HIGHLIGHTS 2013

Innovations for your success

PHŒNIX CONTACT

INSPIRING INNOVATIONS

HIGHLIGHTS 2013 –
innovations for your success

Our mission is to create progress with innovative and inspiring solutions. We believe that it is only through products that make your life easier that we can meet this objective. That's why we focus on making handling as easy as possible, follow a systemic approach, and ensure openness for proven standards.

Read on to discover more about the future-oriented developments from all our product ranges.

Happy reading!

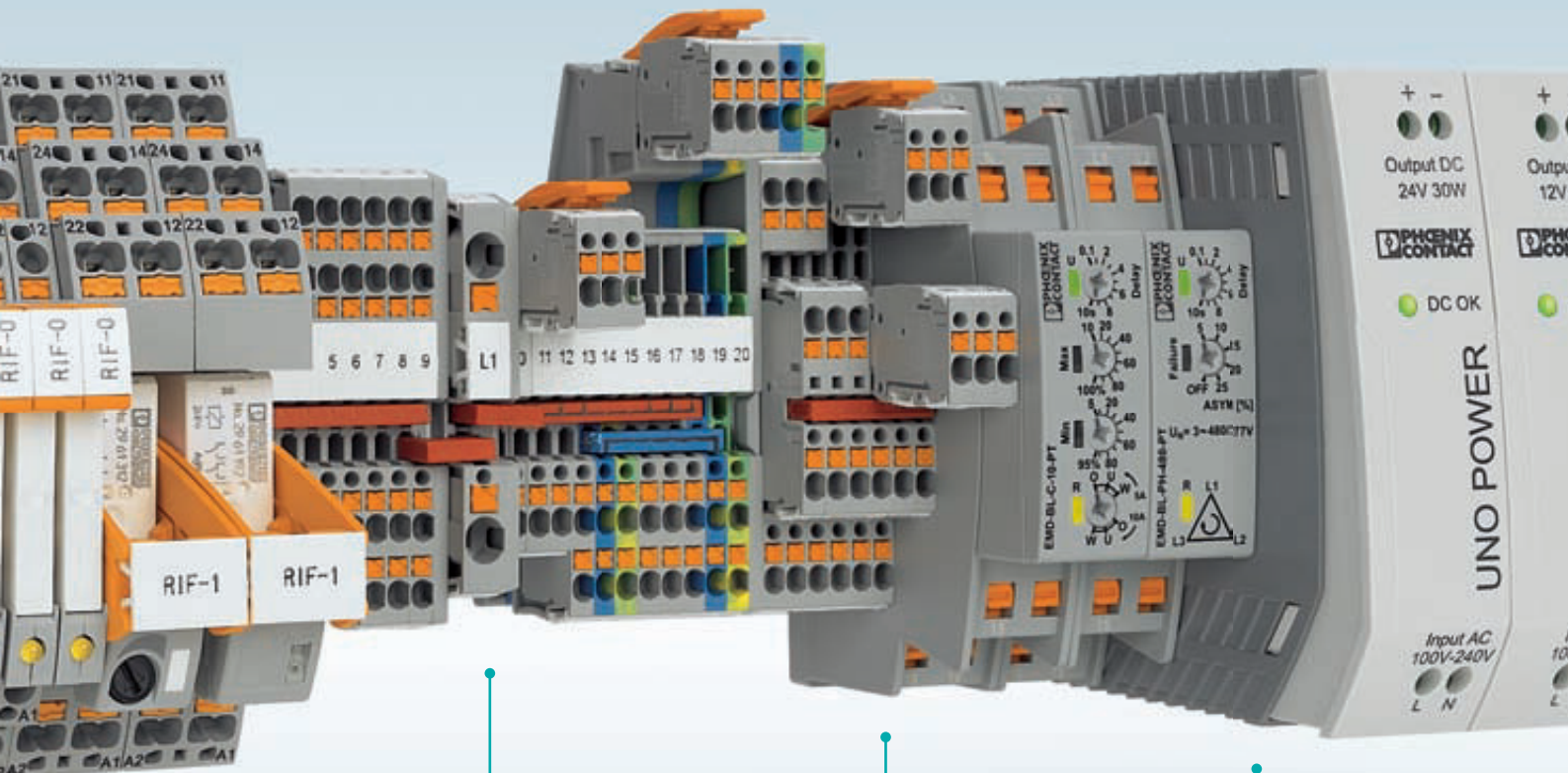## Fast, robust, and easy – from the modular terminal block to the controller

Future-oriented automation from Phoenix Contact is fast, robust, and easy: one intelligent system featuring a uniform design.

Use Push-in Technology and connect conductors easily – both directly and without tools. Benefit from uniform system accessories and make savings in logistics, warehousing, and engineering.

Axiocontrol controller

Axioline I/O system

RIFLINE complete
relay system

CLIPLINE complete
modular terminal
block system

Compact
monitoring relays

UNO POWER
power supply units

The Axioline I/O system –
every network, every environment

All options are available to you with the Axioline I/O system. Use Axioline in the control cabinet and in the field, and choose the right I/Os for your specific network. Axioline I/Os are always fast, robust, and easy.

PROFINET

PROFIBUS

EtherCAT

Modbus

EtherNet/IP

sercos
the automation bus

IO-Link

New

Numerous options thanks to IO-Link master

With the highly functional IO-Link master and IO-Link/analog converters, you can benefit from tailored configuration and increased cost-effectiveness. Use the devices completely flexibly for IO-Link-compatible actuators and sensors as well as digital and analog signals.

The Axioline F series for the control cabinet

The Axioline F series offers the shortest response times, an extremely robust design, and easy handling.
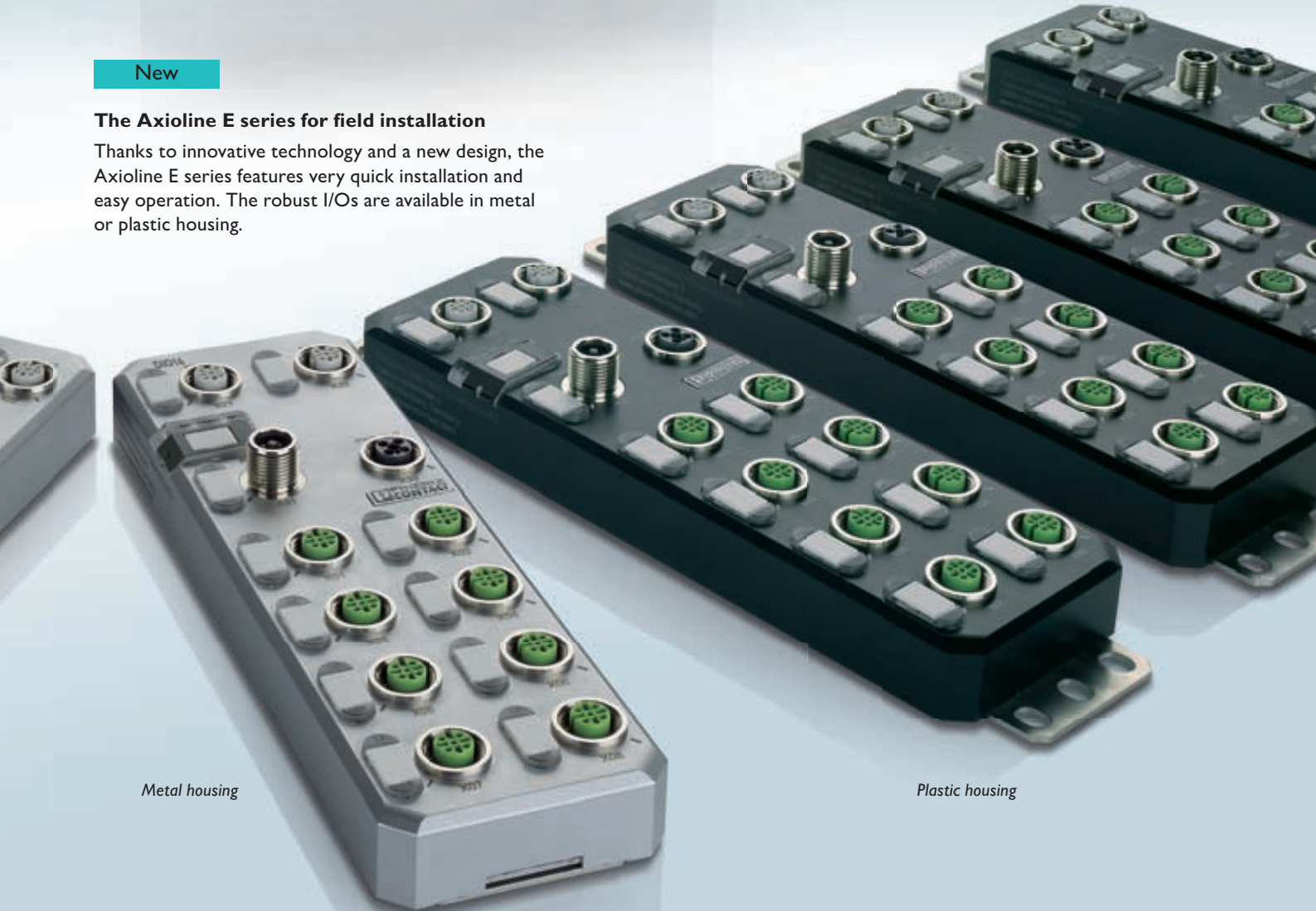
Push-in Technology
Designed by PHOENIX CONTACT

New

The Axioline E series for field installation

Thanks to innovative technology and a new design, the Axioline E series features very quick installation and easy operation. The robust I/Os are available in metal or plastic housing.

Metal housing

Plastic housing

The Axiocontrol compact controller – trend-setting control technology

The new Axiocontrol controller is designed for maximum performance, easy handling, and use in harsh industrial environments. Together with the Axioline I/O system from Phoenix Contact, Axiocontrol offers maximum speed thanks to direct bus connection. The controller is therefore at the heart of a high-performance automation system.

PROFINET

Modbus

ETHERNET

The USB connection provides fast access, e.g., for diagnostics

More parameterization memory thanks to optional SD card

New

Axiocontrol sets new standards

• Reliability thanks to robust housing and increased resistance to EMI
• Increased safety thanks to integrated uninterruptible power supply unit
• Save wiring time with push-in connection technology

Infrastructure

IP67 PROFINET realtime switch

You can now also increase the realtime capability of your PROFINET applications in the field. The push/pull connection technology enables really quick installation.

Security

Security routers

MGUARD security routers reliably protect your machine network against manipulation and unauthorized access.

Industrial Ethernet – one network, all options

Phoenix Contact offers you more realtime, more wireless, more security, and more reliability. All Ethernet components from Phoenix Contact can be integrated into your network very easily.

Wireless

WLAN 5100 access point with cluster management

Implement WLAN networks that are even more reliable and even faster. You can now configure and manage networks really easily and effectively using cluster management.

The RIFLINE complete relay system – easy handling

Use the RIFLINE complete industrial relay system to implement all standard relay applications. Whether you want to isolate, multiply or amplify signals: the field of application ranges from coupling and timer relays to a replacement for small power contactors.

The relay system with universal plug-in design supports quick, easy, and error-free handling.

New

Complete relay range

Switch low currents and currents up to 16 A: from coupling relays to a replacement for small power contactors. This product range always offers the right relay.

Coupling relays between the controller and the field
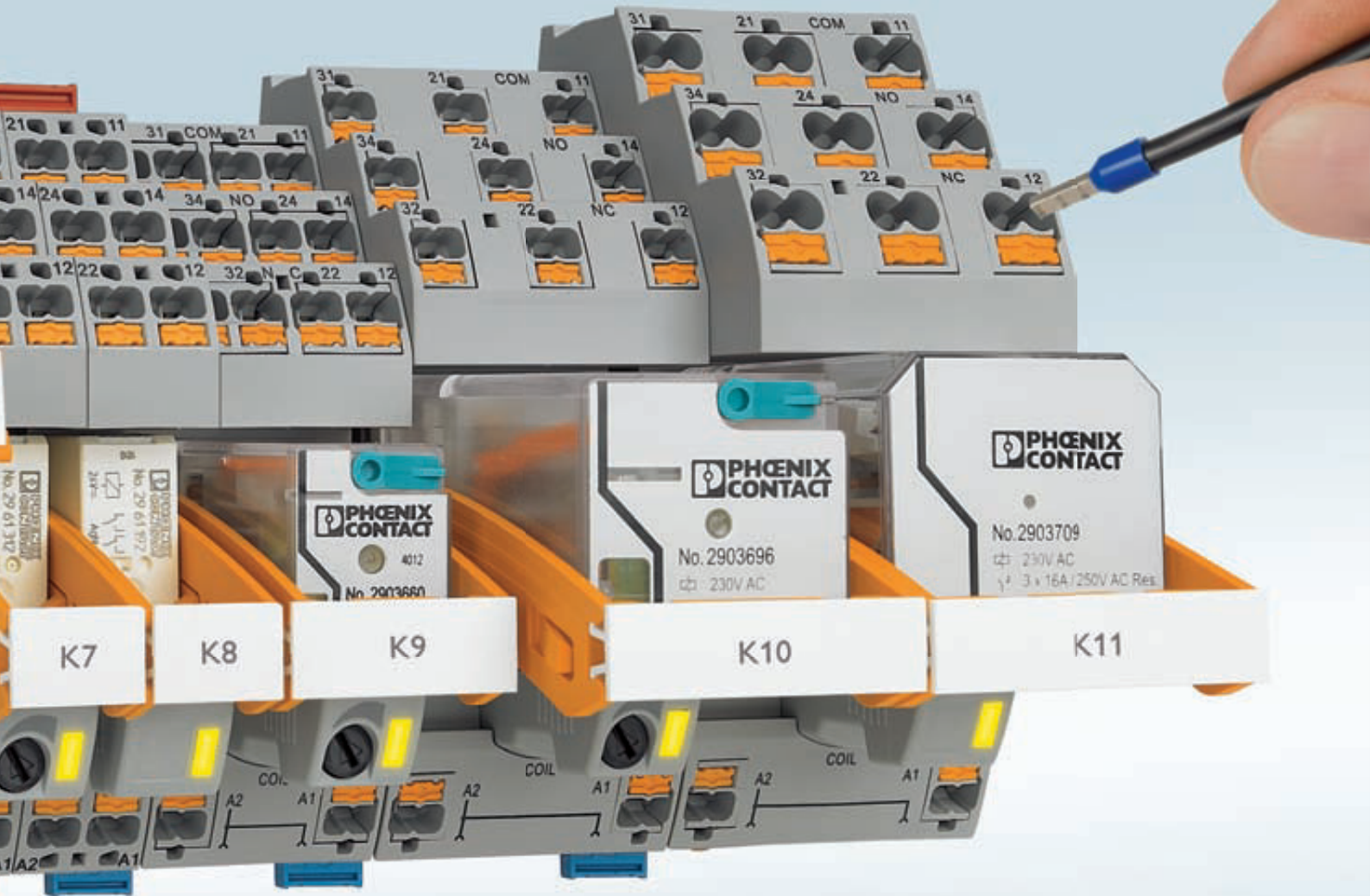
Easy handling in detail:

Easy wiring
thanks to Push-in Technology. This enables quick, tool-free wiring.

Relays for signal multiplication

*Power relays and replacement
for small power contactors*

**Easy potential
distribution**

with plug-in bridges
from the CLIPLINE
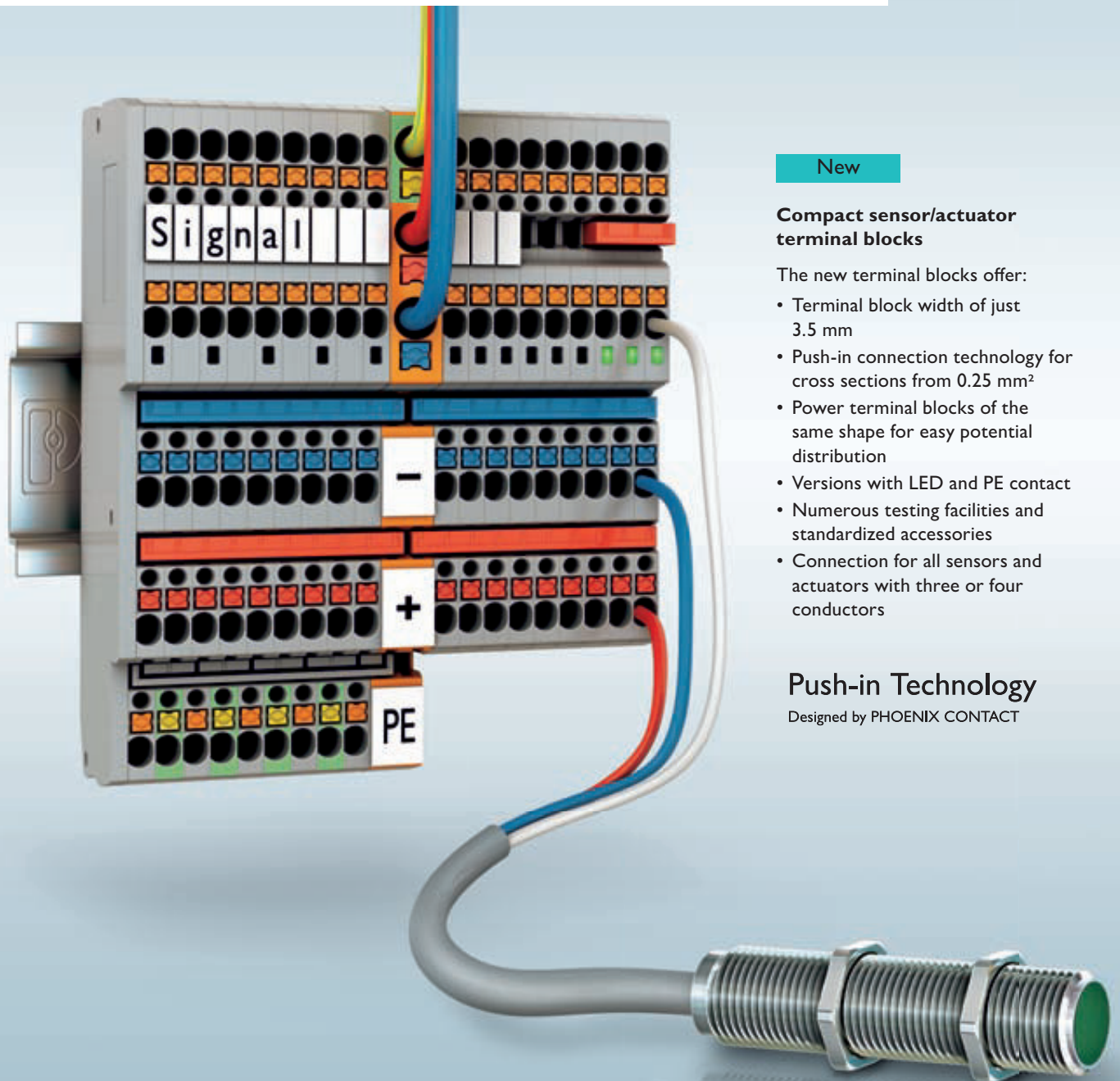complete system
accessories.

**Easy function
extension**

using the plug-in
multifunctional timer
module.

Three time functions
can be selected in
a time range from
0.5 seconds to
100 minutes.

Terminal blocks for signals and power – push-in connection for machine building

Wire sensors and actuators easily and clearly in modern machine control systems using compact sensor/actuator terminal blocks from Phoenix Contact.
To connect the machine supply, use the new high-current terminal blocks with push-in connection for conductors up to 95 mm².

New

Compact sensor/actuator terminal blocks

The new terminal blocks offer:
- Terminal block width of just 3.5 mm
- Push-in connection technology for cross sections from 0.25 mm²
- Power terminal blocks of the same shape for easy potential distribution
- Versions with LED and PE contact
- Numerous testing facilities and standardized accessories
- Connection for all sensors and actuators with three or four conductors
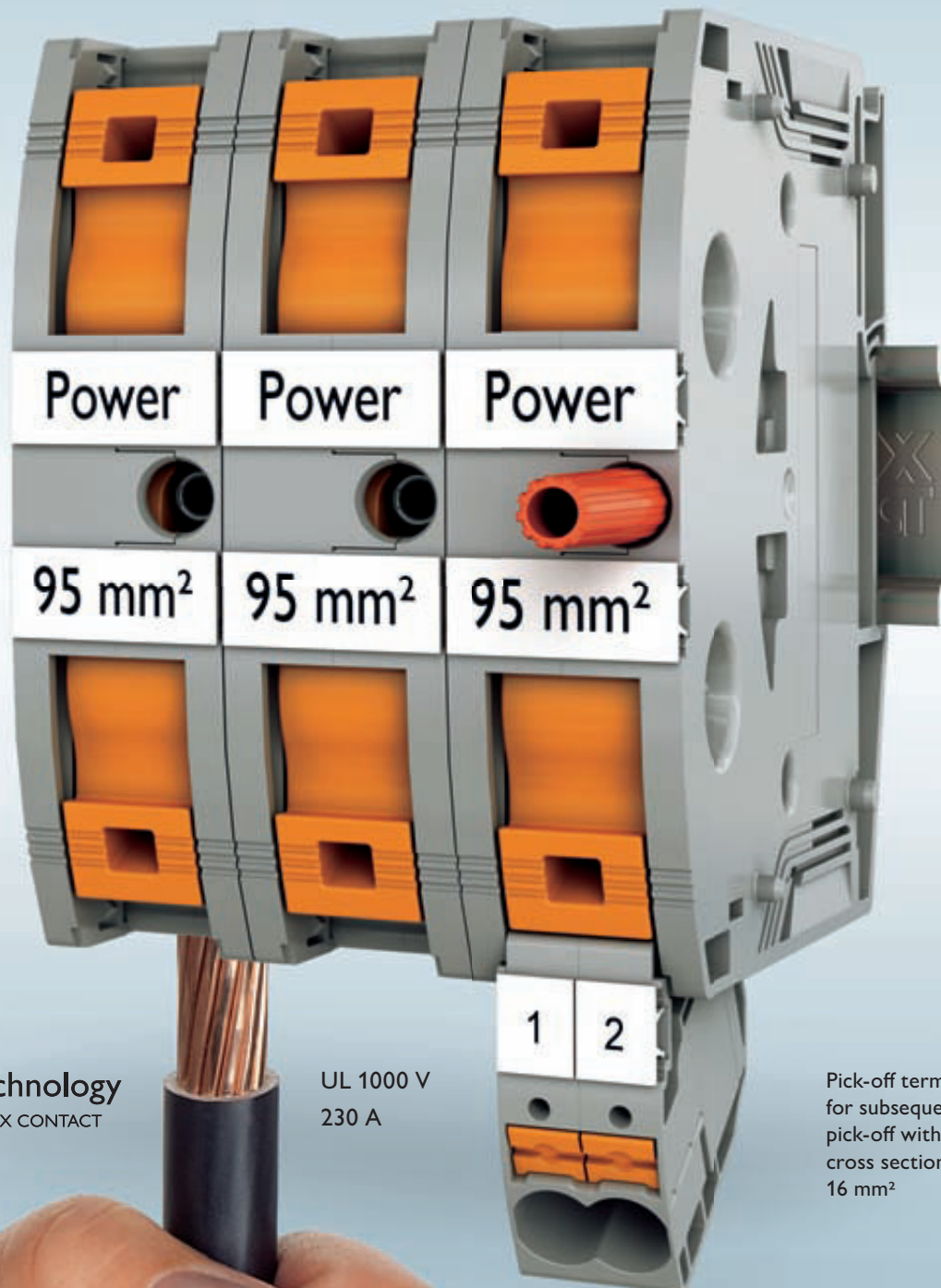
Push-in Technology
Designed by PHOENIX CONTACT

High-current terminal blocks for conductors up to 95 mm²

Quick and easy connection is now also possible for large conductors. With push-in connection technology from Phoenix Contact, the conductors are inserted directly and vibration-resistant contact is made – without having to manually open the terminal point.

To release the conductor, simply press the release button with a screwdriver.

Power   Power   Power

95 mm²   95 mm²   95 mm²

1   2

Push-in Technology
Designed by PHOENIX CONTACT

UL 1000 V
230 A

Pick-off terminal blocks for subsequent voltage pick-off with conductor cross sections up to 16 mm²

Compact monitoring relays – wired quickly and space-saving

The EMD-BL compact monitoring relays can be used to efficiently monitor current, voltage or phase sequence in your application. You can therefore detect critical deviations at an early stage.

The devices are ideal for use in building installation or series production in machine building and systems manufacturing.

Push-in Technology
Designed by PHOENIX CONTACT

New

EMD-BL monitoring relays

- Quick and easy wiring with push-in connection technology
- Easy handling thanks to convenient parameterization using rotary switches on the front of the housing
- Clear local diagnostics thanks to status LEDs

Single-phase current monitoring

Three-phase voltage monitoring

Single-phase voltage monitoring

Phase monitoring

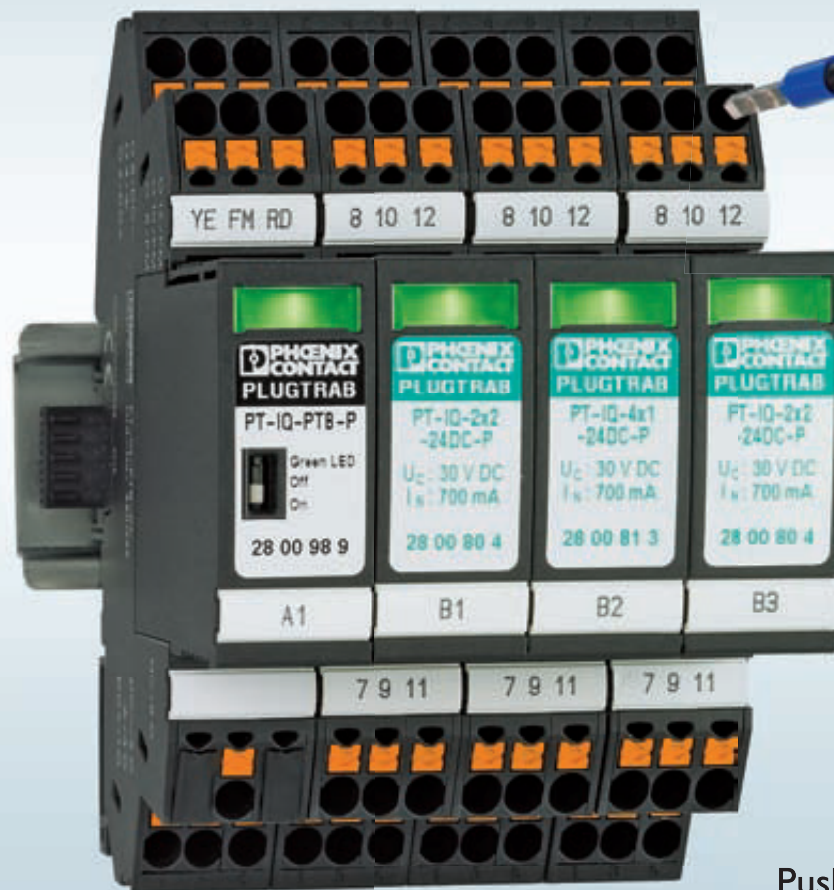# Intelligent surge protection – always know what is going on

Protect your signal interfaces with intelligent PLUGTRAB PT-IQ surge protection. This microprocessor-controlled monitoring system informs you of any wear on protective devices at an early stage before an overload can result in their failure.

New

**PLUGTRAB PT-IQ with push-in connection technology**

Thanks to the push-in connection technology, you can even wire small conductors from 0.34 mm² quickly and easily without tools. The conductor can also be released without the need for special tools.

Push-in Technology
Designed by PHOENIX CONTACT

Status indicator on each module:

OK

Performance limit reached, replacement recommended

Overloaded, replacement required

Power supply units with basic functionality – compact and highly efficient

Thanks to their high power density, UNO POWER power supply units offer the ideal solution for loads up to 100 W, particularly in compact control boxes.

The new product line starts with five modules and sets new standards in energy consumption. Achieve maximum system availability through reliable and high-quality power supply with 24 and 12 V DC.

New

Available in three designs

- 24 V DC: 30 W, 60 W, 100 W
- 12 V DC: 30 W, 55 W

New

Extremely compact

Get 60 W of power from this narrow power supply unit, which is just 35 mm wide.

New

Maximum energy efficiency

Save energy in the performance class up to 100 W thanks to low idling losses below 0.3 W and optimized efficiency over the entire range of the power supply.

Device circuit breaker boards – reduced installation effort

Device circuit breaker boards reduce installation time significantly due to the central potential distribution. The boards are very versatile as they can be fitted individually with thermomagnetic circuit breakers. They are ideal for use in standard machine production or in control and process technology.
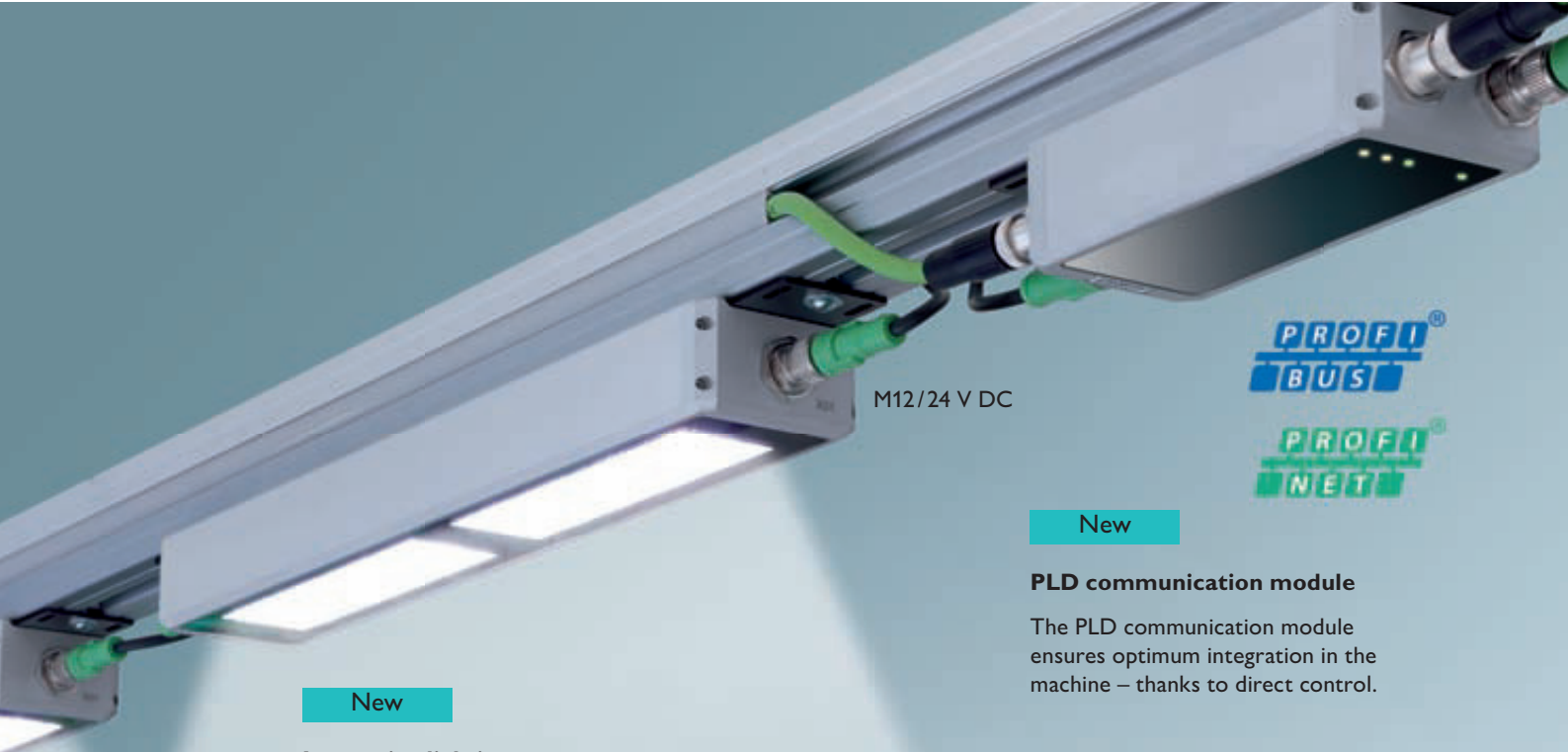
New

Device circuit breaker boards

- Maximum overcurrent protection over long cable paths thanks to device circuit breakers with optimized SFB tripping characteristic
- Up to five loads can be protected simultaneously with the additional terminal points
- Supply of up to 60 A thanks to the high current carrying capacity

Push-in Technology
Designed by PHOENIX CONTACT

M12 / 24 V DC

PROFI BUS®

PROFI NET®

New

PLD communication module

The PLD communication module ensures optimum integration in the machine – thanks to direct control.

New

Innovative lighting

The new machine lights offer optimum lighting thanks to the high-quality optics – without any glare. Benefit from continuous dimming, the flash mode or flexible mounting and adapt your lights to your individual requirements.

LED machine lights –
light made smart

Make the most of your lighting and increase machine efficiency.

Benefit from all the advantages of LED technology with the PLD machine lights. The intelligent installation concept saves material costs and time. The communication interface opens up completely new possibilities for controlling and using light.

Industrial PCs in IP65 – powerful technology, attractive design

The industrial PCs in the Designline series are narrow, feature IP65 protection, multi-touch capability, and are always close to the action as they can be installed very easily directly on the machine.

Design your own easy-maintenance, custom operating concepts with Designline – as the business card for your system.
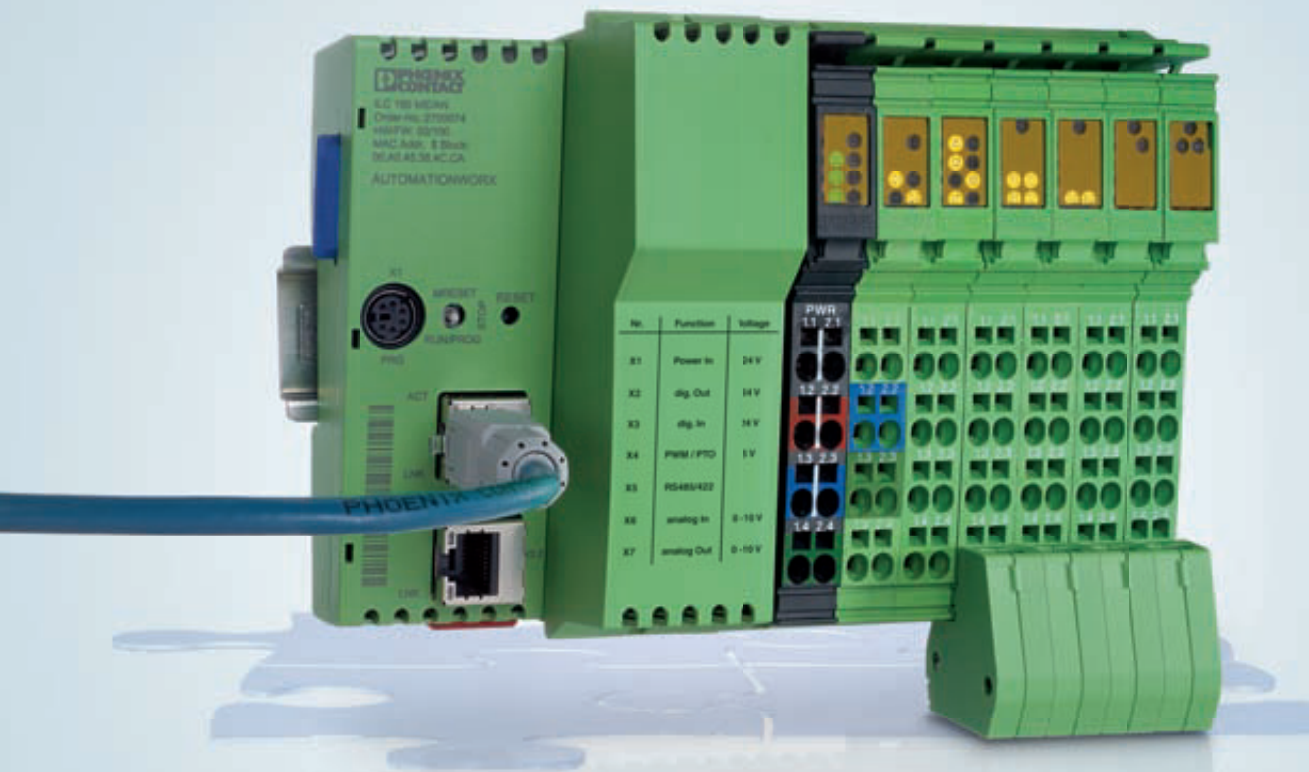
60 mm

New

Multi-touch operation

High-performance processors and multi-touch operation offer new options for user-friendly interaction via sophisticated graphical interfaces.

Just four screws are needed to mount the PC exactly where you need it. Thanks to the service flap, all components can also be accessed easily once mounted.

The Easy Automation system –
versatile and economic

Automation does not have to be expensive or complicated. The Easy Automation system from Phoenix Contact is proof of that. All components are optimally coordinated and optimized for small and price-sensitive automation tasks. The Easy Automation system now also includes: compact controllers specially designed for machine building as well as particularly compact and inexpensive HMI devices.

New

Easy control

The ME versions of our compact controllers provide all the necessary functions for addressing drives via step motor drivers or frequency inverters in a compact device.

New

Easy operation

The minitouch visualizes all important functions in your system, inexpensively and using a minimum amount of space.

SafetyBridge technology –
safety without a safety controller

SafetyBridge technology is the controller and network-independent safety solution. Using these safe I/O modules, you can easily integrate functional safety in your machine or system – without a safety controller. The new logic module provides safe cross communication between safety networks and therefore offers virtually unlimited possible applications, especially in large-scale and modular machines and systems.

New

Compact input module

Input module now with 16 safe inputs

What are the advantages of independence from the network?

SafetyBridge technology can be integrated extremely easily into all popular fieldbus and Ethernet-based networks. Continue to benefit from the advantages of your preferred network solution. No additional safety networks are required, which saves you time and money during the design of your machines and systems.

CANopen Modbus

DeviceNet PROFIBUS®

EtherNet/IP PROFINET®

INTERBUS sercos the automation bus

New

High-performance logic module

- Logic module with 8 safe outputs
- Can be linked to up to 16 safe input or output modules
- Supports cross communication between the logic modules

The Radioline wireless system –
easy startup at the turn of a wheel

Radioline is the wireless system for global use in large systems. Special features include extremely easy assignment of inputs and outputs by simply turning the thumbwheel – without any programming. Thanks to Trusted Wireless technology, Radioline is the ideal choice for industrial use.

New

New extension modules

- 8-channel digital input
- 8-channel digital transistor output
- Module for connecting PT100 temperature sensors

Trusted Wireless

Trusted Wireless technology is specifically designed for the reliable transmission of data and signals over long distances. The new Version 2.0 offers adjustable data rates, encryption, extended diagnostics, and parallel operation of multiple networks.
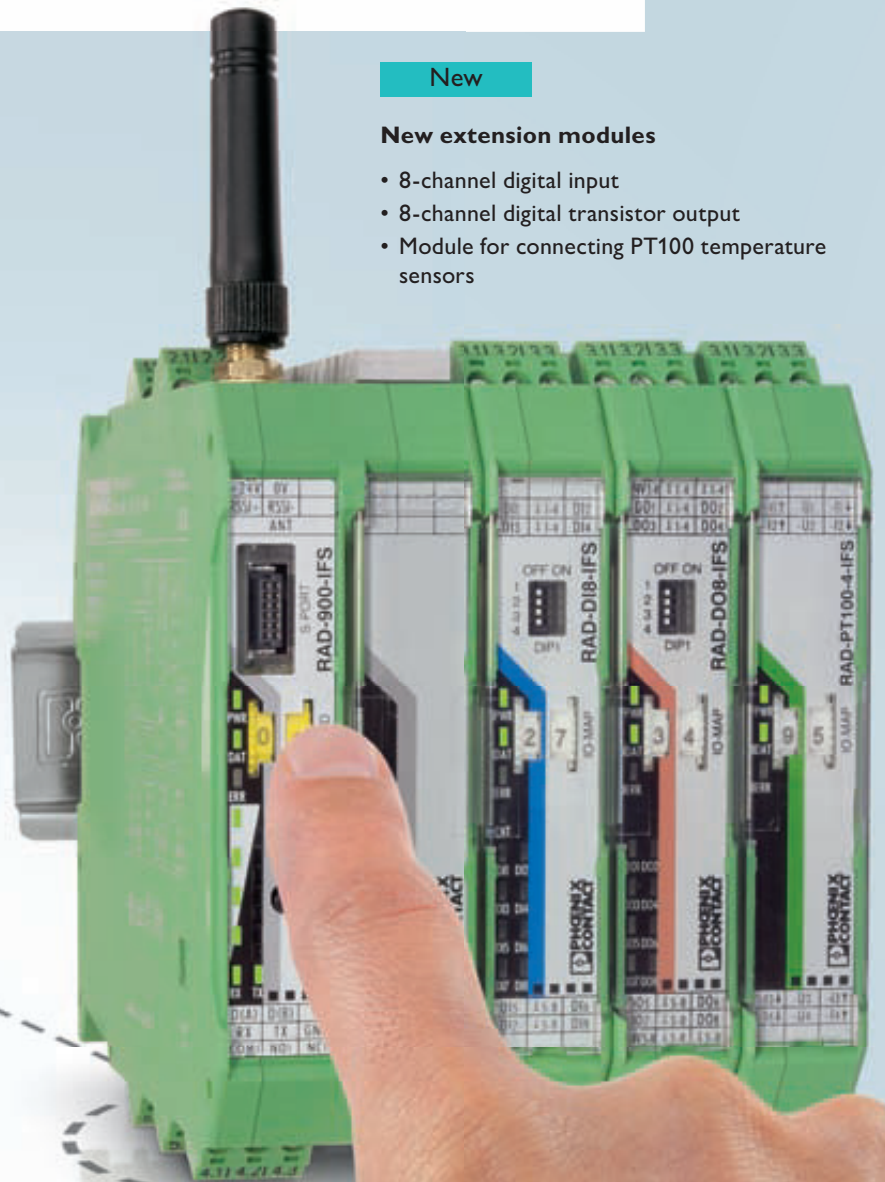
New

Wireless module for the 900 MHz frequency band

- Reliable wireless communication over large distances up to 32 kilometers (20 miles)
- Outstanding coexistence with other wireless networks
- Wireless connection has excellent noise immunity

Industrial remote communication – worldwide connections

With our products for industrial remote communication, you can reach remote systems and machines as well as mobile devices located anywhere in the world. Whatever the transmission technology, transmission medium or interface, this device range offers comprehensive options for remote control, remote maintenance or alarm generation.

3G mobile phone router

Analog modem

New

Ethernet extender

You can now also network remote Ethernet devices in ring structures easily and safely.
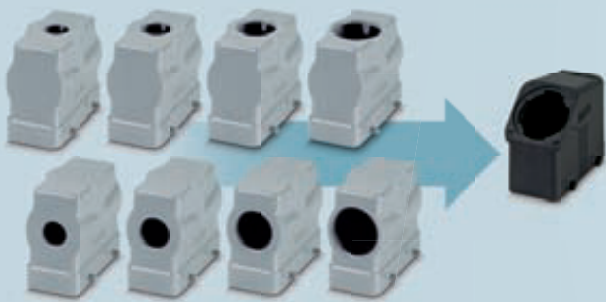
New

DSL broadband router

Worldwide communication over the Internet via high-speed ADSL connection.

Plastic plug-in connectors –
for more efficiency in machine building

Benefit from the advantages of the new HEAVYCON EVO heavy-duty plug-in connectors with variable direction cable gland.

Thanks to the new screw connection with bayonet locking, you can choose the cable outlet direction directly at the installation location. In addition, you can cut your logistics costs because the number of parts required is reduced with an 8:1 ratio.

New

**Fewer parts –
reduced logistics costs**

The new B series HEAVYCON EVO housings are standard-compatible and, thanks to their standardized accommodation of cable glands, they can replace up to eight conventional sleeve housings.

The result: storage space is saved and availability is increased.

And this is how it works:

Attach from the side, turn, and snap in...

...and you're done!

Attach straight on, turn, and snap in....

...and you're done!

New

HEAVYCON EVO
bayonet locking

Screw connections are available in four sizes from M20 to M40.

New

Contact insert with push-in connection

The new HC-PT contact insert with plug-in coding is standard-compatible.

Push-in Technology
Designed by PHOENIX CONTACT

Robust circular plug-in connectors for signals and power

From small to large, straight or angled, molded or for on-site assembly: the circular plug-in connector range from Phoenix Contact meets every requirement.

With SPEEDCON rapid interlock system as an option

New

M23 circular plug-in connector for assembly

Transmit signals safely to your device with the high-pos. M23 plug-in connector.

- 6 to 19-pos.
- EMI protected
- Crimp connection

The angled M23 circular plug-in connector is the first that can be turned more than 240°.

New

M17

- Up to 17 positions for signal transmission
- Up to 9 positions for power transmission up to 20 A
- Straight design

New

M23

- Up to 17 positions for signal transmission
- 6 or 8 positions for power transmission up to 30 A
- Straight or angled design

New

M40

- 6 or 8 positions for power transmission up to 70 A
- Straight design

The automatic stripping and crimping device – portable and handy

The product innovation for switchgear manufacturers – the Crimphandy from Phoenix Contact. With this portable hand-held machine, you can strip and crimp your conductors in under two seconds. This step takes 75% less time than before, making your workload much lighter.

Simply insert the conductor...

stripping and crimping is carried out automatically...

...and you're done!

New

The quick and safe hand-held machine

- Errors avoided thanks to the automatic cross section check
- Safe connections thanks to the standard-compliant quadratic crimping profile
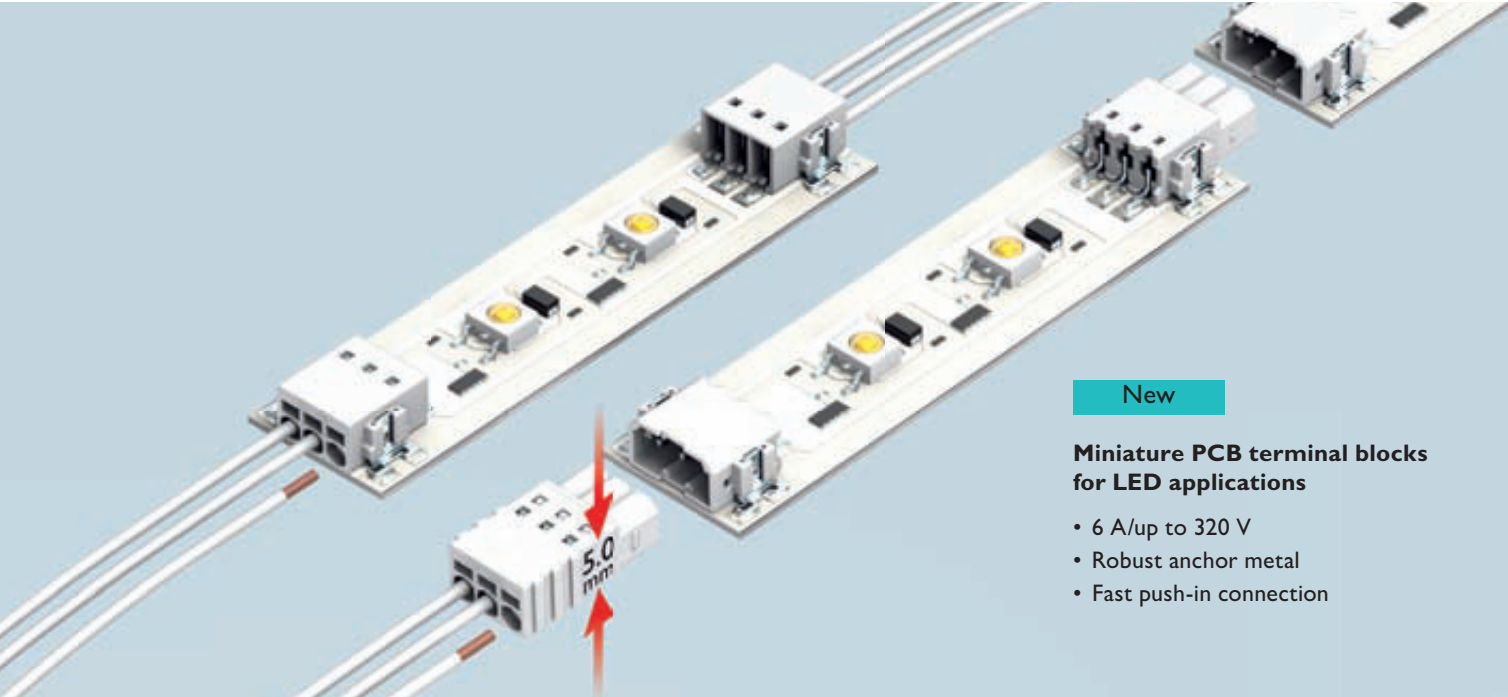- Clean working environment without any discarded insulation thanks to the integrated collecting chamber

Integrated magazine for ferrules in strip form

Control LEDs support easy handling

Integrated high-power battery for 2000 crimping operations

Miniature PCB terminal blocks for LED applications

- 6 A/up to 320 V
- Robust anchor metal
- Fast push-in connection

Connection technology for LED applications – small, white, and fast

New lighting concepts require innovative solutions. With the PTSM and PTF series, you can connect stranded and flexible LED PCBs quickly and easily.

Butt connector for flexible PCBs

- Up to 10 A/25 V per plug
- Form-fit connection with the PCB
- Minimal space requirements

Supply for flexible PCBs

- Up to 10 A/25 V per plug
- 2 or 4-pos. version
- Integrated locking mechanism

Universal housing system – double connection for your electronics

A high degree of flexibility and functionality – that is the central idea behind the new ME-PLC housing system. The system offers plenty of space and convenient connection options thanks to the integrated bus connector and plug-in front connection.
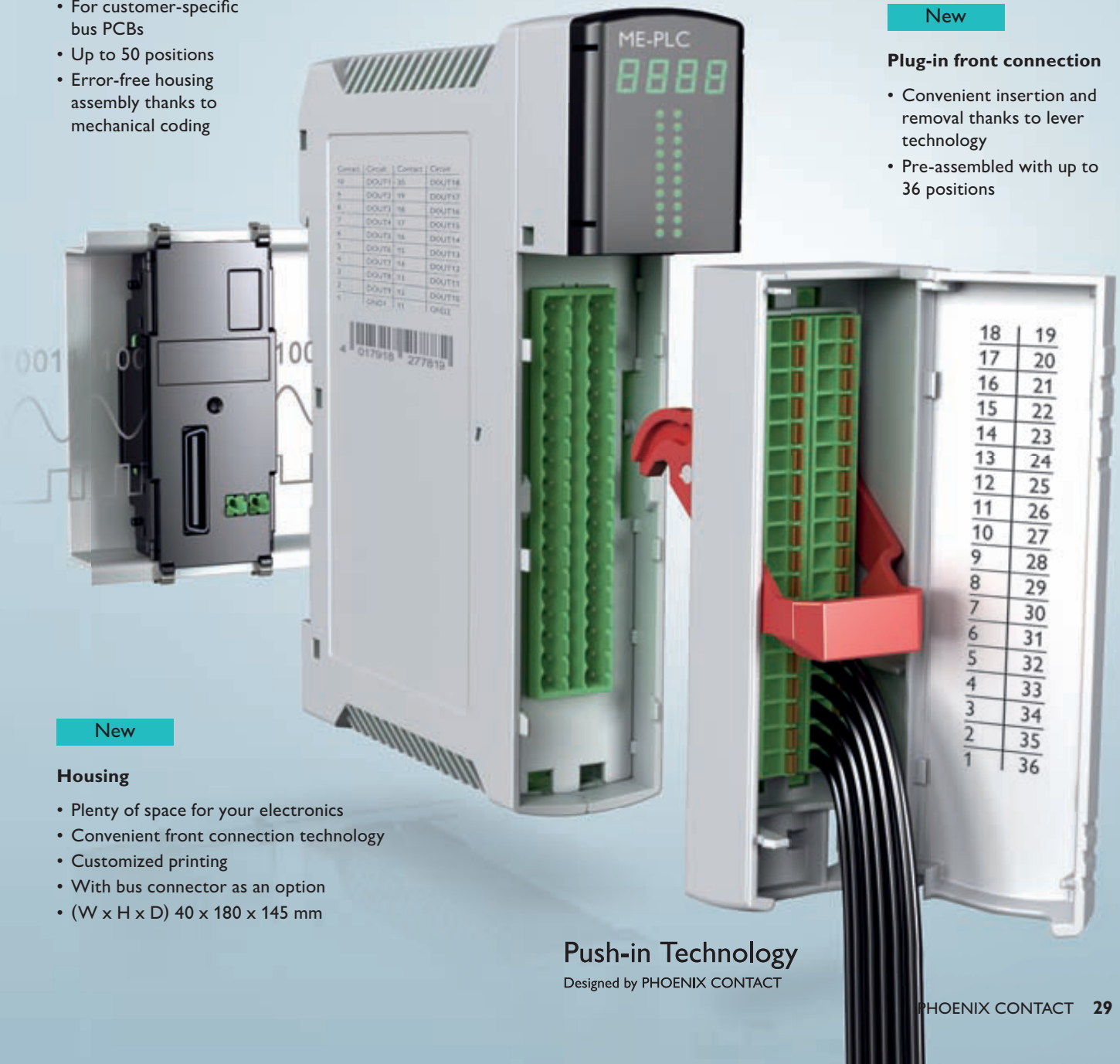
New

DIN rail connector

- For customer-specific bus PCBs
- Up to 50 positions
- Error-free housing assembly thanks to mechanical coding

New

Plug-in front connection

- Convenient insertion and removal thanks to lever technology
- Pre-assembled with up to 36 positions

New

Housing

- Plenty of space for your electronics
- Convenient front connection technology
- Customized printing
- With bus connector as an option
- (W x H x D) 40 x 180 x 145 mm

Push-in Technology
Designed by PHOENIX CONTACT

Device connection for high currents – convenient and powerful

Connect high currents and voltages, quickly, easily, and safely. With the new PCB and feed-through terminal blocks from Phoenix Contact, you can bring high levels of power through your housing panel and to the PCB.

76 A

New

PWO 16 feed-through terminal block with push-in connection

- 76 A/1000 V
- Conductor cross sections from 1.5 to 16 mm²
- Sealed against molding compounds

41 A

SPT 16 PCB terminal block with push-in connection

- 76 A/1000 V
- Conductor cross section from 0.75 mm² to 16 mm²
- Fast and tool-free connection of solid and stranded conductors

PTSPL 6 PCB terminal block without insulating body

- 41 A/1000 V
- Conductor cross sections from 2.5 to 6 mm²
- Spring contact for multiple contacting

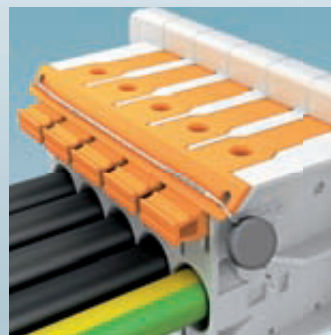*Insert the stripped conductor, snap in the spring, and you're done!*

Optimized for SMT and THR mounting – due to integrated suction areas.

PLW 16 feed-through terminal block with push-lock spring connection

- 41 A/1000 V
- Conductor cross sections from 1.5 to 16 mm²
- Tool-free conductor connection

Sealing with optional seal

Unique charging systems – electromobility in Europe and Asia

Ergonomic charging systems for vehicles and charging stations and for AC and DC charging – use plug-in systems from Phoenix Contact for modern mobility with electric vehicles.

New

AC and DC charging connection for vehicles

The vehicle inlet of the type 2 combined AC/DC charging system supports both DC and AC charging up to 125 A.

125 A

eCarTec
AWARD WINNER

Complete product range

Phoenix Contact offers the right charging system for all regions worldwide.
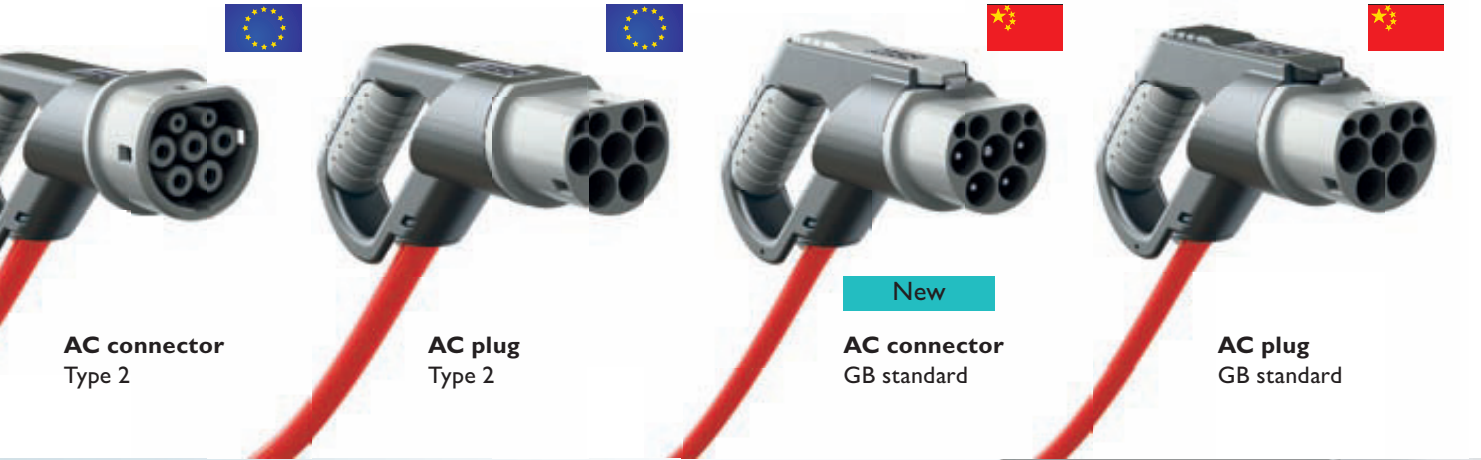
DC connector
Type 2 combined AC/DC charging system

Controller for charging stations

EV Charge Control controls AC charging in accordance with IEC 61851-1/mode 3. The Lock Release extension module ensures that the plug is released even in the event of mains failure.

Fast charging

With 125 A DC, vehicles are charged in less than 30 minutes.

AC connector
Type 2

AC plug
Type 2

New

AC connector
GB standard

AC plug
GB standard

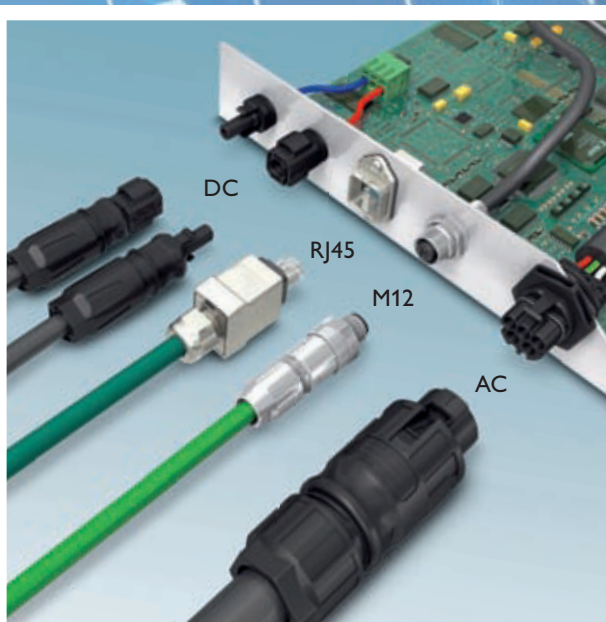# Innovative connection technology for photovoltaics

With the SUNCLIX plug-in connector range developed specifically for photovoltaics, we offer complete connection solutions: from SUNCLIX mini for facade integration to DC and AC plug-in connectors for roof-top and outdoor systems.

New

Connection technology for devices

- AC up to 6 mm²/ 35 A /600 V
- DC up to 16 mm²/ 1500 V

DC

RJ45

M12

AC

Module junction box for facade modules

- 1000 V/15 A
- Easy integration thanks to adaptable width
- Sealed when sealing the insulating glass

Faster assembly using pierce connection: insert the stripped conductor, tighten, and you're done!

New

11 mm

Miniature DC plug-in connector for assembly

- Only 11 mm diameter
- 1000 V/15 A
- For assembly without special tools

New

Diode box against inverse string currents

- 1000 V/5 A
- Reverse voltage up to 2200 V

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

PHŒNIX CONTACT

INSPIRING INNOVATIONS