



Product Overview

Innovations for your success



Phoenix Contact | Product Overview

Phoenix Contact is the specialist—from electrical connection systems to electronic automation technology. At Phoenix Contact, you get first-class components and service from a single source for everything to do with your application.

Tailored to different markets and their needs, at the heart of the company lies an extensive product portfolio—device and PCB connection technology, industrial components for electrical engineering and electronics, as well as industry-specific automation solutions.



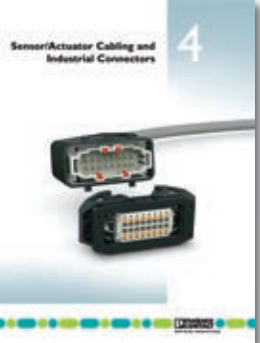
PCB Connection Technology and Electronics Housing



Connection Technology for Field Devices



Terminal Blocks



Sensor/Actuator Cabling and Industrial Connectors



Marking Systems, Tools and Mounting Material



Surge Protection and Power Supplies



Interface Technology and Switching Devices



Control Technology, I/O Systems and Automation Infrastructure

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PHOENIX CONTACT India

With inspiring innovations and local support

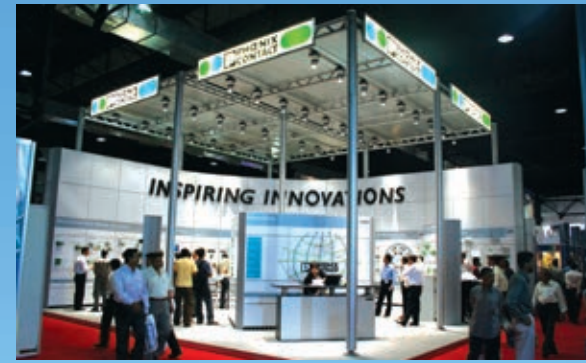


Phoenix Contact (India) Pvt. Ltd., founded in 1993 as a joint venture, is one of the sales subsidiaries and production locations in the Phoenix Contact Group.

Customer proximity and satisfaction is the most important principle for over 500 employees working all across the country. The company is constantly introducing innovative products into the market, setting trends in Industrial Automation, Machine Building, Energy, Railways, Building Automation, Telecom and Process industries.

We have a state-of-the-art production facility at Prithla in close proximity to the capital city of New Delhi. The facility is equipped with advanced technology, machines and test devices to facilitate flexible, quick and high precision production to meet global standards and demands.

“Technology Center”—an ultra-modern development facility right in New Delhi has been set up, with an aim to support the innovation and development at Phoenix Contact Group. The center is providing the technical services to development process world wide within the Phoenix Contact Group.



Our expertise include Product Development, Product Testing and Product Certification. A formal recognition of competence of our laboratory by National Accreditation Board for Testing and Calibration Laboratories (NABL) according to ISO/IEC 17025:2005.

Phoenix Contact India has been fulfilling its commitment of “Global Solutions – Local Presence” for the customers with its increasing number of regional offices in important cities including Mumbai, Pune and Bangalore. An experienced team of product specialists and regional engineers are working closely together to offer timely support to our customers in major cities of the country along with a dedicated network of more than 220 channel partners.

As part of the global Phoenix Contact production network, Phoenix Contact India is committed to provide the Phoenix Contact quality standard for all products made in India. With advanced equipment, sophisticated workmanship, comprehensive testing method and strict quality control in all processes, we provide our customers with most reliable products. As part of our corporate philosophy and culture, a constant process of staff qualification, education and training ensures that all employees are well trained and motivated which perfectly supports the growth strategy of Phoenix Contact for the Indian market.



Industrial Cabinet Connectivity

All Connections at One Stop Solution

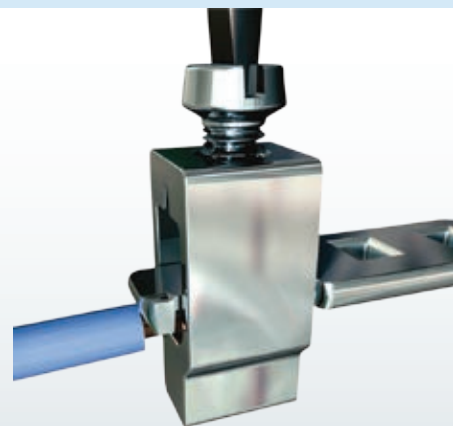
Modular Terminal Blocks System for all applications

With CLIPLINE product line, the unique modular terminal block system from Phoenix Contact you can freely select the connection technology. Irrespective of which connection technology you choose, they can all be freely combined with the same accessories like bridging, marking & test accessories which can be standardized & can reduce your logistics & storage costs.



Screw Connection Terminal Blocks

- Housing material of polyamide 6.6 provides high insulation resistance good fire resistant and operating temperature upto 125°C.
- Non-ferrous metal part avoids electrolytic corrosion and also prevents unequal thermal expansion between conductor and clamping parts.
- Unique screw locking design prevents self-loosening of screws or due to vibration.
- Wide range of conductor size can be terminated from 0.2-240 sq.mm.



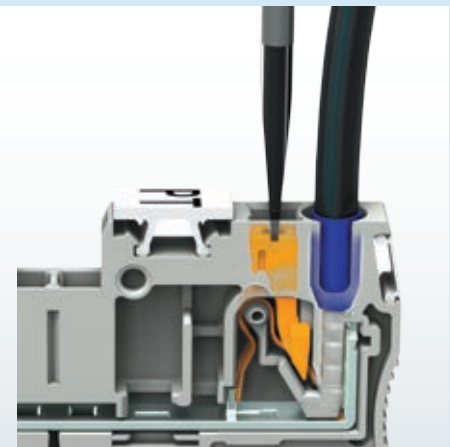
Spring Connection Terminal Blocks

- The proven connection technology for applications those are sensitive to vibration.
- Offers large insertion space it means that conductors with a nominal cross section can be wired both with and without ferrules.
- Double bridging shaft provides flexible bridging-alternate and continuous bridging is possible.
- ATEX approval is standard for all feed through terminal blocks.
- Wiring is easy using the space saving front connection.
- Conductor size can be terminated from 0.2-35 sq.mm.



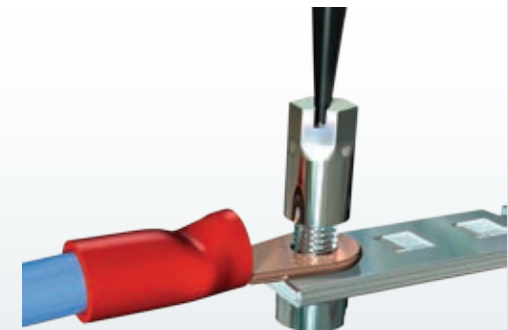
Push-in Connection Terminal Blocks

- Fast and easy wiring with much less physical force.
- No special tool is required for wire termination.
- Clear separation between the operating push button and the wire entry point.
- Double bridging shaft provides flexible bridging-alternate and continuous bridging is possible.
- Now you can directly wire conductors from 0.34-150 sq.mm.



Bolt Connection Terminal Blocks

- Most robust connection for conductors with ring cable lugs.
- Highest Contact safety with simple operation.
- The insulating housings of the bolt connection terminal blocks are made of recyclable PA 6.6. This elastic plastic with high impact strength is halogen-free and UV-resistant.
- Wide range of conductor size can be terminated from 0.2-300 sq.mm. for power as well as rolling stock applications.



Combi Plug-in Connection Terminal Blocks

- The COMBI pluggable terminal block is a modular DIN rail mounted terminal block which provides for a standard terminal block connection on one side and a plug connection on the opposite as well as a complete hanging solution for inter-panel wiring application.
- Plugs are available upto 15 position and also available in individual plugs for self assembly.
- Available in all connection technologies i.e. Screw, Spring-Cage, push in and fast connection technology upto 6 sq.mm.



Pluggable Protection and testing device

- Phoenix Contact has created such a solution with FAME that makes the safe operation of transformers possible.
- The operator can identify the status of the transformer circuit-test, operation or interruption-based on the type of socket. When unplugged, the transformer is short-circuited. Phoenix Contact's Fame plug-in test system is modular, configurable, cost saving and easy to operate.
- The plug contacts are designed for 500 V rated voltage at 30 A and easily last for 500 plug cycles.
- Panel mounting enables installation in the control cabinet door that allows tests to be carried out without having to access the inside of the control cabinet (wiring level), which eliminates the possibility of modifications or manipulation.



Industrial Field Connectivity

IP65+ Connectors for Signal, Data and Power applications

PLUSCON FIELD: Sensor/actuator cable

Application	: Drag chain, Robotics, Welding, Food & Beverage, Outdoor, Railways, Fieldbus Communication, Solenoid Valves and Pharmaceuticals.
Type of interfaces	: M8, M12 and 7/8"
Pin Configuration	: 3 to 17 poles.
Power Ratings	: Up to 600 V, 13 A
Cable lengths	: Up to 40 meters



PLUSCON FIELD: Sensor/actuator cable connectors

Application	: Sensors, Solenoids Valves, ETHERNET, PROFINET and Field bus communication
Type of interfaces	: M8, M12 and 7/8"
Pin Configuration	: 3 to 17 poles.
Power Ratings	: up to 600 V, 13A
Connection Technology	: Screw, Solder, Crimp, Piercecon, Spring-Cage, QUICKON (IDC).



PLUSCON FIELD: Sensor/actuator cabling boxes

Application	: Outdoor, Food industry, Machine building.
Type of interfaces	: M8 and M12.
No. of Sensors slots	: Up to 16.
Sensor Type	: For with or without wire, PNP, NPN and Universal Sensors.
Status Indication	: With and Without LED.



PLUSCON Installation: Power Connectors and distributors

Application	: Hanging Connection, Panel feed-through, 1-in & 3-out distribution and T distribution.
Power ratings	: Up to 690 V, 40 A
Wire Size	: Up to 6 mm ²
Cable diameter	: Up to 20 mm



PLUSCON heavy: Heavy-duty plug-in connectors

Application	: Panel feed-through, Surface Mounting, Hanging / Coupling Solution, Blind Mating Connection.
Pin Configuration	: 3 to 216 poles.
Power Ratings	: Up to 5000 V, 200 A.
Connection Technology	: Screw, Crimp, Spring-Cage, Push-in, QUICKON (IDC), axial screw, Fiber optics and Pneumatics.
Housing Material	: Plastic and Metal.



PLUSCON Cabinet: Installation and mounting solutions

Cable entry system	: Frames for 6, 8 and 10 cables. Cable Sleeves up to 33 mm outer cable diameter.
Din rail plug connectors	: For IP54/IP55 and IP65 applications. Up to 108 poles.
Service interfaces	: Different combinations of Universal Power socket, RJ45, USB and D-Sub. IP65 protection.



PLUSCON Data: Network Cables

ETHERNET	: For Cat5e and Cat6 applications.
PROFINET	: For 4-wire, cat5e applications.
Fiber Optics	: Multimode glass and polymer fiber.
Fieldbus	: PROFIBUS DP, DeviceNet/CANopen, FOUNDATION and ASI Cables.



Marking and Installtion

The right marking system, tool and mounting material for all applications.

MARKING SYSTEM

The perfect solutions for terminal, conductor, cable, device, and system marking. It places at your disposal the CLIP PROJECT planning and marking software, various printing systems, and a wide variety of marking materials.



TOOLFOX

The full range of professional processing and measuring tools for all electrical engineering applications. The ergonomically designed tools for cutting, stripping, crimping, screwing, and testing impress with their optimum handling and quality. Specially hardened tool steels ensure maximum durability. Cutting devices, stripping machines, and crimping machines can be used to automate work steps.



CABINET add-on

Products for modern control cabinet technology which ensures that control cabinets and switchgear can be set up quickly and take up as little space as possible. DIN rails and end brackets ensure the secure attachment of electrical connecting elements and components. Shield connection clamps guarantee EMC-compliant system wiring. The cable management product range consist of cable protection systems and cable ducts, right up to cable binders for every application.



Marking and Labelling

- **Terminal marking:** The terminal markers are available in strips or sheets and with or without labelling in accordance with customer requirements.
- **Device marking:** Various device markers are available for the optimum and individual marking of control cabinets, switchgear, and their components.
- **Cable marking:** Conductors and cables can be marked in numerous different ways. The markers can either be threaded on, pushed on, clipped on, adhered in place or attached with cable binders.



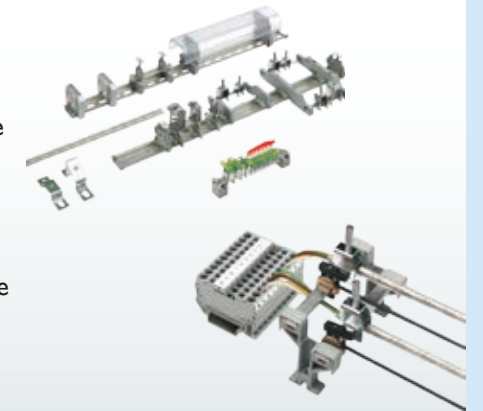
Cable Management

- **Cable routing:** The wide choice of cable ducts provides users with flexible and straight forward cable installation solutions. The cable ducts are available in different colors and with a halogen free design.
- **Cable protection:** The extensive product range of protective hoses made of plastic and metal offers the ideal solution for every application.
- **Cable bundling:** For bundling cables, detectable cable binders and stainless steel or plastic cable binders are available in either a removable version or with a labeling area.



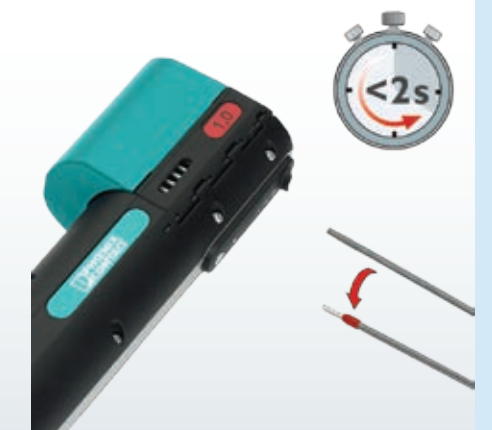
Installation and Mounting material

- **Shielding:** A wide selection of shield connection clamps, neutral busbars, and supports guarantees that the wiring of the control cabinet or the switch system complies with EMC regulations and also ensures optimum wiring convenience.
- **Component mounting:** You can save time when securing electrical connections and components in switchgear by using suitable mounting devices. In addition, you can make optimum use of the space in the control cabinet by combining mounting accessories.



Crimphandy

The world's first mobile powered stripping and crimping tool. An innovation that will revolutionize the tool market as a unique novelty. Stripping, fitting with a ferrule and crimping are carried out in one work step. The entire process is completed in approximately two seconds and the next conductor can be inserted for processing.



I/O and Networks

Excellent Products for your automation infrastructure

Industrial Ethernet Unmanaged Switches

- DIN Rail Mountable Industrial Grade Switches.
- With or Without integrated FO ports up to 16 Ports.
- Redundant Supply with alarm contact(optional).



Industrial Ethernet Managed Switches

- Industrial Grade DIN Rail Mountable up to 16 Ports
- Wide Temp Range.
- Switches with MM and SM fiber Ports.
- Fastest ring recovery time < 15 ms up to 200 Switches.
- Comprehensive IT security features.
- Easy web management for configuration.
- Option with Gigabit Uplink and Downlink ports.



IEC 61850: Substation Hardened Switches

- Industrial Grade DIN Rail and Rack Mountable Ethernet Switches up to 28 Ports.
- Fastest ring recovery time < 15 ms up to 200 Switches.
- Hot Swappable Power supply in LV and HV.
- Rugged as per IEC-61850.
- PRP BOX for bump less redundancy.



Fiber Optic Media Convertors

- Industrial Grade Wide Range of Fiber optic convertor for Serial (Profibus, Modbus, RS 485/232/422 and many other serial bus system and Ethernet).
- Live Bar-graph monitoring of Fiber Optic Path.
- Alarm contact for the maintenance.



Serial Isolator / Repeater

- Wide Range of Serial isolator / Repeater for Profibus / Device Net / Can Open / RS232/ RS 485/422.
- High level of electric isolation.
- Integrated surge protection.



Modbus Gateway

- Industrial Grade RS 232/485/422 to Modbus TCP/IP Gateway or Vice Versa.



D-Sub Subcon Connector

- Metal Plated D-Sub Connector for Profibus / Can Open and Serial Ports to ensure High EMC Protection.
- Wide range of product in various angles for cable entry.



Safety Relays for Machine

- Wide Range of Safety relays for E-STOP, Door Switch, Magnetic Switch, Light Curtain and Two Hand control applications.
- Meet high level of Safety up to PL "e" as per ISO-13849.
- Available Output contact as per application requirement with instantaneous and delayed contact option.



Process Safety Coupling relay

- Up to 70% space savings without limiting performance, thanks to new relay technology.
- Easy and quick proof test, thanks to force-guided contacts.
- Installation up to Ex zone 2, thanks to extensive approvals.
- Quick and error-free startup using the system cabling.
- TUV approved IEC 61508 SIL 3 Relay.
- Wide range to meet process industry application needs.
- Line / Load monitoring without additional DI.



Configurable Safety Module

- Multifunction use for a wide range of safety function.
- Flexible extension with safe inputs and outputs.
- Easy graphical configuration instead of complex programming.
- Quick start up thanks.



Safety Bridge

- No Safety Controller required.
- Easy configuration.
- In any network safety bridge I/O's perform all the relevant safety tasks.



Industrial Wireless

- Wide range of products to meet IO-IO, Serial-Serial, Ethernet-Ethernet application.
- Reliable and Secure communication technologies.
- License free frequency band communication on 2.4 Ghz band.

Bluetooth



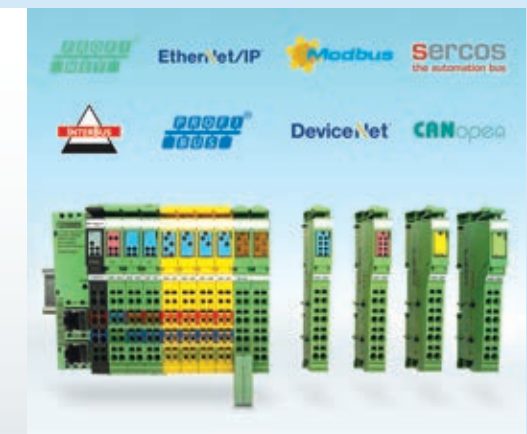
Remote Telecommunication

- Industrial UMTS/GSM router (850, 900, 1800, 1900, 2100 MHz) with Ethernet interface.
- Firewall, NAT and IPsec VPN support. Sending via SMS: 6 digital inputs, 4 digital outputs. Configuration via web-based management.



IP 20 I/O's

- I/O's for various field bus option.
- Fastest local bus communication.
- Maximum range of function.
- IEC 61850 I/O with KEMA certification.



IP 67 I/O's

- Comprehensive product portfolio with optional zinc die cast housing and metal.
- Fast response time, robust design and handling.
- Solution available for various serial and Ethernet based fieldbus.



Interface Components

The Interface range offers all the modules for industrial control needed for the signal conditioning of digital, analog and power signals, such as signal converters, switching devices and cabling solutions.

Relay: Highly-compact PLC-INTERFACE

The PLC-INTERFACE relay system is the interface between the controller and system I/O devices.

The relay comply to protection up to RTIII (IP67) standard.
Safe isolation according to DIN EN 50178 (VDE 0160)

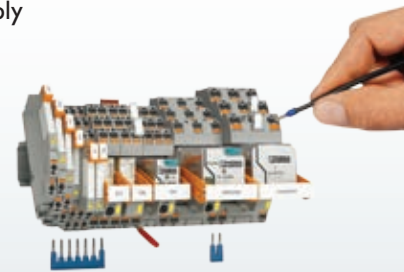
- Compact design 1CO in 6 mm & 2CO in 14 mm width.
- Electromechanical and Opto-coupler are interchangeable.
- Special relay bases for sensor/actuator/universal connection.
- Bridging, marking, adaptor for easy and quick wiring.
- Relay base with interference filter to ensure reliable switching.



Relay: RIFLINE Complete

RIFLINE complete industrial relay range covers complete function of isolate, multiply or amplify signals. It offers switching of one milliamps to replacement for miniature power contactor with currents up to 16 A with common plug-in shorting bridge and test plug accessories

- The relay system with a consistent plug-in design, dedicated test point and marking flag provide enhancement in inspection and clear identification.
- Universal clipline shorting bridge for potential distribution.
- Inbuilt over ride function and mechanical status on relay.
- Pluggable multifunction timer make easy to get timer function up to 4CO contact.



Relay: Special Function

There are a number of applications in industries where ordinary relays are not preferred due to limited functionality. For such special & specific applications Phoenix Contact has introduced Special Purpose relays as:

- Relay interfaces for switching high inrush loads.
- Power Circuit breaker solid state relay with short circuit proof.
- 100 kHz switching relay and Inverter Module.
- Electronic sensor terminal block for NAMUR proximity sensors.
- Relays for railways application for vibration & shock resistance.



Hybrid Motor Starter & Motor Manager

CONTACTRON Hybrid Motor Starter is a microprocessor-controlled combination of wear free solid state & rugged contactor. It offers up to six functions in one device. Due to solid state switching it ensures higher service life & it is noise free than mechanical contactors.

- Hybrid Motor Starter (up to 4.5 KW / 3 ϕ motor).
- Smart Wiring with Gateway for different bus systems.
- Inbuilt interlocking & multifunction single device save 75% less wiring time and less space.
- Safety levels of SIL 3\$ PLe.
- Motor Manager for real power monitoring (U, I, P, S, Q, cos ϕ , ...)



Solid State Contactors

Solid-State Contactors allow quick, frequent, and wear-free switching, for example of motors and heaters/pumps/valves. The CONTACTRON Solid-State Contactors are resistant to shocks, vibrations, and aggressive, polluted environments.

- Integrated locking & load wiring.
- Solid State Contactor (up to 37 A / 3 ϕ motor).
- Solid State Contactor (up to 50 A / 1 ϕ motor).
- Stable & fast switching.
- Solid-state Contactors provide smooth starting and stopping functions to suppress sudden motor operation and thus reduce mechanical stress.



Varioface System Cabling (PLC specific)

Varioface System Cabling offer PLC/DCS specific solution for easy and plug-n-play error free wiring. This ensures system startup in minimum time with highest accuracy.

- Dedicated front adaptor and system cables for all major controllers.
- Termination boards with plug-n-play interface completely eliminates manual wiring & meets high speed automation standard IEC 60603-13.



Interface Prefab Cabling

Prefab Cable with multi-pin connector for connection conversion, I/O connections for Machines & Controllers (PLC/SCADA etc). Customized and standard cable solutions in various lengths helps easy and error free wiring.

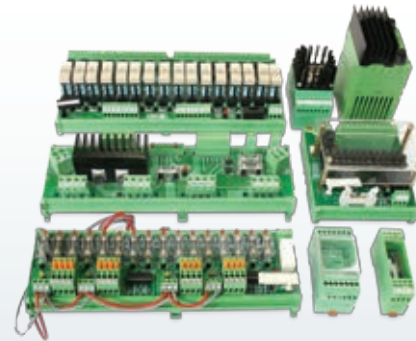
- Both end & open end cable with universal connector (FRC, Dsub, FCN, Elco, EDAC, SCSI etc.).
- OEM and custom built cable for wide range of applications.
- Fast & precise custom specific solution deliverance possible.



Solution Center (Varioface Module)

Varioface Module range offers multichannel Relays, Fuse modules, passive connection for multiplication & amplification of contacts & provide protection between control system & load in control cabinet & machines.

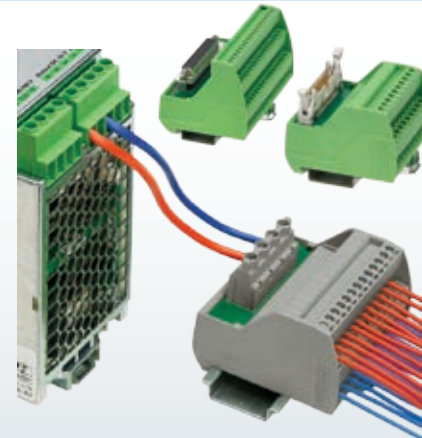
- Passive connection board for 1:1 wiring.
- Multi channel Relay Isolation board with Relays & Opto-coupler.
- Utility & Protection Module with fuse, diode, filter etc.
- Controller specific module like Siemens, Fanuc controller based CNC Machines and I/O interface boards for PLCs.



VIP:VARIOFACE Professional

VARIOFACE Professional revolutionized interface modules with its unique design that results in a slim, compact, and rugged package. VIP with Mechanical strain lock achieve up to 5g vibration level.

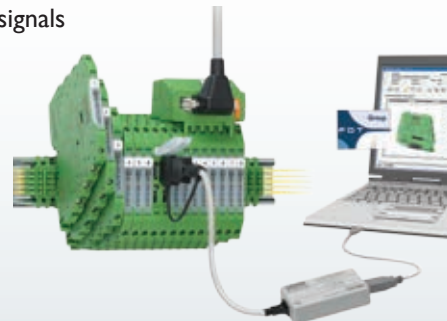
- VIP passive module with FRC, Dsub and other connectors as compact as connector size.
- VIP-power distribution module up to 15A capacity for each channel.
- Multichannel compact VIP relay module also fuse variants.



MINI Analog:“Highly Compact Signal Conditioners”

MINI Analog Signal conditioners isolate convert filter, and amplify your analog signals – with a design width of just 6.2 mm. and up to three-way isolation.

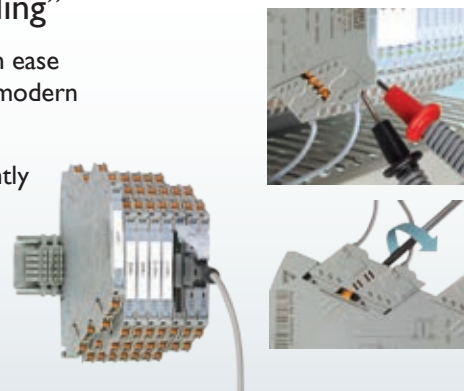
- Easy configuration using software packages and DIP switches.
- Space saving up to 65% & low power dissipation.
- Up to 3-way isolation.
- Power Bridging T-bus system with Power Module with failure detection.
- Fast and error-free signal conditioning with termination carrier.
- Isolators available for NAMUR input signals also.



MINI Analog Pro:“Signal conditioning with easiest handling”

MINI analog Pro offers the entire range of signal adaptation technologies with ease of installation and start-up. The products feature excellent signal quality and modern switching technology with safe electrical isolation.

- The FASTCON Pro Connection Terminal blocks can even be independently inserted and removed.
- Measurement of current signal during operation without disconnection.
- Unrivalled isolation quality in 6 mm class with 3 kV Test voltage.
- NFC configuration via smartphone app.
- Large marking area & visible status LEDs.



MACX Signal Conditioners with SIL Safety

All MACX Analog Ex isolating amplifiers are approved in accordance with applicable ATEX & IECEx standards whereas MACX Safety and MACX Safety Ex are product ranges of analog signal conditioners equipped with a Performance Level (PL) in line with ISO 13849.

- Certified Performance level & Explosion Protection.
- Significant Space saving & Flexible power bridging.
- Compact Termination Carrier for plug-n-play system.
- Bidirectional transmission of HART signals.
- LED display for malfunction in accordance NAMUR NE 44.



Monitoring & Timer Relays:“Compact & Multifunctional”

EMD series monitoring relays can be used to detect deviations in important system parameters (I, W, ϕ , motor winding temp.) at an early stage whereas ETD Multifunction Timer Relays ensure optimum time sequences

- Single phase and 3 phase monitoring.
- Window function monitoring for under range & over range of current, voltage & phase.
- Adjustable startup and release delays with variable supply voltage.
- Housing width of 6.2 mm in timer relay.



PACT & RCP Current Transformers:“Quick Action Mechanism”

Current transformers (PACT series) are the only ones on the market with a quick-action mechanism which saves time, space & provides safety with safe isolation according to EN 50178 whereas. PACT RCP retrofit current measurement system is an industrial-grade complete solution based on the Rogowski principle which provides flexible & folding coil.

- Primary current 1A-4000 A & secondary 1 A AC or 5 A AC.
- Available in more than 3000 versions.
- Contact-safe according to IP 20.
- Rogowski coil for easy retrofitting onto busbars and circular conductors.



Empro Energy Meters for efficient energy management

Empro Energy Meters provide uninterrupted measurement of the energy flow is the foundation of an efficient working energy management system.

- Identification of savings of energy.
- Reduction of peak loads.
- Fast identification of failures.
- Extensible with communication modules.



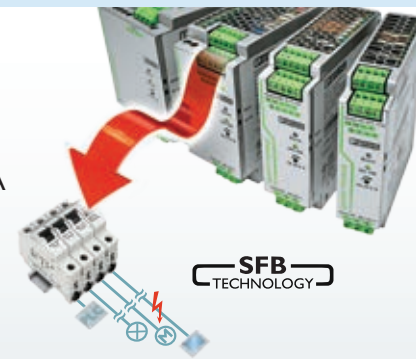
Power Supplies

Power solutions for maximum system availability

AC/DC Converter: QUINT POWER with Advance Functionality

QUINT Power maximizes the availability of your system. Output Power available upto 1000 W in various adjustable voltage range 12, 24, 48 and current from 3.5 A40 A.

- Universal I/P range for AC & DC applications in 1 ϕ and 3 ϕ .
- Quick triggering of commercial grade ckt. Breakers with SFB technology.
- Dynamic POWER BOOST available for upto 1.5 times in continuous.
- Function monitoring with LEDs, Active signal and Relay contacts.



AC/DC Converter: TRIO POWER with Basic Functionality

Trio Power combines basic functionality with high quality and reliability. Output Power available upto 1000W in various adjustable voltage range 12, 24, 48 and current from 2.5 A40 A.

- Wide Input range for 1 ϕ and 3 ϕ applications.
- Robust design with Metal housing and wide temperature range.
- Third negative terminal for grounding on the secondary side.
- Compensation of voltage drop with set point in front.



AC/DC Converter: UNO POWER with High efficiency for stand alone applications

UNO Power offers the ideal solution for loads up to 240 W especially in compact control boxes. Output Power available in various voltage range 5, 12, 15, 24, 48 and wattage from 25 W ..240 W.

- Wide I/P range 85-264 VAC for 1 ϕ .
- High Energy efficiency of over 90% and low no-load losses < 0.3 W.
- Save Space in control cabinet due to high power density.
- Compact design with height 84 mm, tailored to all popular 120 mm control boxes.



AC/DC Converter: MINI & STEP POWER for Decentralized Automation

MINI & STEP Power supplies are ideal choice for Measurement & Control Technology and flat control panels for building installation. Output Power available in various adjustable voltage range 5, 12, 15, 24, 48 and current from 0.5 A8 A.

- Universal Input range for AC & DC Application in 1 ϕ .
- Maximum energy efficiency and incredibly low idling losses.
- Easy-maintenance with Coded pluggable connectors.
- Function monitoring with LEDs and Active Signal Contacts.
- Outdoor installation wide temperature range from -25°C to +70°C.



DC/DC Converter: For Superior System Availability

Quint and Mini DC/DC converters alter the voltage level at the end of long cables and also create electrically isolated independent supply system. Output Power available in various adjustable voltage range 5...60 VDC and current from 0.7 A.....20 A.

- Constant voltage, even at the end of long cables.
- Wide input voltage range from 9...75 VDC.
- Unique feature of SFB and Power Boost Available.
- Function monitoring with LED, Active signals, Relay contacts.



Redundancy Solution: MOSFET & DIODE for High operational reliability

Phoenix Contact offers the ideal solutions for Decoupling, Monitoring and controlling of redundancy modules to increase system availability, in redundant/parallel operation, Modules available upto 2X40/1X80 for redundant/parallel operation.

- ACB Technology to ensure equal load sharing.
- Uniform load distribution to double the Power Supply service life.
- Preventive function monitoring with LEDs, Relay Contacts and Selector switch.
- 70% energy saving due to Mosfet technology.



UPS: Modular & Integrated solution for High System Availability

UPS continue to deliver power even in the event of mains failure. With IQ technology, you are one step ahead in DC as well as AC UPS application. O/P power available upto 12/24 V DC, 2A...40 A in DC UPS and 500 VA to 6 KVA in AC UPS.

- Complete monitoring of UPS as well as power storage device.
- Maximize the service life of power storage device.
- Transfer all relevant information to your computer/controllers.
- Pre alarming about failure at an early stage.



Trabtech

Surge protection with safe energy control (SEC)

Lightning Current Arrester (Flashtrab): Takes the fright out of lightning (TYPE 1/Class B - 10/350 μ s)

"Flashtrab" family with KEMA certification offer high-capacity surge arresters in a standardized, user-friendly installation design. It should be installed at main distribution panel.

Features

- Single high capacity spark gap arresters.
- Pluggability with status and remote indication facility.
- Free from line follow current and no need of fuse in series.



Surge Voltage arrester (Valvetrab): Surge Protection for the control cabinet (Type II/Class C - 8/20 μ s)

VALVETRAB is for protection against switching surges. "Valvetrab" family with KEMA certification can fit into the small space requirements common with industrial, telecom and control cabinets and for the sub-distribution level power supply.

Features

- Pluggable with mechanical & remote indication.
- Thermal disconnect device.
- No need of fuse up to 315 A load current.



Device Surge Arrester (Plugtrab): Device protection for all the applications (Type III/ Class D)

PLUGTRAB PT series provides fine protection to the equipments. It provides protection to power supplies, PLCs, PCs, controllers and other electrical equipment. Available in voltage ranges from 24 V to 230 V. Plugtrab PT is the perfect solution for control cabinets.

Features

- Function display on the device and as remote indication.
- High nominal current, up to 26 Amps.
- Complete function test with CHECKMASTER.



Signal line Surge arrester

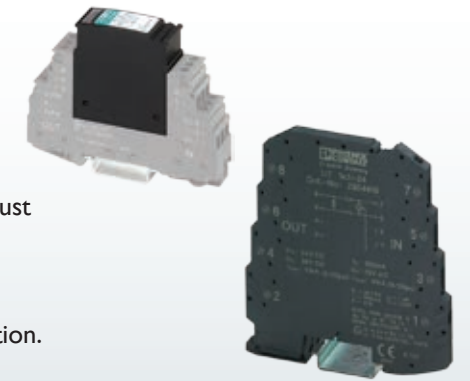
PLUGTRAB PT pluggable solution for analog & digital circuit protection.

LINETRAB

The LINETRAB product range offers surge protection for signal circuits of the MCR technology up to 4 signal wires can be protected over a design width of just 6.2 mm. KEMA/CCOE/ATEX certified and SIL 2 complied.

Features

Both of the above are Compatible with HART and foundation field bus application.



SURGETRAB: Transmitter protection

SURGETRAB is a surge protection device that are especially intended for installation on measuring heads/TRANSMITTER to protect against current loops or similar standard signals. Two, three and four conductor transmitter can be protected. It has KEMA/CCOE/ATEX approval.

Features

- The direct installation in the measuring sensor saves space and costs in comparison to the conventional installation of surge protection devices in a separately mounted installation box.
- Compatible with HART and foundation field bus application.



DATATRAB: Surge Protection for IT and communication

DATATRAB generation protects high speed networks reliably against damage caused by surge voltages. DATATRAB combines high transmission speeds and different data protocols like those of ethernet, Power over Ethernet (PoE), ISDN, token ring, RS 485, RS 232, MODBUS application.

Features

- The device can be usable as an adaptor and rail-mountable device.

COAXTRAB: Coaxial Surge Arrester

Protection of UHF, VHF, Antenna, Video, GSM signals and it comes in different variants with BNC, N, F connectors etc.



Residual Current Monitor and Device circuit breaker

Protection against fault current. It provides information about fault without disconnection. It is available for Alternating & Direct currents.

Device Circuit breaker: Protection against overload / Short circuiting / Attenuation available for 0.1 Amp to 40 Amp DC load current.



PCB Connectors

Device Connection Technology For Signal, Power and Data Application

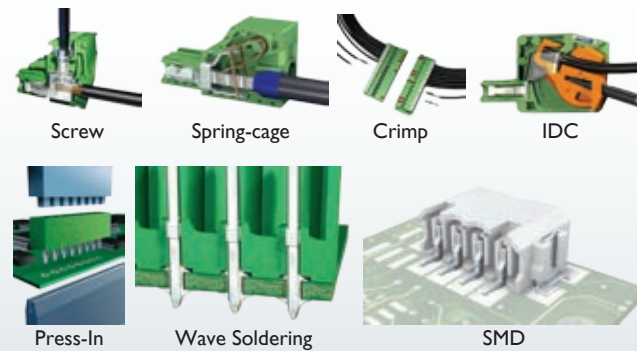
COMBICON Bonding and Connection Technology

Connection Technology

- Screw
- Spring-Cage
- Leg-spring
- Push-In
- IDC
- Crimp
- Bolt
- Pierce

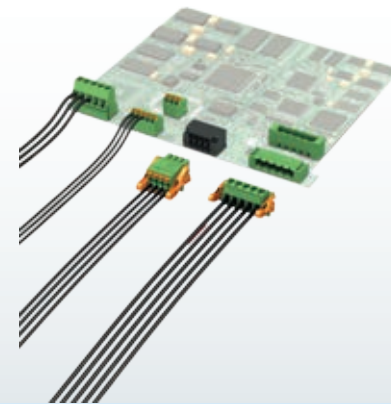
Bonding Methods

- Wave Soldering
- THR
- SMD
- Press-In



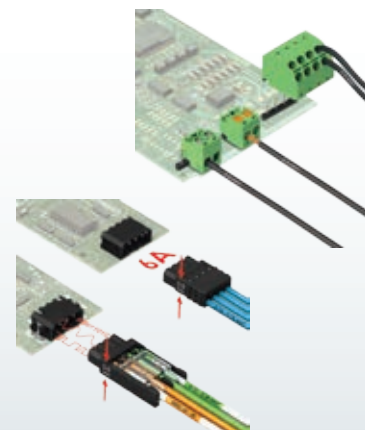
COMBICON Control

Connection Solution for measurement, control technology and I/O modules: PCB terminal blocks and plug-in connectors for rating up to 24 A, 630 V and pitch up to 7.62 mm.



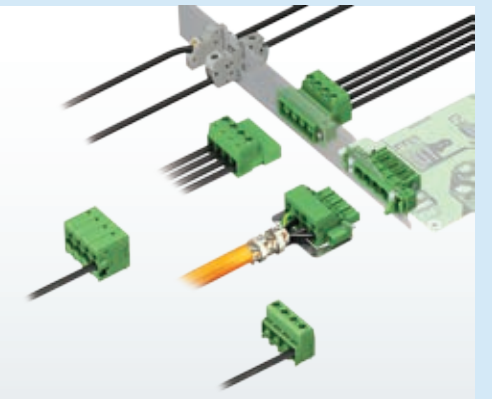
COMBICON Compact and High Density & Data

Compact in dimension with fast and user friendly connection is the latest trend for electronics. Modules in building automation and lighting industry. In line with this trend Phoenix Contact offers Combicon Compact and HD connectors which are rated up to 32 A, 800 V and pitch up to 7.5 mm.



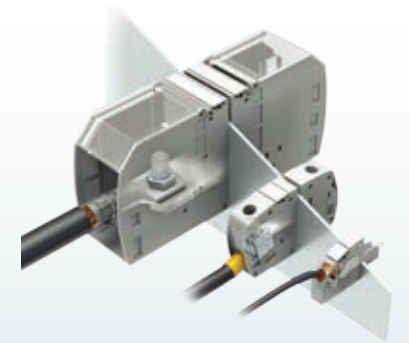
COMBICON Power

Connection solution for power electronics: PCB terminal blocks and plug-in connectors rated up to 232 A, 1000 V and pitch up to 20 mm.



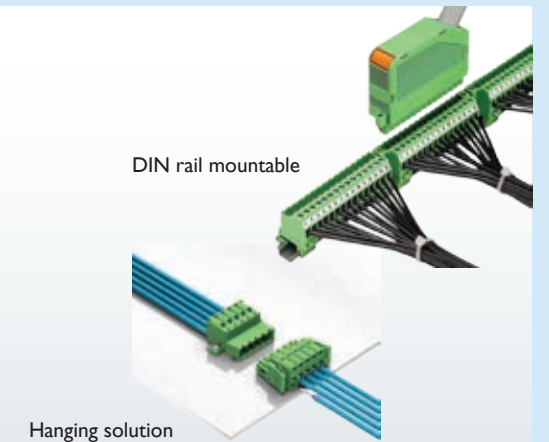
Feed-through terminal blocks for high-current applications

Panel feed-through terminal blocks provide a reliable and convenient conductor connection rating up to 309 A, 1000 V and wire cross-section up to 150 sq.mm.



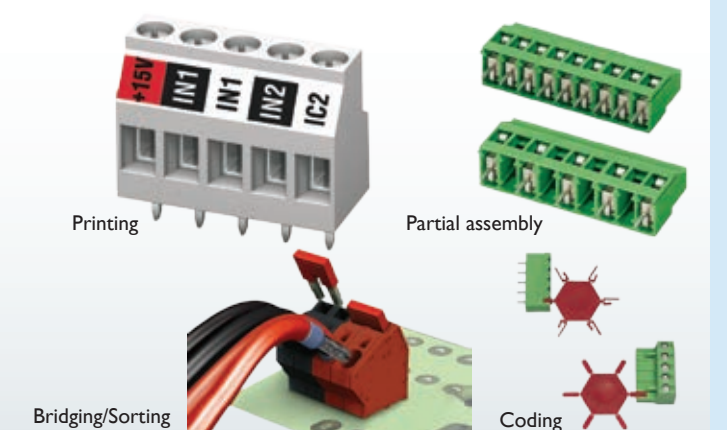
Special purpose COMBICON: Wire to wire solution

- DIN rail mountable pluggable solution.
- Surface mounted pluggable solution.
- Completely hanging solution.



COMBICON Service and Solution

- Partial Assembly
- Printing
- Screw Variants
- Coding
- Bridging/Sorting
- Color variant



Field Device Connectors

IP Protected Connection Technology for Field Devices for signal, data and power transmission

PLUSCON data for copper cabling

It offers connection solution for industrial applications with IP20 and IP65 / IP67 protection for communication interfaces.

Data Solution for copper cabling Plug-in connectors, panel feed-through, and cables for fieldbuses and networks: D-SUB, RJ45, M8, M12, 7/8", SCRJ and USB.

Solutions for copper cabling

- Up to 10 Gbps.
- Protection class IP20 to IP69K
- 4-and 8-pos. versions.
- Spring, pierce, and IDC displacement connection.
- 360° shielding concept.



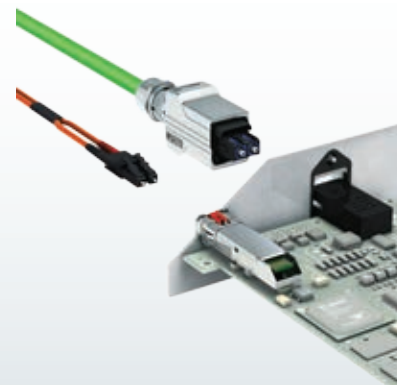
PLUSCON data for fiber optic cabling

It offers connection solution for industrial applications with IP20 and IP65/IP67 protection for communication interfaces.

Data Connectors for fiber optic cabling Plug-in connectors, panel feed-through and cables for fieldbuses and network: M12, SCRJ.

Solutions for fiber optic cabling

- Up to 40 Gbps
- Protection class IP20 to IP65/67
- For POF, PCF, and GOF
- For all common fiber optic interfaces.



PLUSCON device

Modular rectangular plug-in connectors

Device plug-in connectors with modular contact system for signals, power and fiber optics with IP68/IP69K protection and available in various sizes, this connector system guarantees maximum reliability, even under extreme conditions.

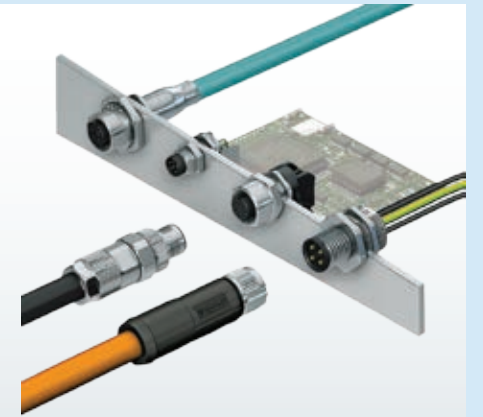
Solutions for

- Currents up to 70 A
- Voltages up to 630 V
- IP68/IP69K protection.



PLUSCON circular Circular connectors in M5, M8 and M12

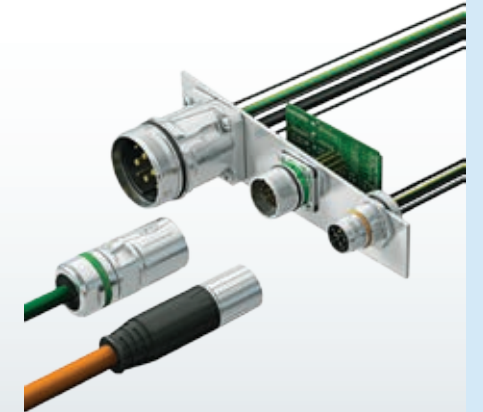
Flush-type plug-in connectors, plug-in connectors for assembly from M5 to M12 for signals, data and power. The wide range of design facilitate consistent connection solutions for devices with data transfer rates up to 10 Gbps, the connection of signals up to 17-pos., and power supply up to 630 V and 16 A in the smallest of spaces.



PLUSCON circular M17 to M58 circular connectors

Flush-type plug-in connectors, plug-in connectors for assembly from M17 to M58 for signals, data and power.

The circular connector range extends from 6 to 19-pos. signal connectors in sizes M17 and M23, power connectors in sizes M17 to M58, for a maximum of 150 A and 630 V.



PLUSCON solar

The first tool less connection system for photovoltaics – simple efficiency!

SUNCLIX-The unique tool less connection system solutions for photovoltaics, inverters, and micro inverters.

The field assembly SUNCLIX connector can be connected quickly, easily and reliably without any special tools.



PLUSCON service solutions

Customer-specific adaptation of standard products through

- Color variant.
- Customized Printing.
- Specific number of contacts.
- Customized cable assembly.



Electronics Housing

For Industrial electronics and semi-industrial applications

Basic Housing for Universal Use

EH, EG, EMG, UEG, UEGM, UEGM-MSTB

These housing ranges provide ideal solutions for cost-effective design of industrial electronics to suit control cabinet requirements.



Modular Component housings for industrial electronics

ME, ME BUS, ME TBUS, ME MAX

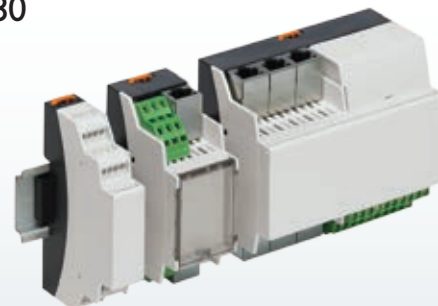
These housing range offer a functional and design-oriented solutions for modern electronics components. Various connection technologies, Bus connector and modularity ensures flexibility for numerous applications.



Building installation housings according to DIN EN 43880

BC, BC Modular

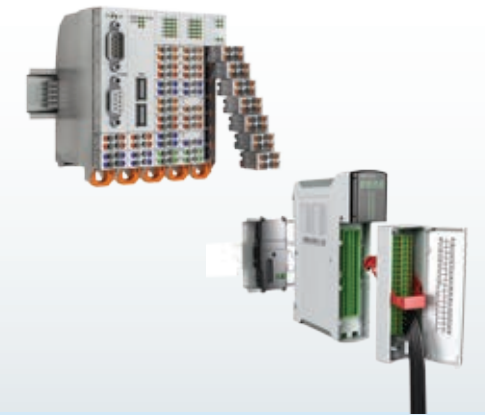
These housings have been designed for future-oriented applications in building technology. Various connection technologies, HBUS connector, choice of upper parts and covers enables maximum flexibility to cope up with future requirements.



Multifunctional housings for complex electronics

ME-PLC, ME-IO, EFG, CM, UEG-EU

These housing ranges offer lots of installation space, connection technology options, simple PCB contour and robust design for complex electronics.



Handheld housing for field applications

HC-ALU

These are the robust housings made of Aluminum, provide protection of IP 65 suitable for temperature range of -40°C to +70°C according to DIN EN 60529.



Profile racks and adapters

UM, UM-ALU 4, UM-PRO and UM-BASIC, UMK UTA, EM-MP/SISM DIN rail adapters

The Profile housings offer maximum flexibility. Cut to length (in cm.), made from plastic and metal, covering hoods, these housing ranges can be customized as per requirement.



Service center and customer specific solutions

We can offer various services like

- Color variants,
- Cutting,
- Punching,
- Drilling,
- Milling,
- Printing, etc.

Customer specific requirements like

- Adaptations in tools
- Development of component
- Complete new housing



Control Systems

Flexible automation: scalable performance to meet your specific application

Nanoline: Programmable logic module

Cost effective controller solution for smaller applications. The Nanoline system can be configured flexibly and has been devised especially for applications requiring various communication options at a reasonable price. Nanoline supports a new level of connectivity in its class, can be embedded into systems, monitored from a distance, or remotely controlled by a host computer, large PLC or advanced HMI via serial connection, ethernet or GSM.



ILC Controllers: IT Powered Automation

Modular and highly flexible: these Controllers can be optimally adapted to any application with the wide variety of IOs from Inline range. These offer comprehensive communication options thanks to the integrated web server, Ethernet interface and IT standards such as FTP, HTTP, SNMP, SMTP, SQL, ODP & OPC.



Axioccontrol: Future-oriented control technology

Axioccontrollers are at the heart of a powerful automation system. These are always characterized by easy handling and a particularly robust design. The extremely sturdy housing, excellent EMC properties, and integrated UPS provide the basis for this. Together with the Axioline I/O system from Phoenix Contact, Axioccontrol offers maximum speed thanks to direct bus connection.



RFC Controllers: For maximum performance

More memory, more speed, more power-and that is in one space-saving, compact housing. The class 400 PROFINET-compatible controllers are the most powerful embedded PLCs from Phoenix Contact. Control demanding automation tasks with maximum performance and intelligent features.



Software: Solutions for all engineering phases

Phoenix Contact offers software from configuration to system operation. SCADA visualizations such as Visu+ can be used wherever complex machines, systems or automation processes need to be operated or monitored. With RESY+ Remote Control solutions, keep an eye on your system at all the times, intervene in and control the process and be accurately informed about the faults and failures.



HMI: Keep a closer eye on Automation

Thanks to numerous interfaces, drivers and display sizes, HMIs from Phoenix Contact can be perfectly integrated into your system. With TP 3000 series, licenses for the VISU+ software and AX OPC Server are already included. Web Panels and Minitouch HMIs are in-expensive operator panels for basic operation and monitoring tasks.



Industrial PCs: The specialists for every application

Industrial PCs (IPCs) combine the computing capacity of modern processors with the robustness and reliability of industrial components. Together with the right software, IPCs are efficient and versatile solutions for controlling, operating and monitoring systems and machines. From our wide range of IPCs available, choose the devices for installation in or on the control cabinet, or with all-round IP65 protection directly on the machine or system.



Industry Solutions

Excellent Products – Innovative Systems – Inspiring Industry Specific Solutions

Automotive Industry: Efficient and variable production

Production resources in the automotive industry are becoming more expensive. At the same time, the number of models and variants to which production facilities must respond quickly and flexibly is increasing.

With more intelligent automation technology, Phoenix Contact is offering exciting options for optimizing the use of cost-intensive resources, such as compressed air or electrical energy, without degrading the productivity or availability of the systems. Charging systems as well as charging controllers are available for the infrastructure covering all aspects of electric vehicles.

- Energy-efficient production
- Flexible production
- Secure production
- Functional safety in production
- E-Mobility



Solar Energy: Higher yield through efficient automation

Electrical energy from photovoltaic systems makes a major contribution toward meeting ever-growing energy requirements. In order to achieve this, reliable and efficient systems are required. Phoenix Contact develops innovative solutions which enable you to increase your yield through the intelligent automation and continuous monitoring of PV systems.

The location makes no difference: whether a ground-mounted or roof-top system, tracking system or building-integrated photovoltaics. We offer intelligent solutions to meet every requirement, from surge protection to comprehensive automation of PV parks.

- Park management
- String combiner technology
- Automation and visualization
- Acquisition of meteorological data
- Connection technology



Wind Energy: Robust technology for maximum availability

Harsh environmental conditions and long lifecycles – wind power plants place high demands on electrical engineering. Phoenix Contact offers innovative and robust solutions for the automation of your wind power plants.

This allows you to minimize downtimes and use your wind power plant as efficiently as possible. As automation specialists, we also support you in implementing the Machinery Directive with our safety services.

- System control
- Condition monitoring
- System safety
- Electrical equipment



Water and Wastewater Treatment: All processes at a glance

Water and wastewater treatment presents significant challenges especially in large cities: a growing number of inhabitants and inadequate or outdated supply and wastewater systems. In order to ensure the efficient automation of all processes in waterworks and wastewater treatment plants, Phoenix Contact offers consistent solutions which are user-friendly and can be adapted.

They are based on standardized remote control technology as well as modular control technology and surge protection. You can easily integrate field devices using industry-specific function block libraries. Visualization of process data in the control system rounds off the portfolio.

- Groundwater abstraction
- Leakage management
- Long-distance water supply
- Wastewater treatment plants



Power Transmission and Distribution: For safe and efficient power supply

As part of the energy revolution and move towards distributed power generators, the Smart Grid must be intelligently integrated into the power supply in order to ensure stable network operation. Consistent, communicative networking of all devices is therefore particularly important for monitoring network operation.

Solutions from Phoenix Contact with integrated communication and control technology as well as surge protection support intelligent automation concepts, thereby ensuring stable power supply.

- Intelligent local network station
- Detection of network states
- I⁹ technology
- Plug-in test systems



Oil and Gas: Monitor processes and increase productivity

The oil and gas industry is changing: both producers and operators need to increase the efficiency of their systems. Phoenix Contact offers a comprehensive portfolio of hardware and software for the future-proof automation of the sometimes outdated installations involved in the production, transport, and processing of oil and gas.

You can make production more efficient and minimize failures with these turn-key solutions which support flexible expansion and include control and remote control technology, safety and Ex i components, surge protection, and industry-specific software.

- Oil field monitoring
- Flow calculation libraries for gases and liquids
- Tank monitoring
- Valve position monitoring
- System visualization



Transportation Infrastructure: Increased safety through increased availability

Complex systems which must operate in a fail-safe way, such as transportation routes, engineering works, airports or railway stations, require intelligent automation solutions.

Phoenix Contact offers a comprehensive portfolio for these applications, from remote control technology, safe communication networks, and powerful surge protection to redundant control. All of these individual components can be optimally adapted to the individual project and combined to create a tailor-made turn-key solution.

- Street lighting
- Failsafe operation
- Lock signaling
- E-Mobility



Machine Building: Innovative products and solutions for your success

- As a machine manufacturer, the challenge is how to save even more time and money during, design, commissioning and installation. The innovative products and solutions from Phoenix Contact help you in structuring and planning control cabinets.
- Independent of how you design your system concept, Phoenix Contact offers you a comprehensive, wide and innovative range of PC, PLC, Power Supply, industrial field connectors for your field installations and safe automation.



Railways: Reliable Solutions for the railway industry

- All the fields of the railway supply industry, right from rail vehicles to signal technology up to railway building technology, have their specialties. Phoenix Contact as a partner of the railway supply industry is well aware of these special requirements.
- All the specialize requirements as regards to shock, vibration resistance and fire behavior are addressed for all applications from control system to cabling systems.



Telecom: To create efficient telecommunication networks

- The challenges of telecommunication industry includes, power quality, availability, outdoor installations subject to harsh environments ranging from freezing mountains to hot deserts.
- The solutions from Phoenix Contact starts with comprehensive range of device connectors for various telecom instruments, surge protection for Power, Signal and trans-receiver devices. Reliable connection with wide range of terminal blocks and inter panel connectivity systems and extends for various power measurement and monitoring solutions.



Ship Building: Comprehensive solutions for maritime automation

- Particularly in ship operation, reliability of automation systems is a prerequisite due to the exposed environment. Similarly, clear visualization and safe operation even in rough seas as well as in the case of fluctuating light conditions is indispensable.
- With our modular overall solutions, we provide support for all requirements on the high seas and guide you safely through all waters.





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 wires
- Connectors
- Controllers
- Electronics housing
- Electronics 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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