix Contact is a worldwide 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 companies 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 the field of 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.

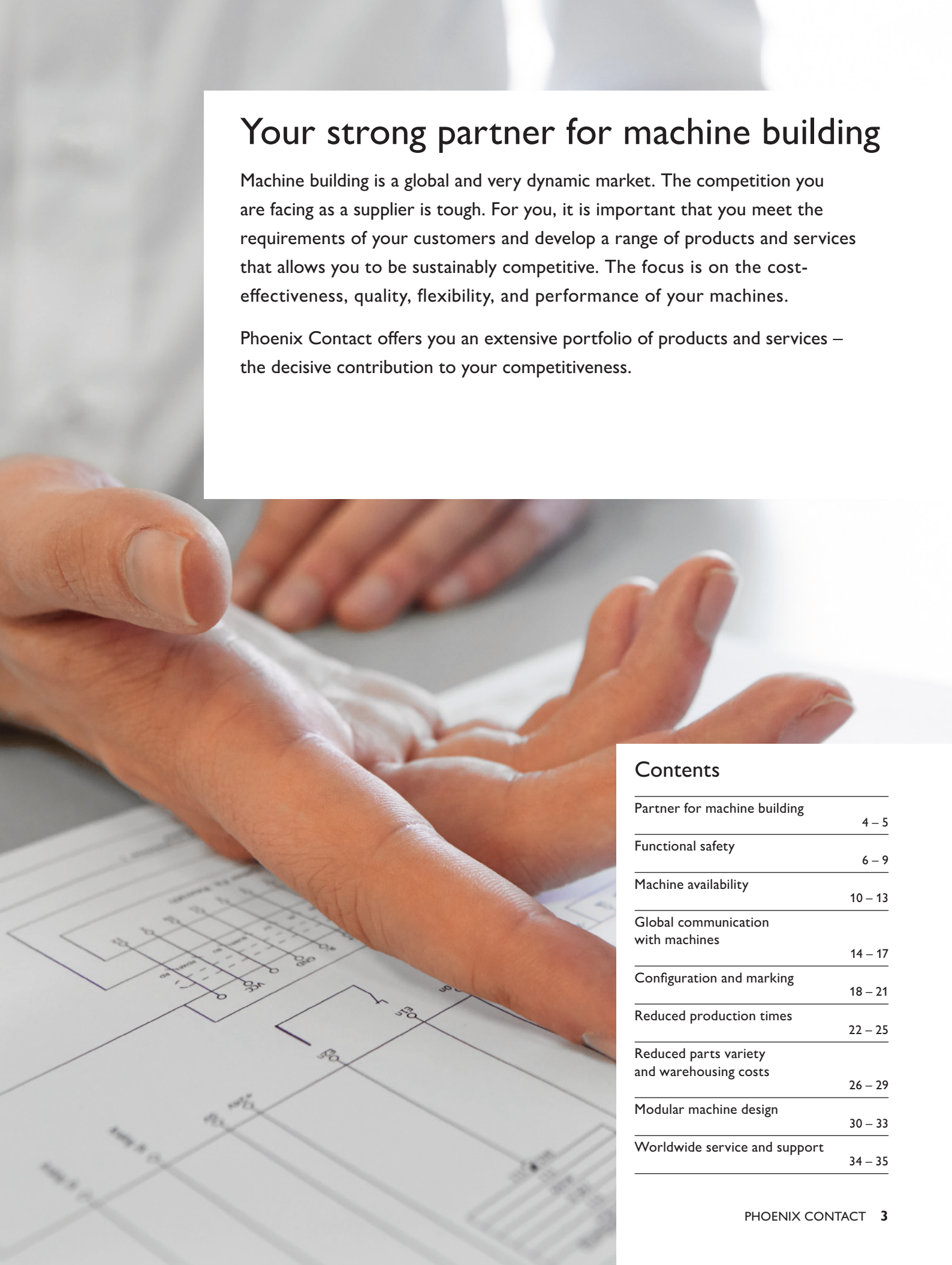
Global player with personal customer contact

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 products have been developed exclusively by Phoenix Contact.

Your strong partner for machine building

Machine building is a global and very dynamic market. The competition you are facing as a supplier is tough. For you, it is important that you meet the requirements of your customers and develop a range of products and services that allows you to be sustainably competitive. The focus is on the cost-effectiveness, quality, flexibility, and performance of your machines.

Phoenix Contact offers you an extensive portfolio of products and services – the decisive contribution to your competitiveness.



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Your strong partner for machine building

Phoenix Contact is closely connected with the machine building industry. Based on our in-house machine building, we are very familiar with your daily challenges. The company-based machine building department with 180 employees supports all the business units of Phoenix Contact as well as the worldwide developing and manufacturing locations. The performance portfolio ranges from the creation of manually operated equipment up to complex production systems in the area of handling and packaging machines. Together, we develop high-quality means of production, innovative solutions and state-of-the-art manufacturing technologies.

Machine building at **PHOENIX CONTACT** has a tradition.

Machine building at Phoenix Contact 1968

Machine building Phoenix Contact today

In the future, we will continue to actively shape important trends and developments in machine building.

Simply integrate safety technology in your machines

In machine building, safety technology plays an extremely important role because it prevents harm to the operating personnel and damage to the machine. The ISO 13849-1 standard directed at meeting the Machinery Directive results not only in increased requirements for the implementation of safety functions, but also in new opportunities for you as machine builder. With safety components from Phoenix Contact, you are always on the safe side. The devices are particularly easy to handle and allow you to profit from a quick and economical implementation of safety-related applications.

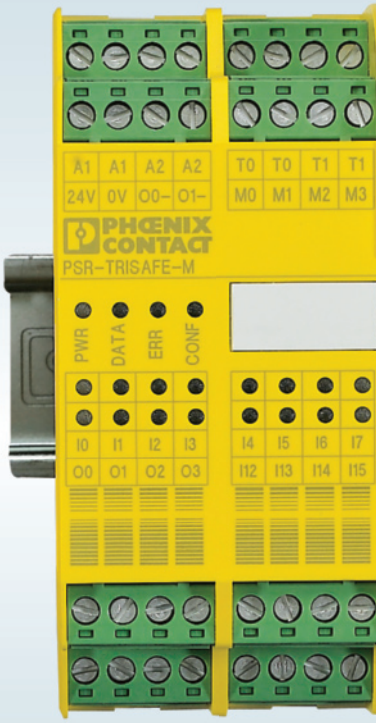
Do you have any questions about functional safety?

Just give us a call and take advantage of our extensive product and technological expertise. Our safety experts will be happy to help you free of charge via our safety hotline: +49 5251 9-4627 77. We can also provide you with consultation services and in-process support on request as well as offering you training.

Reserve

Simply integrate safety technology in your machines

At Phoenix Contact, you will find an extensive safety portfolio for machine building – from conventional safety relays up to network-capable safety solutions. All safety products are easy to install and configure.



Safety for every function

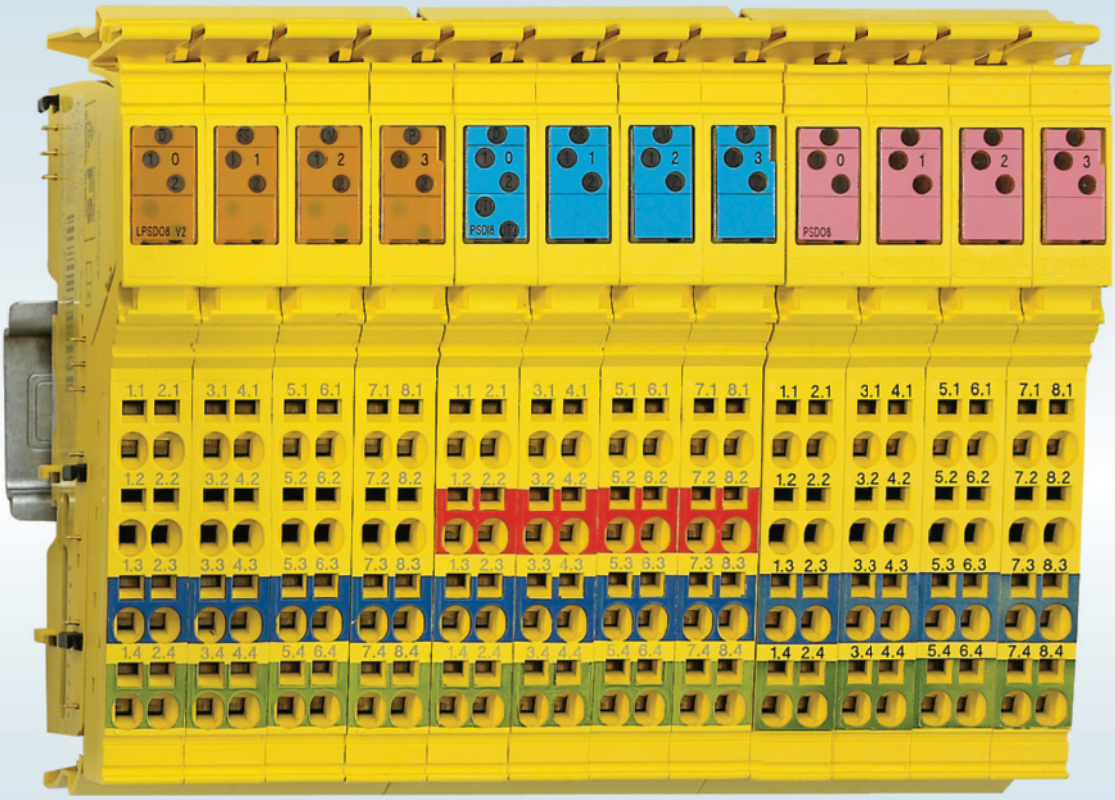
Utilize PSR safety relays if your machine requires few safety functions and logical links to be implemented. The combination of innovative connection technology, space-saving style and clearly arranged design contributes to the quick and economic implementation of the safety-related application.

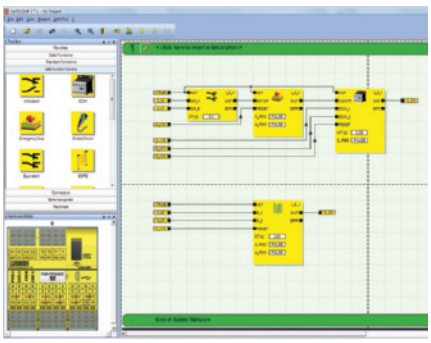
Monitoring several safety functions

With the PSR-TRISAFE configurable safety module, you can monitor different safety functions in your machine with a single device. Using additional I/O modules, you expand the device to meet your requirements. PSR-TRISAFE communicates with the higher-level controller via the fieldbus coupler.

Safety without a safety controller

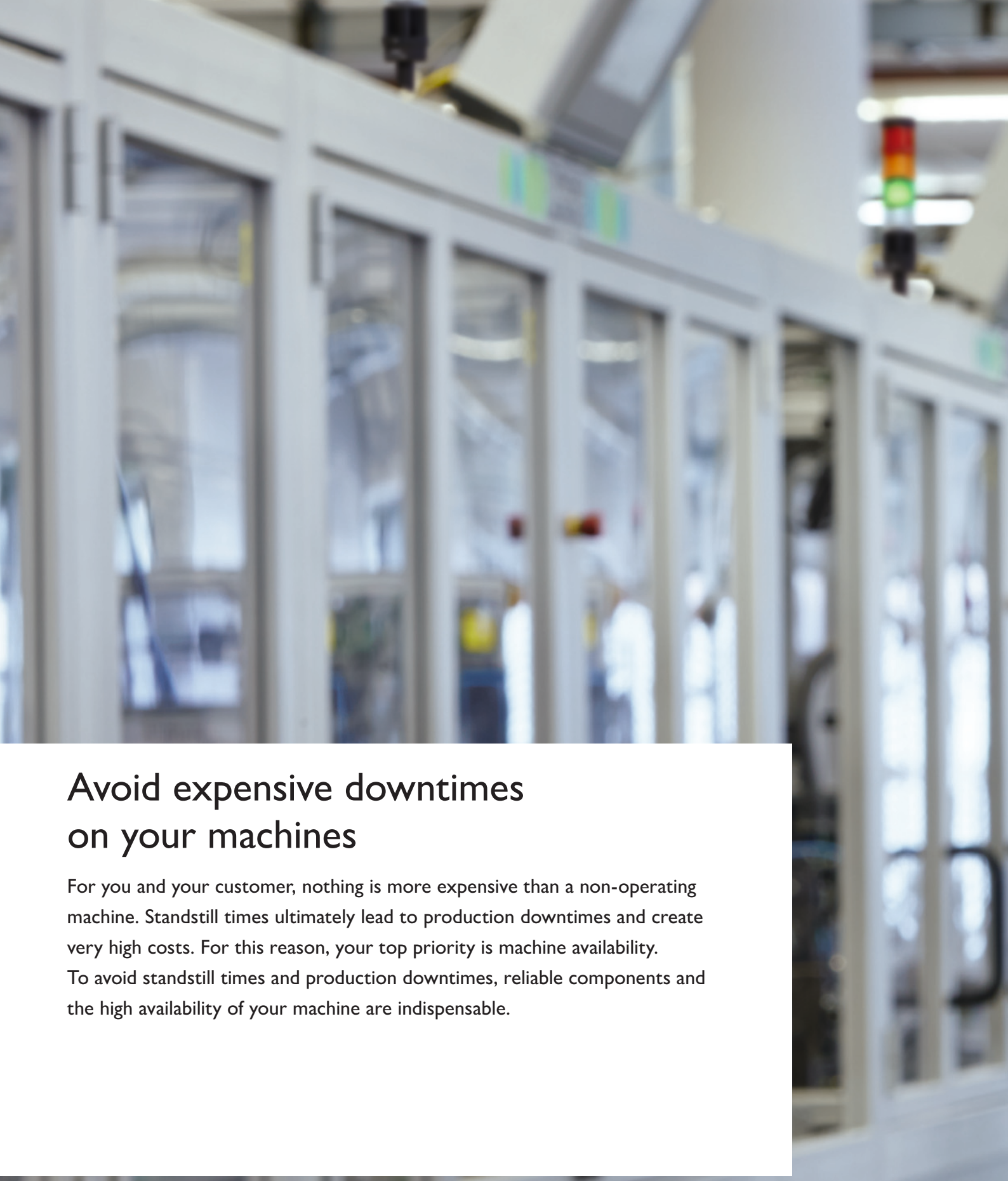
Using the SafetyBridge technology, you can easily integrate functional safety in your machine or system – without a safety controller. This allows you to continue using your standard controller and retain your preferred network. The safe communication between two safety networks allows you the use in large-scale and modular machines.





Easy device configuration

The SAFECONF software provides you with all the tools you need to configure your safety logic in accordance with the relevant standards - easily and in the form of a single user interface. With SAFECONF, you can easily create the safety logic for PSR-TRISAFE and SafetyBridge technology using drag & drop.



Avoid expensive downtimes on your machines

For you and your customer, nothing is more expensive than a non-operating machine. Standstill times ultimately lead to production downtimes and create very high costs. For this reason, your top priority is machine availability.
To avoid standstill times and production downtimes, reliable components and the high availability of your machine are indispensable.

PHOENIX CONTACT
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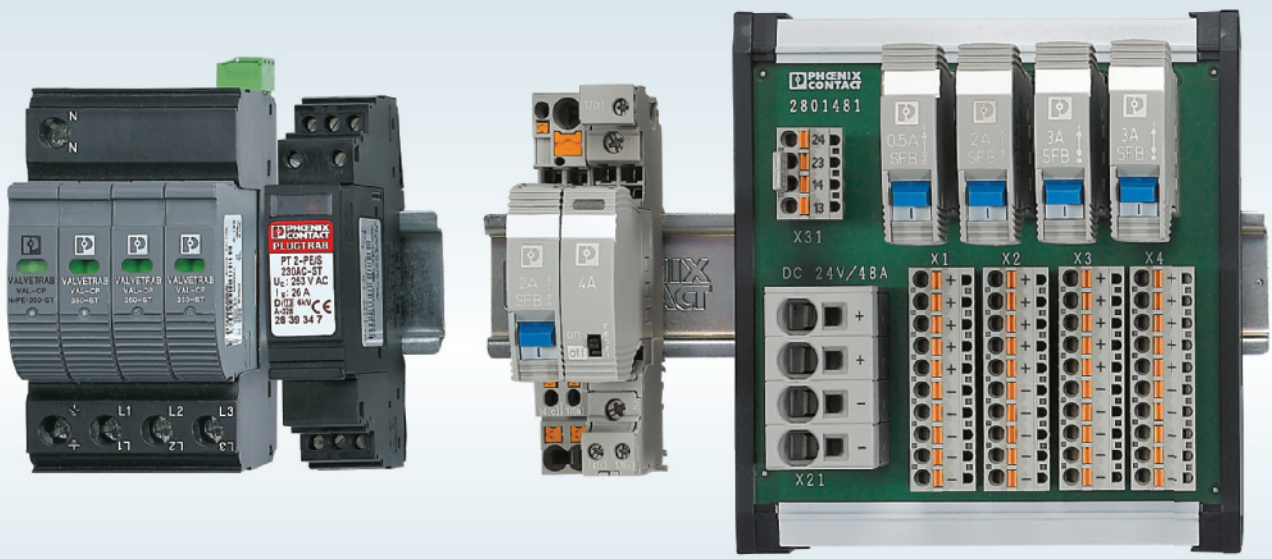
Avoid expensive downtimes on your machines

We increase your competitiveness as a machine builder with products that support the availability and, as a result, the productivity of your machine. The devices ensure long operating times and production around the clock. This helps your customer to avoid standstill times and costly production downtimes. We offer you surge protection, device circuit breakers, technologically pioneering power supplies and innovative switching devices.



Protection against surge voltages

Surge voltages pose a risk for machines and can lead to the destruction of important function groups. Increase the safety and machine availability with effective surge protection in the supply and before signal interfaces.

Selective fuse protection for circuits

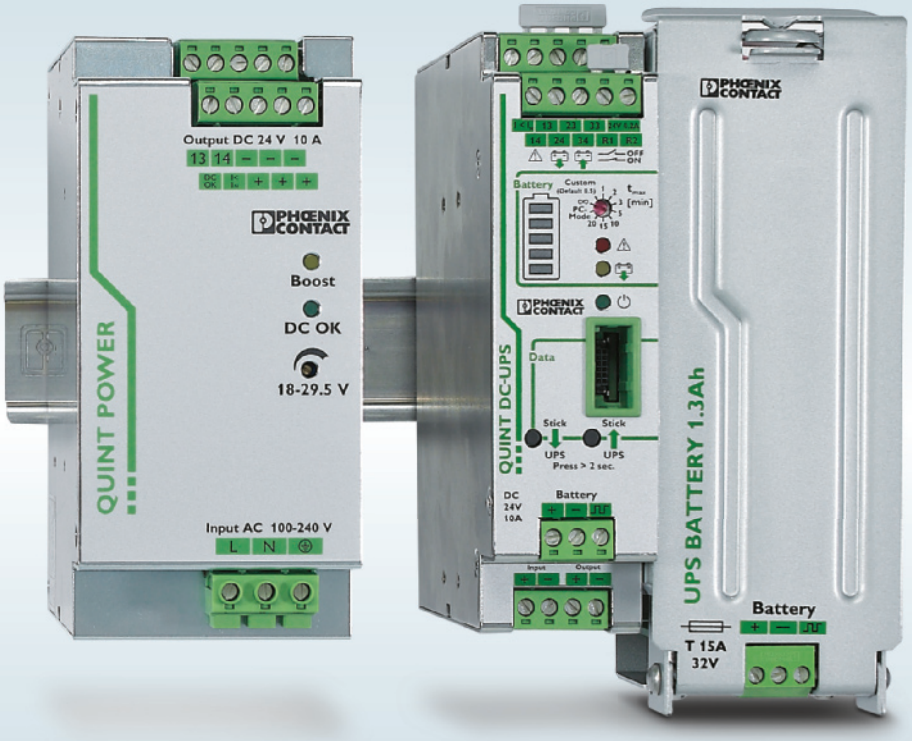
In the event of an overload and a short circuit, device circuit breakers only shut down the affected actuator or sensor in the faulty circuit. This means that the production process continues to run without interruption. Device circuit breaker boards reduce your installation time significantly with the central potential distribution.

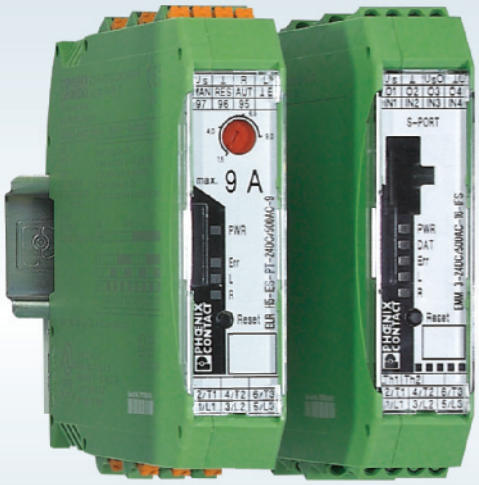
Reliable power supply

QUINT POWER with SFB technology trips circuit breakers magnetically and quickly with six times the nominal current. Only faulty current paths are switched off selectively, important machine parts remain in operation. The QUINT UPS-IQ uninterruptible power supply with its IQ technology thinks along and warns you early about a breakdown.

Intelligent motor switching

Switch and reverse motors quickly and reliably with CONTACTRON compact hybrid motor starters. The microprocessor control enables wear-free switching. This means that the service life of devices is up to ten times longer than that of purely mechanical devices.





Intelligent motor protection

The CONTACTRON motor manager combines overload and underload detection in a single device. This allows you to detect all critical load states. In the event of an emergency, the motor manager protects the motor and subsequently your machine, because the device shuts down the drive in case of a malfunction.

Communicate with your machines throughout the world

The global use of machines renders the worldwide communication with machines increasingly more important because this allows you to avoid expensive service calls on site. On top of that, state-of-the-art production demands networks that enable the data exchange between all types of processes and machines. Industrial Ethernet is the fast communication standard for an integrated communication between office facilities and production level.

09:50
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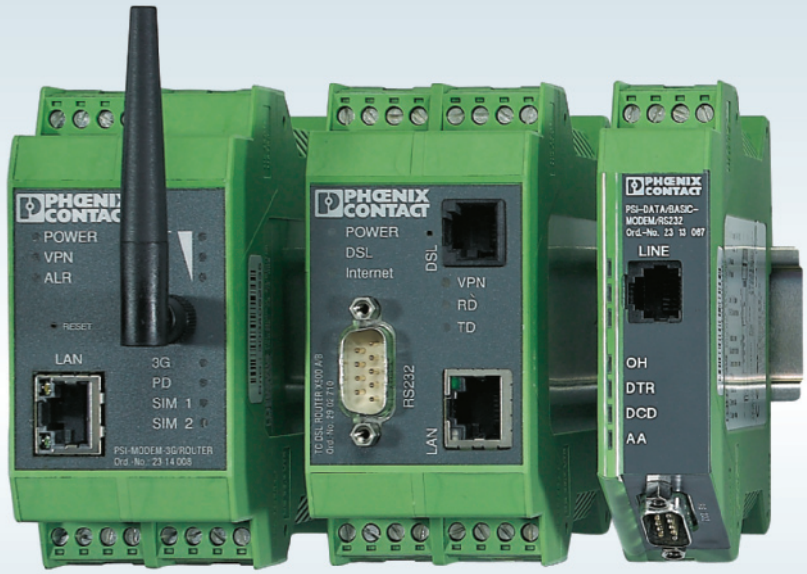
Messages
+49 173 29398...
Call
FaceTime
Add Contact
Machine 3735-01
Eroding voltage is off
Send
Text Message

Communicate with your machines throughout the world

Modems and routers connect you to your machines and systems worldwide for efficient remote maintenance, continuous data acquisition and automatic early warning messages. Switches and access points can be used to build powerful Ethernet networks. Security routers and firewalls guarantee data integrity and protect your machine against unauthorized access and manipulations.



Worldwide access to data

With our products for industrial remote communication, you can reach remote machines or mobile devices located anywhere in the world. This device family offers all the options for remote control, remote maintenance or alarm generation – whether via analog dial-up connection, DSL high-speed line or 3G wireless connection.

Protecting network and data

The FL MGUARD security routers and firewalls protect your machine and your network against unauthorized access by people or malware.

Distributing data in the network

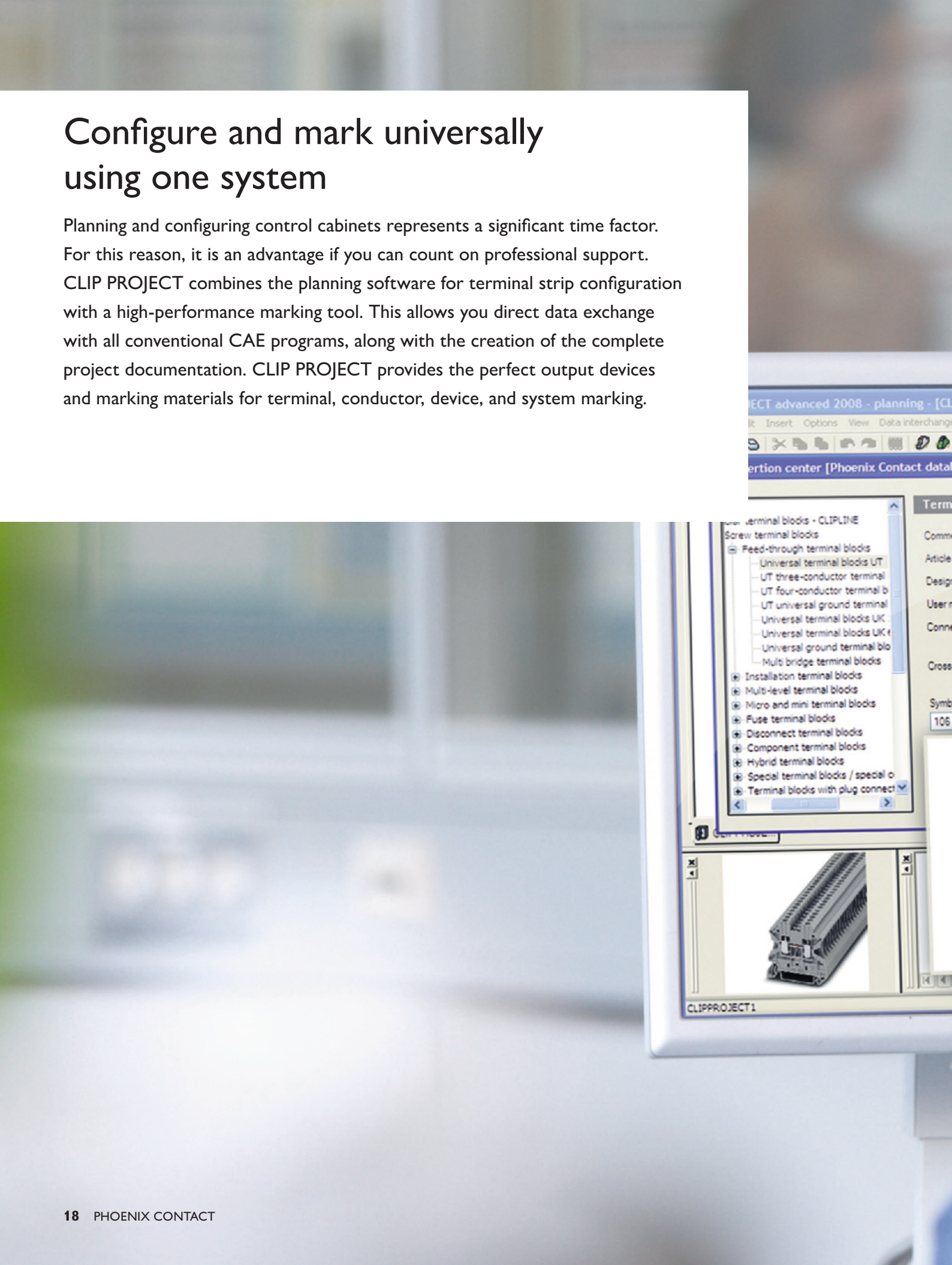
Switches allow you to distribute information in Ethernet networks quickly and reliably. The extensive portfolio offers not only unmanaged switches for standard functions, but also configurable managed switches for powerful automation networks. Switches in IP67 can be installed directly in the machine on the machine profile.

Linking portable machine parts via WLAN

With Access Point WLAN 5100, you connect moving machine components and production systems to your Ethernet network via WLAN. The cluster management technology provides you with central access to all access points. This makes configuration and maintenance of WLAN networks considerably faster and easier.

Configure and mark universally using one system

Planning and configuring control cabinets represents a significant time factor. For this reason, it is an advantage if you can count on professional support. CLIP PROJECT combines the planning software for terminal strip configuration with a high-performance marking tool. This allows you direct data exchange with all conventional CAE programs, along with the creation of the complete project documentation. CLIP PROJECT provides the perfect output devices and marking materials for terminal, conductor, device, and system marking.



IPPROJECT1 [Phoenix Contact database]]
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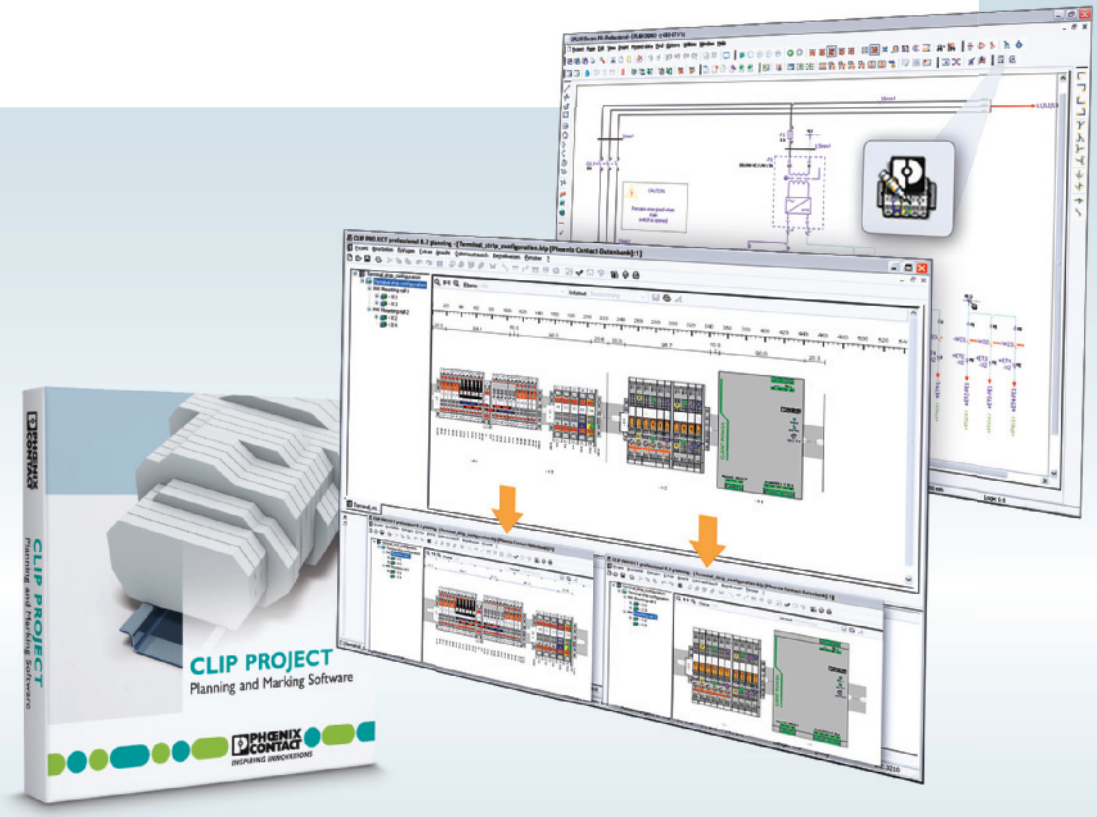
Screw terminal
[mm²]
[AWG-UL]
4.0
12
Hits:
49
- Feed-through terminal
USST 6
UT 10
UT 10 BU
UT 10 OG
UT 10 RD
UT 10 YE
UT 16
UT 16 BU
UT 2.5
UT 2.5 BK
UT 2.5 BU
UT 2.5 GN
UT 2.5 OG
UT 2.5 RD
UT 2.5 WH
UT 2.5 YE
UT 2.5-MTD
UT 2.5-MTD BU
UT 2.5-MTD P/P
UT 2.5-MTD P/P BU
UT 2.5-MTD-PE
UT 35
UT 35 BU
More
Product brief descripti

Configure and mark universally using one system

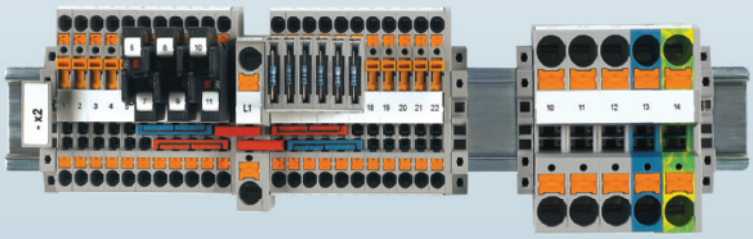
CLIP PROJECT creates an extensive documentation of your projects. It is used for simple implementation at your location as well as the quick order of completely assembled terminal strips and markings manufactured to your specifications. No matter how you decide – CLIP PROJECT will support you.



One software for project planning and marking

Use CLIP PROJECT for configuring terminal strips and creating your markings.

- Configuring all Phoenix Contact product groups
- Data exchange with CAE programs to avoid double entries
- Autocorrection for error-free configuration
- Access to all marking materials
- Control of all Phoenix Contact printing systems

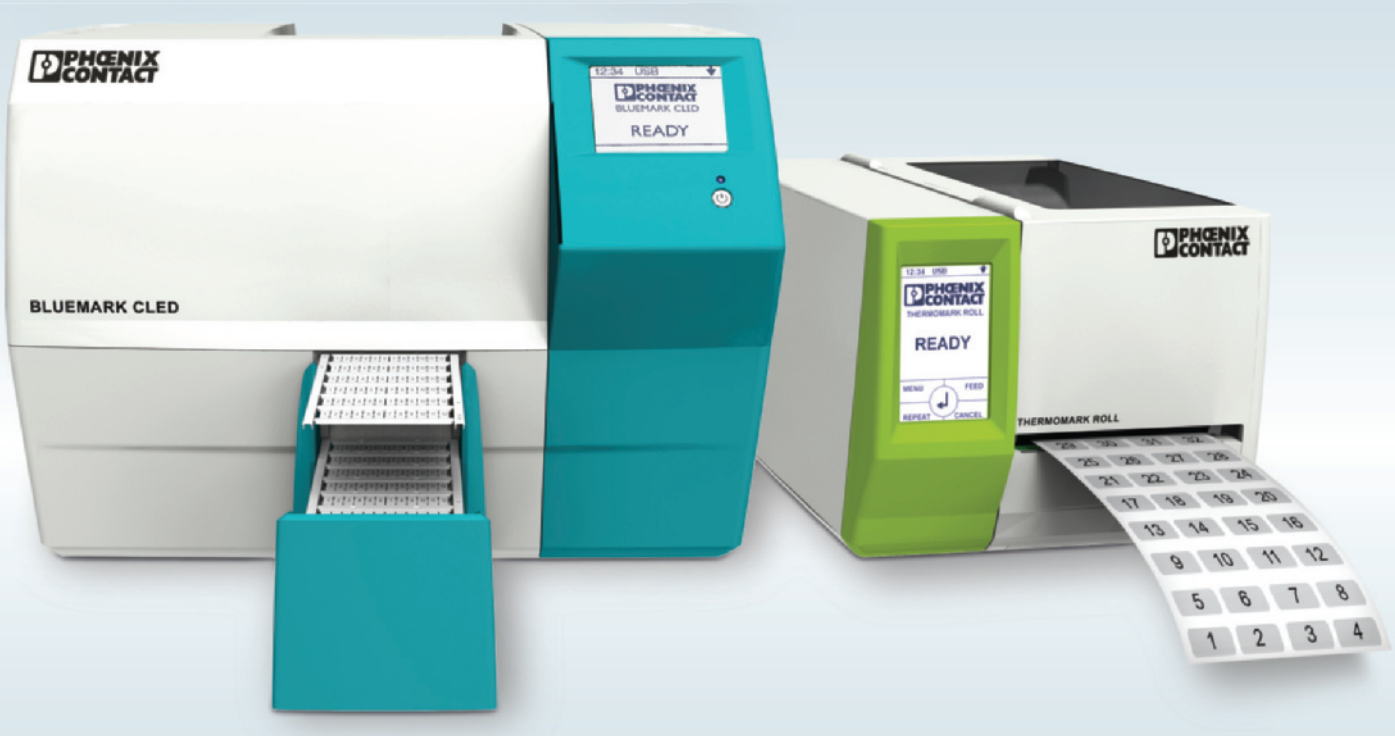


Completely assembled terminal strip – assembled in-house or delivered by Phoenix Contact

Versatile use of the printing systems

We offer the right printing system for every requirement. Select from:

- BLUEMARK CLED, the high-speed UV printer for high demands
- THERMOMARK, the universal thermal transfer printers for plastic labels and labels in roll format
- Labeling service for all customer-specific requirements with quick delivery service



Optimum marking material for your application

The manifold product range covers all the requirements of terminal, cable and conductor marking as well as device and system marking. The quality labeling on plastic markers, labels and metal signs expand the applicability up to areas with increased requirements.

Reduce your production time with a quick installation

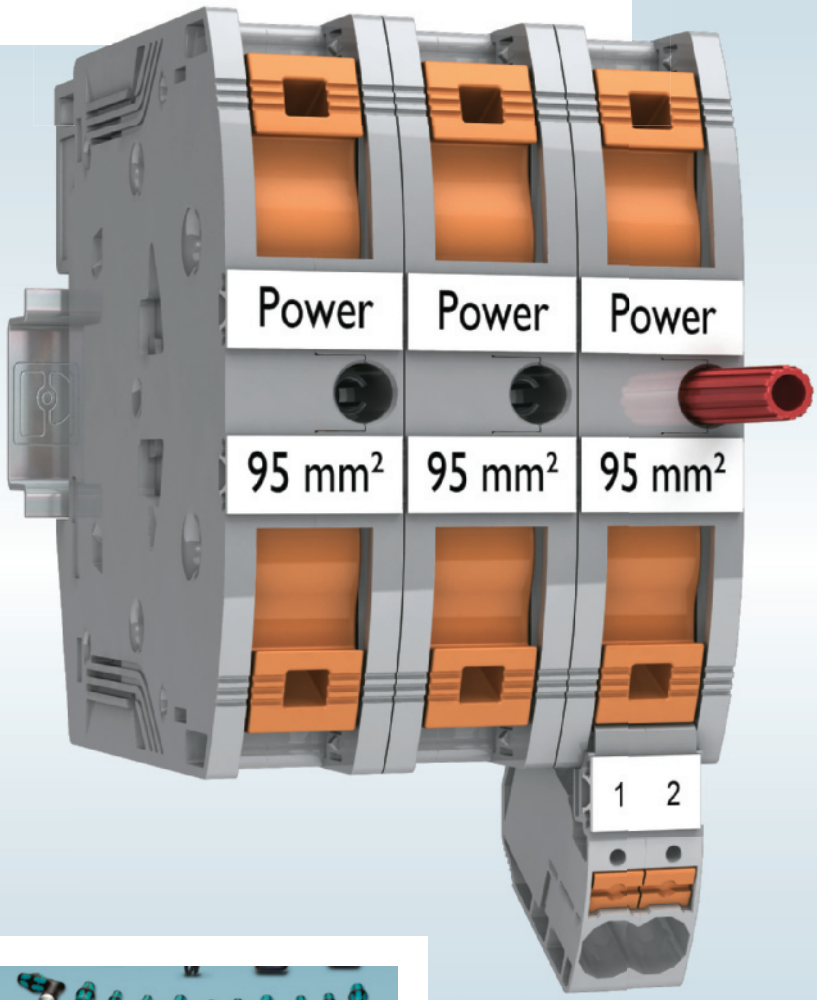
As a machine builder, you are subject to increasing competitive pressure. Reduce your costs and assembly times with quick and error-free wiring. Innovative connection technologies and professional tools provide you with significant saving potential in your installation process. Another advantage: Reduced production times also allow you to get the machines to your customers faster.

Crimphandy – the portable automatic stripping and crimping device

With Crimphandy, the portable hand-held machine, you will need no more than 2 seconds for stripping and crimping your conductors. Now it takes 75% less time than before.

Reduce your production time with a quick installation

Connection technologies that are quick and easy to operate, such as the push-in connection technology and the SPEEDCON rapid interlock system, reduce the wiring time and minimize the error rate. In addition, use the simple and easy-to-handle tool and expand your advantages even further.



High-current terminal blocks with push-in connection

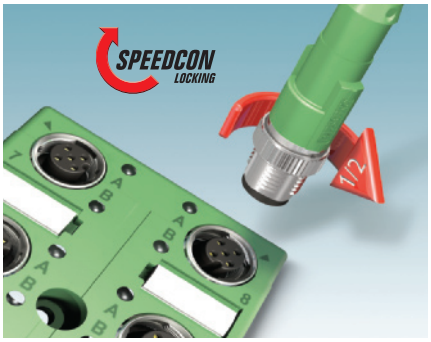
- Quick and easy connection is now also possible for large cross sections up to 95 mm²
- Insertion forces are reduced by 50% while maintaining the best contact forces
- Conductors can be easily released by pressing the orange-colored latch
- Numerous product groups are already equipped with push-in

Push-in Technology
Designed by PHOENIX CONTACT

The right tool for every application

The Toolfox tool program offers excellent hand tools and machines for cutting, stripping, crimping, screwing and testing.

Our ergonomically-designed tools convince through simple handling, high service life and best working results.



SPEEDCON rapid interlock system

The SPEEDCON rapid interlock system is based on the principle of "Plug & Turn". Just half a turn and you create the perfect plug-in connection, thereby reducing your assembly time by 90%.

Acquiring I/O signals in the field

Axioline E is the I/O system for field installation. With SPEEDCON connection technology and M12 power plug-in connectors, the I/O system is fast to install and particularly easy to operate. The robust I/Os are available in metal or plastic housing.

Securely connecting the field level to the controller

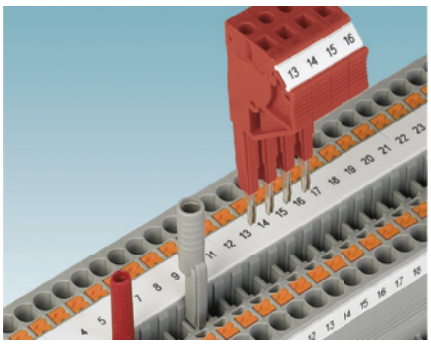
VARIOFACE system cabling connects the controller to the field - easy and error-free. Phoenix Contact provides the corresponding front adapters, system cables, and interface modules.

Reduce your parts variety and lower your warehousing costs

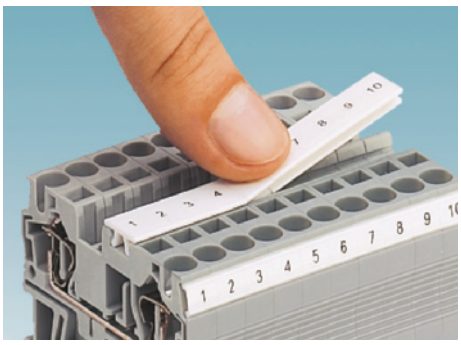
Product solutions that are perfectly matched to each other are a decisive factor for you to keep the manufacturing costs of a machine as low as possible. Our standardized accessories can be used in many product groups. This allows you to reduce your parts variety, lower your warehousing costs and still remain flexible. Standardized products facilitate the commissioning and maintenance for your installation and service engineers with uniform design and operating concepts.

Uniform and standardized accessories

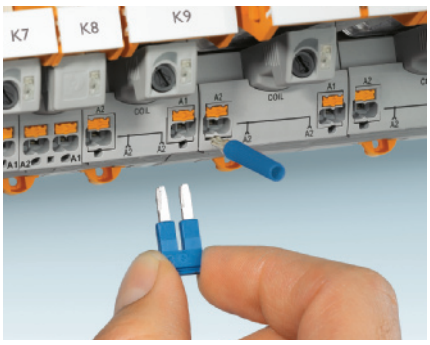
Take advantage of the CLIPLINE complete modular terminal block system for many other product groups, such as the RIFLINE complete relay system or the Axioline F I/O system.



Standardized test system



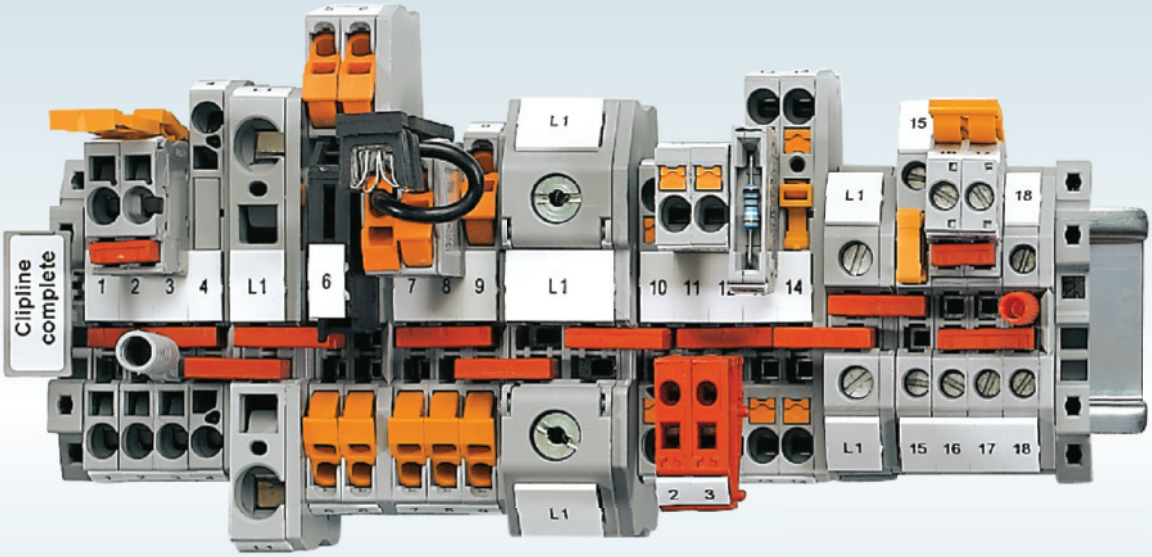
Clearly arranged marking



Flexible plug-in bridge system

Reduce your parts variety and lower your warehousing costs

In the state-of-the-art modular terminal block, relay and automation systems, simply use the standardized accessories, no matter whether you want to bridge, mark or test. With CLIPLINE complete, you have a modular terminal block system for all connections. Use the RIFLINE complete relay system to implement all standard relay applications and use the Axioline F I/O system for all common networks.



All connection technologies, one system

With CLIPLINE complete, you can freely choose the connection technology. Whether screw, push-in, spring-cage, quick, bolt or plug connection: Combine all connection types using the same accessories.

Push-in Technology

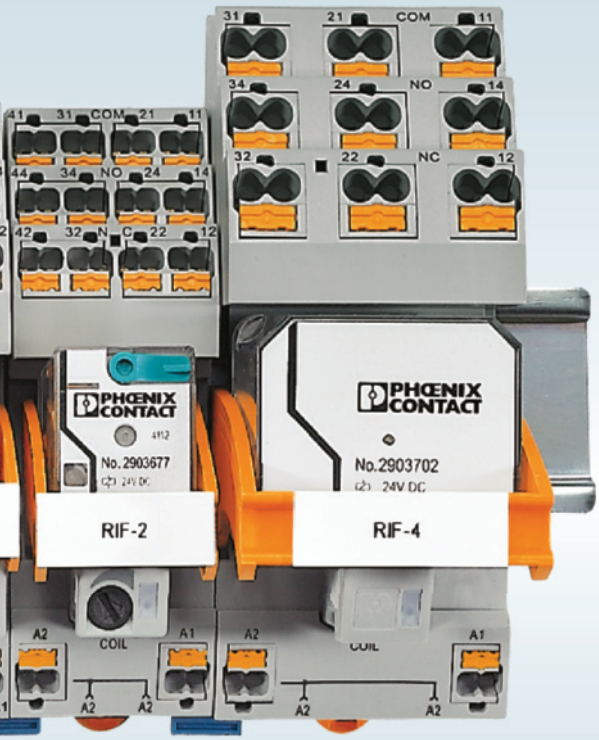
Designed by PHOENIX CONTACT

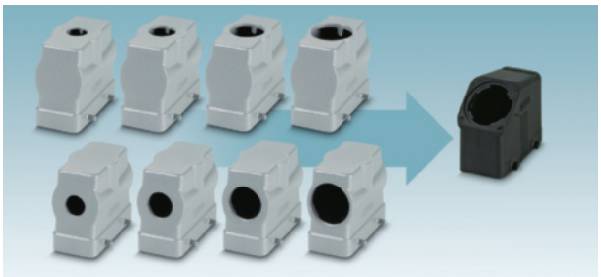
Relay system with simple handling

The RIFLINE complete relay system with universal plug-in design supports quick, easy, and error-free handling. Use the industrial relay system to implement all standard relay applications. The area of application ranges from the coupling relay and timer relay up to the replacement of small power contactors.

One I/O system for every network

With Axioline F, you are flexible in the connection to the controller, because the system is open for all common networks. With the short response times, you increase machine cycle as well as output. The push-in technology provides a simple and quick installation. The devices are particularly rugged thanks to the excellent EMC design and stable mechanical design.





One system – fewer parts

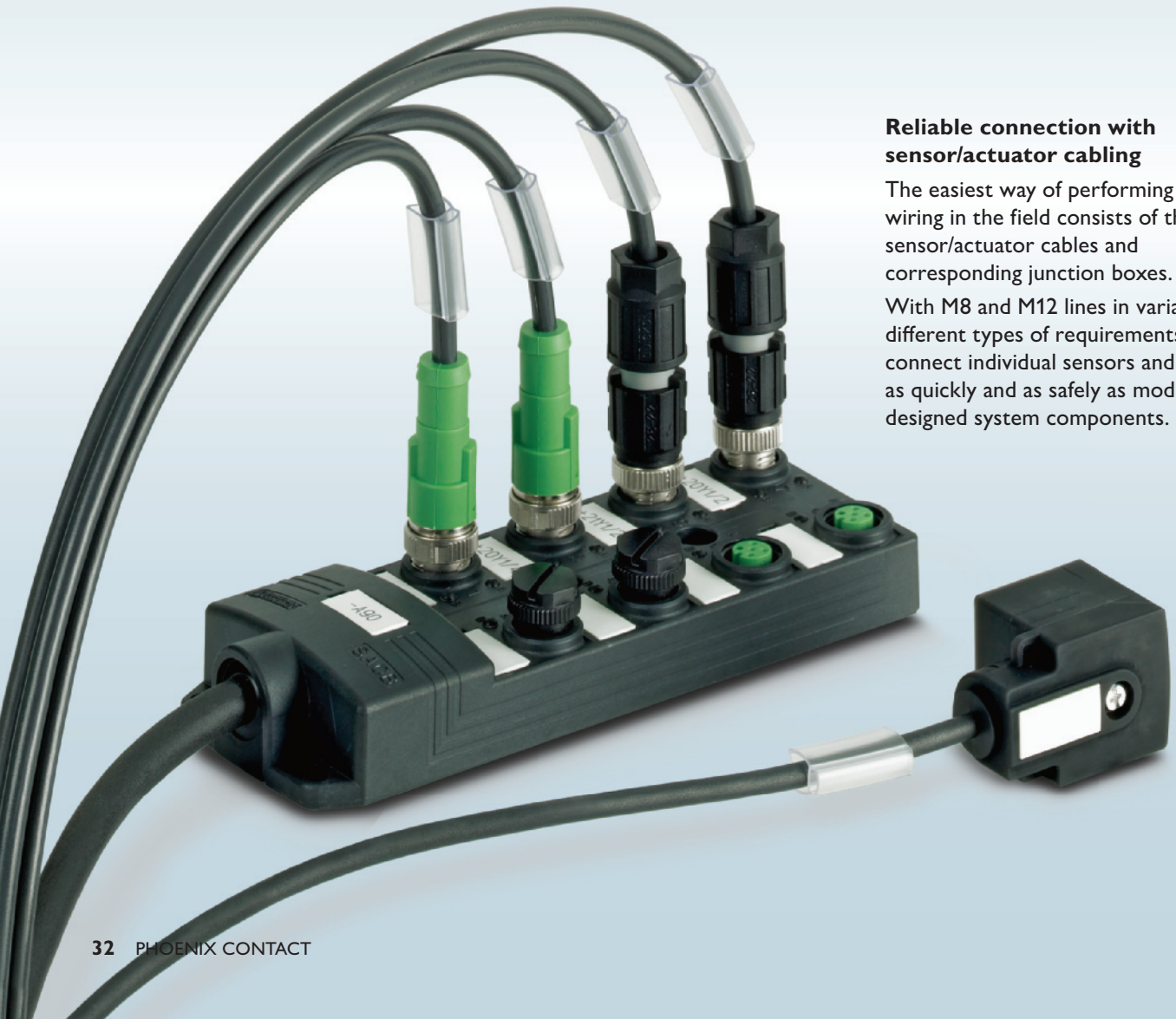
The HEAVYCON EVO plug connector system features a standardized mount for cable glands from size M20 to size M40. The cable outlet direction can easily be determined on site. This allows up to eight conventional sleeve housings to be replaced.

Assemble machines – modular and flexible

Nowadays, you have to guarantee the flexibility of machines because it must be possible to quickly adapt machines to changes of the market. For this reason, they have to be designed in a modular fashion since modular designed machines guarantee your customers the greatest possible flexibility. To be able to deliver large and large-scale machines to your customers, you also have to design the machines to be modular for transport.

Assemble machines – modular and flexible

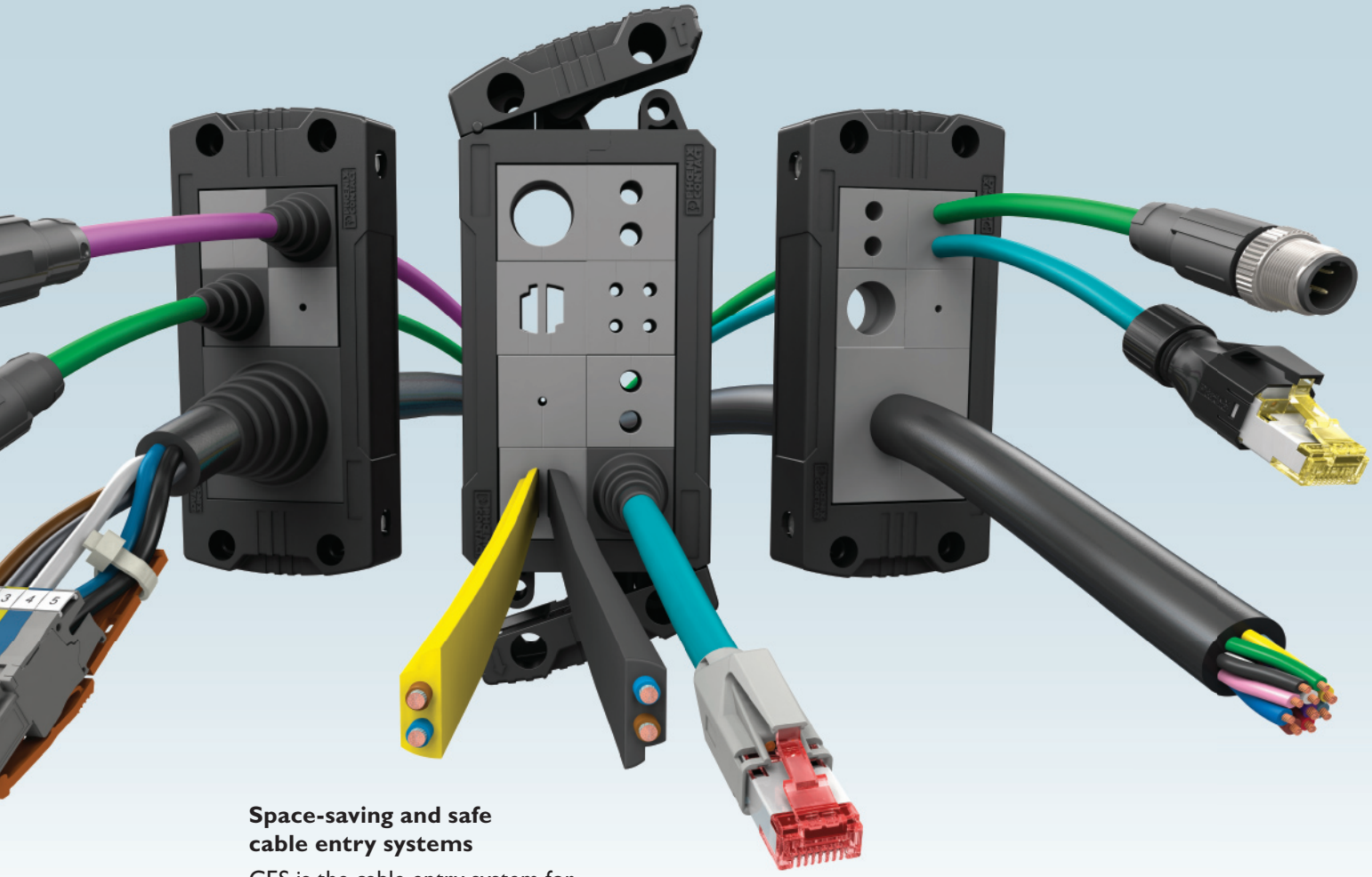
For the modular assembly of large switching stations and machines, the simple, quick and safe assembly at the target location is particularly important. Plug-in systems in combination with individually configurable cable entry systems support you and guarantee the required flexibility.



Reliable connection with sensor/actuator cabling

The easiest way of performing the signal wiring in the field consists of the use of sensor/actuator cables and corresponding junction boxes.

With M8 and M12 lines in variants for all different types of requirements, you can connect individual sensors and actuators as quickly and as safely as modularly designed system components.



Space-saving and safe cable entry systems

CES is the cable entry system for assembled cables and lines. It allows routing all types of different cables in a space-saving way from the control cabinet to the field. You assemble the system consisting of individual sleeves and frames according to your requirements.

Stackable plug-in connectors

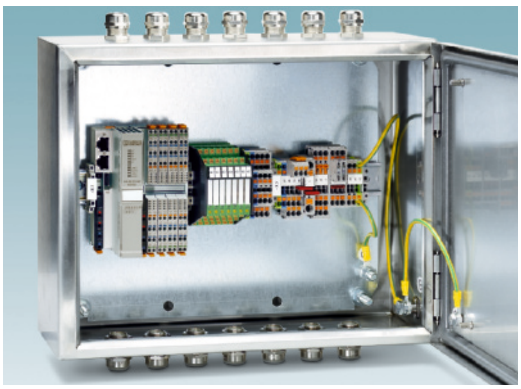
DUPLICON is the plug-in connector for decentral power distribution. They can be used to assemble and expand machines and systems very easily. The robust, stackable metal housings excel through simple handling while simultaneously providing a high degree of protection. Ideal for modular cabling from control cabinet to field device.

Worldwide service and support: We are there for you

As the customer, the focus is always on you at Phoenix Contact. The worldwide sales network allows a competent and personal consultation directly on site. As a result, you receive high-quality products quickly and reliably everywhere in the world. We are there for you – not just before the sale, but also afterwards with extensive after-sales services.

Assembling terminal strips

We commission product sets, and mount and wire terminal strips according to your specifications. Furthermore, we integrate pre-assembled terminal strips into the appropriate terminal boxes.



PHŒNIX
CONTACT
PR Meeting Point

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

phoenixcontact.net

Product range

- Cables and connectors
- Controllers and PLCs
- DIN rail power supplies and UPS
- Electronic reversing contactors and motor control
- Electronics housing
- Ethernet networks
- Fieldbus components and systems
- Functional safety
- HMIs and industrial PCs
- I/O systems
- Industrial communication technology
- Industrial lighting
- Installation and mounting material
- Marking and labeling
- Measurement and control technology
- Modular terminal blocks
- Monitoring and signaling
- PCB terminal blocks and PCB connectors
- Plug-in connectors
- Protective devices
- Relays
- Sensor cables and connectors
- Software
- Surge protection devices
- System cabling for DCS and PLC
- Tools
- Wireless data communication

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PHOENIX CONTACT
INSPIRING INNOVATIONS