New products for 2019

Connection and automation technology

New products for 2019
Innovative products for your industrial systems

As a leading manufacturer of connection technology and automation components, we are always working to turn the growing demands of your applications and markets into new innovations.

You can use our products to increase the efficiency, availability, and safety of your industrial systems. Discover the advantages of our diverse new products for yourself.

Contents
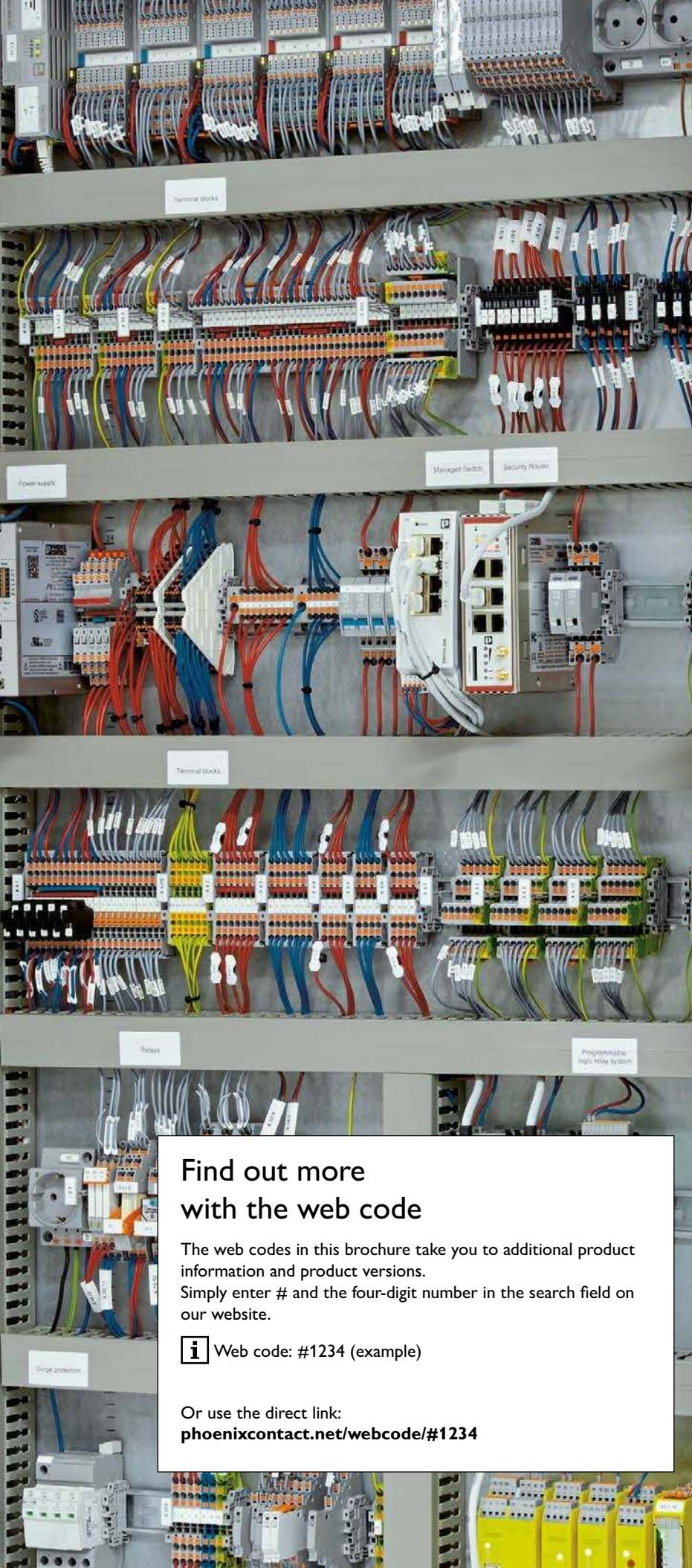
Find out more with the web code

The web codes in this brochure take you to additional product information and product versions.
Simply enter # and the four-digit number in the search field on our website.

[i] Web code: #1234 (example)

Or use the direct link:
phoenixcontact.net/webcode/#1234

COMPLETE line – The comprehensive solution for the control cabinet

COMPLETE line is a system comprising technologically leading and coordinated hardware and software products, consulting services, and system solutions that help you optimize your processes in control cabinet manufacturing. Engineering, purchasing, installation, and operation become significantly easier for you.

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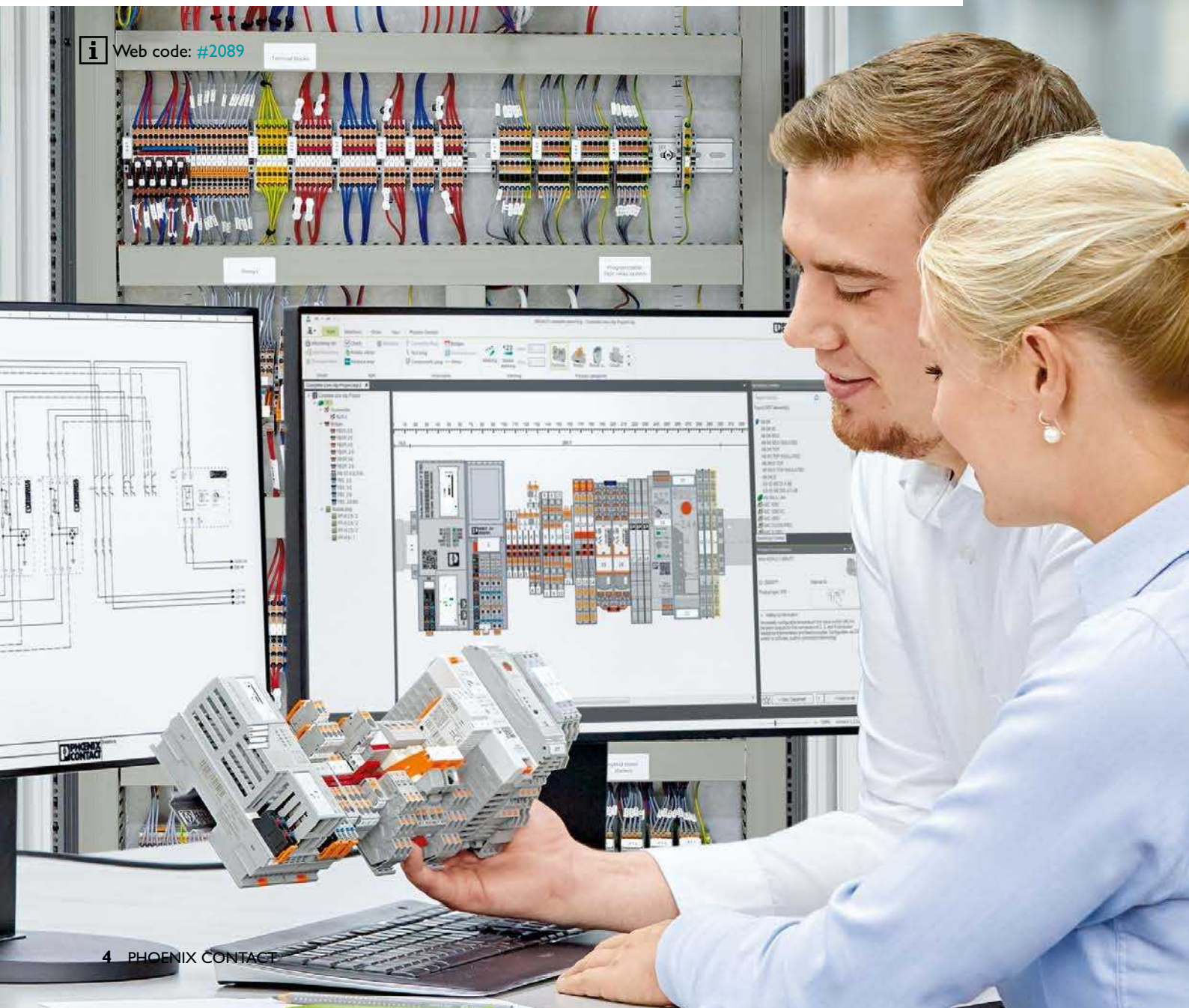
Your advantages in detail:

Comprehensive product portfolio

COMPLETE line offers you a complete product portfolio of technologically advanced products. This includes:
- Controllers and I/O modules
- Power supplies and device circuit breakers
- Terminal blocks and distribution blocks
- Relay modules and motor starters
- Signal conditioners
- Safety technology
- Surge protection
- Heavy-duty connectors

Intuitive handling

Thanks to the simple, intuitive handling of the coordinated hardware components, you will save time in the assembly, startup, and maintenance processes. With Push-in connection technology you are able to wire applications quickly and without using tools. The broad, technologically leading product portfolio will always provide you with the right product for standard or special applications.

Saving time in the entire engineering process

The PROJECT complete planning and marking software supports the entire process of control cabinet manufacturing. The program features an intuitive user interface that enables the individual planning, automatic checking, and direct ordering of terminal strips.

Reduced logistics costs

Reduced variety of parts, thanks to standardized marking, bridging, and testing accessories. The COMPLETE line system coordinates products, design, and accessories so that you benefit from maximum reusability and thus reduce your logistics costs.

Optimized processes in control cabinet manufacturing

COMPLETE line supports you, from engineering through to manufacturing, in designing your control cabinet production as efficient as possible. Thus, your customized concept for optimizing your processes in control cabinet manufacturing is created. Our terminal strip production helps you to flexibly manage order peaks or to supply your control cabinet production with fully assembled DIN rails just in time.


The new standard for the control cabinet

Discover the entire COMPLETE line product portfolio. All products that are labeled with the following marking are part of the coordinated COMPLETE line system. Happy reading!

Terminal blocks with Push-in connection
Side conductor connection, better overview

PTV, the terminal block series with a side Push-in connection. In cramped spaces, the side conductor connection ensures clearer wiring and an improved ability to detect the conductor and connection marking.
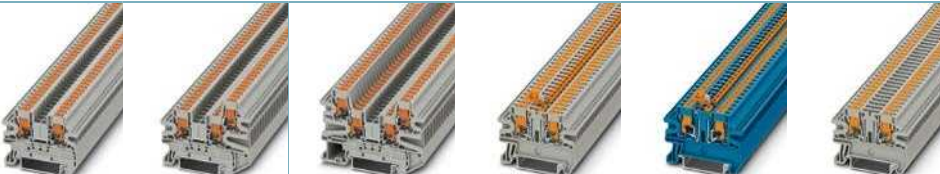
Push-in Technology[P]

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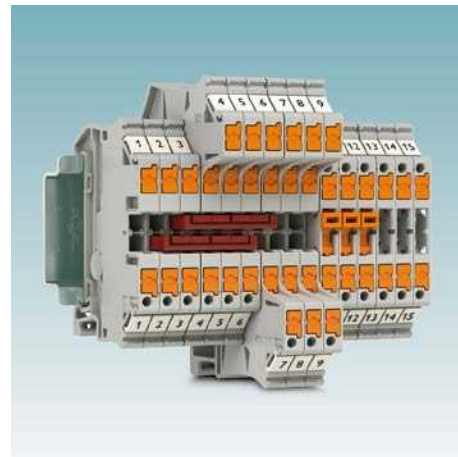
COMPLETE line

Your advantages

☑ Side conductor insertion for improved ability to detect the connection and conductor marking

☑ Clearly arranged wiring without bending radii

☑ Time-saving conductor connection, thanks to tool-free Push-in direct connection technology

☑ The connection principle and conductor routing are self-explanatory

☑ Use of CLIPLINE complete standard accessories

Main features

• Vertical Push-in connection
• Voltage up to 800 V
• Current up to 28 A
• Cross section up to 4 mm²
• Bridging and testing option

ℹ️ **Web code:** #2129

| Description	Feed-through terminal block	Three-conductor terminal block	Four-conductor terminal block	Knife disconnect terminal block		Disconnect terminal block
Voltage	800 V	800 V	800 V	400 V	400 V	400 V
Current	28 A	28 A	28 A	20 A	20 A	20 A
Color	Gray	Gray	Gray	Gray	Blue	Gray
Type	PTV 2,5	PTV 2,5-TWIN	PTV 2,5-QUATTRO	PTVC 2,5-MT	PTVC 2,5-MT BU	PTVC 2,5-TG
Order No.	1078960	1078966	1078999	1079059	1079060	1079061

The web code gives you access to additional product versions on our website.

Distribution blocks with Push-in connection
Inserted quickly and flexibly

All PTFIX distribution blocks are now available with a
1.5 mm² Push-in connection and with various connection
numbers and mounting types. They are connection-ready
and can be configured individually.

Push-in Technology[P]

Designed by PHOENIX CONTACT
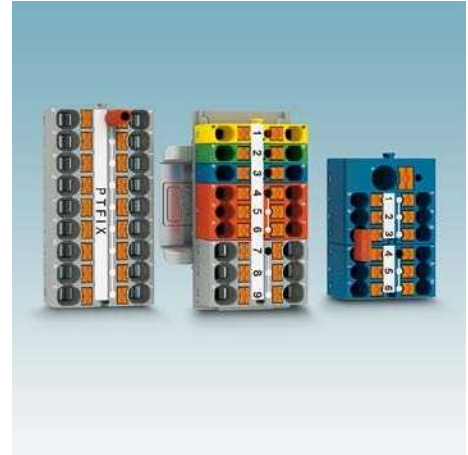
COMPLETE line

Your advantages

☑ Time savings of up to 80%, thanks to ready-to-mount blocks without
manual bridging

☑ Flexible use, thanks to DIN rail, direct or adhesive mounting

☑ Time-saving conductor connection, thanks to tool-free Push-in direct
connection technology

☑ Space savings of up to 50% on the DIN rail, thanks to transverse
mounting

Main features

• Push-in connection
• Voltage up to 300 V in accordance with UL
• Available in 11 colors
• Can be bridged and aligned with standard
jumpers
• Testing option for all common test probes

ⓘ Web code: #2130						
Description	**Basic block**	**Distribution block**				**Distribution block with feed-in**
Number of connections	2	6	12	18	6	6+1
Voltage	450 V	450 V	500 V	500 V	450 V	450 V
Current	20 A	26 A	26 A	26 A	26 A	32 A
Mounting type	For self-assembly	For self-assembly	NS 15	NS 15 (transverse)	Self-adhesive	For self-assembly
Type	PTFIX 2X1,5 GY	PTFIX 6X1,5 GY	PTFIX 12X1,5-NS15A GY	PTFIX 18X1,5-NS35 GY	PTFIX 6X1,5-G GY	PTFIX 4/6X1,5 GY
Order No.	1045923	3002757	3002914	1046949	3002798	1047466

The web code gives you access to additional product versions on our website.

Pluggable terminal blocks with Push-in connection Modular and compact

Pluggable, multi-level COMBI terminal blocks allow you to carry out mounting and startup with flexibility and to save space. From the control box to the complete system, it is impossible to imagine today's modular applications without pluggable solutions.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

- ☑ Optimum cable entry, thanks to an angled design
- ☑ Clear marking, thanks to a central marking surface for each level
- ☑ Space saving, thanks to compact terminal design which is just 3.5 mm wide
- ☑ Simple potential distribution using the double bridge shaft

Main features
- Push-in connection
- Standard COMBI plug-in zone
- Integrated coding system
- Voltage: 500 V
- Current: 16 A
- Cross section up to 2.5 mm²

[i] **Web code:** #2131

Description	Multi-level terminal block					
Color	Gray	Blue	Gray	Green-yellow	Gray	Gray
PE connection	-	-	-	Yes	Yes	Yes
Type	PTS 1,5/S-3L/3P	PTS 1,5/S-3L/3P BU	PTS 1,5/S-3PV/3P	PTS 1,5/S-3PE/3P	PTS 1,5/S-PE/L/L/3P	PTS 1,5/S-PE/L/N/3P
Order No.	1027881	1027882	1027883	1027884	1027885	1027886

Sensor/actuator terminal blocks with Push-in connection
Connecting sensors in a way that saves space

The 3.5 mm wide sensor/actuator terminal blocks offer the option of connecting sensors with two signal outputs in a way that saves space. All sensor connections, including PE, are connected to just one terminal block.

Push-in Technology[P]

Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Flexible feed-in and bridging with feed-in terminals with the same shape

☑ Clear marking, thanks to marking of all levels

☑ Time-saving conductor connection, thanks to tool-free Push-in direct connection technology

☑ Use of CLIPLINE complete standard accessories

☑ Space-saving wiring of bipolar sensors and actuators in just one terminal block

Main features

• Terminal block width: 3.5 mm
• Push-in connection
• Connection for bipolar sensors
• Maximum signal density
• Voltage: 250 V
• Current: 13.5 A

ⓘ Web code: #2132						
Description	**Sensor/actuator terminal block**				**Cover**	
Push button color	Orange	Black/white	Orange	Black/white	-	-
PE connection	-	-	Yes	Yes	-	-
Type	PTIO 1,5/S/5	PTIO 1,5/S/5/U-BK/O-WH	PTIO 1,5/S/5-PE	PTIO 1,5/S/5-PE/U-BK/O-WH	D-PTIO 1,5/S/5	DS-PTIO 1,5/S
Order No.	3244470	3244472	3244473	3244471	3244589	1045987

Disconnect terminal blocks with Push-in connection
Safe and convenient disconnection

The disconnect terminal blocks with Push-in connection feature easy operation of the connection technology and the disconnect element. The switching state can be clearly identified at any time. The disconnect terminal blocks can be fed up to 32 A and are designed for voltages up to 1000 V.

Push-in Technology[P]

Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Tool-free wiring of rigid and flexible conductors

☑ Safe and simple testing option, thanks to integrated 4 mm test sockets

☑ Flexible potential distribution, thanks to bridge shafts on both sides

☑ Robust design of the isolating plugs and disconnect knives enables use in harsh environments

☑ Flat marking surfaces enable easy identifiability in any installation position

Main features

- Push-in connection
- Voltage: 1,000 V
- Current: 32 A
- Nominal cross section of flexible conductors: 6 mm²
- Nominal cross section of rigid conductors: 10 mm²
- Pitch width: 10.2 mm
- 180° isolating plug is pluggable in the park position
- Isolating plug with small color plates for visualizing the switching state

ℹ Web code: #2133		
Description	**Disconnect terminal block**	**Knife disconnect terminal block**
Disconnect element	Isolating plug	Disconnect lever
Type	PT 6-T P/P HV	PT 6-MT P/P HV
Order No.	1028589	1028591

High-current terminal blocks with Power-Turn connection
Convenient connection of large conductors

The PTPOWER high-current spring-cage terminal blocks with Power-Turn connection technology offer today's fastest and most user-friendly connection option for wiring large conductors of up to 185 mm².

Power-Turn Technology[P]

Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Fast and easy connection, thanks to Power-Turn technology

☑ Easy voltage pick-off, thanks to optional retrofittable terminal blocks

☑ Flexible mounting, thanks to DIN rail or direct mounting variants

☑ Reduced mounting costs, thanks to pre-assembled terminal block bases

☑ Reduction in logistics costs with the uniform CLIPLINE complete system accessories

Main features

• Power-Turn connection technology
• Voltage: 1,500 V
• Current: 309 A
• Conductor cross section: 95 mm² … 185 mm²

[i] **Web code:** #2134				
Description	**Feed-through terminal block**		**Terminal block base**	
Mounting type	DIN rail	Direct mounting	DIN rail	Direct mounting
Type	PTPOWER 185	PTPOWER 185 F	PTPOWER 185-3L	PTPOWER 185 3L-F
Order No.	1054722	1054732	1054728	1054735

The web code gives you access to additional product versions on our website.

Fuse terminal blocks with Push-in connection
Simple protection of all applications

The screw cap fuse terminal blocks are the perfect addition to the existing product range. They are suitable for type G 5 x 20 mm fuse-links and also available as a variant with a triggering state indicator. Their design makes them extremely robust and versatile.

Push-in Technology [P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Easily accessible fuse-links for convenient replacement

☑ Potential distribution, thanks to continuous function shafts

☑ Convenient testing, thanks to test points on both sides

☑ Identification of defective fuses, thanks to the LED display

Main features
- Push-in connection
- Voltage: 1,000 V
- Current: 10 A
- Fuse size: 5 x 20 mm
- Nominal cross section of flexible conductors: 6 mm²
- Nominal cross section of rigid conductors: 16 mm²
- Pitch width: 12.2 mm
- Seal: twist caps

ℹ Web code: #2136		
Description	**Screw cap fuse terminal block**	
LED display	-	Lamp
Type	PT 6-DREHSI (5X20)	PT 6-DREHSILA 250 (5X20)
Order No.	3025042	3025044

Fuse terminal blocks with screw connection
Simple protection of all applications

UK lever-type fuse terminal blocks provide the right fuse holder for various applications. With up to 32 A and a power dissipation of up to 4 W, they are perfect for demanding standard or photovoltaic applications up to 1,000 V.

Your advantages

- ☑ Photovoltaic variant up to 1,000 V in accordance with IEC 60269-6
- ☑ Easily accessible fuse openings
- ☑ Convenient replacement of fuse-links
- ☑ Quick identification of faulty fuses, thanks to LED status indicator
- ☑ Easy to bridge

Main features
- Conventional screw connection
- DC voltage: 1,000 V
- Current: 32 A
- Power dissipation of up to 4 W possible
- The spacer can be used for higher thermal loads

Web code: #2137

Description	Lever-type fuse terminal block					
Fuse type	Midget	Midget	Class CC	Class CC	Midget	Midget
Voltage	690 V	690 V	600 V	600 V	1,000 V	1,000 V
Current	32 A	32 A	30 A	30 A	30 A	30 A
LED display	-	LED	-	LED	-	LED
Type	UK 10,3-HESI A	UK 10,3-HESI-LED A 690V	UK 10,3-CC HESI A	UK 10,3-CC HESILED A 600V	UK 10,3-HESI A 1000V	UK 10,3-HESI-LED A 1000V
Order No.	1045676	1045690	1045682	1045716	1045720	1045723

The web code gives you access to additional product versions on our website.

Compact plug-in test system
Easy and safe testing

The FAME 3 SL plug-in test system is a compact variant that has been added to the existing FAME 3 system. It features simplified snap-in mounting of the plug-in test sockets in the mounting wall. The coded and lockable test plug has a design that saves a significant amount of space.
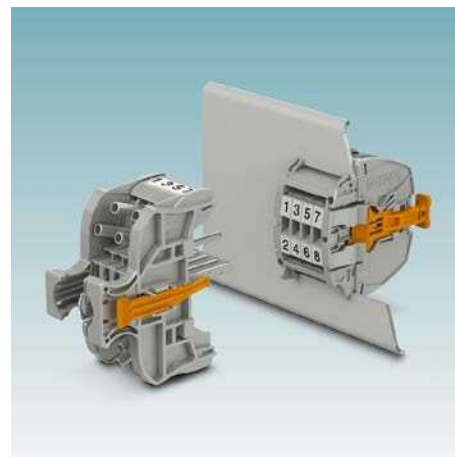
COMPLETE **line**

Your advantages

☑ Easy and time saving, thanks to functional grouping of switching operations

☑ Maximum safety, thanks to automatically leading transformer short circuit

☑ Compact testing block and plug design for space-saving wall installation

☑ Reliable test procedure, thanks to coded and lockable plug design

☑ Fast assignment of the function using color coding

Main features
• Voltage: 400 V
• Current: 30 A
• Barrier connection technology for ring and fork-type cable lugs
• Transformer short circuit with standard jumpers for free assembly
• Number of positions: modular up to 6 positions

Description	Plug-in test socket			Test plug		
Number of positions	4	4	6	4	4	6
Function	Current	Voltage	Current/voltage	Current	Voltage	Current/voltage
Color	Green	Gray	Green/blue	Green	Gray	Green/blue
Type	RSCWE 6-3/4SL GN	RSCWE 6-3/4SL	RSCWE 6-3/4SL GN/BU	FTP-3/4SL GN	FTP-3/4SL	FTP-3/6SL GN/BU
Order No.	1029997	1029994	1090786	1030003	1030004	1090787

i **Web code:** #2138

The web code gives you access to additional product versions on our website.

Plug-in test system for 19" module carrier
Easy and safe testing

Up to eight FAME RACK plug-in test sockets can be installed in 19" module carriers in accordance with IEC 60297-3. The plug-in test socket and test plug feature barrier connection technology for ring cable lugs, have a modular design, and use CLIPLINE complete system accessories.

COMPLETE line

Your advantages

- ☑ Time saving, thanks to functional grouping of switching operations
- ☑ High level of safety, thanks to automatically leading transformer short circuit
- ☑ Reliable test procedure, thanks to connection points for plug actuation
- ☑ Fast mounting, thanks to prefabricated modules for two, three, and four rack units in a 19" rack
- ☑ Space saving, thanks to the compact design and offset test socket arrangement

Main features

- Voltage: 400 V
- Current: 24 A
- Barrier connection technology with screws for ring or fork-type cable lugs
- Transformer short circuit and star point bridging with standard jumpers
- Number of positions: modular up to 18 positions
- Cover with or without status contact
- Space saving: eight plug-in test sockets in a 19" rack

Description	Plug-in test socket	Blind plug	Plug-in test socket	Blind plug	Test plug
Number of positions	14	14	14	14	14
19" rack units	4	4	4	4	4
Status contact	-	-	Yes	Yes	-
Type	BTFE 6-3/14 4U	FBP-3F 4U	BTFE 6-3/14 4U AUX	FBP-3F/14 4U AUX	FTP-3F/14 4U
Order No.	1029251	1029279	1029025	1029339	1029268

ℹ **Web code:** #2139

The web code gives you access to additional product versions on our website.

Connector housings for crimped contacts Modular and compact

You can insert compact CP connector housings for standardized module socket contacts on all COMBI basic terminal blocks of the CLIPLINE complete terminal block system. Optionally, latches and strain relief devices can be attached.
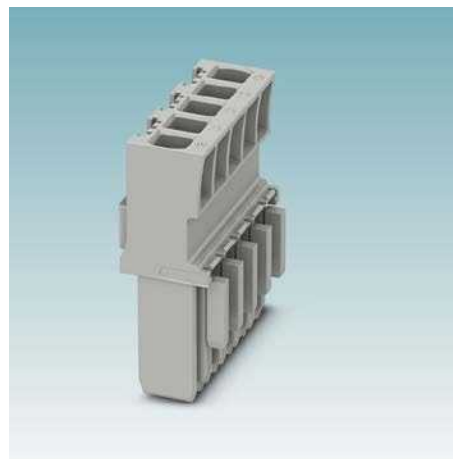
COMPLETE line

Your advantages

☑ Time-saving production and commissioning in modular systems manufacturing

☑ Optimum option for combining terminal blocks and couplings with preassembled cable harnesses

☑ Ideal for fully automated cable harness production and connector housing assembly

☑ Can be integrated into the digital work cycles for system production

☑ Ideal for conductor processing with automated crimp processes

Main features
- Conductor cross section: 1.5 mm² … 2.5 mm²
- Number of positions: 2, 3, 4, 6, 8, and 10
- Pitch width: 5.1 mm
- Field of application: pluggable 2.5 mm² terminal blocks

ℹ️ **Web code:** #2135	Connector housing	Strain relief	Latching	Latching and strain relief
Description	**Connector housing**	**Strain relief**	**Latching**	**Latching and strain relief**
Type	CP 2,5/2	CPS	CPL	CPSL
Order No.	3061102	1069806	1069807	1069808

The web code gives you access to additional product versions on our website.

Universal terminal blocks for aluminum conductors Fast installation, easy and safe

Aluminum and copper wires can be used in UBAL universal terminal blocks. Pre-lubricated contact cavities simplify connection of aluminum conductors and ensure that no maintenance is required for the screw connection.

Your advantages

☑ Suitable for rigid and multi-stranded aluminum and copper wires

☑ Simplified assembly process, thanks to antioxidants in the terminal points

☑ High level of safety, thanks to shock-proof caps for conductive clamping parts

☑ Optimum conductor connection with a high level of tightening torque, thanks to the Allen screw

☑ Can be mounted on the standard DIN rail (except UBAL 240) or directly on the mounting plate

Main features
- Tested for short circuits in accordance with EN 61238-1 Class A
- Voltage: 1,000 V
- Operating temperature: 90°C
- Aluminum conductor cross section: 6 mm²…240 mm²
- Copper conductor cross section: 2.5 mm²…240 mm²
- Clamping part made of tin-plated aluminum
- UL-approved

[i] **Web code:** #2140				
Description	**Feed-through terminal block**			
Aluminum cross section	6 mm²…50 mm²	16 mm²…95 mm²	35 mm²…150 mm²	35 mm²…240 mm²
Copper cross section	2.5 mm²…50 mm²	16 mm²…95 mm²	35 mm²…150 mm²	35 mm²…240 mm²
Aluminum current	145 A	220 A	290 A	380 A
Copper current	160 A	245 A	320 A	425 A
Type	UBAL 50	UBAL 95	UBAL 150	UBAL 240
Order No.	1086465	1086475	1086498	1086505

The web code gives you access to additional product versions on our website.

Pre-assembled M8 cables with D-coding
Secure and reliable data transfer

The M8 product range transmits data reliably through symmetrically arranged contacts. Compared to M12 connectors, you save up to 30% of the installation space. The Advanced Shielding Technology ensures an extremely reliable and robust shield connection.

Advanced Shielding Technology[P]

Designed by PHOENIX CONTACT

Ethernet

Your advantages

☑ Ethernet and PROFINET even in the smallest devices, thanks to compact connector dimensions

☑ Reliable and vibration-resistant 360° shield transition

☑ Space savings, thanks to Power over Ethernet: field devices are supplied with data and power simultaneously

Main features

- D-coding with symmetrically arranged contacts
- 4-pos.
- Conductor cross section: 0.34 mm²
- Degree of protection: IP65, IP67
- Suitable for 100 Mbps CAT5
- PoE-capable up to 4 A with a maximum of 60 V
- Standardized in accordance with IEC 61076-2-114

[i] Web code: #2150				
Description	**M8 data cable**			
Head 1 design	Male, straight, M8			
Head 2 design	Free cable end	Male, straight, M8	Male, angled, M8	Male, straight, RJ45
Sheath material	PUR			
Sheath color	Green			
Type	NBC-M8MRD/1,0-93B	NBC-M8MSD/1,0-93B/ M8MRD	NBC-M8MRD/1,0-93B/ M8MRD	NBC-M8MRD/1,0-93B/ R4AC
Order No.	1080526	1080538	1080532	1080543

The web code gives you access to additional product versions on our website.

D-coded M8 device connectors
Data transmission for Ethernet and PROFINET

Two-piece device connectors with D-coding extend the portfolio of M8 circular connectors for data transmission. The SMD-capable connectors with IP67 degree of protection are suitable for data transmission up to 100 Mbps in Ethernet and PROFINET environments.

Ethernet

Your advantages

☑ Transmit high data rates in a confined space, ideal for compact devices

☑ Designed for integration into the SMT soldering process

☑ Packaging available for automated pick-and-place assembly

☑ Thread or press-in housings enable easy integration of the mechanical port screw connection

☑ Sealed tight by optional additional O-ring

Main features
- Pin assignment: 4-pos., D-coded
- Currents for 4 A
- Voltages up to 60 V
- Standard IEC 61076-2-114
- Black insulating body (other color on request)
- CAT5 in accordance with IEEE 802.3
- Power over Ethernet
- Shielded or unshielded versions
- Degree of protection: IP67 (when plugged in)

ℹ️ Web code: #0237	Flush-type connector	Flush-type connector	Housing screw connection	Housing screw connection	Press-in housing
Description	**Flush-type connector**	**Flush-type connector**	**Housing screw connection**	**Housing screw connection**	**Press-in housing**
Number of positions / coding	4-pos. / D-coded	4-pos. / D-coded	-	-	-
Type of contact	Socket	Socket	-	-	-
Two-piece version, SMD contact carriers in tape-on-reel packing*	Shielded	Unshielded	Front mounting	Rear mounting	Front mounting
Type	SACC-CI-M8FSD-4P SMD SH R32	SACC-CI-M8FSD-4P SMD R32	SACC-FP-F-M8/M10 SMD	SACC-BP-F-M8/M12 SMD	SACC-FP-F-M8/PRESS SMD
Order No.	1068454	1068453	1412504	1412506	1412501

*For automated pick-and-place assembly, available in tray packing on request.

Pre-assembled M12 data cables
Shielding concept for secure data transmission

Advanced Shielding Technology is the innovative shielding concept for pre-assembled data cables. Liquid metal that completely encloses the cable shielding during the manufacturing process guarantees improved, robust shielding and expansion of the power reserves.

Advanced Shielding Technology
Designed by PHOENIX CONTACT

Ethernet   *CC-Link IE*   10 Gbit/s

Your advantages

☑ Increased resistance to environmental influences under extreme conditions such as lightning strikes

☑ Secure 360° shield connection under high mechanical loads

☑ Reliable EMC protection with an extremely low-impedance connection of < 1 mΩ

☑ More flexibility, thanks to expansion of the cable compatibility

☑ Space savings, thanks to a more compact design of the connectors

Main features
- X-coding with consistent pair shielding
- 8-pos.
- Degree of protection: IP67
- Suitable for 10 Gbps $CAT6_A$
- PoE-capable up to 0.5 A with a maximum of 60 V
- Standardized in accordance with IEC 61076 2-114

	Web code: #2152					
Description	**M12 data cable**					
Head 1 design	Male, angled, M12		Female, straight, M12			Female, angled, M12
Head 2 design	Free cable end	Male, straight, M12	Free cable end	Male, straight, M12	Male, straight, RJ45	Free cable end
Sheath material and color	PUR, water blue					
Type	NBC-M12MRX/ 1,0-94F	NBC-M12MSX/ 1,0-94F/ M12MRX	NBC-1,0-94F M12FSX	NBC-M12MSX/ 1,0-94F/M12FSX	NBC-M12FSX/ 1,0-94F/R4AC	NBC-1,0-94F/ M12FRX
Order No.	1080716	1080724	1080728	1080742	1080733	1080746

The web code gives you access to additional product versions on our website.

M12 POWER connectors for assembly Compact crimp connection

M12 POWER connectors for assembly offer maximum power in a minimal design. The extremely compact crimp connection enables manual and automatic connection if a large number of cables has to be assembled.

Your advantages

☑ Powerful: DC and AC applications up to 16 A and 690 V

☑ Extremely compact, thanks to the small wiring space and high contact density

☑ Safely shielded: reliable shield connection even under extreme mechanical strain

☑ Robust connection: suitable for railway applications with high shock and vibration loads

☑ Protected seal in the M12 female

Main features
• Crimp connection
• Metal housing
• 360° shielded connectors
• Protected seal in the M12 female
• Conductors may get crossed

ⓘ Web code: #2153				
Description	**Shielded M12 POWER connector**			
Coding/number of positions	T-coded, 4-pos.	S-coded, 3-pos. + PE	K-coded, 4-pos. + PE	L-coded, 4-pos. + FE
Connection technology	Crimp connection			
Connection cross section	1.5 mm² … 2.5 mm²			
Cable diameter	6.5 mm … 11 mm		8 mm … 13 mm	
Order No. for plug	1027465	1027467	1027474	1027477
Order No. for socket	1027466	1027469	1027476	1027478

The web code gives you access to additional product versions on our website.

Panel feed-throughs with Push-in connection
Easy installation without connectors

The panel feed-throughs for the IPD installation system enable quick and easy installation with Push-in spring connection on the field and device side. There is no connector on the field side. Simply snap the sleeve into place, and the cable is connected.

Push-in Technology[P]

Designed by PHOENIX CONTACT

Your advantages

☑ Fast cable connection without connectors

☑ Easy, tool-free installation with Push-in connection

☑ Ideal for use outside and in wet areas, thanks to IP67

☑ Convenient handling, even in areas that are difficult to access

Main features

• Push-in connection
• Voltage: 690 V
• Currents up to 20 A
• Conductor cross section: 0.5 mm² … 2.5 mm²
• Degree of protection: IP67, IP68
• Shock resistance: IK07

ⓘ **Web code:** #2055					
Description	**Panel feed-through**				
Number of positions	3				5
Thread	M20		M25		
Color	Light gray	Black	Light gray	Black	Light gray	Black
Type	IPD WD 3P2,5 M20 GY	IPD WD 3P2,5 M20 BK	IPD WD 3P2,5 M25 GY	IPD WD 3P2,5 M25 BK	IPD WD 5P2,5 M25 GY	IPD WD 5P2,5 M25 BK
Order No.	1047319	1047321	1047322	1047324	1047344	1047345

The web code gives you access to additional product versions on our website.

Connectors for assembly
Simple motor connection

You can use the connectors for assembly to connect motors in a fast, straightforward manner without special tools. Thanks to IP54, your installation is protected against splash water and dust for particularly reliable cabling in outdoor areas, such as on marquees and shutters.

Your advantages

☑ Time savings of up to 80% for on-site connection

☑ Quick and easy assembly without special tools

☑ Highly reliable, thanks to robust and vibration-proof housings

Main features
- QUICKON fast connection technology (IDC)
- 4-pos. (3-pos. + PE)
- Voltage: 400 V
- Currents up to 17.5 A
- Degree of protection: IP54
- Shock resistance: IK07
- Temperature range: -40°C … +100°C

ℹ **Web code:** #2154	
Description	**Connector for assembly**
Number of positions	3-pos. + PE
Conductor cross section	0.5 mm²…1.5 mm²
Type	QPD STAK 3PE1,5 BK
Order No.	1065121

Modular contact inserts for heavy-duty connectors
Easy wiring of high-voltage applications

The contact insert product range now includes Push-in Technology, thanks to the addition of modular Push-in contact inserts for high-current applications up to 16 A. Previously, these applications could be performed only with traditional crimp connections.

Push-in Technology
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

- ☑ Easy, tool-free installation with Push-in connection
- ☑ Space savings and high packing density, thanks to compact terminal chambers
- ☑ Connection-compatible with other connection technologies, such as crimp connection or axial screw inserts
- ☑ Highly compact modular interface, thanks to the combination of various transmission media in one housing

Main features
- Push-in connection
- Material: PC
- Suitable for B series housings (EVO, STANDARD, and ADVANCE)
- Connection-compatible with the market standard

ℹ **Web code:** #2156				
Description	**Modular contact insert for B6 … B48 housings**			
Number of positions	6		8	
Rated current/voltage	16 A/500 V		16 A/400 V	
Conductor cross section	0.5 mm² … 2.5 mm²			
Design	Socket	Pin	Socket	Pin
Type	HC-M-06-PT-F	HC-M-06-PT-M	HC-M-08-PT-F	HC-M-08-PT-M
Order No.	1424224	1424225	1424226	1424227

Contact inserts for heavy-duty connectors
Easy wiring of high-position applications

With the high-position Push-in contact inserts, you can easily connect up to 46 signal contacts in one B24 connector. The particularly compact terminal chamber enables a high packing density, which was previously only possible with traditional crimp connections.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Easy, tool-free installation with Push-in connection

☑ Space savings and high packing density, thanks to compact terminal chambers

☑ Comprehensive range with the right Push-in insert for every size

☑ Connection-compatible with other connection technologies, such as crimp connection

☑ Protection against mismatching, thanks to coding with plastic profiles

Main features
• Push-in connection
• Material: PC
• Suitable for B series housings (EVO, STANDARD, and ADVANCE)
• Connection-compatible with the market standard

ℹ **Web code:** #2155				
Description	**BB series contact insert with a fixed number of positions**			
Size	B6	B10	B16	B24
Number of positions	10	18	32	46
Rated current/voltage	16 A/500 V			
Conductor cross section	0.5 mm² … 2.5 mm²			
Order No. for socket	1014417	1014419	1014421	1014423
Order No. for pin	1014418	1014420	1014422	1014424

Contact inserts for compact heavy-duty connectors
More safety, thanks to an innovative PE connection

HEAVYCON COM contact inserts reliably transfer signals and power. The new grounding concept with a leading PE connection outside of the contact insert ensures greater safety. The compact design of the COM series also enables use in decentralized attachments.

Push-in Technology [P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Easy, tool-free installation with Push-in connection

☑ Space savings and high packing density, thanks to compact terminal chambers

☑ Safe, thanks to touch protection and leading PE connection outside of the contact insert

☑ Connection-compatible with other connection technologies, such as crimp connection

☑ Protection against mismatching, thanks to coding with plastic profiles

Main features

• Push-in or crimp connection
• Material: PC
• Suitable for COM series housings
• Connection-compatible with the market standard

[i] **Web code:** #2158	COM series contact insert with a fixed number of positions			
Description	**COM series contact insert with a fixed number of positions**			
Connection technology	Crimp	Push-in	Crimp	Axial screw/Push-in
Number of positions	8		Power: 4 / signal: 2	
Rated current/voltage	16 A/500 V	16 A/500 V	Power: 40 A / 400/690 V / signal: 10 A / 250 V	
Conductor cross section	0.5 mm² … 4 mm²	0.5 mm² … 2.5 mm²	Power: 0.5 mm² … 6 mm² / signal: 0.34 mm² … 1.5 mm²	
Order No. for socket	1079547	1079554	1079556	1079557
Order No. for pin	1079548	1079553	1079555	1079558

Compact heavy-duty connector housings
Reliable cabling of decentralized attachments

The new HEAVYCON COM housings have a compact design. The extensive product range of metal and plastic products enables easy and reliable cabling of decentralized attachments in automation technology.

COMPLETE line

Your advantages

☑ Space savings, thanks to compact design

☑ High level of safety: extremely resistant materials and high protection classes

☑ Protection against electromagnetic interference: metal housings are EMC ready, thanks to conductive surfaces and seals

☑ Maximum corrosion resistance, thanks to high-quality die-cast aluminum

Main features
• Interlock with plastic latch
• Sealing material: NBR
• Degree of protection: IP66, IP67
• Temperature range: -40°C … +125°C

ℹ **Web code:** #2157

Description	Sleeve housing	Panel mounting base	Surface mounting housing	Sleeve housing	Panel mounting base	Surface mounting housing
Material, size	Polyamide, COM			Die cast aluminum, COM		
Locking	For single locking latch	With single locking latch		For single locking latch	With single locking latch	
Design	Cable outlet at top	Without cover		Lateral cable outlet	Without cover	
Type	HC-COM-HHFS-1TGM25-PL-BK	HC-COM-BWS-PL-BK	HC-COM-SHOWS-1SGM25-PL-BK	HC-COM-HHFS-1SGM25-EL-AL	HC-COM-BWS-EL-AL	HC-COM-SHOWS-1SGM25-EL-AL
Order No.	1012520	1012538	1079393	1078592	1078594	1078596

The web code gives you access to additional product versions on our website.

Heavy-duty connectors with more wiring room
Ideal for modular applications

The new, high HEAVYCON STANDARD housings from the B series provide more room for wiring large cable diameters and wiring bundles for modular applications. They are made of high-quality corrosion-resistant aluminum and are suitable for EMC applications.

COMPLETE **line**

Your advantages

☑ More wiring room for large cable diameters and wiring bundles, thanks to a higher housing and larger M50 cable outlets

☑ Maximum corrosion resistance, thanks to high-quality die-cast aluminum

☑ Reliable EMC protection, thanks to conductive surfaces and seals

☑ Connection-compatible with the market standard

Main features
• Housing material: corrosion-resistant die-cast aluminum
• Sealing material: NBR-conductive
• Degree of protection: IP66, IP67
• Temperature range: -40°C … +125°C

Description	Sleeve housing		Surface mounting housing	Sleeve housing		Surface mounting housing
Size, thread	B16, M50		B16, 2x M32	B24, M50		B24, 2x M32
Locking	For double locking latch		With double locking latch	For double locking latch		With double locking latch
Design	Cable outlet at top	Lateral cable outlet	Without cover	Cable outlet at top	Lateral cable outlet	Without cover
Type	HC-STA-B16-HHFD-1TTM50-EL-AL	HC-STA-B16-HHFD-1STM50-EL-AL	HC-STA-B16-SHWD-2SSM32-ELC-AL	HC-STA-B24-HHFD-1TTM50-EL-AL	HC-STA-B24-HHFD-1STM50-EL-AL	HC-STA-B24-SHWD-2SSM32-ELC-AL
Order No.	1082552	1082551	1082601	1082554	1082553	1082604

Web code: #2159

The web code gives you access to additional product versions on our website.

RJ45 contact inserts for heavy-duty connectors Compact data transmission with D7 housing

Using the RJ45 contact inserts for HEAVYCON D7 housings, you can integrate RJ45 data cables easily into your application in a highly compact space. Metal and plastic connector housings with a high degree of protection ensure secure and reliable data transmission.

Ethernet   EtherCAT.   10 Gbit/s

Your advantages

☑ Data transmission in the most compact space, thanks to a compact D7 design

☑ High-speed data transmission up to 10 Gbps

☑ Suitable for pre-assembled data cables

☑ Quick and easy cabling, thanks to a tool-free RJI connection

Main features
• Size: D7
• Material: PC
• Contact material: copper alloy
• Suitable for 10 Gbps $CAT6_A$

ℹ️ **Web code:** #2160				
Description	**RJ45 gender changer**	**RJ pin insert**	**RJ adapter**	**RJ adapter**
Design	RJ45, CAT6		For RJ45 patch cable	For RJ industrial inserts
Size	D7			
Data transmission rate	10 Gbps, 500 MHz		-	
Type	HC-Q-I-RJ45 GC-F/F	HC-Q-I-RJ45-08-M	HC-Q-I-RJ45-AD-PC-M	HC-Q-I-RJ45I-AD-08-PC-M
Order No.	1422590	1077117	1077120	1077119

Connectors

PRC series inverted circular connectors
For flying leads with a high degree of protection

Inverted circular connectors from the PRC series enable reliable cable-to-cable connections in building, industrial, and outdoor applications. Thanks to weatherproof materials and the high degree of protection up to IP69K, the connectors transmit high currents even in demanding ambient conditions.

Your advantages

☑ Up to 75% smaller than industrial connectors with the same rating

☑ Locking mechanism unlocked manually or using a tool

☑ Suitable for applications in atmospheres containing salt and in direct sunlight

☑ Ideal for indoor and outdoor use, thanks to the use of weatherproof materials

Main features
- Conductor cross sections: 1.5 mm² … 6 mm²
- Rated voltage: 690 V AC (III/3)
- Rated current: 35 A
- Degree of protection: up to IP69K
- For assembly in the field
- 3- to 5-pos.
- Can be color-coded

Description	Connector	Coding ring for connector	Coupling	Manual release latch for coupling
Type 3-pos.	PRC 3-FC-MS6 8-21	-	PRC 3-FC-FS6 8-21 HR	-
Order No.	1014498	-	1017635	-
Type 5-pos.	PRC 5-FC-MS6 8-21	PRC FC-M CODE-…	PRC 5-FC-FS6 8-21 HR	PRC FC RELEASE LATCH-…
Order No.	1014530	-	1017632	-
Order No. gray	-	1014457	-	1002292
Order No. green	-	1014456	-	1002290
Order No. blue	-	1014455	-	1002293

Web code: #1628

PRC series angled circular connectors
Flexible device and field connection

Basic housings for device and field use extend the portfolio of PRC series circular connectors. Three different angles and a modular system provide greater flexibility during installation. Assembly is by means of 3- or 5-pos. screw connection heads with pin or socket contact.

Your advantages

☑ Versatile interfaces, thanks to straight and angled connector housings

☑ Universal accommodation of existing connector heads with screw connection technology

☑ Modular system for optimized storage

☑ Locking mechanism unlocked manually or using a tool

☑ Ideal for indoor and outdoor use, thanks to the use of weatherproof materials

Main features
• Rated current: 35 A
• Rated voltage: 690 V AC (III/3)
• Degree of protection: up to IP69K
• Field connectors can be set at 45° and 90° angle
• Device connectors can be set at 0°, 45°, and 90° angle
• Can be color-coded

[i] Web code: #2056				
Description	**Connector housing**		**Connector head**	
Number of positions	-	-	3	5
Type	PRC FC-45/90-HSG 8-21	PRC FT25-45/90-HSG	PRC 3-HEAD-FS6-1	PRC 5-HEAD-FS6-1
Design	Field side 45°/90°	Device side 45°/90°	Coupling side	Coupling side
Order No.	1065798	1065796	1070198	1070197
Type	-	PRC FT25-0-HSG	PRC 3-HEAD-MS6-2	PRC 5-HEAD-MS6-2
Design	-	Device side 0°	Connector side	Connector side
Order No.	-	1065795	1070200	1070199

Compact card printer for industry
Flexible marking with thermal transfer printing

The THERMOMARK CARD 2.0 prints markers supplied in card format for all industrial applications. The proven thermal transfer printing technology provides high-quality results. The integrated color touch display makes operation intuitive and uncomplicated.

Your advantages

- ☑ Simple and intuitive operation using the color touch display
- ☑ Maintenance-free operation with proven thermal transfer printing technology
- ☑ No waiting period, with just 8 seconds of printing time per card
- ☑ Optimum print settings, thanks to automatic material detection
- ☑ Easy and flexible activation, thanks to PROJECT complete software

Main features
- Display: color touch display
- Print resolution: 300 dpi
- Max. printing width: 105 mm
- Weight: approx. 6 kg
- Interfaces: Ethernet 10/100 Mbps/ USB 2.0/RS-232
- Service: integrated operating videos
- Approvals: UL/CSA, CCC, FCC Class A, CB, EAC

ℹ **Web code:** #2141	
Description	**Thermal transfer printer**
Type	THERMOMARK CARD 2.0
Order No.	1085267

Versatile, efficient roll printer
Markings for all industrial applications

The THERMOMARK ROLL 2.0 prints different marking materials in roll format for high-quality industrial identification. The clear symbols and the color touch display intuitively and conveniently guide the user through the printer menu.

Your advantages

- ☑ Simple and intuitive operation using the color touch display
- ☑ Flexible printing of punched or continuous adhesive labels, insertion labels, heat shrink tubes, and marking hoses
- ☑ Fast, high-quality, and durable results
- ☑ Versatile fields of application by processing material for terminal, wire, cable, equipment, and plant marking
- ☑ Easy and flexible activation, thanks to PROJECT complete software

Main features
- Display: color touch display
- Print resolution: 300 dpi
- Max. printing width: 105 mm
- Max. printing length: 1,000 mm
- Interfaces: Ethernet 10/100 Mbps/ USB 2.0/RS-232
- Service: integrated operating videos
- Accessories: cutting and perforating unit

ⓘ Web code: #2142	
Description	**Thermal transfer printer**
Type	THERMOMARK ROLL 2.0
Order No.	1085260

Oval marking hose in roll format
Self-adhesive wire and cable marking

The shrink-proof marking hoses in the WMS-OT HF... roll format mark conductors and cables. The large opening enables fast routing and marking. Thanks to its geometry, the hose automatically affixes to the conductor or cable and does not slide off.

Your advantages

☑ Ideal for marking conductors and cables in the railway industry, thanks to halogen-free material (approvals: DIN EN 45545-2 (R22/R23/R24:HL3))

☑ Rapid fitting onto the conductor or cable, thanks to the oval design and large opening

☑ Flexible cutting of the continuous material to the desired dimension by using the cutting or perforating unit

Main features
* Can be printed with THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLLMASTER 300 and 600
* Material: polyolefin
* Temperature range: -30°C … +125°C
* Wipe resistance in accordance with DIN EN 61010-1 (VDE 0411-1)
* Materials: free of silicone and halogen
* Not shrinkable

ℹ **Web code:** #2143	Marking hose					
Description	**Marking hose**					
Mounting type	Slide on	Slide on	Slide on	Slide on	Slide on	Slide on
Height [mm]	3.2	3.2	3.2	4.8	4.8	4.8
Color	White	Yellow	White	White	Yellow	Yellow
Type	WMS-OT HF 3,2 (EX5)R	WMS-OT HF 3,2 (EX5)R YE	WMS-OT HF 3,2 (EX5)RL	WMS-OT HF 4,8 (EX9)R	WMS-OT HF 4,8 (EX9)R YE	WMS-OT HF 4,8 (EX9)RL YE
Order No.	1044236	1044239	1044253	1044243	1044245	1044259

The web code gives you access to additional product versions on our website.

Markings for SIEMENS marker carriers
Self-adhesive markings for devices

The UCT4-EM(L)P... device markers are suitable for gluing into or latching into the marker carriers from the SIEMENS SIRIUS ACT 3SU... series. The sheets provide space for function texts. The wide temperature range means that the labels can be used in control cabinets as well as the field.

Your advantages

☑ Easy mounting, thanks to self-adhesive labels or easy latching

☑ Particularly durable, thanks to the high quality of the carrier material and marking

☑ Optimally coordinated material and marking ensure high-quality markings

Main features

• Can be printed with THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK ID, BLUEMARK CLED and TOPMARK NEO
• Material: PC V0
• Flammability rating UL 94 V0
• Temperature range: -40°C … +120°C
• Wipe resistance in accordance with DIN EN 61010-1 (VDE 0411-1)
• Materials: free of silicone and halogen

ℹ **Web code: #2144**

Description	Equipment marking					
Mounting type	Adhesive	Adhesive	Adhesive	Snap-on	Snap-on	Snap-on
Lettering field size [mm]	27 x 12.5	27 x 17.5	27 x 27	27 x 12.5	27 x 17.5	27 x 27
Color	White	Silver	White	Silver	White	Silver
Type	UCT4-EMLP (27X12,5)	UCT4-EMLP (27X17,5) SR	UCT4-EMLP (27X27)	UCT4-EMP (27X12,5) SR	UCT4-EMP (27X17,5)	UCT4-EMP (27X27) SR
Order No.	1056543	1056553	1056549	1073986	1073987	1073991

White plastic markers for laser marking
High-quality marking, flexible assembly

The LS-EMLSP... product range includes self-adhesive double-layer plastic markers. In addition, the material has drilled holes for a simple and fast screw or rivet assembly.

Your advantages

☑ Fast and secure fastening, thanks to the assembly combination of gluing and screwing or riveting

☑ Long-lasting marking, since the marking is as resistant as the material itself

☑ Reduced processing time, thanks to pre-defined markers

Main features
- Can be printed using TOPMARK NEO and TOPMARK LASER
- Material: TRANSPLY-ABS
- Temperature range: -20°C ... +85°C
- Wipe resistance in accordance with DIN EN 61010-1 (VDE 0411-1)
- Materials: free of silicone and halogen
- Color: white

ℹ️ **Web code:** #2145			
Description	**Equipment marking**		
Hole diameter [mm]	3.2	3.2	3.2
Lettering field size [mm]	21.5 x 15	36.3 x 24	70.8 x 40
Pcs./Pkt. [pieces]	10	10	10
Number of labels per sheet [pieces]	50	24	8
Type	LS-EMLSP (21,5X15)WH	LS-EMLSP (36,3X25)WH	LS-EMLSP (70,8X40)WH
Order No.	1045512	1058990	1069847

Stainless steel labels for laser marking
Robust markings for harsh conditions

The LS-EMLP V4A… product range includes self-adhesive stainless steel markers with a high adhesive strength. The TOPMARK NEO labels the robust material, which guarantees a durable and high-quality industrial identification, even under extreme influences.

Your advantages

☑ Fast fastening, thanks to simple adhesive mounting

☑ Long-lasting marking, since the marking is as resistant as the material itself

☑ Maximum resistance to mechanical damage, thanks to a high-quality laser engraving

Main features

- Can be printed using TOPMARK NEO and TOPMARK LASER
- Material: stainless steel (V4A)
- Temperature range: -35°C … +150°C
- Wipe resistance in accordance with DIN EN 61010-1 (VDE 0411-1)
- Materials: free of silicone, halogen, and cadmium

ℹ️ **Web code:** #2146	Equipment marking		
Description	**Equipment marking**		
Lettering field size [mm]	50 x 15	60 x 15	60 x 30
Pcs./Pkt. [pieces]	5	5	25
Number of labels per sheet [pieces]	24	16	10
Type	LS-EMLP-V4A (50X15)	LS-EMLP-V4A (60X15)	LS-EMLP-V4A (60X30)
Order No.	1019818	1031604	0803991

Labels for the food industry
Detectable, strongly adhesive, and resistant

EML-D… is a detectable label for marking various types of equipment in controller, system, and control cabinet manufacturing applications in the food industry. Thanks to its high adhesive strength, it can be stuck onto rough, textured, and low-energy surfaces.

Your advantages

☑ Detectable, thanks to an integrated aluminum layer

☑ When combined with the TM-RIBBON 110-EX ink ribbon, it is highly resistant to solvents, aggressive cleaning agents, acetone, and ethanol

☑ Secure hold, even on textured and low-energy surfaces, thanks to high adhesive strength

☑ Suitable for use in the food industry in accordance with ISEGA approval

Main features
- Can be printed with THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLLMASTER 300, THERMOMARK ROLLMASTER 600
- Material: polyester
- Temperature range: -40°C … +120°C
- Wipe resistance in accordance with DIN EN 61010-1 (VDE 0411-1)
- Materials: free of silicone and halogen

ℹ **Web code:** #2147

Description	Equipment marking			
Mounting type	Adhesive	Adhesive	Adhesive	Adhesive
Lettering field size [mm]	40 x 15	40 x 15	60 x 30	60 x 30
Color	White	Silver	White	Silver
Special features	Detectable	Detectable	Detectable	Detectable
Type	EML-D (40X15)R	EML-D (40X15)R SR	EML-D (60X30)R	EML-D (60X30)R SR
Order No.	1054876	1054877	1054878	1054879

Self-adhesive warning and hazard labels
Pre-printed for circuit marking

The colored, pre-printed system labels on a roll enable customized creation of circuit markings and warning and hazard notes. The labels consist of soft, highly flexible PVC film that molds itself to uneven surfaces.

Your advantages

☑ Good hold, even on uneven surfaces, since the highly flexible, soft PVC material adapts easily

☑ Resistance, even under harsh industrial conditions and against solvents with the use of high-quality ink ribbons

☑ Suitable for use indoors and outdoors, thanks to a large temperature range of -40°C to +90°C

Main features
- Can be printed with THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLLMASTER 300, THERMOMARK ROLLMASTER 600
- Material: PVC
- Temperature range: -40°C … +90°C
- Wipe resistance in accordance with DIN EN 61010-1 (VDE 0411-1)
- Materials: free of silicone

i Web code: #2148				
Description	**Plant marking**			
Mounting type	Adhesive	Adhesive	Adhesive	Adhesive
Lettering field size [mm]	39 Ø	58 (WH) + 19 (OG) x continuous	100 x 48	100 x 65
Color of base material	White	White/orange	White	White
Color of printing	Red	Black	Red	Red
Type	PML-C101 (D39)R	PML-W400 (58/19XE)R WH-OG	PML-W501 (100X48)R WH-RD	PML-W501 (100X65)R WH-RD
Order No.	1032780	1016499	1016507	1016508

Labels with protective laminate
Reliable protection against external influences

The EML-LPR... labels feature a protective laminate, which is stuck onto the printing surface after the printed base label has been attached. This protects it from external influences. The strong adhesive also enables a secure hold, even on rough and textured surfaces.
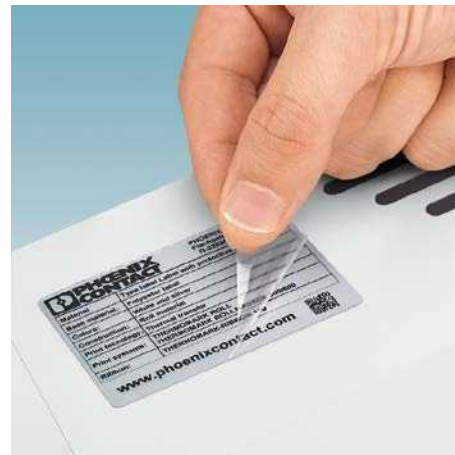
Your advantages

- ☑ Resistance of the marking to external influences, thanks to the protective laminate
- ☑ Secure hold, even on textured surfaces such as control cabinet panels, thanks to the strong adhesive
- ☑ Easy handling, thanks to punched laminate

Main features

- Can be printed with THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLLMASTER 300, THERMOMARK ROLLMASTER 600
- Material: polyester
- Temperature range: -40°C … +150°C
- Wipe resistance in accordance with DIN EN 61010-1 (VDE 0411-1)
- Materials: free of silicone and halogen

ⓘ **Web code:** #2149				
Description	**Plant marking**			
Mounting type	Adhesive	Adhesive	Adhesive	Adhesive
Lettering field size [mm]	70 x 32	70 x 50	86.5 x 54	100 x 73
Color	Silver	Silver	Silver	Silver
Type	EML-LPR (70X32)SR	EML-LPR (70X50)SR	EML-LPR (86,5X54)R SR	EML-LPR (100X73)R SR
Order No.	1090079	1090080	1090081	1090082

Narrow electronic circuit breakers
Universal at 6 mm

The PTCB electronic circuit breakers are now available as a 1 A and 8 A variant. They are ideal for simple and space-saving potential distribution. You can combine the narrow, single-channel devices with the CLIPLINE complete terminal block system.

Push-in Technology
Designed by PHOENIX CONTACT
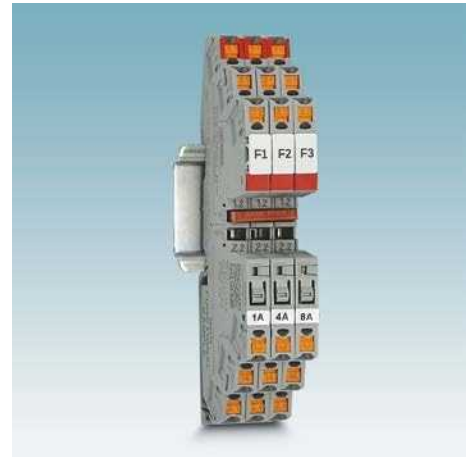
COMPLETE line

Your advantages

☑ Simple application setup, thanks to the capability of bridging to the CLIPLINE complete terminal block range

☑ More space in the control cabinet: slim-line protection with a width of just 6 mm

☑ Flexible use, thanks to fine nominal current increments for a wide variety of applications

Main features

• Overall width: 6 mm
• Determination of operating state via LED display in traffic light colors
• Fixed nominal current
• Satisfies requirements in accordance with NEC Class 2
• Flexible use
• Integrated remote signaling function

ⓘ **Web code:** #2181		
Description	**Device circuit breaker with fixed nominal currents**	
Nominal current	1 A	8 A
Operating voltage	18 V DC … 30 V DC	
NEC Class 2	Yes	No
Operating temperature	-25°C … +60°C	
Type	PTCB E1 24DC/1A NO	PTCB E1 24DC/8A NO
Order No.	2909902	2909910

Multi-channel electronic circuit breakers
Remote reactivation

The two new variants of the CBMC … S-R multi-channel electronic circuit breakers have a status output and reset input. This allows the status of the devices to be monitored remotely and tripped channels to be switched on again.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Easy device replacement, thanks to the compact design and options for individual adjustments

☑ Circuits can be adjusted tool-free via single-button operation of the LED push buttons

☑ Enhanced diagnostic and control options, thanks to integrated status output and reset input

☑ Optimum protection for cables and sensors as well as NEC Class 2 circuits by means of an additional internal output fuse

Main features
- Four independent channels
- Nominal current adjustable in 1 A increments
- Status output and reset input
- Individual marking options
- Electronic protection against overload and short-circuit currents
- Rated voltage: 24 V DC
- Push-in connection

[i] **Web code:** #2182	Electronic circuit breaker 1 A…4 A	Electronic circuit breaker 1 A…10 A
Description	**Electronic circuit breaker 1 A…4 A**	**Electronic circuit breaker 1 A…10 A**
Nominal current	1 A…4 A	1 A…10 A
Operating voltage	18 V DC…30 V DC	
Operating temperature	-25°C…+60°C	
NEC Class 2	Yes	No
Type	CBMC E4 24DC/1-4A S-R	CBMC E4 24DC/1-10A S-R
Order No.	1065727	1065729

Multi-channel electronic circuit breakers
Safe disconnection with electrical isolation

When switched off, the outputs of the new CBMC EG4 multi-channel electronic circuit breaker are electrically isolated. This ensures that there is no connection to the power supply when they are disconnected, and the current path is fully disconnected in the event of a fault.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE *line*

Your advantages

- ☑ Easy device replacement, thanks to the compact design and options for individual adjustments
- ☑ Circuits can be adjusted tool-free via single-button operation of the LED push buttons
- ☑ System safety is increased during maintenance work, thanks to disconnection via electrical isolation
- ☑ Reliable protection against unintentional adjustment of current values, thanks to electronic locking

Main features

- Four independent channels
- Nominal current adjustable in 1 A increments
- Electrical isolation
- Floating remote indication contact
- Individual marking options
- Electronic protection against overload and short-circuit currents
- Rated voltage: 24 V DC
- Push-in connection

Web code: #2183	
Description	**Electronic circuit breaker with electrical isolation**
Nominal current	1 A…8 A
Operating voltage	18 V DC…30 V DC
Operating temperature	-25°C…+60°C
Type	CBMC EG4 24DC/1-8A NO
Order No.	1065730

Fuse carriers for selective protection
Optional protection from overcurrent

The new fuse carrier for TERMITRAB complete offers additional protection for your installation. Implement selective protection of your signal lines to guard them from overcurrents in a compact space. Simply use conventional 5x20 mm fine fuses to do so.

COMPLETE line

Your advantages

☑ Simple protection, thanks to the use of conventional 5x20 mm fine fuses

☑ Maximum space savings, thanks to direct installation on the protective device

☑ High degree of application flexibility, thanks to easy retrofitting capability

☑ Modular overcurrent protection, can be combined easily with surge protection

Main features
- For conventional 5x20 mm fine fuses
- Can be combined with TTC screw versions
- Can be used with all multi-level TTC products, including knife disconnection

	Fuse carrier
ℹ️ **Web code:** #2189	
Description	**Fuse carrier**
Fuse type	5x20 mm fine fuse
Dimensions W x H x D [mm]	6.2 x 37 x 39
Type	TTC-6-FC-UT
Order No.	1054762

Pluggable surge protection
Protection for resistance-dependent measurements

The new TERMITRAB complete product range versions offer protection for resistance-dependent measurements in 3-conductor applications. Two different voltage versions are added to the product portfolio for this application.

Push-in Technology[P]

Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

- ☑ Space saving, thanks to the narrow overall width of just 6 mm
- ☑ Versatile use, thanks to the application of adapted designs and connection technologies
- ☑ Safe disconnection and signaling in the event of overload
- ☑ Simple testing and documentation, thanks to pluggable protective modules
- ☑ High level of nominal current, thanks to impedance-free mode of protection

Main features

- Overall width: 6 mm
- Pluggable
- Mechanical status indicator on the device
- Remote signaling capability
- Impedance-free mode of protection
- Plugs can be tested with CHECKMASTER 2

ℹ️ Web code: #2184				
Description	**24 V surge protection**	**24 V replacement plug**	**5 V surge protection**	**5 V replacement plug**
Application	Resistance-dependent measurements			
Nominal voltage	24 V DC		5 V DC	
Rated current	5 A			
Connection technology	Push-in	-	Push-in	-
Type	TTC-6P-3-24DC-PT-I	TTC-6P-3-24DC-I-P	TTC-6P-3-5DC-PT-I	TTC-6P-3-5DC-I-P
Order No.	1061383	1061384	1061385	1061386

One-piece surge protection
Protection for interfaces and signal circuits

More single-level protective devices are now being added to the TERMITRAB complete product range. They offer protection for binary signal circuits with two signal wires and telecommunications interfaces with three signal wires.

Push-in Technology[P]
Designed by PHOENIX CONTACT
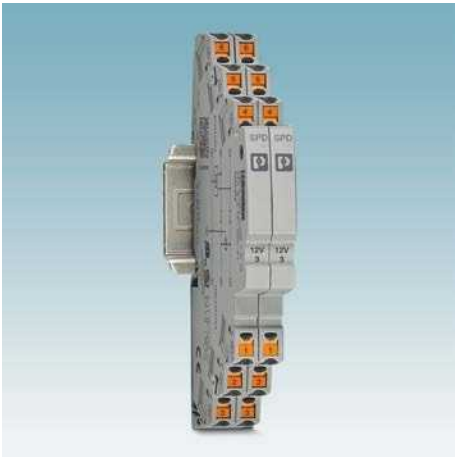
COMPLETE **line**

Your advantages

☑ Space saving, thanks to the narrow overall width of just 6 mm

☑ Versatile use, thanks to the application of adapted designs and connection technologies

☑ Coordinated protective effects, thanks to versions with coarse, medium or fine protection

☑ Safe disconnection and signaling in the event of overload

Main features
• Overall width: 6 mm
• Mechanical status indicator on the device
• Remote signaling capability

	Surge protection for three signal wires with common reference potential	Surge protection for two signal wires with common reference potential
ⓘ Web code: #2185		
Description	**Surge protection for three signal wires with common reference potential**	**Surge protection for two signal wires with common reference potential**
Application	HF applications and telecommunications interfaces	Fine protection for signal circuits of electronic controllers
Nominal voltage	12 V DC	12 V DC
Rated current	600 mA	6 A
Connection technology	Push-in	
Type	TTC-6-3-HF-12DC-PT	TTC-6-2XTVSD-12DC-PT
Order No.	1065316	2906807

Surge protection for Ex i signal circuits
Reliable protection of 3-conductor measurements

The new TERMITRAB complete product version offers protection for 3-conductor measurements in potentially explosive applications. In the event of maintenance or a fault, the pluggable protective devices enable impedance-neutral connection and disconnection.
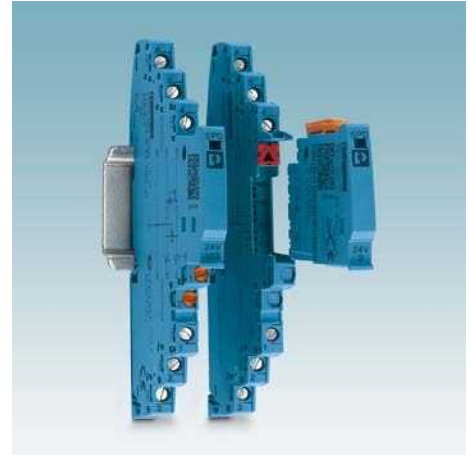
COMPLETE **line**

Your advantages

- ☑ Can be used in intrinsically safe signal circuits
- ☑ Space saving, thanks to the narrow overall width of just 6 mm
- ☑ Safe disconnection and signaling in the event of overload
- ☑ Secure positioning in the base element, thanks to coordinated latching hook
- ☑ Simple testing and documentation, thanks to pluggable protective modules

Main features
- ATEX and IECEx approval
- Overall width: 6 mm
- Mechanical status indicator on the device
- Pluggable
- Plugs can be tested with CHECKMASTER 2
- Optional remote signaling capability
- Impedance-free mode of protection

ⓘ Web code: #2187		
Description	**Surge protective device for 3-conductor measurements in the Ex area**	**Replacement plug**
Application	Resistance-dependent measurements	
Nominal voltage	24 V DC	
Rated current	5 A	
Connection technology	Screw	-
Type	TTC-6P-3-EX-24DC-UT-I	TTC-6P-3-EX-24DC-I-P
Order No.	1064665	1064663

Surge protection for Ex i signal circuits
Protection of current loops and analog signals

The new TERMITRAB complete product version offers protection for current loops and analog signals in potentially explosive applications. In the event of maintenance or a fault, the pluggable protective devices enable fast testing and replacement.

COMPLETE line

Your advantages

☑ Can be used in intrinsically safe signal circuits

☑ Space saving, thanks to the narrow overall width of just 6 mm

☑ Safe disconnection and signaling in the event of overload

☑ Secure positioning in the base element, thanks to coordinated latching hook

☑ Simple testing and documentation, thanks to pluggable protective modules

Main features
- ATEX and IECEx approval
- Overall width: 6 mm
- Mechanical status indicator on the device
- Pluggable
- Plugs can be tested with CHECKMASTER 2
- Optional remote signaling capability

ℹ **Web code:** #2188	
Description	**Surge protection for current loops and analog signals in the Ex area**
Application example	4 … 20 mA current loop
Nominal voltage	24 V DC
Rated current	600 mA
Connection technology	Screw
Type	TTC-6P-1X2-EX-24DC-UT-I
Order No.	1065312

Surge protection for MCR technology
Protecting signals and interfaces

New products for various voltage and circuitry versions are now available for the TERMITRAB complete product range. The devices protect almost all standard interfaces used in measurement and control technology.

Push-in Technology [P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Simple testing and documentation, thanks to pluggable protective modules

☑ Space saving, thanks to the narrow overall width of just 6 mm

☑ Safe disconnection and signaling in the event of overload

☑ Variable connection technology

☑ High degree of flexibility, thanks to the large variety of products

Main features

• Pluggable
• Overall width: 6 mm
• Nominal voltage: 24 V DC
• Mechanical status indicator on the device
• Remote signaling capability
• Push-in or screw connection
• Plugs can be tested with CHECKMASTER 2

[i] **Web code:** #2186						
Description	**Surge protective device for MCR technology**					
Application	HF applications and telecommunications interfaces		Current loops / analog signals		Digital signals / switch contacts	
Nominal voltage	12 V DC	12 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Rated current	600 mA					
Connection technology	Push-in	Push-in	Screw	Push-in	Screw	Push-in
Type	TTC-6P-3-HF-12DC-PT-I	TTC-6P-3-HF-F-12DC-PT-I	TTC-6P-1X2-F-24DC-UT-I	TTC-6P-1X2-F-24DC-PT-I	TTC-6P-2X1-F-24DC-UT-I	TTC-6P-2X1-F-24DC-PT-I
Order No.	1065313	1065314	1065317	1065318	1065319	1065320

Intelligent monitoring system
Clear insight into the system

ImpulseCheck is the world's first intelligent assistance system for surge protection in the field of mains protection. The module allows you to measure the state of health of every single protective device via cloud connection and provides new digital services.

PROFICLOUD

COMPLETE line

Your advantages

☑ Keeping the pulse of your system: register the state of the system and detect the remaining state of health of the SPDs

☑ Always on the safe side: status reports complying with standards, at any time at the push of a button

☑ Benefit from digital added value and services: cloud-based data acquisition and the ability to display and combine measured values support completely new automated processes

Main features
- Configuration of the device via web interface and PROFICLOUD
- Measurement of amperage, charge, and specific energy
- Real-time detection of surge and burst pulses
- Cloud-based notification when there is a change in status

Description	Evaluation unit and communication unit	1.5 meter sensor cable	3 meter sensor cable
ℹ Web code: #2196			
Operating voltage	24 V DC	-	-
Detectable values (current strength)	100 A … 40 kA	-	-
Sampling rate	500 kHz	-	-
Maximum measuring period	1 s	-	-
Type	IPCH-4X-PCL-TCP-24DC-UT	IPCH-SC-1.5	IPCH-SC-3.0
Order No.	1045379	1045380	1069191

Surge protection for 40 mm rails
Standard-compliant protection

The FLT-SEC-ZP is the combined lightning current and surge arrester for protecting residential buildings and multi-purpose buildings. You save time and space, thanks to the narrow overall width and tool-free assembly. Benefit from a practical base latch, which makes it possible to latch onto busbars of all thicknesses.

Your advantages

☑ Fast and error-free installation, thanks to direct mounting on 40 mm rail system

☑ Fits in every installation distributor, thanks to extremely narrow overall width

☑ Mounts securely and without tools through a universal interlock on a 5 mm and 10 mm busbar thickness

☑ No line follow current, thanks to an innovative spark gap

Main features
- Narrow overall width of just 47 mm
- Test button for state monitoring
- Additional protective conductor terminal point
- Free of leakage current, suitable for use in the unmetered area
- Low voltage protection level of 1.5 kV
- Test button for electrical status indicator
- Fulfills all requirements in accordance with DIN VDE 0100-534

ℹ Web code: #2197

Description	T1+T2 combined lightning current and surge arrester 7.5 kA discharge capacity		T1+T2 combined lightning current and surge arrester 12.5 kA discharge capacity	
Network type	TN-S/TT	TN-C	TN-S/TT	TN-C
Lightning impulse current	7.5 kA		12.5 kA	
Nominal voltage	230/400 V AC			
Short-circuit current rating	25 kA			
Type	FLT-SEC-ZP-3S-255/7,5	FLT-SEC-ZP-3C-255/7,5	FLT-SEC-ZP-3S-255/12,5	FLT-SEC-ZP-3C-255/12,5
Order No.	1074741	1074739	1032207	1032204

Surge protection for power supplies
Powerful and space-saving

The slimmest type 2 surge protective device in the world VALVETRAB-SEC is now also available as a 4+0 version for TN-S and IT power supply systems. With its compact design and high performance, this solution offers comprehensive protection with minimum space requirements.

COMPLETE **line**

Your advantages

☑ Uninterrupted protection for your system, thanks to a secure disconnect device and high-value components

☑ Space-saving installation, thanks to compact design and fuse-free use up to 315 A with stub wiring

☑ Easy replacement during servicing, thanks to consistently pluggable protective devices

☑ High system availability, thanks to high-performance protective circuit

☑ No mismatching of plugs, thanks to mechanical coding

Main features
- Floating remote indication contact
- Visual mechanical status indicator
- Plugs can be tested with CHECKMASTER 2
- Extremely narrow design, just 12 mm per position
- Low voltage protection level of 1.9 kV for 400/690 V AC systems
- Varistor arrester with a low leakage current

ℹ️ **Web code:** #2195	
Description	**Type 2 surge protective device**
Network type	TN-S / IT
Nominal voltage	400/690 V AC (TN-S) / 400 V AC (IT)
Nominal discharge current	20 kA
Discharge surge current	40 kA
Type	VAL-SEC-T2-4+0-440-FM
Order No.	1076468

Surge protection in the socket
Protection of valuable end devices in the building

BLOCKTRAB BLT-T3 is the compact surge protective device for universal assembly. The protective device is ideal for use in device sockets, cable ducts, and underfloor systems. As part of the fixed installation, the protection is concealed.

Your advantages

☑ Can be used universally, thanks to a compact design

☑ Concealed surge protection, thanks to device flush-mounted socket

☑ Cannot be stolen, since it is part of the fixed installation

Main features
• Compact design
• Protects end devices around the perimeter of the 10 m cable length
• Audible fault alarm
• Shock protection in accordance with IP20
• Thermal disconnect device

ℹ **Web code:** #2194	
Description	**Type 3 device protection for universal assembly**
Nominal voltage	230 V
Nominal discharge current	4 kA
Combined surge	6 kV
Voltage protection level	≤ 1.5 kV
Type	BLT-T3-230-A
Order No.	1038841

Surge protection for lighting systems
Optimal for LED applications

The new type 2 BLOCKTRAB version is designed specifically for road, tunnel, and object lighting. Thanks to its compact design and the various connection and mounting options, you can install it in almost any application.

Your advantages

☑ Easy retrofitting thanks to compact design

☑ Flexible mounting, thanks to integrated elongated holes

☑ High electric strength due to double insulation

☑ Wide range of possible applications, thanks to wide voltage range

Main features
- Branch or through-wiring connection
- Reinforced isolation
- Visual mechanical status indicator
- Low voltage protection level
- Corresponds to arrester classes type 2 and type 3
- Easy installation

i **Web code:** #2193	
Description	**Type 2 surge protection for LED applications**
Network type	TN/TT
Nominal voltage	230 V AC
Nominal discharge current	5 kA
Maximum continuous voltage	305 V AC
Type	BLT-T2-1S-305-UT
Order No.	1078433

Surge protection for photovoltaic systems
Simply increasing the system availability

The new type 1+2 VALVETRAB MS combined lightning current and surge arresters are now available with a 3+V circuit. They can be used in insulated DC voltage systems up to 1,000 V DC and offer you optimum protection for your photovoltaic application.

Your advantages

☑ Increased operational safety, thanks to high short-circuit current rating

☑ Protection against incorrect connection, thanks to coded plugs and base elements

☑ High system availability, thanks to high-performance protective circuit

☑ Easy replacement during servicing, thanks to consistently pluggable protective devices

Main features

• High short-circuit current rating
• Visual mechanical status indicator
• With or without floating remote indication contact
• Plugs can be tested with CHECKMASTER 2
• Screw connection
• Very powerful with a high discharge capacity

[i] **Web code:** #2192		
Description	**Surge protective device with remote indication contact**	**Surge protective device without remote indication contact**
Short-circuit current rating	2,000 A	
Total discharge surge current	10 kA	
Voltage protection level	≤ 3.50 kV	
Remote indication contact	Yes	No
Type	VAL-MS-T1/T2 1000DC-PV/3+V-FM/32	VAL-MS-T1/T2 1000DC-PV/3+V/32
Order No.	1044182	1044183

Base element for surge protection plug
Space-saving assembly on the printed-circuit board

The new VAL-MS-BE PCB base element is designed for direct mounting on a printed-circuit board. It is also designed for all protection plugs from the VALVETRAB MS product series. You can use the compatible protection plug to provide protection right on the printed-circuit boards of inverters.

Your advantages

☑ Remote signaling options due to floating remote indication contact

☑ Flexible use, thanks to an extensive portfolio of protection plugs

☑ Minimal space required, thanks to the small footprint

☑ Simple coding at first-time connection of the protection plug

☑ Fulfills the requirements in accordance with IEC 62109-1, thanks to double insulation

Main features
• Can be used at altitudes up to 5,000 m
• Can be soldered directly to the PCB
• Can hold type 1 and type 2 protection plugs
• Suitable for photovoltaic applications
• Double insulation between the remote signaling and main circuits
• Satisfies requirements in accordance with IEC/EN 61643-11

i **Web code:** #2190	
Description	**Base element for the printed-circuit board**
Maximum continuous voltage	760 V AC/1,500 V DC
Operating temperature	-40°C … +85°C
Maximum altitude	5,000 m
Maximum backup fuse	250 A (gG)
Type	VAL-MS-BE-PCB-FM
Order No.	1035864

Surge protection for photovoltaic systems
Optimal protection with the lowest space requirements

The new type 2 surge protective devices of the PRINTRAB product line can be mounted directly on the PCB. Thanks to their compact design, they are the ideal protective device for inverters. Soldered directly to the main board, they offer powerful protection in the smallest installation space.

Your advantages

☑ Minimal space required, thanks to the small footprint

☑ Remote signaling options due to floating remote indication contact

☑ Optimal protection, thanks to mechanical disconnection in the event of overload

☑ Fulfills the requirements in accordance with IEC 62109-1, thanks to double insulation

Main features

• Can be used at altitudes up to 5,000 m
• Operating temperature: -40°C … +85°C
• Can be soldered directly to the PCB
• Designs with 10 kA and 20 kA nominal discharge current
• Can be used without backup fuse up to a maximum of 2000 A
• Products for AC and DC applications

ℹ Web code: #2191		
Description	**Type 2 surge protection for printed-circuit boards**	
Nominal voltage	-	690 V AC
System voltage (Y-circuit)	1,500 V DC	1,500 V DC
Double insulation	Yes	Yes
Voltage protection level	≤ 4.5 kV (2 SPDs in series)	≤ 5.5 kV (2 SPDs in series)
Type	PRT-PV-P-1500/20-550	PRT-PV-P-1500/20-680
Order No.	1013424	1026507

Power supplies with maximum functionality
Strongest power supply on the market

QUINT POWER boasts innovative functions. The 1 AC device with an expanded PFC concept ensures a high degree of efficiency over the entire power range. The 3 AC device does not generate any inrush current, thus preventing unintended tripping of the backup fuse.

SFB
TECHNOLOGY

COMPLETE line

Your advantages

☑ Strongest output side: easy system expansion, reliable heavy load startup, and miniature circuit breaker tripping

☑ Most robust input side: high noise immunity, thanks to integrated gas-filled surge arrester (up to 6 kV) and ≥ 20 ms mains failure buffer time

☑ Most comprehensive signaling: preventive function monitoring reports critical operating states before errors occur

☑ Available pre-configured: from a batch quantity of just 1

Main features

- Static and dynamic boost
- Selective Fuse Breaking Technology (SFB): 6 times the nominal current for 15 ms
- Analog, digital, and relay contacts
- Integrated gas-filled surge arrester
- Wide temperature range: -40°C … +70°C
- Multi-level PFC concept (1 AC) for a long service life
- No inrush current (3 AC)

Web code: #2173		
Description	**1-phase power supply** **100 V AC … 240 V AC**	**3-phase power supply** **3 x 400 V AC … 500 V AC**
Output voltage	24 V DC … 29.5 V DC	24 V DC … 29.5 V DC
Output current	40 A	40 A
Static boost Dynamic boost SFB Technology	45 A 60 A (5 s) 215 A (15 ms)	45 A 60 A (5 s) 215 A (15 ms)
Dimensions W x H x D [mm]	120 x 130 x 125	120 x 130 x 125
Type	QUINT4-PS/1AC/24DC/40	QUINT4-PS/3AC/24DC/40
Order No.	2904603	2904623

DC/DC converters with maximum functionality
Free choice of connection technology

The new generation of the QUINT DC/DC converters offers superior system availability with innovative functions. The IECEx approval enables use in potentially explosive areas. Signaling thresholds and characteristic curves can be adapted over the NFC interface.

Push-in Technology [P]
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Strongest output side: easy system expansion, reliable heavy load startup, and miniature circuit breaker tripping

☑ Most comprehensive signaling: preventive function monitoring reports critical operating states before errors occur

☑ Free selection between Push-in and screw connection

☑ Available pre-configured: from a batch quantity of just 1

Main features

• Static boost up to 125% for a sustained period
• Dynamic boost up to 200% for 5 s
• Selective Fuse Breaking Technology (SFB): 6 times the nominal current for 15 ms
• Analog, digital, and relay contacts
• IECEx approval
• Wide temperature range: -25°C … +70°C, startup type tested: -40°C

	Web code: #2175		DC/DC converter with Push-in connection			DC/DC converter with screw connection	
Description		DC/DC converter with Push-in connection				DC/DC converter with screw connection	
Input / output voltage	24 V DC/24 V DC	24 V DC/24 V DC	24 V DC/12 V DC	48 V DC/24 V DC	24 V DC/24 V DC	24 V DC/24 V DC
Output current	5 A	10 A	8 A	5 A	5 A	10 A
Static boost Dynamic boost SFB Technology	6.25 A 10 A (5 s) 30 A (15 ms)	12.5 A 20 A (5 s) 60 A (15 ms)	10 A 16 A (5 s) 48 A (15 ms)	6.25 A 10 A (5 s) 30 A (15 ms)	6.25 A 10 A (5 s) 30 A (15 ms)	12.5 A 20 A (5 s) 60 A (15 ms)
Dimensions W x H x D [mm]	36 x 130 x 125	50 x 130 x 125	36 x 130 x 125	36 x 130 x 125	36 x 130 x 125	50 x 130 x 125
Type	QUINT4-PS/24DC /24DC/5/PT	QUINT4-PS/24DC /24DC/10/PT	QUINT4-PS/24DC /12DC/8/PT	QUINT4-PS/48DC /24DC/5/PT	QUINT4-PS/24DC /24DC/5/SC	QUINT4-PS/24DC /24DC/10/SC
Order No.	2910119	2910120	2910122	2910125	1046800	1046803

Power supplies with maximum functionality
Protection against extreme ambient conditions

QUINT POWER power supply now as Plus version with protective coating and ATEX/IECEx approval for potentially explosive areas (zone 2). The integrated decoupling MOSFET and SIL 3 certification enable superior system availability and maximum operational safety.

SFB
TECHNOLOGY

COMPLETE line

Your advantages

☑ Strongest output side: easy system expansion, reliable heavy load startup, and miniature circuit breaker tripping

☑ Most robust input side: high noise immunity, thanks to integrated gas-filled surge arrester (up to 6 kV) and ≥ 20 ms mains failure buffer time

☑ Most comprehensive signaling: preventive function monitoring reports critical operating states before errors occur

☑ Available pre-configured: from a batch quantity of just 1

Main features

• Static boost up to 125% for a sustained period
• Dynamic boost up to 150% for 5 s
• Selective Fuse Breaking Technology (SFB): 6 times the nominal current for 15 ms
• Analog, digital, and relay contacts
• Integrated gas-filled surge arrester
• Wide temperature range: -40°C … +75°C
• SIL 3 certification and protective coating
• Integrated decoupling MOSFET

ℹ Web code: #2174	

Description	1-phase power supply Plus version 100 V AC … 240 V AC
Output voltage	24 V DC … 28 V DC
Output current	20 A
Static boost Dynamic boost SFB Technology	25 A 30 A (5 s) 120 A (15 ms)
Dimensions W x H x D [mm]	70 x 130 x 125
Type	QUINT4-PS/1AC/24DC/20/+
Order No.	2904617

Active redundancy module
OVP even under extreme conditions

The new QUINT S-ORING VP version supplements the active redundancy modules. Supply networks are decoupled and lines are disconnected continuously while they are routed to the load. Surge voltages at the output are limited to 30 V, maximizing operational safety.

COMPLETE **line**

Your advantages

☑ Consistent redundancy up to the consumer

☑ Constant monitoring of input voltage and decoupling section

☑ Save energy by decoupling with MOSFET

☑ Protection against surge voltages in excess of 30 V DC at the output

☑ Protective coating with ATEX and IECEx approval for extreme ambient conditions

Main features
- Isolated cable routing
- Preventive function monitoring
- Active decoupling with MOSFET
- Overvoltage Protection (OVP)
- Input/output voltage drop: 0.1 V DC
- Conductor cross sections up to 16 mm²
- Wide temperature range: -40°C … +70°C

ℹ **Web code:** #2180	
Description	**Active redundancy module VP version**
Nominal input voltage	12 V DC … 24 V DC
Output current	40 A
Overvoltage Protection	30 V
Dimensions W x H x D [in mm]	32 x 130 x 125
Type	QUINT4-S-ORING/12-24DC/1X40/VP
Order No.	1043418

Power supplies with maximum functionality
Powerful and space-saving

The power supplies with new voltages in the power range up to 100 W expand the QUINT POWER range. Superior system availability with the smallest size, preventive function monitoring, and exceptional power reserves are now also available in the low-power range.

Push-in Technology [P]

Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Startup of heavy loads, thanks to dynamic boost

☑ Preventive function monitoring reports critical operating states before errors occur

☑ High efficiency and long service life with low power dissipation and low heating

☑ Space savings in the control cabinet, thanks to a narrow, slim-line design

☑ Fast and easy startup, thanks to tool-free Push-in connection technology

Main features
- Power reserves:
  – Static boost up to 125% for a sustained period
  – Dynamic boost up to 200% for 5 s
- Configurable signaling of DC OK or selectable power thresholds
- Efficiency up to 92.4%
- Further DC input voltage range 88 V DC … 350 V DC
- Wide temperature range: -40°C … +70°C

[i] **Web code:** #2176			
Description	1-phase power supply with Push-in connection		
Input voltage	85 V AC … 264 V AC	85 V AC … 264 V AC	85 V AC … 264 V AC
Output voltage	5 V DC … 6.5 V DC	12 V DC … 15 V DC	12 V DC … 15 V DC
Output current Dynamic boost Static boost	5 A 6.25 A 10 A (5 s)	2.5 A 3.1 A 4.5 A (5 s)	7.5 A - 15 A (5 s)
Dimensions W x H x D [mm]	22.5 x 106 x 90	22.5 x 106 x 90	45 x 106 x 90
Type	QUINT4-PS/1AC/5DC/5/PT	QUINT4-PS/1AC/12DC/2.5/PT	QUINT4-PS/1AC/12DC/7.5/PT
Order No.	2904595	2904605	2904607

Power supplies with basic functionality
Compact load supply with 480 W

The thin UNO POWER power supply from the second generation offers active function monitoring for the first time ever, with a DC OK LED and relay contact. Its extremely compact design and high degree of efficiency makes it the optimal solution for loads up to 480 W.

Your advantages

- ☑ Save space in the control cabinet, thanks to an extremely slim overall width of 59 mm
- ☑ Save energy, thanks to a high degree of efficiency
- ☑ Outdoor installation possible at a wide temperature range of -25°C … +70°C
- ☑ Easy monitoring of the output voltage, thanks to floating DC OK relay contact

Main features

- Adjustable output voltage: 24 V DC … 28 V DC
- LED signaling and DC OK relay contact
- High power density: 500 W/dm³
- Efficiency up to 94.6%
- High MTBF: > 500,000 h
- Wide temperature range: -25°C … +70°C

	Power supply 1-phase
Description	
Input voltage	100 V AC … 240 V AC
Output voltage	24 V DC
Output current	20 A
Dimensions W x H x D [in mm]	59 x 130 x 125
Type	UNO2-PS/1AC/24DC/480W
Order No.	2910105

ℹ **Web code:** #2179

Power supplies with standard functionality
Fast mounting and contacting

The new TRIO POWER power supply for the CrossPowerSystem power distribution board is perfectly adapted for use in machine building. All functions and the space-saving design are tailored to the stringent demands in this area.

Your advantages

☑ Push-in connections for easy 24 V DC control voltage connection

☑ Rapid startup: tool-free mounting and automatic contacting in one easy step (CrossPowerSystem)

☑ Reliable starting of heavy loads with dynamic boost

☑ Electrically robust, thanks to high electric strength

☑ Maximum flexibility, thanks to temperature range from -25°C…+70°C and device startup at -40°C

Main features

• 24 V DC as control voltage using Push-in connection
• Electrical contacting by simply snapping on
• Power reserve: dynamic boost up to 150% for 5 s
• LED and relay contact signal DC OK
• Wide temperature range: -25°C…+70°C, startup type tested: -40°C

ℹ **Web code:** #2178	
Description	**Power supply 3-phase**
Input voltage	3 x 400 V AC…500 V AC
Output voltage	24 V DC
Output current Dynamic boost	5 A 7.5 A (5 s)
Dimensions W x H x D [in mm]	36 x 160 x 159
Type	EM-CPS-PS/3AC/24DC/5
Order No.	1064922

Power supplies with standard functionality
Robust with IP67 degree of protection

The new TRIO POWER power supplies with IP67 degree of protection are optimally suited for installation in the field. Thanks to its weather-resistant design, you can also use the device in harsh ambient conditions.

Your advantages

☑ Direct installation on the consumer in the field reduces cable lengths and creates space in the control cabinet

☑ Robust design (aluminum pressure housing) ensures high system availability, thanks to resistance to extreme ambient conditions (temperature, dust, and water)

☑ Reliable starting of heavy loads with dynamic boost

☑ High degree of efficiency of > 93%, thanks to low power losses

Main features

• IP67 degree of protection
• Dynamic boost supplies 1.5 times the nominal current for 5 seconds
• High shock and vibration resistance, plus electric strength
• Efficiency up to > 93%
• Wide temperature range: -25°C … +85°C, startup type tested: -40°C

i Web code: #2177	Power supply 1-phase	Power supply 3-phase
Description	**Power supply 1-phase**	**Power supply 3-phase**
Input voltage	100 V AC … 240 V AC	3 x 400 V AC … 500 V AC
Output voltage	24 V DC	24 V DC
Output current Dynamic boost	20 A 30 A (5 s)	20 A 30 A (5 s)
Dimensions W x H x D [mm]	148 x 304 x 120	148 x 304 x 120
Type	TRIO-PS-IP67/1AC/24DC/20	TRIO-PS-IP67/3AC/24DC/20
Order No.	1039830	1039829

DC UPS with integrated energy storage
Maximized buffer time

The STEP UPS is now available with new storage technology and standard round cells. The buffer time increases to over 70%, thanks to the use of lithium-ion technology. For reliable bridging of a mains failure, the STEP UPS is therefore the most compact solution.

Your advantages

☑ Stable supply of sensitive consumers, thanks to regulated output voltage

☑ Safety provided by integrated protective circuit and temperature monitoring of the energy storage

☑ Quick and easy installation, thanks to integrated energy storage

☑ Ending battery operation via remote contact

☑ Flexible assembly by snapping onto the DIN rail or screwing on a level surface

Main features

- Versions: 24 V DC and 12 V DC
- Efficiency up to 97%
- High power density: 66.7 Wh/dm^3
- Three active signal contacts
- R1/R2 remote contact
- Integrated energy storage: lithium-ion technology

Web code: #2236

Description	STEP UPS with integrated energy storage	
Input and output voltage	24 V DC / 24 V DC	12 V DC / 12 V DC
Output current	3 A	4 A
Buffer time	90 min (1 A) 45 min (2 A) 30 min (3 A)	180 min (1 A) 90 min (2 A) 60 min (3 A)
Dimensions W x H x D [mm]	108 x 90 x 71	108 x 90 x 71
Type	STEP-UPS/24DC/24DC/3/46WH	STEP-UPS/12DC/12DC/4/46WH
Order No.	1081430	1082548

Extremely compact signal conditioners
Easy to handle in confined spaces

The thin, 6.2 mm MINI Analog Pro signal conditioners are extremely easy to install and start up in a confined space. Use the new, configurable 3-way signal conditioners to electrically isolate, convert, amplify, and filter standard signals.

Push-in Technology

Designed by PHOENIX CONTACT

![Modbus] ![PROFIBUS]
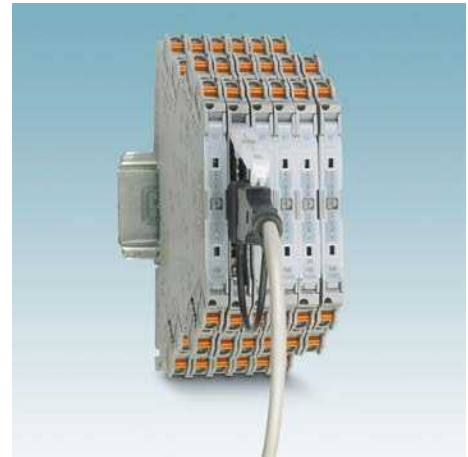
COMPLETE line

Your advantages

- ☑ Easy installation, thanks to easily accessible terminal points and pluggable connection terminal blocks
- ☑ Measure current signals during operation without disconnecting the current loop
- ☑ Easy network integration by using compact gateways
- ☑ Versatile parameter configuration via DIP switch, software or app
- ☑ Easy to maintain: large marking areas, status LEDs, and group error messaging

Main features

- Overall width: 6.2 mm
- Accuracy: up to 0.05%
- Safe electrical isolation with 3 kV test voltage
- Supply voltage range: 9.6 V DC … 30 V DC
- Operating temperature: -40°C … +70°C
- Screw or Push-in connection

	Web code: #2167	

Description	Signal conditioner
Input	U
Output	U, I
Type	MINI MCR-2-U-UI-PT
Order No. for Push-in connection	2902021
Type	MINI MCR-2-U-UI
Order No. for screw connection	2902019

Signal conditioners with functional safety
Safety for machines and systems

In all phases of the product lifecycle, the MACX signal conditioners have been developed and produced in accordance with the IEC EN 61508 standards. New threshold value switches and temperature transducers offer new functions to you.

Push-in Technology^P
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Use up to SIL 2 and up to SIL 3 (SC 3) in 2-channel architecture, thanks to certification in accordance with IEC EN 61508

☑ Interference-free signal transmission, thanks to the patented transmitter concept

☑ Configuration of the threshold value switch without software

☑ Easy power bridging using the DIN rail connector

Main features
- Can be used up to SIL 2 / SIL 3 in accordance with IEC 61508
- Safe electrical isolation with 2.5 kV test voltage
- Overall width: 12.5 mm
- Screw or Push-in connection

ℹ️ **Web code:** #2168			
Description	**Threshold value switch**	**Temperature transducer**	
Input	U, I	RTD	TC
Output	1 PDT relay	I	I
Type	MACX MCR-SL-UI-REL-SP	MACX MCR-RTD-I-SP	-
Order No. for Push-in connection	2906170	1050201	-
Type	MACX MCR-SL-UI-REL	MACX MCR-RTD-I	MACX MCR-TC-I
Order No. for screw connection	2906169	1050192	1050228

Ex i signal conditioners with functional safety Maximum explosion protection

The Ex i signal conditioners of the MACX Analog series offer you maximum explosion protection for intrinsically safe circuits up to zone 0 and zone 20. New threshold value switches and temperature transducers round out the extensive product line.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Universal use for intrinsically safe circuits in all Ex zones, thanks to international approval package

☑ Use up to SIL 2 and up to SIL 3 (SC 3) in 2-channel architecture, thanks to certification in accordance with IEC EN 61508

☑ Interference-free signal transmission, thanks to the patented transmitter concept

☑ Configuration of the threshold value switch without software

☑ Easy power bridging using the DIN rail connector

Main features
- Intrinsically safe inputs or outputs [Ex ia] IIC / IIIC
- Can be used up to SIL 2 / SIL 3 in accordance with IEC 61508
- Safe electrical isolation with 2.5 kV test voltage
- Overall width: 12.5 mm
- Screw or Push-in connection

ⓘ Web code: #2169			
Description	**Threshold value switch**	**Temperature transducer**	
Input	U, I	RTD	TC
Output	1 PDT relay	I	I
Type	MACX MCR-EX-SL-UI-REL-SP	MACX MCR-EX-RTD-I-SP	-
Order No. for Push-in connection	2906165	1050252	-
Type	MACX MCR-EX-SL-UI-REL	MACX MCR-EX-RTD-I	MACX MCR-EX-TC-I
Order No. for screw connection	2906164	1050222	1050233

Modular hybrid motor starters
Simplicity in functional safety

Switch and reverse motors easily and reliably with
CONTACTRON hybrid motor starters.
CONTACTRON pro is the new Phoenix Contact product
series, offering simple safety integration and modular
extension options. Based entirely on hybrid technology.

Push-in Technology[P]
Designed by PHOENIX CONTACT

CONTACTRON Hybrid Technology[P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Easy group shutdown via DIN rail connectors after an emergency stop, thanks to an upstream safety relay

☑ High system availability, thanks to a service life that is 10 times longer with hybrid technology

☑ Easy to handle: with the economical DIN rail connector, you save on wiring effort, which means you save money as well

☑ Reliable feedback on the status of the motor via optional relay module

Main features
• Safe group shutdown
• Modular expansion possible
• Additional checkback contacts
• Reduced wiring and cost savings with the DIN rail connector
• Tripping characteristic curve (Class 10 to 3 A)

	Web code: #2161			
Description	**Safety relay**	**Modular hybrid motor starter**		**Relay extension module**
Function	EMERGENCY STOP (group)	Forward/reverse running, motor protection, EMERGENCY STOP		Motor status feedback
Current	-	3 A	9 A	-
Type	PSR-MC38-2NO-1DO-24DC-SC	ELR H5-IS-PT-24DC/500AC-3-P	ELR H5-IS-PT-24DC/500AC-9-P	EM-2RPT/21AU-R/L-P
Order No.	1009831	2909569	2909567	2909573

The web code gives you access to additional product versions on our website.

Single-phase solid-state contactors
Thin, durable, and fast

The robust solid-state contactors from Phoenix Contact combine properties such as silent switching, resistance to shocks and vibrations, and easy use in aggressive, contaminated environments.

Your advantages

- ☑ Reliable and fast switching, thanks to wear-free electronics
- ☑ Robust: resistant to shocks and vibrations
- ☑ Easy wiring, thanks to integrated locking circuit and load wiring

Main features
- Suitable for high switching frequencies
- Wear-free switching with no contact bounce
- No high-frequency disturbing pulses when switching
- Versions: 24 V DC and 230 V AC (input)

ⓘ **Web code:** #2162			
Description	**Single-phase electronic load relay**		
Current	20 A	30 A	50 A
Type	ELR 1-SC-24DC/600AC-20	ELR 1-SC-24DC/600AC-30	ELR 1-SC-24DC/600AC-50
Order No.	1032919	1032921	1032926

The web code gives you access to additional product versions on our website.

Halogen-free D-SUB cables
Fast connection in sensitive areas

Connect signal and power cards easily, quickly, and error-free with VARIOFACE system cabling. The new halogen-free D-SUB cables can be used in sensitive areas with high requirements, such as for fire safety.

Your advantages

☑ Can be used in sensitive areas, thanks to halogen-free materials

☑ Quick, error-free wiring by means of Plug and Play

☑ Universal possible applications, thanks to an extensive range

Main features
- Halogen-free in accordance with IEC 60754-1
- Flame-retardant in accordance with IEC 60332-3-22
- Number of positions: 9, 15, 25, 37, and 50
- Lengths: 1, 2, 3 m as well as variable lengths according to specifications
- Universal 1:1 connection, 25 V AC / 60 V DC, max. 2 A

i Web code: #2163					
Description	**Halogen-free D-SUB cable**				
Number of positions	9	15	25	37	50
Assembly	Socket strip at one end and pin strip at the other				
Cable length	1 m (example)				
Designation	CABLE-D 9SUB/B/S/ HF/S/ 1,0M	CABLE-D15SUB/B/S/ HF/S/ 1,0M	CABLE-D25SUB/B/S/ HF/S/ 1,0M	CABLE-D37SUB/B/S/ HF/S/ 1,0M	CABLE-D50SUB/B/S/ HF/S/ 1,0M
Order No.	1066591	1066600	1066665	1066608	1066678

The web code gives you access to additional product versions on our website.

Front adapters for SIMATIC® ET 200SP HA
Fast and error-free wiring

Using the new front adapters, you can wire interface modules quickly and easily with the SIMATIC® ET 200SP HA peripheral system. To do so, the front adapter relies on the trusted Plug and Play concept for system cabling.

Your advantages

☑ Fast startup, thanks to the Plug and Play concept

☑ Error-free wiring, thanks to pre-assembled system cables

☑ Flexible signal marshalling, thanks to byte-oriented transmission (2 x 8 channels)

Main features

• Easy handling
• Separate power supply
• Can be used by a variety of Siemens I/O modules
• 37-pos. D-SUB pin strip for process connection
• Screw or Push-in connection (connectable termination boards)

ⓘ **Web code:** #2164	
Description	**Front adapter for Siemens SIMATIC® ET 200SP HA**
Connection method	System connection using 37-pos. D-SUB pin strip
I/O card type	Digital 24 V DC / analog
Type	FLKM-PA-D37/ETHA
Order No.	1076338

Coupling relay modules
Switching high inrush currents

The PLC-INTERFACE relay system acts as the high-performance interface between the controller and peripheral system equipment. The new coupling relay modules from Phoenix Contact are suitable for switching extremely high inrush currents.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Reliable switching of loads with high inrush currents

☑ Space-saving, thanks to narrow, 14 mm design

☑ Time-saving potential distribution, thanks to plug-in bridges

☑ Efficient connection to VARIOFACE system cabling using an adapter

Main features
- Switching of high capacitive loads (e.g. LEDs)
- Screw or Push-in connection
- Overall width: 14 mm
- Possible to connect the load return line to the basic terminal block directly
- Safe isolation

[i] Web code: #0901				
Description	**Relay module for high inrush currents**			
Max. inrush current	800 A/200 µs and 165 A/20 ms			
Max. contact current	6 A (10 A with bridging on output side)			
Control voltage	24 V DC	12 V DC	24 V DC	12 V DC
Type	PLC-RPT- 24DC/ 1ICT/ ACT	PLC-RSC- 12DC/ 1IC/ ACT	RIF-1-RPT-LDP-24DC/1ICT	RIF-1-RSC-LDP-12DC/1IC
Order No.	1078683	1078800	1078686	1078803
Connection technology	Push-in	Screw	Push-in	Screw

The web code gives you access to additional product versions on our website.

Highly compact electronic reversing load relays
Simple connection via Push-in

The PLC-INTERFACE relay system acts as the high-performance interface between the controller and peripheral system equipment. The highly compact electronic reversing load relay for DC motors is now also available with Push-in connection technology.

Push-in Technology
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Reversing the motor without wear

☑ Space-saving, thanks to narrow, 6.2 mm design

☑ Reliable braking by controlling both inputs

☑ Surge-proof and overload-proof output

Main features
- Screw or Push-in connection
- Overall width: 6.2 mm
- Integrated locking circuit and load wiring

ℹ **Web code:** #2165	
Description	**Highly compact electronic reversing load relay**
Type	PLC-PT-ELR W 1/2-24DC
Order No.	1069556

The web code gives you access to additional product versions on our website.

Highly compact relay modules
Resistant to interference voltages

The PLC-INTERFACE relay system acts as the high-performance interface between the controller and peripheral system equipment. The new 14 mm coupling relay modules feature a defined switch-on and switch-off hysteresis against very high interference signals.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Resistant to interference voltages up to 190 V AC, thanks to defined switch-on and switch-off thresholds

☑ Space-saving, thanks to narrow, 14 mm design

☑ Time-saving potential distribution, thanks to plug-in bridges

Main features
• Use: applications with long control lines and interference sources
• Screw or Push-in connection
• Overall width: 14 mm

ⓘ **Web code:** #0689		
Description	**Relay module for high interference voltages**	
Max. contact current	2 x 6 A	10 A
Control voltage	230 VAC / 220 VDC	
Type	PLC-RSC-230AC/21-21/SO46/HI	PLC-RPT-230AC/21HC/SO46/HI
Order No.	1079387	1079404
Connection technology	Screw	Push-in
Contact type	2 changeover contacts	1 changeover contact (HC version)

Ultra-narrow multifunctional time relays
Space-saving, versatile, and precise

The ultra-narrow multi-functional PLC-TR time relays are the space-saving, cost-efficient solution for simple time control applications, with four adjustable time ranges and function options. Despite the slim design of 6.2 mm, two LEDs enable fast status detection.

Push-in Technology[P]

Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Space-saving, thanks to narrow 6.2 mm overall width

☑ Convenient, open setting of the desired time range and function using DIP switches on the side panel

☑ Precise and convenient time adjustment using the illuminated thumbwheel

☑ Clear diagnostics with status LEDs that are easy to see

☑ Fast installation, thanks to the use of plug-in bridges and system cabling

Main features

- Supply voltage: 24 V DC
- One adjustable time
- Time range: 0.1 s … 300 min
- 4 time end ranges
- Non-floating control input
- 4 functions can be selected
- 1 floating changeover contact
- Screw or Push-in connection

[i] Web code: #2166	
Description	**Highly compact time relay**
Type	PLC-TR-1T-MUL-300M-PT
Order No. for Push-in connection	2910141
Type	PLC-TR-1T-MUL-300M
Order No. for screw connection	2910140

Multi-functional energy measuring devices
The fastest way to an energy measurement

Set up the communication interface, select the power network type, configure the measuring input: the EMpro energy measuring devices are ready to use and integrated into the network within minutes. Reduce your wiring and configuration effort and benefit from smart web server functions.

Modbus **PROFINET** **EtherNet/IP**

COMPLETE line

Your advantages

☑ Only three steps needed for energy measurement, thanks to an intuitive installation wizard

☑ The direct connection of manufacturer-independent Rogowski coils reduces wiring and configuration effort

☑ Easy to maintain, thanks to smart web server and display functions

☑ Deactivation of operating elements and interfaces ensures data security

Main features

• Power supply up to 700 V AC
• Current measurement up to 20,000 A using current transformer
• Direct connection of Rogowski coils
• Data logging for up to 8 parameters, over 90 days at 15 minutes
• Multi-language display

ℹ️ **Web code:** #2170

Description	Energy measuring device					
Measuring input	Current transformer	Rogowski coil	Current transformer	Rogowski coil	Current transformer	Rogowski coil
Modbus/TCP (RTU) type	EEM-MA770	EEM-MA771	EEM-MA370	EEM-MA371	EEM-MB370	EEM-MB371
Order No. Modbus/TCP Order No. Modbus/RTU	2907945 2907944	2908286 2908285	2907983 2907980	2908307 2907985	2907954 -	2907955 -
PROFINET type	EEM-MA770-PN	EEM-MA771-PN	-	-	EEM-MB370-PN	EEM-MB371-PN
Order No. PROFINET	2907946	2908301	-	-	2907984	2908308
Ethernet/IP type	EEM-MA770-EIP	EEM-MA771-EIP	-	-	EEM-MB370-EIP	EEM-MB371-EIP
Order No. Ethernet/IP	2907953	2908302	-	-	2907971	2907976

Energy meters with MID certification
Record, communicate, and calculate data

EMpro energy meters make it possible to calculate energy data for the exact cost center. The measuring devices record the most important electrical parameters and make the data available to higher-level control systems using common communication interfaces.

COMPLETE line

Your advantages

☑ Simple bus and network connection via the M-Bus, Modbus/RTU or Modbus/TCP interface

☑ Narrow on the DIN rail, thanks to overall width of just 72 mm

☑ Save time and money: versions with direct current measurement up to 80 A

☑ Simple Modbus integration, thanks to uniform index tables with existing EMpro energy measuring devices

☑ Remote data access, storage, and export with Ethernet-based devices

Main features
- MID approval in accordance with EN 50470
- Measures current, voltage, power, and energy
- Measurement: direct, up to 80 A without current transformer, or via current transformer
- S0 output
- Ring memory up to a max. of 500 days, with Ethernet-based devices

ℹ️ **Web code:** #2171	Energy meter, Modbus/RTU		Energy meter, M-Bus		Energy meter, Modbus/TCP	
Description						
Measuring input	Current transformer	Direct, up to 80 A	Current transformer	Direct, up to 80 A	Current transformer	Direct, up to 80 A
Tariff input	Yes	Yes	Yes	Yes	-	-
Web-based management	-	-	-	-	Yes	Yes
Type	EEM-EM355	EEM-EM357	EEM-EM325	EEM-EM327	EEM-EM375	EEM-EM377
Order No.	2908578	2908588	2908576	2908586	2908581	2908590

Current transformers with hybrid connection technology
Fast, reliable, tool-free connection

Wire the new PACT current transformer conventionally using a screw connection or now also without tools with Push-in Technology. Use the easily accessible Push-in clamping parts oriented to the front to connect the conductors quickly and reliably.

Push-in Technology[P]

Designed by PHOENIX CONTACT

Your advantages

- ☑ You have the choice between a screw connection or Push-in connection
- ☑ Quick, reliable, and tool-free wiring, thanks to easily accessible Push-in connection points oriented to the front
- ☑ Extra safety: safe isolation in accordance with EN 50178 up to 1,000 V
- ☑ Detect peak loads reliably with a thermal nominal continuous current that is 120% of the primary rated current

Main features
- Complete range for converting currents up to 3,000 A
- Secondary currents: 1 A / 5 A
- Safe isolation in accordance with EN 50178
- Accuracy classes: C05 = 0.5 / C10 = 1
- Variable fastening options
- Overall widths: 30 mm / 31 mm

[i] Web code: #2172				
Description	**Window-type current transformer**			
Primary rated current	50 A … 750 A	100 A … 1,000 A	100 A … 1,500 A	200 A … 1,600 A
Circular conductor dimensions	∅ 28 mm	∅ 33 mm	∅ 42 mm	∅ 52 mm
Rail dimensions	30 x 15 mm 20 x 20 mm	40 x 12 mm 2 x 30 x 10 mm	50 x 12 mm 2 x 40 x 10 mm	60 x 15 mm 2 x 50 x 10 mm 40 x 40 mm
Type	PACT MCR-V2-3015-60-PT	PACT MCR-V2-4012-70-PT	PACT MCR-V2-5012-85-PT	PACT MCR-V2-6015-85-PT
Order No.	2907413	2907414	2907416	2907417

Modular rotor blade monitoring
Making system data available

Phoenix Contact offers modular rotor blade monitoring with lightning current measurement, ice detection, and load monitoring. Our solution is available in different variants and can also be reliably integrated into existing systems at a later time.

PLCnext Technology [P]
Designed by PHOENIX CONTACT

PROFI NET®

Your advantages

☑ Maximum availability of wind turbine generators, even under extreme conditions

☑ Thanks to remote access, maintenance work can be scheduled and the parameterization can be adjusted

☑ Easy integration into existing systems, thanks to open interfaces

☑ Early detection of damage and optimized maintenance intervals, thanks to continuous monitoring

Main features
• Modular system based on a PLCnext Technology controller
• Exterior temperature measurement and ice detection on the rotor blade
• Measurement of lightning strikes
• Measurement and evaluation of loads
• Integration of Matlab Simulink models

i **Web code:** #2200		
Description	**Blade Intelligence**	
Type	WIL-BLADE-INTELLIGENCE	
Order No.	1093550	

Safe IP67 I/O box with IO-Link
Acquire and output safe signals in the field

The Axioline E Safe IP67 I/O box is new to the modular block Axioline E system. It allows you to process safe inputs and outputs outside of the control cabinet. The safety protocol is transmitted to the standard network via IO-Link.

SafetyBridge Technology[P]
Designed by PHOENIX CONTACT

Your advantages

- ☑ Fast connection of sensors and actuators, thanks to the SPEEDCON fast locking system
- ☑ Adjust safety address without switches
- ☑ Simple integration of safety-related data via an IO-Link master into the standard network
- ☑ Can be used in SafetyBridge Technology and PROFIsafe applications

Main features
- IP67 degree of protection
- 8 safe inputs
- 4 safe outputs, positive and negative switching
- SIL 3 in accordance with IEC 61508 / EN 61508
- SILCL 3 in accordance with EN 62061
- UL and cUL
- PL e in accordance with EN ISO 13849-1
- SPEEDCON fast locking system

i Web code: #2209	
Description	**Safe IP67 I/O box**
Type	AXL E IOL SDI8 SDO4 2A M12 6P
Order No.	2702833

Safety relays with IO-Link interface
Smart diagnostics for safety switches

Combined with PSRswitch safety switches, the PSRmini safety relay forms a secure safety door monitoring system. In addition to the traditional task of a safety relay, the PSR-MC42 also provides non-safety-related diagnostic data via IO-Link.

Relay Technology [P]

Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Space savings, thanks to the highly compact design

☑ Increased data availability for preventive maintenance

☑ Reduced wiring effort

☑ Easy integration in common fieldbus and automation systems

☑ Maximum safety and availability, thanks to force-guided contacts

Main features
• Integrated IO-Link interface
• Two independent sensor circuits
• Overall width: 17.5 mm
• Up to PL e in accordance with ISO 13849
• Evaluation of up to 30 PSRswitch safety switches
• Enabling principle for non-safety-related control of drives
• Morse function as alternative to IO-Link

[i] **Web code:** #2212		
Description	**Safety relay with IO-Link**	
Enable paths	2	2
Connection technology	Screw	Spring-cage
Type	PSR-MC42	PSR-MC42
Order No.	2702901	2702902

Safe time relays
Flexible DIP switch configuration

The PSRmini PSR-MC73 is a compact, safe time relay, which enables a delayed activation or deactivation. Delay time and operating mode can be set easily using a DIP switch. The time relay is suitable for use in stop categories 0 and 1 in accordance with EN 60204-1.

Relay Technology [P]

Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Space savings, thanks to the highly compact design

☑ Compatibility with a wide variety of signal generators

☑ Configurable functions such as retriggering, pick-up and off-delay using a DIP switch

☑ Maximum safety and availability, thanks to force-guided contacts

☑ Approvals for all global markets

Main features

- 5 enable paths
- Overall width: 22.5 mm
- Configuration via DIP switches
- For loads up to 6 A
- Up to PL e in accordance with ISO 13849
- Up to SILCL 3 in accordance with IEC 62061
- UL and cUL
- Can be retriggered
- Time range up to 300 s

[i] **Web code:** #2210		
Description	**Safe time relay**	
Connection technology	Screw	Spring-cage
Type	PSR-MC73	PSR-MC73
Order No.	1015533	1015526

Safety relays for hybrid motor starters
Safe and low-wear switching

The PSRmini PSR-MC38 safety relay ensures safety-related shutdown of a motor using the new CONTACTRON pro hybrid motor starter. You can connect the switching devices via the DIN rail connector quickly, easily, and in a modular fashion.

CONTACTRON Hybrid Technology[p]
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Compatibility with all signal generators, including PSRswitch safety switches

☑ Reduced wiring and cost savings with the DIN rail connector

☑ Safety-related group shutdown of motors via DIN rail connectors with upstream safety relay

☑ Approvals for all global markets

☑ Maximum safety and availability, thanks to force-guided contacts

Main features

• 2 enable paths
• Overall width: 22.5 mm
• Up to PL e in accordance with ISO 13849
• UL and cUL
• Feedback on the status of the motor via optional relay module

ℹ **Web code:** #2213				
Description	**Safety relay**		**Hybrid motor starter**	**Relay module**
Function	Safe shutdown		Forward/reverse running, motor protection, EMERGENCY STOP	Motor status feedback
Current	-	-	3 A	9 A	-
Connection technology	Screw	Push-in	Push-in	Push-in	Push-in
Type	PSR-MC38	PSR-MC38	ELR H5-IS-PT-24DC/500AC-3-P	ELR H5-IS-PT-24DC/500AC-9-P	EM-2RPT/21AU-R/L-P
Order No.	1009831	1009832	2909569	2909567	2909573

Zero-speed and over-speed safety relays
Live monitoring via software

The PSR-MM30 zero-speed and over-speed safety relay records the speed of moving machine parts and disconnects safely in the event of danger. The PSRmotion software allows you to configure the device conveniently and visualize motion sequences of your machine in live measuring operation.

Relay Technology [P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

- ☑ Space savings, thanks to the highly compact design
- ☑ Convenient configuration software with online monitoring
- ☑ Evaluation of safety switches in safety door applications
- ☑ Compatible with modern safety encoders up to SIL 3
- ☑ High system availability, thanks to a reliable measuring process

Main features
- Up to SIL 3 and PL e
- Motion detection via encoder or proximity switch
- Startup via USB connection
- Force-guided relay outputs
- Monitoring of downtime and up to 3 different operating modes
- Free PSRmotion software
- Compatibility with PSRswitch switches

ⓘ Web code: #2211		
Description	**Zero-speed and over-speed safety relay**	
Connection method	Screw	Spring-cage
Type	PSR-MM30	PSR-MM30
Order No.	2702357	2702358

Ethernet extenders
Virtually separating IP networks

Thanks to the Ethernet extenders, you can easily connect Ethernet applications covering up to 20 kilometers via a two-wire cable by means of Plug and Play. The new firmware lets you use VLAN to virtually separate critical, sensitive IP networks and now make them even more secure.

COMPLETE line

Your advantages

☑ Startup and service replacement via Plug and Play

☑ Save costs, thanks to the use of unmanaged extenders in complex IP networks

☑ Simple VLAN configuration using software wizards without expert knowledge

☑ Greater flexibility, thanks to continuous remote diagnostics of all extender devices and paths via IP

Main features

• Using VLAN to virtually separate IP networks and make them more secure
• Automatic alarm generation via Simple Network Management Protocol (SNMP)
• Facilitate connection and diagnostics of widespread IP networks
• Ethernet communication up to 20 km over any two-wire cable

i Web code: #2202			Unmanaged Ethernet extender	Replaceable surge protection	
Description	**Managed Ethernet extender**		**Unmanaged Ethernet extender**	**Replaceable surge protection**	
Replaceable surge protection	Yes	Yes	No	-	-
Ports	2 x SHDSL, 4 x Ethernet	1 x SHDSL, 1 x Ethernet	2 x SHDSL, 1 x Ethernet	2 x SHDSL	1 x SHDSL
Topologies	Ring, line, point-to-point	Point-to-point	Ring, line, point-to-point	-	-
Local diagnostics	Display	LEDs	LEDs	-	-
Type	TC EXTENDER 6004 ETH-2S	TC EXTENDER 4001 ETH-1S	TC EXTENDER 2001 ETH-2S	TC EXTENDER PT-IQ-2S	TC EXTENDER PT-IQ-1S
Order No.	2702255	2702253	2702409	2702258	2702257

Serial device servers and gateways
Integrating Modbus devices into EtherNet/IP™

Four more variants have been added to the serial device servers and gateway product range, which now includes 24 products. The new Modbus to EtherNet/IP™ protocol converter enables integration of Modbus slaves into the EtherNet/IP™ protocol.

EtherNet/IP™   **Modbus**

COMPLETE **line**

Your advantages

☑ Integration of Modbus devices into EtherNet/IP™ networks

☑ Secure network communication, thanks to 256 bit AES encryption

☑ Easy configuration via web-based management

☑ Powerful diagnostic options for the ports

☑ Each port can be used universally – either as RS-232, RS-485 or RS-422

Main features
• Up to 4 serial ports per device
• Up to 2 Ethernet ports per device
• Extended temperature range: 40°C … +70°C

ℹ️ **Web code:** #2241				
Description	**Protocol converter/gateway**			
Interfaces	1 x Ethernet, 1 x RS-232/422/485	1 x Ethernet, 2 x RS-232/422/485	2 x Ethernet, 2 x RS-232/422/485	2 x Ethernet, 4 x RS-232/422/485
Type	GW EIP/MODBUS 1E/1DB9	GW EIP/MODBUS 1E/2DB9	GW EIP/MODBUS 2E/2DB9	GW EIP/MODBUS 2E/4DB9
Order No.	1062540	1062423	1062380	1062388

Industrial communication technology

NAT switches
Segmenting networks flexibly

You can use NAT switches to integrate systems with the same IP address ranges into higher-level networks. The new 2000 NAT switches have flexible uses, as their ports can be distributed individually in WAN or LAN ports and various NAT mechanisms can be used.

COMPLETE line

Your advantages

☑ Flexible use, thanks to 8 WAN/LAN ports that can be freely distributed as needed

☑ Improved reliability, thanks to redundancy mechanisms on the WAN and LAN sides

☑ LAN-side PROFINET device function enables PROFINET configuration and diagnostics mechanisms

☑ The right NAT mechanism is always available, thanks to support from 1:1 NAT, virtual NAT, and IP masquerading, including port forwarding

Main features
• RSTP redundancy in the WAN and LAN
• MRP redundancy in LAN
• Layer 3 or NAT switch application
• Approvals for maritime applications and the process industry
• IGMP snooping/querier
• HTTPS/SNMPv3
• DHCP server, port-based/pool-based, option 82 (2008 version, only port-based)

Web code: #2203

Description	NAT switch with 100 Mbps		NAT switch with 1,000 Mbps
Ports	8 x RJ45		4 x RJ45, 2 x combo, 2 x SFP
Redundant power supply	No	Yes	
Temperature range	0°C … +60°C	-40°C … +70°C	
PROFINET class	A	B	B
Type	FL NAT 2008	FL NAT 2208	FL NAT 2304-2GC-2SFP
Order No.	2702881	2702882	2702981

PHOENIX CONTACT **89**

Industrial WLAN access point
Powerful and flexible

FL WLAN 5110 is a powerful WLAN access point and client for assembly in the control cabinet. Two external antenna connections enable flexible use of the respective compatible antenna, ensuring a strong and reliable WLAN signal.

PROFI NET®   EtherNet/IP™

Your advantages

☑ Easy and central configuration of your access points using cluster management technology

☑ Stable, fast, and reliable remote communication, thanks to MIMO technology

☑ Extremely secure, thanks to the support of current WLAN security mechanisms

☑ Compact design for use in the control cabinet or in the control box in the field

Main features

- WLAN access point, client, and repeater
- IEEE 802.11 a/b/g/n
- Frequency band: 2.4 GHz and 5 GHz
- 2 external antenna connections with MIMO technology (2 x 2)
- Maximum data rate: 300 Mbps
- Maximum transmission power: 20 dBm

ℹ️ **Web code:** #2204		
Description	**WLAN access point and client**	
Approval	Europe	USA, Canada
Type	FL WLAN 5110	FL WLAN 5111
Order No.	1043193	1043201

Network management software
Managing and visualizing networks

The FL Network Manager helps you to easily start up, configure, and monitor Phoenix Contact Managed Switches, WLAN components, and security appliances. In the latest version, a topological depiction provides an overview in the network.

Your advantages

☑ Networks are always visible, thanks to a topological depiction

☑ Update firmware on multiple devices quickly and easily

☑ Multi-device configuration for fast configuration of many devices simultaneously

☑ IP address planning for the convenient rollout of IP addresses

☑ Intuitive user interface

Main features
- Monitoring of network component availability
- Integrated TFTP, DHCP/BOOTP server
- IP address assignment via DCP, BOOTP, DHCP
- Simple firmware update
- Convenient saving and loading of configuration files

ⓘ Web code: #2205		
Description	**Network management software**	
Type	FL NETWORK MANAGER	
Order No.	2702889	

mGuard mobile routers
High-speed communication in the US

Security routers protect your industrial networks against IT attacks. The new security router enables high-speed data connection over mobile 4G networks (LTE) in the US. This makes it ideal for infrastructure applications and remote machine maintenance.

lte

Your advantages

☑ High performance, thanks to 4G data links (LTE)

☑ Easy configuration via central management tool

☑ Compatible with mGuard Secure Cloud

☑ Easy integration, thanks to integrated Ethernet Switch

☑ Quick and easy startup, updates, and device replacement via SD card

Main features
- 4G connections (LTE) up to 150 Mbps
- Stateful inspection firewall
- Slot for SD memory card
- Metal housing
- Temperature range: -40°C … +60°C
- Function extensions for deep packet inspection are optionally available

ⓘ **Web code:** #2206	Secure VPN router		Secure VPN router with extended functions	
Description	Secure VPN router		Secure VPN router with extended functions	
Firewall	Integrated firewall for protection of the machine network		Extended firewall for complex security concepts	
Supported networks	AT&T (US)	Verizon Wireless (US)	AT&T (US)	Verizon Wireless (US)
Mobile network technology	4G (LTE) with 3G fallback	4G (LTE)	4G (LTE) with 3G fallback	4G (LTE)
Type	TC MGUARD RS2000 4G ATT VPN	TC MGUARD RS2000 4G VZW VPN	TC MGUARD RS4000 4G ATT VPN	TC MGUARD RS4000 4G VZW VPN
Order No.	1010464	1010462	1010463	1010461

TC Mobile I/O signaling system
Alerting and switching over 4G (LTE)

Using TC Mobile I/O X200..., you can monitor sensor signals over the mobile phone network using SMS and e-mail and remotely switch relays using SMS and the app. The 4G technology with 2G fallback is future-proof and also enables use of effectively expanded 2G networks.

LTE

COMPLETE line

Your advantages

☑ Future-proof, thanks to 4G mobile phone technology (LTE)

☑ Fewer downtimes, thanks to automatic alerts via SMS and e-mail

☑ Lower costs, thanks to event-driven alerts

☑ SMS alert in the event of power failure

☑ AC and DC versions available with extended voltage range

Main features

• EU version: 4G (LTE Cat.1, B3, B7, B20) with 2G fallback (GSM, GPRS, EDGE)
• DIN rail or wall mounting
• Compact design: 4TE (DIN 43880)
• Temperature range: -25°C … +70°C
• Reporting trail for guaranteed information transfer
• Remote commands for device configuration
• Configuration via web browser

Description	Compact signaling system with DC power supply	Compact signaling system with AC power supply
Supply voltage	10 V DC … 60 V DC	93 V AC … 250 V AC
Analog inputs	2 (0/4 mA … 20 mA, 0 V DC … 60 V DC)	-
Digital inputs	4	4
Relay outputs	4	4
Type	TC MOBILE I/O X200-4G	TC MOBILE I/O X200-4G AC
Order No.	1038567	1038568

ℹ️ **Web code:** #2207

Wireless solution for data and signals
Modular solution for outdoor use

The Radioline outdoor box can be installed outdoors in order to remotely transfer I/O signals or serial data quickly and easily. You select the wireless modules, and the type and number of I/O expansion modules during ordering.

TRUSTED WIRELESS ™

Your advantages

☑ Completely pre-wired control box with integrated power supply unit, surge protection, selected wireless module, and I/O expansion modules

☑ Fast and easy connection of the power supply and I/O signals

☑ Can be used outdoors, thanks to a robust, UV-resistant, and impact-proof IP66 housing

☑ Flexible in physical terms, thanks to ranges covering several kilometers

Main features
- Wireless module (selectable): 868 MHz, 900 MHz or 2,400 MHz
- Can be extended with up to three selectable I/O expansion modules
- Including M20 cable glands, antenna feed-through, and a pressure compensation element
- Ambient temperature range: -25°C … +55°C
- Universal power supply unit: 100 V AC … 240 V AC

ⓘ Web code: #2208	
Description	**Radioline outdoor box**
Web configuration	Convenient configuration with just a few clicks to create your desired solution: Wireless module type (frequency band), type and number of I/O extension modules
Accessories	Includes antennas and cables
Dimensions W x H x D [mm]	300 x 240 x 150
Type	RAD-RUGGED-BOX-CONF
Order No.	1091638

Wireless solution for data and signals
900 MHz outdoor box for I/O signals

The Radioline product range is being extended by a 900 MHz outdoor box featuring an integrated I/O module with digital and analog inputs and outputs. The NEMA 4X housing is perfect for direct installations outdoors.

TRUSTED WIRELESS™

Your advantages

☑ Splash-proof NEMA 4X housing saves time and work during installation

☑ Universal AC or DC power supply

☑ Intuitive startup and configuration

☑ Connection to standard 900 MHz Radioline wireless modules possible

☑ Also suitable as a simple outdoor repeater

Main features
- Wireless module: 900 MHz
- 6 integrated I/O channels
- Can be used in North America
- Range of up to 32 km
- Ambient temperature range:
  -40°C … +65°C
- Power supply: 10.8 V DC … 30.5 V DC
  or 100 V AC … 240 V AC

ℹ️ **Web code:** #2237	
Description	**900 MHz Radioline outdoor box**
Dimensions W x H x D [mm]	220 x 120 x 90
Type	RAD-900-DAIO6 - 2702877
Order No.	2702877

LED signal lights
Functional safety in signal systems

The LED signal lights for maritime use can be used for the reliable and energy-efficient operation of light-signal systems. Thanks to the adapted light properties and safety function, the lights are ideal for use in inland navigation, e.g. in locks.

SafetyBridge Technology
Designed by PHOENIX CONTACT

PROFIsafe

Your advantages

- ☑ Safety function in accordance with the IEC 61508 safety standard (type 200S signal light)
- ☑ Easy and fast integration into your network, thanks to standard interfaces
- ☑ Robust aluminum housing in IP65 for harsh outdoor use
- ☑ Cost reduction, thanks to long-lasting and efficient LED technology
- ☑ High system availability, thanks to the use of autonomous monitoring functions

Main features

- Safe diagnostics up to SIL 2 / PL d (type 200S)
- LED service life: at least 50,000 h
- Light intensity up to 7300 Cd
- Can be dimmed in 256 steps
- Fieldbus communication up to 400 m
- Connection: M12 SPEEDCON hybrid plug
- Various light colors available in accordance with IALA recommendation E200-1

Description	Reliable LED signal lights			LED signal lights		
Safe diagnostics	In accordance with IEC 61508			No		
Light color (IALA recommendation E200-1)	White, optimum	Red, optimum	Green, optimum	White, optimum	Red, optimum	Green, optimum
Max. light intensity	7300 Cd	3200 Cd	4200 Cd	7300 Cd	3200 Cd	4200 Cd
Type	CSD-SL 200S WH	CSD-SL 200S RD	CSD-SL 200S GN	CSD-SL 200 WH	CSD-SL 200 RD	CSD-SL 200 GN
Order No.	1029564	2404767	2404768	2701781	2701784	2701782

i Web code: #2199

The web code gives you access to additional product versions on our website.

PLCnext Store
Open software store for automation

The PLCnext Store provides software apps that enable you to expand the functions of a PLCnext Control range controller directly and easily. As developers of software solutions, you can also create your own apps and offer them on the platform.

PLCnext Technology [P]

Designed by PHOENIX CONTACT

Your advantages

☑ Accelerated application development, thanks to easy access to software apps for the PLCnext Control range

☑ Innovative solution approaches as well as expanded versatility and possible applications for your automation solution, thanks to the dynamically growing range of apps

☑ Creative ideas and new solutions for your application, including special software – even for niche markets

Main features
- Digital sales platform for application software for functional expansion of the PLCnext Control range
- In addition to Phoenix Contact software, apps are also offered by third-party providers
- Diverse portfolio of different apps for all applications – from software libraries to programmed apps

Description	PLCnext Store
Address	http://www.plcnextstore.com

Safety controller for PLCnext Technology
Safe high-performance controller

The first high-performance controller for
PLCnext Technology. It is possible to use applications with
the highest safety requirements in accordance with SIL 3 or
PLe, respectively. Standard and safety programming in only
one engineering tool, thanks to PLCnext Engineer.

PLCnext Technology
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Highest level of safety of machinery, thanks to diversified CPUs and
the support of up to 300 PROFIsafe devices

☑ Preferred programming languages and environments, open-source
software, apps, Proficloud, and soon also PLCnext Store with
real-time execution

☑ One of the highest-performing products on the market, thanks to use
of an Intel i5 Dual Core processor and two powerful processors on
ARM architecture

Main features
- PROFINET controller and device
- PROFIsafe profile V2.6.1 support
- Safety CPU:
  1 x ARM® Cortex®-A9, 800 MHz,
  1 x ARM® Cortex®-A8, 600 MHz
- Standard CPU:
  Intel® Core™ i5-6300U
  (Dual Core, 2.4 GHz)
- System networking M2M with OPC UA

	Web code: #2215	
Description		**High-performance PLC for PLCnext Technology**
Ambient temperature (operation)		0°C … +55°C (above +40°C only with fan module)
Type		RFC 4072S
Order No.		1051328

PLC expansion for PLCnext Control
Additional Ethernet interface

The module provides an extra Ethernet interface with an additional MAC address for PLCnext Control of the Axiocontrol series. For this purpose, the left side of the module is connected to a compatible PLC. Configuration takes place using PLCnext Engineer.

Your advantages

☑ Individual expansion option for controllers from the PLCnext Control range of the Axiocontrol series

☑ Additional gigabit-enabled Ethernet interface

☑ Additional independent MAC address

☑ PROFINET support

COMPLETE line

Main features

• Connection via RJ45 socket
• Left-side connection to the PLCnext Control of the Axiocontrol series
• Extended temperature range: -25°C … +60°C
• Use in harsh conditions in accordance with Axiocontrol standard possible

ℹ **Web code:** #2216	
Description	**Left-alignable Ethernet interface**
Transmission speed	10/100/1,000 Mbps (with auto-negotiation)
Connection method	1 x RJ45 socket
Dimensions without bus socket W x H x D [mm]	35 x 126.2 x 52.6
Ambient temperature (operation)	-25°C … +60°C
Type	AXC F XT ETH 1TX
Order No.	2403115

I/O adapter terminal for PLCnext Control
Interface for flexible automation solutions

The adapter terminal provides an interface for the finely granular Inline I/O system. It can be used for the PLCnext Control of the Axiocontrol series. For this purpose, the right side of the terminal is connected to a compatible PLC.

Your advantages

☑ Inline I/O adapter terminal specifically developed for the PLCnext Control of the Axiocontrol range

☑ Options for flexible automation solutions, thanks to a variety of functional I/Os

☑ Convert existing machines and systems to the new, open PLCnext Technology ecosystem

Main features
- Right-alignable Inline adapter terminal for AXC F 2152
- Up to 63 Inline local bus devices alignable
- Automatic transmission speed recognition
- Diagnostics and status indication

ℹ **Web code:** #2217	
Description	**Adapter terminal for Inline I/Os**
Type	AXC F IL ADAPT
Order No.	1020304

Plant control and monitoring
Smart automation of plants

You can use the standardized and modularly expandable control cabinet solution to automate your machines and plants extremely efficiently. The individual versions enable you to perform various functions, from monitoring alone to complex control of your plant.

PLCnext Technology
Designed by PHOENIX CONTACT

PROFI NET®   OPC UA

Your advantages

☑ Various possible applications in production, thanks to a modularly expandable control cabinet concept

☑ Fast commissioning, thanks to standardized solutions with extensive software packages

☑ Efficient plant operation, thanks to possible use of smart services as part of predictive maintenance and big data analyses

☑ PLCnext Technology enables use of traditional and modern programming languages

Main features
- Dimensions 500 x 500 x 210 mm (W x H x D)
- Protection class: IP54
- Input voltage: 400 V AC … 500 V AC
- SafetyBridge safety modules with 8/16 inputs and 4/8 outputs in two-channel/single-channel assignment for 24 V/400 V load circuits
- Axioline I/O module with 8 digital inputs and outputs
- 7" web panel with eHMi visualization

Web code: #2201	
Description	**Smart Production Cabinet**
Functions	Controller, diagnostics, and monitoring with functional safety up to SIL 3, PL d
Expandable function blocks	Cloud and WLAN connection, network security etc.
Configurable safety functions	EMERGENCY STOP, safety door, two-hand start
Communication protocols	PROFINET (suitable for control of up to 64 PROFINET devices), OPC UA
Type	Smart Production Cabinet
Order No.	1051048

Axioline F IO-Link master
IP20 master for connection of IO-Link devices

IO-Link master for connection of up to eight IO-Link devices in the control cabinet and use in the Axioline F I/O system. Parameterization of IO-Link devices is performed using IOL-CONF software.

Push-in Technology[P]
Designed by PHOENIX CONTACT
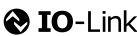
⊘ **IO**-Link

COMPLETE **line**

Your advantages

☑ Convenient parameterization of connected IO-Link devices using IOL-CONF software

☑ Fast installation, thanks to Push-in connection technology

☑ Simple increase in the IO-Link ports within an Axioline F I/O station, thanks to the addition of other IO-Link masters

Main features

- Connection of 8 IO-Link devices
- Connection of IO-Link devices in 3-conductor technology
- Parameter data storage on the master
- IO-Link specification v1.1.2
- IP20 degree of protection

[i] **Web code:** #2218	
Description	**IO-Link master**
I/O functionality	IO-Link ports, type A
Connection method	Push-in
Type	AXL F IOL8 2H
Order No.	1027843

Stand-alone IO-Link master
IP20 master for connection of IO-Link devices

IO-Link master for connection of IO-Link devices in the control cabinet and use in the network protocols EtherNet/IP™, PROFINET, and Modbus/TCP. The IO-Link devices are parameterized using an integrated web server.

Push-in Technology^P
Designed by PHOENIX CONTACT
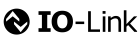
◉ **IO**-Link

COMPLETE *line*

Your advantages

☑ Convenient web server for parameter configuration and diagnostics of IO-Link devices

☑ Fast installation, thanks to Push-in connection technology

☑ Future-proof communication, thanks to PROFINET, EtherNet/IP™, and Modbus/TCP

Main features

- 8 IO-Link ports
- 8 digital inputs
- Push-in connection technology
- IO-Link V1.1 compatibility
- IP20 degree of protection
- Operating temperature range: -25°C … +60°C

	ⓘ **Web code:** #2219	IO-Link master for **PROFINET**	IO-Link master for **EtherNet/IP™**
Description		**IO-Link master for PROFINET**	**IO-Link master for EtherNet/IP™**
I/O functionality		IO-Link port, type A	IO-Link port, type A
Connection method		Push-in	Push-in
Type		IOL MA8 PN DI8	IOL MA8 EIP DI8
Order No.		1072838	1072839

Axioline E components
IO-Link device with 4 analog TC inputs

The Axioline E IO-Link/analog converter is an IO-Link device that transmits analog signals of type K thermocouples (TC) via the IO-Link protocol.

IO-Link

Your advantages

☑ Fast connection of thermocouples, thanks to Push-in connection technology

☑ Easy connection of four conventional thermocouples in the field

☑ Space-saving installation, thanks to compact design

Main features
- Connection to an IO-Link master with M12 connector (A-coded, 4-pos.)
- IO-Link specification v1.1.2
- 4 differential inputs for thermocouples
- Measuring range: -270°C … +1372°C
- IP65 degree of protection

ℹ **Web code:** #2222		
Description	**Analog converter**
I/O functionality	4 TC inputs (type K)
Connection method	Push-in (for analog TC inputs)
Type	AXL E IOL TC4 K M12
Order No.	2702983

Axioline E IO-Link box
Digital input in the field

Axioline E is the block-modular I/O system for field installation. The portfolio has been expanded by adding a 16-channel input device for acquiring digital signals.

 IO-Link

Your advantages

- ☑ Fast connection of sensors and actuators, thanks to the SPEEDCON fast locking system
- ☑ Downtimes minimized, thanks to a high level of mechanical robustness
- ☑ Expanded possible applications with a large temperature range of -25°C to +60°C

Main features
- IO-Link specification v1.1.2
- Connection of up to 16 channels
- Diagnostics and status indicators
- Short-circuit and overload protection of the sensor supply
- Device rating plate stored
- Degree of protection IP65, IP67

i Web code: #2220	
Description	**I/O device for digital input**
I/O functionality	16 digital inputs
Connection method	M12 connectors, A-coded
IO-Link port	Type A
Type	AXL E IOL DI16 M12 6P
Order No.	2702660

Inline I/O components
Bus coupler for PROFINET

Inline is the flexible I/O system for the control cabinet. A new PROFINET bus coupler with a compact design has been added to the product range.

Your advantages

☑ Compact station structure, thanks to 40 mm housing width, saves space in the control cabinet

☑ Continuous expandability of the fieldbus system, thanks to a remote bus branch (three other levels)

☑ Use of all PROFINET functions, thanks to the current specification

Main features
- Up to 63 devices can be connected
- 2 RJ45 connections
- Electrical isolation between Ethernet interface and logic
- Diagnostics and status indicators

ℹ️ **Web code:** #2221	
Description	**Bus coupler for PROFINET**
Connection method	Spring-cage connection
Ambient temperature (operation)	-25°C … +55°C
Type	IL PN BK-PAC
Order No.	2403696

Axioline F components
I/O module for pulse width modulation

Axioline F is the fast, robust, and easy I/O system. An I/O module for pulse width modulation has now been added to the product range. Two channels that operate independently of one another offer the option of pulse width modulation (PWM) for the output signals.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE **line**

Your advantages

☑ Reduced storage, thanks to the use of operating modes PWM and pulse generator in a module

☑ Flexible connection of the peripheral equipment, thanks to the choice of a 5 V or 24 V output for each channel for individual use

☑ Selectable frequency resolution for optimal adaptation to the application

☑ Fast installation, thanks to Push-in connection technology

Main features
- Supports the operating modes PWM and pulse generator
- Push-pull output
- Output of 5 V or 24 V signals
- Nominal current per output: 500 mA for a 24 V output

ⓘ **Web code:** #2223	
Description	**I/O module for pulse width modulation**
I/O functionality	Pulse width modulation, frequency generator or pulse/direction signal output
Type	AXL F PWM2 1H
Order No.	1007352

Axioline F components
I/O modules for extreme conditions

Further I/O modules with an extended temperature range and coated printed-circuit boards are now also available for the fast, particularly robust Axioline F I/O system with high signal density. This means that Axioline F is opening up an even broader field of application for you.

Push-in Technology[P]
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ Far-reaching range of applications, thanks to comprehensive temperature range

☑ The coated printed-circuit boards withstand even the toughest ambient conditions

☑ High noise immunity, even in environments subjected to strong electromagnetic influences

☑ Fast installation, thanks to Push-in connection technology

Main features
- Extended temperature range:
  -40°C … +70°C
- Permissible humidity (operation):
  5% … 95%
- Noise emission:
  Class B in accordance with EN 61000-6-3
- Noise immunity:
  8 kV air discharge in accordance with EN 61000-4
- Maximum altitude: 3,000 m above sea level without derating

[i] **Web code:** #2224			
Description	**I/O module for extreme conditions**		
I/O functionality	8 digital outputs	2 analog inputs, 2 analog outputs	4 RTD temperature inputs
Type	AXL F DO8/2 2A XC 1H	AXL F AI2 AO2 XC 1H	AXL F RTD4 XC 1H
Order No.	1035427	1035429	1035430

Modular proxy Axioline P
Connecting PROFIBUS PA with PROFINET

Modular proxy for direct connection of up to eight PROFIBUS PA segments to PROFINET networks. The modularly designed station communicates with a PROFINET controller over a bus coupler.

Push-in Technology ℗
Designed by PHOENIX CONTACT

COMPLETE line

Your advantages

☑ PROFINET redundancies (S2, R1, and R2) and redundant power supply for each PROFIBUS PA segment increase the system availability

☑ Direct connection of PROFIBUS PA devices to PROFINET saves time and additional interfaces

☑ Efficient modernization of systems and the combination of proven fieldbus technology with today's and tomorrow's digitalization

Main features
- Supports S2, R1, and R2 PROFINET redundancies
- Connection of up to 256 PROFIBUS PA devices
- Free GSDML composer
- Push-in connection technology
- Degree of protection: IP20
- ATEX and IECEx approval
- Ambient temperature (operation): -40°C … +65°C

	i Web code: #2225			
Description		**Bus coupler**	**Fieldbus power supply socket**	**Fieldbus power supply**
Type		AXL P BK PN AF	AXL P FBPS BASE	AXL P FBPS 28DC/0.5A
Order No.		2316390	2316393	2316394

Powerful web panels
Chromium browser for HTML5 applications

The new HMI device series WP 4000 with HTML5-compatible browser features powerful web panels for sophisticated applications. The devices perform operating and monitoring tasks with high visualization requirements.

COMPLETE **line**

Your advantages

☑ Flexible, thanks to open web standard and free choice of web server and visualization software

☑ No security updates are required for JAVA or Flash plug-ins

☑ Ideal for use with PLCnext Engineer or CODESYS

☑ Visualization of self-programmed JavaScript applications possible

☑ Secure communication, thanks to SSL-encrypted data transmission

Main features

• 7" displays with resistive touch, 7", 10.1", and 12.1" displays with capacitive multitouch
• ARM® Cortex®-A53 processor
• Mass storage: 8 GB Flash
• Interfaces: 2 x USB 2.0, 1 × Ethernet (10/100 Mbps)
• Aluminum front and metal housing
• Linux Yocto with Chromium web browser

	Web panel 7"	Web panel 7"	Web panel 10"	Web panel 12"
Description				
Resolution (W x H in pixels)	800 x 480 (WVGA)	1280 x 800 (WXGA)		
Touch technology	Analog resistive, polyester	Projective-capacitive, PCAP		
Type	WP 4000			
Order No.	1065546 (configurable product)			

ℹ **Web code:** #2226

Web panels for basic applications
Open browser for HTML5 standard

The new HMI device series BWP 2000 with HTML5-compatible browser features affordable web panels for basic applications. The basic web panels are added to the existing product portfolio as an affordable entry-level version and fulfill basic visualization requirements.

Your advantages

☑ HTML5-compatible browser integrated in all devices

☑ Easy startup: just enter the IP and URL

☑ No security updates are required for JAVA or Flash plug-ins

☑ Energy efficient due to LED backlighting

☑ Best price/performance ratio

Main features

- 4.3", 7", and 10.1" displays with analog resistive touch
- ARM® Cortex®-A9 processor
- Mass storage: 4 GB Flash
- Interfaces: 1 x USB 2.0, 1 x Ethernet (10/100 Mbps)
- Plastic housing
- Linux Yocto with Otter web browser

	Web panel 4.3"	Web panel 7"	Web panel 10.2"
Description	**Web panel 4.3"**	**Web panel 7"**	**Web panel 10.2"**
Resolution (W x H in pixels)	480 x 272 (WQVGA)	800 x 480 (WVGA)	1024 x 600 (XGA)
Type	BWP 2043W	BWP 2070W	BWP 2102W
Order No.	1060549	1060632	1060630

ℹ Web code: #2227

Mobile panel with connection box
The modern solution for intuitive teach-in

The HTP10 1000 mobile panel with ergonomic housing, brilliant display, integrated safety elements, performance on the PC level, and Windows 10 IoT® is the latest solution for intuitive teach-in (starting/setting up the machine) and commissioning, as well as diagnostics and maintenance.

Your advantages

☑ Ergonomic design

☑ Suitable for drops from up to 1 m high

☑ Integrated safety functions

☑ Simple and intuitive operation

☑ Windows 10 LTSB 2016 for the simple use of common visualization tools or C#, C++ for creating the application

Main features

• Large 10.1" display (1280 x 800 WXGA)
• Precise touch operation (analog resistive)
• Powerful Intel® Atom™ E3815 processor
• Windows 10 LTSB 2016
• Portico 3 client for remote operation
• 2 enable switches, 3-stage
• Illuminated EMERGENCY STOP button

[i] Web code: #2228	Mobile touch panel	Connection box
Description	**Mobile touch panel**	**Connection box**
Type	HTP10 1000	HTP10 1000 CB
Order No.	1047318	1047323

The web code gives you access to additional product versions on our website.

Robust IP66 panel PCs
Operating terminals for vehicle use

The VMT 9000 series specially developed for the logistics and agricultural and construction machinery target markets features a high-quality, highly compact, and extremely robust design, ensuring that it functions properly even in the harshest environments.

Your advantages

☑ Display that is readable in direct sunlight

☑ Can be operated when wearing work gloves (also with PCAP)

☑ Convenient operation using four freely assignable front buttons

☑ Screwless design for easy cleaning

☑ Weather-resistant, thanks to an IP66 housing and shatter-proof (IK08) and abrasion-proof front sides

Main features

• 10", 12.1", 15" displays and 12.1" widescreen display
• Resistive (AR), capacitive (PCAP) touch
• Intel® Atom™ x7-E3950 2.0 GHz processor
• Operating temperature: -30°C … +60°C
• Wireless: WLAN, Bluetooth, WWAN, and GPS
• Wide-range power supply unit: 9 V DC … 60 V DC

	Web code: #2229		
Description	**Rugged panel PC**		
Display	10" TFT	12.1" TFT	12.1" TFT widescreen	15" TFT
Resolution (W x H in pixels)	1024 x 768 (XGA)		1280 x 800 (WXGA)	1024 x 768 (XGA)
Type	VMT 9000			
Order No.	1084510			

Software suite for charging park management
Intelligent control of charging parks

The EV Charging Suite software forms the interface between the driver, charging park, grid operator, and billing provider. It ensures the availability of the charging park, enables convenient management of charging points and guides the user intuitively using a touch interface.

Your advantages

☑ Intelligent load management ensures optimum distribution of the connected load and prevents overloads

☑ Easy startup, configuration, and monitoring via web interface

☑ Future-proof and scalable, thanks to the easy addition and management of charging points

☑ Reliable logging of all charging procedures for real-time visualization and precise billing via OCPP

Main features
- Supports OCPP 1.5 SOAP
- Minimum system requirements:
  - 64 GB hard disk space
  - 4 GB RAM
  - Intel® Atom™ Quad-Core CPU (1.91 GHz)
  - 8" touch panel with 800 x 480 pixels
  - 2 Ethernet RJ45 ports
 - 1 USB 2.0 port
  - Windows 10 IoT Enterprise 64-bit

ℹ️ **Web code:** #2234				
Description	**Basic license**			**Upgrade license**	
Number of charging points	10	30	50	30	50
Type	EV-CC-S-SUITE-CP10	EV-CC-S-SUITE-CP30	EV-CC-S-SUITE-CP50	EV-CC-S-SUITE-UPG10-30	EV-CC-S-SUITE-UPG30-50
Order No.	1086929	1086921	1086920	1086891	1086889

Programmable DC charging controller
The solution for modern fast charging stations

EV Charge Control Professional is the controller solution for modern fast charging stations. It supports both fast DC charging and conventional AC charging, and at the same time takes care of all control and communication tasks, including visualization on the operator panel.

Push-in Technology[P]

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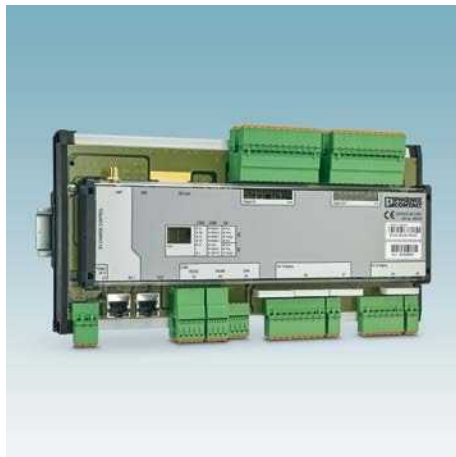
Your advantages

- ☑ Two independent charging points (AC and DC) with just a single controller
- ☑ Flexible use, thanks to free choice of programming in accordance with IEC 61131
- ☑ Little programming work, thanks to pre-assembled function blocks for vehicle communication in accordance with DIN SPEC 70121
- ☑ Easy system integration, thanks to comprehensive interfaces
- ☑ Convenient remote access via integrated mobile network modem

Main features

- DC charging in accordance with DIN SPEC 70121
- AC charging in accordance with IEC 61851-1
- Can be programmed with PC Worx
- Communication interfaces: Ethernet, 3G mobile, RS-232, RS-485, CAN bus
- PT1000 temperature input
- 16 digital inputs and 16 digital outputs

	Programmable DC charging controller	Program and configuration memory with license for function blocks
ℹ️ **Web code:** #2235		
Description	**Programmable DC charging controller**	**Program and configuration memory with license for function blocks**
Type	EV-PLCC-AC1-DC1	SD-FLASH-2GB-EV-EMOB
Order No.	1624130	1624092

CCS type 2 DC charging cables for high power charging
Fast charging in Europe with up to 500 kW

Using the new, cooled DC charging cables with High Power Charging Technology (HPC), you can achieve charging power of up to 500 kW. This lets you charge the battery for a range of 100 km in just three to five minutes. Thanks to the optional panel feed-through, installation on the charging station is fast and reliable.

High Power Charging Technology
Designed by PHOENIX CONTACT

Your advantages

☑ Fast charging in just a few minutes, thanks to extremely high charging power

☑ Efficient cooling enables a low cable diameter

☑ Safe, thanks to continuous temperature and leak monitoring

☑ Maintenance-friendly, thanks to a replaceable mating face and open cooling system with environmentally friendly cooling medium

☑ Compatible with the established Combined Charging System (CCS)

Main features
- Rated voltage: 1,000 V DC
- Cable length: 5 m (additional lengths on request)
- Conforms to VDE-AR-E 2623-5-3 and IEC TS 62196-3-1
- Degree of protection: IP54 (when plugged in)
- Temperature and leakage sensors
- CAN bus interface and status output
- Cooling medium: water-glycol mixture

					Repair kit	Cooling unit
ⓘ Web code: #2230						
Description	**Cooled CCS type 2 DC charging cable for Europe**				**Repair kit**	**Cooling unit**
Panel feed-through	Left-side angled	Right-side angled	Straight	None	-	-
Order No. 400 A rated current	1052443	1089664	1052444	-	1085799	Sold by one of our partners
Order No. 500 A rated current	1085637	1089665	1085631	1085638		

The web code gives you access to additional product versions on our website.

Second generation GB/T DC charging cables
Fast charging in China with up to 250 kW

The new generation of DC charging cables designed to the GB/T standard supports charging power of up to 250 kW, making the charging process for electric vehicles even faster. In accordance with the latest GB/T standard, the vehicle connector can also be locked in its bracket to protect it from vandalism.

Your advantages

- ☑ Fast charging of electric vehicles, thanks to high charging power
- ☑ Protection against vandalism, thanks to interlock in the bracket
- ☑ Safe, thanks to temperature measurement directly at the power contacts
- ☑ Reliable weather protection, thanks to IP54 degree of protection
- ☑ Individual branding, thanks to the use of your own logo

Main features

- Rated voltage: 1,000 V DC
- Cable length: 5 … 10 m
- Conforms to GB/T 20234.3-2015
- CE-compliant in accordance with IEC 62196-3
- CQC seal (China Quality Certification)
- IP54 degree of protection (with protective cap)
- Silver-plated surface of the power and signal contacts
- Low insertion and withdrawal forces

Description	GB/T DC charging cable for China			
i Web code: #2231				
Rated current	80 A	125 A	180 A	250 A
Order No. 5 m cable length	1031383	1031381	1085611	1031379
Order No. 6 m cable length	1073614	1073669	1085622	1073604
Order No. 7 m cable length	1073613	1073670	1085624	1073603
Order No. 8 m cable length	1073609	1073674	1085625	1073601
Order No. 10 m cable length	1073608	1073675	1085626	1073579

The web code gives you access to additional product versions on our website.

Type 1 AC charging cables with PSE certificate
AC charging in Japan with up to 7.5 kW

Our type 1 AC charging cables with open cable end are now available with PSE certification, which is the conventional safety standard for electrical installations in Japan. As a result, you can now successfully sell your AC charging stations and wall boxes on the Japanese market.

Your advantages

- ☑ Successful sales of your charging solutions on the Japanese market
- ☑ Secured to prevent accidental disconnection, thanks to a U-lock
- ☑ Convenient handling, thanks to ergonomic design
- ☑ Longitudinal water tightness prevents water ingress along the cable
- ☑ Individual branding, thanks to the use of your own logo

Main features
- AC vehicle connector with open cable end
- Rated voltage: 250 V AC
- Rated current: 30 A, 1-phase
- Cable length: 5 m (additional lengths on request)
- Conforms to SAE J1772, IEC 62196-2, PSE
- Silver-plated surface of the power and signal contacts
- Low insertion and withdrawal forces

ℹ️ **Web code:** #2232		
Description	**Type 1 AC charging cable for Japan**	
Interlocking using a U-lock	Yes	No
Type	EV-T1G3K-1AC30A-5,0M6,0JSBK11	EV-T1G3C-1AC30A-5,0M6,0JSBK11
Order No.	1033864	1033865

Protective cover for type 2 AC socket outlets
Quick installation of reliable protection

We offer special protective covers in order to reliably protect the AC socket outlets in your charging stations and wall boxes from weather influences. Thanks to its front-side screw connection, the new, self-locking protective cover for type 2 socket outlets is even easier to install.

Your advantages

☑ Reliable protection of your socket outlet from weather and vandalism

☑ Extremely easy assembly, thanks to a front-side screw connection

☑ Reduced assembly work, thanks to the pre-injected seal

☑ No separate panel mounting frame required

☑ Individual branding, thanks to the use of your own logo

Main features
- Conforms to IEC 62196-2
- Degree of protection: IP54
- Self-closing
- Dimensions (W x H x D): 93.7 mm x 85 mm x 32.5 mm
- Bore dimensions: 60 mm x 60 mm
- The screws are not included in the scope of delivery

ℹ **Web code:** #2233	
Description	**Protective cover for type 2 infrastructure socket outlets**
Type	EV-T2SC-EMF
Order No.	1093939

In dialog with customers and partners worldwide

Phoenix Contact is a globally present, Germany-based market leader. Our group is synonym for future-oriented components, systems, and solutions in the fields of electrical engineering, electronics, and automation. A global network across more than 100 countries, and 16,500 employees ensure a close proximity to our customers, which we believe is particularly important.

The wide variety of our innovative products makes it easy for our customers to find future-oriented solutions for different applications and industries. We especially focus on the fields of energy, infrastructure, process and factory automation.
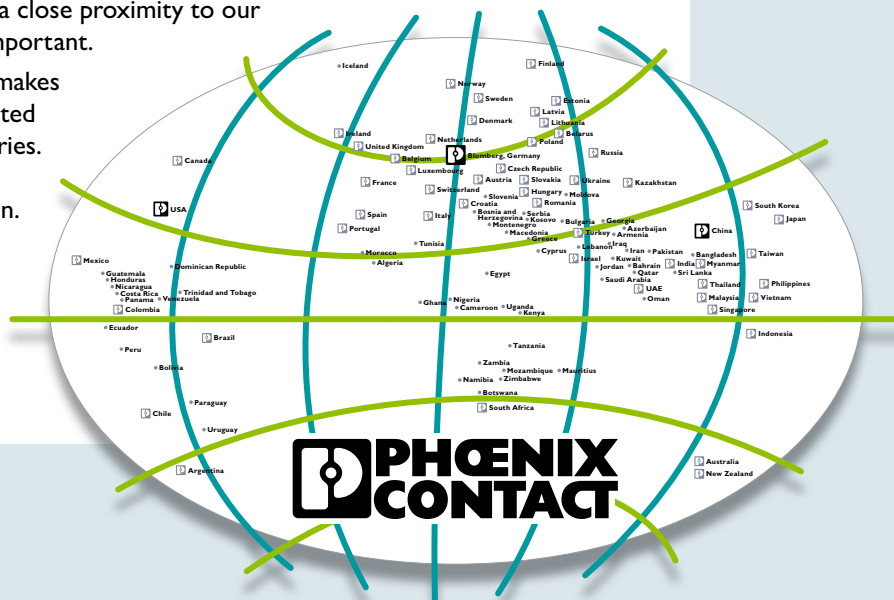
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INSPIRING INNOVATIONS