



**COMPLETE  
CABINET  
CONFIDENCE**

BUILD WITH CONFIDENCE



## Quick Reference Guide









## Build with complete confidence

Phoenix Contact is a global market leader in industrial electronics and automation technologies with a comprehensive product and service offering that ensures the most functional, reliable, innovative, future proof, and cost-effective control cabinet solution.

Partnering with Phoenix Contact ensures an unparalleled offering, consisting of:

- ★ **Lifetime Warranty**  
The industry's most comprehensive warranty program, guarantees you long-term reliability of your systems and applications.
- ★ **Price Guarantee**  
The perfect combination of price and features.
- ★ **Availability Guarantee**  
We help you build effective and efficient systems fast by providing you products right when you need them
- ★ **E-Platform**  
Information at your fingertips enables automatic checking and direct ordering.
- ★ **Industry 4.0/IoT Readiness**  
Be ready now and for the future with Phoenix Contact.

## VALUE-ADDED CENTRE

- Order complete solutions fully assembled under a single article number.
- Complete terminal strips assembled, marked and with all accessories installed.
- Ready to install and connect.
- Increase efficiency of procurement and stock management processes.
- A flexible and efficient approach to supply chain management.

## COMPLETE DIN-RAIL ASSEMBLY DESIGN

- Intuitive user interface for configuring terminal strips with intelligent functions such as auto correction, speed marking, or 3D visualisation of projects.
- Professional software for marking of labelling materials for terminal blocks, conductors, cables, devices, and systems.
- Perfect integration, thanks to optimised interfaces to all common CAE programs and spreadsheet formats.
- Equipped with an official template designer which allows users to create their own markings and adapt existing material descriptions.

## COMPLETE PRODUCT PORTFOLIO

- Optimises control cabinet design and construction.
- Technologically leading products.
- Minimise logistics costs by reducing the variety of parts, thanks to standardised marking, bridging, and testing accessories.

## FIVE FUNCTIONAL AREAS



### Power Reliability

The heart of your installation, all control systems are dependent on being properly powered and protected. Surge and circuit protection, UPS backup, and redundant power solutions are the foundation on which reliable control systems should be built.



### Connectivity, Switching and Conversion

Never take a good connection for granted, the connection of those wires, the switching and/or isolation of the signals are only as reliable as the quality of the terminations and electronics.



### Automation, Networks and Safety

From single components to complete integrated systems, Phoenix Contact provides cost-effective, reliable solutions for Industrial networking, Automation and Safety.



### Shopfloor Productivity

Efficiently building a quality control cabinet starts with what you use to build it. A thoughtful selection of products to reduce cost and save time translates directly to the bottom-line profitability of any shop floor.

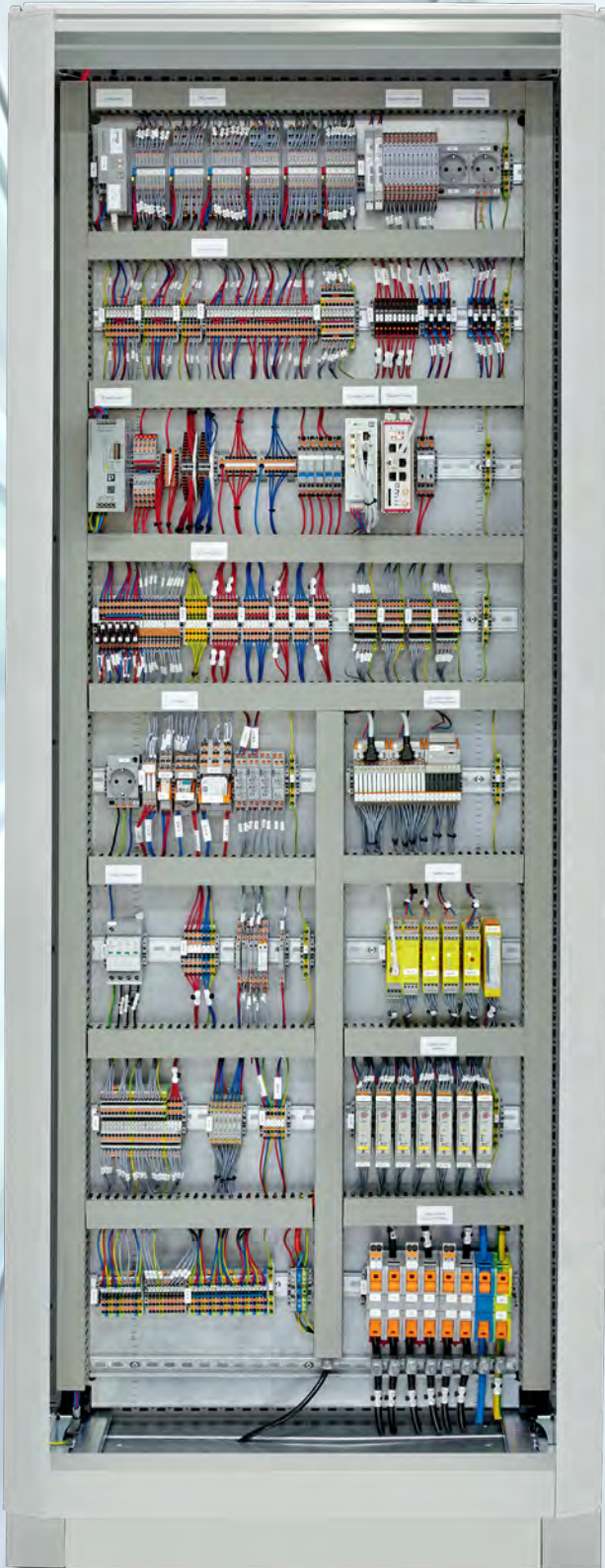


### Device Connectors

Discover our wide range of new products for the transmission of signals, data, and power. Reliable and cost effective solutions including Circular Connectors, Data ports, Connectors for Energy Storage and many more.



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## Device Connectors

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Power Reliability

# Power Supplies



**Power supply**  
AC Input to DC Output



SCAN to download Power Reliability Catalogue

Do you need a single-phase or a three-phase power supply?	<b>Basic Functionality:</b> Compact with standard functionality	<b>Standard Functionality:</b> Robust & Reliable with standard functionality	<b>Maximum Functionality:</b> Powerful, and with superior functionality
What is the output DC voltage?			
What is your output current (Amps)?			
What functionality do you require?			
Have you considered surge protection with a Lifetime Warranty?			
Resulting Phoenix Contact part number			

Phase	Output Voltage	Output Current	Description	Connection Technology	Order #	
1-Phase	5 V DC	3A	STEP3-PS/1AC/5DC/3/PT	Push-in	1170954	
		5A	UNO-PS/1AC/ 5DC/ 25W	Screw	2904374	
		5A	QUINT4-PS/1AC/5DC/5/PT	Push-in	2904595	
		6.5A	STEP-PS/ 1AC/ 5DC/6.5	Screw	2868541	
	12 V DC	1.3A	1.3A	STEP3-PS/1AC/12DC/1.3/PT	Push-in	1170952
			2.5A	STEP3-PS/1AC/12DC/2.5/PT	Push-in	1170953
			2.5A	UNO-PS/1AC/12DC/ 30W	Screw	2902998
			2.5A	QUINT4-PS/1AC/12DC/2.5/PT	Push-in	2904605
		5A	3A	STEP-PS/ 1AC/12DC/3	Screw	2868570
			5A	STEP-PS/ 1AC/12DC/5	Screw	2868583
			5A	TRIO-PS-2 G/1AC/12DC/5/C2LPS	Push-in	2903157
			7.5A	QUINT4-PS/1AC/12DC/7.5D/PT	Push-in	2904607
			8.3A	UNO-PS/1AC/12DC/100W	Screw	2902997
			10A	TRIO-PS-2G/1AC/12DC/10	Push-in	2903158
			15A	QUINT4-PS/1AC/12DC/15	Screw	2904608
			20A	QUINT-PS/1AC/12DC/20	Screw	2866721
	15 V DC	2.0A	UNO-PS/1AC/15DC/30W	Screw	2903000	
		4.0A	STEP-PS/1AC/15DC/4	Screw	2868619	
	24 V DC	0.63A	0.63A	STEP3-PS/1AC/24DC/0.63/PT	Push-in	1088495
			1.25A	UNO-PS/1AC/24DC/ 30W	Screw	2902991
			1.3A	STEP3-PS/1AC/24DC/1.3/PT	Push-in	1088494
			1.3A	QUINT4-PS/1AC/24 DC/1.3/PT	Push-in	2909575
		1.3A	1.3A	QUINT4-PS/1AC/24 DC/1.3/SC	Screw	2904597
			2.5A	STEP3-PS/1AC/24DC/2.5/PT	Push-in	1088491
		2.5A	2.5A	UNO-PS/1AC/24DC/ 60W	Screw	2902992
			2.5A	TRIO-PS/1AC/24 DC/2.5	Push-in	2866268
		2.5A	2.5A	QUINT4-PS/1AC/24DC/2.5/PT	Push-in	2909576
			2.5A	QUINT4-PS/1AC/24DC/2.5/SC	Screw	2904598
		3A	3A	TRIO-PS-2G/1AC/24DC/3/C2LPS	Push-in	2903147
			3.125A	PS-EE-2G/1AC/24DC/75W/SC	NEW Screw	1234301
		3.8A	3.8A	QUINT4-PS/1AC/24DC/3.8/PT	Push-in	2909577
			3.8A	QUINT4-PS/1 AC/24 DC/3.8/SC	Screw	2904599
			4A	STEP3-PS/1AC/24DC/4/PT	Push-in	1140066
			4.2A	UNO-PS/1AC/24DC/100W	Screw	2902993
			5A	STEP3-PS/1AC/24DC/5/PT	Push-in	1088478
			5A	ESSENTIAL-PS/1AC/24DC/120W/EE	Screw	2910586
			5A	UNO2-PS/1AC/24DC/120W	Screw	1110466
			5A	TRIO3-PS/1AC/24DC/5	NEW Push-in	1159037
			5A	QUINT4-PS/1AC/24DC/5	Screw	2904600
			10A	ESSENTIAL-PS/1AC/24DC/240W/EE	Screw	2910587
			10A	UNO2-PS/1AC/24DC/240W	Screw	1096432
			10A	TRIO3-PS/1AC/24DC/10	NEW Push-in	1159038
	48 V DC	10A	10A	QUINT4-PS/1AC/24DC/10	Screw	2904601
			20A	ESSENTIAL-PS/1AC/24DC/480W/EE	Screw	2910588
			20A	UNO2-PS/1AC/24DC/480W	Screw	2910105
			20A	TRIO3-PS/1AC/24DC/20	Push-in	1159039
		20A	20A	QUINT4-PS/1AC/24DC/20	Screw	2904602
			40A	UNO2-PS/1AC/24DC/960W	NEW Screw	1110043
40A		40A	QUINT4-PS/1AC/24DC/40	Screw	2904603	
		1.25A	UNO-PS/1AC/48DC/ 60W	Screw	2902995	
		2.1A	UNO-PS/1AC/48DC/100W	Screw	2902996	
		5A	UNO2-PS/1AC/48DC/240W	Screw	1110155	
		5A	TRIO-PS-2G/1AC/48DC/5	Push-in	2903159	
		5A	QUINT4-PS/1AC/48DC/5	Screw	2904610	
	10A	TRIO-PS-2G/1AC/48DC/10	Push-in	2903160		
	10A	QUINT4-PS/1AC/48DC/10	Screw	2904611		
110 V DC	20A	QUINT4-PS/1AC/48DC/20	Screw	2904612		
	4A	QUINT4-PS/1AC/110DC/4	Screw	2904613		
3-Phase	24 V DC	5A	TRIO-PS-2G/3AC/24DC/5	Push-in	2903153	
		5A	QUINT4-PS/3AC/24DC/5	Screw	2904620	
		10A	ESSENTIAL-PS/3AC/24DC/240W/EE	Screw	2910588	
		10A	TRIO3-PS/3AC/24DC/10	NEW Push-in	1159042	
		10A	QUINT4-PS/3AC/24 DC/10	Screw	2904621	
		20A	ESSENTIAL-PS/3AC/24DC/480W/EE	Screw	2910588	
		20A	TRIO3-PS/3AC/24DC/20	NEW Push-in	1159044	
		20A	QUINT4-PS/3AC/24DC/20	Screw	2904622	
		20A	ESSENTIAL-PS/3AC/24DC/960W/EE	Screw	2910588	
		40A	TRIO3-PS/3AC/24DC/40	NEW Push-in	1159045	
		40A	QUINT4-PS/3AC/24DC/40	Screw	2904623	
		48 V DC	20A	QUINT4-PS/3AC/48DC/20	Screw	2904627

## QUINT4 Power Supplies



## TRIO Power Supplies



## UNO Power Supplies



## Essential Power Supplies



## STEP Power Supplies



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# Power Supplies - DC to DC Converters

Power Reliability



Power supply  
DC Input to DC Output



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Power Reliability

Input Voltage	Output Voltage	Output Current	Description	Connection Technology	Order #
12-24 V DC	5 -15 V DC	2A	MINI-PS- 12- 24DC/ 5-15DC/2	Screw	2320018
		2.5A	QUINT4-PS/12-24DC/5-15DC/2.5/PT	Push-in	1066704
12 V DC	12 V DC	8A	QUINT-PS/12DC/12DC/8	Screw	2905007
24 V DC	12 V DC	8A	QUINT4-PS/24DC/12DC/8/PT	Push-in	2910122
		1.3A	QUINT4-PS/12-24DC/24DC/1.3/PT	Push-in	1066716
		1.3A	QUINT4-PS/12-24DC/24DC/1.3/SC	Screw	1066703
		2.5A	QUINT4-PS/12-24DC/24DC/2.5/PT	Push-in	1066714
		2.5A	QUINT4-PS/12-24DC/24DC/2.5/SC	Screw	1066718
12 V DC	24 V DC	5A	QUINT4-PS/12DC/24DC/5/PT	Push-in	2910124
		5A	QUINT-PS/12DC/24DC/ 5	Screw	2320131
		5A	QUINT4-PS/24DC/24DC/5/PT	Push-in	2910119
		5A	QUINT4-PS/24DC/24DC/5/SC	Screw	1046800
24 V DC	24 V DC	10A	QUINT4-PS/24DC/24DC/10/PT	Push-in	2910120
		10A	QUINT4-PS/24DC/24DC/10/SC	Screw	2903158
		20A	QUINT4-PS/24DC/24DC/20/PT	Push-in	2910121
		20A	QUINT4-PS/24DC/24DC/20/SC	Screw	1046805
48-60 V DC	24 V DC	1.0A	MINI-PS- 48- 60DC/24DC/1	Screw	2866271
48-110 V DC	24 V DC	2.5A	QUINT4-PS/48-110DC/24DC/2.5/PT	Push-in	1066708
96-110 V DC	24 V DC	10A	QUINT-PS/96-110DC/24DC/10	Screw	2905010
		5A	QUINT-PS/48DC/24DC/ 5	Screw	2320144
48 V DC	24 V DC	5A	QUINT4-PS/48DC/24DC/5/PT	Push-in	2910125
12-24 V DC	48 V DC	0.7A	MINI-PS- 12- 24DC/48DC/0.7	Screw	2320021
24-48 V DC	48 V DC	2A	QUINT4-PS/24-48DC/48DC/2/PT	Push-in	1098676
			QUINT4-PS/24DC/48DC/5/PT	Push-in	2910123
			QUINT-PS/24DC/48DC/ 5	Screw	2320128
			QUINT4-PS/48DC/48DC/5/PT	Push-in	2910128
			QUINT-PS/48DC/48DC/5	Screw	2905008

QUINT4 DC-DC Converters



Mini Power DC-DC Converters



DC-DC Converters for Photovoltaics



Input Voltage	Output voltage	Output Current	Description	Connection Technology	Order #
350 - 900 V DC	24 V DC	2.5A	UNO-PS/350-900DC/24DC/60W	Screw	2906300
1500 V DC	24 V DC	1.5A	TRIO-PS-2G/1500DC/24DC/1.5	Push-in	1107892
1500 V DC	24 V DC	8A	TRIO-PS-2G/1500DC/24DC/8	Push-in	1075240

## Recommended Surge Protection for LIFETIME WARRANTY

Recommended Surge Protection on Power Supply Input for Lifetime Warranty**						
Phase	Voltage	Max Surge Current (IMAX)	Load Current	Type Description	Connection Technology	Order #
1-phase	230 V AC	10 kA	26A	PLT-SEC-T3-230-FM-PT*	Push-in	2907928
	230 V AC	10 kA	26A	PLT-SEC-T3-230-FM-UT*	Screw	2907919
	230 V AC	40 kA	NA	VAL-MS 230/1+1	Screw	2804429
3-phase	230 V AC	40 kA	NA	VAL-MS 230/1+1-FM*	Screw	2804432
	230/400 V AC	40 kA	NA	VAL-MS 230/3+1-PT	Push-in	1248961
	230/400 V AC	40 kA	NA	VAL-MS 230/3+1 FM-PT*	Push-in	1248960
	230/400 V AC	40 kA	NA	VAL-MS 230/3+1	Screw	2838209
	230/400 V AC	40 kA	NA	VAL-MS 230/3+1-FM*	Screw	2838199

\* FM - Remote relay alarm output. \*\* Go to [www.phoenixcontact.com/en-au/au-lifetime-warranty](http://www.phoenixcontact.com/en-au/au-lifetime-warranty) for full details

The Unbeatable Team!



Recommended Surge Protection on Power Supply Input for Lifetime Warranty**						
Power Supply Input Voltage	Voltage	Max Surge Current (IMAX)	Load Current	Type Description	Connection Technology	Order #
48-110 V DC	120 V AC / DC	10 kA	26A	PLT-SEC-T3-120-FM-PT*	Push-in	2907927
	120 V AC / DC	10 kA	26A	PLT-SEC-T3-120-FM-UT*	Screw	2907918
48 V DC	60 V AC / DC	4 kA	26A	PLT-SEC-T3-60-FM-PT*	Push-in	2907926
	60 V AC / DC	4 kA	26A	PLT-SEC-T3-60-FM-UT*	Screw	2907917
12-24 V DC	24 V AC / DC	4 kA	26A	PLT-SEC-T3-24-FM-PT*	Push-in	2907925
	24 V AC / DC	4 kA	26A	PLT-SEC-T3-24-FM-UT*	Screw	2907916
	24 V DC	1 kA (In)	6A	TTC-6P-T3-24DC-PT-I	Push-in	1027586
	24 V DC	1 kA (In)	6A	TTC-6P-T3-24DC-UT-I	Screw	1027584

\* FM - Remote relay alarm output. \*\* Go to [www.phoenixcontact.com/en-au/au-lifetime-warranty](http://www.phoenixcontact.com/en-au/au-lifetime-warranty) for full details



LIFETIME WARRANTY

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# Power Reliability

## Redundancy

For maximum operational safety. To prevent failures and downtime of complex applications, redundant power supply solutions are necessary. Two power supplies connected in parallel can be decoupled with either active or passive redundancy modules.



— Monitored  
— Not Monitored

### QUINT SINGLE-ORING active redundancy module (S-ORING)

Fully monitored single channel MOSFET technology redundancy.

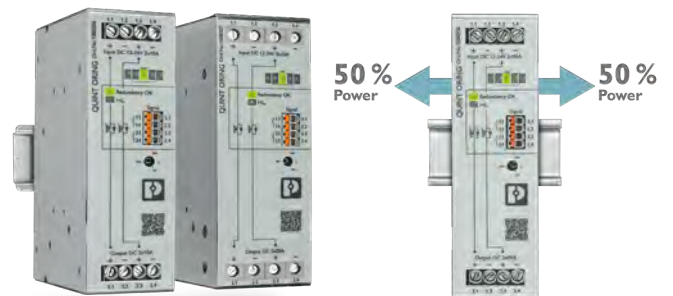


Nominal Input-Output Voltage	Input Current	Output Current	Description	OVP Limit	Order #
12-24 V DC	1 x 40A	1 x 40A	QUINT4-S-ORING/12-24DC/1X40	Standard	2907752
12-24 V DC	1 x 40A	1 x 40A	QUINT4-S-ORING/12-24DC/1X40/VP	<30 V DC	1043418
12-24 V DC	1 x 40A	1 x 40A	QUINT4-S-ORING/12-24DC/1X40/+	<28.8 V DC	2907753



### QUINT ORING active redundancy module with ACB Technology

Fully-monitored dual channel MOSFET technology with Auto Current Balancing - doubling the service life of your power supplies.



Nominal Input-Output Voltage	Input Current	Output Current	Description	Order #
12-24 V DC	2 x 10A	2 x 10A (Redundancy) 1 x 20A (Increased Power)	QUINT4-ORING/12-24DC/2X10/2X10	1088206
12-24 V DC	2 x 20A	2 x 20A (Redundancy) 1 x 40A (Increased Power)	QUINT4-ORING/12-24DC/2X20/2X20	1088207
18-24 V DC	2 x 40A	2 x 40A (Redundancy) 1 x 80A (Increased Power)	QUINT-ORING/24DC/2X40/1X80	2902879

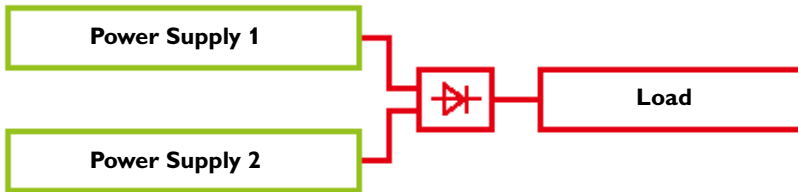




# Redundancy

Power Reliability

Passive Redundancy modules: choose from **QUINT, TRIO, UNO, or STEP POWER** Diodes for easy decoupling. Rugged and reliable DIODE technology from 5 to 48V DC.



Nominal Input-Output Voltage	Input Current	Output Current	Description	Order #	
12-24 V DC	2 x 20A	2 x 20A (Redundancy) 1 x 40A (Increased Power)	QUINT4-DIODE/12-24DC/2X20/1X40	2907719	
48 V DC	2 x 20A	2 x 20A (Redundancy) 1 x 40A (Increased Power)	QUINT4-DIODE/48DC/2X20/1X40	2907720	
12-24 V DC	2 x 20A	2 x 20A (Redundancy) 1 x 40A (Increased Power)	TRIO2-DIODE/12-24DC/2X20/1X40	2907379	
12-24 V DC	2 x 10A	2 x 10A (Redundancy) 1 x 20A (Increased Power)	TRIO2-DIODE/12-24DC/2X10/1X20	2907380	
5-24 V DC	2 x 10A	2 x 10A (Redundancy) 1 x 20A (Increased Power)	UNO-DIODE/5-24DC/2X10/1X20	2905489	
5-24 V DC	2 x 5A	2 x 5A (Redundancy) 1 x 10A (Increased Power)	STEP-DIODE/5-24DC/2X5/1X10	2868606	

## QUINT POWER Plus with inbuilt Active redundancy

Fully-monitored single channel MOSFET technology built into the QUINT4 Power Supply - as well as double over-voltage protection (OVP), protective coating, Ex-rated and SIL3 rated and extreme temperature range.



Nominal Input-Output Voltage	Output Voltage	Output Current	Description	OVP Limit	Order #	
1 Phase / 230V AC	24 V DC	10A	QUINT4-PS/1AC/24DC/10/+	<30 V DC	2904616	
		20A	QUINT4-PS/1AC/24DC/20/+	<30 V DC	2904617	
		40A	QUINT4-PS/1AC/24DC/40/+	<30 V DC	2904618	
24 V DC	24 V DC	20A	QUINT4-PS/24DC/24DC/20/SC/+	<30 V DC	1046881	



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# Uninterruptible Power Supplies (UPS)

## Power Reliability

DC power For critical applications, uninterruptible power supplies (UPS) can provide a lifeline to keep your system up and running.

**+ UPS module**

Selected based on output requirements

DC QUINT Power Supply			
Select UPS Type (Comms)			
What Input-Output Voltage / Amps ?			
Comms	Input/Output/Amps	Description	Order #
None	24DC/24DC/5A	QUINT4-UPS/24DC/24DC/5	2906990
None	24DC/24VDC/10A	QUINT4-UPS/24DC/24DC/10	2907066
None	24DC/24VDC/20A	QUINT4-UPS/24DC/24DC/20	2907071
None	24DC/24VDC/40A	QUINT4-UPS/24DC/24DC/40	2907077
USB	24DC/24DC/5A	QUINT4-UPS/24DC/24DC/5/USB	2906991
USB	24DC/24VDC/10A	QUINT4-UPS/24DC/24DC/10/USB	2907067
USB	24DC/24VDC/20A	QUINT4-UPS/24DC/24DC/20/USB	2907072
USB	24DC/24VDC/40A	QUINT4-UPS/24DC/24DC/40/USB	2907078
ETHERNET IP	24DC/24DC/5A	QUINT4-UPS/24DC/24DC/5/EIP	2906994
ETHERNET IP	24DC/24VDC/10A	QUINT4-UPS/24DC/24DC/10/EIP	2907069
ETHERNET IP	24DC/24VDC/20A	QUINT4-UPS/24DC/24DC/20/EIP	2907074
ETHERNET IP	24DC/24VDC/40A	QUINT4-UPS/24DC/24DC/40/EIP	2907080

Comms	Input/Output/Amps	Description	Order #
PROFINET	24DC/24DC/5A	QUINT4-UPS/24DC/24DC/5/PN	2906993
PROFINET	24DC/24VDC/10A	QUINT4-UPS/24DC/24DC/10/PN	2907068
PROFINET	24DC/24VDC/20A	QUINT4-UPS/24DC/24DC/20/PN	2907073
PROFINET	24DC/24VDC/40A	QUINT4-UPS/24DC/24DC/40/PN	2907079
ETHERCAT	24DC/24DC/5A	QUINT4-UPS/24DC/24DC/5/EC	2906996
ETHERCAT	24DC/24VDC/10A	QUINT4-UPS/24DC/24DC/10/EC	2907070
ETHERCAT	24DC/24VDC/20A	QUINT4-UPS/24DC/24DC/20/EC	2907076
ETHERCAT	24DC/24VDC/40A	QUINT4-UPS/24DC/24DC/40/EC	2907081

QUINT4 - BATTERY CHARGER			Order #
Input/Output/Amps	Description		
230 V AC IN / 24 V DC OUT / 10A	QUINT4-CHARGER/1AC/24DC/10	<b>NEW</b>	2907990

## UPS Energy Storage Selection Guides

	UPS-BAT/PB							
W x H x D in mm	54 x 157 x 113	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	155 x 168 x 183	333 x 173 x 199	350 x 214 x 332	
Capacity	1.2 Ah	4 Ah	7 Ah	12 Ah	20 Ah	40 Ah	110 Ah	
Type	UPS-BAT/PB/24DC/1.2AH	UPS-BAT/PB/24DC/4AH	UPS-BAT/PB/24DC/7AH	UPS-BAT/PB/24DC/12AH	UPS-BAT/PB/24DC/20AH	UPS-BAT/PB/24DC/40AH	UPS-BAT/PB/24DC/110AH	
Order #	1274520	1274117	1274118	1274119	1348516	1354641	1474660	

## Buffer times for your QUINT DC UPS with the following PB energy storage devices:

Select your energy storage device for 24 V DC applications here. Example: 7 A is to be buffered for one hour.

QUINT4-UPS/24DC/24DC/10A and UPS-BAT/PB/24DC/12AH

Load Current	Buffer Time																													
	Seconds										Minutes										Hours									
	10	15	30	1	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10	15	20					
1 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
2 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
3 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
5 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
7 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
10 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
15 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
20 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
25 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
30 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
35 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
40 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						

1+1: Two energy storage devices of the same capacity are required in this case. The data is based on an ambient temperature of +20°C.



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## UPS Energy Storage Selection Guides (DC UPS Continued)

	UPS-BAT/LI-ION	UPS-BAT/VRLA-WTR	
W x H x D in mm	135 x 202 x 110	172 x 177 x 178	358 x 174 x 169
Capacity	128 Wh	13 Ah	26 Ah
Type	UPS-BAT/LI/24DC/128WH	UPS-BAT/VRLA-WTR/24DC/13AH	UPS-BAT/VRLA-WTR/24DC/26AH
Order #	<a href="#">1396415</a>	<a href="#">2320416</a>	<a href="#">2320429</a>

## Buffer times for your QUINT DC UPS with the following energy storage devices: LI-ION and VRLA-WTR

Select your energy storage device for 24 V DC applications here. Example: 20 A is to be buffered for 6 minutes.

→ QUINT4-UPS/24DC/24DC/20A and UPS-BAT/LI-ION/24DC/128WH

Load Current	Buffer Time																									
	Seconds					Minutes					Hours															
	10	15	30	1	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10	15	20	
1 A																										
2 A																									1+1	1+1
3 A																									1+1	1+1
5 A																									1+1	1+1
7 A																									1+1	1+1
10 A																									1+1	1+1
15 A																									1+1	1+1
20 A																									1+1	1+1
25 A																									1+1	1+1
30 A																									1+1	1+1
35 A																									1+1	1+1
40 A																									1+1	1+1

1+1: Two energy storage devices of the same capacity are required in this case. The data is based on an ambient temperature of +20°C.

## DC UPS with Integrated Power Supply

	<b>Power Supply</b> AC-to-DC, DC-to-DC power supplies and UPS		<b>+ UPS Module</b> Selected based on output requirements
--	--	--	--

Phase	Output Voltage	Output Current	Description	Applicable Battery Size	Comms	Order #
1-Phase	24 VDC	5A	TRIO-UPS-2G/1AC/24DC/5	1.2 to 12 Ah	USB	<a href="#">2907160</a>
		10A	TRIO-UPS-2G/1AC/24DC/10	1.2 to 40Ah	USB	<a href="#">2907161</a>
		20A	TRIO-UPS-2G/1AC/24DC/20 <b>NEW</b>	4 to 40 Ah	USB	<a href="#">1105556</a>
3-Phase		20A	TRIO-UPS-2G/3AC/24DC/20	4 to 40Ah	USB	<a href="#">2906367</a>



## Buffer times for your TRIO DC UPS with the following PB energy storage devices:

Select your energy storage device for your TRIO DC UPS here. Example: 10 A is to be buffered for 10 minutes.

→ TRIO-UPS-2G/1AC/24DC/10 and UPS-BAT/PB/24DC/4AH

Load Current	Buffer Time																									
	Seconds					Minutes					Hours															
	10	15	30	1	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10	15	20	
1 A																										
2 A																										
3 A																									1+1	1+1
5 A																									1+1	1+1
7 A																									1+1	1+1
10 A																									1+1	1+1
15 A																									1+1	1+1
20 A																									1+1	1+1

The data is based on an ambient temperature of +20°C.





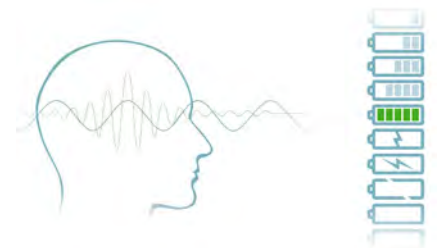
# Uninterruptible Power Supplies (UPS)

Note: Can be connected in parallel for 2kVA Capacity. (See manual for details)



## Power Reliability

AC Power - 1 kVA Capacity - ONLINE UPS. For use with AC QUINT power supply						
<input type="checkbox"/> Select UPS <input type="checkbox"/> What input voltage? <input type="checkbox"/> What output power/current?						
<b>UPS Module</b>						
<b>QUINT UPS</b> QUINT IQ Technology <b>State of Charge:</b> Describes current charging state and remaining runtime <b>State of Health:</b> Provides information on the energy storage device life expectancy						
Input Voltage	Output	Description	Order #			
120 V AC/230 V AC	120 V AC/230 V AC - 1 kV A	QUINT4-UPS/1 AC/1 AC/1 kV A	2320283			
<input type="checkbox"/> What type of energy-storage device: VRLA, CAP, or LI-ION? How much current does the battery need to supply the system and for how long? See chart below.						
<b>Energy Storage</b>						
<b>Energy-storage type</b> VRLA						
<b>UPS-BAT/PB</b>						
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110			
Capacity	4 Ah	7 Ah	12 Ah			
Type	UPS-BAT/PB/ 24DC/4AH	UPS-BAT/PB/ 24DC/7AH	UPS-BAT/PB/ 24DC/12AH			
Order #	1274117	1274118	1274119			
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	155 x 168 x 183	333 x 173 x 199	350 x 214 x 332
Capacity	4 Ah	7 Ah	12 Ah	20 Ah	40 Ah	110 Ah
Type	UPS-BAT/PB/ 24DC/4AH	UPS-BAT/PB/ 24DC/7AH	UPS-BAT/PB/ 24DC/12AH	UPS-BAT/PB/ 24DC/20AH	UPS-BAT/PB/ 24DC/40AH	UPS-BAT/PB/ 24DC/110AH
Order #	1274117	1274118	1274119	1348516	1354641	1474660



Buffer times for your QUINT AC UPS/1KVA with the following PB energy storage devices:

Select your energy storage device for your QUINT AC UPS/1KVA (120 / 230 V application) here. Example: 400 W needs to be buffered for 50 minutes:

Performance	Buffer Time																			
	Minutes											Hours								
	2	3	4	5	8	10	15	20	25	30	40	50	1	1.5	2	3	4	6	9	10
100 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
200 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
300 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
400 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
500 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
600 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
700 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
800 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
900 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1

- ➔ 1+1
- ➔ QUINT4-UPS/1AC/1AC/1KVA and 2 x UPS-BAT/PB/24DC/12AH

1+1: For the QUINT AC UPS/1KVA, two energy storage devices of the same capacity are always required. The data is based on an ambient temperature of +20°C.

	UPS-BAT/LI-ION	UPS-BAT/VRLA-WTR	
W x H x D in mm	135 x 202 x 110	172 x 177 x 178	358 x 174 x 169
Capacity	128 Wh	13 Ah	26 Ah
Type	UPS-BAT/LI-ION/ 24DC/128WH	UPS-BAT/VRLA-WTR/ 24DC/13AH	UPS-BAT/VRLA-WTR/ 24DC/26AH
Order #	2320351	2320416	2320429

Buffer times for your QUINT AC UPS/1KVA with the following energy storage devices: LI-ION and VRLA-WTR

Select your energy storage device for your QUINT AC UPS/1KVA (120 / 230 V application) here. Example: 400 W is to be buffered for three hours.

Performance	Buffer Time																			
	Minutes											Hours								
	2	3	4	5	8	10	15	20	25	30	40	50	1	1.5	2	3	4	6	9	10
100 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
200 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
300 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
400 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
500 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
600 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
700 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
800 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
900 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1

- ➔ 1+1
- ➔ QUINT4-UPS/1AC/1AC/1KVA and 2 x UPS-BAT/LI-ION/24DC/924WH

1+1: For the QUINT AC UPS/1KVA, two energy storage devices of the same capacity are always required. The data is based on an ambient temperature of +20°C.



# Uninterruptible Power Supplies (UPS)

## Power Reliability



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Power Reliability

**AC Power - 500 VA Capacity - OFFLINE UPS. For use with AC QUINT Power Supply**

Select UPS

What input voltage?

What output power/current?

**QUINT UPS**

QUINT IQ Technology

State of Charge: Describes current charging state and remaining runtime

State of Health: Provides information on the energy-storage device life expectancy

Input Voltage	Output	Description	Order #
120 V AC/230 V AC	120 V AC/230 V AC - 400 W/500 V A	QUINT4-UPS/1AC/1AC/500VA/USB	1067327

+

What type of energy storage-device: VRLA, CAP, or LI-ION?

How much current does the battery need to supply the system and for how long? See chart below.

**Energy-Storage Type**

**VRLA**



Buffer times for your QUINT AC UPS/500VA with the following PB energy storage devices:

Select your energy storage device for your QUINT AC UPS/500VA (120 / 230 V application) here. Example: 125 is to be buffered for one hour.

Performance	Buffer Time																									
	Seconds								Minutes							Hours										
	0.2	0.4	2	8	15	20	40		1	2	3	5	10	20	30	40	45	50	1	2	3	5	8	10	15	20
15 W																										1+1
35 W																										1+1
55 W																										1+1
90 W																										1+1
125 W																										1+1
180 W																										1+1
275 W																										1+1
400 W																										1+1

→ QUINT4-UPS/1AC/1AC/500VA/USB and UPS-BAT/VR-LA/24DC/20AH

1+1: Two energy storage devices of the same capacity are required in this case. The data is based on an ambient temperature of +20°C.

Buffer times for your QUINT AC UPS/500VA with the following energy storage devices: LI-ION, and VRLA-WTR

Select your energy storage device for your QUINT AC UPS/500VA (120 / 230 V application) here. Example: 125 is to be buffered for one hour.

Performance	Buffer Time																									
	Seconds								Minutes							Hours										
	0.2	0.4	2	8	15	20	40		1	2	3	5	10	20	30	40	45	50	1	2	3	5	8	10	15	20
15 W																										1+1
35 W																										1+1
55 W																										1+1
90 W																										1+1
125 W																										1+1
180 W																										1+1
275 W																										1+1
400 W																										1+1

→ QUINT4-UPS/1AC/1AC/500VA/USB and UPS-BAT/VR-LA-WTR/24DC/26AH

1+1: Two energy storage devices of the same capacity are required in this case. The data is based on an ambient temperature of +20°C.

## AC Power - 750 VA Capacity - OFFLINE UPS with Internal 4AH UPS Battery

**For use with AC QUINT Power Supply**

Select UPS

What input voltage?

What output power/current?

**TRIO UPS 1 Phase with USB Interface**

TRIO AC UPS with INCLUDED 4AH UPS Battery (Additional External 4AH UPS Battery may also be added for increased capacity)

Input Voltage	Output	Description	Order #
98 - 138 VAC	120 V AC / 750 VA	TRIO-UPS-2G/1AC/1AC/120V/750VA	2905908
184 - 264 VAC	230 V AC / 750VA	TRIO-UPS-2G/1AC/1AC/230V/750VA	2905909

+

Additional optional 4AH UPS-BAT/PB/24DC/4AH (1274117) External UPS Battery if required

How much current does the battery need to supply the system and for how long? See chart below.

Buffer times for TRIO AC UPS:  
1+1: An additional energy storage device of the same capacity (4 Ah) of type UPS-BAT/PB/24DC/4AH (1274117) is required in this case

Performance	Buffer Time														
	Minutes										Hours				
	1	1.5	2	4	6	8	10	15	20	30	40	50	1	1.5	
50 W															
100 W															
150 W															
200 W															
250 W															
300 W															
400 W															
500 W															
600 W															





# Surge Protection - Power

Power Reliability

FLT-SEC Series

FLT-MB Carbon Spark Gap series

VAL-MS 100kA Series

PLT-SEC-T3 Series



Network Type		AS/NZS 1768 Category					Surge Protection Device		Relay Alarm Output	Order #
		Voltage	C	B	A	+ FUSE	Description	Features		
3-Phase	N / E Separated  TN-S / TT	230V / 400V	✓	✓	✓		FLT-MB-T1-264/25-3+1-UT-R	limp = 25kA Carbon Spark Gap	✓	1461304
			✓	✓			FLT-SEC-P-T1-3S-264/50-FM	limp = 50kA	✓	290589
			✓	✓		✓	FLT-SEC-H-T1-3C-264/25-FM	Inbuilt SPD Fuse	✓	2905871
							(+ FLT-SEC-P-T1-N/PE-350/100-FM)	ADD N-E SPD Module	✓	2905472
			✓	✓			FLT-SEC-P-T1-3S-350/25-FM	limp = 25kA / I <sub>max</sub> = 100kA	✓	2905421
			✓	✓			FLT-SEC-T1+T2-3S-350/25-FM	T1 and T2 Special SPD	✓	2905470
			✓	✓			VAL-MS-3+1-100-320-A	I <sub>max</sub> = 100kA	✓	1274064
			✓	✓			VAL-ME-3+1-100-275-A	I <sub>max</sub> = 100kA	✓	1106017
			✓	✓	✓		VAL-MS-3+1-50-275-A	I <sub>max</sub> = 50kA	✓	1105734
			✓	✓	✓		VAL-SEC-T2-3S-350-FM	I <sub>max</sub> = 40kA / Small Size	✓	2905340
			✓	✓	✓	VAL-MS 230/3+1 FM-PT	I <sub>max</sub> = 40kA / Push-in	✓	1248960	
			✓	✓	✓	VAL-MS 230/3+1	I <sub>max</sub> = 40kA / Low Price		2838209	
3-Phase	N-E Combined (MEN)  TN-C	230V / 400V	✓	✓	✓		FLT-MB-T1-264/25-3+1-UT-R	limp = 25kA Carbon Spark Gap	✓	1461302
			✓	✓			FLT-SEC-P-T1-3C-264/50-FM	limp = 50kA	✓	2907390
			✓	✓		✓	FLT-SEC-H-T1-3C-264/25-FM	Inbuilt SPD Fuse	✓	2905871
			✓	✓			FLT-SEC-P-T1-3C-350/25-FM	limp = 25kA / I <sub>max</sub> = 100kA	✓	2905419
			✓	✓			FLT-SEC-T1+T2-3C-350/25-FM	T1 and T2 Special SPD	✓	2905469
			✓	✓			VAL-MS-3-100-320-A	I <sub>max</sub> = 100kA	✓	1274066
			✓	✓	✓		VAL-MS-3-50-275-A	I <sub>max</sub> = 50kA	✓	1105739
			✓	✓	✓		VAL-SEC-T2-3C-350-FM	I <sub>max</sub> = 40kA / Small Size	✓	2905339
			✓	✓	✓		VAL-MS 320/3+0	I <sub>max</sub> = 40kA / Low Price	✓	2920230
1-Phase	N / E Separated  TN-S / TT	230V	✓		✓		FLT-MB-T1-264/25-1+1-UT-R	limp = 25kA Carbon Spark Gap	✓	1461300
			✓	✓			FLT-SEC-P-T1-1S-264/50-FM	limp = 50kA	✓	2907388
			✓	✓		✓	FLT-SEC-H-T1-1C-264/25-FM	Inbuilt SPD Fuse	✓	2801615
							(+ FLT-SEC-P-T1-N/PE-350/100-FM)	ADD N-E SPD Module	✓	2905472
			✓	✓			FLT-SEC-P-T1-1S-350/25-FM	limp = 25kA / I <sub>max</sub> = 100kA	✓	2905415
			✓	✓			FLT-SEC-T1+T2-1S-350/25-FM	T1 and T2 Special SPD	✓	2905466
			✓	✓			VAL-MS-1+1-100-320-A	I <sub>max</sub> = 100kA	✓	1274067
			✓	✓	✓		VAL-MS-1+1-50-275-A	I <sub>max</sub> = 50kA	✓	1105737
			✓	✓	✓		VAL-SEC-T2-1S-350-FM	I <sub>max</sub> = 40kA / Small Size	✓	2905341
			✓	✓	✓		VAL-MS 230/1+1	I <sub>max</sub> = 40kA / Low Price	✓	2804429
			✓	✓		PLT-SEC-T3-230-FM-PT	Push-in Terminals	✓	2907928	
			✓	✓		PLT-SEC-T3-230-FM-UT	Screw Terminals	✓	2907919	
				✓		SFP 1-20/230AC	EMC Filter plus Surge Protection	✓	2859987	
1-Phase	N-E Combined (MEN)  TN-C	230V	✓				FLT-SEC-P-T1-1C-264/50-FM	limp = 50kA	✓	2907387
			✓	✓		✓	FLT-SEC-H-T1-1C-264/25-FM	Inbuilt SPD FUSE	✓	2801615
			✓	✓			FLT-SEC-P-T1-1C-350/25-FM	I <sub>max</sub> = 100kA	✓	2905414
			✓	✓			FLT-SEC-T1+T2-1C-350/25-FM	Special T1 & T2	✓	2905465
			✓	✓			VAL-MS-1-100-320-A	I <sub>max</sub> = 100kA	✓	1274072
			✓	✓	✓		VAL-MS-1-50-275-A	I <sub>max</sub> = 50kA	✓	1105740
			✓	✓	✓		VAL-MS 230	I <sub>max</sub> = 40kA / Low Price	✓	2839127
DC	24VDC +/-GND	24V DC			✓		PLT-SEC-T3-24-FM-PT	Push-in 26A	✓	2907925
					✓		PLT-SEC-T3-24-FM-UT	Screw-in 26A	✓	2907916
					✓		TTC-6P-T3-24DC-PT-I	Push-in 6A	OPT.	1027586
					✓		TTC-6P-T3-24DC-UT-I	Screw-in 6A	OPT.	1027584




ImpulseCheck - Surge Transient measurement and SPD remote monitoring device			
IPCH-4X-PCL-TCP-24DC-UT	Surge Measure and Record	✓	1045379
Sensor - IPCH-SC-1.5	1.5M Sensor for ImpulseCheck		1045379
Sensor - IPCH-SC-3.0	3.0M Sensor for ImpulseCheck		1069191





Visit [phoenixcontact.com.au](http://phoenixcontact.com.au) to try our MCR configurator and search #1389 - or Scan QR Code


SCAN to download Surge Protection Catalogue

<input type="checkbox"/> What type of signal? Floating (e.g., Analogue 4-20mA / 0-10V / Relay etc), Common Reference (e.g., Digital), Antenna, or Data	<input type="checkbox"/> Do you require a Push-in, Screw, RJ45, or D-Sub (9 pin) connection?	<input type="checkbox"/> What is the Voltage or Frequency - Data Rate you require?
<input type="checkbox"/> What is the Voltage or Frequency - Data Rate you require?	<input type="checkbox"/> What width do you require?	<input type="checkbox"/> Do you need a Direct or Floating (Indirect) Ground?
<input type="checkbox"/> Pluggable or Non-Pluggable SPD?	<input type="checkbox"/> Do you require SPD monitoring ? None, Local, or Remote (Single or Dual Stage)?	<input type="checkbox"/> Resulting Phoenix Contact part number

Signal	Connection	Voltage	Type	Width (mm)	Ground	Design	Monitoring	Description	Order #	Plugtrab (PT-IQ)
MASTER (Mandatory)	Screw Push-in	20-30 VDC	MASTER	17.7mm	N/A	Pluggable	Remote 2 Stage	PT-IQ-PTB-UT	2800768	
				17.7mm		Pluggable	Remote 2 Stage	PT-IQ-PTB-PT	2801296	
Floating (Analogue / Loop / Relay Contact)	Screw	12 VDC	2X2	17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-2X2+F-12DC-UT	2800985	
		24 VDC		17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-2X2-24DC-UT	2800980	
		24 VDC		17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-2X2+F-24DC-UT	2801264	
		24 VDC		17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-2X2-24DC-PT	2801263	
		24 VDC		17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-2X2+F-24DC-PT	2801263	
		48 VDC		17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-2X2+F-48DC-PT	2801266	
Common Reference (Digital)	Screw	24 VDC	2X1	17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-2X1-24DC-UT	2800787	
		24 VDC		17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-4X1-24DC-UT	2800982	
		48 VDC		17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-4X1+F-24DC-UT	2801264	
		48 VDC		17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-4X1-48DC-UT	2801219	
		24 VDC		17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-2X1-24DC-PT	2801247	
		24 VDC		17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-4X1-24DC-PT	2801271	
Data	Screw	24 VDC	4X1	17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-4X1+F-24DC-PT	2801272	
		48 VDC		17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-4X1+F-48DC-PT	2801274	
		5 VDC		5-HF	17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-5-HF-5DC-UT	2800797
		12 VDC		5-HF	17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-5-HF+F-12DC-UT	2800801
		12 VDC		3-HF	17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-3-HF+F-12DC-PT	2801289
		12 VDC		5-HF	17.7mm	Direct	Pluggable	Remote 2 Stage	PT-IQ-5-HF-12DC-PT	2801293
		12 VDC		17.7mm	Floating	Pluggable	Remote 2 Stage	PT-IQ-5-HF+F-12DC-PT	2801295	

Signal	Connection	Voltage	Type	Width	Ground	Design	Monitoring	Description	Order #	TERMITRAB Complete (TTC)	
Optional Remote Signalling Set	Screw	10-36 VDC	FMRS	6.2mm x 2	Direct	NA	Remote Relay	TTC-6-FMRS-UT	2907811		
	Push-in			6.2mm x 2		NA	Remote Relay	TTC-6-FMRS-PT	2907811		
Floating (Analogue / Loop / Relay Contact)	Screw	12 VDC	1X2	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-1X2-12DC-UT-I	2908192		
		24 VDC		6.2mm	Direct	Non-Pluggable	None	TTC-6-1X2-24DC-UT	2906798		
		24 VDC		6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-1X2-24DC-UT-I	2906809		
		24 VDC		6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-1X2-F-24DC-UT-I	1065317		
		48 VDC		6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-1X2-48DC-UT-I	2908194		
		5 VDC		3	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-3-5DC-PT-I		1061385
		12 VDC		1X2	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-1X2-12DC-PT-I		2908193
		24 VDC		1X2	3mm	Direct	Non-Pluggable	None	TTC-3-1X2-24DC-PT		2907325
		24 VDC		1X2	6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-1X2-F-24DC-PT-I	1065318	
		24VDC		2X2	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-2X2-24-PT-I	NEW 1334595	
Common Reference (Digital)	Screw	48 VDC	1X2	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-1X2-48DC-PT-I	2908195		
		12 VDC		6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-2X1-12DC-UT-I	2908201		
		24 VDC		6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-2X1-24DC-UT-I	2906810		
		24 VDC		6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-2X1-F-24DC-UT-I	1065319		
		48 VDC		6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-2X1-F-48DC-UT-I	2908208		
		24 VDC		3mm	Direct	Non-Pluggable	None	TTC-3-2X1-24DC-PT	2907326		
		24 VDC		2X1	6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-2X1-F-M-24DC-PT-I	2906794	
		24 VDC		4X1	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-4X1-24-PT-I	NEW 1334594	
		48 VDC		2X1	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-2X1-48DC-PT-I	2908204	
		24 VDC		2X1	6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-2X1-F-M-12DC-UT-I	2906744	
Data (1 Mbps)	Screw	12 VDC	HF	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-3-HF-M-12DC-UT-I	2906786		
		12 VDC	HF	6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-3-HF-F-M-12DC-UT-I	2906786		
		12 VDC	HF	6.2mm	Direct	Pluggable	Local (Flag)	TTC-6P-3-HF-M-24DC-PT-I	2906756		
High Current (6A)	Screw	12 VDC	HF	6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-3-HF-F-M-24DC-PT-I	2906797		
		24 VDC	HC	6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-2-HC-M-24DC-UT-I	2906743		
		24 VDC	HC	6.2mm	Floating	Pluggable	Local (Flag)	TTC-6P-2-HC-M-24DC-PT-I	2906755		
Add-on Fuse Holder	Screw	60 VDC	6.3A max	6.2mm	N/A	5x20mm Fuse	N/A	TTC-6-FC-UT	1054762		

Signal	Connection	Voltage	Frequency	Current	Ground	Design	Monitoring	Description	Order #	Coaxial (CN)
Coaxial / Antenna	N-Connector Socket - Socket	70 VDC	6dB	10A	Direct	Non-replaceable	None	CN-UB-70DC-6-BB	2803166	
		280 VDC	3dB	5A	Direct	Replaceable GDT	None	CN-UB-280DC-3-BB	2801050	
		<55 Vp	380-470 MHz	5A	Direct	Non-replaceable	None	CN-LAMBDA/4-0.47-BB	2800021	
		<18 Vp	0.8-2.25 GHz	5A	Direct	Non-replaceable	None	CN-LAMBDA/4-2.25-BB	2801057	
		<11 Vp	2.4-7.6 GHz	5A	Direct	Non-replaceable	None	CN-LAMBDA/4-5.9-BB	2838490	

Signal	Connection	Voltage	Current	Ground	Design	Monitoring	Description	Order #	Data (DT)
CAT6+ / 10 Gbps	RJ45	<3.3 VDC / 60 VDC PoE++	1.5A	Direct	Non-replaceable	None	DT-LAN-CAT6+	2881007	
CAT 5-6 / 1 Gbps	RJ45	<5 VDC / 57 VDC PoE+	1.5A	Direct	Non-replaceable	None	D-LAN-CAT.5-HC	2800763	
VDSL & Analogue / 50 Mbps	RJ45/12/11 & Screw	185 VDC / 130 VAC	380mA	Direct	Non-replaceable	None	DT-TELE-RJ45	2882925	
RS-485	D-SUB (9 Pin)	12 VDC	380mA	Direct	Non-replaceable	None	DT-UFB-485/BS	2920612	
RS-485	Push-in	12 VDC	600mA	Floating	Pluggable	Local (Flag)	TTC-6P-3-HF-F-M-24DC-PT-I	2906797	
RS-485	Screw	12 VDC	600mA	Floating	Non-Pluggable	Local (Flag)	TTC-6-3-HF-F-M-12DC-UT-I	2906769	





Power Reliability

## Circuit Breakers: Industrial and Device

Thermal-magnetic miniature circuit breakers (MCBs)  
(For AC and DC industrial use only)



SCAN to download Device  
Circuit Breakers Catalogue



■ Do you require 7.5kA or 10kA SSC Rating?							
■ How many poles are required?							
■ What trip-curve characteristic is required?							
■ What current rating is required?							
■ Resulting Phoenix Contact part number							
<b>TMC 7 Series: Thermal-Magnetic Industrial Miniature Circuit Breakers (MCB's)</b>							
SSC	# of poles	Trip curve	Current rating	Type description	Order #		
7.5kA	1	B	10A	TMC 71B 10A	<a href="#">1019916</a>		
			20A	TMC 71B 20A	<a href="#">1019921</a>		
			32A	TMC 71B 32A	<a href="#">1019924</a>		
		C	1A	TMC 71C 01A	<a href="#">1019972</a>		
			6A	TMC 71C 06A	<a href="#">1019977</a>		
			10A	TMC 71C 10A	<a href="#">1019980</a>		
			16A	TMC 71C 16A	<a href="#">1019984</a>		
			20A	TMC 71C 20A	<a href="#">1019985</a>		
			32A	TMC 71C 32A	<a href="#">1019988</a>		
			40A	TMC 71C 40A	<a href="#">1019989</a>		
			50A	TMC 71C 50A	<a href="#">1019990</a>		
			63A	TMC 71C 63A	<a href="#">1019992</a>		
	D	10A	TMC 71D 10A	<a href="#">1020045</a>			
		20A	TMC 71D 20A	<a href="#">1020052</a>			
		32A	TMC 71D 32A	<a href="#">1020055</a>			
	2	C	50A	TMC 71D 50A	<a href="#">1020057</a>		
			63A	TMC 71D 63A	<a href="#">1020059</a>		
			6A	TMC 72C 06A	<a href="#">1019999</a>		
	3	C	10A	TMC 72C 10A	<a href="#">1020002</a>		
			10A	TMC 73C 10A	<a href="#">1020023</a>		
			20A	TMC 73C 20A	<a href="#">1020028</a>		
			32A	TMC 73C 32A	<a href="#">1020031</a>		
			50A	TMC 73C 50A	<a href="#">1020033</a>		
			63A	TMC 73C 63A	<a href="#">1020036</a>		
D		20A	TMC 73D 20A	<a href="#">1020097</a>			
		32A	TMC 73D 32A	<a href="#">1020100</a>			
		1, 2, 3		B, C, D	1-63A sizes not listed above	TMC 7XX XXA	Contact Sales
		1,2,3		B,C,D	1-63A	TMC 8XX XXA	Contact Sales

Both TMC 7 Series (7.5kA) and TMC 8 Series (10kA) available in Current Ratings 1-63A, B-C-D Trip Curves and 1-2-3 Poles (table shows only a small selection of most common sizes)

Please contact customer service or your local Sales Rep for other specific sizes / types if required

Full range of accessories available - BUSBARS, AUX CONTACT, ALARM CONTACT, SHUNT TRIPS, LOCK-OUTS etc.



TMC 7-Series



TMC 8-Series



ACCESSORIES



LOTO

## Electronic Circuit Breakers (ECBs)

Electronic Circuit Breakers Module (CBM)				
Channels	Amp	Function	Description	Order #
4	0.5-10A	Full feature/function model	CBM E4 24DC/0.5-10A NO-R	<a href="#">2905743</a>
8	0.5-10A	Full feature/function model	CBM E8 24DC/0.5-10A NO-R	<a href="#">2905744</a>

Electronic Circuit Breakers Module Compact (CBMC)				
Channels	Amp	Function	Description	Order #
4	1-4A	Remote reset version	CBMC E4 24DC/1-4A S-R*	<a href="#">1065727</a>
4	1-10A	Remote reset version	CBMC E4 24DC/1-10A S-R	<a href="#">1065729</a>
4	1-4A	Status output version	CBMC E4 24DC/1-4A NO*	<a href="#">2906031</a>
4	1-10A	Status output version	CBMC E4 24DC/1-10A NO	<a href="#">2906032</a>
4	1-4A	I/O link version	CBMC E4 24DC/1-4A+ IOL*	<a href="#">2910410</a>
4	1-10A	I/O link version	CBMC E4 24DC/1-10A IOL	<a href="#">2910411</a>
4	1-8A	Galvanically isolated version	CBMC EG4 24DC/1-8A NO	<a href="#">1065730</a>



Single Channel Electronic Circuit Breakers (PTCB)							
Channels	Volts (DC)	Amp	Adjustable	Description	Order #	Status Output	Reset Input
1	24	1-4A	✓	PTCB E1 24DC/1-4A SI-R	<a href="#">1135753</a>	✓	✓
1	24	1-8A	✓	PTCB E1 24DC/1-8A SI-R	<a href="#">1135752</a>	✓	✓
1	24	1A		PTCB E1 24DC/1A SI-R	<a href="#">1135751</a>	✓	✓
1	24	2A		PTCB E1 24DC/2A SI-R	<a href="#">1135749</a>	✓	✓
1	24	4A		PTCB E1 24DC/4A SI-R	<a href="#">1135745</a>	✓	✓
1	24	6A		PTCB E1 24DC/6A SI-R	<a href="#">1135740</a>	✓	✓
1	24	8A		PTCB E1 24DC/8A SI-R	<a href="#">1135734</a>	✓	✓
1	24	1-3A	✓	PTCB E1 24DC/1-3A NO	<a href="#">2909909</a>	Relay NO	
1	24	1-4A	✓	PTCB E1 24DC/1-4A NO	<a href="#">2908261</a>	Relay NO	
1	24	1-8A	✓	PTCB E1 24DC/1-8A NO	<a href="#">2908262</a>	Relay NO	
1	24	1-8A	✓	PTCB E1 24DC/1-8A NO2 <b>NEW</b>	<a href="#">1388391</a>	Relay NC	
1	24	1A		PTCB E1 24DC/1A NO	<a href="#">2909902</a>	Relay NO	
1	24	2A		PTCB E1 24DC/2A NO	<a href="#">2909903</a>	Relay NO	
1	24	3A		PTCB E1 24DC/3A NO	<a href="#">2909904</a>	Relay NO	
1	24	4A		PTCB E1 24DC/4A NO	<a href="#">2909906</a>	Relay NO	
1	24	6A		PTCB E1 24DC/6A NO	<a href="#">2909908</a>	Relay NO	
1	24	8A		PTCB E1 24DC/8A NO	<a href="#">2909910</a>	Relay NO	

Single Channel Electronic Circuit Breakers "e-FUSE" (PTCB e-fuse) - 12 and 24 VDC							
Channels	Volts (DC)	Amp	Adjustable	Description	Order #	Status Output	Reset Input
1	12 - 24	0.1 - 0.63A	✓	PTCB E1 24DC/0.1-0.63A SI-R <b>NEW</b>	<a href="#">1441496</a>	✓	✓
1	12 - 24	0.1A		PTCB E1 24DC/0.1A SI-R <b>NEW</b>	<a href="#">1464483</a>	✓	✓
1	12 - 24	0.2A		PTCB E1 24DC/0.2A SI-R <b>NEW</b>	<a href="#">1361049</a>	✓	✓
1	12 - 24	0.5A		PTCB E1 24DC/0.5A SI-R <b>NEW</b>	<a href="#">1361051</a>	✓	✓
1	12 - 24	0.63A		PTCB E1 24DC/0.63A SI-R <b>NEW</b>	<a href="#">1464485</a>	✓	✓
1	12 - 24	0.1 - 0.63A	✓	PTCB E1 24DC/0.1-0.63A NO <b>NEW</b>	<a href="#">1441495</a>	Relay NO	
1	12 - 24	0.1A		PTCB E1 24DC/0.1A NO <b>NEW</b>	<a href="#">1464484</a>	Relay NO	
1	12 - 24	0.2A		PTCB E1 24DC/0.2A NO <b>NEW</b>	<a href="#">1361055</a>	Relay NO	
1	12 - 24	0.5A		PTCB E1 24DC/0.5A NO <b>NEW</b>	<a href="#">1361051</a>	Relay NO	
1	12 - 24	0.63A		PTCB E1 24DC/0.63A NO <b>NEW</b>	<a href="#">1464486</a>	Relay NO	

Single Channel Electronic Circuit Breakers (PTCB) - 48 VDC							
Channels	Volts (DC)	Amp	Adjustable	Description	Order #	Status Output	Reset Input
1	48	1 - 6A	✓	PTCB E1 48DC/1-6A NO <b>NEW</b>	<a href="#">1471917</a>	Relay NO	
1	48	2A		PTCB E1 48DC/2A NO <b>NEW</b>	<a href="#">1471918</a>	Relay NO	

PTCB and PTCB "eFuse"





# TRIO3 Power Supplies with inbuilt Electronic Circuit Breakers

(With included IO-Link communication)

**NEW**



**Power supply**

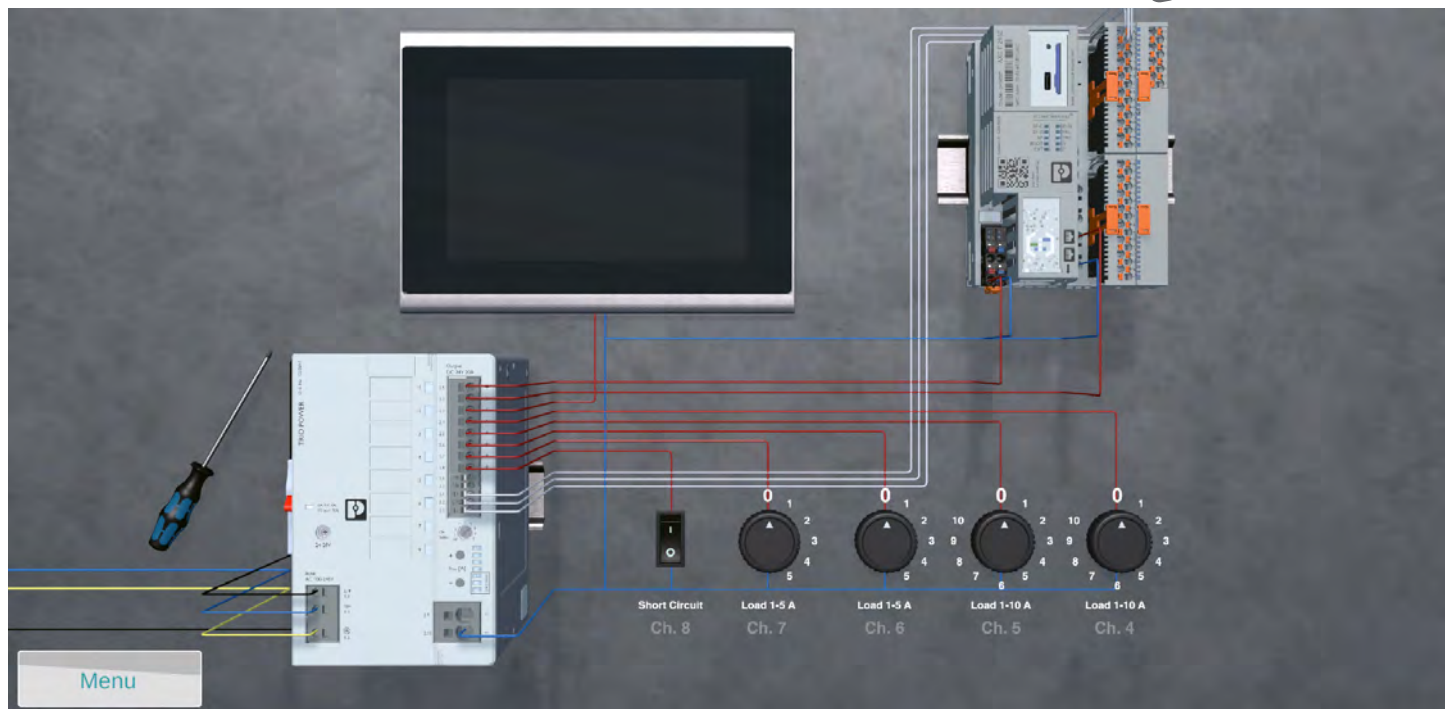
AC Input to DC Output

**IO-Link**

Phase	Output Voltage	Output Current	Channels	Channel Current	Description	Connection Technology	Order #
1	24 VDC	10A	4	1-10A	TRIO3-PS/1AC/24DC/20/8C/IOL	<b>NEW</b> Push-In	1110987
1	24 VDC	20A	8	1-10A	TRIO3-PS/1AC/24DC/20/8C/IOL	<b>NEW</b> Push-In	1252697



Scan Code For Live Trio3 PS + ECB Demo





# CAPAROC: Modular Electronic Circuit Breaker System

Power Reliability

(For 12V and 24V device use)



EtherNet/IP™



IO-Link

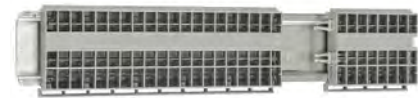


Power Modules

PD 0V

- Choose your required power module - Basic, IO-LINK, or Profinet Comms
- Select your length of current rails for the DIN mounting (based on 6.2mm = 1 slot wide)
- What circuit breaker modules do you require - 4 channel, 2 channel, or 1 channel?
- Do you want a 0V DC distribution module?
- Resulting Phoenix Contact part number

CAPAROC Power Module (Mandatory Item)				
Comms	Voltage	Width	Description	Order #
Basic	12 - 24 VDC	2 slots	CAPAROC PM S-R	<a href="#">1115661</a>
IO-LINK			CAPAROC PM IOL	<a href="#">1110986</a>
Profinet		4 slots	CAPAROC PM PN	<a href="#">1110986</a>
Ethernet / IP		4 slots	CAPAROC PM EIP	Coming Soon



Current Rails and Extensions

CAPAROC Current Rails (TOTAL CURRENT = 45A) (Mandatory Item)					
Size	Voltage	Width	Type	Description	Order #
CR8	12 - 24 VDC	8 Slots 49.6mm	Standard	CAPAROC CR 8	<a href="#">1115672</a>
CR20		20 Slots 124mm	Standard	CAPAROC CR 20	<a href="#">1110989</a>
CR4-EXT		4 Slots 24.8mm	Extension	CAPAROC CR EXT4	<a href="#">1110991</a>
CR8-EXT		8 Slots 49.6mm	Extension	CAPAROC CR EXT8	<a href="#">1110990</a>
CR20-EXT		20 Slots 124mm	Extension	CAPAROC CR EXT20	<a href="#">1115674</a>
CR-CON		N/A N/A	Connector	CAPAROC CR CON	<a href="#">1270955</a>



4 Channel

2 Channel

CAPAROC Electronic Circuit Breaker Modules					
Channels	Current Rating	Voltage	Width	Description	Order #
4	1-10A	12 - 24 VDC	2 Slots	CAPAROC E4 12-24DC/1-10A	<a href="#">1115658</a>
4	1-4A		2 Slots	CAPAROC E4 12-24DC/1-4A	<a href="#">1115657</a>
2	2-10A		2 Slots	CAPAROC E2 12-24DC/2-10A	<a href="#">1110984</a>
2	1-4A		2 Slots	CAPAROC E2 12-24DC/1-4A	<a href="#">1115655</a>
1	1-10A		1 Slot	CAPAROC E1 12-24DC/1-10A	<a href="#">1115649</a>
1	1-4A		1 Slot	CAPAROC E1 12-24DC/1-4A	<a href="#">1115415</a>
1	10A		1 Slot	CAPAROC E1 12-24DC/10A	<a href="#">1157284</a>
1	8A		1 Slot	CAPAROC E1 12-24DC/8A	<a href="#">1157279</a>
1	6A		1 Slot	CAPAROC E1 12-24DC/6A	<a href="#">1157286</a>
1	4A		1 Slot	CAPAROC E1 12-24DC/4A	<a href="#">1157285</a>
1	2A		1 Slot	CAPAROC E1 12-24DC/2A	<a href="#">1157290</a>
1	1A		1 Slot	CAPAROC E1 12-24DC/1A	<a href="#">1157288</a>



1 Channel

CAPAROC 0 VDC Distribution Module				
Module	Voltage	Width	Description	Order #
Distribution	12 - 24 VDC	1 Slot	CAPAROC PD 0V	<a href="#">1110987</a>

# Modular Terminal Blocks

CLIPLINE complete: all connection methods – one system

Complete flexibility: terminal blocks with different connection technologies can be freely combined

Cost savings, thanks to uniform bridging, marking, and test accessories



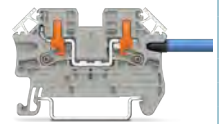
■ What connection style best fits your application?	■ Will you be bridging terminals?
■ What wire size are you using? What is your current (Amps) requirement?	■ Resulting Phoenix Contact part number
■ How many connection points?	■ What accessories are needed?
■ How many end covers are needed?	

Push-in (PT)							Marking			
mm <sup>2</sup>	L <sub>max</sub>	Connections	Description	Order #	Cover	Bridge (2-Position)	Thermomark Card/ Prime		Bluemark ID	
							Side	Top	Side	Top
1.5	15	2	PT 1.5/S	3208100	3208142	3213014 FBS 2-3,5	0829486 UCT-TMF 3,5	0829484 UCT-TM 3,5	0829486 UCT-TMF 3,5	0829484 UCT-TM 3,5
	-		PT 1.5/S-PE	3208139						
	15	3	PT 1.5/S-TWIN	3208155	3208184					
	15	4	PT 1.5/S-QUATTRO	3208197	3208375					
2.5	20	2	PT 2.5	3209510	3030417	3030161 FBS 2-5	0828744 UCT-TMF 5	0828734 UCT-TM 5	0818108 UCT-TMF 5	0818108 UCT-TM 5
	-		PT 2.5-PE	3209536						
	20	3	PT 2.5-TWIN	3209549	3030488					
	20	4	PT 2.5-QUATTRO	3209578	3030514					
	20		PTTB 2.5	3210567	3211634					
	-		PTTB 2.5-PE	3210596						
30	2		PT 4	3211757	3030420					
-		PT 4-PE	3211766							
6.3	3	PT 4-HESI (5X20 FUSE)	3211861	3208977						
6.3		PT 4-HESILED 24 (5X20 FUSE)	3211903							
30	4	PT 4-TWIN	3211771	3208979						
30		PT 4-QUATTRO	3211797							
28	4	PTTB 4	3211786	3030462						
-		PTTB 4-PE	3211854							



- Simple push-in spring ideal for solid and ferruled wires
- Tool-free termination
- 50 percent lower insertion force
- Orange pushbutton permits easy conductor release using any type of tool, without direct contact with live parts
- Uniformed Push-in Technology available on thousands of Phoenix Contact parts

Push-In Vertical (PTV)							Marking			
mm <sup>2</sup>	L <sub>Nom</sub>	Connections	Description	Order #	End Cover	Bridge (2-Position)	Thermomark Card/ Prime		Bluemark ID	
							Side	Top	Side	Top
2.5	24A	2	PTV 2,5	1078960	1088746	3030161 FBS 2-5	0828734 UCT-TM 5	0818108 UC-TM 5	0818108 UC-TM 5	
	-		PTV 2,5 BU	1078962						
	-	PTV 2,5-PE	1078963							
	24A	3	PTV 2,5-TWIN	1078966						
	-		PTV 2,5-TWIN BU	1078971						
	-	PTV 2,5-TWIN-PE	1078991							
24A	4	PTV 2,5-QUATTRO	1078999	1088748						
-		PTV 2,5-QUATTRO BU	1079006							
-		PTV 2,5-QUATTRO-PE	1079012							
32A		2	PTV 4		1088728					
-	PTV 4 BU		1088729							
-	3	PTV 4-PE	1088730	1079918						
6.3A		PTV 4-HESI (5x20)	1088742							
-	4	PTV 4-HESILED 24 (5X20)	1088743	-						
-		PTV 4-HESILA 250 (5x20)	1088745							
4	32A	3	PTV 4-TWIN	1088731	1088747	3030336 FBS 2-6	0828736 UCT-TM 6	0818085 UC-TM 6		
	-		PTV 4-TWIN BU	1088732						
	-	PTV 4-TWIN-PE	1088733							
	32A	4	PTV 4-QUATTRO	1088734	1088748					
	-		PTV 4-QUATTRO BU	1088735						
	-		PTV 4-QUATTRO-PE	1088736						
	32A		PTV 4-TWIN	1088731						



- Easy and tool-free wiring of conductors with ferrules or solid conductors
- Compact design and front connection enabling wiring in a confined space



Double Level Terminal Block								
2.5	22A	4	PTTBV 2,5	1079073	1083611	3030161 FBS 2-5	0828734 UCT-TM 5	0818108 UC-TM 5
	22A		PTTBV 2,5 BU	1079074				
	-		PTTBV 2,5-PE	1079076				
4	28A	4	PTTBV 4	1088737	1083611	3030336 FBS 2-6	0828736 UCT-TM 6	0818085 UC-TM 6
	-		PTTBV 4 BU	1088738				
	-		PTTBV 4-PE	1088774				



Push-X Vertical (XTV)							Marking			
mm <sup>2</sup>	L <sub>max</sub>	Connections	Description	Order #	Cover	Bridge (2-Position)	Thermomark Card/ Prime		Bluemark ID	
							Side	Top	Side	Top
6	41A	2	XTV 6	1329493	1329515	3030284 FBS 2-8	0828740 UCT-TM 8	0818072 UC-TM 8		
	-		XTV 6 BU	1329494						
	-	XTV 6-PE	1329495							
	41A	3	XTV 6-TWIN	1329499	1329516					
	-		XTV 6-TWIN BU	1329506						
	-	XTV 6-TWIN-PE	1329507							
41A	4	XTV 6-QUATTRO	1329511	1329517						
-		XTV 6-QUATTRO BU	1329512							
-	XTV 6-QUATTRO-PE	1329513								
10	57A	2	XTV 10	1329547	1329608	3005947 FBS 2-10	0829142 UCT-TM 10	0818069 UC-TM 10		
	-		XTV 10 BU	1329549						
	-	XTV 10-PE	1329550							
	57A	3	XTV 10-TWIN	1329603	1329609					
	-		XTV 10-TWIN BU	1329605						
-	XTV 10-TWIN-PE	1329606								
16	76A	2	XTV 16	1329672	1329675	3005950 FBS 2-12	0829144 UCT-TM 12	0819194 UC-TM 12		
	-		XTV 16 BU	1329673						
	-	XTV 16-PE	1329674							





- Direct wiring without force or tools with a pre-tensioned contact spring.
- Enables the connection of all types of conductors, whether rigid or flexible, with or without ferrules.




# Modular Terminal Blocks

■ What connection style best fits your application?	■ Will you be bridging terminals?
■ What wire size are you using? What is your current (Amps) requirement?	■ Resulting Phoenix Contact part number
■ How many connection points?	■ What accessories are needed?
■ How many end covers are needed?	

PT Power High-Current									
mm <sup>2</sup>	I (nom)	Connections	Description	Order #	End Cover	Bridge (2-Position)	Marking		
							Thermomark Card/Prime	Bluemark ID	
35	125A	2	PTPOWER 35	<a href="#">3212064</a>	N/A	3005963 FBS 2-16			 <ul style="list-style-type: none"> <li>• More easily identifiable connection and conductor marking thanks to lateral conductor routing</li> <li>• Time-saving conductor connection with tool-free push-in direct connection technology</li> </ul>
			PTPOWER 35 BU	<a href="#">3212065</a>					
	PTPOWER 35-PE	<a href="#">3212066</a>							
	PTPOWER 35-3L	<a href="#">3212068</a>							
50	150A	2	PTPOWER 50	<a href="#">3260050</a>		3260067 EB 2-20/PT	0829142 UCT-TM 10	0818069 UC-TM 10	
			PTPOWER 50 BU	<a href="#">3260051</a>					
	PTPOWER 50-PE	<a href="#">3260052</a>							
	PTPOWER 50-3L	<a href="#">3260053</a>							
95	232A	2	PTPOWER 95	<a href="#">3260100</a>		3260157 EB 2-25/PT			
			PTPOWER 95 BU	<a href="#">3260103</a>					
	PTPOWER 95-PE	<a href="#">3260106</a>							
	PTPOWER 95-3L	<a href="#">3260109</a>							
185	309A	2	PTPOWER 185	<a href="#">1054722</a>	3215057 EB 2-31/PT				
			PTPOWER 185 BU	<a href="#">1054723</a>					
	PTPOWER 185-3L	<a href="#">1054728</a>							
	PTPOWER 185-3L/N	<a href="#">1054729</a>							

Screw Clamp (UT)														
mm <sup>2</sup>	I (nom)	Connections	Description	Order #	End Cover	Bridge (2-Position)	Marking							
							Thermomark Card/Prime	Bluemark ID						
2.5	20	2	UT 2.5	<a href="#">3044076</a>	3047028	3030161 FBS 2-5	0828734 UCT-TM 5	0818108 UC-TM 5	 <ul style="list-style-type: none"> <li>• Universal multi-wire connection with highest pullout force</li> <li>• Save money with uniform bridging, marking, and accessories as part of the Clipline Complete system</li> <li>• Maintenance-free conductor connection with the Reakdyn® principle – there is no need to tighten the terminal block screws</li> </ul>					
	-		UT 2.5-PE	<a href="#">3044092</a>										
	20	3	UT 2.5-TWIN	<a href="#">3044513</a>						3047141				
	20		UT 2.5-QUATTRO	<a href="#">3044542</a>						3047170				
	20		UTTB 2.5	<a href="#">3044636</a>						3047293				
	4	-	4	UTTB 2.5-PE						<a href="#">3044665</a>	3214314			
		20		UT 2.5-3L						<a href="#">3214259</a>				
-		UT 2.5-3PE	<a href="#">3214275</a>											
30		2	UT 4	<a href="#">3044102</a>	3047028	3030336 FBS 2-6	0828736 UCT-TM 6	0818085 UCT-TM 6						
-			UT 4-PE	<a href="#">3044128</a>										
6.3			UT 4-HESI (5X20 FUSE)	<a href="#">3046032</a>					-					
6.3			UT 4-HESILED 24 (5X20 FUSE)	<a href="#">3046090</a>					-					
30	UT 4-TWIN		<a href="#">3044364</a>	3047141										
6	30	3	UT 4-QUATTRO	<a href="#">3044571</a>	3047170									
	-		UTTB 4	<a href="#">3044814</a>										
	-		UTTB 4-PE	<a href="#">3044759</a>										
6	50	2	UT 6	<a href="#">3044131</a>	3047028	3030284 FBS 2-8	0828740 UCT-TM 8	0818072 UC-TM 8						
	-		UT6-PE	<a href="#">3044157</a>										

Bolt Connection (RT)									
mm <sup>2</sup>	I (nom)	Connections	Description	Order #	End Cover	Bridge (2-Position)	Marking		
							Thermomark Card/Prime	Bluemark ID	
2.5	24	2	RT-3	<a href="#">3049013</a>	3049097	3030336 FBS 2-6	0828740 UCT-TM 8	0818072 UC-TM 8	 <ul style="list-style-type: none"> <li>• Captive hardware with a hinged cover delivers a safe termination</li> <li>• Save money with uniform bridging, marking, and accessories</li> </ul>
6	41	2	RT-5	<a href="#">3049026</a>					
35	125	2	RT-8	<a href="#">3049042</a>	3049194	3005947 FBS 2-10	0829146 UCT-TM 16	0819217 UC-TM 16	

## CLIPLINE Complete: All Connection Methods – One System



**Disconnect zone:**

- Standardised disconnect zones
- Accommodates connectors, such as fuse plugs, component connectors, and isolating plugs



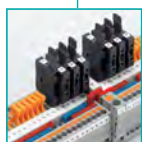
**Plug-in zone:**

- Time-saving and modular configuration
- Standardized plug-in zone



**Test plugs:**

- Reliable contacting of the test plugs with a 4 mm diameter
- Modular pluggable test points



**Fuse plugs:**

- Pluggable 5x20 mm cartridge glass fuses
- Plugs available with LED indication
- Common markers between terminals and fuses

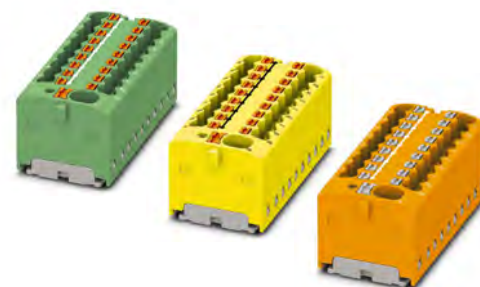


**Plug-in bridging:**

- Tool-free installation
- 2-50 position bridges
- Different colour options available
- Common between termination types
- Removable teeth for skip-bridging

# Distribution Blocks

■ What connection style best fits your application?				■ What colour is needed?	
■ What wire size are you using? What is your current (Amps) requirement?			■ Resulting Phoenix Contact part number		
■ How many connection points?					
<b>Push-in (PTFIX 4/18)</b>					
mm <sup>2</sup>	I (max)	Connections	Colour	Description	Order #
4	41	19	Grey	PTFIX 4/18X1,5-NS35 GY	<a href="#">1047454</a>
			Blue	PTFIX 4/18X1,5-NS35 BU	<a href="#">1047455</a>
			Red	PTFIX 4/18X1,5-NS35 RD	<a href="#">1047456</a>
			Brown	PTFIX 4/18X1,5-NS35 BN	<a href="#">1047457</a>
			Green	PTFIX 4/18X1,5-NS35 GN	<a href="#">1047458</a>
			Yellow	PTFIX 4/18X1,5-NS35 YE	<a href="#">1047459</a>
			Black	PTFIX 4/18X1,5-NS35 BK	<a href="#">1047460</a>
			White	PTFIX 4/18X1,5-NS35 WH	<a href="#">1047461</a>
			Violet	PTFIX 4/18X1,5-NS35 VT	<a href="#">1047462</a>
			Orange	PTFIX 4/18X1,5-NS35 OG	<a href="#">1047463</a>
			Pink	PTFIX 4/18X1,5-NS35 PK	<a href="#">1047464</a>
			Black/Yellow	PTFIX 4/18X1,5-NS35-FE	<a href="#">1047465</a>
<b>Push-in (PTFIX 6/18)</b>					
mm <sup>2</sup>	I (max)	Connections	Colour	Description	Order #
6	57	19	Grey	PTFIX 6/18X2,5-NS35 GY	<a href="#">3273110</a>
			Blue	PTFIX 6/18X2,5-NS35 BU	<a href="#">3273112</a>
			Red	PTFIX 6/18X2,5-NS35 RD	<a href="#">3273114</a>
			Brown	PTFIX 6/18X2,5-NS35 BN	<a href="#">3273120</a>
			Green	PTFIX 6/18X2,5-NS35 GN	<a href="#">3273118</a>
			Yellow	PTFIX 6/18X2,5-NS35 YE	<a href="#">3273116</a>
			Black	PTFIX 6/18X2,5-NS35 BK	<a href="#">3273124</a>
			White	PTFIX 6/18X2,5-NS35 WH	<a href="#">3273122</a>
			Violet	PTFIX 6/18X2,5-NS35 VT	<a href="#">3273126</a>
			Orange	PTFIX 6/18X2,5-NS35 OG	<a href="#">3273128</a>
			Pink	PTFIX 6/18X2,5-NS35 PK	<a href="#">3273127</a>
			Black/Yellow	PTFIX 6/18X2,5-NS35-FE	<a href="#">3273130</a>
<b>Push-in (PTFIX 10/18)</b>					
mm <sup>2</sup>	I (max)	Connections	Colour	Description	Order #
10	63	19	Grey	PTFIX 10/18X4-NS35 GY	<a href="#">3273636</a>
			Blue	PTFIX 10/18X4-NS35 BU	<a href="#">3273638</a>
			Red	PTFIX 10/18X4-NS35 RD	<a href="#">3273640</a>
			Brown	PTFIX 10/18X4-NS35 BN	<a href="#">3273646</a>
			Green	PTFIX 10/18X4-NS35 GN	<a href="#">3273644</a>
			Yellow	PTFIX 10/18X4-NS35 YE	<a href="#">3273642</a>
			Black	PTFIX 10/18X4-NS35 BK	<a href="#">3273650</a>
			White	PTFIX 10/18X4-NS35 WH	<a href="#">3273648</a>
			Violet	PTFIX 10/18X4-NS35 VT	<a href="#">3273652</a>
			Orange	PTFIX 10/18X4-NS35 OG	<a href="#">3273654</a>
			Pink	PTFIX 10/18X4-NS35 PK	<a href="#">3273653</a>
			Black/Yellow	PTFIX 10/18X4-NS35-FE	<a href="#">3273656</a>

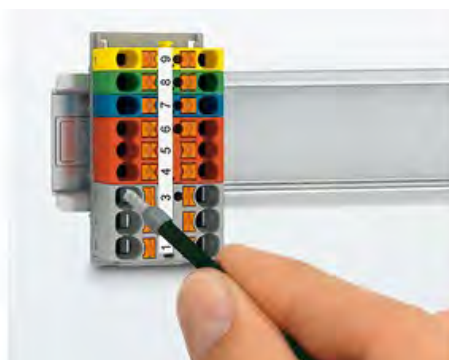


- ✓ Ready-to-use blocks for fast assembly without manual bridging, offering time savings of up to 80%
- ✓ Flexible setup in your application, thanks to various mounting options: DIN rail mounting, direct mounting, or adhesive mounting
- ✓ Space savings of up to 50% on the DIN rail, thanks to transverse mounting

- ✓ Colour-coded assignment of conductors and terminal points for intuitive and safe installation with eleven colours
- ✓ Time-saving pre-treated and rigid conductor connection, thanks to tool-free push-in direct connection technology
- ✓ Alignment without any loss of pitch and flexible potential extension using standard plug-in bridges



Eleven colour options available



Time saving push-in technology



Easy to bridge

# Interposing Relays

<ul style="list-style-type: none"> <li>What application or load are you switching: electromechanical or solid state?</li> <li>What is the input-coil voltage: DC or AC?</li> <li>What is your output current (Amps)? (Ratings are for resistive loads)</li> <li>How many sets of contacts do you need: SPDT, DPDT, etc.?</li> </ul>	<ul style="list-style-type: none"> <li>What connection technology: screw terminal (UT) or push-in (PT)?</li> <li>Which kind of specialty relays: hazardous location, sensor/actuator, filter base?</li> <li>Resulting Phoenix Contact part number</li> <li>What accessories are needed?</li> </ul>
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Electromechanical Relays						
Input-Coil Voltage	Output Current	Sets of Contacts	Termination Style	Description	Order #	
12 V DC	6 A	SPDT - 6.2 mm	Screw	PLC-RSC-12 DC/21	2966906	
			Push-in	PLC-RPT-12 DC/21	2900316	
		DPDT - 14 mm	Screw	PLC-RSC-12 DC/21-21	2967235	
			Push-in	PLC-RPT-12 DC/21-21	2900329	
24 V DC	50 mA	SPDT - 6.2 mm	Screw	PLC-RSC-24 DC/21AU	2966265	
			Push-in	PLC-RPT-24 DC/21AU	2900306	
		6 A	SPDT - 6.2 mm	Screw	PLC-RSC-24 DC/21	2966171
				Push-in	PLC-RPT-24 DC/21	2900299
	6 A	DPDT - 14 mm	Screw	PLC-RSC-24 DC/21-21	2967060	
			Push-in	PLC-RPT-24 DC/21-21	2900330	
		SPDT 6.2 mm	Screw	PLC-RSC- 24DC/ 1/ACT	2966210	
			Screw	PLC-RSC- 24DC/ 1AU/SEN	2966317	
	10 A	SPDT - 14 mm	Screw	PLC-RSC-24 DC/21HC	2967620	
			Push-in	PLC-RPT-24 DC/21HC	2900291	
24 V AC or DC	6 A	SPDT - 6.2 mm	Screw	PLC-RSC-24UC/21	2966184	
			Push-in	PLC-RPT-24UC/21	2900300	
		DPDT - 14 mm	Screw	PLC-RSC-24UC/21-21	2967073	
			Push-in	PLC-RPT-24UC/21-21	2900332	
230 V AC	6 A	SPDT - 6.2 mm	Screw	PLC-RSC-230UC/21	2966207	
			Push-in	PLC-RPT-230UC/21	2900305	
		DPDT - 14 mm	Screw	PLC-RSC-230UC/21-21	2967099	
			Push-in	PLC-RPT-230UC/21-21	2900305	

PLC relay assembly with electromechanical relay



Solid State Relays					
Input-Coil Voltage	Output Current	Sets of Contacts	Termination Style	Description	Order #
5 V DC	3 A	NO ONLY - 6.2 mm	Screw	PLC-OSC-5 DC/24 DC/2/ACT	2980144
			Push-in	PLC-OPT-5 DC/24 DC/2/ACT	2900375
24 V DC	100 mA	NO ONLY - 6.2 mm	Screw	PLC-OSC-24 DC/ 48 DC/100	2966728
			Push-in	PLC-OPT-24 DC/ 48 DC/100	2900352
	3 A	NO ONLY - 6.2 mm	Screw	PLC-OSC-24 DC/ 24 DC/2	2966634
			Push-in	PLC-OPT-24 DC/24 DC/2	2900364
120 V AC or DC	3 A	NO ONLY - 6.2 mm	Screw	PLC-OSC-120UC/24 DC/2	2966650
			Push-in	PLC-OPT-120UC/24 DC/2	2900355

PLC Relay Assembly with Solid State Relay



**Note: AC outputs also available**

**Triple-rated, hazardous location relays (more options available, please enquire)**

Input-Coil Voltage	Output Current	Sets of Contacts	Termination Style	Description	Order #
12 V DC	6 A	SPDT - 6.2 mm	Screw	PLC-RSC-12 DC/21/EX	2909522
			Screw	PLC-RSC-12 DC/21-21/EX	2909517
	10 A	SPDT - 14 mm	Screw	PLC-RSC-12 DC/21/HC/EX	2909518
			Screw	PLC-RSC-24 DC/21/EX	2909524
24 V DC	6 A	SPDT - 6.2 mm	Push-in	PLC-RPT-24 DC/21/EX	2909528
			Screw	PLC-RSC-24 DC/21-21/EX	2909509
	6 A	DPDT - 14 mm	Push-in	PLC-RPT-24 DC/21-21/EX	2909514
			Screw	PLC-RSC-230UC/21/EX	2909526
230 V AC	6 A	SPDT 6.2 mm	Screw	PLC-RSC-230UC/21-21/EX	2909512
			Push-in	PLC-RSC-230UC/21-21/EX	2909512
	10 A	DPDT 14 mm	Screw	PLC-RSC-230UC/21HC/EX	2909521
			Push-in	PLC-RSC-230UC/21HC/EX	2909521

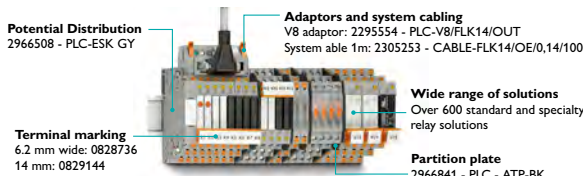


**Note: Additional coil voltages and connection technology options are available**

Specialty					
Input-Coil Voltage	Output Current	Sets of Contacts	Termination Style	Description	Order #
120 V AC/DC	6 A	SPDT - 6.2 mm	Screw	PLC-RSC-120UC/21/SO46	5603593

**Note: Other specialty relays available (manual switch, force-guided, filter, high-density, DC motor control, etc.)**

Replacement Parts					
Mechanical Relays					
Input-Coil Voltage	Output Current	Sets of Contacts	Termination Style	Description	Order #
12 V DC	6 A	SPDT - 6.2 mm	Screw	REL-MR-12 DC/21	2961150
			Push-in	REL-MR-24 DC/21	2961105
24 V DC	6 A	DPDT - 14 mm	Screw	REL-MR-24 DC/21-21	2961192
			Push-in	REL-MR-230AC/21-21	2961451
230 V AC	8 A	SPDT - 16 mm	Screw	REL-MR-230AC/21HC/MS	2987914
	16 A		Push-in	REL-MR-230AC/21-21/MS	2987972
	8 A				
Solid-State Relays					
5 V DC	3 A	SPST - 6.2 mm	Screw	OPT-5 DC/24 DC/2	2967989
24 V DC	3 A	SPST - 6.2 mm	Push-in	OPT-24 DC/24 DC/2	2966595
60 V AC	3 A	SPST - 6.2 mm	Push-in	OPT-60 DC/24 DC/2	2966605



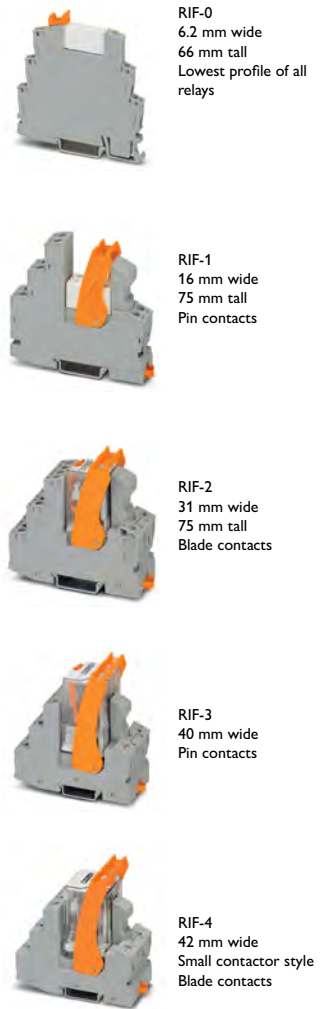
PLC Relay Bridging		
Easily bridge relays together with plug-in bridging – no tools required. Available in 2 positions or in continuous pieces for cutting to custom length.		
Colour	2-Pos	500 mm
Red	2966236	2966786
Blue	2966812	2966692
Gray	2966825	2966838





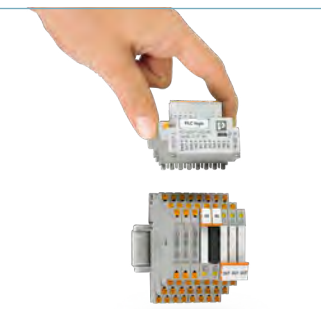
# General Purpose and Pluggable Relays

■ What application or load are you switching: electromechanical or solid state?				■ How many sets of contacts do you need? SPDT, DPDT, etc.		
■ What is the input coil voltage: DC or AC?				■ Which connection technology: Screw terminal (UT) or Push-in (PT)?		
■ What is your output current (Amps)?				What accessories are needed?		
RIF Slimline relays						
	Input Voltage	Output Current	Sets of Contacts	Termination Style	Description	Order #
RIF-0	12 V DC	6 A	NO only	Screw	RIF-0-RSC-12DC/ 1	<a href="#">2903367</a>
				Push-in	RIF-0-RPT-12DC/ 1	<a href="#">2903362</a>
	24 V DC	6 A	NO only	Screw	RIF-0-RSC-24DC/ 1	<a href="#">2903366</a>
				Push-in	RIF-0-RPT-24DC/ 1	<a href="#">2903361</a>
RIF-1	12 V DC	11 A	SPDT	Screw	RIF-1-RSC-LDP-12DC/1X21	<a href="#">2908500</a>
				Push-in	RIF-1-RPT-LDP-12DC/1X21	<a href="#">2906224</a>
		8 A	DPDT	Screw	RIF-1-RSC-LDP-12DC/2X21	<a href="#">2908501</a>
				Push-in	RIF-1-RPT-LDP-12DC/2X21	<a href="#">2906223</a>
	24 V DC	11 A	SPDT	Screw	RIF-1-RSC-LDP-24DC/1X21	<a href="#">2903358</a>
				Push-in	RIF-1-RPT-LDP-24DC/1X21	<a href="#">2903342</a>
		8 A	DPDT	Screw	RIF-1-RSC-LDP-24DC/2X21	<a href="#">2903350</a>
				Push-in	RIF-1-RPT-LDP-24DC/2X21	<a href="#">2903334</a>
	50 mA	SPDT	Screw	RIF-1-RSC-LDP-24DC/1X21AU	<a href="#">2903354</a>	
			Push-in	RIF-1-RPT-LDP-24DC/1X21AU	<a href="#">2903338</a>	
		DPDT	Screw	RIF-1-RSC-LDP-24DC/2X21AU	<a href="#">2903346</a>	
			Push-in	RIF-1-RPT-LDP-24DC/2X21AU	<a href="#">2903330</a>	
230 V AC	8A	2PDT	Screw	RIF-1-RSC-LV-230AC/2X21	<a href="#">2903347</a>	
			Push-in	RIF-1-RPT-LV-230AC/1X21	<a href="#">2903339</a>	
	10A	1PDT	Screw	RIF-1-RSC-LV-230AC/1X21	<a href="#">2903355</a>	
			Push-in	RIF-1-RPT-LV-230AC/2X21	<a href="#">2903331</a>	
8A	2PDT	Screw	RIF-1-RSC-LV-230AC/2X21	<a href="#">2903347</a>		
		Push-in	RIF-1-RPT-LV-230AC/1X21	<a href="#">2903339</a>		
	10A	1PDT	Screw	RIF-1-RSC-LV-230AC/1X21	<a href="#">2903355</a>	
			Push-in	RIF-1-RPT-LV-230AC/2X21	<a href="#">2903347</a>	
RIF Ice-Cube Relays						
	Input Voltage	Output Current	Sets of Contacts	Termination Style	Description	Order #
RIF-2	24 V DC	10 A	2PDT	Screw	RIF-2-RSC-LDP-24DC/2X21	<a href="#">2903326</a>
				Push-in	RIF-2-RPT-LDP-24DC/2X21	<a href="#">2903315</a>
	6 A	4PDT	Screw	RIF-2-RSC-LDP-24DC/4X21	<a href="#">2903320</a>	
			Push-in	RIF-2-RPT-LDP-24DC/4X21	<a href="#">2903308</a>	
230 V AC	5 A	4PDT	Screw	RIF-2-RSC-LV-230AC/4X21	<a href="#">2903316</a>	
			Push-in	RIF-2-RPT-LV-230AC/4X21	<a href="#">2903304</a>	
RIF-3	24 V DC	10 A	2PDT	Screw	RIF-3-RSC-LDP-24DC/2X21	<a href="#">2903303</a>
				Push-in	RIF-3-RPT-LDP-24DC/2X21	<a href="#">2903297</a>
		8.5 A	3PDT	Screw	RIF-3-RSC-LDP-24DC/3X21	<a href="#">2903300</a>
	Push-in			RIF-3-RPT-LDP-24DC/3X21	<a href="#">2903294</a>	
	230 V AC	7 A	2PDT	Screw	RIF-3-RSC-LV-230AC/2X21	<a href="#">2903301</a>
				Push-in	RIF-3-RPT-LV-230AC/2X21	<a href="#">2903295</a>
6 A		3PDT	Screw	RIF-3-RSC-LV-230AC/3X21	<a href="#">2903298</a>	
	Push-in		RIF-3-RPT-LV-230AC/3X21	<a href="#">2903292</a>		
RIF-4	24 V DC	10 A	3PDT	Screw	RIF-4-RSC-LDP-24DC/3X21	<a href="#">2903288</a>
				Push-in	RIF-4-RPT-LDP-24DC/3X21	<a href="#">2903278</a>
	230 V AC	8 A	3PDT	Screw	RIF-4-RSC-LV-230AC/3X21	<a href="#">2903285</a>
				Push-in	RIF-4-RPT-LV-230AC/3X21	<a href="#">2903276</a>












Note: Many additional contact arrangement and coil voltage options exist.

Logic modules		
	Description	Order #
	PLC logic stand-alone module, 2nd generation, with 16I/Os, for plug-in connection to eight digital or analog PLC-INTERFACE terminal blocks, cannot be extended, real-time clock, micro USB female connector, accommodates memory module and Bluetooth adapter, screw connection.	<a href="#">2907443</a>
	PLC logic basic module, 2nd generation, with 16I/Os, for plug-in connection to eight digital or analog PLC-INTERFACE terminal blocks, can be extended to 48I/Os, real-time clock, micro USB female connector, accommodates memory module and Bluetooth adapter, screw connection.	<a href="#">2907446</a>
	PLC logic extension module with 16I/Os, for plug-in connection to eight PLC-INTERFACE terminal blocks for extending the basic module (a maximum of two extension modules can be connected to a basic module), screw connection.	<a href="#">2905137</a>
Relay output		
	Description	Order #
	PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V DC.	<a href="#">2900299</a>
	PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V DC.	<a href="#">2900306</a>
	PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../ACT with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 N/O contact, input voltage 24 V DC.	<a href="#">2900312</a>
	PLC-INTERFACE with switch (operation: manual) for the functions "manual, zero, and automatic", with screw connection and integrated power contact relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 24 V AC/DC.	<a href="#">2900328</a>
Solid-state relay output		
	Description	Order #
	PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 ... 48 V DC/100 A.	<a href="#">2900352</a>
	PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 ... 33 V DC/3 A.	<a href="#">2900364</a>
	PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 24 ... 253 V AC/0.75 A.	<a href="#">2900369</a>
	PLC-INTERFACE for output functions, consisting of PLC-BSC.../ACT basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 ... 33 V DC/3 A.	<a href="#">2900376</a>
	PLC-INTERFACE with electronic changeover contact, consisting of PLC-BSC.../21 basic terminal block with screw connection and integrated miniature solid-state relay, for mounting on NS 35/7.5 DIN rail, 1 changeover contact, input: 24 V DC, output: 3 V DC...48 V DC/500 mA.	<a href="#">2900378</a>





- Based on PLC-INTERFACE
- Flexible channel assignment - inputs or outputs with either relay or analog modules at only 50mm
- Easy project implementation with the intuitive operation of the free Logic+ software
- Wireless operation and monitoring via Bluetooth adapter and free PLC logic app
- Basic modules can be connected to extension modules up to 48I/Os in total.

# Hybrid Motor Starters

■ What type of motor start do you need?		■ What are the required functions?							■ Resulting Phoenix Contact part number (by connection technology)	
■ What is the maximum load current?										
■ What is your input voltage?										
		Functions							Connection Technology	
		Direct Starter	Reversing Starter	Motor Protection	Emergency Stop <sup>1</sup>	Can Be Networked	ATEX	Short-Circuit Protection	Screw	Push-In
Maximum Load Current	Input Voltage <sup>2</sup>									
<b>Stand-Alone<sup>3</sup></b>										
0.6 A	24 V DC	✓		✓	✓		✓		<a href="#">2900566</a>	<a href="#">2903914</a>
		✓	✓	✓	✓		✓		<a href="#">2900582</a>	<a href="#">2903902</a>
		✓	✓	✓	✓		✓	✓	<a href="#">2902746</a>	
		✓		✓	✓				<a href="#">2900542</a>	<a href="#">2903920</a>
		✓	✓	✓	✓				<a href="#">2900573</a>	<a href="#">2903908</a>
2.4 A	24 V DC	✓		✓	✓		✓		<a href="#">2900567</a>	<a href="#">2903916</a>
		✓	✓	✓	✓		✓		<a href="#">2900414</a>	<a href="#">2903904</a>
		✓	✓	✓	✓		✓	✓	<a href="#">2902744</a>	
		✓		✓	✓				<a href="#">2900543</a>	<a href="#">2903922</a>
9 A	24 V DC	✓		✓	✓		✓		<a href="#">2900574</a>	<a href="#">2903910</a>
		✓	✓	✓	✓		✓		<a href="#">2900569</a>	<a href="#">2903918</a>
		✓	✓	✓	✓		✓		<a href="#">2900421</a>	<a href="#">2903906</a>
		✓	✓	✓	✓		✓	✓	<a href="#">2902745</a>	
		✓		✓	✓				<a href="#">2900545</a>	<a href="#">2903924</a>
		✓	✓	✓	✓				<a href="#">2900576</a>	<a href="#">2903912</a>
		✓		✓	✓				<a href="#">2900530</a>	
		✓	✓				<a href="#">2900538</a>			
<b>Network-Capable (Gateway Required)</b>										
0.6 A	24 V DC	✓		✓	✓	✓	✓		<a href="#">2905154</a>	<a href="#">2905141</a>
		✓	✓	✓	✓	✓	✓		<a href="#">2905151</a>	<a href="#">2905138</a>
		✓	✓	✓	✓	✓			<a href="#">2905162</a>	<a href="#">2905148</a>
		✓	✓	✓	✓	✓	✓		<a href="#">2905157</a>	<a href="#">2905144</a>
3 A	24 V DC	✓		✓	✓	✓	✓		<a href="#">2905155</a>	<a href="#">2905142</a>
		✓	✓	✓	✓	✓	✓		<a href="#">2905152</a>	<a href="#">2905139</a>
		✓	✓	✓	✓	✓			<a href="#">2905163</a>	<a href="#">2905149</a>
		✓	✓	✓	✓	✓	✓		<a href="#">2905159</a>	<a href="#">2905146</a>
9 A	24 V DC	✓		✓	✓	✓	✓		<a href="#">2905156</a>	<a href="#">2905134</a>
		✓	✓	✓	✓	✓	✓		<a href="#">2905153</a>	<a href="#">2905140</a>
		✓	✓	✓	✓	✓			<a href="#">2908154</a>	<a href="#">2905150</a>
		✓	✓	✓	✓	✓			<a href="#">2905160</a>	<a href="#">2905147</a>

<sup>1</sup>Dependent on the application up to PL e / SIL 3.  
<sup>2</sup>Also available in 230 V versions. Check Phoenix Contact website for the full range.  
<sup>3</sup>Modular options also available.

Connectivity, Switching & Conversion

Solid State Contactors		Functions		Connection Technology	
Maximum Load Current	Input Voltage	Direct Starter	Reversing Starter	Single-Phase	3-Phase
					
20 A	24 V DC	✓		<a href="#">1032919</a>	
	230 V AC	✓		<a href="#">1032920</a>	
30 A	24 V DC	✓		<a href="#">1032921</a>	
	230 V AC	✓		<a href="#">1032922</a>	
37 A	24 V DC	✓			<a href="#">2297277</a>
		✓	✓		<a href="#">2297374</a>
	230 V AC	✓			<a href="#">2297280</a>
		✓	✓		<a href="#">2297387</a>
50A	24 V DC	✓		<a href="#">1032926</a>	
	230 V AC	✓		<a href="#">1032927</a>	

# CONTACTRON Speed Starter

■ Is the input single- or three-phased?		■ Housing and dimension specifications			
■ What is the size of your motor?		■ Resulting Phoenix Contact part number			
■ What is your nominal current (input/output)?					
Motor Power	Voltage/Current Input	Voltage/Current Output	Housing	Type	Order #
<b>Single-phase load input, with EMC filter<sup>1</sup></b>					
0.25 kW/0.3 HP	3.5 A	1.7 A	A2	CSS0.25-1/3-EMC	<a href="#">1201520</a>
0.37 kW/0.5 HP	5.3 A	2.5 A	A2	CSS0.37-1/3-EMC	<a href="#">1201600</a>
0.55 kW/0.7 HP	6.7 A	3.2 A	B2	CSS0.55-1/3-EMC	<a href="#">1201602</a>
0.75 kW/1.0 HP	9.1 A	4.3 A	B2	CSS0.75-1/3-EMC	<a href="#">1201613</a>
1.5 kW/2.0 HP	15.8 A	7.5 A	B2	CSS1.5-1/3-EMC	<a href="#">1201642</a>
<b>Three-phase load input, with EMC filter<sup>1</sup></b>					
0.25 kW/0.3 HP	1.0 A	1.0 A	A2	CSS0.25-3/3-EMC	<a href="#">1201713</a>
0.37 kW/0.5 HP	1.7 A	1.7 A	A2	CSS0.37-3/3-EMC	<a href="#">1201825</a>
0.55 kW/0.7 HP	2.0 A	2.0 A	A2	CSS0.55-3/3-EMC	<a href="#">1201828</a>
0.75 kW/1.0 HP	2.8 A	2.8 A	A2	CSS0.75-3/3-EMC	<a href="#">1201829</a>
1.5 kW/2.0 HP	4.28 A	4.28 A	B2	CSS1.5-3/3-EMC	<a href="#">1201696</a>
<b>Three-phase load input, with EMC filter<sup>1</sup></b>					
<sup>1</sup> Also available without EMC filter.. Check Phoenix Contact website for the full range.					

<b>Housing<sup>2</sup></b>					
Description	A1	A2	B1 heatsink	B1 fan	B2
<b>Cooling</b>	Heatsink	Replaceable fan	Heatsink	Replaceable fan	Replaceable fan
<b>Dimensions (H x W x D)</b>	180 x 35 x 165 mm	180 x 35 x 185 mm	180 x 45 x 180 mm	180 x 45 x 180 mm	180 x 45 x 200 mm

<sup>2</sup>A1, B1 heatsink and B1 fan housing are available for motor starters without EMC filter only. For more details, check Phoenix Contact website.

**Direct Start**  
Easy control directly via 24 V PLC output cards or the 24 V output of the device



**Reversing Start**  
Reverse rotation via buttons directly on the device



**Motor Protection**  
Comfortable protection via flexible nominal current setting of the motor including remote reset function



**Safe Torque Off**  
The integrated safety function enables use in safety-related emergency stop applications



**Various Speeds**  
Speeds can be customised and modified as desired



**Ramp Function**  
Fully-adjustable soft motor start and shutdown.







Scan and experience the Speed Starter virtual demo - Connect, Set, Start!





# Signal Conditioners

■	What type of conversion and/or isolation do you need?			
■	What is the module power? (Standard is module powered by separate 24 V DC)			
■	What is your input signal?			
■	What is the output signal?			
■	Resulting Phoenix Contact part number			
Fixed Signal Conversion and Isolation				
Module Power	Input Signal	Output Signal	Description	Order #
Line	0 V ... 10 V	0 V ... 10 V	MINI MCR-2-U-U	<a href="#">2902042</a>
		4 mA ... 20 mA	MINI MCR-2-U-I4	<a href="#">2902029</a>
	4 mA ... 20 mA	0 V ... 10 V	MINI MCR-2-I4-U	<a href="#">2902002</a>
		4 mA ... 20 mA	MINI MCR-2-I-I	<a href="#">2901998</a>
Universal and Configurable Analog Sign				
Module Power	Input Signal	Output Signal	Description	Order #
Line	0 V ... 10 V	4 mA ... 20 mA	MINI MCR-2-U-I4-PT	<a href="#">2902030</a>
		4 mA ... 20 mA (HART)	MINI MCR-2-RPSS-I-I	<a href="#">2902014</a>
	Voltage	Voltage	MINI MCR-2-U-U-PT	<a href="#">2902043</a>
		Voltage/current	MINI MCR-2-U-I	<a href="#">2902019</a>
	Voltage/current	Relay	MINI MCR-2-UI-REL-PT	<a href="#">2902035</a>
		Transistor	MINI MCR-2-UNI-UI-UIRO	<a href="#">2902026</a>
		Transistor	MINI MCR-2-UI-UI	<a href="#">2902037</a>
		Voltage/current	MINI MCR-2-UNI-UI-ZUI	<a href="#">2905026</a>
Temperature Signal Conversion and Isolation				
Module Power	Input Signal	Output Signal	Description	Order #
Loop	RTD	Voltage/current	MINI MCR-2-RTD-UI	<a href="#">2902049</a>
	Thermocouple (TC)		MINI MCR-2-TC-UI	<a href="#">2902055</a>
	Temperature (RTD/TC)	Relay	MINI MCR-2-T-REL	<a href="#">2905632</a>
	PT100	4 mA ... 20 mA	MINI MCR-SL-PT100-LP-NC	<a href="#">2810308</a>
Low-Power Signal Conversion and Isolation				
Module Power	Input Signal	Output Signal	Description	Order #
Loop	Voltage/current	4 mA ... 20 mA (passive)	4 mA ... 20 mA (passive)	<a href="#">2902061</a>
		4 mA ... 20 mA (active)	MINI MCR-2-2I-2I-ILP	<a href="#">2901994</a>
	4 mA ... 20 mA	4 mA ... 20 mA (active)	MINI MCR-2-UI-I-OLP	<a href="#">2901996</a>
		4 mA ... 20 mA (passive)	MINI MCR-2-RPS-I-I-OLP	<a href="#">2906446</a>
		4 mA ... 20 mA (passive)	MINI MCR-2-RPS-2I-2I-OLP	<a href="#">2906448</a>
Specialty Signal Conversion and Isolation				
Module Power	Input Signal	Output Signal	Description	Order #
Line	4 mA ... 20 mA (HART)	4 mA ... 20 mA (HART)	MINI MCR-2-RPSS-I-2I	<a href="#">2905628</a>
	Voltage/current	Frequency/transistor	MINI MCR-2-UI-FRO	<a href="#">2902031</a>
	Frequency and PWM	Transistor	MINI MCR-2-F-UI	<a href="#">2902056</a>
	Potentiometer	Voltage/current	MINI MCR-2-POT-UI	<a href="#">2902016</a>
	Voltage/current	Relay	MINI MCR-2-UI-REL	<a href="#">2902033</a>

MINI MCR-2

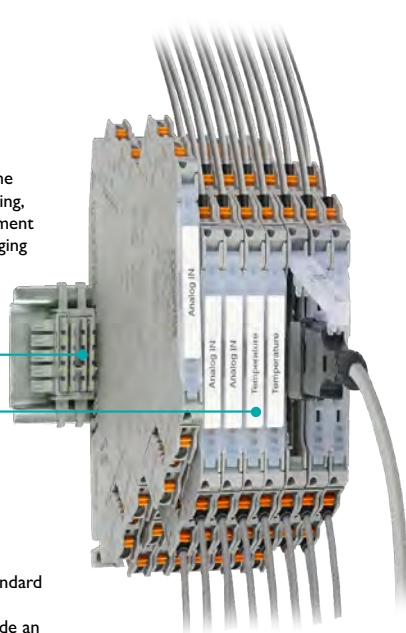


Scan and discover the new highly compact MINI Analog Pro Ex i signal conditioners - A milestone in miniaturization!

Connectivity, Switching & Conversion

## Rapid power bridging and group error messaging

In addition to rapid power bridging, the DIN rail connector also simplifies wiring, system extension, or module replacement during operation. Group error messaging enables convenient diagnostics.



## Service-friendly

Large-surface marking areas enable complete loop identification using standard marking material. All status and error indicators are always visible and provide an instant overview on site.



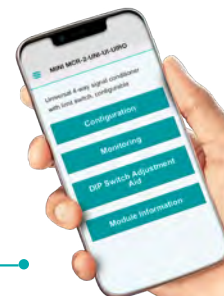
Easily accessible terminal points and FASTCON Pro plug-in connection terminal blocks



Measure signals during operation, without disconnecting the current loops.

## Smart parameterisation and monitoring

Depending on the product type, you can access the devices wirelessly: via NFC and Bluetooth. Benefit from the comprehensive functions of the MINI Analog Pro app and parameterise the modules directly on site or read the current measured values during operation.



# Heavy-Duty Connectors

Standard (Metal)



Evo (Plastic)



Selector Guide (Pick 4 Parts)			
1	2	3	4
INSERT (M&F)	BASE	SLEEVE HOUSING	CABLE GLAND
	+		+
	+		

- How many poles do you need?
- What connection technology do you prefer?
- Gender (Male / Female)?
- Panel mounting with or without cover?
- Hood - top or lateral entry?

HEAVYCON STANDARD											
Poles	Technology	Socket (F)		Plug (M)		Panel Mounting Base		Hood - Top Entry		Hood - Lateral Entry	
		Part Number	Description	Part Number	Description	With Cover	W/O Cover	Low Profile	High Profile	Low Profile	High Profile
6 poles	Screw	<a href="#">1648128</a>	HC-B 6-I-UT-F	<a href="#">1648115</a>	HC-B 6-I-UT-M	<a href="#">1411319</a>	<a href="#">1411318</a>	<a href="#">1412574</a> (M20)	<a href="#">1412566</a> (M25)	<a href="#">1412570</a> (M20)	<a href="#">1412562</a> (M25)
	Push-in	<a href="#">1407727</a>	HC-B 6-I-PT-F	<a href="#">1407728</a>	HC-B 6-I-PT-M	<a href="#">1411319</a>	<a href="#">1411318</a>	<a href="#">1412574</a> (M20)	<a href="#">1412566</a> (M25)	<a href="#">1412570</a> (M20)	<a href="#">1412562</a> (M25)
	Crimp	<a href="#">1648160</a>	HC-B 6-I-CT-F	<a href="#">1648157</a>	HC-B 6-I-CT-M	<a href="#">1411319</a>	<a href="#">1411318</a>	<a href="#">1412574</a> (M20)	<a href="#">1412566</a> (M25)	<a href="#">1412570</a> (M20)	<a href="#">1412562</a> (M25)
10 poles	Screw	<a href="#">1648186</a>	HC-B 10-I-UT-F	<a href="#">1648173</a>	HC-B 10-I-UT-M	<a href="#">1411321</a>	<a href="#">1411320</a>	<a href="#">1412629</a> (M20)	<a href="#">1412605</a> (M32)	<a href="#">1412625</a> (M25)	<a href="#">1412600</a> (M25)
	Push-in	<a href="#">1407729</a>	HC-B 10-I-PT-F	<a href="#">1407730</a>	HC-B 10-I-PT-M	<a href="#">1411321</a>	<a href="#">1411320</a>	<a href="#">1412629</a> (M20)	<a href="#">1412605</a> (M32)	<a href="#">1412625</a> (M25)	<a href="#">1412600</a> (M25)
	Crimp	<a href="#">1605569</a>	HC-B 10-I-CT-F	<a href="#">1605624</a>	HC-B 10-I-CT-M	<a href="#">1411321</a>	<a href="#">1411320</a>	<a href="#">1412629</a> (M20)	<a href="#">1412605</a> (M32)	<a href="#">1412625</a> (M25)	<a href="#">1412600</a> (M25)
16 poles	Screw	<a href="#">1648241</a>	HC-B 16-I-UT-F	<a href="#">1648238</a>	HC-B 16-I-UT-M	<a href="#">1411325</a>	<a href="#">1411324</a>	<a href="#">1412730</a> (M32)	<a href="#">1412689</a> (M32)	<a href="#">1412726</a> (M32)	<a href="#">1412679</a> (M32)
	Push-in	<a href="#">1407731</a>	HC-B 16-I-PT-F	<a href="#">1407732</a>	HC-B 16-I-PT-M	<a href="#">1411325</a>	<a href="#">1411324</a>	<a href="#">1412730</a> (M32)	<a href="#">1412689</a> (M32)	<a href="#">1412726</a> (M32)	<a href="#">1412679</a> (M32)
	Crimp	<a href="#">1648283</a>	HC-B 16-I-CT-F	<a href="#">1648270</a>	HC-B 16-I-CT-M	<a href="#">1411325</a>	<a href="#">1411324</a>	<a href="#">1412730</a> (M32)	<a href="#">1412689</a> (M32)	<a href="#">1412726</a> (M32)	<a href="#">1412679</a> (M32)
24 poles	Screw	<a href="#">1648306</a>	HC-B 24-I-UT-F	<a href="#">1648296</a>	HC-B 24-I-UT-M	<a href="#">1411332</a>	<a href="#">1411331</a>	<a href="#">1412779</a> (M32)	<a href="#">1412754</a> (M32)	<a href="#">1412774</a> (M32)	<a href="#">1412750</a> (M32)
	Push-in	<a href="#">1407735</a>	HC-B 24-I-PT-F	<a href="#">1407736</a>	HC-B24-I-PT-M	<a href="#">1411332</a>	<a href="#">1411331</a>	<a href="#">1412779</a> (M32)	<a href="#">1412754</a> (M32)	<a href="#">1412774</a> (M32)	<a href="#">1412750</a> (M32)
	Crimp	<a href="#">1648348</a>	HC-B 24-I-CT-F	<a href="#">1648335</a>	HC-B 24-I-CT-M	<a href="#">1411332</a>	<a href="#">1411331</a>	<a href="#">1412779</a> (M32)	<a href="#">1412754</a> (M32)	<a href="#">1412774</a> (M32)	<a href="#">1412750</a> (M32)

HEAVYCON EVO											
Poles	Technology	Socket (F)		Plug (M)		Panel Mounting Base		Hood - Top And Lateral Entry			
		Part Number	Description	Part Number	Description	With Cover	W/O Cover	Low Profile		High Profile	
6 poles	Screw	<a href="#">1648128</a>	HC-B 6-I-UT-F	<a href="#">1648115</a>	HC-B 6-I-UT-M	<a href="#">1407622</a>	<a href="#">1407621</a>	<a href="#">1407619</a>		<a href="#">1407620</a>	
	Push-In	<a href="#">1407727</a>	HC-B 6-I-PT-F	<a href="#">1407728</a>	HC-B 6-I-PT-M	<a href="#">1407622</a>	<a href="#">1407621</a>	<a href="#">1407619</a>		<a href="#">1407620</a>	
	Crimp	<a href="#">1648160</a>	HC-B 6-I-CT-F	<a href="#">1648157</a>	HC-B 6-I-CT-M	<a href="#">1407622</a>	<a href="#">1407621</a>	<a href="#">1407619</a>		<a href="#">1407620</a>	
10 poles	Screw	<a href="#">1648186</a>	HC-B 10-I-UT-F	<a href="#">1648173</a>	HC-B 10-I-UT-M	<a href="#">1407633</a>	<a href="#">1407632</a>	<a href="#">1407626</a>		<a href="#">1407627</a>	
	Push-In	<a href="#">1407729</a>	HC-B 10-I-PT-F	<a href="#">1407730</a>	HC-B 10-I-PT-M	<a href="#">1407633</a>	<a href="#">1407632</a>	<a href="#">1407626</a>		<a href="#">1407627</a>	
	Crimp	<a href="#">1605569</a>	HC-B 10-I-CT-F	<a href="#">1605624</a>	HC-B 10-I-CT-M	<a href="#">1407633</a>	<a href="#">1407632</a>	<a href="#">1407626</a>		<a href="#">1407627</a>	
16 poles	Screw	<a href="#">1648241</a>	HC-B 16-I-UT-F	<a href="#">1648238</a>	HC-B 16-I-UT-M	<a href="#">1407647</a>	<a href="#">1407646</a>	<a href="#">1420931</a>		<a href="#">1407642</a>	
	Push-In	<a href="#">1407731</a>	HC-B 16-I-PT-F	<a href="#">1407732</a>	HC-B 16-I-PT-M	<a href="#">1407647</a>	<a href="#">1407646</a>	<a href="#">1420931</a>		<a href="#">1407642</a>	
	Crimp	<a href="#">1648283</a>	HC-B 16-I-CT-F	<a href="#">1648270</a>	HC-B 16-I-CT-M	<a href="#">1407647</a>	<a href="#">1407646</a>	<a href="#">1420931</a>		<a href="#">1407642</a>	
24 poles	Screw	<a href="#">1648306</a>	HC-B 24-I-UT-F	<a href="#">1648296</a>	HC-B 24-I-UT-M	<a href="#">1407662</a>	<a href="#">1407661</a>	<a href="#">1420935</a>		<a href="#">1407657</a>	
	Push-In	<a href="#">1407735</a>	HC-B 24-I-PT-F	<a href="#">1407736</a>	HC-B24-I-PT-M	<a href="#">1407662</a>	<a href="#">1407661</a>	<a href="#">1420935</a>		<a href="#">1407657</a>	
	Crimp	<a href="#">1648348</a>	HC-B 24-I-CT-F	<a href="#">1648335</a>	HC-B 24-I-CT-M	<a href="#">1407662</a>	<a href="#">1407661</a>	<a href="#">1420935</a>		<a href="#">1407657</a>	

## ACCESSORIES - CABLE GLAND

HEAVYCON STANDARD	
M20	<a href="#">1411163</a>
M25	<a href="#">1411165</a>
M32	<a href="#">1411166</a>
M40	<a href="#">1411167</a>

HEAVYCON EVO	
7-13mm	<a href="#">1407669</a> (M20 equivalent)
9-17mm	<a href="#">1407670</a> (M25 equivalent)
11-21mm	<a href="#">1407671</a> (M32 equivalent)
19-28mm	<a href="#">1407672</a> (M40 equivalent)











# M12 Connectors

A comprehensive range of M8 and M12 flush-type connectors and panel feed-through has emerged as a result of the various requirements for sensor/actuator device connection technology in industrial environments.

Customer-specific developments for assembly enable optimum adaptation to individual device concepts.



- ✓ 3 to 17 positions
- ✓ A, B, D, or X coding
- ✓ Available in Screw, Insulation displacement, Push-in, and Crimp connection

M8							
	Positions	Connection Tech	Gender	Diameter	Order #	Description	
<b>3-position</b> Female  Male 	3-Pos.	Screw	Male Straight	3.5-5 mm	<a href="#">1501252</a>	SACC-M 8MS-3CON-M-SW	
			Female Straight		<a href="#">1506888</a>	SACC-M 8FS-3CON-M-SW	
		Insulation Displacement	Male Straight	2.5-5 mm	<a href="#">1441008</a>	SACC-M 8MS-3QO-0,25-M	
			Female Straight		<a href="#">1441066</a>	SACC-M 8FS-3QO-0,5-M	
<b>4-position</b> Female  Male 	4-Pos.	Screw	Male Straight	3.5-5 mm	<a href="#">1681169</a>	SACC-M 8MS-4CON-M	
			Female Straight		<a href="#">1506891</a>	SACC-M 8FS-4CON-M-SW	
		Insulation Displacement	Male Straight	3.5-5 mm	<a href="#">1441037</a>	SACC-M 8MS-4QO-0,5-M	
			Female Straight	4-8 mm	<a href="#">1521601</a>	SACC-FS-4QO-0,75-M SCO	
M12							
	Positions	Connection Tech	Head	Diameter	Order #	Description	
<b>4-position</b> Female  <b>4-position</b> Male 	4-Pos.	Screw	Male Straight	4-6 mm	<a href="#">1662528</a>	SACC-M12MS-4CON-PG 7-M	
			Male Angled		<a href="#">1681101</a>	SACC-M12MR-4CON-PG7-M	
			Female Straight		<a href="#">1681127</a>	SACC-M12FS-4CON-PG7-M	
			Female Angled		<a href="#">1681143</a>	SACC-M12FR-4CON-PG7-M	
		Insulation Displacement	Male Straight	4-8 mm	<a href="#">1641785</a>	SACC-M12MS-4QO-0,75-M	
			Female Straight		<a href="#">1641772</a>	SACC-M12FS-4QO-0,75-M	
			Push-In	Male Straight	4-8 mm	<a href="#">1424657</a>	SACC-MS-4PL M SCO
				Male Angled		<a href="#">1424654</a>	SACC-M12MR-4PL M
<b>5-position</b> Female  <b>5-position</b> Male 	5-Pos.	Screw	Male Straight	4-6 mm	<a href="#">1663116</a>	SACC-M12MS-5CON-PG 7-M	
			Male Angled	6-8 mm	<a href="#">1681460</a>	SACC-M12MS-5CON-PG 9-M	
			Female Straight	4-6 mm	<a href="#">1663129</a>	SACC-M12MR-5CON-PG 7-M	
			Female Angled		<a href="#">1662968</a>	SACC-M12FS-5CON-PG 7-M	
			Push-In	Male Straight	4-8 mm	<a href="#">1424649</a>	SACC-M12MS-5PL M
		Female Straight		<a href="#">1424652</a>		SACC-M12FS-5PL M	
		Male Angled		<a href="#">1424651</a>		SACC-M12MR-5PL M	
		Female Angled		<a href="#">1424653</a>		SACC-M12FR-5PL M	
		Female Straight		<a href="#">1513347</a>		SACC-M12FS-8CON-PG9-M	
		<b>8-position</b> Female  <b>8-position</b> Male 	8-Pos.	Screw	Male Straight	6-8 mm	<a href="#">1513334</a>



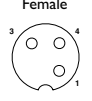


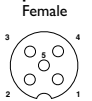

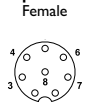

# Cordsets



- What thread size do you need on your cordset: **M8 or M12**?
- How many positions (wires) are required?
- What gender should the connectors be: female or male?
- Is the head orientation straight or right angle?
- What is the desired cordset length?
- Resulting Phoenix Contact part numbers (shielded and non-shielded)
- Select **CMAT**: Allows you to configure cable type/length (enter into extranet tool)
- Do you need a mating front- or rear-mount receptacle with the cordset?

\*\*Locknut not included with front mount. M8 locknuts (8 mm) = 1504071. M12 locknuts (16 mm) = 1504097

M8												
	Positions	Gender	Head Orientation	Length	Non-Shielded PUR Jacket Part #	Non-Shielded CMAT #	Shielded PUR Jacket Part #	Shielded CMAT #	Front-Mount Receptacle	Rear-Mount Receptacle		
<b>3-Position</b> Female  Male 	3-Pos.	Male/Female	Straight	1.5 m	1681923	1405935	1455285	1405828	1500350	1453449		
		Female	Straight	5 m	1669628	1405956	1521737	1405834	1500334	1453478		
			Right Angle		1669631	1405957	1521782	1405835	1500334	1453478		
		Male	Straight		1681680	1405939	1521630	1405830	1500350	1453449		
			Right Angle		1681716	1405944	1521685	1405833	1500350	1453449		
		Female	Straight		10 m	1694101	1405956	1521740	1405834	1500334	1453478	
	Right Angle		1694169			1405957	1521795	1405835	1500334	1453478		
	Male	Straight	1693584	1405939		1521643	1405830	1500350	1453449			
		Right Angle	1694114	1405944		1521698	1405833	1500350	1453449			
	<b>4-position</b> Female  Male 	4-Pos.	Male/Female	Straight		1.5 m	1682168	1405902	1455735	1405810	1500363	1453452
			Female	Straight		5 m	1681868	1405923	1521931	1405822	1500347	1453481
				Right Angle	1681897		1405924	1521986	1405823	1500347	1453481	
Male		Straight	1681800	1405906	1521834		1405818	1500363	1453452			
		Right Angle	1681839	1405911	1521889	1405821	1500363	1453452				
Female		Straight	10 m	1683484	1405923	1521944	1405822	1500347	1453481			
	Right Angle	1694172		1405924	1521999	1405823	1500347	1453481				
	Male	Straight		1694143	1405906	1521847	1405818	1500363	1453452			
Right Angle		1694156		1405911	1521892	1405821	1500363	1453452				



M12												
	Positions	Gender	Head Orientation	Length	Non-Shielded PUR Jacket Part #	Non-Shielded CMAT #	Shielded PUR Jacket Part #	Shielded CMAT #	Front-Mount Receptacle	Rear-Mount Receptacle		
<b>3-Position</b> Female  Male 	3-Pos.	Male/Female	Straight	1.5 m	1681525		1500826					
		Female	Straight	5 m	1683510	1405947	1682809	1405927	1523434	1419632		
			Right Angle		1694525	1405959	1682838	1405934	1523450	1419629		
		Male	Straight		1668030	1405949	1682676	1405929	1523434	1419632		
			Right Angle		1668153	1405955	1682702	1405932	1523434	1419632		
		Female	Straight		10 m	1693034	1405958	1500680	1405933	1523450	1419629	
	Right Angle		1694538			1405959	1500693	1405934	1523450	1419629		
	Male	Straight	1682566	1405949		1500664	1405929	1523434	1419632			
		Right Angle	1694444	1405955		1500677	1405932	1523434	1419632			
	<b>4-position</b> Female  Male 	4-Pos.	Male/Female	Straight		1.5 m	1668373		1500868			
			Female	Straight		5 m	1668124	1405925	1682867	1405900	1523450	1419629
				Right Angle	1668247		1405926	1682922	1405901	1523450	1419629	
Male		Straight	1668069	1405916	1682647		1405896	1523434	1419632			
		Right Angle	1668182	1405922	1682896		1405899	1523434	1419632			
Female		Straight	10 m	1683002	1405925		1500716	1405900	1523450	1419629		
	Right Angle	1681389		1405926	1500729		1405901	1523450	1419629			
Male	Straight	1682993		1405916	1694389	1405896	1523434	1419632				
	Right Angle	1694457		1405922	1500703	1405899	1523434	1419632				
<b>5-position</b> Female  Male 	5-Pos.	Male/Female		Straight	1.5 m	1681606	1405886	1500907	1405877	1520039	1419658	
		Female		Straight	5 m	1669848	1405892	1682951	1405884	1520055	1419645	
			Right Angle	1669877		1405893	1682980	1405885	1520055	1419645		
	Male	Straight	1669783	1405888		1682731	1405879	1520039	1419658			
		Right Angle	1669819	1405891		1682773	1405883	1520039	1419658			
	Female	Straight	10 m	1683374		1405886	1500758	1405877	1520039	1419658		
Right Angle		1694541		1405892		1500761	1405884	1520055	1419645			
Male	Straight	1683361		1405893	1500732	1405885	1520055	1419645				
	Right Angle	1694460		1405888	1500745	1405879	1520039	1419658				
<b>8-position</b> Female  Male 	8-Pos.	Male/Female		Straight	1.5 m	1522697	1405891	1522985	1405883	1520039	1419658	
		Female		Straight	5 m	1520369	1405851	1522888	1405843	1523492	1419687	
			Right Angle	1522642		1405852	1522930	1405844	1523492	1419687		
	Male	Straight	1522516	1405847		1526981	1405839	1523476	1419690			
		Right Angle	1522561	1405850		1522833	1405842	1523476	1419690			
	Female	Straight	10 m	1520372		1405851	1522891	1405843	1523492	1419687		
Right Angle		1522655		1405852		1522943	1405844	1523492	1419687			
Male	Straight	1522529		1405847	1522794	1405839	1523476	1419690				
	Right Angle	1522574		1405850	1522846	1405842	1523476	1419690				

# M8/M12 Distributor Boxes





Use distributor boxes for quick and clear cabling in the field. Distributor boxes bundle several cables into one master cable that is connected to the controller. Thanks to the status indicator, you have an overview of a large number of signals.

- ✓ Increased machine availability, thanks to easy diagnostics
- ✓ Safety in the field, thanks to molded housing and high degree of protection
- ✓ Flexible cabling, thanks to the wide product range and various master cable connections





## M8 Metal Thread

 <p>8 Positions • Single Occupancy ✓ LED</p>			 <p>8 Positions • Double Occupancy ✓ LED</p>		
Connection Type			Connection Type		
Master Cables	Cable Glands	Connectors	Master Cables	Cable Glands	Connectors
1197232 (5m)	1197611 (Screw)	1197575 (M12 to M8)	1197314 (5m)	1197617 (Screw)	N/A
1197236 (10m)	1197616 (Spring)	1166980 (M16 to M8)	1197319 (10m)	1197620 (Spring)	

## M12 Metal Thread

 <p>8 Positions • Single Occupancy ✗ LED</p>			 <p>8 Positions • Double Occupancy ✗ LED</p>			 <p>8 Positions • Single Occupancy ✓ LED</p>			 <p>8 Positions • Double Occupancy ✓ LED</p>		
Connection Type			Connection Type			Connection Type			Connection Type		
Master Cables	Cable Glands	Connectors	Master Cables	Cable Glands	Connectors	Master Cables	Cable Glands	Connectors	Master Cables	Cable Glands	Connectors
1517042 (5m)	1516881	N/A	1517068 (5m)	1516894	N/A	1517165 (5m)	1516823	N/A	1517181 (5m)	1516836	N/A
1517055 (10m)			1517071 (10m)			1517178 (10m)			1517194 (10m)		

## M12 Plastic Thread

 <p>8 Positions • Single Occupancy ✗ LED</p>			 <p>8 Positions • Double Occupancy ✗ LED</p>			 <p>8 Positions • Single Occupancy ✓ LED</p>			 <p>8 Positions • Double Occupancy ✓ LED</p>		
Connection Type			Connection Type			Connection Type			Connection Type		
Master Cables	Cable Glands	Connectors	Master Cables	Cable Glands	Connectors	Master Cables	Cable Glands	Connectors	Master Cables	Cable Glands	Connectors
1452518 (5m)	1452783	N/A	1452547 (5m)	1452796 (Screw)	1692844 (M23 to M12)	1452699 (5m)	1452848 (Screw)	N/A	1452725 (5m)	1452851 (Screw)	1692459 (M23 to M12)
1452521 (10m)			1452550 (10m)	1452974 (Spring)		1452709 (10m)	1453025 (Spring)		1452738 (10m)	1453038 (Spring)	

## Accessories

Master Cable Ring for Sensor/Actuator boxes



Master Cable M23 Plug Connection



19 pos.

1503344	50m	PUR/PVC Black	1684056	5m	PUR/PVC black
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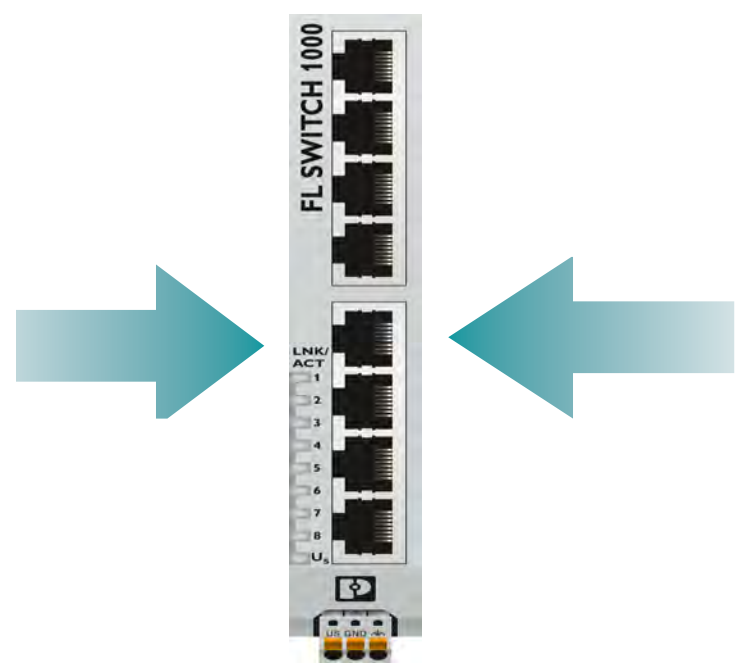
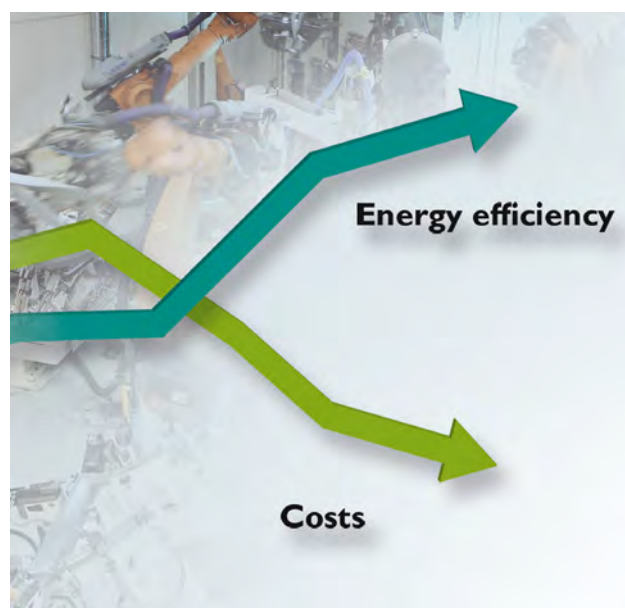
## Unmanaged Switches

How many copper ports are required?	Is higher IP rating needed in the application?						
Are specialty ports required: Power Over Ethernet (PoE) and/or fiber optic?	Is extended temperature needed?						
What are the total number of ports required?	Resulting Phoenix Contact part number						
What speed is required in the network?							
Unmanaged Switch 1000							
Copper Ports	Specialty Ports	Total Ports	Speed	IP65 / IP67	Extended Temperature	Type Description	Order #
4	1 x SC	5	10/100	N	N	FL SWITCH 1004N-FX SM	<a href="#">1085214</a>
4	1 x ST	5	10/100	N	N	FL SWITCH 1004N-FX ST	<a href="#">1085179</a>
4	1 x SC-D	5	10/100	N	N	FL SWITCH 1004N-FX	<a href="#">1084159</a>
4	1 x SFP	5	Gigabit	N	N	FL SWITCH 1104N-SFP	<a href="#">1085173</a>
4	1 x SFP	5	Gigabit	N	Y	FL SWITCH 1104NT-SFP	<a href="#">1343023</a>
4	1 x SFP	5	10/100	N	N	FL SWITCH 1004N-SFX	<a href="#">1085177</a>
4	1 x SFP	5	10/100	N	Y	FL SWITCH 1004NT-SFX	<a href="#">1085169</a>
5	-	5	10/100	N	N	FL SWITCH 1005N	<a href="#">1085039</a>
5	-	5	Gigabit	N	N	FL SWITCH 1105N	<a href="#">1085254</a>
5	-	5	10/100	N	Y	FL SWITCH 1005NT	<a href="#">1085170</a>
5	-	5	Gigabit	N	Y	FL SWITCH 1105NT	<a href="#">1085163</a>
5	2 x SFP	7	Gigabit	N	N	FL SWITCH 1105N-2SFP	<a href="#">1085171</a>
5	2 x SFP	7	10/100	N	N	FL SWITCH 1005N-2SFX	<a href="#">1085176</a>
5	2 x SFP	7	10/100	N	Y	FL SWITCH 1005NT-2SFX	<a href="#">1085164</a>
5	2 x SFP	7	Gigabit	N	Y	FL SWITCH 1105NT-2SFP	<a href="#">1343025</a>
8	-	8	10/100	N	N	FL SWITCH 1008N	<a href="#">1085256</a>
8	-	8	Gigabit	N	N	FL SWITCH 1108N	<a href="#">1085243</a>
8	-	8	10/100	N	Y	FL SWITCH 1008NT	<a href="#">1085165</a>
8	-	8	Gigabit	N	N	FL SWITCH 1108N	<a href="#">1085243</a>
-	8 x M12	8	10/100	Y	N	FL SWITCH 1608	<a href="#">1196227</a>
-	8 x M12	8	Gigabit	Y	N	FL SWITCH 1708	<a href="#">1196228</a>
12	2 x SFP	14	10/100	N	Y	FL SWITCH 1012NT-2SFP	<a href="#">1249598</a>
16	-	16	10/100	N	N	FL SWITCH 1016N	<a href="#">1085255</a>
16	-	16	Gigabit	N	N	FL SWITCH 1116N	<a href="#">1085219</a>
16	-	16	Gigabit	N	Y	FL SWITCH 1116T	<a href="#">1085115</a>
24	-	24	10/100	N	Y	FL SWITCH 1024T	<a href="#">1343027</a>



Phoenix Contact Ethernet Unmanaged Switch conforms to Energy-Efficiency Ethernet Standard IEEE 802.3az

Space-saving due to reduced width





## Managed Switches

■ How many copper ports are required?	■ What special features are included?
■ How many fiber optic ports are required?	■ What is the designation of the FL Switch?
■ What are the total number of combo ports?	■ Resulting Phoenix Contact part number
■ What is the speed?	

Copper Ports	Fiber Optic Ports	Combo Ports	Port Speed	Special Features	Designation	Order #		
<b>Intelligent Switches for the Machine: Switch 2000 and 2100</b>								
Supply voltage: 18-32 V DC (redundant), temperature range: -0°C to +60°C, IP20, front port outlet direction								
5 x RJ45	-	-	10/100 Mbps	-	FL SWITCH 2005	<a href="#">2702323</a>		
8 x RJ45	-	-		-	FL SWITCH 2008	<a href="#">2702324</a>		
16 x RJ45	-	-		-	FL SWITCH 2016	<a href="#">2702903</a>		
5 x RJ45	-	-	10/100/1,000 Mbps	-	FL SWITCH 2105	<a href="#">2702665</a>		
8 x RJ45	-	-		-	FL SWITCH 2108	<a href="#">2702666</a>		
16 x RJ45	-	-		-	FL SWITCH 2116	<a href="#">2702908</a>		
<b>Intelligent Switches for Universal Use: Switch 2200 and 2300</b>								
Supply voltage: 12-57 V DC (redundant), temperature range: -40°C to +70°C, IP20, front port outlet direction, PROFINET Class B Approvals: DNV/GL, BV, ABS, LR, RINA, IECEx, ATEX Zone 2								
5 x RJ45	-	-	10/100 Mbps	Digital alarm output Fast Ring Detection, Large Tree Support, MRP Manager, up to 32 static VLANs, pool-based DHCP server and option 82	FL SWITCH 2205	<a href="#">2702326</a>		
6 x RJ45	2 x SC MM	-			FL SWITCH 2206-2FX	<a href="#">2702330</a>		
6 x RJ45	2 x SCMM	-			FL SWITCH 2206C-2FX	<a href="#">1095628</a>		
6 x RJ45	2 x SFP	-			FL SWITCH 2206-2SFX PN	<a href="#">1044028</a>		
7 x RJ45	1 x SC SM	-			FL SWITCH 2207-FX SM	<a href="#">2702329</a>		
7 x RJ45	1 x SC MM	-			FL SWITCH 2207-FX	<a href="#">2702328</a>		
8 x RJ45	-	-			FL SWITCH 2208	<a href="#">2702327</a>		
8 x RJ45	-	-			FL SWITCH 2208 PN	<a href="#">1044024</a>		
8 x RJ45	-	-			FL SWITCH 2208C	<a href="#">1095627</a>		
6 x RJ45	2 x ST SM	-			FL SWITCH 2206-2FX SM ST	<a href="#">2702333</a>		
6 x RJ45	2 x ST MM	-			FL SWITCH 2206-2FX ST	<a href="#">2702332</a>		
4 x RJ45	2 x SFP	2			FL SWITCH 2204-2TC-2SFX	<a href="#">2702334</a>		
6 x RJ45	2 x SC SM	-			FL SWITCH 2206-2FX SM	<a href="#">2702331</a>		
6 x RJ45	2 x SFP	-			FL SWITCH 2206-2SFX	<a href="#">2702969</a>		
14 x RJ45	2 x SC SM	-			FL SWITCH 2214-2FX SM	<a href="#">2702906</a>		
14 x RJ45	2 x SC MM	-			FL SWITCH 2214-2FX	<a href="#">2702905</a>		
14 x RJ45	2 x SFP	-			FL SWITCH 2214-2SFX	<a href="#">1006188</a>		
14 x RJ45	2 x SFP	-			FL SWITCH 2214-2SFX PN	<a href="#">1044030</a>		
16 x RJ45	-	-			FL SWITCH 2216	<a href="#">2702904</a>		
16 x RJ45	-	-			FL SWITCH 2216 PN	<a href="#">1044029</a>		
12 x RJ45	2 x SFP	2			FL SWITCH 2212-2TC-2SFX	<a href="#">2702907</a>		
8 x RJ45	-	-			FL SWITCH 2308	<a href="#">2702652</a>		
4 x RJ45	2 x SFP	2			FL SWITCH 2304-2GC-2SFP	<a href="#">2702653</a>		
6 x RJ45	2 x SFP	-			FL SWITCH 2306-2SFP	<a href="#">2702970</a>		
6 x RJ45	2 x SFP	-			FL SWITCH 2306-2SFP PN	<a href="#">1009222</a>		
14 x RJ45	2 x SFP	2			FL SWITCH 2312-2GC-2SFP	<a href="#">2702910</a>		
14 x RJ45	2 x SFP	-			FL SWITCH 2314-2SFP	<a href="#">1006191</a>		
14 x RJ45	-	-			FL SWITCH 2314-2SFP PN	<a href="#">1031683</a>		
<b>IP65/IP66/IP67 Intelligent Switches for Universal Use: Switch 2600 and 2700</b>								
Supply voltage: 12-57 V DC (redundant), temperature range: -40°C to +70°C, IP20, front port outlet direction, PROFINET Class B Approvals: DNV/GL, BV, ABS, LR, RINA, IECEx, ATEX Zone 2								
8 x M12	-	-			10/100 Mbps	IP65/IP66/IP67	FL SWITCH 2608	<a href="#">1106500</a>
8 x M12	-	-			10/100/1,000 Mbps		FL SWITCH 2608 PN	<a href="#">1106616</a>
8 x M12	-	-					FL SWITCH 2708	<a href="#">1106615</a>
8 x M12	-	-	FL SWITCH 2708 PN	<a href="#">1106610</a>				

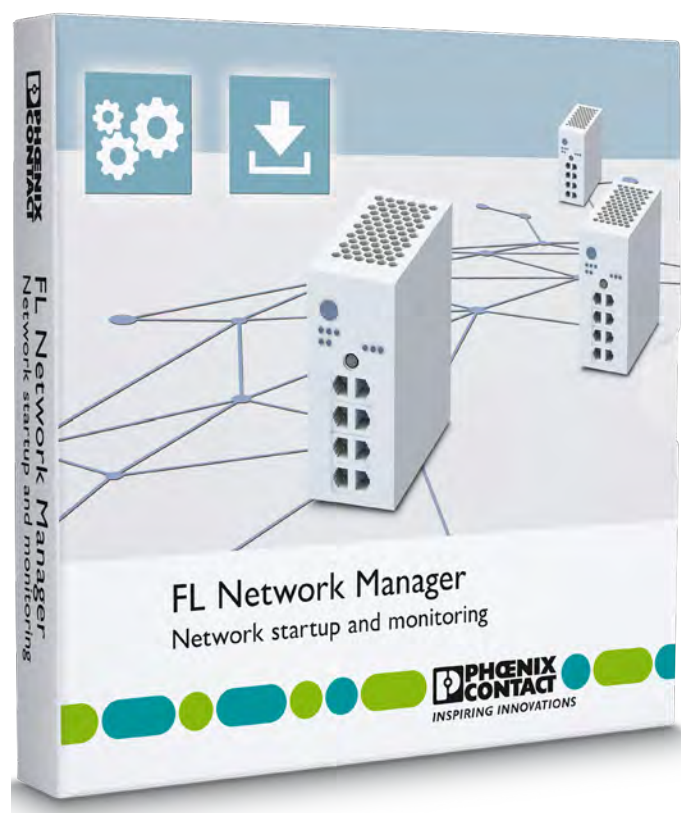


## Managed Switches (cont.)

Stainless Steel Intelligent Switches for Universal Use: Switch 2400 and 2500						
Supply voltage: 12-57 V DC (redundant), temperature range: -40°C to +70°C, IP20, front port outlet direction, PROFINET Class B Approvals: DNV/GL, BV, ABS, LR, RINA, IECEx, ATEX Zone 2						
8 x RJ45	-	-	10/100 Mbps	Digital alarm output Fast Ring Detection, Large Tree Support, MRP Manager, up to 32 static VLANs, pool-based DHCP server and option 82	FL SWITCH 2408	<a href="#">1043412</a>
8 x RJ45	-	-			FL SWITCH 2408 PN	<a href="#">1089133</a>
6 x RJ45	2 x SFP	-			FL SWITCH 2406-2SFX	<a href="#">1043414</a>
6 x RJ45	2 x SFP	-			FL SWITCH 2406-2SFX PN	<a href="#">1089126</a>
4 x RJ45	2 x SFP	2			FL SWITCH 2404-2TC-2SFX	<a href="#">1088853</a>
16 x RJ45	-	-			FL SWITCH 2416	<a href="#">1043416</a>
16 x RJ45	-	-			FL SWITCH 2416 PN	<a href="#">1089150</a>
14 x RJ45	2 x SFP	-			FL SWITCH 2414-2SFX	<a href="#">1043423</a>
14 x RJ45	2 x SFP	-			FL SWITCH 2414-2SFX PN	<a href="#">1089139</a>
12 x RJ45	2 x SFP	2			FL SWITCH 2412-2TC-2SFX	<a href="#">1088875</a>
4 x RJ45	2 x SFP	2			FL SWITCH 2504-2GC-2SFP	<a href="#">1088872</a>
6 x RJ45	2 x SFP	-			FL SWITCH 2506-2SFP	<a href="#">1043491</a>
6 x RJ45	2 x SFP	-	FL SWITCH 2506-2SFP PN		<a href="#">1089135</a>	
8 x RJ45	-	-	FL SWITCH 2508		<a href="#">1043484</a>	
8 x RJ45	-	-	FL SWITCH 2508 PN		<a href="#">1089134</a>	
14 x RJ45	2 x SFP	-	FL SWITCH 2514-2SFP		<a href="#">1043499</a>	
14 x RJ45	2 x SFP	-	FL SWITCH 2514-2SFP PN		<a href="#">1089154</a>	
12 x RJ45	2 x SFP	2	FL SWITCH 2512-2GC-2SFP		<a href="#">1088856</a>	
16 x RJ45	-	-	FL SWITCH 2516		<a href="#">1043496</a>	
16 x RJ45	-	-	FL SWITCH 2516 PN		<a href="#">1089205</a>	



## FL Network Manager



The FL NETWORK MANAGER simplifies configuration and company management. Commission your network quickly and easily with the FL NETWORK MANAGER network management software.

The software provides support for the following steps:

- Scanning an existing network
- IP assignment and device configuration
- Multi-device configuration
- Configuration file handling
- Firmware update
- SNMP scripting

# PoE and Installation Technology

How many copper ports are required?	Are dual-power input and alarm contacts required?
Are specialty ports required: Power Over Ethernet (PoE) and/or fiber optic?	Does the application require unmanaged or managed switch?
What are the total number of ports required?	Resulting Phoenix Contact part number
What speed is required in the network?	

## POE SWITCH

Copper Ports	Specialty Ports	Total Ports	Speed	Power Alarm	Type	Description	Order #
1 x RJ45	4 PoE+	5	10/100	Y	Unmanaged	FL SWITCH 1001T-4POE	<a href="#">2891064</a>
-	2 PoE+/2 Fiber SFP	4	Gigabit	Y	Unmanaged	FL SWITCH 1000T-2POE-GT-2SFP	<a href="#">1026765</a>
-	8 PoE+/2 Fiber SFP	10		Y	Unmanaged	FL SWITCH 1000-8POE-GT	<a href="#">1102079</a>
1 x RJ45	4 PoE+/1 Fiber SFP	6		Y	Unmanaged	FL SWITCH 1001T-4POE-GT-SFP	<a href="#">1026932</a>
1 x RJ45	4 PoE+	5		Y	Unmanaged	FL SWITCH 1001-4POE-GT	<a href="#">1102077</a>
1 x RJ45	4 PoE+	5		Y	Unmanaged	FL SWITCH 1001T-4POE-GT	<a href="#">1026937</a>
-	4 PoE+/1 Fiber SFP	5		Y	Managed	FL SWITCH 4000T-4POE-SFP	<a href="#">1026924</a>
-	8 PoE+/2 Fiber SFP	10		Y	Managed	FL SWITCH 4000T-8POE-2SFP	<a href="#">1026923</a>
4 x RJ45	8 PoE+/4 Fiber SFP	16		Y	Managed	FL SWITCH 4004T-8POE-4SFP	<a href="#">1026922</a>



POE

What connection methods does it have?	What PoE standard does it comply to?
What is the temperature rating?	What is the designation?
What is the max power allowed?	Resulting Phoenix Contact part number
Does it have any special features?	



## POE Injector

	Connection Method	Temperature Range	Power Budget	Special Features	PoE Standard	Designation	Order #		
	RJ45/RJ45	0°C to +60°C	15/30 W	-	IEEE 802.3 af/at (PoE+)	INJ 1000	<a href="#">2703005</a>		
			60 W	Electrical isolation in the power supply unit	Prepared for PoE bt (PoE++)	INJ 1010	<a href="#">2703007</a>		
			15/30 W	Electrical isolation in the power supply unit, surge protection and shield current diagnostics	IEEE 802.3 af/at (PoE+)	INJ 1000-T	<a href="#">2703006</a>		
		60 W	Prepared for PoE bt (PoE++)		INJ 1010-T	<a href="#">2703008</a>			
		15/30 W	IEEE 802.3 af/at (PoE+)		INJ 1100-T	<a href="#">2703009</a>			
			RJ45/IDC	-40°C to +75°C	60 W	Electrical isolation in the power supply unit, surge protection and shield current diagnostics	Prepared for PoE bt (PoE++)	INJ 1110-T	<a href="#">2703010</a>
15/30 W	IEEE 802.3 af/at (PoE+)				INJ 2102-T		<a href="#">2703012</a>		
60 W	Prepared for PoE bt (PoE++)				INJ 2112-T		<a href="#">2703014</a>		
15/30 W	IEEE 802.3 af/at (PoE+)	INJ 2103-T	<a href="#">1004065</a>						
	RJ45/Push-In	-40°C to +75°C	15/30 W		Electrical isolation in the power supply unit, surge protection and shield current diagnostics		IEEE 802.3 af/at (PoE+)	INJ 2101-T	<a href="#">2703011</a>
	RJ45/Screw		-40°C to +75°C	60 W		Electrical isolation in the power supply unit, surge protection and shield current diagnostics	Prepared for PoE bt (PoE++)	INJ 2111-T	<a href="#">2703013</a>

Automation, Networks & Safety



# PoE and Installation Technology

What connection methods does it have?	Does it have surge protection?							
What type of patch panel is this?	What is the designation?							
How is it shielded?	Resulting Phoenix Contact part number							
How is the shield connected?								
<b>Patch Panels</b>								
Connection Method	Description	Shielding	Cable Shield Connection	Surge Protection	Designation	Order #		
	RJ45 / RJ45	"Standard ethernet patch panel, 8-Pos., 10/100/1,000 Mbps"	Right on the DIN rail	No	PP-RJ-RJ	<a href="#">2703015</a>		
	RJ45/Screw				PP-RJ-SC	<a href="#">2703016</a>		
	RJ45/Push-In				PP-RJ-SCC	<a href="#">2703018</a>		
	RJ45/IDC				PP-RJ-IDC	<a href="#">2703019</a>		
	RJ45 / RJ45			"Function variant ethernet patch panels 8-Pos., 10/100/1,000 Mbps With surge protection and shield current diagnostics"	Right on the DIN rail	YES	PP-RJ-RJ-F	<a href="#">2703020</a>
	RJ45/Screw						PP-RJ-SC-F	<a href="#">2703021</a>
	RJ45/Push-In						PP-RJ-SCC-F	<a href="#">2703022</a>
	RJ45/IDC						PP-RJ-IDC-F	<a href="#">2703023</a>



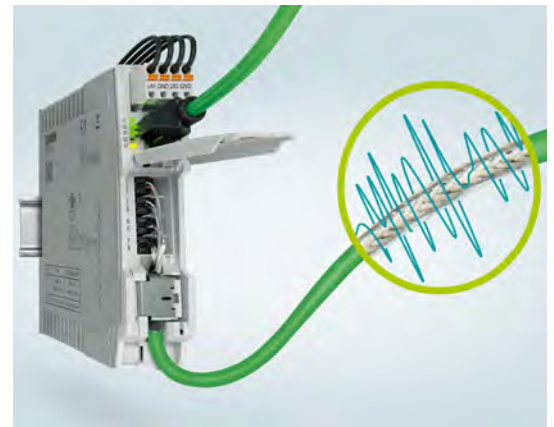
## Toolless Shield Connection

Connect the cable shielding to the DIN rail without tools - with strain relief assured at the same time.



## Shield Current Diagnostics

The reliable display of hazardous shield currents increases the safety of the installation.



## Overvoltage Protection

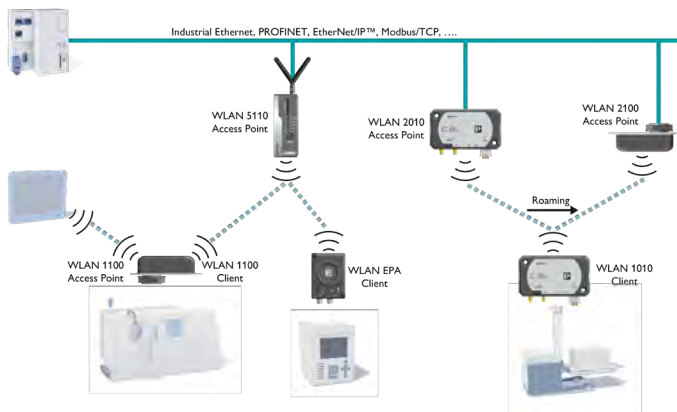
The integrated surge protection protects the application against sudden high voltages in the data cable and improves system reliability and availability.

What's the voltage range?		What wireless technology used?				
What's the temperature range?		Does the Application requires internal or external antenna?				
What's the wireless frequency?		Resulting Phoenix Contact part number				
<b>Wireless Ethernet</b>						
Voltage Range	Temperature Range	Wireless Frequency	Wireless Technology	Antenna / IO	Description	Order #
9-32 VDC	-40°C to 60°C	2.4 / 5 GHz	WLAN a, b, g, n	external	FL WLAN 2010	<a href="#">1119246</a>
9-32 VDC	-40°C to 60°C	2.4 / 5 GHz	WLAN a, b, g, n	internal	FL WLAN 2100	<a href="#">2702535</a>
9-32 VDC	0°C to 60°C	2.4 / 5 GHz	WLAN a, b, g, n	external	FL WLAN 1010	<a href="#">2702899</a>
9-32 VDC	0°C to 60°C	2.4 / 5 GHz	WLAN a, b, g, n	internal	FL WLAN 1100	<a href="#">2702534</a>
9-30 VDC	0°C to 60°C	2.4 / 5 GHz	Bluetooth/WLAN a, b, g, n	internal	FL EPA 2	<a href="#">1005955</a>
9-30 VDC	-40°C to 65°C	2.4 / 5 GHz	Bluetooth/WLAN a, b, g, n	external	FL EPA 2 RSMA	<a href="#">1005957</a>
<b>Wireless Serial / IO</b>						
19.2-30.5 VDC	-40°C to 70°C	2.4 GHz	Trusted Wireless	-	RAD-2400-IFS	<a href="#">2901541</a>
19.2-30.5 VDC	-20°C to 70°C	2.4 GHz	Trusted Wireless	-	RAD-EE-2400-RS485	<a href="#">1081818</a>
10.8-30.5 VDC	-40°C to 70°C	900 MHz	Trusted Wireless	-	RAD-900-IFS-AU	<a href="#">2702878</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	-	RAD-RS485-IFS	<a href="#">2702184</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	Digital Inputs	RAD-DI4-IFS	<a href="#">2901535</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	Relay Outputs	RAD-DOR4-IFS	<a href="#">2901536</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	Digital Inputs	RAD-DI8-IFS	<a href="#">2901539</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	Digital Transistor Outputs	RAD-DO8-IFS	<a href="#">2902811</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	Analogue Inputs	RAD-AI4-IFS	<a href="#">2901537</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	Analogue Outputs	RAD-AO4-IFS	<a href="#">2901538</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	Digital Inputs and Outputs, 1 Analogue Input and Output	RAD-DAIO6-IFS	<a href="#">2901533</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	RTD PT100 Inputs	RAD-PT100-4-IFS	<a href="#">2904035</a>
19.2-30.5 VDC	-40°C to 70°C	-	-	NAMUR Digital Inputs	RAD-NAM4-IFS	<a href="#">2316275</a>



## WLAN

Secure and reliable ethernet wireless connections for industrial application.



## TRUSTED WIRELESS

Quick and easy startup and configuration in Mesh networks of up to 250 devices and 32 Km range.




## Industrial Wireless (cont.)

### SMS Relay

**4G/LTE mobile interface. Switching via phone call and SMS, alerting via SMS and email, message in the event of power failure**

Voltage Supply	Analog Input	Digital Input	Relay Output	Designation	Order #
DC supply (10 V DC ... 60 V DC)	2	4	4	TC MOBILE I/O X200-4G	<a href="#">1038567</a>
AC supply (93 V AC ... 250 V AC)	-	4	4	TC MOBILE I/O X200-4G AC	<a href="#">1038568</a>





## Antennas

What's the antenna type?	What's the connection?
What's the frequency?	Resulting Phoenix Contact part number
What's the antenna gain?	

**Wireless Accessories - Antenna**


Antenna Type	Frequency	Gain	Connection	Description	Order #
Omnidirectional	2.4 GHz	2 dBi	RSMA (Male)	RAD-ISM-2400-ANT-OMNI-2-1-RSMA	<a href="#">2701362</a>
Omnidirectional	2.4 GHz/5 GHz	2.5 dBi/5 dB	N (Female)	ANT-OMNI-2459-02	<a href="#">2701408</a>
Omnidirectional	2.4 GHz/5 GHz / 6 GHz	2.0 dBi/2.5 dBi/3.0 dBi	N (Male)	ANT-OMNI-2459-04	<a href="#">1284780</a>
Omnidirectional	2.4 GHz	6 dBi	N (Female)	RAD-ISM-2400-ANT-OMNI-6-0	<a href="#">2885919</a>
Directional	2.4 GHz/5 GHz	9 dBi	N (Female)	ANT-DIR-2459-01	<a href="#">2701186</a>
Omnidirectional	900 MHz	2 dBi	RSMA (Male)	RAD-900-ANT-OMNI-2-2-RSMA	<a href="#">2904801</a>
Directional	900 MHz	5 dBi	N (Female)	RAD-ISM-900-ANT-YAGI-3-N	<a href="#">2867801</a>
Directional	900 MHz	8.5 dBi	N (Female)	RAD-ISM-900-ANT-YAGI-6.5-N	<a href="#">2867814</a>



What's the connection type?	What's the attenuation of the cable?
What's the length of the cable?	Resulting Phoenix Contact part number

**Wireless Accessories - Coaxial cable**

Connection	Length	Attenuation	Description	Order #
N (Male) -> RSMA (Male)	0.5 m	0.5 / 0.8 / 1.1 dB at 0.9 / 2.4 / 5.8 GHz	RAD-PIG-RSMA/N-0.5	<a href="#">2903263</a>
N (Male) -> RSMA (Male)	1 m	0.5 / 0.8 / 1.1 dB at 0.9 / 2.4 / 5.8 GHz	RAD-PIG-RSMA/N-1	<a href="#">2903264</a>
N (Male) -> RSMA (Male)	2 m	0.5 / 0.8 / 1.1 dB at 0.9 / 2.4 / 5.8 GHz	RAD-PIG-RSMA/N-2	<a href="#">2903265</a>
N (Male) -> RSMA (Male)	3 m	0.5 / 0.8 / 1.1 dB at 0.9 / 2.4 / 5.8 GHz	RAD-PIG-RSMA/N-3	<a href="#">2903266</a>
N (Male) -> RSMA (Male)	5 m	0.5 / 0.8 / 1.1 dB at 0.9 / 2.4 / 5.8 GHz	RAD-PIG-RSMA/N-5	<a href="#">2702140</a>
2x N (Male)	3 m	1.0 / 1.5 / 2.1 dB at 0.9 / 2.4 / 5.8 GHz	RAD-CAB-PFP240-10	<a href="#">5606124</a>
2x N (Male)	6 m	1.0 / 1.5 / 2.1 dB at 0.9 / 2.4 / 5.8 GHz	RAD-CAB-PFP400-20	<a href="#">5606125</a>






## Industrial Wireless (cont.)

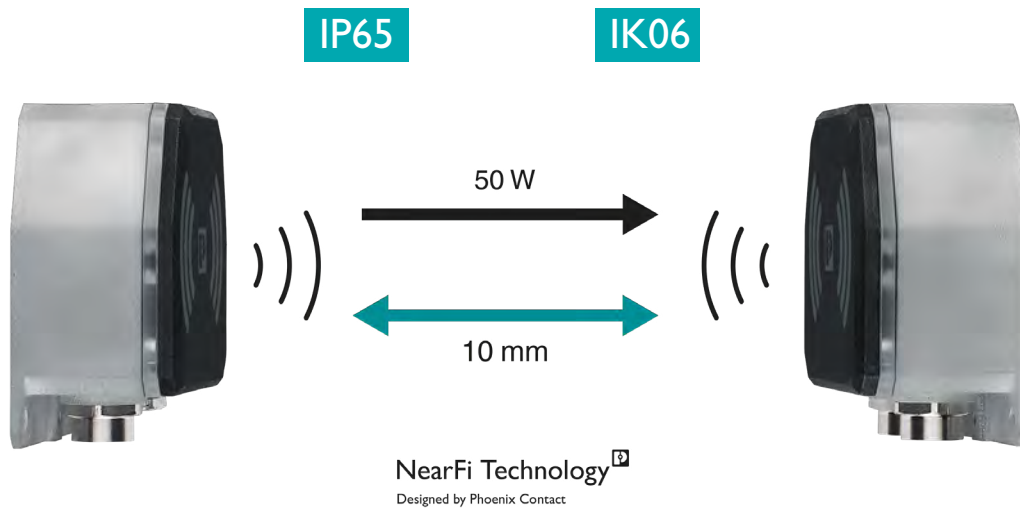
■ What is the input voltage?	■ What is the type of wireless transmission the application requires?
■ What is distance between coupler and remote devices?	■ Resulting Phoenix Contact part number
■ What is the type of coupler?	

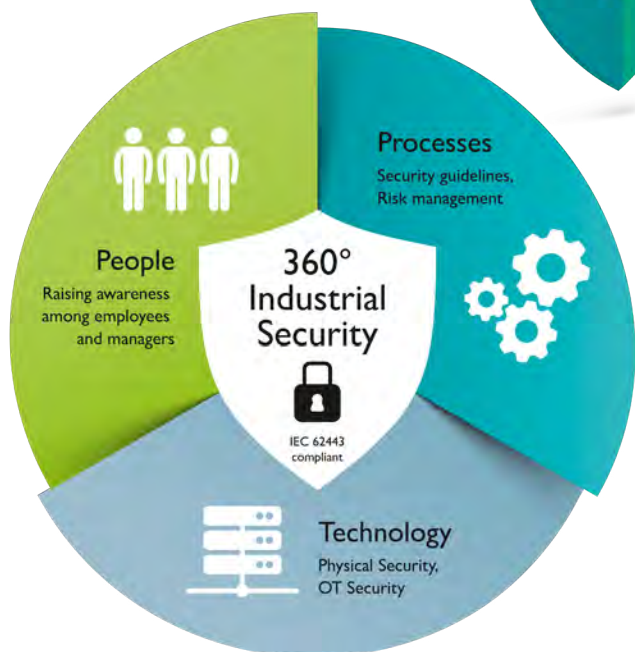
NearFi – Power and Data contactless transmission					
Input Voltage	Distance (at 25°)	Type	Wireless Transmission	Description	Order #
24 VDC	0 ... 12 mm	Remote	Power + Data	NEARFI PD 2A ETH R	<a href="#">1234225</a>
24 VDC		Base	Power + Data	NEARFI PD 2A ETH B	<a href="#">1234224</a>
24 VDC		Remote	Power	NEARFI P 2A R	<a href="#">1234229</a>
24 VDC		Base	Power	NEARFI P 2A B	<a href="#">1234226</a>
24 VDC	0 ... 40 mm	Remote	Data	NEARFI D ETH R	<a href="#">1234234</a>
24 VDC		Base	Data	NEARFI D ETHB	<a href="#">1234232</a>



## NearFi Technology – Contactless Ethernet Real-time Data and Power Transmission



# Secure Remote Connectivity



Phoenix Contact Order #	mGuard cloud compatible?	Does it have DMZ capability?
Can it be installed in a hazardous location?	What external memory type does it have?	Is it cellular capable?
How many copper ports does it have?	Does it have a full stateful firewall?	Can it fall over from a wired connection to cellular network?
What is the temperature rating?	Is it VPN hub capable?	

mGuard										
Model	FL mGuard RS2000	FL mGuard RS2005	TC mGuard RS2000	FL mGuard RS4000	FL mGuard RS4004	TC mGuard RS4000	FL mGuard 1102	FL mGuard 1105	FL mGuard 2102	FL mGuard 4302
Order #	<a href="#">2700642</a>	<a href="#">2701875</a>	<a href="#">2903588</a>	<a href="#">2200515</a>	<a href="#">2701877</a>	<a href="#">2903586</a>	<a href="#">1153079</a>	<a href="#">1153078</a>	<a href="#">1357828</a>	<a href="#">1357840</a>
C1D2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
LAN Ports Available	1	5	4	1	4	4	2	5	2	2
Temperature	-20°C -> +60°C	-20°C -> +60°C	-40°C -> +60°C	-20°C -> +60°C	-20°C -> +60°C	-40°C -> +60°C	0°C -> 60°C	0°C -> 60°C	-20°C -> +60°C	-40°C -> +60°C
mGuard Secure Cloud Compatible	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
External Memory	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
Full Stateful Firewall				Yes	Yes	Yes	Yes	Yes	Yes	Yes
VPN Hub Capability									Yes	Yes
DMZ Capability				Yes	Yes	Yes				
Cellular and GPS Capability					Yes	Yes				
Failover from Wired to Cell			Yes			Yes				



## mGuard Device Manager

Device management software  
for security routers and firewalls



# Gateways and Device Servers



## From fieldbus through to Industrial Ethernet

Use device servers to convert serial interfaces such as RS-232, RS-422, and RS-485 to other standards, such as Ethernet (RJ45), with protocol transparency. Gateways and protocol converters convert various fieldbus and Ethernet protocols (e.g., PROFIBUS to PROFINET), thus enabling the easy integration of legacy serial devices and fieldbuses into modern Ethernet networks.

<span style="color: #0070C0;">■</span> What protocol do you need to convert?		<span style="color: #C00000;">■</span> Does the application require special approvals or special features?				
<span style="color: #70AD47;">■</span> How many Ethernet interfaces does the application need?		<span style="color: #4F81BD;">■</span> What is the designation?				
<span style="color: #4F81BD;">■</span> How many Serial interfaces does the application need?		<span style="color: #FFD700;">■</span> Phoenix Contact order number				
	Protocol	Ethernet Interface	Serial Interface	Special Features	Designation	Item #
	Protocol Transparent	1 x RJ45	1 x D-SUB 9	ATEX, IECEx, UL (C1D2)	GW DEVICE SERVER 1E/1DB9	<a href="#">2702758</a>
			2 x D-SUB 9		GW DEVICE SERVER 1E/2DB9	<a href="#">2702760</a>
		2 x RJ45	4 x D-SUB 9		GW DEVICE SERVER 2E/2DB9	<a href="#">2702761</a>
			4 x D-SUB 9		GW DEVICE SERVER 2E/4DB9	<a href="#">2702763</a>
	MODBUS RTU/ASCII to MODBUS TCP	1 x RJ45	1 x D-SUB 9	ATEX, IECEx, UL (Class I, Division 2)	GW MODBUS TCP/ RTU 1E/1DB9	<a href="#">2702764</a>
			2 x D-SUB 9		GW MODBUS TCP/ RTU 1E/2DB9	<a href="#">2702765</a>
		2 x RJ45	4 x D-SUB 9		GW MODBUS TCP/ RTU 2E/2DB9	<a href="#">2702766</a>
			4 x D-SUB 9		GW MODBUS TCP/ RTU 2E/4DB9	<a href="#">2702767</a>
	Modbus RTU/ ASCII/TCP to EtherNet/IP™	1 x RJ45	1 x D-SUB 9	ATEX, IECEx, UL (Class I, Division 2)	GW EIP/MODBUS 1E/1DB9	<a href="#">1062540</a>
			2 x D-SUB 9		GW EIP/MODBUS 1E/2DB9	<a href="#">1062423</a>
		2 x RJ45	4 x D-SUB 9		GW EIP/MODBUS 2E/2DB9	<a href="#">1062380</a>
			4 x D-SUB 9		GW EIP/MODBUS 2E/4DB9	<a href="#">1062388</a>
	Modbus RTU/ AS CII/TCP to PROFINET	1 x RJ45	1 x D-SUB 9	ATEX, IECEx, UL (Class I, Division 2)	GW PN/MODBUS 1E/1DB9	<a href="#">1105707</a>
			2 x D-SUB 9		GW PN/MODBUS 1E/2DB9	<a href="#">1105708</a>
		2 x RJ45	4 x D-SUB 9		GW PN/MODBUS 2E/2DB9	<a href="#">1105709</a>
			4 x D-SUB 9		GW PN/MODBUS 2E/4DB9	<a href="#">1105710</a>
	PROFIBUS DP to PROFINET	1x RJ45	1x D-SUB 9	FDT/DTM	GW PN/DP 1E/2DB9	<a href="#">1108712</a>
	IO-Link to PROFINET, Modbus/TCP, and OPC UA	2 x RJ45	8 x DI	-	IOL MA8 PN DI8	<a href="#">1072838</a>
	IO-Link to EtherNet/IP™, Modbus/TCP, and OPC UA				IOL MA8 EIP DI8	<a href="#">1072839</a>

# PLCnext Technology

Designed by PHOENIX CONTACT

PLCnext Control devices enable you to work flexibly with your preferred programming languages, whether it's IEC 61131-3 or high-level languages. Unlimited flexibility with the quick and easy integration of open source software and apps, current and future communication standards, and intelligent networking through connection to the cloud afford maximum freedom for your transition into the digital age.



PLCnext Control



PLCnext Engineer



PLCnext Store



PLCnext Community



<b>What is the CPU?</b>	<b>CPU Designation</b>
<b>What is the main feature the application requires?</b>	<b>Resulting Phoenix Contact part number</b>

**PLCnext Control**

CPU	Feature	Designation	Order #
2152*	Standard Application	AXC F 2152	<a href="#">2404267</a>
3152*	3 independent Ethernet Interfaces	AXC F 3152	<a href="#">1069208</a>
4072S*	Integrated PROFIsafe Safety Controller	AXC F 4072S	<a href="#">1051328</a>
4072R*	Redundancy functionality	AXC F 4072R	<a href="#">1136419</a>
1502	Standard Edge PC	EPC 1502	<a href="#">1185416</a>
1522	Edge PC with Serial ports	EPC 1522	<a href="#">1185423</a>
9102S	Box PC with integrated PROFIsafe safety Controller	BPC 9102S	<a href="#">1246285</a>



\*Depending on the application, a Program / Configuration memory is required. (Part number: 1061701, 1043501, 1151112 or 1151111)

<b>What CPU is compatible to the functionality?</b>	<b>CPU Designation</b>
<b>What new functionality is required by the application?</b>	<b>Resulting Phoenix Contact part number</b>

**Left-alignable PLCnext Extension Modules\***

Compatible CPU	Functionality	Designation	Order #
2152 / 3152	Interbus	AXC F XT IB	<a href="#">2403018</a>
2152 / 3152	Profibus	AXC F XT PB	<a href="#">1091657</a>
2152	Ethernet	AXC F XT ETH 1TX	<a href="#">2403115</a>
2152 / 3152	Safety	AXC F XT SPLC 1000	<a href="#">1159811</a>
3152	Machine Learning	AXC F XT ML 1000	<a href="#">1259849</a>
2152 / 3152	PCIe	AXC F XT EXP	<a href="#">1139999</a>



\*AXC BS L 2 – 1064312 required to connect left alignable modules

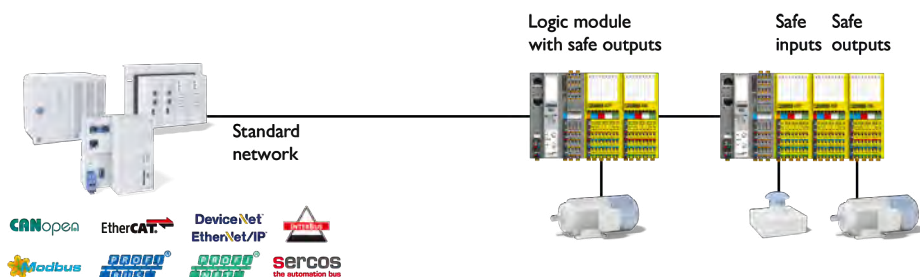
# Axioline F for the Control Cabinet

Project+ - I/O Project Planning – Easy and intuitive free software

Protocol				What is the designation?				Resulting Phoenix Contact part number?			
Network Connection											
Bus Couplers	Protocol	Designation	Order #	Bus couplers	Protocol	Designation	Order #				
	 Bus Coupler for PROFINET	AXL F BK PN AXL F BK PN TPS	2701815 2403869		 Bus Coupler for Modbus TCP	AXL F BK ETH	2688459				
	 Bus Coupler for EtherCAT	AXL F BK EC	2688899		 Bus Coupler for PROFIBUS	AXL F BK PB	2688530				
	 Bus Coupler for EtherNet/IP™	AXL F BK EIP	2688394		Bus Coupler for IEC 61850	AXL F BK SAS	2701457				







\*Up to 63 modules can be connected to the bus couplers

## Axioline Bus Coupler - SafetyBridge Technology compatible





# Axioline F I/O Modules

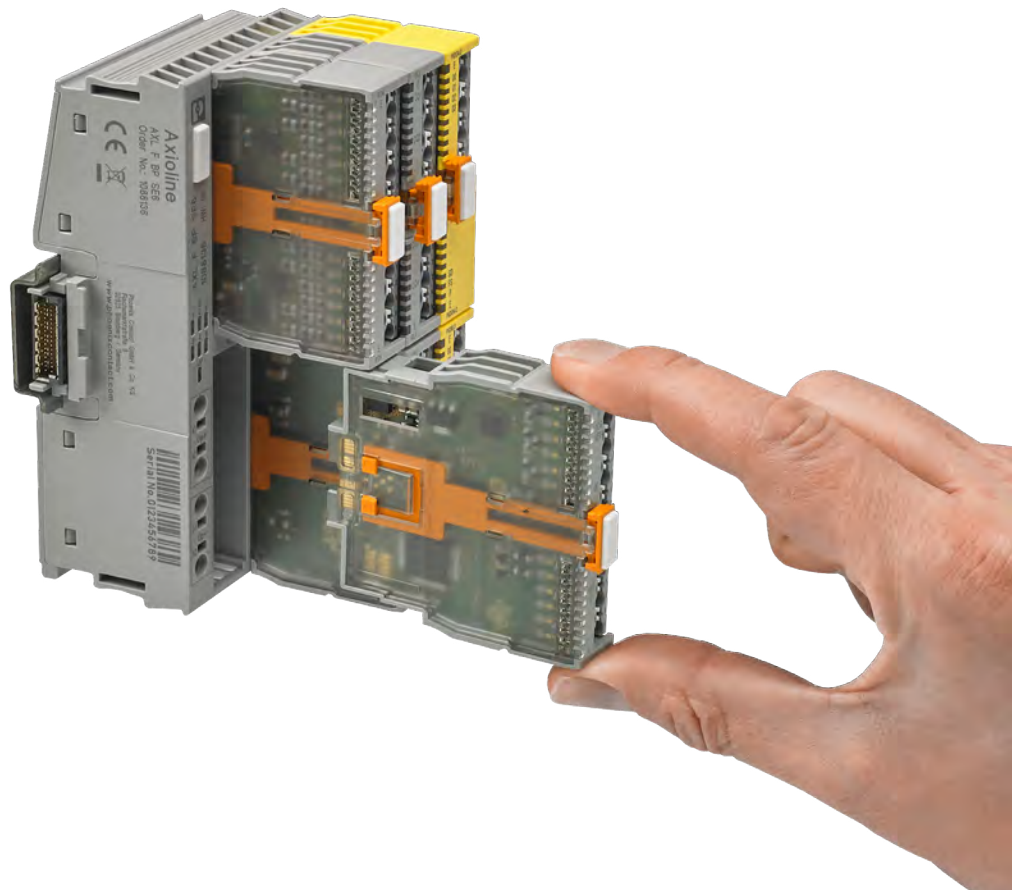
What is the description of the product model?			
What is the designation?			
Resulting Phoenix Contact part number			
Digital Data			
	Description	Designation	Order #
 <p><b>DI</b></p> <p><b>Digital Input</b></p> <ul style="list-style-type: none"> <li>• 16 to 64 channels</li> <li>• High-speed inputs</li> <li>• 54 mm and 35 mm design width</li> </ul>	16 Digital Inputs, 1-Wire	AXL F DI16/1 1H	<a href="#">2688310</a>
	16 Digital Inputs, 1-Wire, High Speed	AXL F DI16/1 HS 1H	<a href="#">2701722</a>
	16 Digital Inputs, 4-Wire	AXL F DI16/4 2F	<a href="#">2688022</a>
	32 Digital Inputs, 1-Wire	AXL F DI32/1 1F	<a href="#">2688035</a>
	64 Digital Inputs, 1-Wire	AXL F DI64/1 2F	<a href="#">2701450</a>
 <p><b>DO</b></p> <p><b>Digital Output</b></p> <ul style="list-style-type: none"> <li>• 8 to 32 channels</li> <li>• 2 A outputs</li> <li>• 54 mm and 35 mm design width</li> </ul>	8 Digital Outputs, 2-Wire, 2 A	AXL F DO8/2 2A 1H	<a href="#">2688381</a>
	16 Digital Outputs, 1-Wire	AXL F DO16/1 1H	<a href="#">2688349</a>
	16 Digital Outputs, 3-Wire	AXL F DO16/3 2F	<a href="#">2688048</a>
	32 Digital Outputs, 1-Wire	AXL F DO32/1 1F	<a href="#">2688051</a>
 <p><b>DI DO</b></p> <p><b>Digital Input/Output</b></p> <ul style="list-style-type: none"> <li>• 35 mm</li> </ul>	8 Digital Inputs, 8 Digital Outputs, 1-Wire	AXL F DI8/1 DO8/1 1H	<a href="#">2701916</a>
Analog Data			
 <p><b>AI</b></p> <p><b>Analog Input</b></p> <ul style="list-style-type: none"> <li>• 4 to 8 channels</li> <li>• 54 mm and 35 mm design width</li> </ul>	4 Analog Inputs, Current	AXL F AI4 I 1H	<a href="#">2688491</a>
	4 Analog Inputs, Voltage	AXL F AI4 U 1H	<a href="#">2688501</a>
	8 Analog Inputs, Current/Voltage	AXL F AI8 1F	<a href="#">2688064</a>
	4 Temperature Inputs, RTD	AXL F RTD4 1H	<a href="#">2688556</a>
	4 Temperature Inputs, UTH	AXL F UTH4 1H	<a href="#">2688598</a>
	8 Temperature Inputs, RTD	AXL F RTD8 1F	<a href="#">2688077</a>
	8 Temperature Inputs, UTH	AXL F UTH8 1F	<a href="#">2688417</a>
 <p><b>AO</b></p> <p><b>Analog Output</b></p> <ul style="list-style-type: none"> <li>• 4 to 8 channels</li> <li>• 54 mm and 35 mm design width</li> </ul>	4 Analog Outputs, Current/Voltage	AXL F AO4 1H	<a href="#">2688527</a>
	8 Analog Outputs, Current/Voltage	AXL F AO8 1F	<a href="#">2688080</a>
Special Function Modules			
 <p><b>FKT</b></p> <p><b>Special Function Modules</b></p> <ul style="list-style-type: none"> <li>• 54 mm and 35 mm design width</li> </ul>	1 Interface can be configured as RS-485/RS-422 or RS-232	AXL F RS UNI 1H	<a href="#">2688666</a>
	2 Counter Inputs, 2 Incremental Encoder Inputs	AXL F CNT2 INC2 1F	<a href="#">2688093</a>
	1 SSI Interface, 1 Analog Output	AXL F SSI1 AO1 1H	<a href="#">2688433</a>



## Axioline Smart Elements IO

The pluggable Axioline Smart Elements are system-free modules without bus communication. The individual element only supports the I/O function. Only in combination with a backplane, which functions similarly to an adapter, bus communication for the respective I/O system is realised. The Axioline Smart Elements are therefore universal and flexible in use.



Description	Type	Input	Output	Order #
AXL F BP SE4	Backplane 4 slots	-	-	<a href="#">1088135</a>
AXL F BP SE6	Backplane 6 slots	-	-	<a href="#">1088136</a>
AXL SE DI16/1	Digital	16	-	<a href="#">1088127</a>
AXL SE DI16/1 NPN	Digital	16	-	<a href="#">1105559</a>
AXL SE DO16/1	Digital	-	16	<a href="#">1088129</a>
AXL SE DO16/1 NPN	Digital	-	16	<a href="#">1105560</a>
AXL SE DO4/2 2A EF	Digital	-	4	<a href="#">1181790</a>
AXL SE DOR2 W 230	Digital	-	2	<a href="#">1105562</a>
AXL SE INC1 ASYM	Encoder Inc	1	-	<a href="#">1182185</a>
AXL SE INC1 SYM	Encoder Inc	1	-	<a href="#">1088130</a>
AXL SE CNT1	Counter	1	-	<a href="#">1088131</a>
AXL SE AI4 I 4-20	Analog	4	-	<a href="#">1088062</a>
AXL SE AI4 I 0-20	Analog	4	-	<a href="#">1296378</a>
AXL SE AI4 U 0-10	Analog	4	-	<a href="#">1088104</a>
AXL SE AO4 I 4-20	Analog	-	4	<a href="#">1088123</a>
AXL SE AO4 I 0-20	Analog	-	4	<a href="#">1296372</a>
AXL SE AO4 U 0-10	Analog	-	4	<a href="#">1088126</a>
AXL SE RTD4 PT100	Temperature	4	-	<a href="#">1088106</a>
AXL SE RTD4 PT1000	Temperature	4	-	<a href="#">1182190</a>
AXL SE UTH4 EF	Temperature	4	-	<a href="#">1182068</a>
AXL SE PSDI8/3	PROFIsafe	8	-	<a href="#">1079241</a>
AXL SE PSDO4/2 2A	PROFIsafe	-	4	<a href="#">1079231</a>
AXL SE SSDI8/3	SafetyBridge	8	-	<a href="#">1190012</a>
AXL SE SSDO4/2 2A	SafetyBridge	-	4	<a href="#">1190017</a>
AXL SE IOL4	IO-Link	-	-	<a href="#">1088132</a>
AXL SE RS485	RS 485	-	-	<a href="#">1088128</a>
AXL SE RS232	RS 232	-	-	<a href="#">1181787</a>
AXL SE SC	Slot Cover	-	-	<a href="#">1167159</a>
AXL SE SC-A	Slot Cover	-	-	<a href="#">1088134</a>



# Control Cabinet Lights

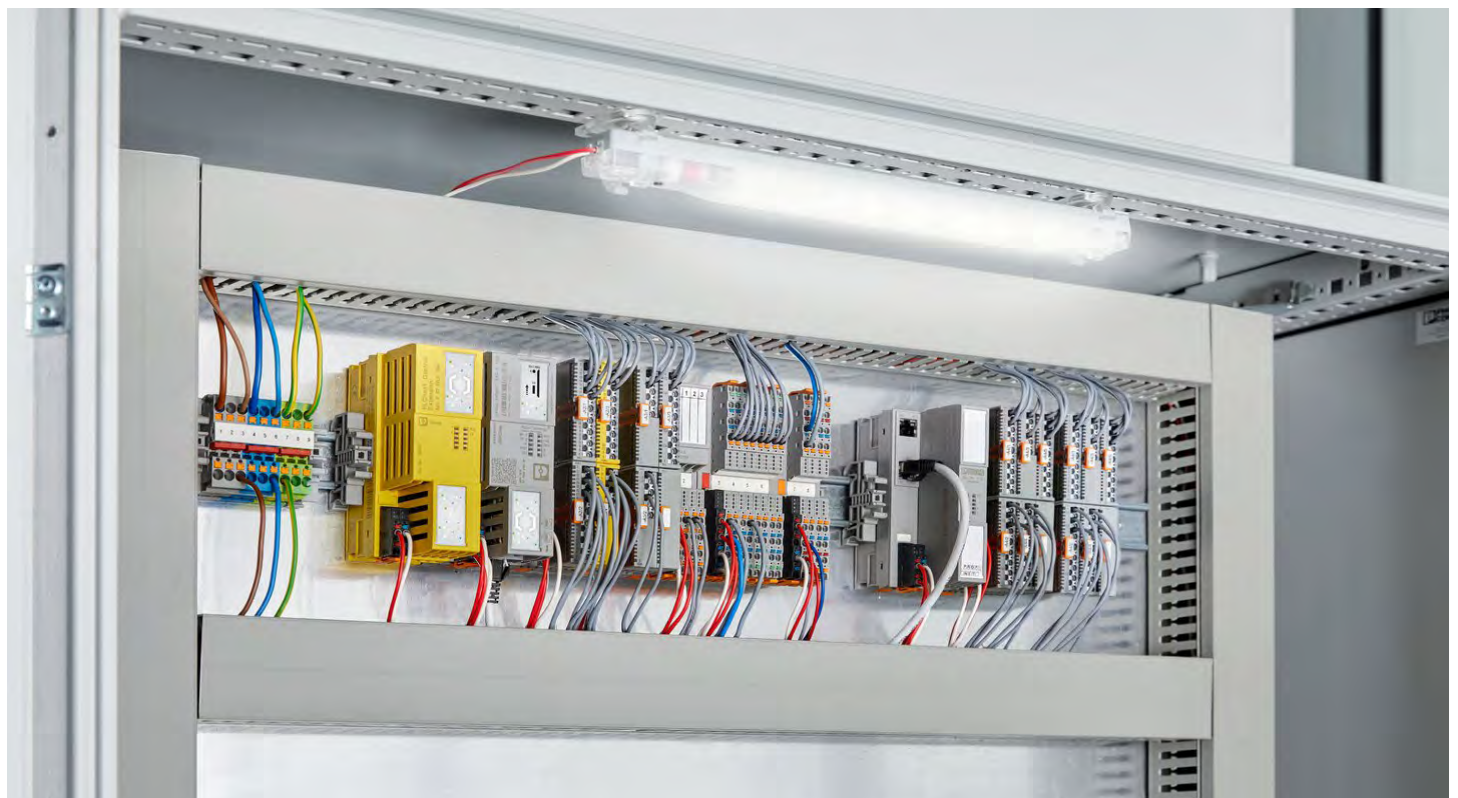
## Enclosure Lights

The enclosure lights from Phoenix Contact provide optimum lighting for your control cabinet, and are easy to install without tools. In particular, the lower third of the control cabinet is ideally lit via a high-quality lens and prismatic reflector. Choose the lights tailored to your needs from two performance classes and a particularly flexible product range.

Class 409 PLD Enclosure Lights		
Model View		
Type	PLD E 409 W 350	PLD E 409 W 350 MS
Order #	<a href="#">1319569</a>	<a href="#">1319573</a>
Dimensions L x W x H	350 mm x 30 mm x 40 mm	350 mm x 30 mm x 40 mm
Luminous Flux	700 lm (Net Luminous Flux)	700lm (Net Luminous Flux)
Protection Class	II	II
Power Consumption	6 W	6 W
Motion Sensor	No	Yes



## Advantages







- Optimum illumination of the entire control cabinet thanks to high-quality optics
- Worldwide 400-class application possibilities thanks to wide-range power supply
- UL approval also enables use in the North American market
- The 400-class push-in connection enables time savings during cabling
- The long LED service life eliminates maintenance work and replacing lights



# Human-Machine Interface (HMI)

Resulting Phoenix Contact part number	How many hours of operation do you require?	What level of protection is needed?
What size screen do you need?	What type of touch functionality do you require?	What kind of special approvals are needed?
What resolution is required?	What type of processing power is needed?	
What is the minimum brightness required?	What temperature range is needed?	

HMIs for HTML5 Applications			
Model View			
Designation	BWP 2043W	BWP 2070W	BWP2102W
Order #	<a href="#">1060549</a>	<a href="#">1060632</a>	<a href="#">1060630</a>
Display (in cm)	4.3	7	10.1
Colours	16.7 Million		
Resolution (W x H in pixels)	480 x 272 (WQVGA)	800 x 480 (WVGA)	1024 x 600 (WVGA)
Brightness (in cd/m <sup>2</sup> )	400	350	
Backlight (MTTF in h)	20,000	25,000	
Touch Technology	Polyester, Analog Resistive		
Processor	i.MX 6DualLite, 454 MHz		
Temperature Range	Operation: 0°C to +50°C Storage: -20°C to +85°C		
Degree of Protection (Front/Back)	IP66/IP20		
Approvals	UL/cUL		

HMIs for HTML5 Applications						
Model View						
Designation	WP 6070-WVPS	WP 6101-WXPS	WP 6121-WXPS	WP 6156-WHPS	WP 6185-WHPS	WP 6215-WHPS
Order #	<a href="#">1290800</a>	<a href="#">1290801</a>	<a href="#">1290802</a>	<a href="#">1290807</a>	<a href="#">1290807</a>	<a href="#">1290809</a>
Display (in cm)	7	10.1	12.1	15.6	18.5	21.5
Colours	16.7 Million					
Resolution (w x h in pixels)	800 x 480 (WQVGA)	1280 x 800 (WVGA)		1920 x 1080 (Full HD)		
Brightness (in cd/m <sup>2</sup> )	500	500	400	450	350	400
Backlight (MTTF in h)	50,000					
Touch Technology	Projective-Capacitive (PCAP)					
Processor	Arm® Cortex®-A53, 1.6 GHz					
Temperature Range	Operation: -20°C to +50°C, Storage: -25°C to +60°C					
Degree of Protection (Front/Back)	IP66/IP20					
Approvals	UL/cUL					



SCAN to download HMIs & Industrial PCs Catalogue






SCAN to view Compact Industrial PCs Product list









# Human-Machine Interface (HMI)

Resulting Phoenix Contact part number	How many hours of operation do you require?	What level of protection is needed?
What size screen do you need?	What type of touch functionality do you require?	What kind of special approvals are needed?
What resolution is required?	What type of processing power is needed?	
What is the minimum brightness required?	What temperature range is needed?	

## Visu+ Touch Panel for Basic Application

Model View			
Designation	BTP 2043W	BTP 2070W	BTP2102W
Order #	<a href="#">1060549</a>	<a href="#">1060632</a>	<a href="#">1060630</a>
Display (in cm)	4.3	7	10.1
Colours	262,144		
Resolution (W x H in pixels)	480 x 272 (WQVGA)	800 x 480 (WVGA)	1024 x 600 (WVGA)
Brightness (in cd/m <sup>2</sup> )	400	300	
Backlight (MTTF in h)	25,000		
Touch Technology	Polyester, Analog Resistive		
Processor	Arm® Cortex®-A7, 700 MHz i.MX6 UL		
Temperature Range	Operation: 0°C to +50°C Storage: -20°C to +85°C		
Degree of Protection (Front/Back)	IP65/IP20		
Approvals	UL/cUL		

## Visu+ Touch Panel for Standard Application

Model View						
Designation	TP 6070-WVPS	TP 6101-WXPS	TP 6121-WXPS	TP 6156-WHPS	TP 6185-WHPS	TP 6215-WHPS
Order #	<a href="#">1189629</a>	<a href="#">1190417</a>	<a href="#">1190420</a>	<a href="#">1190421</a>	<a href="#">1190423</a>	<a href="#">1190424</a>
Display (in cm)	7	10.1	12.1	15.6	18.5	21.5
Colours	16.7 Million					
Resolution (w x h in pixels)	800 x 480 (WQVGA)	1280 x 800 (WVGA)		1920 x 1080 (Full HD)		
Brightness (in cd/m <sup>2</sup> )	500	500	400	450	350	400
Backlight (MTTF in h)	50,000					
Touch Technology	Projective-Capacitive (PCAP)					
Processor	Arm® Cortex®-A9, 800 MHz					
Temperature Range	Operation: -20°C to +50°C, Storage: -25°C to +60°C					
Degree of Protection (Front/Back)	IP66/IP20					
Approvals	UL/cUL					

Automation, Networks & Safety

# INDUSTRIAL PC (IPC)



## VL3 Series IPC - A configurable IPC that truly suits your application with the best-in-class technology

- Celeron and Intel i3, Intel i5 or Intel i7 11th Gen Processors Options
- Panel PC size from 15,6" to 21,5"
- SSD M.2 up to 960 GB
- Optional TPM 2.0 technology
- Optional Additional Serial Ports
- Optional WLAN Mini PCIe



# Functional Safety



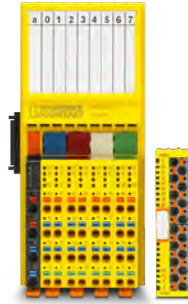
**Safety switch**  
Use our non-contact safety switches with RFID technology for intelligent safety door and position monitoring.



**Safety relay modules**  
If you require just a small number of safety functions, you can choose from our large range of safety relays, safe signal conditioners, and safe motor starters.



**Configurable safety systems**  
The PSRmodular configurable safety system is a flexible safety solution for monitoring your machine or system.



**Safe I/Os**  
Integrate functional safety into your existing safety network, whether in the control cabinet or in the field. With SafetyBridge Technology, the safety function is processed directly in the I/O modules.



**Safe control technology**  
With our safe high-performance controllers, you can integrate reliable functional safety into PROFIsafe networks for applications with special demands on safety and availability.



**Safe power supplies**  
Our high-performance QUINT POWER power supplies ensure superior availability of your system and satisfy all functional safety requirements.

	Emergency stop		Solenoid switch		Start/restart		Changeover contact
	Safety door switch, mechanical		Two-hand function		Enabling current path / N/O contact		Contact with dropout delay
	Light grid		Transponder switch		N/C contact		

## PSRmini: Highly compact safety relays for machine building

Type	Applications							Output Contacts				Safety Approvals		Width In mm	Order #	
												PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061		Screw connection	Push-in connection
PSR-MS20 <sup>1)</sup> 24 V DC	●	●	-	●	-	-	A	1	-	-	1	c <sup>1)</sup>	1 <sup>1)</sup>	6.8	<a href="#">2904950</a>	-
PSR-MS25 <sup>1)</sup> 24 V DC	●	●	-	●	-	-	M	1	-	-	1	c <sup>1)</sup>	1 <sup>1)</sup>	6.8	<a href="#">2904951</a>	-
PSR-MS40 <sup>3)</sup> 24 V DC	●	●	-	-	-	●	A	1	-	-	1	e	3	6.8	<a href="#">2904954</a>	-
PSR-MS60 <sup>3)</sup> 24 V DC	●	●	●	●	-	● <sup>10)</sup>	A	2	-	-	-	e	3	6.8	<a href="#">2904958</a>	-
PSR-MC32 24...230 V DC	●	●	●	●	-	● <sup>10)</sup>	A/M	3	-	1	-	e	3	22.5	<a href="#">2700524</a>	-








## PSRclassic: Conventional safety relays for machine building

Type	Applications							Output Contacts				Safety Approvals		Width In mm	Order #	
												PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061		Screw connection	Push-in connection
PSR-ESA2-B 24 V AC/DC	●	●	-	-	-	-	A	4	-	1	-	c <sup>2)</sup>	1 <sup>2)</sup>	-	<a href="#">2963802</a>	<a href="#">2963954</a>
PSR-ESAM4/3X1-B Voltage variants	●	●	-	-	-	-	A/M	3	-	1	-	e	3	-	See catalogue for ordering data	
PSR-ESL4 <sup>1)</sup> 24 V AC/DC	●	●	●	-	-	●	A/M	3	-	1	-	e	3	-	<a href="#">2981059</a>	<a href="#">2981062</a>
PSR-THC4 <sup>3)</sup> 24 V AC/DC	-	●	-	-	●	-	A	2	-	1	-	e	3	-	<a href="#">2963721</a>	<a href="#">2963983</a>
PSR-URM4 42 to 230 V AC/DC	Contact extension							4	-	2	-	e <sup>3)</sup>	3 <sup>3)</sup>	-	<a href="#">2702924</a>	<a href="#">2702925</a>
PSR-URM4 24 V AC/DC	Contact extension							5	-	2	-	e <sup>3)</sup>	3 <sup>3)</sup>	-	<a href="#">2963734</a>	<a href="#">2964005</a>




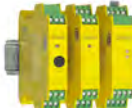



# Functional Safety

 Emergency stop	 Solenoid switch	 Start/restart	 Changeover contact
 Safety door switch, mechanical	 Two-hand function	 Enabling current path / N/O contact	 Contact with dropout delay
 Light grid	 Transponder switch	 N/C contact	







## PSRmini: Highly compact, safe coupling relays for the process industry

Type	Applications	Output Contacts			Diagnostics/Proof Test				Safety Approvals				Width In mm	Order #	
					Visual via LED	Active Error Acknowledgment via A1 <sup>2)</sup>	Measurement on the Device	Self-Monitoring with Interlocking	SIL in Accordance with IEC 61508 / 61511	SIL in Accordance with IEC 50156	ATEX / IECEx / Class I Zone 2	G3 in Accordance with ANSI / ISA-S71.04			GL
	Highly compact, safe coupling relays for failsafe controllers				●	●	●	-	3	3	●	●	●	6.8	<a href="#">2700356</a>
PSR-PS20 24 V DC	For safety-related shutdown (ESD)	1	1	1	●	●	●	-	3	3	●	●	●	6.8	<a href="#">2700357</a>
PSR-PS21 24 V DC		1	1	1	●	-	●	-	3	3	●	●	●	6.8	<a href="#">2702663</a>





## PSRclassic: Classic, safe coupling relays for the process industry


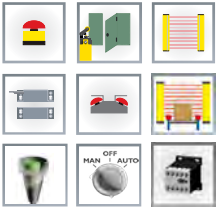
Type	Applications	Output Contacts			Diagnostics/Proof Test				Safety Approvals				Width In mm	Order #	
					Visual via LED	Active Error Acknowledgment via A1 <sup>1)</sup>	Measurement on the Device	Self-Monitoring with Interlocking	SIL in accordance with IEC 61508 / 61511	SIL in Accordance with IEC 50156	ATEX / IECEx / Class I Zone 2	G3 in Accordance with ANSI / ISA-S71.04			GL
	Highly compact, safe coupling relays for failsafe controllers				●	●	●	-	3	3	●	●	●	17.5	<a href="#">2981978</a>
PSR-FSP 24 V DC	For safety-related shutdown (ESD)	1	1	-	-	-	●	-	3	3	-	-	●	17.5	<a href="#">2986960</a>
PSR-FSP/2x1 24 V DC		2	1	-	-	-	●	-	3	3	-	-	●	17.5	<a href="#">2986960</a>

## PSRMotion: Relays for motion monitoring

Type	Sensor Type			Application		Output Contacts		Safe Standards			Order #	
				n=0	n<n <sub>max</sub>			Category in accordance with EN ISO 13849-1	PL in accordance with EN ISO 13849-1	SIL in accordance with EN 62061	Screw connection	Push-in connection
												
PSR-MS25 24 V DC	●	-	-	●	-	1	2	3	e	3	<a href="#">2702355</a>	<a href="#">2702356</a>
PSR-MM30 24 V DC	-	●	●	●	●	2	2	4	e	3	<a href="#">2702357</a>	<a href="#">2702358</a>
PSR-MM35 24 V DC	●	-	-	-	●	1	1	4	e	3	<a href="#">1249515</a>	<a href="#">1249516</a>

# Force-guided Contact Relays

■ What application or load are you switching: electromechanical or solid state?	■ What connection technology: screw terminal (UT) or push-in (PT)?						
■ What is the input-coil voltage: DC or AC?	■ Resulting Phoenix Contact part number						
■ What is your output current (Amps)? (Ratings are for resistive loads)							
■ How many sets of contacts do you need: SPDT, DPDT, etc.?							
<b>Electromechanical Relays</b>							
<b>Input-Coil Voltage</b>	<b>Output Current</b>	<b>Sets of Contacts</b>	<b>Termination Style</b>	<b>Description</b>	<b>Order #</b>	 	
24 V DC	6 A	DPDT - 14 mm	Screw	PLC-RSC- 24DC/2X21/FG	2910535		
			Push-In	PLC-RPT- 24DC/2X21/FG	2910537		
<b>RIF Slimline Relays</b>							
24 V DC	6 A	DPDT - 14 mm	Screw	RIF-1-RSC-LDP-24DC/2X21/FG	2909848		
			Push-In	RIF-1-RPT-LDP-24DC/2X21/FG	2908215		
<b>Replacement Parts</b>							
<b>Mechanical Relays</b>							
<b>Input-Coil Voltage</b>	<b>Output Current</b>	<b>Sets of Contacts</b>	<b>Description</b>	<b>Order #</b>			
24 V DC	6 A	DPDT - 14 mm	REL-MR-24 DC/21-21	2961192			
<b>PSRswitch: Non-Contact Safety Switches</b>							
<b>Type</b>	<b>Description</b>	<b>Coding Type/Function</b>			<b>Connection Technology</b>		
					Screw Connection	Spring-Cage Connection	M12 Connection
PSR-CT-F-SEN-1-8	Safety Sensor	Fixcode: The sensor accepts a single actuator. This actuator is taught in by the user during commissioning. It is not possible to teach in further actuators.			-	-	<a href="#">2702976</a>
PSR-CT-C-SEN-1-8		Unicode: The sensor accepts one actuator. The actuator is taught in by the user during commissioning. It is possible to teach in an unlimited number of further actuators in succession. Previously taught in actuators are blocked by the sensor. They can no longer be used.			-	-	<a href="#">2702972</a>
PSR-CT-M-SEN-1-8		Multicode: The sensor accepts all actuators. It is not necessary to teach them in during commissioning.			-	-	<a href="#">2702975</a>
PSR-CT-C-ACT	Actuator	Coded, suitable for all sensor coding types			-	-	<a href="#">2702973</a>
PSR-MC42	Safety Relay	With integrated IO-Link interface			<a href="#">2702901</a>	<a href="#">2702902</a>	-
SAC-8PY-M/2XF BK 1-PSR	Y Distributor	Type 1 for series connection of PSR-CT safety circuits			-	-	<a href="#">1054338</a>
SAC-8PY-M/2XF BK 2-PSR		Type 2 for manual startup behaviour			-	-	<a href="#">1054339</a>
SAC-8PY-M/2XF BK 3-PSR		Type 3 for integrated diagnostics via signal contact with PSR-CT safety circuits			-	-	<a href="#">1054341</a>
SAC-5P-M12MS BK BR 1-2-4	Bridge Plug	Dummy plug for every sensor circuit			-	-	<a href="#">1054366</a>

■ What type of application will the Safe I/O will control? ■ How Many safe inputs / Outputs are needed? ■ Which Safety Protocol will be needed to integrate with the control system?		■ Which safety levels does the device / system need to conform? ■ What is the degree of protection needed for the application? ■ Resulting Phoenix Contact part number											
Type	Application	Input/Outputs				Protocol		Safety Approval				Degree of Protection	Order#
		Safeinputs	Safeoutputs	Clockoutputs	Relayoutputs	SafetyBridge Technology	PROFIsafe	Categoryinaccordance withENISO13849-1	Plinaccordancewith ENISO13849-1	SILCinaccordancewith ENG2061	SILinaccordancewith IEC61508		
	 Input module	8	–	8	–	Yes	–	4	e	3	3	IP20	<a href="#">2702263</a>
AXL F PSDOR4/2 1F	Relay module	–	–	–	4	–	Yes	4	e	3	3	IP20	<a href="#">2702858</a>
AXL F SSDOR4/2 1F	Relay module	–	–	–	4	Yes	–	4	e	3	3	IP20	<a href="#">2702859</a>
AXL F SSDO8/3 1F 24 V DC	Output module	–	8	–	–	Yes	–	4	e	3	3	IP20	<a href="#">2702264</a>
AXL F PSDI8/4 1F 24 V DC	Input module	8	–	8	–	–	Yes	4	e	3	3	IP20	<a href="#">2701559</a>
AXL F PSDO8/3 1F 24 V DC	Output module	–	8	–	–	–	Yes	4	e	3	3	IP20	<a href="#">2701560</a>
AXL F LPSDO8/3 1F 24 V DC	Logic module with SafetyBridge Technology V3	–	8	–	–	Yes	–	4	e	3	3	IP20	<a href="#">2702171</a>
AXL F PSAI8/2 1F	Input module with 8 safe analog inputs	–	–	–	–	–	Yes	4	e	3	3	IP20	<a href="#">1061424</a>
AXL E IOL SDI8 SDO4 2A M12 L	Input and output module	8	4	8	–	Yes	Yes	4	e	3	3	IP65	<a href="#">1185380</a>




# SafetyBridge Technology

Designed by Phoenix Contact




# PSRModular - Configurable Safety System



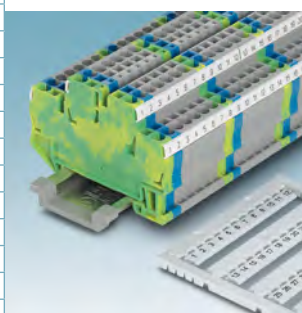
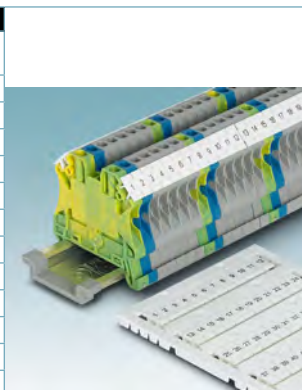
Type	Description	Inputs/Outputs				Safety Approval		Connection Technology	
		Inputs/EDMresetinputs	Outputs	Clockoutputs	Signaloutputs	PLInaccordancewith ENISO13849	SILInaccordancewith EN62061/IEC61508	Screwconnection	Push-inconnection
									
<b>Basic modules</b>									
PSR-M-B1	Base module	8/2	2 (pair)	4	2	e	3	<a href="#">1104981</a>	<a href="#">1104972</a>
PSR-M-B2	Base module (with large program memory)	8/4*	2 (pair) or 4 (single)	4	4*	e	3	<a href="#">1104974</a>	<a href="#">1104975</a>
PSR-M-B3	Base module (with integrated gateway)	8/4	4 (single)	4	4	e	3	-	<a href="#">1337855</a>
<b>Safe extension modules</b>									
PSR-M-EF1	Failsafe extension module	8/4*	2 (pair) or 4 (single)	4	4*	e	3	<a href="#">1104890</a>	<a href="#">1104889</a>
PSR-M-EF2	Failsafe extension module	16	-	4	-	e	3	<a href="#">1104888</a>	<a href="#">1104887</a>
PSR-M-EF3	Failsafe extension module for safety shut-off mats	12	-	8	-	e	3	<a href="#">1104885</a>	<a href="#">1104884</a>
PSR-M-EF4	Failsafe extension module	-/4	4 pairs	-	4	e	3	<a href="#">1104856</a>	<a href="#">1104868</a>
PSR-M-EF5	Failsafe extension module	-/4	2 (pair) or 4 (single), each 2 A	-	8	e	3	<a href="#">1104976</a>	<a href="#">1104977</a>
PSR-M-EF6	Failsafe extension module	-/4	4 relays	-	-	e	3	<a href="#">1104982</a>	<a href="#">1104983</a>
PSR-M-EF7	Failsafe extension module	4 analog	-	-	-	e	3	<a href="#">1104985</a>	<a href="#">1104986</a>
PSR-M-EF8	Failsafe extension module	8/2	2 (pair)	4	2	e	3	<a href="#">1105522</a>	<a href="#">1105523</a>
PSR-M-E1	Non-safe extension module	-	-	-	8	-	-	<a href="#">1105132</a>	<a href="#">1105133</a>
PSR-M-E2	Non-safe extension module	-	-	-	16	-	-	<a href="#">1105134</a>	<a href="#">1105136</a>
PSR-M-TBUS1	TBUS extension module	1 connection channel for local bus extension (up to 50 m per segment)				e	3	<a href="#">1105095</a>	<a href="#">1105096</a>
PSR-M-TBUS2	TBUS extension module	2 connection channels for local bus extension (up to 50 m per segment)				e	3	<a href="#">1105097</a>	<a href="#">1105098</a>

# PSRModular - Configurable Safety System

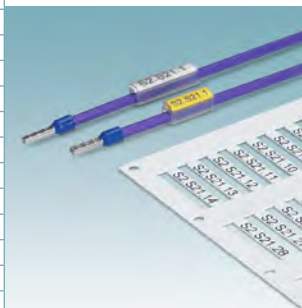
Type	Description	Safety function in accordance with EN 61800-5-2				Sensor type				Encoder interfaces	Safety approval		Connection technology		
		SOS	SLS	SSR	SDI	Proximityswitch	TTL	HTL	Sini/Cos		PLIn accordance with ENISO13849	SILIn accordance with EN62061/IEC61508	Screwconnection	Push-inconnection	
															
<b>Safe motion monitoring</b>															
PSR-M-EM1	Motion – PROXIMITY extension module	●	●	●	-	●	-	-	-	-	e	3	<a href="#">1104987</a>	<a href="#">1104988</a>	
PSR-M-EM2	Motion – TTL extension module	●	●	●	●	●	●	-	-	1	e	3	<a href="#">1104989</a>	<a href="#">1104990</a>	
PSR-M-EM3	Motion – HTL extension module	●	●	●	●	●	-	●	-	1	e	3	<a href="#">1105009</a>	<a href="#">1105010</a>	
PSR-M-EM4	Motion – SINCOS extension module	●	●	●	●	●	-	-	●	1	e	3	<a href="#">1105011</a>	<a href="#">1105012</a>	
PSR-M-EM5	Motion – TTL extension module	●	●	●	●	●	●	-	-	2	e	3	<a href="#">1105014</a>	<a href="#">1105015</a>	
PSR-M-EM51	Extension module Motion – TTL Without voltage monitoring	●	●	●	●	●	●	-	-	2	e	3	<a href="#">1300906</a>	<a href="#">1300905</a>	
PSR-M-EM6	Motion – HTL extension module	●	●	●	●	●	-	●	-	2	e	3	<a href="#">1105016</a>	<a href="#">1105017</a>	
PSR-M-EM7	Motion – SINCOS extension module	●	●	●	●	●	-	-	●	2	e	3	<a href="#">1105018</a>	<a href="#">1105093</a>	
<b>Gateways for PSR-M-B1 and PSR-M-B2</b>															
PSR-M-GW-PB													<a href="#">1105099</a>	<a href="#">1105100</a>	
PSR-M-GW-PN													<a href="#">1105101</a>	<a href="#">1105102</a>	
PSR-M-GW-DNET													<a href="#">1105103</a>	<a href="#">1105473</a>	
PSR-M-GW-CAN													<a href="#">1105104</a>	<a href="#">1105105</a>	
PSR-M-GW-ETH													<a href="#">1105106</a>	<a href="#">1105107</a>	
PSR-M-GW-MODTCP													<a href="#">1105108</a>	<a href="#">1105127</a>	
PSR-M-GW-CCLINK													<a href="#">1105128</a>	<a href="#">1105129</a>	
PSR-M-GW-ECAT													<a href="#">1105130</a>	<a href="#">1105131</a>	

# Marking

Terminal Marking						
Order #	Description	Thermomark Card 2.0	Thermomark Prime	Bluemark ID	Bluemark ID Colour	Topmark Neo
0829484	UCT-TM 3,5	✓	✓	✓	✓	✓
0828734	UCT-TM 5	✓	✓	✓	✓	✓
0828736	UCT-TM 6	✓	✓	✓	✓	✓
0828740	UCT-TM 8	✓	✓	✓	✓	✓
0829142	UCT-TM 10	✓	✓	✓	✓	✓
0829144	UCT-TM 12	✓	✓	✓	✓	✓
0829146	UCT-TM 16	✓	✓	✓	✓	✓
0818108	UC-TM 5			✓	✓	
0818085	UC-TM 6			✓	✓	
0818072	UC-TM 8			✓	✓	
0818069	UC-TM 10			✓	✓	
0819194	UC-TM 12			✓	✓	
0819217	UC-TM 16			✓	✓	
0829486	UCT-TMF 3,5	✓	✓	✓	✓	✓
0828744	UCT-TMF 5	✓	✓	✓	✓	✓
0828746	UCT-TMF 6	✓	✓	✓	✓	✓
0828748	UCT-TMF 8	✓	✓	✓	✓	✓
0829204	UCT-TMF 10	✓	✓	✓	✓	✓
0829214	UCT-TMF 12	✓	✓	✓	✓	✓
0829218	UCT-TMF 16	✓	✓	✓	✓	✓
0818153	UC-TMF 5			✓	✓	
0818140	UC-TMF 6			✓	✓	
0818137	UC-TMF 8			✓	✓	
0818124	UC-TMF 10			✓	✓	
0819233	UC-TMF 12			✓	✓	
0819262	UC-TMF 16			✓	✓	



Wire/Cable Marking Labels						
Order #	Description	Thermomark Card 2.0	Thermomark Prime	Bluemark ID	Bluemark ID Colour	Topmark Neo
0801430	UCT-WMT (10X4)	✓	✓	✓	✓	✓
0801438	UCT-WMT (12X4)	✓	✓	✓	✓	✓
0801446	UCT-WMT (15X4)	✓	✓	✓	✓	✓
0801462	UCT-WMT (18X4)	✓	✓	✓	✓	✓
0801453	UCT-WMT (23X4)	✓	✓	✓	✓	✓
0801422	UCT-WMT (30X4)	✓	✓	✓	✓	✓
0819372	UC-WMT (10X4)			✓	✓	
0823517	UC-WMT (12X4)			✓	✓	
0819398	UC-WMT (15X4)			✓	✓	
0820293	UC-WMT (18X4)			✓	✓	
0819411	UC-WMT (23X4)			✓	✓	
0801422	UC-WMT (30X4)			✓	✓	
0828765	US-WMT (10X4)	✓	✓	✓	✓	
0828766	US-WMT (12X4)	✓	✓	✓	✓	
0828767	US-WMT (15X4)	✓	✓	✓	✓	
0828768	US-WMT (18X4)	✓	✓	✓	✓	
0828769	US-WMT (23X4)	✓	✓	✓	✓	
0828770	US-WMT (30X4)	✓	✓	✓	✓	



Wire/Cable Sleeves						
Conductor Diameter	10 mm	12 mm	15 mm	18 mm	23 mm	30 mm
0.6-1.2 mm	PATG 0/10 1013795	PATG 0/12 0827076	PATG 0/15 1013740	PATG 0/18 0820507	PATG 0/23 0828046	
1.5-2.5 mm	PATG 1/10 1013805	PATG 1/12 0827077	PATG 1/15 1013025	PATG 1/18 0820510	PATG 1/23 1013847	PATG 1/30 0822440
2-4 mm	PATG 2/10 1013818	PATG 2/12 0827078	PATG 2/15 1013038	PATG 2/18 0820523	PATG 2/23 1013850	PATG 2/30 0822453
4-7 mm	PATG 3/10 1013821	PATG 3/12 0827079	PATG 3/15 1013041	PATG 3/18 0820536	PATG 3/23 1013863	PATG 3/30 0822466
6-10 mm		PATG 4/12 0827080	PATG 4/15 1013054	PATG 4/18 0820549	PATG 4/23 0808011	PATG 4/30 0822479
10-14 mm			PATG 5/15 1013067	PATG 5/18 0828059	PATG 5/23 0808024	PATG 5/30 0822482
14-22 mm			PATG 6/15 1013070	PATG 6/18 0828062	PATG 6/23 0808037	
22-30 mm			PATG 7/15 1013083		PATG 7/23 0808040	
30-35 mm			PATG 8/15 1013096		PATG 8/23 0808053	
35-45 mm			PATG 9/15 1013106			



# Printing

■ <b>How to select a printer</b>																																													
■ <b>What are you marking and with what material: CARD or ROLL material?</b>																																													
■ <b>How many labels do you need to print: volume?</b>																																													
■ <b>Do you need a desktop or mobile printer: size?</b>																																													
NOTE: Card printers require magazine that matches the card material																																													
<b>Printing Solutions</b>																																													
<table border="1"> <thead> <tr> <th>Material</th> <th>Volume</th> <th>Size</th> <th>Description</th> <th>Order #</th> </tr> </thead> <tbody> <tr> <td>Card and Sheet</td> <td>Manual Feed</td> <td>Desktop</td> <td>THERMOMARK CARD 2.0</td> <td>1085267</td> </tr> <tr> <td>Card and Sheet</td> <td>Manual Feed</td> <td>Desktop and Portable</td> <td>THERMOMARK PRIME</td> <td>5148888</td> </tr> <tr> <td>Roll</td> <td>&lt; 50,000 Labels/yr.</td> <td>Desktop</td> <td>THERMOMARK ROLL 2.0</td> <td>1085260</td> </tr> <tr> <td>Roll</td> <td>&gt; 50,000 Labels/yr.</td> <td>Large/Desktop</td> <td>THERMOMARK ROLLMASTER</td> <td>0804501</td> </tr> <tr> <td>Cartridge</td> <td>Low</td> <td>Handheld</td> <td>THERMOMARK GO.K</td> <td>1184146</td> </tr> <tr> <td>Cartridge</td> <td>Low</td> <td>Handheld</td> <td>THERMOMARK GO.K SET</td> <td>1184148</td> </tr> <tr> <td>Cartridge</td> <td>Low</td> <td>Portable</td> <td>THERMOMARK GO</td> <td>1090747</td> </tr> <tr> <td>Cartridge</td> <td>Low</td> <td>Portable</td> <td>THERMOMARK GO SET</td> <td>1221548</td> </tr> </tbody> </table>	Material	Volume	Size	Description	Order #	Card and Sheet	Manual Feed	Desktop	THERMOMARK CARD 2.0	1085267	Card and Sheet	Manual Feed	Desktop and Portable	THERMOMARK PRIME	5148888	Roll	< 50,000 Labels/yr.	Desktop	THERMOMARK ROLL 2.0	1085260	Roll	> 50,000 Labels/yr.	Large/Desktop	THERMOMARK ROLLMASTER	0804501	Cartridge	Low	Handheld	THERMOMARK GO.K	1184146	Cartridge	Low	Handheld	THERMOMARK GO.K SET	1184148	Cartridge	Low	Portable	THERMOMARK GO	1090747	Cartridge	Low	Portable	THERMOMARK GO SET	1221548
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Cartridge	Low	Portable	THERMOMARK GO	1090747																																									
Cartridge	Low	Portable	THERMOMARK GO SET	1221548																																									



Printer	Print Materials	Width (mm)	Length (mm)	Description	Order #
Thermomark Roll 2.0 Thermomark E Series	TML..., WML..., WML HF..., WML-FLAG..., EML..., EML-ESD..., EML-RM..., EML-HA..., EML-S..., EMLC..., EMLP... and PMM...	110	300	THERMOMARK-RIBBON 110	5145384
	WMS... and WMS-2 HF...	64	300	THERMOMARK-RIBBON 64-WMSU	0801360
	WMS... and WMS-2 HF...	110	300	THERMOMARK-RIBBON 110-WMSU	0801358
	WMTB HF..., WMS-2 HF..., TMT..., EMT..., EMLF..., PML...	110	300	THERMOMARK-RIBBON 110-WMTB HF	5148007
	EML-HT...	110	300	THERMOMARK-RIBBON 110-EML-HT	0800342
Thermomark Card 2.0	UCT..., US..., and UM...	110	300	THERMOMARK-RIBBON 110-TC	0801371
	UCT..., US..., and UM...	110	70	TMP-RIBBON 110 BK 100	0803374
Thermomark Prime	US(2)-TM(F)..., US-TM(F)L..., US-WMTB..., US-EML..., US-EML(S)P..., US-EMLP-HA..., US-EM(S)P..., US-EML-RS...	110	60	TMP-RIBBON 110 BK 101	0803714







Printer	Description	Width/Diameter	Length (m)	Description	Order #
Thermomark GO and Thermomark GO.K	Shrink Sleeve, White, Black Printing, 3:1 ratio	Cable Diameter 1-3.2 mm	1.8m	MM-WMS 3.2 (EX5)R C1 WH/BK	0803923
		Cable Diameter 1.6-4.8 mm		MM-WMS 4.8 (EX9)R C1 WH/BK	0803924
		Cable Diameter 2.1-6.4 mm		MM-WMS 6.4 (EX10)R C1 WH/BK	0803925
		Cable Diameter 3.2-9.5 mm		MM-WMS 9.5 (EX16)R C1 WH/BK	0803926
	Fabric Label, White, Black Printing, Adhesive	10 mm	6m	MM-EMLC (EX10)R C1 WH/BK	0803933
		18 mm		MM-EMLC (EX18)R C1 WH/BK	0803936
	Label, White, Black Printing, Adhesive	10 mm	8m	MM-EML (EX10)R C1 WH/BK	0803970
		12 mm		MM-EML (EX12)R C1 WH/BK	0803971
		18 mm		MM-EML (EX18)R C1 WH/BK	0803972
		24 mm		MM-EML (EX24)R C1 WH/BK	0803973
	Label, White, Black Printing, Highly Flexible, Adhesive	10 mm	8m	MM-EMLF (EX10)R C1 WH/BK	0803937
		12 mm		MM-EMLF (EX12)R C1 WH/BK	0803938
		18 mm		MM-EMLF (EX18)R C1 WH/BK	0803939
		24 mm		MM-EMLF (EX24)R C1 WH/BK	0803940
	Label, White, Black Printing, Highly Flexible, Adhesive	10 mm	8m	MM-EMLF (EX10)R C1 YE/BK	0803941
		12 mm		MM-EMLF (EX12)R C1 YE/BK	0803942
		18 mm		MM-EMLF (EX18)R C1 YE/BK	0803943
		24 mm		MM-EMLF (EX24)R C1 YE/BK	0803944





Shopfloor Productivity



# Installation

- What do you use to cut conductors, cables, and cable binders?
- Do you ferrule wires? What size wire are you crimping?
- What do you use to strip wires and multi-conductor cables?
- What tools do you need to terminate conductors?

Installation							
Cut	<b>Function</b>	<b>Conductor Size</b>		<b>Description</b>	<b>Order #</b>	Cut 	
	Cable-Cutting Tool	Up to 35 mm <sup>2</sup>		CUTFOX 12	1212128		
	Cable-Cutting Tool	Up to 50 mm <sup>2</sup>		CUTFOX 18	1212129		
	Cable Tie Tool	For plastic cable ties 2.2-4.8 mm wide, up to 1.6 mm thick		UNIFOX-CT 4,8P	1212609		
	Cable Tie Tool	For steel cable ties up to 7.9 mm wide, up to 0.3 mm thick		UNIFOX-CT 7,9M	1212610		
	<b>1000V Rated Insulation</b>						
	Combination Plier	VDE 1000V AC/1500V DC 180mm		UNIFOX-C VDE	1212202		
	Side Cutter	VDE 1000V AC/1500V DC 160mm		CUTFOX-S VDE	1212207		
	Side Cutter	VDE 1000V AC/1500V DC 200mm		CUTFOX-SP VDE	1212206		
	Cable Cutting Tool	Up to 16mm <sup>2</sup> VDE 1000V AC/1500V DC 160mm		CUTFOX 16 VDE	1212126		
Long Nose Plier	VDE 1000V AC/1500V DC 170mm		UNIFOX-P VDE	1212204			
Strip	<b>Single conductor</b>					Strip 	
	<b>Function</b>	<b>Conductor Size</b>	<b>Cable Type</b>	<b>Description</b>	<b>Order #</b>		
	Self-Adjusting Stripping Tool	0.1-4 mm <sup>2</sup>	Especially for rubber and silicone insulation	WIREFOX 4	1212156		
	Self-Adjusting Stripping Tool	1.5-6 mm <sup>2</sup>	Especially for cables protected against short circuits and ground leakages	WIREFOX 6SC	1212158		
	Self-Adjusting Stripping Tool	0.02-10 mm <sup>2</sup>		WIREFOX 10	1212150		
	<b>Multi-Conductor</b>						
	Strips Sensor/Actuator Cables	Diameter 4.4-7 mm	Sensor/Actuator cables with PUR and PVC insulation	WIREFOX SAC	1212623		
Strips Multi-Conductor Cables	Diameter 2.5-11 mm, up to 1 mm insulation	Multicore signal, control, and fiberglass wires	WIREFOX-D 11	1212160			
Strips Large, Multi-Conductor Cables	Diameter 4.5-40 mm, up to 4.5 mm insulation		WIREFOX-D 40	1212161			
Crimp	<b>Crimping Tools</b>					Crimp 	
		<b>Conductor Size</b>	<b>Crimp Shape</b>	<b>Description</b>	<b>Order #</b>		
		0.14-6 mm <sup>2</sup>	Square	CRIMPFOX CENTRUS 6S	1213144		
		0.14-10 mm <sup>2</sup>	Square	CRIMPFOX CENTRUS 10S	1213154		
	0.14-10 mm <sup>2</sup>	Trapezoid	CRIMPFOX DUO 10	1031721			
Assemble	<b>Assembling Tools</b>					Assemble 	
	<b>Tool</b>				<b>Description</b>		<b>Order #</b>
	Torque Screw Driver, Manual, Accuracy as per EN ISO 6789 Standard, Adjustable from 0.3 - 1.2 Nm				TSD-M 1,2NM		1212224
	Torque Screw Driver, Manual, Accuracy as per EN ISO 6789 Standard, Adjustable from 1.2 - 3 Nm				TSD-M 3NM		1212225
	Torque Screw Driver, Manual, Accuracy as per EN ISO 6789 Standard, Adjustable from 3 - 6 Nm				TSD-M 6NM		1212226
	Micro Screwdriver, Flat Blade, Size: 0.4 x 2.0 mm x 60 mm Long Shaft, 2-Component Grip, with Non-Slip Grip and Twist Cap				SZS 0,4X2,0		1205202
	Actuation Tool, for ST Terminal Blocks, also Suitable for Use as a Bladed Screwdriver, Size: 0.6 x 3.5 x 100 mm, 2-Component Grip, with Non-Slip Grip				SZF 1-0,6X3,5		1204517
	Bit Screwdriver Set with Quick-Action Chuck, 17 Pieces of 89 mm Length Slotted, Crosshead (PZ and PH), Hex and Torx® bits				SF-M SET		1212543
	Bit Screwdriver Set with Quick-Action Chuck, 17 Pieces of 89 mm Length Slotted, Crosshead, Hex and Torx® bits				SF-M SET 2		1212756
	Cordless Screwdriver in Case, Including Battery, Charging Device 100-240 V, 2 bits, Two-Speed Gearbox, Forward/Reverse Running and 16-Stage Clutch Up to 450 rpm, Hexagonal Fast Connection.				SF-ASD 16 SET		1200295
	Combination Pliers, Notched Gripping Surface, VDE 1000 V AC/1500 V DC Tested, Size: 180 mm				UNIFOX-C VDE		1212202
	Offset Screwdriver Set, Hex, Metric, SW 1.5; 2; 2.5; 3; 4; 5; 6; 8, and 10 mm, with Ball Head, Matt Chrome-Plated, 9-art, in Practical Holder				SF-LHEX SET		1212544
	Tape measure, 5 m				MEASURING TAPE 5M		1200298
	Actuation Tool, for all 2.5 mm <sup>2</sup> - 4.0 mm <sup>2</sup> spring cages				ST-BW		1207608
	Needle-Nose Pliers with Blade, Notched Grip Area, VDE 1000 V AC/1500 V DC Tested				UNIFOX-P VDE		1212701
Screwdrivers 7 piece, VDE-insulated, Flat blade 0.6 x 3.5, 0.8 x 4.0, 1.0 x 5.5; Phillips PH1 , PH2; Pozidriv® + bladed PZSL 1, PZSL 2				SF-SL/PH/PZ-SL SET S-VDE	1212701		

Cable Termination									
Ferrules	Bootlace Ferrules						Ferrules 		
	Size	Colour	Standard Pack		Description	Order #			
	0.5 x 8 mm	White	100		AI 0,5-8 WH	3200014			
	0.75 x 8 mm	Blue	100		AI 0,75-8 BU	3200027			
	0.75 x 12 mm	Grey	100		AI 0,75-12 GY	3200849			
	1 x 8 mm	Red	100		AI 1-8 RD	3200030			
	1 x 12 mm	Red	100		AI 1-12 RD	3200674			
	1.5 x 8 mm	Black	100		AI 1,5-8 BK	3200043			
	1.5 x 18 mm	Black	100		AI 1,5-18 BK	3200056			
	2.5 x 8 mm	Blue	100		AI 2,5-8 BU	3200522			
	2.5 x 8 mm	Grey	100		AI 2,5-8 GY	3200069			
	2.5 x 18 mm	Blue	100		AI 2,5-18 BU	3200580			
	4 x 10 mm	Grey	100		AI 4-10 GY	3200535			
	4 x 18 mm	Grey	100		AI 4-18 GY	3200593			
	6 x 12 mm	Green	100		AI 6-12 GN	3200108			
	6 x 18 mm	Green	100		AI 6-18 GN	3200111			
	Twin 0.5 x 8 mm	White	100		AI-TWIN 2X 0,5-8 WH	3200933			
	Twin 0.75 x 12 mm	Grey	100		AI-TWIN 2X 0,75-10 GY	3200975			
	Twin 1 x 10 mm	Red	100		AI-TWIN 2X 1-10 RD	3200988			
	Twin 1.5 x 12 mm	Black	100		AI-TWIN 2X 1,5-12 BK	3200991			
	Twin 2.5 x 13 mm	Blue	100		AI-TWIN 2X 2,5-13 BU	3200878			
	0.5 x 8 mm	White	1000		AI 0,5-8 WH-B	3201369			
	0.75 x 8 mm	Blue	1000		AI 0,75-8 BU-B	3201547			
	0.75 x 8 mm	Grey	1000		AI 0,75-8 GY-B	3201372			
	1 x 8 mm	Red	1000		AI 1-8 RD-B	3201385			
	1.5 x 8 mm	Black	1000		AI 1,5-8 BK-B	3201398			
	2.5 x 8 mm	Blue	500		AI 2,5-8 BU-B	3201408			
	2.5 x 8 mm	Grey	500		AI 2,5-8 GY-B	3201550			
	Insulated Lugs	Ring Insulated Lugs							
		Conductor Size	Colour	Ring Size	Standard Pack	Description			Order #
0.5 - 1.5		Red	M3	100	C-RCI 1,5/M3	3240016			
0.5 - 1.5		Red	M4	100	C-RCI 1,5/M4	3240018			
0.5 - 1.5		Red	M6	100	C-RCI 1,5/M6	3240020			
1.5 - 2.5		Blue	M3	100	C-RCI 2,5/M3	3240021			
1.5 - 2.5		Blue	M4	100	C-RCI 2,5/M4	3240023			
1.5 - 2.5		Blue	M6	50	C-RCI 2,5/M6	3240025			
4 - 6		Yellow	M4	50	C-RCI 6/M4	3240027			
4 - 6		Yellow	M6	25	C-RCI 6/M6	3240029			
4 - 6		Yellow	M8	25	C-RCI 6/M8	3240030			
Fork Insulated Lugs									
Conductor Size		Colour	Fork Size	Standard Pack	Description		Order #		
0.5 - 1.5		Red	3mm	100	C-FCI 1,5/M3		3240032		
0.5 - 1.5		Red	4mm	100	C-FCI 1,5/M4		3240034		
0.5 - 1.5		Red	6mm	100	C-FCI 1,5/M6		3240036		
1.5 - 2.5		Blue	3mm	100	C-FCI 2,5/M3		3240037		
1.5 - 2.5		Blue	4mm	100	C-FCI 2,5/M4		3240039		
1.5 - 2.5		Blue	6mm	50	C-FCI 2,5/M6		3240041		
4 - 6		Yellow	4mm	50	C-FCI 6/M4	3240042			
4 - 6	Yellow	6mm	25	C-FCI 6/M6	3240044				
4 - 6	Yellow	8mm	25	C-FCI 6/M8	3240045				
Cable Management									
Cable Ties and Cable Tie Base	Cable Ties								
	Width	Length	Standard Pack		Description	Order #			
	2.5mm	98mm	100		WT-UV HF 2,5x98 BK	3240831			
	3.6mm	140mm	100		WT-UV HF 3,6x140 BK	3240832			
	3.6mm	200mm	100		WT-UV HF 3,6x200 BK	3240833			
	4.5mm	200mm	100		WT-UV HF 4,5x200 BK	3240834			
	7.8mm	365mm	100		WT-UV HF 7,8x365 BK	3240837			
	Cable Tie Bases								
	Width	Length	Standard Pack		Description	Order #			
	19mm	19mm	Black	100	WT-BASE LS HF 4 BK	3240707			
19mm	19mm	Transparent	100	WT-BASE LS HF 4	3240706				
27mm	27mm	Black	100	WT-BASE LS HF 6 BK	3240709				
27mm	27mm	Transparent	100	WT-BASE LS HF 6	3240708				

## Cable Duct and Din Rail

Cable Duct						
Height (mm)	Width (mm)	Length (m)	Colour	Quantity Per Box	Description	Order #
25 mm	25 mm	2m	Gray	25	CD 25x25	<a href="#">3240187</a>
40 mm	25 mm	2m	Gray	24	CD 25x40	<a href="#">3240188</a>
60 mm	25 mm	2m	Gray	15	CD 25x60	<a href="#">3240191</a>
80 mm	25 mm	2m	Gray	10	CD 25x80	<a href="#">3240191</a>
40 mm	40 mm	2m	Gray	25	CD 40x40	<a href="#">3240189</a>
60 mm	40 mm	2m	Gray	20	CD 40x60	<a href="#">3240192</a>
80 mm	40 mm	2m	Gray	10	CD 40x80	<a href="#">3240198</a>
100 mm	40 mm	2m	Gray	10	CD 40x100	<a href="#">3240294</a>
40 mm	60 mm	2m	Gray	20	CD 60x40	<a href="#">3240190</a>
60 mm	60 mm	2m	Gray	12	CD 60x60	<a href="#">3240193</a>
80 mm	60 mm	2m	Gray	10	CD 60x80	<a href="#">3240199</a>
100 mm	60 mm	2m	Gray	8	CD 60x100	<a href="#">3240263</a>
60 mm	80 mm	2m	Gray	10	CD 80x60	<a href="#">3240194</a>
80 mm	80 mm	2m	Gray	6	CD 80x80	<a href="#">3240200</a>
100 mm	80 mm	2m	Gray	8	CD 80x100	<a href="#">3240264</a>
60 mm	100 mm	2m	Gray	8	CD 100x60	<a href="#">3240195</a>
80 mm	100 mm	2m	Gray	6	CD 100x80	<a href="#">3240201</a>
100 mm	100 mm	2m	Gray	6	CD 100x100	<a href="#">3240205</a>



DIN Rail				
Length (m)	Quantity Per Box	Description	Long Description	Order #
2m	10	NS 35/7,5 PERF 2000MM	Steel, Galvanized, Passivated with a Thick Layer	<a href="#">0843103</a>
2m	10	NS 35/7,5 UNPERF 2000MM	Steel, Galvanized, Passivated with a Thick Layer	<a href="#">0843101</a>
2m	10	NS 35/15 PERF 2000MM	Steel, Galvanized, Passivated with a Thick Layer	<a href="#">0843113</a>
2m	10	NS 35/15 UNPERF 2000MM	Steel, Galvanized, Passivated with a Thick Layer	<a href="#">0843112</a>
2m	10	NS 15 PERF 2000MM	Steel, Galvanized, Passivated with a Thick Layer	<a href="#">1401682</a>



DIN Rail Accessories			
Quantity Per Box	Description	Long Description	Order #
100	NS 35/ 7,5 CAP	DIN Rail End Piece, for DIN Rail NS 35/7,5	<a href="#">1206560</a>
100	NS 35/ 15 CAP	DIN Rail End Piece, for DIN Rail NS 35/15	<a href="#">1206573</a>
50	CLIPFIX 35	Quick Mounting End Clamp for NS 35/7,5 DIN Rail or NS 35/15 DIN Rail	<a href="#">3022218</a>
50	CLIPFIX 35-5	Quick Mounting End Clamp for NS 35/7,5 DIN Rail or NS 35/15 DIN Rail	<a href="#">3022276</a>
10	E/AL-NS 35	Aluminium End Clamp, for NS35 Fixed with 2 Screws	<a href="#">1201662</a>
50	E/NS 35 N	End Clamp for NS 35/7,5 DIN Rail or NS 35/15 DIN Rail	<a href="#">0800886</a>
50	CLIPFIX 15	Quick Mounting End Clamp for NS 15	<a href="#">3022263</a>



DIN Rail and Cable Duct Cutters		
Description	Long Description	Order #
PPS COMPACT	Profile cutter for cutting standard DIN rails NS 35/7,5 and NS 35/15 to length (see 1105211 for measuring bar)	<a href="#">1104980</a>
PPS COMPACT/ SCALE-SET I/M	Measuring bar version: inches/metric	<a href="#">1105211</a>
PPS BASIC I/M	Profile cutter for cutting standard DIN rails to length, NS 15 / NS 35/7,5 / NS 35/15, and for cutting the NLS-CU 3/10 neutral busbar to length, with inch/metric measuring rail	<a href="#">1207585</a>
PPS STANDARD M	Profile cutter for cutting and stamping holes in standard DIN rails, NS 32 / NS 35/7,5 / NS 35/15, and for cutting the NS 15 and NLS-CU 3/10 neutral busbar to length. Can accommodate 2 stamping bits, with metric measuring rail, delivered without stamping bits	<a href="#">1206175</a>
PPS CLASSIC M	Profile cutter for cutting to length and stamping holes in standard DIN rails, NS 32 / NS 35/7,5 / NS 35/15, and for cutting the NS 15 and NLS-CU 3/10 neutral busbar to length. Can accommodate 2 stamping bits, bits easily exchangeable, with metric measuring rail, delivered without stamping bits	<a href="#">1206243</a>
PPS CD M	Cable duct cutter for burr-free cutting cable ducts and their covers. can be used up to a width of 125 mm	<a href="#">1207569</a>
CUTFOX-CD	Cable duct cutter, for cutting plastic cable ducts, covers, and profiles, 45° limit stop also for bevel cuts, 75 mm cutting length	<a href="#">1212474</a>

PPS BASIC I/M



PPS CD M



CUTFOX-CD



## Circular Connectors

Circular Connectors in Metric sizes M5 to M12 have become standard in numerous industries and areas of application. The board product range from Phoenix Contact enables uniform connection solutions for signal, data and power transmission in the device.

- ✓ Data rates up to 10 Gbps
- ✓ Signal up to 17 - Positions
- ✓ Power up to 16 A/690 V
- ✓ Locking System - Locking with a click, Push-Lock, Insulation displacement, Crimp, Screw & Pierece connection
- ✓ Shielded and Angled Female Connector Options Available

Power - Assembled Cables with M12 Connectors						
Coding	S	T	L	L	K	M
No.of Position	3+PE	4	4	4+PE	4+PE	5+PE
Cross-section	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>
Cable Length						
<b>Straight Male Connector, Free cable end unshielded</b>						
2m	1408836	1408813				
3m			1425066	1414887	1414870	1414953
5m	1408837	1408814	1425067	1414891	1414875	1414957
10m	1408838	1408815	1425028	1414895	1414879	1414961
<b>Straight Female Connector, Free cable end unshielded</b>						
2m	1408844	1408824				
3m			1425074	1414790	1414788	1414910
5m	1408845	1408825	1425075	1414806	1414804	1414918
10m	1408846	1408826	1425076	1414823	1414821	1414926



Signal - Assembled cables with M12 Push - Pull Connectors (PUR)						
Cable Length	3 - Pos	4 - Pos	5 - Pos	3 - Pos Shielded	4 - Pos Shielded	5 - Pos Shielded
<b>Straight Male Connector, Free cable end</b>						
1.5m	1384594	1392638	1393925	1476550	1476855	1476903
3m	1385536	1392698	1395703	1476806	1476854	1476902
5m	1385538	1392709	1395709	1476805	1476853	1476901
10m	1385625	1392713	1395710	1476803	1476851	1476900
<b>Angled male connector, free cable end</b>						
1.5m	1385626	1392735	1395742	1476802	1476850	1476899
3m	1385643	1392755	1395750	1476800	1476848	1476898
5m	1385646	1392829	1395803	1476798	1476846	1476897
10m	1385647	1392834	1395805	1476796	1476845	1476895
<b>Straight female connector, free cable end</b>						
1.5m	1385782	1392839	1395814	1476794	1476844	1476893
3m	1385791	1393005	1395817	1476792	1476843	1476892
5m	1385792	1393026	1395822	1476791	1476842	1476890
10m	1385968	1393032	1395827	1476788	1476841	1476889
<b>Angled female connector, free cable end</b>						
1.5m	1386380	1393038	1395830	1476786	1476840	1476888
3m	1386394	1393047	1395831	1476785	1476839	1476886
5m	1386513	1393072	1395834	1476784	1476838	1476885
10m	1386514	1393169	1395835	1476782	1476837	1476884

Data - Assembled Network Cables with M12 Connectors (PUR)							
Cable Length	X-Coded	D-Coded	Push-Pull D-Coded	Y-Coded	D-Coded	B-Coded	A-Coded
	Ethernet CA <sub>T</sub> 6	Ethernet	Ethernet	Ethernet	PROFINET	PROFIBUS	"DeviceNet CANopen"
<b>Straight Male Connector, free cable end</b>							
1m	1407467	1407356	1476008	1407487	1407495		
2m	1407468	1407357	1476012	1407488	1407496	1507243	1507421
5m	1407469	1407358	1476013	1407489	1407497	1507256	1507434
10m	1407470	1407359	1476014	1407490	1407498	1507269	1507447
15m	-	-	-	-	-	1507272	1507450
Variable	1408648	1408713	-	1408642	1408640	1538047	1538102
<b>Straight Female Connector, free cable end</b>							
1m	-	1407380	1476016	-	1407528	-	-
2m	-	1407381	1476018	-	1407529	1507298	1507476
5m	-	1407382	1476019	-	1407530	1507308	1507489
10m	-	1407383	1476020	-	1407531	1507311	1507492
15m	-	-	-	-	-	1507324	1507502
Variable	-	1408679	-	-	1408623	1538063	1538128



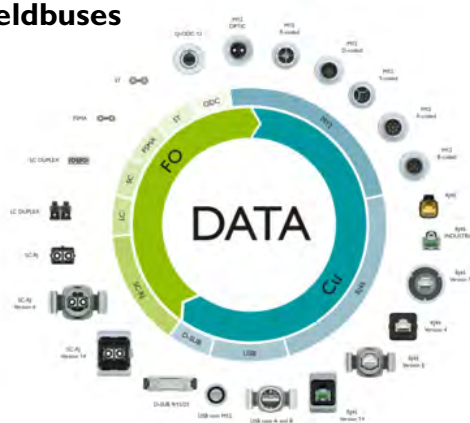
## Data Connectors

The world is becoming increasingly networked. And that means more interfaces on devices. Phoenix Contact offers a comprehensive portfolio of data connectors from RJ45 to USB, HDMI, and D-SUB, up to coaxial and FO connections, as well as for SPE. Expert advice and excellent services for all aspects of device connection supplement the product range – the ideal basis for networking smart devices.

## Copper - Based & Fibre Optic Data Cables for Networks and Fieldbuses

RJ45 Connectors				
Protocol	Ethernet		PROFINET	Ethernet
Connection Technology	IDC Insulation Displacement Connectors			Crimp
Connection Range	AWG 26 ... AWG 24	AWG 26 ... AWG 23	AWG 22	AWG 27 ... AWG 24
CAT5		1656725	1658008	1414382
CAT6	1419001			1414395

RJ45 INDUSTRIAL Connectors								
Connection Technology	IDC Insulation Displacement Connectors							
Protocol	PROFINET				Ethernet			
Connection Range	AWG 23 ...AWG 22				AWG 26 ... AWG 24			
Category	CAT5		CAT6		CAT5		CAT6	
Cable Outlet	Straight	Upward	Downward	Straight	Straight	Upward	Downward	Straight
Part Number	1421126	1421127	1421128	1149847	1421607	1421876	1421877	1149846



SPE Connectors, IP20					
Description	SPE PCB Connector 180	SPE PCB Connector 90	SPE PCB Connector 90 LED	SPE Network Cable	SPE-IDC Connector
Type of Contact	Male			Female	Female
Connection Method	THR and Wave Soldering			-	IDC Insulation Displacement Connection
LED	-	-	Yes	-	-
Part Number	1163798	1163797	1215778	1183808 (2m)	1343953

RJ45 Standard Patch Cables - Webcode #2676			RJ45 Standard Patch Cables - Webcode #2676			
Length	CAT5	CAT6	Length	CAT5 upto 100 Mbps	CAT5 up to 1 Gbps	CAT6 up to Gbps
0.3m	1227558	1227572		93B	94B	94F
0.5m	1227559	1227573	0.5m	1112877	1441195	1113823
1m	1227560	1227575	1.0m	1112876	1441200	1112909
1.5m	1227561	1227578	2.0m	1112875	1441443	1112908
2m	1227562	1227580	3.0m	1112874	1441444	1112907
3m	1227563	1227581	5.0m	1112873	1441659	1112906
5m	1227564	1227583	CAT5 (100Mbps) 93B, 93C, 93K, 93M, 93R CAT5 (1 Gbps) 94B, 94C, 94D CAT6 (10 Gbps) 94F		CAT5 (100Mbps) - PROFINET/EtherCAT/Sercos CAT5 (1 Gbps) & CAT6 (10 Gbps) - Ethernet	
7.5m	1227565	1227585				
10m	1227566	1227588				
12.5m	1227567	1227590				
15m	1227570	1227591				
20m	1227571	1227593				

## Electronic Housing

BC Modular Electronic Housing					
With the new upper housing parts from the BC modular series, you benefit from the convenient operation of the Push-in connection technology on the front of the housing					
Description	BC Modular Upper Part		Push-in PCB Terminal Block	Filler for SPT 1.5	Fillers for SPT 2.5
Horizontal Pitch	4 HP	6 HP		-	
Part Number	1340864	1340863	1135348	1822448	1340862, 1340861

OCS Outdoor Housing Webcode #3249						
Large-volume OCS series electronics housings are the ideal choice for autonomous device systems in extreme environments. The certified housings made from polycarbonate are lightweight and resistant. They permanently and reliably protect your electronics against humidity, heat, UV radiation, and mechanical strain.						
Version	Cover, Light gray	Cover, transparent	Cover, light gray	Cover, transparent	Cover, light gray	Cover, transparent
Size	8" x 6" x 4"	8" x 6" x 4"	10" x 8" x 6"	10" x 8" x 6"	12" x 10" x 8"	12" x 10" x 8"
Part Number	1471770	1471772	1471773	1471774	1471775	1471776



# Structure of an energy storage system

## Power Control Unit

At rack level, the Power Control Unit controls the individual battery modules.

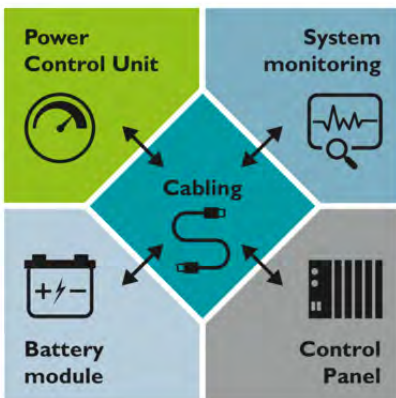
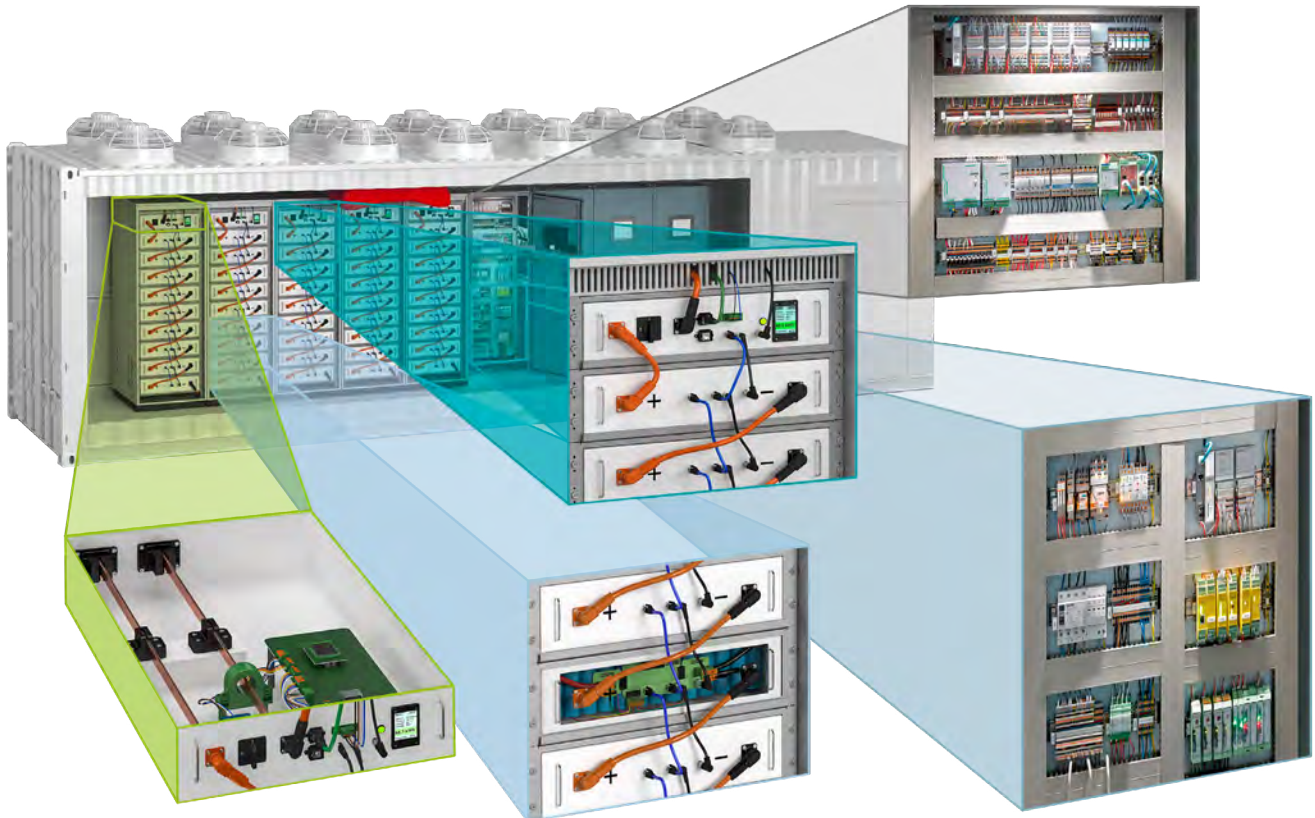
It is used to organize the charging and discharging processes of the battery modules and ensure their safe operating state. To do this, it monitors currents and voltages and the temperatures inside the modules.

## Cabling

All components, modules, and organization levels within an energy storage system are electrically interconnected. This is either done directly or using pre-assembled cabling solutions for data, signals, and power as well as based on busbars.

## System control

At the highest organizational level of an energy storage system, the system control coordinates all the processes within the system. This ensures that both the Power Control Units of the enclosed racks and the auxiliary units are addressed. In addition, the system control handles the external communication.



## Battery module

Battery modules are the core element of the energy storage system. They contain battery cells in which the electrical charge is stored as chemical energy. Each battery module features cell balancing, which ensures that all the battery cells maintain an equal state of charge. Sensors monitor the temperature.

## System monitoring

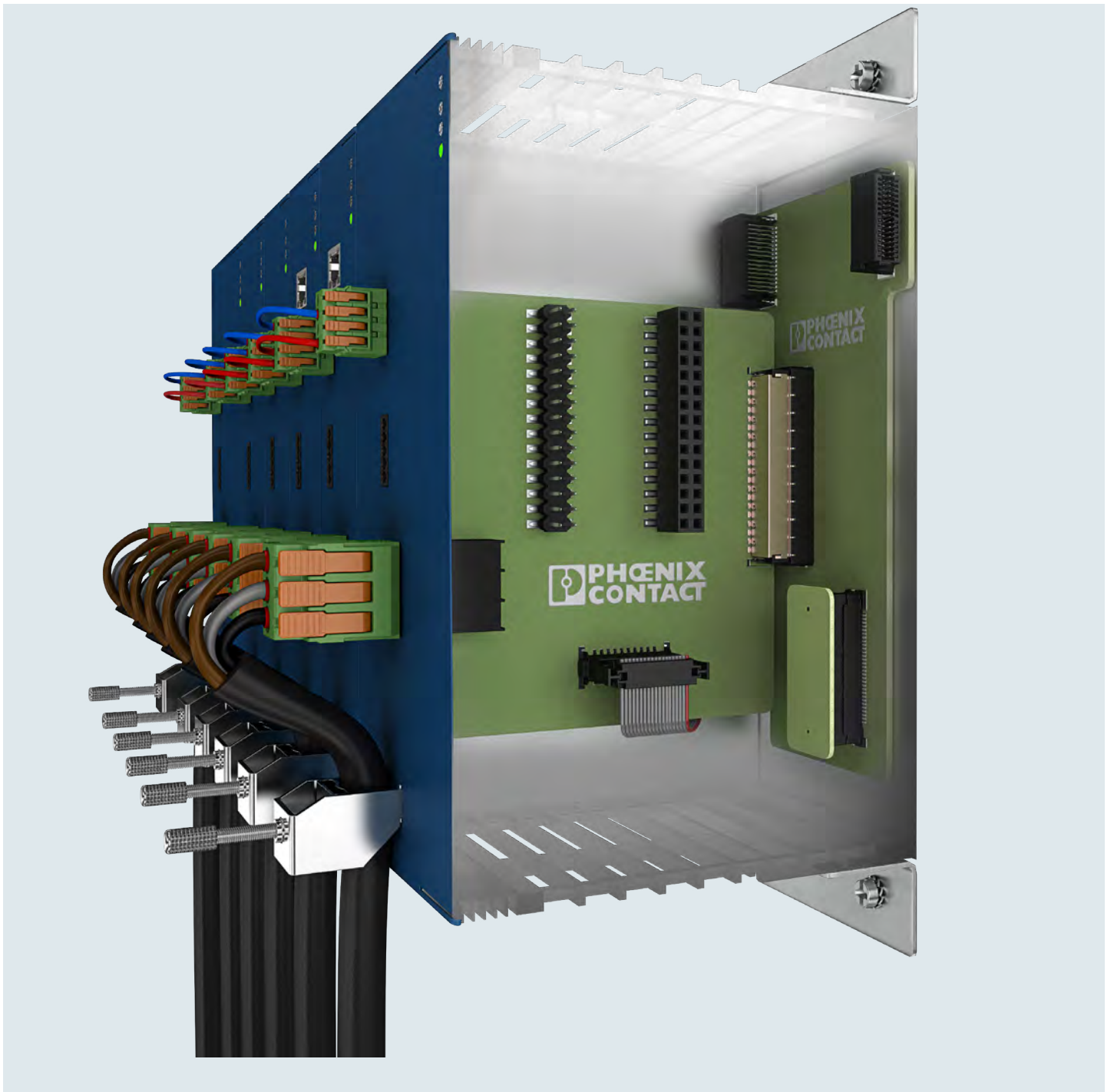
For reasons of safety and efficiency, processes and states are monitored with a high degree of accuracy on all levels of an energy storage system. This begins with measuring the temperatures inside the battery modules and continues all the way to monitoring external influencing factors.



Web Code: #2346



Web Code: #2711



## PCB Terminal Block & Connectors

PCB terminal blocks and PCB connectors are fundamental components of all electronic devices. Our portfolio provides the right connection technology for the transmission of signals, data, and power for almost all applications.

Finepitch Board to Board connectors - This allows you to implement individual PCB orientations in all dimensions with different designs, stack heights, and numbers of positions in different pitches from 0.635 mm to 2.54 mm. Mezzanine, coplanar connections, and mother-daughter cards are also possible.



Web Code: #0425



Web Code: #0391



Web Code: #2050



Web Code: #1520





# NEW PRODUCTS

## New Products 2024 Developed with passion

Our engineers are constantly developing new products. See more than 100 small and large innovations in connection technology, device connection technology, and automation technology.



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# Empowering the All Electric Society



ELECTRIFICATION



NETWORKING



AUTOMATION





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Phoenix Contact is a global market leader in industrial electronics and automation technologies. Our expertise and commitment to innovation across a wide range of industries enable you to build your control cabinet with confidence.

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# Lifetime Warranty

## Choose Phoenix Contact with confidence



**LIFETIME WARRANTY**

BUILD WITH CONFIDENCE

Phoenix Contact engineers durable and reliable products for your control cabinet. A dedication to quality and innovation, united with our strong commitment to provide customers peace of mind, form the foundation of this exclusive Phoenix Contact warranty program.

For customers participating in our Complete Cabinet Confidence Lifetime Warranty (LW) program, Phoenix Contact Australia will warrant many of our products to be free from defects in workmanship and materials for the lifetime of the product. Registration is required, and certain restrictions apply. Improperly applied or installed products may void warranty. See the complete terms and conditions for full details.

Our goal is to be your most trusted partner in building your control cabinet. We believe that achieving peace of mind should be easy!

### Simple Three Step Registration

To assure your Phoenix Contact products are covered under our exclusive Lifetime Warranty, follow these steps:

**Step 1:** Submit your registration ([www.phoenixcontact.com/en-au/au-lifetime-warranty](http://www.phoenixcontact.com/en-au/au-lifetime-warranty)).

**Step 2:** Select and install Phoenix Contact products in accordance with our recommendations.

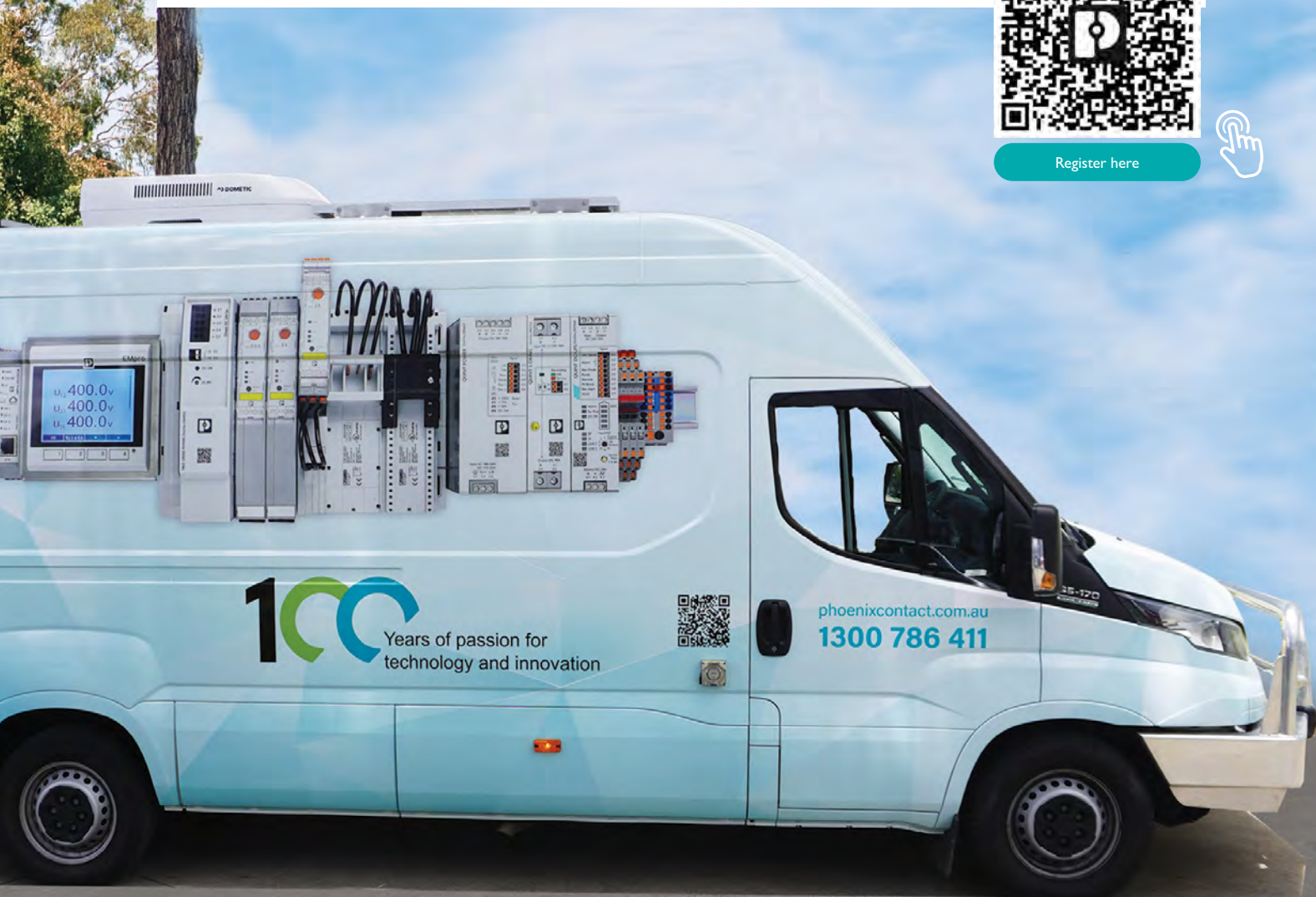
**Step 3:** Make sure all electronics are powered and protected with appropriate Phoenix Contact power supplies and surge protection.

For participation in the Phoenix Contact Complete Cabinet Confidence Lifetime Warranty (LW) program, customer registration is required. Certain restrictions apply. Coverage of products in the program is limited to Phoenix Contact products sold in Australia. Improperly applied or installed products may void warranty.

To review the Lifetime Warranty Terms & Conditions, go to: [www.phoenixcontact.com/en-au/au-lifetime-warranty](http://www.phoenixcontact.com/en-au/au-lifetime-warranty)



Register here



## Ongoing communication with customers and partners worldwide

Phoenix Contact is a global, market leader based in Germany. Our group is known for its future-oriented components, systems, and solutions in the fields of electrical engineering, electronics, and automation.

With a global network reaching across more than 100 countries and 17,400 employees, we can stay in close contact with our customers, something we believe is essential to success. The wide variety of our innovative products makes it easy for our customers to find future-oriented solutions for multiple applications and industries. We especially focus on the fields of energy, infrastructure, process, and factory automation.



You will find our complete product range at:  
[www.phoenixcontact.com.au](http://www.phoenixcontact.com.au)



**LIFETIME WARRANTY**

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