



COMPLETE line

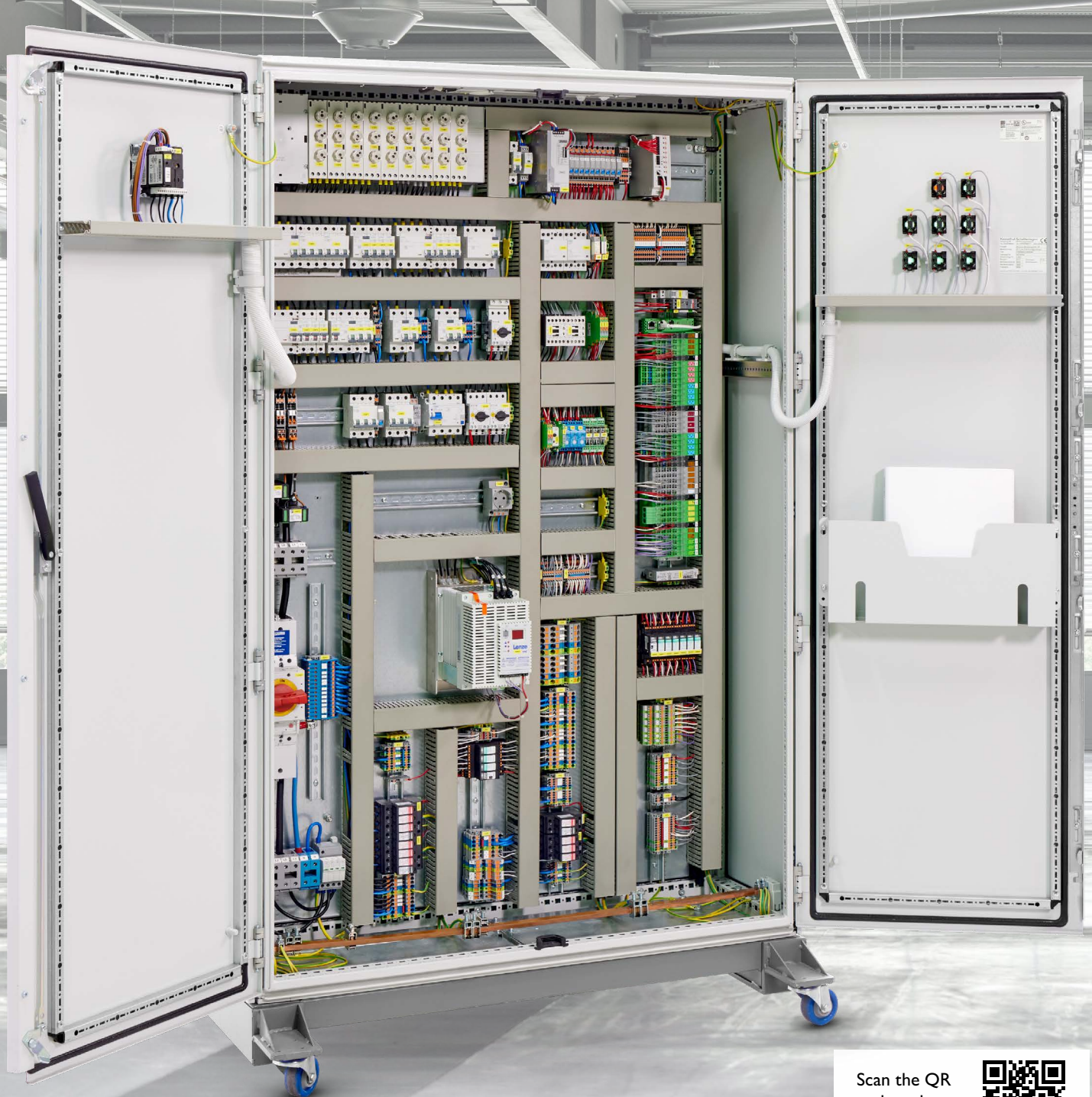
Solutions for the Control Cabinet

Quick reference guide

COMPLETE line

Time for the new standard

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



Scan the QR
code to learn
more online



Choose Phoenix Contact with Confidence

Customers have trusted Phoenix Contact and our products for over 100 years. We are now elevating our commitment to that trust with our new Limited Lifetime Warranty (LLW).



LIMITED LIFETIME WARRANTY

BUILD WITH CONFIDENCE

It's our promise to you that the components you install in your control cabinets are free from defects and built to last. Our goal is to be your most trusted partner by improving the long term reliability of your machines, equipment, and systems.

Phoenix Contact is a world leader in industrial connection and automation technologies, electronic interface systems, and low-voltage power products. This Limited Lifetime Warranty commitment is an extension of the trust customers have come to rely on.



How to Register

Submit your registration online:



Select and install Phoenix Contact products in accordance with our recommendations.

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

Contents

| | |
|---|----|
| Power Reliability | |
| Power Supplies | 5 |
| Uninterruptible Power Supplies | 6 |
| Surge Protection | 9 |
| Device Circuit Breakers | 12 |
| Timer Relays | 14 |
| Power Monitoring | 15 |
| Connectivity | |
| Modular Terminal Blocks | 18 |
| Heavy-duty Connectors | 20 |
| Distributor Boxes | 21 |
| Connectors | 22 |
| Cordsets | 23 |
| Feed-Throughs | 24 |
| Signal Switching and Conditioning | |
| Speed Starters | 27 |
| Interposing Relays | 28 |
| General Purpose and Ice-cube Relays | 30 |
| Signal Conditioners | 32 |
| Industrial Networking and Security | |
| Unmanaged Ethernet Switches | 36 |
| PoE and Ethernet Installation Technology | 37 |
| Managed Switches | 38 |
| Secure Remote Connectivity | 39 |
| RJ45 STANDARD | 40 |
| High-flex Ethernet Cordsets | 41 |
| RJ45 for Industrial Applications | 42 |
| Cabling Solutions | 44 |
| RJ45 for Outdoor Applications | 45 |
| FDX 20 Fusion Splice Boxes | 46 |
| FO Singlemode/Multimode Patch Cables | 47 |
| Automation and Control | |
| PLCnext Control | 50 |
| I/O Systems | 52 |
| Industrial PCs | 54 |
| HMI's | 55 |
| Functional Safety | |
| PSRmodular Safety System | 58 |
| Safety Relays | 59 |
| Shop Floor Productivity | |
| Printers | 66 |
| Conductor/Cable Marking | 67 |
| Continuous/Die-cut Format Cartridges | 68 |
| Installation Equipment and Tools | 69 |
| Cable Ducts for Clear Cable Routing | 70 |
| Accessories | 71 |



Power Reliability

Endless power for your application: With true power reliability, we provide you with coordinated solutions consisting of surge protection, power supply, and device protection. All from a single source and tailored to your application.



POWER RELIABILITY

- Power Supplies
- Surge Protection
- Circuit Breakers




Scan the QR code to learn more online





Power Supplies


Single phase power supplies

| Power supply model | Phase | Output voltage | Output current | Noted attribute | Description | Order no. |
|--|---------------------------|-----------------------------|-----------------------------|-------------------------------|------------------------------|-----------|
| QUINT POWER High availability for critical systems  | Single phase | 5 V DC | 5 A | NEC Class 2 | UNO-PS/1AC/5DC/25 W | 2904374 |
| | | | 5 A | | QUINT4-PS/1AC/5DC/5/PT | 2904595 |
| | | | 8 A | | UNO-PS/1AC/5DC/40 W | 2904375 |
| | | 12 V DC | 2.5 A | | UNO-PS/1AC/12DC/30 W | 2902998 |
| | | | 2.5 A | | QUINT4-PS/1AC/12DC/2.5/PT | 2904605 |
| | | | 4.6 A | | UNO-PS/1AC/12DC/55 W | 2902999 |
| | | | 5 A | NEC Class 2 | TRIO-PS-2 G/1AC/12DC/5/C2LPS | 2903157 |
| | | | 7.5 A | | QUINT4-PS/1AC/12DC/7.5/PT | 2904607 |
| | | | 8.3 A | | UNO-PS/1AC/12DC/100 W | 2902997 |
| | | | 10 A | | TRIO-PS-2G/1AC/12DC/10 | 2903158 |
| 15 A | | | | QUINT4-PS/1AC/12DC/15 | 2904608 | |
| 20 A | | | | QUINT-PS/1AC/12DC/20 | 2866721 | |
| 15 V DC | | 2 A | NEC Class 2 | UNO-PS/1AC/15DC/30W | 2903000 | |
| | | 3.67 A | | UNO-PS/1AC/15DC/55W | 2903001 | |
| | | 6.67 A | | UNO-PS/1AC/15DC/100W | 2903002 | |
| TRIO POWER Premium standard for machine control cabinets  | | 1.3 A | NEC Class 2 | QUINT4-PS/1AC/24 DC/1.3/PT | 2909575 | |
| | | 1.3 A | NEC Class 2 | QUINT4-PS/1AC/24 DC/1.3/SC | 2904597 | |
| | | 1.3 A | NEC Class 2 | UNO-PS/1AC/24 DC/30W | 2902991 | |
| | | 2.5 A | NEC Class 2 | UNO-PS/1AC/24 DC/60W | 2902992 | |
| | | 2.5 A | NEC Class 2 | QUINT4-PS/1AC/24DC/2.5/PT | 2909576 | |
| | | 2.5 A | NEC Class 2 | QUINT4-PS/1AC/24DC/2.5/SC | 2904598 | |
| | | 2.5 A | T-BUS, Integrated MOSFET | QUINT4-SYS-PS/1AC/24DC/2.5/SC | 2904614 | |
| | | 3 A | NEC Class 2 | TRIO-PS-2G/1AC/24DC/3/C2LPS | 2903147 | |
| | | 3.5 A | | QUINT-PS/1AC/24DC/3.5 | 2866747 | |
| | | 3.75 A | NEC Class 2 | UNO-PS/1AC/24 DC/90W/C2LPS | 2902994 | |
| | | 3.8 A | NEC Class 2 | QUINT4-PS/1AC/24DC/3.8/PT | 2909577 | |
| | | 3.8 A | NEC Class 2 | QUINT4-PS/1 AC/24 DC/3.8/SC | 2904599 | |
| | | 4.2 A | | UNO-PS/1AC/24 DC/100W | 2902993 | |
| | | 5 A | | QUINT4-PS/1AC/24DC/5 | 2904600 | |
| | | 5 A | | TRIO3-PS/1AC/24DC/5 | 1159037 | |
| | 5 A | | UNO2-PS/1AC/24DC/120W | 1110466 | | |
| | 10 A | | UNO2-PS/1AC/24DC/240W | 1096432 | | |
| | 10 A | | QUINT4-PS/1AC/24DC/10 | 2904601 | | |
| | 10 A | | TRIO3-PS/1AC/24DC/10 | 1159038 | | |
| | 10 A | 4ch circuit breaker, IOLINK | TRIO3-PS/1AC/24DC/10/4C/IOL | 1252696 | | |
| 10 A | Conformal coated | QUINT4-PS/1AC/24DC/10/CO | 2904625 | | | |
| 10 A | Coated, Integrated MOSFET | QUINT4-PS/1AC/24DC/10/+ | 2904616 | | | |
| UNO POWER Standard power supply for variety of applications  | 20 A | | QUINT4-PS/1AC/24DC/20 | 2904602 | | |
| | 20 A | | TRIO3-PS/1AC/24DC/20 | 1159039 | | |
| | 20 A | 8ch circuit breaker, IOLINK | TRIO3-PS/1AC/24DC/20/8C/IOL | 1252697 | | |
| | 20 A | Coated, Integrated MOSFET | QUINT4-PS/1AC/24DC/20/+ | 2904617 | | |
| | 40 A | | UNO2-PS/1AC/24DC/960W | 1110043 | | |
| | 40 A | Coated, Integrated MOSFET | QUINT4-PS/1AC/24DC/40/+ | 2904618 | | |
| | 40 A | | QUINT4-PS/1AC/24DC/40 | 2904603 | | |
| | 48 V DC | 1.25 A | NEC Class 2 | UNO-PS/1AC/48DC/60W | 2902995 | |
| | | 2.08 A | | UNO-PS/1AC/48DC/100W | 2902996 | |
| | | 5 A | | QUINT4-PS/1AC/48DC/5 | 2904610 | |
| | | 5 A | | TRIO-PS-2G/1AC/48DC/5 | 2903159 | |
| | | 10 A | | UNO2-PS/1AC/48DC/240W | 1110155 | |
| 10 A | | | QUINT4-PS/1AC/48DC/10 | 2904611 | | |
| 10 A | | | QUINT4-PS/1AC/48DC/10/CO | 2904626 | | |
| 10 A | | | TRIO-PS-2G/1AC/48 DC/10 | 2903160 | | |
| 20 A | | | QUINT4-PS/1AC/48DC/20 | 2904612 | | |





Power Supplies

Three phase power supplies

| Power supply model | Phase | Output voltage | Output current | Noted attribute | Description | Order no. |
|---|-------------|----------------|----------------|-----------------|----------------------------|-----------|
|  | Three phase | 24 V DC | 5 A | | QUINT4-PS/3AC/24DC/5 | 2904620 |
| | | | 5 A | | TRIO-PS-2G/3AC/24DC/5 | 2903153 |
| | | | 10 A | | QUINT4-PS/3AC/24 DC/10 | 2904621 |
| | | | 10 A | | TRIO3-PS/3AC/24DC/10 | 1159042 |
| | | | 20 A | | QUINT4-PS/3AC/24DC/20 | 2904622 |
| | | | 20 A | IO Link | QUINT4-PS/3AC/24DC/20/IO L | 1151048 |
| | | | 20 A | | TRIO3-PS/3AC/24DC/20 | 1159044 |
| | | | 40 A | | QUINT4-PS/3AC/24DC/40 | 2904623 |
| | | | 40 A | IO Link | QUINT4-PS/3AC/24DC/40/IO L | 1151047 |
| | | | 40 A | | TRIO3-PS/3AC/24DC/40 | 1159045 |
| | | 48 V DC | 20 A | | QUINT4-PS/3AC/48DC/20 | 2904627 |

Recommended surge protection/power supply input


| PLT-SEC-T3...  | Phase | Voltage | Output current | Description | Order no. |
|--|--------------|----------|----------------------|----------------------|-----------|
| VAL-US...  | Single phase | 120 V AC | 26 A | PLT-SEC-T3-120-FM-UT | 2907918 |
| | | 240 V AC | 26 A | PLT-SEC-T3-230-FM-UT | 2907919 |
| | | 120 V AC | 26 A | PLT-SEC-T3-120-FM-PT | 2907927 |
| | | 240 V AC | 26 A | PLT-SEC-T3-230-FM-PT | 2907928 |
| Three phase | 120/208 V AC | — | VAL-US-120/40/3+1-FM | 2910354 | |
| | 277/480 V AC | — | VAL-US-277/40/3+1-FM | 2910374 | |




Uninterruptible Power Supplies (UPS)

DC power

For critical applications, Uninterruptible Power Supplies (UPS) can provide a lifeline to keep your system up and running.

| Comms | Input/Output/Amps | Description | Order no. |
|---------------|-------------------|-----------------------------|-----------|
| — | 24DC/24DC/5A | QUINT4-UPS/24DC/24DC/5 | 2906990 |
| — | 24DC/24VDC/10A | QUINT4-UPS/24DC/24DC/10 | 2907066 |
| — | 24DC/24VDC/20A | QUINT4-UPS/24DC/24DC/20 | 2907071 |
| — | 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 |
| EIP/ModbusTCP | 24DC/24VDC/5A | QUINT4-UPS/24DC/24DC/5/EIP | 2906994 |
| EIP/ModbusTCP | 24DC/24DC/10A | QUINT4-UPS/24DC/24DC/10/EIP | 2907069 |
| EIP/ModbusTCP | 24DC/24VDC/20A | QUINT4-UPS/24DC/24DC/20/EIP | 2907074 |
| EIP/ModbusTCP | 24DC/24VDC/40A | QUINT4-UPS/24DC/24DC/40/EIP | 2907080 |
| 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 |



- 
Power supply
 AC-to-DC, DC-to-DC power supplies
- 
UPS module
 Selected based on output requirements
- 
Energy-storage device
 Select the appropriate energy storage for your modular system



Uninterruptible Power Supplies (UPS) — DC power

Energy storage type — UPS-BAT/PB

| Load current | Buffer time | | | | | | | | | | | | | | | | | | | | Energy storage | | | | | | | | | | |
|--------------|-------------|---|---|---|---|---|---|---|----|----|-------|----|----|----|---|---|---|---|---|----|----------------|----|--|--|--|--|--|---------|---------|---------|--|
| | Minutes | | | | | | | | | | Hours | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 10 | 20 | 30 | 40 | 45 | 50 | 1 | 2 | 3 | 5 | 8 | 10 | 15 | 20 | | | | | | | | | |
| 1 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1274520 | 1274117 | 1274118 | |
| 2 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1+1 ... Two energy-storage types of the same capacity are required, based on ambient temperature of 20°C.

Energy storage type — LI-ION or VLRA-WTR

| Load current | Buffer time | | | | | | | | | | Hours | | | | | | | | | | Energy storage | | | | | | | | | | | | | |
|--------------|-------------|----|----|---|---|---------|---|---|---|---|-------|----|----|----|----|----|----|---|---|---|----------------|---|----|----|----|--|--|--|--|--|---------|---------|--|--|
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1396415 | 2320416 | | |
| 2 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

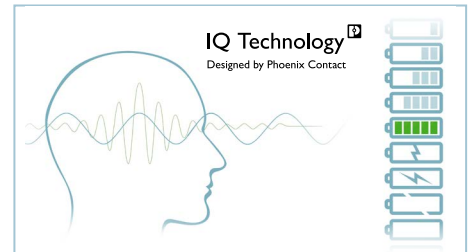
1+1 ... Two energy-storage types of the same capacity are required, based on ambient temperature of 20°C.


Uninterruptible Power Supplies (UPS)

AC power — 1 kVA double-conversion

QUINT IQ technology

The intelligent battery management with IQ Technology detects the connected energy storage, collects all relevant information, and alerts you about it.



| | Input voltage | Output | Description | Order no. |
|--|-------------------|---------------------------|---------------------|-----------|
|  | 120 V AC/230 V AC | 120 V AC/230 V AC - 1 kVA | QUINT4-UPS/1AC/1kVA | 2320283 |

Scan the QR code to learn more online about QUINT IQ technology



SOC — State of charge

The current charging state and remaining runtime of the energy storage are constantly measured and displayed.

SOH — State of health

Remaining battery service life is displayed and a failure alert is sent in time, before there is a failure.

Energy storage type — UPS-BAT/PB

| Power | Buffer time | | | | | | | | | | Hours | | | | | | | | | | Energy storage | | | |
|-------|-------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|---------|---------|--|
| | Minutes | | | | | Hours | | | | | 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 | 1274117 | 1274118 | 1274119 | |
| 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 | | | | | |
| 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 | | | | | |
| 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 | | | | | |
| 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 | | | | | |
| 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 | | | | | |
| 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 | | | | | |
| 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 | | | | | |
| 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: 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) — AC power — 1 kVA double-conversion

Energy storage type — LI-ION or VLRA-WTR

| Power | Buffer time | | | | | | | | | | | | | | | | | | | | Energy storage | | | |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|--------------------------------|-----------------|--------------------------------|
| | 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 | 1396415 | UPS-LHON/ 24DC/128WH | 2320416 | UPS-BAT/VLRA- WTR/24DC/13AH |
| 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 | 54 x 157 x 113 | 128 Wh | 172 x 177 x 178 | 13 Ah |
| 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 | 2320429 | UPS-BAT/VLRA- WTR/24DC/26AH | 358 x 174 x 169 | 26 Ah |
| 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 | | | | |

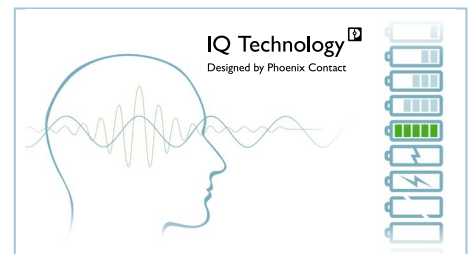
1+1: For the QUINT AC UPS/1kVA, two energy storage devices of the same capacity are always required. The data is based on an ambient temperature of 20°C.

Uninterruptible Power Supplies (UPS)

AC power — 500 VA off-line

QUINT IQ technology

The intelligent battery management with IQ Technology detects the connected energy storage, collects all relevant information, and alerts you about it.



| Input voltage | Output | Description | Order no. |
|-----------------------|------------------------------|----------------------------------|-----------|
| 120 V AC/ 230 V AC | 120 V AC/230 V AC/ 500 VA | QUINT4-UPS/1AC/ 1AC/500VA/USB | 1067327 |

Scan the QR code to learn more online about QUINT IQ technology



Energy storage type — UPS-BAT/PB

| Power | Buffer time | | | | | | | | | | | | | | | | | Energy storage | | | | | | |
|-------|-------------|---|---|---|----|----|----|-------|----|----|---|---|---|---|---|----|----|----------------|----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|
| | Minutes | | | | | | | Hours | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 5 | 10 | 20 | 30 | 40 | 45 | 50 | 1 | 2 | 3 | 5 | 8 | 10 | 15 | | 20 | | | | | |
| 15 W | | | | | | | | | | | | | | | | | | 1+1 | 1274117 | UPS-BAT/ PB/24DC/4AH | 1274118 | UPS-BAT/ PB/24DC/7AH | 1274119 | UPS-BAT/ PB/24DC/12AH |
| 35 W | | | | | | | | | | | | | | | | | | 1+1 | 85 x 191 x 110 | 4 Ah | 135 x 202 x 110 | 7 Ah | 202 x 202 x 110 | 12 Ah |
| 55 W | | | | | | | | | | | | | | | | | | 1+1 | 1348516 | UPS-BAT/ PB/24DC/20AH | 1354641 | UPS-BAT/ PB/24DC/40AH | | |
| 90 W | | | | | | | | | | | | | | | | | | 1+1 | 181 x 76 x 166 | 20 Ah | 197 x 165 x 171 | 40 Ah | | |
| 125 W | | | | | | | | | | | | | | | | | | 1+1 | | | | | | |
| 180 W | | | | | | | | | | | | | | | | | | 1+1 | | | | | | |
| 275 W | | | | | | | | | | | | | | | | | | 1+1 | | | | | | |
| 400 W | | | | | | | | | | | | | | | | | | 1+1 | | | | | | |

1+1 ... Two energy-storage types of the same capacity are required, based on ambient temperature of 20°C.

Energy storage type — LI-ION or VLRA-WTR

| Power | Buffer time | | | | | | | | | | | | | | | | | Energy storage | | | | | | | | | | | | |
|-------|-------------|-----|---|---------|----|----|----|---|-------|---|---|----|----|----|----|----|----|----------------|---|---|---|---|---|----|----|-----|----------------|--------------------------------|-----------------|--------------------------------|
| | 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 | 1396415 | UPS-LHON/ 24DC/128WH | 2320416 | UPS-BAT/VLRA- WTR/24DC/13AH |
| 35 W | | | | | | | | | | | | | | | | | | | | | | | | | | 1+1 | 54 x 157 x 113 | 128 Wh | 172 x 177 x 178 | 13 Ah |
| 55 W | | | | | | | | | | | | | | | | | | | | | | | | | | 1+1 | 2320429 | UPS-BAT/VLRA- WTR/24DC/26AH | 358 x 174 x 169 | 26 Ah |
| 90 W | | | | | | | | | | | | | | | | | | | | | | | | | | 1+1 | | | | |
| 125 W | | | | | | | | | | | | | | | | | | | | | | | | | | 1+1 | | | | |
| 180 W | | | | | | | | | | | | | | | | | | | | | | | | | | 1+1 | | | | |
| 275 W | | | | | | | | | | | | | | | | | | | | | | | | | | 1+1 | | | | |
| 400 W | | | | | | | | | | | | | | | | | | | | | | | | | | 1+1 | | | | |

1+1 ... Two energy-storage types of the same capacity are required, based on ambient temperature of 20°C.



Surge Protection Power


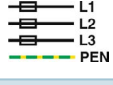
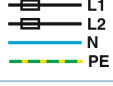
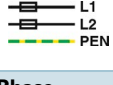

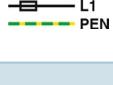
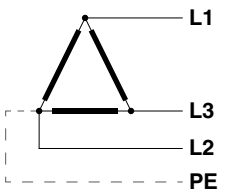
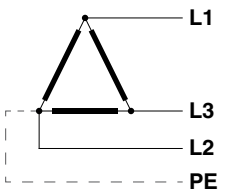
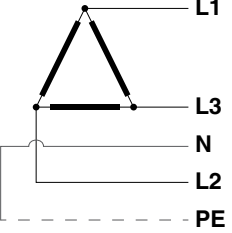
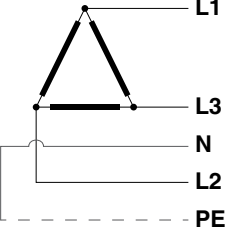
VAL-US Series

Scan the QR code to learn more online



Surge protection made easy

The VAL-US series is a UL Listed series of pluggable surge protection devices that utilize high-capacity varistors to provide high-quality protection. These devices offer status indication contacts for remote monitoring, as well as hot-swappable plugs with integrated visual status indication for easy maintenance and replacement. Our VAL-US series offers a complete portfolio of configurations for Canadian and U.S. power systems.

| VAL-US series | | | | | | | | |
|---|------------------------|--|-------|-------------------------|--------------------------|--------------|----------------------|-----------|
| IEC/UL | Network type | | | | SPD type IEC | | Description | Order no. |
| | Voltage | Phase | IEC | UL | T1/T2 | T2 | | |
| TN-S (3+1)  | 400/690V AC | 3-phase | TN-C | Three Phase Wye | | ✓ | VAL-US-347/30/3+0-FM | 2910383 |
| | 347/600V AC | | TN-S | | | ✓ | VAL-US-347/30/3+1-FM | 1079099 |
| | 277/480V AC | | | | | ✓ | VAL-US-277/40/3+1-FM | 2910374 |
| TN-C (3+0)  | 277/480V AC | 3-phase | TN-S | Three Phase Wye | | ✓ | VAL-US-240/40/3+1-FM | 2910367 |
| | | | | | | ✓ | VAL-US-277/80/4+0-FM | 2910380 |
| | | | | | | ✓ | VAL-US-277/80/3+0-FM | 1075896 |
| | | | | | | ✓ | VAL-US-240/40/3+0-FM | 2910366 |
| 2-phase/Single Split Phase | | | | | | | | |
| TN-S (2+1)  | 240/415V AC | 2-phase | TN-S | Single Split Phase | | ✓ | VAL-US-240/40/2+1-FM | 2910365 |
| | | | TN-C | | | ✓ | VAL-US-240/40/2+0-FM | 2910364 |
| | | TN-C (2+0)  | | 1-phase | TN-S | Single Phase | | ✓ |
| TN-C | | | | | ✓ | | VAL-US-277/80/1+0-FM | 2910377 |
| 1-phase/Single Phase | | | | | | | | |
| TN-S (1+1)  | 120/240V AC | 2-phase | TN-S | Single Split Phase | ✓ | | VAL-US-120/65/2+1-FM | 2910358 |
| | | | | | | ✓ | VAL-US-120/40/2+0-FM | 2910351 |
| | | | | | | ✓ | VAL-US-120/65/2+0-FM | 2910357 |
| TN-C (1+0)  | 120/208V AC | 3-phase | TN-S | Three Phase Wye | | ✓ | VAL-US-120/40/2+1-FM | 2910352 |
| | | | | | | ✓ | VAL-US-120/65/3+1-FM | 2910360 |
| | | | | | | ✓ | VAL-US-120/40/3+1-FM | 2910354 |
| Delta  | 400V AC | 1-phase | TN-C | Single Phase | | ✓ | VAL-US-120/65/3+0-FM | 2910359 |
| | | | | | | ✓ | VAL-US-120/40/3+0-FM | 2910353 |
| | | | | | | ✓ | VAL-US-347/30/1+0-FM | 2910381 |
| Corner Grounded | 277V AC | 1-phase | TN-S | Single Phase | | ✓ | VAL-US-277/40/1+1-FM | 2910373 |
| | | | | | | ✓ | VAL-US-120/65/1+1-FM | 2910356 |
| | | | | | | ✓ | VAL-US-120/40/1+0-FM | 2910348 |
| Delta systems  | 120V AC | 1-phase | TN-S | Single Phase | | ✓ | VAL-US-120/40/1+1-FM | 2910349 |
| | | | | | | ✓ | VAL-US-48/65/1+1V-FM | 2910346 |
| | | | | | | ✓ | VAL-US-48/40/1+1V-FM | 2910344 |
| | | | | | | ✓ | VAL-US-48/65/1+0-FM | 2910345 |
| Delta High Leg  | (+/-) 48V DC 60V DC | 1-phase | TN-S | Single Phase | | ✓ | VAL-US-48/40/1+0-FM | 2910343 |
| | | | | | | ✓ | VAL-US-48/65/1+0-FM | 2910345 |
| | | | | | | ✓ | VAL-US-48/40/1+0-FM | 2910343 |
| Delta systems | | | | | | | | |
| Delta High Leg | Network type | | | | SPD type IEC | | Description | Order no. |
| | Voltage | UL | T1/T2 | T2 | | | | |
|  | 960V AC | Corner Grounded | | ✓ | VAL-US-600D/30/2+0-FM | 2910390 | | |
| | | | | ✓ | VAL-US-600D/30/3+0-FM | 2910391 | | |
| | 690V AC | Corner Grounded | | ✓ | VAL-US-480D/30/2+0-FM | 2910385 | | |
| | | | | ✓ | VAL-US-480D/30/3+0-FM | 2910386 | | |
| | 480V AC | High Leg Delta | | ✓ | VAL-US-480HLD/30/3+1V-FM | 2910387 | | |
| | 240V AC | Corner Grounded | | ✓ | VAL-US-240D/40/2+0-FM | 2910369 | | |
| | | | ✓ | VAL-US-240D/40/3+0-FM | 2910370 | | | |
| | High Leg Delta | | ✓ | VAL-US-240HLD/40/3+1-FM | 2910371 | | | |



Surge Protection

PLUGTRAB PT-IQ

Scan the QR code to learn more online



Always know what is going on

PLUGTRAB PT-IQ is a system comprising a controller and surge protection. The controller supplies the protective devices and provides the group remote signaling for up to 28 protective modules.

A particularly interesting feature is the multi-stage signaling and remote signaling of the protective devices. Each voltage-limiting component of the protective circuit is intelligently monitored.

A yellow status signal indicates that as a result of frequent surge voltages, the performance limit has been reached. The arresters continue to function and your system is still protected. A replacement is, however, recommended in order to avoid unnecessary service operations.

Green: protective device O.K.

Yellow: performance limit reached, replacement recommended

Red: overloaded, replacement required

PLUGTRAB PT-IQ is the forward-looking surge protection system from Phoenix Contact. Your advantage: multi-stage monitoring of protective devices. This means that a failure can be foreseen.

Your advantages

- ✓ Predictive monitoring with 3-stage LED display
- ✓ Integration of the status message into the system controller via group remote signaling
- ✓ Install quickly and error-free with DIN rail connectors
- ✓ Maximum ease of maintenance, thanks to the 2-piece design
- ✓ Maximum protection for MCR applications with high discharge capacity

PLUGTRAB PT-IQ

| | Signal | Connection | Voltage | Grounding | Pluggable | Monitoring | Description | Order no. | |
|---------|----------|------------|----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------|
| | Loop | Screw | 5 V DC | Direct | | | PT-IQ-5-HF+F-5DC-UT | 2800798 | |
| | | | — | — | | | PT-IQ-PTB-UT | 2800768 | |
| | | | 24 V DC | Direct | | | PT-IQ-2X2-24DC-UT | 2800980 | |
| | | — | Indirect | PT-IQ-2X2+F-24DC-UT | | | 2801264 | | |
| | | 48 V DC | Indirect | PT-IQ-2X2+F-48DC-UT | | | 2800987 | | |
| | | 5 V DC | Indirect | PT-IQ-2X2+F-5DC-PT | | | 2801260 | | |
| | Discrete | Screw | Push-in | — | — | PT-IQ-PTB-PT | 2801296 | PT-IQ-2X2-24DC-PT | 2801263 |
| | | | | 24 V DC | Direct | PT-IQ-2X2+F-24DC-PT | 2800981 | PT-IQ-2X2+F-48DC-PT | 2801266 |
| | | | | — | Indirect | PT-IQ-2X2+F-24DC-PT | 2800981 | PT-IQ-2X2+F-48DC-PT | 2801266 |
| | | Screw | Push-in | 48 V DC | Direct | ✓ | ✓ | PT-IQ-2X2+F-48DC-PT | 2801266 |
| | | | | 5 V DC | Indirect | PT-IQ-4X1+F-24DC-UT | 2800983 | PT-IQ-4X1+F-24DC-UT | 2800983 |
| | | | | 24 V DC | — | PT-IQ-PTB-UT | 2800768 | PT-IQ-4X1-24DC-UT | 2800982 |
| Push-in | Push-in | 48 V DC | Direct | PT-IQ-5-HF+F-5DC-UT | 2800798 | PT-IQ-5-HF+F-5DC-PT | 2801292 | | |
| | | 5 V DC | Direct | PT-IQ-PTB-PT | 2801296 | PT-IQ-4X1-24DC-PT | 2801271 | | |
| | | 24 V DC | Direct | PT-IQ-4X1-24DC-PT | 2801271 | PT-IQ-4X1+F-24DC-PT | 2801272 | | |
| | | | 48 V DC | Indirect | PT-IQ-4X1+F-24DC-PT | 2801272 | PT-IQ-5-HF-5DC-PT | 2801291 | |



Surge Protection

TERMITRAB Complete

Scan the QR code to learn more online



World's thinnest surge protection for measurement and control signals

TERMITRAB Complete is the world's narrowest surge protection for MCR technology. Our product range includes a complete system kit, covering everything from simple, single-stage surge protection to multi-stage, pluggable versions with knife disconnection, signaling, and the option of remote signaling.

With a world-leading, narrow width of just 3.5 mm, TERMITRAB Complete gives you a space savings of up to 50 percent, when compared with 7-mm installations.

The protective devices in the TERMITRAB complete range provide mechanical signaling that displays device status with no need for additional auxiliary power.

TERMITRAB Complete (TTC)

| | Signal | Connection | Voltage | Grounding | Pluggable | Monitoring | Description | Order no. | |
|--|---------|------------|---------|-----------|--------------------------|--------------------------|--------------------------|--------------------------|---------|
| | Loop | Screw | 12 V DC | Indirect | ✓ | ✓ | TTC-6P-1X2-F-12DC-UT-I | 2908196 | |
| | | | 24 V DC | Indirect | | | TTC-6P-1X2-F-M-24DC-UT-I | 2906781 | |
| | | | 24 V DC | Direct | TTC-6P-1X2-24DC-UT-I | | 2906809 | | |
| | | | | Direct | TTC-6-1X2-24DC-UT | | 2906798 | | |
| | | | Push-in | 48 V DC | Direct | | ✓ | TTC-6P-1X2-48DC-UT-I | 2908194 |
| | | | | 12 V DC | Direct | | | TTC-6P-1X2-12DC-PT-I | 2908193 |
| | | 24 V DC | | Indirect | TTC-6P-1X2-F-M-24DC-PT-I | 2906790 | | | |
| | | | | Direct | TTC-6P-1X2-24DC-PT-I | 2906815 | | | |
| | | Discrete | Screw | 12 V DC | Direct | ✓ | ✓ | TTC-6P-1X2-24DC-PT | 2906804 |
| | | | | | Indirect | | | TTC-3-1x2-24DC-PT | 2907325 |
| | | | | 24V DC | Direct | TTC-6P-1X2-48DC-PT-I | | 2908195 | |
| | | | | | Indirect | TTC-6P-2X1-12DC-UT-I | | 2908201 | |
| | Push-in | | | 48 V DC | Direct | ✓ | | TTC-6P-2X1-F-M-24DC-UT-I | 2906784 |
| | | | | 12 V DC | Direct | | | TTC-6P-2X1-24DC-UT-I | 2906810 |
| | | | 24V DC | Indirect | TTC-6-2X1-24DC-UT | 2906799 | | | |
| | | | | Direct | TTC-6P-2X1-F-48DC-UT-I | 2908208 | | | |
| | 48 V DC | | 12 V DC | Indirect | ✓ | TTC-6P-2X1-F-12DC-PT-I | 2908206 | | |
| | | | | Indirect | | TTC-6P-2X1-F-M-24DC-PT-I | 2906794 | | |
| | | | 24V DC | Direct | TTC-6P-2X1-24DC-PT-I | 2906816 | | | |
| | | | | Direct | TTC-6-2X1-24DC-PT | 2906805 | | | |
| | | 48 V DC | Direct | ✓ | TTC-3-2x1-24DC-PT | 2907326 | | | |
| | | | Direct | ✓ | TTC-6P-2X1-48DC-PT-I | 2908204 | | | |

Coaxial surge protection (CN)

| | Signal | Connection | Voltage | Grounding | Pluggable | Monitoring | Description | Order no. |
|--|----------|------------|--------------------|-----------|-----------|------------|---------------------|-----------|
| | Discrete | Screw | <55 Vp Core-ground | Direct | ✗ | ✗ | CN-LAMBDA/4-0.47-BB | 2800021 |
| | | | <18 Vp Core-ground | | | | CN-LAMBDA/4-2.25-BB | 2801057 |
| | | | <11 Vp Core-ground | | | | CN-LAMBDA/4-5.9-BB | 2838490 |
| | | | 280 DC | | | | CN-UB-280DC-3-BB | 2801050 |

Ethernet surge protection (DT)

| | Signal | Connection | Voltage | Grounding | Pluggable | Monitoring | Description | Order no. |
|--|----------|------------|-------------------|-----------|-----------|------------|-------------------|-----------|
| | Discrete | RJ45 | <3.3 V DC | Direct | ✗ | ✗ | DT-LAN-CAT.6+ | 2881007 |
| | | | 12 V DC | | | | DT-UFB-485/BS | 2920612 |
| | | | 185 V DC/130 V AC | | | | DT-TELE-SHDSL | 2801593 |
| | | | 185 V DC/130 V AC | | | | DT-TELE-RJ45 | 2882925 |
| | | | 15 V DC/10 V AC | | | | DT-UFB-V24/S-9-SB | 2803069 |
| | | 5.8 V DC | DT-UFB-IB-RB0 | 2800056 | | | | |



Thermomagnetic Device Circuit Breakers

TMC 8: UL 489-listed circuit breakers



1 Pole



2 Pole



3 Pole



| Ampere rating | Description | Order no. |
|---------------|-------------|-----------|
| 1 | TMC 81B 01A | 2907478 |
| 2 | TMC 81B 02A | 2907479 |
| 5 | TMC 81B 05A | 2907482 |
| 20 | TMC 81B 20A | 2907492 |
| 1 | TMC 81C 01A | 2907558 |
| 2 | TMC 81C 02A | 2907559 |
| 3 | TMC 81C 03A | 2907560 |
| 4 | TMC 81C 04A | 2907561 |
| 5 | TMC 81C 05A | 2907562 |
| 6 | TMC 81C 06A | 2907563 |
| 10 | TMC 81C 10A | 2907566 |
| 15 | TMC 81C 15A | 2907571 |
| 20 | TMC 81C 20A | 2907573 |
| 1 | TMC 81D 01A | 2907626 |
| 2 | TMC 81D 02A | 2907627 |
| 4 | TMC 81D 04A | 2907629 |
| 5 | TMC 81D 05A | 2907630 |
| 7 | TMC 81D 07A | 2907632 |
| 8 | TMC 81D 08A | 2907633 |
| 15 | TMC 81D 15A | 2907638 |
| 1 | TMC 82C 01A | 2907582 |
| 3 | TMC 82C 03A | 2907585 |
| 5 | TMC 82C 05A | 2907587 |
| 6 | TMC 82C 06A | 2907588 |
| 10 | TMC 82C 10A | 2907591 |
| 15 | TMC 82C 15A | 2907594 |
| 15 | TMC 82D 15A | 2907662 |
| 2 | TMC 83C 02A | 2907608 |
| 3 | TMC 83C 03A | 2907609 |
| 5 | TMC 83C 05A | 2907611 |
| 10 | TMC 83C 10A | 2907615 |
| 15 | TMC 83C 15A | 2907618 |

Function and design

Thermomagnetic device circuit breakers are tripped both thermally and magnetically. The two systems, bimetal and solenoid, operate independently of one another.

This means that in the event of a short circuit, the thermomagnetic device circuit breakers trip more quickly than thermal device circuit breakers.

As a rule, in the event of a short circuit, the tripping mechanism is actuated within 3 to 5 ms.

Tables shown feature the most common units. For more options and accessories, please scan the QR code.



Single channel electronic circuit breakers — **NEC Class2




| Ampere rating | Description | Order no. |
|---------------|--------------------------|-----------|
| 1-3 A | PTCB E1 24DC/1-3A NO** | 2909909 |
| 1-4 A | PTCB E1 24DC/1-4A NO | 2908261 |
| 1-4 A | PTCB E1 24DC/1-4A SI-R** | 1135753 |
| 1-8 A | PTCB E1 24DC/1-8A NO | 2908262 |
| 1-8 A | PTCB E1 24DC/1-8A SI-R | 1135752 |
| 1 A | PTCB E1 24DC/1A NO** | 2909902 |
| 1 A | PTCB E1 24DC/1A SI-R** | 1135751 |
| 2 A | PTCB E1 24DC/2A NO** | 2909903 |
| 2 A | PTCB E1 24DC/2A SI-R** | 1135749 |
| 3 A | PTCB E1 24DC/3A NO** | 2909904 |
| 4 A | PTCB E1 24DC/4A NO | 2909906 |
| 4 A | PTCB E1 24DC/4A SI-R** | 1135745 |
| 6 A | PTCB E1 24DC/6A NO | 2909908 |
| 6 A | PTCB E1 24DC/6A SI-R | 1135740 |
| 8 A | PTCB E1 24DC/8A NO | 2909910 |
| 8 A | PTCB E1 24DC/8A SI-R | 1135734 |






Thermomagnetic Device Circuit Breakers


TMC 7: UL 1077-recognized circuit breakers

| | Ampere rating | Description | Order no. |
|--|---------------|-------------|-----------|
| 1 Pole  | 1 | TMC 71B 01A | 1011962 |
| | 5 | TMC 71B 05A | 1019912 |
| | 10 | TMC 71B 10A | 1019916 |
| | 16 | TMC 71B 16A | 1019920 |
| | 1 | TMC 71C 01A | 1019972 |
| | 2 | TMC 71C 02A | 1019973 |
| | 3 | TMC 71C 03A | 1019974 |
| | 4 | TMC 71C 04A | 1019975 |
| | 5 | TMC 71C 05A | 1019976 |
| | 6 | TMC 71C 06A | 1019977 |
| 2 Pole  | 7 | TMC 71C 07A | 1019978 |
| | 8 | TMC 71C 08A | 1019979 |
| | 10 | TMC 71C 10A | 1019980 |
| | 15 | TMC 71C 15A | 1019983 |
| | 20 | TMC 71C 20A | 1019985 |
| | 30 | TMC 71C 30A | 1019987 |
| | 63 | TMC 71C 63A | 1019992 |
| | 50 | TMC 71D 50A | 1020057 |
| | 63 | TMC 71D 63A | 1020059 |
| | 5 | TMC 72B 05A | 1019934 |
| 3 Pole  | 8 | TMC 72B 08A | 1019937 |
| | 2 | TMC 72C 02A | 1019995 |
| | 3 | TMC 72C 03A | 1019996 |
| | 4 | TMC 72C 04A | 1019997 |
| | 5 | TMC 72C 05A | 1019998 |
| | 6 | TMC 72C 06A | 1019999 |
| | 7 | TMC 72C 07A | 1020000 |
| | 10 | TMC 72C 10A | 1020002 |
| | 15 | TMC 72C 15A | 1020005 |
| | 20 | TMC 72C 20A | 1020007 |
| 10 | TMC 72D 10A | 1020069 | |
| 1 | TMC 73D 01A | 1020082 | |

Electronic circuit breakers module — Class I, Div 2

| | Function | Channels | Amp | Description | Order no. |
|---|-----------------------------|----------|---------|--------------------------|-----------|
|  | Full feature/function model | 4 | 0.5-10A | CBM E4 24DC/0.5-10A NO-R | 2905743 |
| | | 8 | | CBM E8 24DC/0.5-10A NO-R | 2905744 |

Electronic circuit breakers module compact — **NEC Class2

| | Function | Channels | Amp | Description | Order no. |
|--|-------------------------------|----------|-------|--------------------------|-----------|
|  | Remote reset version | 4 | 1-4A | CBMC E4 24DC/1-4A S-R** | 1065727 |
| | | | 1-10A | CBMC E4 24DC/1-10A S-R | 1065729 |
| | Status output version | | 1-4A | CBMC E4 24DC/1-4A NO** | 2906031 |
| | | | 1-10A | CBMC E4 24DC/1-10A NO | 2906032 |
| | I/O link version | | 1-4A | CBMC E4 24DC/1-4A+ IOL** | 2910410 |
| | | | 1-10A | CBMC E4 24DC/1-10A IOL | 2910411 |
| | Galvanically isolated version | | 1-8A | CBMC EG4 24DC/1-8A NO | 1065730 |



Timer Relays

Multifunctional timer relays with OLED display and NFC communication

Benefit from precise adjustment and easy handling with the MACX-TR smart multifunctional timer relays. Control your timer processes easily and reliably via the OLED display and pushbuttons.

Your advantages


- ✓ Easy handling directly on the device with a combination of OLED display and pushbuttons
- ✓ Intuitive time settings – no calculations or checks needed
- ✓ Optional communication via NFC and smartphone app



Scan the QR code to learn more online



MACX-TR Series

|  | Connection | Functions | Description | Order no. |
|---|------------|--|--------------------|-----------|
| | Screw | Multifunctional Timer Single config. | MACX-TR-1T-MUL | 1096429 |
| | Push-In | Multifunctional Timer Single config. | MACX-TR-1T-MUL-PT | 1096431 |
| | Screw | Multifunctional Timer Dual config. | MACX-TR-2T-MUL | 1103345 |
| | Push-In | Multifunctional Timer Dual config. | MACX-TR-2T-MUL-PT | 1103355 |
| | Screw | OFF Delay Timer | MACX-TR-1T-POFF | 1119403 |
| | Push-In | OFF Delay Timer | MACX-TR-1T-POFF-PT | 1119399 |

Monitoring Relays

Versatile monitoring functions with intuitive operation

The smart MACX-MR monitoring relay provides you with many monitoring functions with extended setting options, large measuring ranges, and a broad supply voltage range.

Your advantages


- ✓ High-contrast OLED display for on-site configuration and measured value display
- ✓ Smart configuration and easy transfer of configurations with the MACX-MR app via NFC communication
- ✓ Wide supply voltage range with galvanic isolation from the measuring circuit
- ✓ PIN protection against unauthorized changes



Scan the QR code to learn more online



MACX-MR Series

|  | Connection | Functions | Description | Order no. |
|---|------------|--|-------------------|-----------|
| | Screw | 3 Phase Voltage Monitoring Up to 690 V | MACX-MR-3V-690 | 1336410 |
| | Push-In | 3 Phase Voltage Monitoring Up to 690 V | MACX-MR-3V-690-PT | 1336412 |
| | Push-In | 3 Phase Voltage Monitoring Up to 900 V | MACX-MR-3V-900-PT | 1336547 |
| | Screw | 1 Phase Voltage Monitoring | MACX-MR-V-600 | 1336426 |
| | Push-In | 1 Phase Voltage Monitoring | MACX-MR-V-600-PT | 1336507 |
| | Screw | Phase Monitoring | MACX-MR-PH-690 | 1336404 |
| | Push-In | Phase Monitoring | MACX-MR-PH-690-PT | 1336408 |
| | Screw | Temperature Monitoring | MACX-MR-PTC | 1336523 |
| | Push-In | Temperature Monitoring | MACX-MR-PTC-PT | 1336527 |



Power Monitoring

Multifunctional energy measuring devices

Scan the QR code to learn more online



The multifunctional EMpro energy measuring devices acquire your energy data and offer numerous options for communicating the data to higher-level control and management systems. Configure and integrate your energy measuring devices in just a few steps using the web-based, user-guided installation wizard. You can also benefit from the simple, direct connection of conventional Rogowski coils, and from the many practice-oriented web server and device functions.



Fast wiring and configuration

The Rogowski measuring input saves you a great deal of time when it comes to wiring and configuration. Connect any conventional Rogowski coil directly: the products process the mV signal directly. The installation wizard starts up automatically when the device is switched on for the first time.



Smart web servers and device functions

Monitor the correct operation of the system and error analysis in the event of service and support actions. In addition to configuring the devices, you can use the web server to log data, assess grid quality, and display the energy flows in clear trend diagrams.



Increased data security

Protect your energy data from unauthorized access by shutting down operating elements at the device will prevent manipulative operations on site. Deactivating the interfaces, you avoid unwanted access to your energy data or unintentional changes of the configuration.

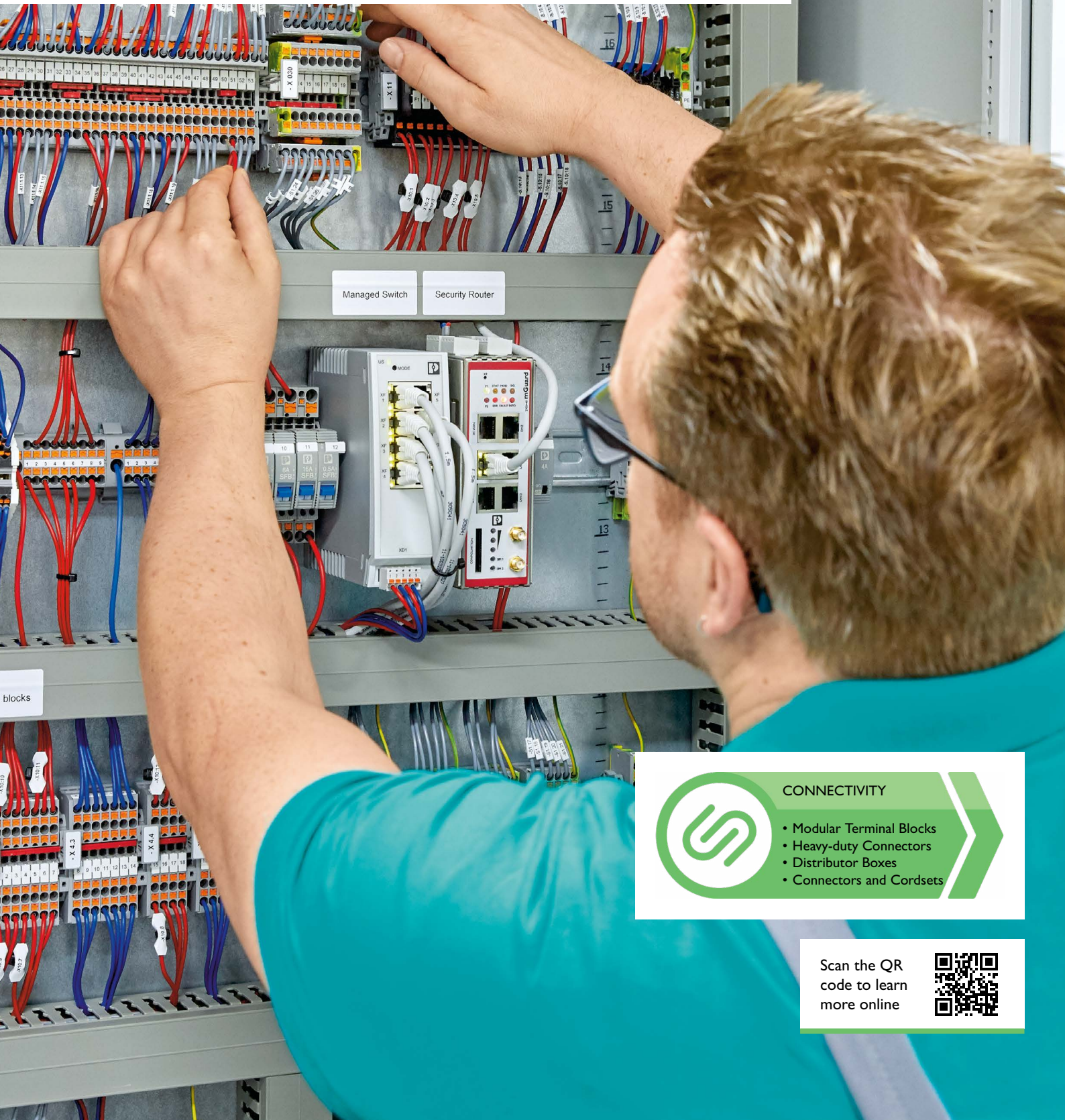
EMpro Energy Meters

| Supply | Current Measurement | Network Interface | Mounting | Screen | Description | Order no. |
|----------|---------------------|-------------------|----------|--------|----------------|-----------|
| 120 V AC | Rogowski Coil | Ethernet IP | Din Rail | ✗ | EEM-MB371-EIP | 2907976 |
| 120 V AC | Current Transformer | Ethernet IP | Din Rail | ✗ | EEM-MB370-EIP | 2907971 |
| 120 V AC | Rogowski Coil | Ethernet IP | Panel | ✓ | EEM-MA771-EIP | 2908302 |
| 120 V AC | Current Transformer | Ethernet IP | Panel | ✓ | EEM-MA770-EIP | 2907953 |
| 120 V AC | Rogowski Coil | Modbus/TCP | Din Rail | ✗ | EEM-MB371 | 2907955 |
| 24 V DC | Current Transformer | Modbus/TCP | Din Rail | ✗ | EEM-MB371-24DC | 1127055 |
| 120 V AC | Rogowski Coil | Modbus/TCP | Din Rail | ✗ | EEM-MB370 | 2907954 |
| 24 V DC | Current Transformer | Modbus/TCP | Din Rail | ✗ | EEM-MB370-24DC | 1127061 |
| 120 V AC | Rogowski Coil | Modbus/TCP | Din Rail | ✓ | EEM-MA371 | 2908307 |
| 24 V DC | Rogowski Coil | Modbus/TCP | Din Rail | ✓ | EEM-MA371-24DC | 1127055 |
| 120 V AC | Current Transformer | Modbus/TCP | Din Rail | ✓ | EEM-MA370 | 2907983 |
| 24 V DC | Current Transformer | Modbus/TCP | Din Rail | ✓ | EEM-MA370-24DC | 1127059 |
| 120 V AC | Rogowski Coil | Modbus/TCP | Panel | ✓ | EEM-MA771 | 2908286 |
| 24 V DC | Rogowski Coil | Modbus/TCP | Panel | ✓ | EEM-MA771-24DC | 1127060 |
| 120 V AC | Current Transformer | Modbus/TCP | Panel | ✓ | EEM-MA770 | 2907945 |
| 24 V DC | Current Transformer | Modbus/TCP | Panel | ✓ | EEM-MA770-24DC | 1127052 |
| 120 V AC | Rogowski Coil | Profinet | Din Rail | ✗ | EEM-MB371-PN | 2908308 |
| 120 V AC | Current Transformer | Profinet | Din Rail | ✗ | EEM-MB370-PN | 2907984 |
| 120 V AC | Rogowski Coil | Profinet | Panel | ✓ | EEM-MA771-PN | 2908301 |
| 120 V AC | Current Transformer | Profinet | Panel | ✓ | EEM-MA770-PN | 2907946 |
| 120 V AC | Rogowski Coil | Modbus RTU/TCP | Din Rail | ✗ | EEM-MB371-R | 2907985 |
| 120 V AC | Current Transformer | Modbus RTU/TCP | Din Rail | ✗ | EEM-MB370-R | 2907980 |
| 120 V AC | Rogowski Coil | Modbus RTU/TCP | Panel | ✓ | EEM-MA771-R | 2908285 |
| 120 V AC | Current Transformer | Modbus RTU/TCP | Panel | ✓ | EEM-MA770-R | 2907944 |
| 120 V AC | Rogowski Coil | Cloud | Din Rail | ✗ | EEM-SB371-C | 1158947 |
| 120 V AC | Current Transformer | Cloud | Din Rail | ✗ | EEM-SB370-C | 1158951 |



Connectivity

Never take a good connection for granted. Every wire in your control cabinet is there for a reason. The connections of those wires – via spring, screw, IDC, or crimp – are only as reliable as the integrity of the terminations. For over a century, Phoenix Contact has been a trusted partner for reliable connections.



CONNECTIVITY

- Modular Terminal Blocks
- Heavy-duty Connectors
- Distributor Boxes
- Connectors and Cordsets

Scan the QR code to learn more online



Connectivity

Connections in the cabinet, through the cabinet, and in the field are the bridge between the field-based sensors and logic controlling a system.

The automation and control level reads inputs and drives outputs. These devices must be connected by secure discrete wiring or through networks.

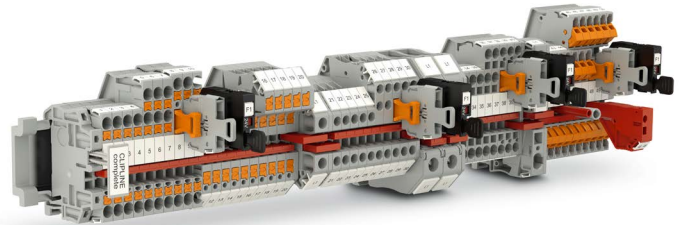
These same devices must be reliably powered, which requires efficient distribution and marshalling to energize and balance loads. Loads can range from small milliamp signals to high horsepower motor connections, depending on the end application.

Analog signals often require special functionality at the connection point, such as testing, measurement, or fusing. Specialty terminal blocks support these functions.

When system complexity and I/Os increase, networking field signals outside the enclosure is often a more efficient way to integrate larger systems than point-to-point wiring.

Cabinet

The control cabinet is the operating headquarters for any sophisticated control system. Without an efficient and dependable control cabinet, the performance of circuits and devices powered outside the cabinet may be compromised, and low quality connections will degrade the performance of the entire network. A robust and reliable system begins in the control cabinet, and requires robust and reliable connections.



Through

Products on DIN rail inside an enclosure need to either collect data from, communicate with, or control devices outside of the cabinet. While there are wireless solutions available for some of these transmissions, it's generally not practical or possible to make all connections wireless.

When it comes to making wired connections for power, signal, or data transmissions, there are a seemingly infinite number of solutions available. Fortunately, you can count on Phoenix Contact to provide recommendations on secure, water-tight, and vibration-proof methods to bring cabling from the field into the cabinet.



Field

Every end device needs to be powered, as well as communicate its intended information. Device power can be either AC or DC and range from a few milliamps to hundreds of amps. Sensor connectivity collects field-level digital analog signals and brings them back to the control level. Networks or industrial protocols are used to communicate with devices using the same language.

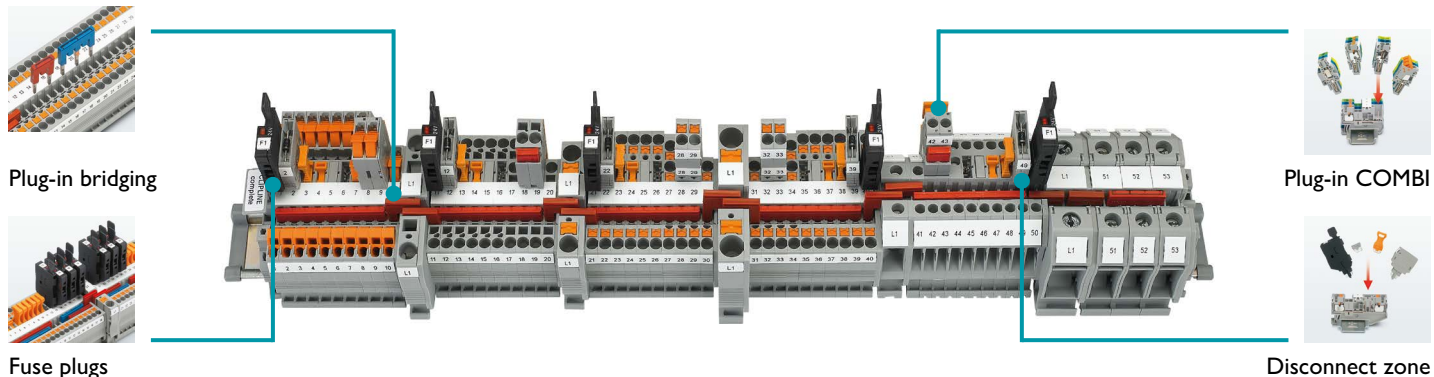




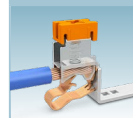
Modular Terminal Blocks

All connection technologies – one system

With CLIPLINE complete, the unique terminal block system from Phoenix Contact, you are free to choose the connection technology. This versatility enables you to respond flexibly to different demands and requirements anywhere in the world. All connection technologies can be flexibly combined with one another using the same accessories.



Push-X (XT / XTV) Accessories



- Push-X technology is one of the fastest and most flexible connection technologies
- Quick installation of stranded wires without the need for ferrules!
- Simple wire release with any tool via integrated pusher
- Full compatibility with existing systems from CLIPLINE complete.

Push-X Technology[®]
Designed by Phoenix Contact

| AWG | I _{max} | Connections | Description | Order no. | Cover | Bridge (2-pos.) | Screwdriver | Marking | |
|-------|------------------|-------------|----------------|-----------|---------|-----------------|-------------|---------|---------|
| | | | | | | | | Side | Top |
| 18-12 | 24 A | 2 | XT 2,5 | 1343106 | 3030417 | 3030161 | 1204517 | 0828744 | 0828734 |
| | — | | XT 2,5-PE | 1343116 | | | | | |
| | 24 A | 3 | XT 2,5-TWIN | 1343117 | 3030488 | | | | |
| | 22 A | 4 | XT 2,5-QUATTRO | 1343129 | 3030514 | | | | |
| | 20 A | 2 | XTT 2,5 | 1453789 | 1453880 | | | | |
| 14-8 | 41 A | 2 | XTV 6 | 1329493 | 1329515 | 3030284 | 1204520 | 0828748 | 0828740 |
| | — | | XTV 6-PE | 1329495 | | | | | |
| | 41 A | 3 | XTV 6-TWIN | 1329499 | 1329516 | | | | |
| | — | 4 | XTV 6-QUATTRO | 1329511 | 1329517 | | | | |
| 12-6 | 57 A | 2 | XTV 10 | 1329547 | 1329608 | 3005947 | 1204517 | 0829204 | 0829142 |
| | — | | XTV 10-PE | 1329550 | | | | | |
| | 57 A | 3 | XTV 10-TWIN | 1329603 | 1329609 | | | | |
| 10-4 | 76 A | 2 | XTV 16 | 1329672 | 1329675 | 3005950 | | 0829214 | 0829144 |
| | — | | XTV 16-PE | 1329674 | | | | | |

Push-in (PT) Accessories



- 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

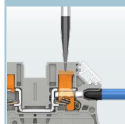
Das Original
Push-in Technology[®]
Designed by PHOENIX CONTACT

| | | | | | | | | | |
|-------|-------------|---|------------------------|---------|---------|---------|---------|---------|---------|
| 26-14 | 15A | 2 | PT 1.5/S | 3208100 | 3208142 | 3213014 | 1204504 | 0829486 | 0829484 |
| | — | | PT 1.5/S PE | 3208139 | | | | | |
| | 15A | 3 | PT 1.5/S-TWIN | 3208155 | 3208184 | | | | |
| 26-12 | 15A | 4 | PT 1.5/S-QUATTRO | 3208197 | 3208375 | 3030161 | 1204517 | 0828744 | 0828734 |
| | 20A | 2 | PT 2.5 | 3209510 | 3030417 | | | | |
| | — | | PT 2.5-PE | 3209536 | | | | | |
| | 20A | 3 | PT 2.5-TWIN | 3209549 | 3030488 | | | | |
| | 20A | | PT 2.5-QUATTRO | 3209578 | | | | | |
| | 20A | 4 | PTTB 2.5 | 3210567 | 3211634 | | | | |
| — | PTTB 2.5-PE | | 3210596 | | | | | | |
| 24-10 | 30A | 2 | PT 4 | 3211757 | 3030420 | 3030336 | 1204517 | 0828746 | 0828736 |
| | — | | PT 4-PE | 3211766 | | | | | |
| | 6.3A | | PT 4-HESI (5X20) | 3211861 | | | | | |
| | 6.3A | 3 | PT 4-HESILED 24 (5X20) | 3211903 | 3208977 | | | | |
| | 30A | | PT 4-TWIN | 3211771 | | | | | |
| | 30A | 4 | PT 4-QUATTRO | 3211797 | 3030462 | | | | |
| | 28A | | PTTB 4 | 3211786 | | | | | |
| | — | | PTTB 4-PE | 3211854 | | | | | |



Push-in Vertical (PTV)

Accessories



The PTV series combines all the handling advantages of our Push-in technology with the clarity of a screw terminal

- Clear distinction between operating level and wiring
- No bending radius
- Simple wiring
- No special tool required

Das Original
Push-in Technology[®]
Designed by PHOENIX CONTACT

| AWG | I _{max} | Connections | Description | Order no. | Cover | Bridge (2-pos.) | Screwdriver | Marking | |
|-------|------------------|-------------|------------------|--------------------|---------|-----------------|-------------|---------|---------|
| | | | | | | | | Side | Top |
| 26-12 | 24 A | 2 | PTV 2.5 | 1078960 | 1088746 | 3030161 | 1204517 | 0828744 | 0828734 |
| | — | | PTV 2.5 PE | 1078963 | | | | | |
| | 24 A | 3 | PTV 2.5 TWIN | 1078966 | 1088747 | | | | |
| | | | 4 | PTV 2.5 QUATTRO | 1078999 | | | | |
| | 20 A | 2 | | PTV 2,5-MT | 1079063 | | | | |
| | | | 4 | PTV 2,5-QUATTRO-MT | 1079070 | | | | |
| 24-10 | 32 A | 2 | | PTV 4 | 1088728 | 1088746 | 3030336 | 1204520 | 0828748 |
| | — | | PTV 4 - PE | 1088730 | | | | | |
| | 32 A | 3 | PTV 4 TWIN | 1088731 | 1088747 | | | | |
| | | | 4 | PTV 4- QUATTRO | 1088734 | 1088748 | | | |
| | 20 A | 2 | | PTV 4-MT | 1088739 | 1079918 | | | |
| | 6.3 A | | PTV 4 HESILED 24 | 1088743 | | | | | |
| 20-8 | 41 A | 2 | PTV 6 | 1116734 | 1180894 | 3030284 | 1204520 | 0828748 | 0828740 |
| | — | | PTV 6-PE | 1116736 | | | | | |
| | 41 A | 3 | PTV 6 TWIN | 1116737 | 1180923 | | | | |
| | | | 4 | PTV 6- QUATTRO | 1116871 | | | | |

Screw clamp (UT)

Accessories

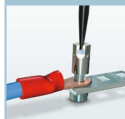


- Universal multi-wire connection with highest pullout force
- Save money with uniform bridging, marking, and accessories as part of the Cipline Complete system
- Maintenance-free conductor connection with the Reakdyn[®] principle – there is no need to tighten the terminal block screws

| AWG | I _{max} | Connections | Description | Order no. | Cover | Bridge (2-pos.) | Screwdriver | Marking | |
|-------|------------------|-------------|------------------------|----------------|---------|-----------------|-------------|---------|-----|
| | | | | | | | | Side | Top |
| 26-12 | 20 | 2 | UT 2.5 | 3044076 | 3047028 | 3030161 | 1212587 | 0828734 | — |
| | — | | UT 2.5-PE | 3044092 | | | | | |
| | 20 | 3 | UT 2.5-TWIN | 3044513 | 3047141 | | | | |
| | 20 | | 4 | UT 2.5-QUATTRO | 3044542 | | | | |
| | 20 | 6 | | UTTB 2.5 | 3044636 | | | | |
| | — | | UTTB 2.5-PE | 3044665 | | | | | |
| 26-10 | 20 | 2 | UT 2.5-3L | 3214259 | 3214314 | 3030336 | 1212587 | 0828736 | — |
| | — | | UT 2.5-3PE | 3214275 | | | | | |
| | 30 | 3 | UT 4 | 3044102 | 3047028 | | | | |
| | — | | UT 4-PE | 3044128 | | | | | |
| | 6.3 | 2 | UT 4-HESI (5X20) | 3046032 | — | | | | |
| | 6.3 | | UT 4-HESILED 24 (5X20) | 3046090 | — | | | | |
| 30 | 4 | UT 4-TWIN | 3044364 | 3047141 | | | | | |
| 30 | | 3 | UT 4-QUATTRO | 3044571 | 3047170 | | | | |
| 30 | 4 | | UTTB 4 | 3044814 | 3047293 | | | | |
| — | | UTTB4-PE | 3044759 | | | | | | |
| 26-8 | 50 | 2 | UT-6 | 3044131 | 3047028 | 3030284 | 1205066 | 0828740 | — |
| | — | | UT6-PE | 3044157 | — | | | | |

Bolt connection (RT)

Accessories



- Captive hardware with a hinged cover delivers a safe termination
- Save money with uniform bridging, marking, and accessories

| AWG | I _{max} | Connections | Description | Order no. | Cover | Bridge (2-pos.) | Screwdriver | Marking | |
|-------|------------------|-------------|-------------|-----------|---------|-----------------|-------------|---------|-------------------|
| 26-14 | 24 | 2 | RT-3 | 3049013 | 3049097 | 3030336 | 1205053 | 0828740 | See Marking Guide |
| 26-10 | 41 | | RT-5 | 3049026 | — | 3030284 | 1205079 | 0829144 | |
| 14-2 | 125 | | RT-8 | 3049042 | 3049194 | 3005947 | 1205066 | 0829146 | |

PTFIX distribution blocks

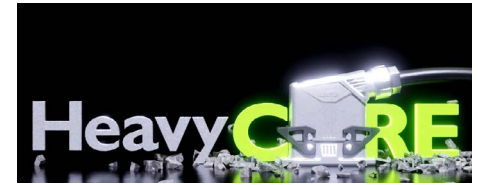


| | Technical data | Connections | Mounting | Description | Order no. |
|--|---|-------------|----------------------------------|-------------------------|-----------|
| | Power Contact: Current/Voltage: 57 A / 690 V AWG: 20-10 | 7 | Transverse to the NS 35 DIN rail | PTFIX 6/6X2,5-NS35 GY | 3273066 |
| | | 13 | | PTFIX 6/12X2,5-NS35 GY | 3273088 |
| | | 19 | | PTFIX 6/18X2,5-NS35 GY | 3273110 |
| | Pick-off contacts: Current/Voltage: 24 A / 690 V AWG: 26-14 | 7 | Along the NS 35 DIN rail | PTFIX 6/6X2,5-NS35A GY | 3273198 |
| | | 13 | | PTFIX 6/12X2,5-NS35A GY | 3273220 |
| | | 19 | | PTFIX 6/18X2,5-NS35A GY | 3273242 |



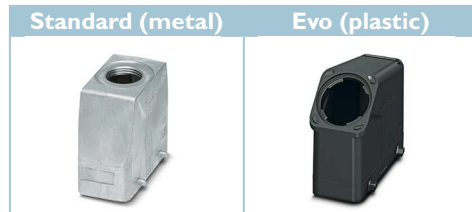
Heavy-duty Connectors

Industrial connectors from the HEAVYCON complete series protect your interfaces and ensure the reliable transmission of power, data, and signals even under the harshest conditions. The industrial connectors are resistant to dirt, water, vibrations, and high levels of mechanical strain. The heavy-duty connectors have a seal rating of up to IP69K.



Rock-solid performance, ready when you are.

Scan the QR code to learn more online



Selector guide — Pick 4 parts

| 1 | 2 | 3 | 4 |
|--------------|------|----------------|-------------|
| INSERT (M&F) | BASE | SLEEVE HOUSING | CABLE GLAND |
| | | | |

HEAVYCON STANDARD

| Poles | Tech. | Socket (F) | | Plug (M) | | Panel Mounting Base | | Hood - Top Entry | | Hood - Lateral Entry | |
|-------|---------|------------|----------------|-----------|----------------|-------------------------|-----------|------------------|------------------|----------------------|------------------|
| | | Order no. | Description | Order no. | Description | with cover | w/o cover | Low profile | High profile | Low profile | High profile |
| 6 | Screw | 1648128 | HC-B 6-I-UT-F | 1648115 | HC-B 6-I-UT-M | 1411319 | 1411318 | 1412574 (M20) | 1412566 (M25) | 1412570 (M20) | 1412562 (M25) |
| | Push-in | 1407727 | HC-B 6-I-PT-F | 1407728 | HC-B 6-I-PT-M | | | | | | |
| | Crimp | 1648160 | HC-B 6-I-CT-F | 1648157 | HC-B 6-I-CT-M | | | | | | |
| 10 | Screw | 1648186 | HC-B 10-I-UT-F | 1648173 | HC-B 10-I-UT-M | 1411321 | 1411320 | 1412629 (M20) | 1412605 (M32) | 1412625 (M25) | 1412600 (M25) |
| | Push-in | 1407729 | HC-B 10-I-PT-F | 1407730 | HC-B 10-I-PT-M | | | | | | |
| | Crimp | 1605569 | HC-B 10-I-CT-F | 1605624 | HC-B 10-I-CT-M | | | | | | |
| 16 | Screw | 1648241 | HC-B 16-I-UT-F | 1648238 | HC-B 16-I-UT-M | 1411325 | 1411324 | 1412730 (M32) | 1412689 (M32) | 1412726 (M32) | 1412679 (M32) |
| | Push-in | 1407731 | HC-B 16-I-PT-F | 1407732 | HC-B 16-I-PT-M | | | | | | |
| | Crimp | 1648283 | HC-B 16-I-CT-F | 1648270 | HC-B 16-I-CT-M | | | | | | |
| 24 | Screw | 1648306 | HC-B 24-I-UT-F | 1648296 | HC-B 24-I-UT-M | 1411331 + 1346546 | — | 1412779 (M32) | 1412754 (M32) | 1412774 (M32) | 1412750 (M32) |
| | Push-in | 1407735 | HC-B 24-I-PT-F | 1407736 | HC-B 24-I-PT-M | | | | | | |
| | Crimp | 1648348 | HC-B 24-I-CT-F | 1648335 | HC-B 24-I-CT-M | | | | | | |

HEAVYCON EVO

| Poles | Tech. | Socket (F) | | Plug (M) | | Panel Mounting Base | | Hood - Top and Lateral Entry | |
|-------|---------|------------|----------------|-----------|----------------|-------------------------|-----------|------------------------------|--------------|
| | | Order no. | Description | Order no. | Description | with cover | w/o cover | Low profile | High profile |
| 6 | Screw | 1648128 | HC-B 6-I-UT-F | 1648115 | HC-B 6-I-UT-M | 1407622 | 1407621 | 1407619 | 1407620 |
| | Push-in | 1407727 | HC-B 6-I-PT-F | 1407728 | HC-B 6-I-PT-M | | | | |
| | Crimp | 1648160 | HC-B 6-I-CT-F | 1648157 | HC-B 6-I-CT-M | | | | |
| 10 | Screw | 1648186 | HC-B 10-I-UT-F | 1648173 | HC-B 10-I-UT-M | 1407633 | 1407632 | 1407626 | 1407627 |
| | Push-in | 1407729 | HC-B 10-I-PT-F | 1407730 | HC-B 10-I-PT-M | | | | |
| | Crimp | 1605569 | HC-B 10-I-CT-F | 1605624 | HC-B 10-I-CT-M | | | | |
| 16 | Screw | 1648241 | HC-B 16-I-UT-F | 1648238 | HC-B 16-I-UT-M | 1407647 | 1407646 | 1420931 | 1407642 |
| | Push-in | 1407731 | HC-B 16-I-PT-F | 1407732 | HC-B 16-I-PT-M | | | | |
| | Crimp | 1648283 | HC-B 16-I-CT-F | 1648270 | HC-B 16-I-CT-M | | | | |
| 24 | Screw | 1648306 | HC-B 24-I-UT-F | 1648296 | HC-B 24-I-UT-M | 1407661 + 1346546 | — | 1420935 | 1407657 |
| | Push-in | 1407735 | HC-B 24-I-PT-F | 1407736 | HC-B 24-I-PT-M | | | | |
| | Crimp | 1648348 | HC-B 24-I-CT-F | 1648335 | HC-B 24-I-CT-M | | | | |

Accessories — Cable gland

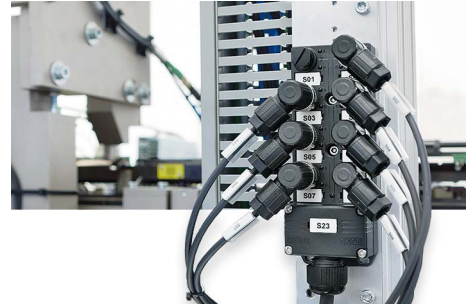
| HEAVYCON STANDARD | | HEAVYCON EVO | |
|-------------------|---------|--------------|--------------------------|
| M20 | 1411163 | 7-13 mm | 1407669 (M20 equivalent) |
| M25 | 1411165 | 9-17 mm | 1407670 (M25 equivalent) |
| M32 | 1411166 | 11-21 mm | 1407671 (M32 equivalent) |
| M40 | 1411167 | 19-28 mm | 1407672 (M40 equivalent) |



M8/M12 Distributor Boxes

Distributor boxes for signal and power applications

Scan the QR code to learn more online



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.



M8 — Metal thread

| Pos. | LED | Single or double occupancy | Cable glands | Connector: Requires master cable* | Length | Description | Order no. |
|------|--------|----------------------------|--------------|-----------------------------------|---------------------------|---------------------------|-----------|
| 8 | ✓ | Single | — | — | 5 m | SACB- 8/3-L- 5,0PUR-M8 HD | 1197232 |
| | | Double | — | 1166980 (M16) | 10 m | SACB- 8/3-L-10,0PUR-M8 HD | 1197236 |
| | Double | — | — | 5 m | SACB- 8/4-L- 5,0PUR-M8 HD | 1197314 | |

M12 — Metal thread

| | | | | | | | |
|--------|------|-------------------------|---------|---|------|-------------------------|---------|
| 8 | ✗ | Single | 1516881 | — | 5 m | SACB-8/ 8- 5,0PUR SCO | 1517042 |
| | | Single | 1516881 | — | 10 m | SACB-8/ 8-10,0PUR SCO | 1517055 |
| | | Double | 1516894 | — | 5 m | SACB-8/16- 5,0PUR SCO | 1517068 |
| | | Double | 1516894 | — | 10 m | SACB-8/16-10,0PUR SCO | 1517071 |
| | ✓ | Single | 1516823 | — | 5 m | SACB-8/ 8-L- 5,0PUR SCO | 1517165 |
| | | Single | 1516823 | — | 10 m | SACB-8/ 8-L-10,0PUR SCO | 1517178 |
| Double | 5 m | SACB-8/16-L- 5,0PUR SCO | 1517181 | | | | |
| | 10 m | SACB-8/16-L-10,0PUR SCO | 1517194 | | | | |

M12 — Plastic thread

| | | | | | | | |
|--------|------|---------------------------|---------|---------------|------|---------------------------|---------|
| 8 | ✗ | Single | 1452783 | — | 5 m | SACB-8/ 8- 5,0PUR SCO P | 1452518 |
| | | Single | 1452783 | — | 10 m | SACB-8/ 8-10,0PUR SCO P | 1452521 |
| | | Double | 1452796 | 1692844 (M23) | 5 m | SACB-8/16- 5,0PUR SCO P | 1452547 |
| | | Double | 1452796 | 1692844 (M23) | 10 m | SACB-8/16-10,0PUR SCO P | 1452550 |
| | ✓ | Single | 1452848 | — | 5 m | SACB-8/ 8-L- 5,0PUR SCO P | 1452699 |
| | | Single | 1452848 | — | 10 m | SACB-8/ 8-L-10,0PUR SCO P | 1452709 |
| Double | 5 m | SACB-8/16-L- 5,0PUR SCO P | 1452725 | | | | |
| | 10 m | SACB-8/16-L-10,0PUR SCO P | 1452738 | | | | |

*Master cables

| | Type | Number of positions | Cable material | Cable length | Description | Order no. |
|--|--------------------------------------|---------------------|----------------|--------------|---------------------------|-----------|
| | Master cable with M23 plug, straight | 19 | PUR/PVC black | 5 m | RCK-TGUM/BL16+3/5,0PUR-U | 1684056 |
| | | | | 10 m | RCK-TGUM/BL16+3/10,0PUR-U | 1684069 |
| | Master cable with M23 plug, angled | | | 5 m | RCK-TWUM/BL16+3/ 5,0PUR-U | 1684072 |
| | | | | 10 m | RCK-TWUM/BL16+3/10,0PUR-U | 1684085 |
| | Master cable with M16 plug, angled | 12 | | 5 m | SAC-12P- 5,0-PUR/M16FR | 1693720 |
| | | | | 10 m | SAC-12P-10,0-PUR/M16FR | 1693733 |

*Alternative products in accordance with RoHS II without exemption are also available



Connectors

Phoenix Contact offers metric circular connectors for industrial automation in a variety of designs: from small to large, straight or angled, molded or for assembly in the field. The wide-ranging portfolio offers versatile solutions for transmitting signals, data, and power.

A comprehensive range of M8 and M12 flush-type connectors and panel feed-through have 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.



Configurator for cables

Configure your cable connection for signal, data, and power transmission in IP6x environments or for control cabinet applications. Freely selectable cable lengths and cable ends allow customized cable assemblies.



Scan the QR code to access our online cable configurator

Features and benefits

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

| M8 | | | | | | | | | | |
|-----------------|------------------------|------------------------|-------------------------|------------------|------------|------------------------|---------------|-------------------|------------------------|---------|
| Female | Male | Positions | Connection | Gender | Diameter | Description | Order no. | | | |
| | | 3-pos. | Screw | Male Straight | 3.5...5 mm | SACC-M 8MS-3CON-M-SW | 1501252 | | | |
| | | | | Female Straight | | SACC-M 8FS-3CON-M-SW | 1506888 | | | |
| | | | Insulation Displacement | Male Straight | 2.5...5 mm | SACC-M 8MS-3QO-0,25-M | 1441008 | | | |
| | | | | Female Straight | | SACC-M 8FS-3QO-0,5-M | 1441066 | | | |
| | | 4-pos. | Screw | Male Straight | 3.5...5 mm | SACC-M 8MS-4CON-M | 1681169 | | | |
| | | | | Female Straight | | SACC-M 8FS-4CON-M-SW | 1506891 | | | |
| | | | Insulation Displacement | Male Straight | 2.5...5 mm | SACC-M 8MS-4QO-0,5-M | 1441037 | | | |
| | | | | Female Straight | | SACC-M 8FS-4QO-0,5-M | 1441079 | | | |
| M12 | | | | | | | | | | |
| | | 4-pos. | Screw | Male Straight | 4...6 mm | SACC-M12MS-4CON-PG 7-M | 1662528 | | | |
| | | | | Male Angled | | SACC-M12MR-4CON-PG7-M | 1681101 | | | |
| | | | | Female Straight | | SACC-M12FS-4CON-PG7-M | 1681127 | | | |
| | | | | Female Angled | | SACC-M12FR-4CON-PG7-M | 1681143 | | | |
| | | | Insulation Displacement | Male Straight | 4...8 mm | SACC-M12MS-4QO-0,75-M | 1641785 | | | |
| | | | | Female Straight | | SACC-M12FS-4QO-0,75-M | 1641772 | | | |
| | | | | Push-In | | Male Straight | 4...8 mm | SACC-MS-4PL M SCO | 1424657 | |
| | | | | | | Male Angled | | SACC-M12MR-4PL M | 1424654 | |
| | | | Female Straight | SACC-M12FS-4PL M | 1424655 | | | | | |
| | | | Female Angled | SACC-M12FR-4PL M | 1424656 | | | | | |
| | | | | | 5-pos. | Screw | Male Straight | 4...6 mm | SACC-M12MS-5CON-PG 7-M | 1663116 |
| | | | | | | | Male Angled | 6...8 mm | SACC-M12MS-5CON-PG 9-M | 1681460 |
| Female Straight | 4...6 mm | SACC-M12MR-5CON-PG 7-M | | | | | 1663129 | | | |
| Female Angled | SACC-M12FS-5CON-PG 7-M | 1662968 | | | | | | | | |
| Push-In | Male Straight | 4...8 mm | | | | SACC-M12FR-5CON-PG 7-M | 1662984 | | | |
| | Male Angled | | | | | SACC-M12MS-5PL M | 1424649 | | | |
| | Female Straight | | | | | SACC-M12MR-5PL M | 1424651 | | | |
| | Female Angled | | | | | SACC-M12FS-5PL M | 1424652 | | | |
| | | 8-pos. | Screw | Female Straight | 6...8 mm | SACC-M12FR-5PL M | 1424653 | | | |
| | | | | Male Straight | | SACC-M12FS-8CON-PG9-M | 1513347 | | | |
| | | | | | | SACC-M12MS-8CON-PG9-M | 1513334 | | | |
| | | | | | | | | | | |



Cordsets













Quick and reliable connection, even in confined spaces

Connect sensors and actuators quickly and easily in the field using assembled cables for signal and power transmission. Choose from a range of versions and cable qualities. For requirements that go beyond the classic specifications for industrial environments, we offer a range of specially tailored products. We will also be happy to implement individual solutions on request.



Scan the QR code to learn more online



| M8 | | | | | | | | | |
|--|--|------------------------|------------------------|-----------------------------------|-----------------------------|-------------------------------|-------------------------|---------|---------|
| | Pos. | Gender / Head | Length | Non-shielded PUR jacket order no. | Non-shielded CMAT order no. | Shielded PUR jacket order no. | Shielded CMAT order no. | | |
|   | 3-pos. | Male/Female / Straight | 1.5 m | 1681923 | 1405935 | 1455285 | 1405828 | | |
| | | Female / Straight | 5 m | 1669628 | 1405956 | 1521737 | 1405834 | | |
| | | Female / Right angle | | 1669631 | 1405957 | 1521782 | 1405835 | | |
| | | Male / Straight | | 1681680 | 1405939 | 1521630 | 1405830 | | |
| | | Male / Right angle | | 1681716 | 1405944 | 1521685 | 1405833 | | |
| | | Female / Straight | | 10 m | 1694101 | 1405956 | 1521740 | 1405834 | |
| | Female / Right angle | 1694169 | | | 1405957 | 1521795 | 1405835 | | |
| | Male / Straight | 1693584 | 1405939 | | 1521643 | 1405830 | | | |
| | Male / Right angle | 1694114 | 1405944 | | 1521698 | 1405833 | | | |
| |   | 4-pos. | Male/Female / Straight | | 1.5 m | 1682168 | 1405902 | 1455735 | 1405810 |
| | | | Female / Straight | | 5 m | 1681868 | 1405923 | 1521931 | 1405822 |
| | | | Female / Right angle | 1681897 | | 1405924 | 1521986 | 1405823 | |
| Male / Straight | | | 1681800 | 1405906 | | 1521834 | 1405818 | | |
| Male / Right angle | | | 1681839 | 1405911 | | 1521889 | 1405821 | | |
| Female / Straight | | | 10 m | 1683484 | | 1405923 | 1521944 | 1405822 | |
| Female / Right angle | 1694172 | 1405924 | | 1521999 | | 1405823 | | | |
| Male / Straight | 1694143 | 1405906 | | 1521847 | 1405818 | | | | |
| Male / Right angle | 1694156 | 1405911 | | 1521892 | 1405821 | | | | |
| M12 | | | | | | | | | |
|   | 3-pos. | Male/Female / Straight | | 1.5 m | 1681525 | — | 1500826 | — | |
| | | Female / Straight | 5 m | 1683510 | 1405947 | 1682809 | 1405927 | | |
| | | Female / Right angle | | 1694525 | 1405959 | 1682838 | 1405934 | | |
| | | Male / Straight | | 1668030 | 1405949 | 1682676 | 1405929 | | |
| | | Male / Right angle | | 1668153 | 1405955 | 1682702 | 1405932 | | |
| | | Female / Straight | | 10 m | 1693034 | 1405958 | 1500680 | 1405933 | |
| | Female / Right angle | 1694538 | | | 1405959 | 1500693 | 1405934 | | |
| | Male / Straight | 1682566 | 1405949 | | 1500664 | 1405929 | | | |
| | Male / Right angle | 1694444 | 1405955 | | 1500677 | 1405932 | | | |
| |   | 4-pos. | Male/Female / Straight | | 1.5 m | 1668373 | — | 1500868 | — |
| | | | Female / Straight | | 5 m | 1668124 | 1405925 | 1682867 | 1405900 |
| | | | Female / Right angle | 1668247 | | 1405926 | 1682922 | 1405901 | |
| Male / Straight | | | 1668069 | 1405916 | | 1682647 | 1405896 | | |
| Male / Right angle | | | 1668182 | 1405922 | | 1682896 | 1405899 | | |
| Female / Straight | | | 10 m | 1683002 | | 1405925 | 1500716 | 1405900 | |
| Female / Right angle | 1681389 | 1405926 | | 1500729 | | 1405901 | | | |
| Male / Straight | 1682993 | 1405916 | | 1694389 | 1405896 | | | | |
| Male / Right angle | 1694457 | 1405922 | | 1500703 | 1405899 | | | | |
|   | 5-pos. | Male/Female / Straight | | 1.5 m | 1681606 | 1405886 | 1500907 | 1405877 | |
| | | Female / Straight | | 5 m | 1669848 | 1405892 | 1682951 | 1405884 | |
| | | Female / Right angle | 1669877 | | 1405893 | 1682980 | 1405885 | | |
| | | Male / Straight | 1669783 | | 1405888 | 1682731 | 1405879 | | |
| | | Male / Right angle | 1669819 | | 1405891 | 1682773 | 1405883 | | |
| | | Female / Straight | 10 m | | 1683374 | 1405886 | 1500758 | 1405877 | |
| | Female / Right angle | 1694541 | | | 1405892 | 1500761 | 1405884 | | |
| | Male / Straight | 1683361 | | 1405893 | 1500732 | 1405885 | | | |
| | Male / Right angle | 1694460 | | 1405888 | 1500745 | 1405879 | | | |
| |   | 8-pos. | | Male/Female / Straight | 1.5 m | 1522697 | 1405891 | 1522985 | 1405883 |
| | | | | Female / Straight | 5 m | 1520369 | 1405851 | 1522888 | 1405843 |
| | | | Female / Right angle | 1522642 | | 1405852 | 1522930 | 1405844 | |
| Male / Straight | | | 1522516 | 1405847 | | 1526981 | 1405839 | | |
| Male / Right angle | | | 1522561 | 1405850 | | 1522833 | 1405842 | | |
| Female / Straight | | | 10 m | 1520372 | | 1405851 | 1522891 | 1405843 | |
| Female / Right angle | 1522655 | 1405852 | | 1522943 | | 1405844 | | | |
| Male / Straight | 1522529 | 1405847 | | 1522794 | 1405839 | | | | |
| Male / Right angle | 1522574 | 1405850 | | 1522846 | 1405842 | | | | |



Feed-Throughs

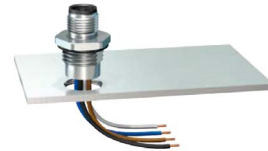
Panel-mount sensor receptacles with leads

Panel-mount receptacles allow for a waterproof quick-disconnect into a cabinet or device. There are various options for mounting direction, panel cutout size, lead length, or number of positions.



Front mount

The receptacle threads or pushes through into the enclosure from the front, and is secured with a locknut in the rear (inside) of the enclosure. This provides the most security against tampering, but does not allow pre-wiring of leads until after the product is mounted. Since the enclosure could be either tapped and threaded or punched, the locknut is ordered separately.





Rear mount


The receptacle pushes through the enclosure from the rear and is secured with a locknut on the front (outside) of the enclosure. This allows leads to be pre-terminated to terminals, then pushed into the cutout during final installation. A locknut is included since the enclosure is never threaded for a rear-mount receptacle. A full range for direct PCB mount is also available, see the website for details.



M8 panel-mount receptacles with 0.5m pre-terminated leads

M8 — 3 and 4-pos. sensor receptacles with pre-terminated leads

| Style | Configuration | Panel mount thread | AWG | M8 3-pos A-code | M8 4-pos A-code | Locknut |
|-------------|---------------|--------------------|--------|--|---|----------|
| | | | |  |  | |
| Front mount | Female | 8 mm | 24 AWG | 1500350 | 1500363 | 1504071 |
| | Male | 8 mm | 24 AWG | 1500334 | 1500347 | 1504071 |
| Rear mount | Female | 10 mm | 24 AWG | 1456080 | 1456093 | Included |
| | Female | 12 mm | 24 AWG | 1453449 | 1453452 | Included |
| | Male | 8 mm | 24 AWG | 1453478 | 1453481 | Included |

 Additional lengths can be requested



M12 Panel-Mount Receptacles With 0.5 m Pre-Terminated Leads

M12 — 4, 5, and 8-pos. sensor receptacles with pre-terminated leads

| Style | Configuration | Panel mount thread | AWG | M12 4-pos A-code | M12 5-pos A-code | M12 8-pos A-code | Locknut |
|-------------|---------------|--------------------|--------|------------------|------------------|------------------|----------|
| Front mount | Female | PG9 | 22 AWG | 1693788 | 1671098 | — | 1504084 |
| | Female | 16 mm | 22 AWG | 1523434 | 1520039 | — | 1504097 |
| | Male | PG9 | 22 AWG | 1693762 | 1671111 | — | 1504084 |
| | Male | 16 mm | 22 AWG | 1523450 | 1520055 | — | 1504097 |
| Rear mount | Female | PG9 | 22 AWG | 1556621 | 1542729 | — | Included |
| | Female | 16 mm | 22 AWG | 1419632 | 1419658 | — | Included |
| | Male | PG9 | 22 AWG | 1556618 | 1542703 | — | Included |
| | Male | 16 mm | 22 AWG | 1419629 | 1419645 | — | Included |
| Front mount | Female | PG9 | 24 AWG | — | — | 1513758 | 1504084 |
| | Female | 16 mm | 24 AWG | — | — | 1523476 | 1504097 |
| | Male | PG9 | 24 AWG | — | — | 1513774 | 1504084 |
| | Male | 16 mm | 24 AWG | — | — | 1523492 | 1504097 |
| Rear mount | Female | PG9 | 24 AWG | — | — | 1542732 | Included |
| | Female | 16 mm | 24 AWG | — | — | 1419690 | Included |
| | Male | PG9 | 24 AWG | — | — | 1542716 | Included |
| | Male | 16 mm | 24 AWG | — | — | 1419687 | Included |

Additional lengths can be requested

Ethernet panel feed-through solutions

| | M12 to RJ45 | | M12 to M12 | | Length | M12 with shielded cable | | Cable gland |
|--------------|-------------|---------|------------------|----------------|---------|-------------------------|------------|-------------|
| | Straight | Angled | Female to female | Male to female | | Front mount | Rear mount | |
| 4-pos D-Code | | | | | 2 m | | | |
| 1414398 | 1414397 | 1424326 | — | 1405837 | 1405866 | | | |
| 8-pos A-Code | | | | | 2 m | — | 1412820 | |
| 1414396 | 1414393 | — | 1551697 | — | 1407877 | | | |
| 8-pos X-Code | | | | | 0.5 m | — | 1424135 | |
| 1404549 | 1404548 | — | — | 1 m | — | 1424148 | | |
| | | | | 2 m | — | 1424151 | | |
| | | | | 5 m | — | 1424164 | | |



Signal Switching and Conditioning

Every signal has a specific purpose and not all signals are the same. Sometimes along the journey, signals may need to be isolated, amplified, or converted to serve their purpose in the system. Ensuring the signal's mission is accomplished can be as simple as choosing a universal product, or might require digging deeper and allowing the application to dictate product selection. Analog signals, digital signals, and motors all require the right product to ensure that the signal gets the job done.



SIGNAL SWITCHING AND CONDITIONING

- Speed Starters
- Interposing Relays
- General Purpose Relays
- Signal Conditioners

Scan the QR code to learn more online





Speed Starters With Intuitive Operation

CONTACTRON

The Speed Starter is the new device class between motor starters and frequency converters with a particularly intuitive operation. This compact solution provides all of the functions necessary for different speeds, soft start, and safe stopping with the Safe Torque Off (STO) function. The CONTACTRON Speed Starter features simple operation with various speeds, and soft start, all the way to energy efficiency and ramping functions. The addition of the analog input terminals allows you to easily vary the speed via a 4-20mA or 0-10V signal.



Single phase input models are rated for three phase motors upto a nominal voltage of 240V AC.
Three phase input models are rated for three phase motors upto a nominal voltage of 480V AC.

Scan the QR code to learn more online



Your advantages with our speed starters

| | | | | |
|--------------------------------------|---|---|--|----------------------------------|
| | | | | |
| ✓ Simple, safe, and efficient | ✓ Quick installation and startup | ✓ Safe shutdown with Safe Torque Off (STO) | ✓ Saving space in the control cabinet | ✓ Cost-effective solution |



Safe Torque Off



Various speeds



Direct start



Reversing start



Ramp function



Motor protection

Speed starters

| Input | Input (V AC) | Output power rating (kW) | Integrated EMC filter | Description | Order no. |
|--------------|--------------|--------------------------|-----------------------|------------------|-----------|
| Single Phase | 110.....240 | 0.25 | No | CSS 0.25-1/3 | 1201132 |
| Single Phase | 110.....240 | 0.25 | Yes | CSS 0.25-1/3-EMC | 1201520 |
| Single Phase | 110.....240 | 0.37 | No | CSS 0.37-1/3 | 1201135 |
| Single Phase | 110.....240 | 0.37 | Yes | CSS 0.37-1/3-EMC | 1201600 |
| Single Phase | 110.....240 | 0.55 | No | CSS 0.55-1/3 | 1201494 |
| Single Phase | 110.....240 | 0.55 | Yes | CSS 0.55-1/3-EMC | 1201602 |
| Single Phase | 110.....240 | 0.75 | No | CSS 0.75-1/3 | 1201509 |
| Single Phase | 110.....240 | 0.75 | Yes | CSS 0.75-1/3-EMC | 1201613 |
| Single Phase | 110.....240 | 1.5 | No | CSS 1.5-1/3 | 1201511 |
| Single Phase | 110.....240 | 1.5 | Yes | CSS 1.5-1/3-EMC | 1201642 |
| Three Phase | 220.....480 | 0.25 | No | CSS 0.25-3/3 | 1201679 |
| Three Phase | 220.....480 | 0.25 | Yes | CSS 0.25-3/3-EMC | 1201713 |
| Three Phase | 220.....480 | 0.37 | No | CSS 0.37-3/3 | 1201683 |
| Three Phase | 220.....480 | 0.37 | Yes | CSS 0.37-3/3-EMC | 1201825 |
| Three Phase | 220.....480 | 0.55 | No | CSS 0.55-3/3 | 1201694 |
| Three Phase | 220.....480 | 0.55 | Yes | CSS 0.55-3/3-EMC | 1201828 |
| Three Phase | 220.....480 | 0.75 | No | CSS 0.75-3/3 | 1201695 |
| Three Phase | 220.....480 | 0.75 | Yes | CSS 0.75-3/3-EMC | 1201829 |
| Three Phase | 220.....480 | 1.5 | No | CSS 1.5-3/3 | 1201650 |
| Three Phase | 220.....480 | 1.5 | Yes | CSS 1.5-3/3-EMC | 1201696 |



Interposing Relays

PLC-INTERFACE relays — innovations in switching

Relay systems from Phoenix Contact form the powerful and reliable interface between control and system peripherals. The lead-frame technology of the PLC-INTERFACE relay series provides the solid foundation for reliably switching, isolating, and amplifying signals. In addition, electromechanical and solid-state relays are used – this combination proves itself day after day in millions of switching operations in a multitude of applications and in relay switching.


Quality is a priority at Phoenix Contact, so even small details are of great importance to us. With our own plastic and metal parts manufacturing facilities, we produce the parts that form the basis of the high-quality components. 100% of the products are tested during the process. To ensure that innovative product ideas are continuously implemented in design and development departments, expertise and in-house skills are being further extended.




Scan the QR code to learn more online



Electromechanical relays — PLC Series

| PLC relay assembly with electromechanical relay | Input-coil voltage | Output current | Sets of contacts | Termination style | Description | Order no. | |
|---|--------------------|----------------|------------------|---------------------|--------------------|-----------------|---------|
|  | 12 V DC | 6 A | SPDT - 6.2 mm | Screw | PLC-RSC-12DC/21 | 2966906 | |
| | | | | Push-in | PLC-RPT-12DC/21 | 2900316 | |
| | | | DPDT - 14 mm | Screw | PLC-RSC-12DC/21-21 | 2967235 | |
| | | | | Push-in | PLC-RPT-12DC/21-21 | 2900329 | |
| | 24 V DC | 50 mA | SPDT - 6.2 mm | Screw | PLC-RSC-24DC/21AU | 2966265 | |
| | | | | Push-in | PLC-RPT-24DC/21AU | 2900306 | |
| | | | 6 A | SPDT - 6.2 mm | Screw | PLC-RSC-24DC/21 | 2966171 |
| | | | | | Push-in | PLC-RPT-24DC/21 | 2900299 |
| | | DPDT - 14 mm | Screw | PLC-RSC-24DC/21-21 | 2967060 | | |
| | | | Push-in | PLC-RPT-24DC/21-21 | 2900330 | | |
| | | 10 A | SPDT - 14 mm | Screw | PLC-RSC-24DC/21HC | 2967620 | |
| | | | | Push-in | PLC-RPT-24DC/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 | | |
| 120 V AC or DC | 6 A | SPDT - 6.2 mm | Screw | PLC-RSC-120UC/21 | 2966197 | | |
| | | | Push-in | PLC-RPT-120UC/21 | 2900304 | | |
| | | DPDT - 14 mm | Screw | PLC-RSC-120UC/21-21 | 2967086 | | |
| | | | Push-in | PLC-RPT-120UC/21-21 | 2900335 | | |



Solid-state relays — PLC Series

| PLC relay assembly with solid-state relay | Input-coil voltage | Output current | Sets of contacts | Termination style | Description | Order no. |
|---|--------------------|----------------|------------------|-------------------|-------------------------|-----------|
|  | 5 V DC | 3 A | NO ONLY - 6.2 mm | Screw | PLC-OSC-5DC/24 DC/2/ACT | 2980144 |
| | | | | Push-in | PLC-OPT-5DC/24 DC/2/ACT | 2900375 |
| | 24 V DC | 100 mA | NO ONLY - 6.2 mm | Screw | PLC-OSC-24DC/ 48 DC/100 | 2966728 |
| | | | | Push-in | PLC-OPT-24DC/ 48 DC/100 | 2900352 |
| | | 3 A | NO ONLY - 6.2 mm | Screw | PLC-OSC-24DC/ 24 DC/2 | 2966634 |
| | | | | Push-in | PLC-OPT-24DC/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 |

Please note: AC outputs are also available


Interposing Relays

Triple-rated, hazardous-location relays

|  | Input-coil voltage | Output current | Sets of contacts | Termination style | Description | Order no. |
|--|---|----------------|------------------|------------------------|------------------------|-----------------------|
| |  | 12 V DC | 6 A | SPDT - 6.2 mm | Screw | PLC-RSC-12DC/21/EX |
| 10 A | | | SPDT - 14 mm | Screw | PLC-RSC-12DC/21-21/EX | 2909517 |
| 10 A | | | SPDT - 14 mm | Screw | PLC-RSC-12DC/21/HC/EX | 2909518 |
| 24 V DC | 6 A | 6 A | SPDT - 6.2 mm | Screw | PLC-RSC-24DC/21/EX | 2909524 |
| | | | DPDT - 14 mm | Push-in | PLC-RPT-24DC/21/EX | 2909528 |
| | | 10 A | SPDT - 14 mm | Screw | PLC-RSC-24DC/21-21/EX | 2909509 |
| | 10 A | 6 A | SPDT - 6.2 mm | Push-in | PLC-RPT-24DC/21-21/EX | 2909514 |
| | | | 10 A | SPDT - 14 mm | Screw | PLC-RSC-24DC/21/HC/EX |
| | | 10 A | SPDT - 14 mm | Push-in | PLC-RPT-24DC/21/HC/EX | 2909532 |
| 120 V AC or DC | 6 A | 6 A | SPDT - 6.2 mm | Screw | PLC-RSC-120UC/21/EX | 2909525 |
| | | | DPDT - 14 mm | Screw | PLC-RSC-120UC/21-21/EX | 2909511 |
| | 10 A | SPDT - 14 mm | Screw | PLC-RSC-120UC/21/HC/EX | 2909520 | |


Please note: Additional coil voltages and connection technology options are available, please inquire

Specialty


| | | | | | | |
|---|-------------|-----|------------------|-------|-----------------------|---------|
|  | 24 V DC | 6 A | NO ONLY - 6.2 mm | Screw | PLC-RSC-24DC/ 1/ACT | 2966210 |
| | | | | Screw | PLC-RSC-24DC/ 1AU/SEN | 2966317 |
| | 120 V AC/DC | 6 A | SPDT - 6.2 mm | Screw | PLC-RSC-120UC/21/SO46 | 5603593 |

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

Replacement parts — Mechanical relay

|  | Input-coil voltage | Output current | Sets of contacts | Description | Order no. |
|---|--------------------|----------------|------------------|--------------------|------------------|
| | 12 V DC | 6 A | 6 A | SPDT - 6.2 mm | REL-MR-12DC/21 |
| SPDT - 6.2 mm | | | | REL-MR-24DC/21 | 2961105 |
| 24 V DC | 6 A | 6 A | DPDT - 14 mm | REL-MR-24DC/21-21 | 2961192 |
| | | | 10 A | SPDT - 14 mm | REL-MR-24DC/21HC |
| 120 V AC | 6 A | 6 A | SPDT - 6.2 mm | REL-MR-60DC/21 | 2961118 |
| 120 V AC | 6 A | 6 A | DPDT - 14 mm | REL-MR-110DC/21-21 | 2961202 |

Solid-state relays

| | | | | | |
|---|----------|-----|---------------|------------------|---------|
|  | 5 V DC | 3 A | SPST - 6.2 mm | OPT-5DC/24 DC/2 | 2967989 |
| | 24 V DC | 3 A | SPST - 6.2 mm | OPT-24DC/24 DC/2 | 2966595 |
| | 120 V AC | 3 A | SPST - 6.2 mm | OPT-60DC/24 DC/2 | 2966605 |

Potential Distribution
2966508 - PLC-ESK GY

Adaptors and system cabling
V8 adaptor: 2295554
PLC-V8/FLK14/OUT
System cable 1m: 2305253
CABLE-FLK14/OE/0,14/100

Wide range of solutions
Over 600 standard and specialty relay solutions

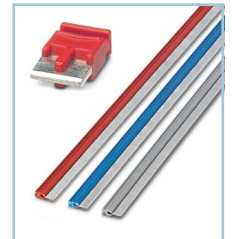
Terminal marking
6.2 mm wide: 0828736
14 mm: 0829144

Partition plate
2966841 - PLC - ATP-BK

PLC Relay Bridging

Easily bridge relays together with plug-in bridges — no tools required.

Available in 2 positions, or in continuous pieces for cutting to custom lengths.



PLC relay bridging

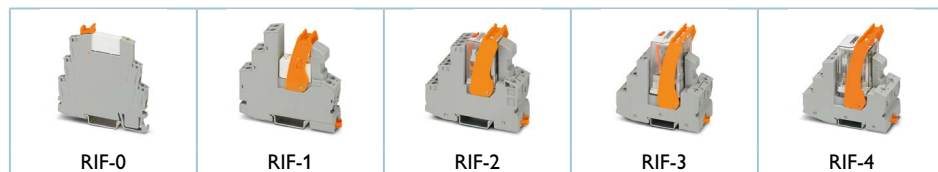
| Colour | Order no. 2-pos. | Order no. 500 mm |
|--------|------------------|------------------|
| Red | 2966236 | 2966786 |
| Blue | 2966812 | 2966692 |
| Gray | 2966825 | 2966838 |



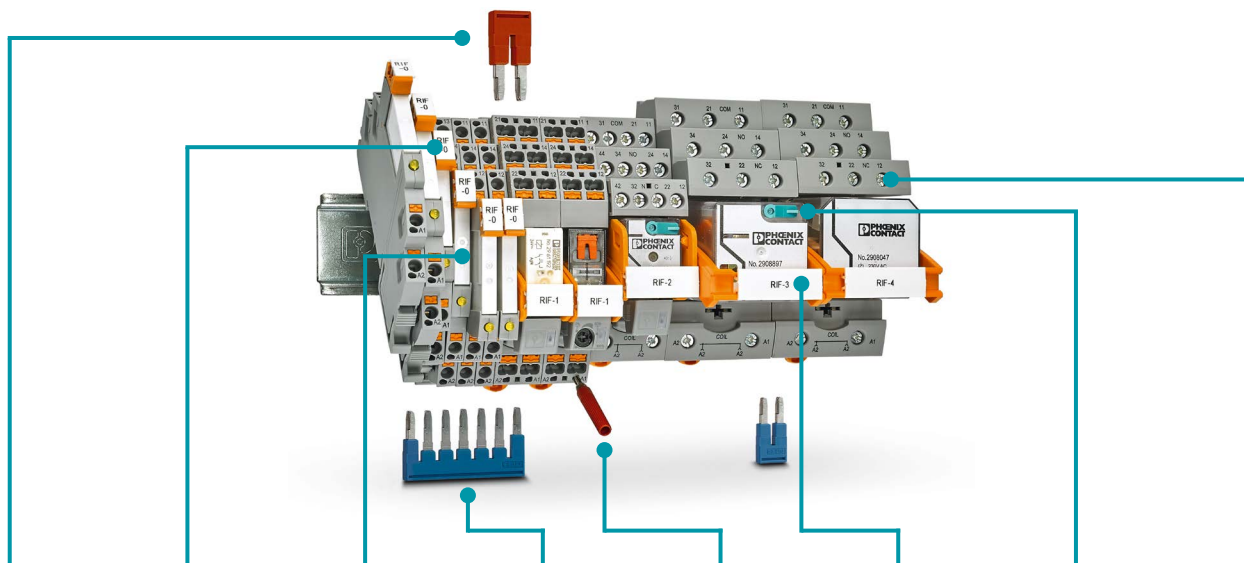
General Purpose and Ice-cube Relays

RIFLINE Complete — industrial relay system

Phoenix Contact RIFLINE Complete industrial relay system is a cost-effective modular ice cube relay series with products ranging from a slim 6.2 mm coupling relay to a small power contactor replacement. RIFLINE Complete uses familiar technologies and accessories from CLIPLINE Complete, such as push-in technology, plug-in bridges, end clamps, test plugs, and marking accessories, making it an economical choice.



Scan the QR code to learn more online



| | | | | | | | |
|--|-------------------------------|--|---|--------------------|---|--|--|
| Easy potential distribution using FBS bridging | Wide range of marking options | Slimline relays to power contactors, available in screw and push-in connection | Reduced A2 "common" terminal wiring effort using FBS bridging | Test plug adapters | Completely assembled modules include relay, base, retention clip, and inductive kickback protection | Manual operators with push-to-test and twist-to-lock functions | Wide wire range: screw terminals from 20 AWG to 10 AWG |
|--|-------------------------------|--|---|--------------------|---|--|--|

Electromechanical relays — RIFLINE

| Type | Input voltage | Output current | Sets of contacts | Termination style | Description | Order no. |
|--|---------------|----------------|------------------|-------------------|---------------------------|-----------|
| RIF-0 6.2 mm wide 66 mm tall Lowest profile of all relays | 12 V DC | 6 A | NO only | Screw | RIF-0-RSC-12DC/ 1 | 2903367 |
| | | | | Push-in | RIF-0-RPT-12DC/ 1 | 2903362 |
| | 24 V DC | 6 A | NO only | Screw | RIF-0-RSC-24DC/ 1 | 2903366 |
| | | | | Push-in | RIF-0-RPT-24DC/ 1 | 2903361 |
| RIF-1 16 mm wide 75 mm tall Pin contacts | 12 V DC | 11 A | SPDT | Screw | RIF-1-RSC-LDP-12DC/1X21 | 2908500 |
| | | | | Push-in | RIF-1-RPT-LDP-12DC/1X21 | 2906224 |
| | | 8 A | DPDT | Screw | RIF-1-RSC-LDP-12DC/2X21 | 2908501 |
| | | | | Push-in | RIF-1-RPT-LDP-12DC/2X21 | 2906223 |
| | 24 V DC | 11 A | SPDT | Screw | RIF-1-RSC-LDP-24DC/1X21 | 2903358 |
| | | | | Push-in | RIF-1-RPT-LDP-24DC/1X21 | 2903342 |
| | | 8 A | DPDT | Screw | RIF-1-RSC-LDP-24DC/2X21 | 2903350 |
| | | | | Push-in | RIF-1-RPT-LDP-24DC/2X21 | 2903334 |
| | | 50 mA | SPDT | Screw | RIF-1-RSC-LDP-24DC/1X21AU | 2903354 |
| | | | | Screw | RIF-1-RSC-LDP-24DC/2X21AU | 2903346 |
| | | | DPDT | Screw | RIF-1-RSC-LDP-24DC/1X21AU | 2903354 |
| | | | | Push-in | RIF-1-RPT-LDP-24DC/2X21AU | 2903330 |

Electromechanical relays — RIFLINE

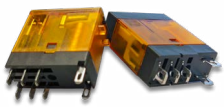
| Type | Input voltage | Output current | Sets of contacts | Termination style | Description | Order no. |
|---|---------------|----------------|------------------|-------------------|-------------------------|-----------|
| RIF-1 16 mm wide 75 mm tall Pin contacts | 120 V AC | 10 A | SPDT | Screw | RIF-1-RSC-LV-120AC/1X21 | 2903356 |
| | | | | Push-in | RIF-1-RPT-LV-120AC/1X21 | 2903340 |
| | | 8 A | DPDT | Screw | RIF-1-RSC-LV-120AC/2X21 | 2903348 |
| | | | | Push-in | RIF-1-RPT-LV-120AC/2X21 | 2903332 |

Electromechanical ice-cube relays — RIFLINE


| | | | | | | |
|--|----------|-------|------|---------|-------------------------|---------|
| RIF-2 31 mm wide 75 mm tall Blade contacts | 24 V DC | 10 A | 2PDT | Screw | RIF-2-RSC-LDP-24DC/2X21 | 2903326 |
| | | | | Push-in | RIF-2-RPT-LDP-24DC/2X21 | 2903315 |
| | | 6 A | 4PDT | Screw | RIF-2-RSC-LDP-24DC/4X21 | 2903320 |
| | | | | Push-in | RIF-2-RPT-LDP-24DC/4X21 | 2903308 |
| | 120 V AC | 8.5 A | 2PDT | Screw | RIF-2-RSC-LV-120AC/2X21 | 2903322 |
| | | | | Push-in | RIF-2-RPT-LV-120AC/2X21 | 2903311 |
| | | 6 A | 4PDT | Screw | RIF-2-RSC-LV-120AC/4X21 | 2903319 |
| | | | | Push-in | RIF-2-RPT-LV-120AC/4X21 | 2903305 |
| RIF-3 40 mm wide Pin contacts | 24 V DC | 8.5 A | 3PDT | Screw | RIF-3-RSC-LDP-24DC/3X21 | 2903300 |
| | | | | Push-in | RIF-3-RPT-LDP-24DC/3X21 | 2903294 |
| | 120 V AC | 6 A | 3PDT | Screw | RIF-3-RSC-LV-120AC/3X21 | 2903299 |
| | | | | Push-in | RIF-3-RPT-LV-120AC/3X21 | 2903293 |
| RIF-4 42 mm wide Small contactor style Blade contacts | 24 V DC | 10 A | 3PDT | Screw | RIF-4-RSC-LDP-24DC/3X21 | 2903288 |
| | | | | Push-in | RIF-4-RPT-LDP-24DC/3X21 | 2903278 |
| | 120 V AC | 8 A | 3PDT | Screw | RIF-4-RSC-LV-120AC/3X21 | 2903287 |
| | | | | Push-in | RIF-4-RPT-LV-120AC/3X21 | 2903277 |

Please note: Additional contact arrangement and coil voltage options are also available


Electromechanical ice-cube relays (with Manual Switch) — ECOR Faston Series

| | Type | Input voltage | Output current | Sets of contacts | Description | Order no. |
|--|-------------------------|---------------|----------------|------------------|--------------------------|-----------|
|  | ECOR Faston Relay plugs | 24 V DC | 12 A | 1PDT | REL-FO/LD-24DC/1X21MS | 1308302 |
| | | 24 V DC | 8 A | 2PDT | REL-FO/LD-24DC/2X21/MS | 1308298 |
| | | 120 V AC | 12 A | 1PDT | REL-FO/LRC-120AC/1X21/MS | 1308327 |
| | | 120 V AC | 12 A | 2PDT | REL-FO/LRC-120AC/2X21/MS | 1308316 |


Accessories — ECOR-1 Faston

| | Type | Description | Order no. |
|--|--------------------|---------------------|-----------|
|  | Base (SINGLE Pole) | ECOR-1-BSC2/FO/1X21 | 1308331 |
| | Base (DOUBLE Pole) | ECOR-1-BSC2/FO/2X21 | 1308332 |
| | Bracket | ECOR-FO-RH-1H | 1325205 |

Electromechanical ice-cube relays — ECOR-2 Series

| | Type | Input voltage | Output current | Sets of contacts | Description | Order no. |
|--|--------------------|---------------|----------------|------------------|------------------------|-----------|
|  | ECOR 2 Relay plugs | 24 V DC | 12 A | 2PDT | REL-IR-BL/L- 24DC/2X21 | 1032526 |
| | | 115 V AC | 12 A | 2PDT | REL-IR-BL/L-115AC/2X21 | 1109556 |
| | | 24 V DC | 6 A | 4PDT | REL-IR-BL/L- 24DC/4X21 | 1032527 |
| | | 24 V AC | 6 A | 4PDT | REL-IR-BL/L- 24AC/4X21 | 1109563 |
| | | 115 V AC | 6 A | 4PDT | REL-IR-BL/L-115AC/4X21 | 1109564 |

Accessories — ECOR-2

| | Type | Description | Order no. |
|--|------------------------|------------------|-----------|
|  | Base (screw terminals) | ECOR-2-BSC3/4X21 | 2907521 |
| | Bracket | ECOR-RH-2L | 1051972 |

Please note: Rated current values are for standalone relay plugs only. When assembled onto the base, value will default to lowest rated current between the base and plug



Signal Conditioners

Highly compact signal conditioners

Scan the QR code to learn more online



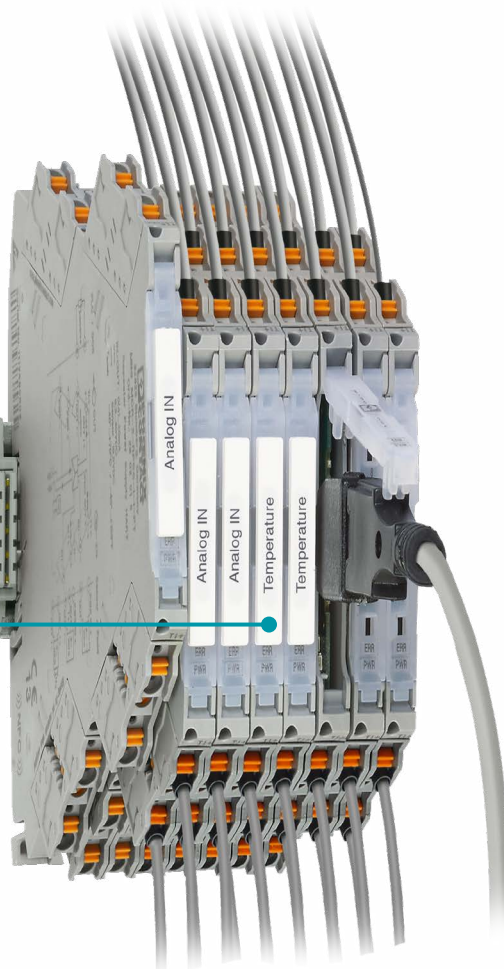
The 6-mm signal conditioners from the MINI Analog range offer the full spectrum of analog signal conditioning. They are also extremely efficient with regard to saving costs, space, and energy. The comprehensive approval package means they can be used in a range of areas. You benefit from saving up to 65% of space when compared to other signal conditioners on the market.

Your advantages

- ✓ Space savings up to 65 % compared to other signal conditioners on the market with the 6.2 mm overall width
- ✓ High energy efficiency and long service life, thanks to low power consumption
- ✓ Flexible power bridging and convenient group error indication by means of DIN rail connector and the fault monitoring system function
- ✓ Convenient configuration and monitoring via DIP switches or software for extended function and monitoring

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 you with an instant overview on site.



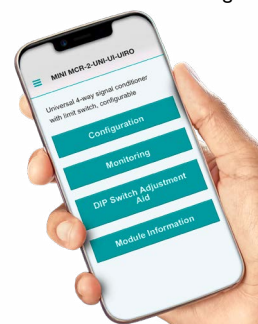
Easily accessible terminal points and FASTCON Pro plug-in connection terminal blocks










Measure signals during operation, without disconnecting the current loops

Smart parameterization 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 parameterize the modules directly on site, or read the current measured values during operation.



Signal Conditioners

| Fixed signal conversion and isolation | | | | | | |
|---|--------------|-------------------------|----------------------------|--------------------------|-----------------|---------|
|  | Module power | Input signal | Output signal | Description | Order no. | |
| | Line | 0-10 V DC | Active 4-20 mA | 0-10 V DC | MINI MCR-2-U-U | 2902042 |
| | | | | Active 4-20 mA | MINI MCR-2-U-I4 | 2902029 |
| | | Active 4-20 mA | Active 4-20 mA | 0-10 V DC | MINI MCR-2-I4-U | 2902002 |
| | | | | Active 4-20 mA | MINI MCR-2-I-I | 2901998 |
| Universal and configurable analog signal conversion and isolation | | | | | | |
|  | Module power | Input signal | Output signal | Description | Order no. | |
| | Line | Active/universal | Active/universal | MINI MCR-2-UI-UI | 2902037 | |
| | | Active/universal | Active/universal/relay out | MINI MCR-2-UNI-UI-UIRO | 2902026 | |
| Temperature signal conversion and isolation | | | | | | |
|  | Module power | Input signal | Output signal | Description | Order no. | |
| | Line | RTD | Universal analog | MINI MCR-2-RTD-UI | 2902049 | |
| | | Thermocouple | Universal analog | MINI MCR-2-TC-UI | 2902055 | |
| | | Universal temperature | N.O. relay set point | MINI MCR-2-T-REL | 2905632 | |
| Low-power signal conversion and isolation | | | | | | |
|  | Module power | Input signal | Output signal | Description | Order no. | |
| | Loop | Active 4-20 mA | Passive 4-20 mA | MINI MCR-2-I-I-ILP | 2901994 | |
| | | | | MINI MCR-2-2I-2I-ILP | 2901996 | |
| | | Active universal analog | Active 4-20 mA | MINI MCR-2-UI-I-OLP | 2902061 | |
| | | Passive 4-20 mA | Active 4-20 mA | MINI MCR-2-RPS-I-I-OLP | 2906446 | |
| | | | | MINI MCR-2-RPS-2I-2I-OLP | 2906448 | |
| Specialty signal conversion and isolation | | | | | | |
|  | Module power | Input signal | Output signal | Description | Order no. | |
| | Line | 4-20 mA/HART | 2x 4-20mA/HART | MINI MCR-2-RPSS-I-2I | 2905628 | |
| | | Analog | Frequency and set point | MINI MCR-2-UI-FRO | 2902031 | |
| | | Frequency and PWM | Active 4-20 mA | MINI MCR-2-F-UI | 2902056 | |
| | | Load cell/strain gage | 4-20 ma/0-10 V | MCR-SGA-4/6-DC | 5604058 | |
| | | Potentiometer | Active 4-20 mA | MINI MCR-2-POT-UI | 2902016 | |
| | | Universal analog | 2x 4-20 mA | MINI MCR-2-UI-2I-NC | 2905026 | |
| Universal analog | | Set point/relay out | MINI MCR-2-UI-REL | 2902033 | | |
| HART | | | | | | |
|  | Module power | Input signal | Output signal | Description | Order no. | |
| | Line | 4-20 mA/HART | 4-20 mA/HART | MINI MCR-2-RPSS-I-I | 2902014 | |
| Duplicator | | | | | | |
|  | Module power | Input signal | Output signal | Description | Order no. | |
| | Line | Universal Analog | Universal Analog | MINI MCR-2-UNI-UI-UI | 2905026 | |

Note: All signal conditioners are also available with Push-in connection



Industrial Networking and Security

The modern factory, driven by IIoT and big data, has given rise to increased network traffic and subsequent vulnerabilities and risks, both internal and external. Resilient network infrastructure starts with the correct selection of switches, cellular and wireless radios, and security appliances to maximize efficient and resilient communication, enable secure remote access, and prevent network breaches.



INDUSTRIAL NETWORKING AND SECURITY

- Unmanaged Switches
- Power Over Ethernet
- Managed Switches
- Remote Connectivity
- Network Cabling

Scan the QR
code to learn
more online





Networking

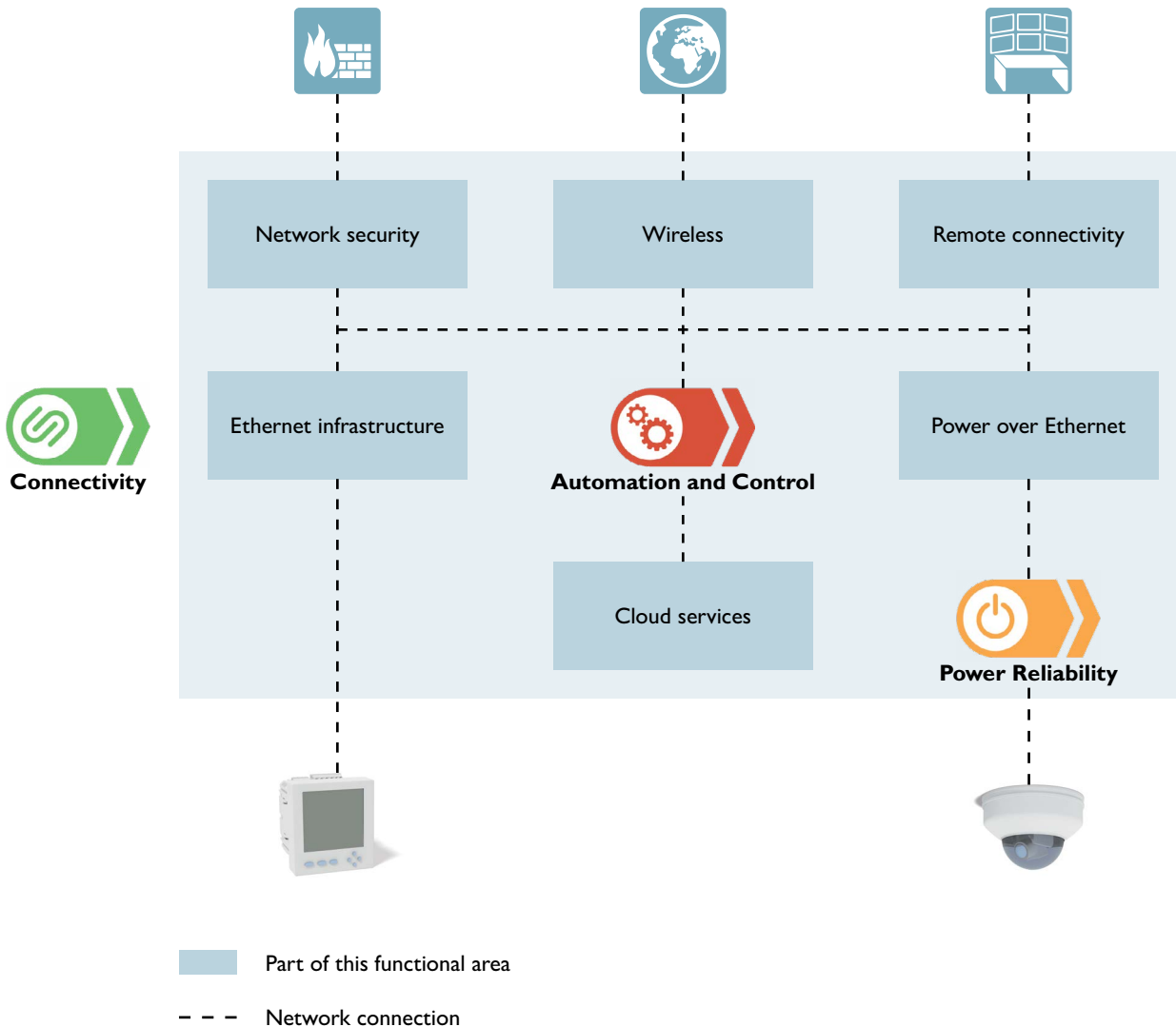
With the broad range of technologies supported by Phoenix Contact networking and security products, you can design and implement scalable, reliable, and high-functioning systems.

Cellular remote connectivity powers communication with devices around the globe, while the increasing capabilities of cloud services provide the support and data management that is behind IIoT.

Ethernet infrastructure devices provide everything from basic connectivity to advanced managed switches, with options that include powering end devices, field-wiring connectivity, and converting between physical media.

Wireless technology enables convenient, reliable, and cost effective communication whether on the factory floor or to remote sites miles away.

With network security, proper separation of IT and OT networks can be achieved along with providing defense-in-depth to ensure critical assets are protected by state-of-the-art technology .





Unmanaged Ethernet Switches

FL SWITCH 1000N unmanaged switches

Scan the QR code to learn more online



FL SWITCH 1000N



Plastic Construction
-10°C – +60°C

FL SWITCH 1000NT



Metal Construction*
-40°C – +75°C
Conformal Coat Variants
Hazardous Approvals
Maritime Approvals

*Base and DIN-Latch

Your advantages

- ✓ Cost-effective
- ✓ Simple
- ✓ Gigabit/Fast Ethernet speed
- ✓ Multiple fiber options

Switch 1000N

| Copper ports | Specialty ports | Total ports | Speed | Description | Order no. |
|--------------|------------------------|-------------|-------------|-----------------------|-----------|
| 5 | — | 5 | 10/100 Mbps | FL SWITCH 1005N | 1085039 |
| 5 | 2 SFP | 7 | 10/100 Mbps | FL SWITCH 1005N-2SFX | 1085176 |
| 4 | 1 Fiber SC-D | 5 | 10/100 Mbps | FL SWITCH 1004N-FX | 1084159 |
| 4 | 1 Fiber ST | 5 | 10/100 Mbps | FL SWITCH 1004N-FX ST | 1085179 |
| 4 | 1 Single mode fiber SC | 5 | 10/100 Mbps | FL SWITCH 1004N-FX SM | 1085214 |
| 4 | 1 SFP | 5 | 10/100 Mbps | FL SWITCH 1004N-SFX | 1085177 |
| 8 | — | 8 | 10/100 Mbps | FL SWITCH 1008N | 1085256 |
| 16 | — | 16 | 10/100 Mbps | FL SWITCH 1016N | 1085255 |

Switch 1100N

| | | | | | |
|----|-------|----|------------------|----------------------|---------|
| 4 | 1 SFP | 5 | 10/100/1000 Mbps | FL SWITCH 1104N-SFP | 1085173 |
| 5 | — | 5 | 10/100/1000 Mbps | FL SWITCH 1105N | 1085254 |
| 5 | 2 SFP | 7 | 10/100/1000 Mbps | FL SWITCH 1105N-2SFP | 1085171 |
| 8 | — | 8 | 10/100/1000 Mbps | FL SWITCH 1108N | 1085243 |
| 16 | — | 16 | 10/100/1000 Mbps | FL SWITCH 1116N | 1085219 |


Switch 1000NT

| | | | | | |
|----|-------------|----|-------------|-----------------------|---------|
| 5 | — | 5 | 10/100 Mbps | FL SWITCH 1005NT | 1085170 |
| 8 | — | 8 | 10/100 Mbps | FL SWITCH 1008NT | 1085165 |
| 4 | 1 Fiber SFP | 5 | 10/100 Mbps | FL SWITCH 1004NT-SFX | 1085169 |
| 5 | 2 Fiber SFP | 7 | 10/100 Mbps | FL SWITCH 1005NT-2SFX | 1085164 |
| 12 | 2 Fiber SFP | 14 | 10/100 Mbps | FL SWITCH 1012NT-2SFP | 1249598 |
| 24 | — | 24 | 10/100 Mbps | FL SWITCH 1024T | 1343027 |

Switch 1100NT

| | | | | | |
|----|---|----|------------------|------------------|---------|
| 5 | — | 5 | 10/100/1000 Mbps | FL SWITCH 1105NT | 1085163 |
| 8 | — | 8 | 10/100/1000 Mbps | FL SWITCH 1108NT | 1085162 |
| 16 | — | 16 | 10/100/1000 Mbps | FL SWITCH 1116T | 1085115 |

Switch 1000NT — Unmanaged machine mounted IP67 switch

|  | Class I Div 2 | Copper ports | Specialty ports | Total ports | Speed | Description | Order no. |
|---|---------------|--------------|-----------------|------------------|----------------|----------------|-----------|
| | ✓ | 8 | — | 8 | 10/100 Mbps | FL SWITCH 1608 | 1196227 |
| | | | | 10/100/1000 Mbps | FL SWITCH 1708 | 1196228 | |



PoE and Ethernet Installation Technology


Power over Ethernet

Security cameras, wireless access points, VoIP telephones, and even sensors are some of the many devices that employ the convenience and cost savings of PoE technology.




Scan the QR code to learn more online

PoE


|  | Copper ports | Specialty ports | Total ports | Speed | Description | Order no. |
|---|--------------|-----------------------|-------------|------------------|-------------------------|-----------|
| | 8 | 10/100/1000 Mbps PoE+ | 8 | 10/100/1000 Mbps | FL SWITCH 1000-8POE-GT | 1102079 |
| | 4 | 10/100/1000 Mbps PoE+ | 4 | 10/100/1000 Mbps | FL SWITCH 1001-4POE-GT | 1102077 |
| | 4 | 10/100 Mbps PoE+ | 4 | 10/100 Mbps | FL SWITCH 1001T-4POE | 2891064 |
| | 4 | 10/100/1000 Mbps PoE+ | 4 | 10/100/1000 Mbps | FL SWITCH 1001T-4POE-GT | 1026937 |

PoE injectors

PoE injector

|  | Connection method | Temperature range | Power budget | Special features | PoE standard | Description | Order no. |
|---|-------------------|-------------------|--------------|--|-----------------------------|-------------|-----------|
| RJ45 /RJ45 | | 0 °C ... 55 °C | 2 x 15 W | Electrical isolation in the power supply unit | IEEE 802.3 af | FL PSE 2TX | 2891013 |
| | | 0 °C ... +60 °C | 15/30 W | — | IEEE 802.3 af/at (PoE+) | INJ 1000 | 2703005 |
| | | | 60 W | Electrical isolation in the power supply unit | Prepared for PoE bt (PoE++) | INJ 1010 | 2703007 |
| | | -40 °C ... +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 1000-T | 2703006 |
| | | | 60 W | | Prepared for PoE bt (PoE++) | INJ 1010-T | 2703008 |
| | | | 15/30 W | | IEEE 802.3 af/at (PoE+) | INJ 1100-T | 2703009 |

Patch panels

|  | Connection method | Type | Shielding | Cable shield connection | Description | Order no. |
|---|-------------------|---|-----------------------|-------------------------------------|-------------|-----------|
| | RJ45/RJ45 | Standard Ethernet patch panel, 8-pos., 10/100/1000 Mbps | Right on the DIN rail | Using an RJ45 socket | PP-RJ-RJ | 2703015 |
| | RJ45/RJ45 | | | Tooless using shield contact spring | PP-RJ-SC | 2703016 |
| | RJ45 /IDC | | | PP-RJ-IDC | 2703019 | |



Managed Switches

Managed Switches 2000 and 2100

Scan the QR code to learn more online



Simple unmanaged switch or powerful managed switch? The intelligent 2000 switches (Fast Ethernet switch) and 2100 switches (Gigabit switch) combine the best of both worlds. They are as easy to use as an unmanaged switch yet provide the features of a managed switch. This improves the stability and robustness of your machine network.

| Intelligent switches for the machine — Switch 2000 and 2100 | | | | | | | |
|---|--------------|-------------------|-------------|------------------|---|----------------|-----------|
| | Copper ports | Fiber optic ports | Combo ports | Port speed | Special features | Description | Order no. |
| | 5 x RJ45 | — | — | 10/100 Mbps | RSTP, Ethernet I/P, extended multicast filtering and Profinet class A | FL SWITCH 2005 | 2702323 |
| | 8 x RJ45 | — | — | | | FL SWITCH 2008 | 2702324 |
| | 16 x RJ45 | — | — | | | FL SWITCH 2016 | 2702903 |
| | 5 x RJ45 | — | — | 10/100/1000 Mbps | | FL SWITCH 2105 | 2702665 |
| | 8 x RJ45 | — | — | | | FL SWITCH 2108 | 2702666 |
| | 16 x RJ45 | — | — | | | FL SWITCH 2116 | 2702908 |

Supply voltage: 18...32 V DC, temperature range: 0°C ... +60°C, IP20, front port outlet direction

Managed Switches 2200 and 2300

With easy startup and a variety of versions with functions graded according to the application, the 2200 and 2300 managed switches

enable cost-effective management of your Ethernet network. In addition to the extended scope of functions, the switches offer communication via fiberglass, as well as approvals for the maritime sector and the process industry.

| Switch 2200 and 2300 intelligent switches for universal use — Class I, Div 2 | | | | | | | | | | |
|--|--------------|-------------------|--------------|-------------------------|---|--|------------------|---|------------------------|---------|
| | Copper ports | Fiber optic ports | Combo ports | Port speed | Special features | Description | Order no. | | | |
| | 5 x RJ45 | — | — | 10/100 Mbps | RSTP, Ethernet I/P, extended multicast filtering and Profinet class B | FL SWITCH 2205 | 2702326 | | | |
| | 8 x RJ45 | — | — | | | FL SWITCH 2208 | 2702327 | | | |
| | 7 x RJ45 | 1 x MM SC | — | | | FL SWITCH 2207-FX | 2702328 | | | |
| | 7 x RJ45 | 1 x SM SC | — | | | FL SWITCH 2207-FX SM | 2702329 | | | |
| | 6 x RJ45 | 2 x MM SC | — | | | FL SWITCH 2206-2FX | 2702330 | | | |
| | 6 x RJ45 | 2 x SM SC | — | | | FL SWITCH 2206-2FX SM | 2702331 | | | |
| | 6 x RJ45 | 2 x MM ST | — | | | FL SWITCH 2206-2FX ST | 2702332 | | | |
| | 6 x RJ45 | 2 x SM ST | — | | | FL SWITCH 2206-2FX SM ST | 2702333 | | | |
| | 6 x RJ45 | 2 x SFX | — | | | FL SWITCH 2206-2SFX | 2702969 | | | |
| | 4 x RJ45 | 2 x SFX | 2 x SFX/RJ45 | | | FL SWITCH 2204-2TC-2SFX | 2702334 | | | |
| | 16 x RJ45 | — | — | | | FL SWITCH 2216 | 2702904 | | | |
| | 14 x RJ45 | 2 x MM SC | — | | | FL SWITCH 2214-2FX | 2702905 | | | |
| | 14 x RJ45 | 2 x SM SC | — | | | FL SWITCH 2214-2FX SM | 2702906 | | | |
| | 14 x RJ45 | 2 x SFX | — | | | FL SWITCH 2214-2SFX | 1006188 | | | |
| | 12 x RJ45 | 2 x SFX | 2 x SFX/RJ45 | | | FL SWITCH 2212-2TC-2SFX | 2702907 | | | |
| | | 8 x RJ45 | — | | | — | 10/100/1000 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 2308 | 2702652 |
| 6 x RJ45 | | 2 x SFP | — | FL SWITCH 2306-2SFP | 2702970 | | | | | |
| 4 x RJ45 | | 2 x SFP | 2 x SFP/RJ45 | FL SWITCH 2304-2GC-2SFP | 2702653 | | | | | |
| 16 x RJ45 | | — | — | FL SWITCH 2316 | 2702909 | | | | | |
| 14 x RJ45 | | 2 x SFP | — | FL SWITCH 2314-2SFP | 1006191 | | | | | |
| 12 x RJ45 | | 2 x SFP | 2 x SFP/RJ45 | FL SWITCH 2312-2GC-2SFP | 2702910 | | | | | |
| | | 8 x RJ45 | — | — | 10/100 Mbps | PROFINET (preset), PROFINET status LEDs | | | FL SWITCH 2208 PN | 1044024 |
| | | 6 x RJ45 | 2 x SFX | — | | | | | FL SWITCH 2206-2SFX-PN | 1044028 |
| | 16 x RJ45 | — | — | FL SWITCH 2216 PN | | | 1044029 | | | |
| | 14 x RJ45 | 2 x SFX | — | FL SWITCH 2214-2SFX PN | | | 1044030 | | | |
| | 8 x RJ45 | — | — | FL SWITCH 2308 PN | | | 1009220 | | | |
| | 6 x RJ45 | 2 x SFP | — | FL SWITCH 2306-2SFP PN | | | 1009222 | | | |
| | 16 x RJ45 | — | — | 10/100/1000 Mbps | | FL SWITCH 2316 PN | 1031673 | | | |
| | 14 x RJ45 | 2 x SFP | — | | | FL SWITCH 2314-2SFP PN | 1031683 | | | |

Supply voltage: 12... 57 V DC (redundant), temperature range: - 40°C ... +70°C, IP20, front port outlet direction, PROFINET Class B. Approvals: DNV/GL, BV, ABS, LR, RINA, IECEx, ATEX Zone 2



Secure Remote Connectivity

Industrial routers for remote maintenance and cybersecurity

Scan the QR code to learn more online



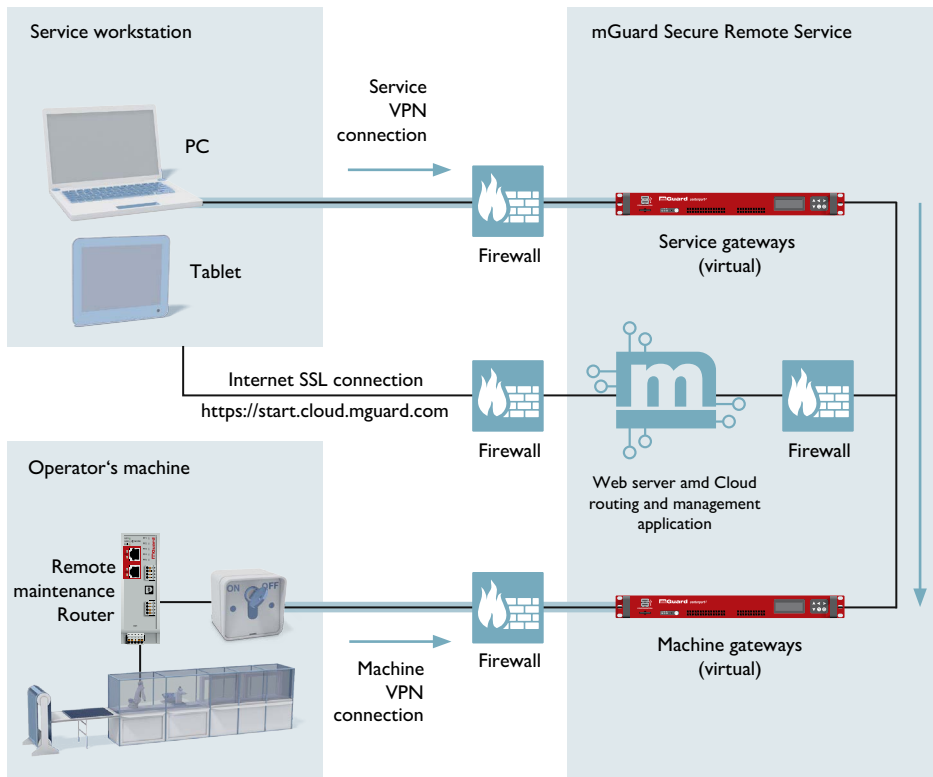
Our robust industrial routers connect various networks via cable (LAN router and NAT router) or mobile network (3G/UMTS/4G/LTE router) for the remote maintenance and protection of your local network. A large number of products feature integrated VPN and firewall functions. For the highest level of security, the mGuard routers protect against cyber attacks and malware.

| mGuard | | | | | |
|--|---------------------|-------------|-----------------------|--------------------------|-----------|
| Notes | mGuard Secure Cloud | Routing/NAT | Configurable Firewall | Description | Order no. |
| Remote access gateway with 1 Lan and 1 WAN port | ✓ | ✗ | ✗ | CLOUD CLIENT 1001T-TX/TX | 1221706 |
| Gigabit router supporting NAT/Routing and a simple firewall with 1 LAN and 1 WAN port | ✗ | ✓ | ✓ | FL MGuard 1102 | 1153079 |
| Gigabit router supporting NAT/Routing and a simple firewall with 4 LAN and 1 WAN port | ✗ | ✓ | ✓ | FL MGuard 1105 | 1153078 |
| Gigabit router WITH 1 LAN, 1 WAN port supporting VPN/Remote access (2 tunnels), Routing/NAT and a firewall | ✓ | ✓ | ✓ | FL MGuard 2102 | 1357828 |
| Gigabit router WITH 4 LAN, 1 WAN port supporting VPN/Remote access (2 tunnels), Routing/NAT and a firewall | ✓ | ✓ | ✓ | FL MGuard 2105 | 1357850 |
| Gigabit router WITH 1 LAN, 1 WAN port supporting VPN/Remote access (250 tunnels), Routing/NAT and a fully featured stateful firewall. | ✓ | ✓ | ✓ | FL MGuard 4302 | 1357840 |
| Gigabit router WITH 4 LAN, 1 WAN port supporting VPN/Remote access (250 tunnels), Routing/NAT and a fully featured stateful firewall. Configurable DMZ port also available | ✓ | ✓ | ✓ | FL MGuard 4305 | 1357875 |
| Cellular Radio for 4G (CAT 4) Worldwide use | ✓ | ✓ | ✓ | TC ROUTER 3002T-4G GL | 1632697 |

Cloud-based Remote Maintenance

Intelligent service concepts with the mGuard Secure Cloud

Scan the QR code to learn more online



Features

- ✓ Highly secure IPsec VPN communication
- ✓ 2-factor authentication
- ✓ User management for access to various customers and systems
- ✓ Superior availability worldwide
- ✓ Operated in Germany in accordance with the most stringent security and data protection standards
- ✓ Industry-proven mGuard security technology

See more of what we have to offer for industrial ethernet

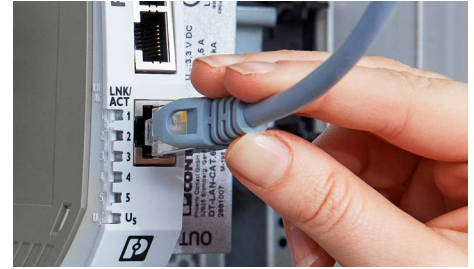
Download: Industrial Ethernet PDF



RJ45 STANDARD Industrial Ethernet Patch Cables

With the cable sheath in the **Low Smoke Zero Halogen (LSZH)** material class, the shielded patch cables are ideally suited for future-proof cabling solutions in building automation.

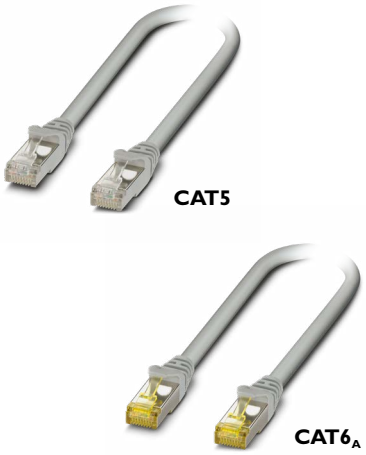
Data transmission speeds of up to 10 Gbps in accordance with CAT5 and CAT6_A allow demanding Ethernet applications to be implemented. The protected locking clip ensures a robust design and increased vibration resistance. Comprehensive approvals for the global market and cable lengths from 0.3 m to 20 m allow versatile applications.



Your advantages

- ✓ Ideal for demanding Ethernet applications with up to 10 Gbps data transmission in accordance with CAT6_A
- ✓ Ideal for building automation and control cabinet applications due to the use of cable sheath with LSZH material class
- ✓ Reliable due to the protected locking clip
- ✓ Standard lengths (0.3m to 20m)

RJ45 standard shielded patch cables

|  | Length | Order no. | Order no. |
|--|--------|---------------------|-----------------------------------|
| | | CAT5 (up to 1 Gbps) | CAT6 _A (up to 10 Gbps) |
| | 0.3 m | 1227558 | 1227572 |
| | 0.5 m | 1227559 | 1227573 |
| | 1 m | 1227560 | 1227575 |
| | 1.5 m | 1227561 | 1227578 |
| | 2 m | 1227562 | 1227580 |
| | 3 m | 1227563 | 1227581 |
| | 5 m | 1227564 | 1227583 |
| | 7.5 m | 1227565 | 1227585 |
| | 10 m | 1227566 | 1227588 |
| | 12.5 m | 1227567 | 1227590 |
| | 15 m | 1227570 | 1227591 |
| | 20 m | 1227571 | 1227593 |



High-flex Ethernet Cordsets

Your advantages

- ✓ Category 5, up to 1 Gbps
- ✓ -40°C ... +80°C
- ✓ UV-Resistant CMX outdoor jacket, 600V rating
- ✓ Up to 20 million lateral flex bend cycles
- ✓ Up to 4.8 million torsional flex cycles
- ✓ Tray-rated for co-location with power cables

Applications

- Robotics & factory automation
- Integrators/cabinet builders/panel shops
- Machine builders
- Surveillance (IP Cameras)
- Vision systems
- Network infrastructure

RJ45 high-flex ethernet patch cables — Teal TPE 600 V cable jacket



| Length | Order no. 4-wire (2-pair) Straight / Straight | Order no. 8-wire (4-pair) Straight / Straight |
|--------|--|--|
| 0.3 m | 1199417 | 1199422 |
| 0.5 m | 1199415 | 1199427 |
| 1 m | 1199413 | 1199426 |
| 2 m | 1199412 | 1199425 |
| 3 m | 1199411 | 1199424 |
| 5 m | 1199410 | 1199423 |
| 10 m | 1199408 | 1199421 |
| 15 m | 1199405 | 1199420 |
| 20 m | 1199404 | 1199418 |

M12 high-flex ethernet cordsets — Teal TPE 600 V cable jacket

| Design | Configuration | 0.5 m | 1 m | 2 m | 5 m | 10 m | 15 m | 20 m | 30 m | 40 m | CMAT |
|--|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------|-----------------|
| 4-pos. D-code    | Male Straight / Open End | — | — | 1406131 | 1408727 | 1408728 | 1418065 | 1418066 | 1418067 | 1418068 | 1405876/.../... |
| | Male 90° / Open End | — | — | 1406126 | 1408734 | 1408735 | — | — | — | — | 1405871/.../... |
| | Female Straight / Open End | — | — | 1406130 | 1408729 | 1408730 | — | — | — | — | 1405875/.../... |
| | Female 90° / Open End | — | — | 1406125 | 1408736 | 1408738 | — | — | — | — | 1405870/.../... |
| | Male Straight / Male Straight | 1408732 | — | 1406128 | 1418076 | 1418077 | 1418078 | 1418079 | — | — | 1405873/.../... |
| | Male Straight / Female Straight | 1408731 | — | 1406129 | — | — | — | — | — | — | 1405874/.../... |
| | Male 90° / Male 90° | 1408741 | — | 1406123 | — | — | — | — | — | — | 1405868/.../... |
| | Male 90° / Female 90° | 1408739 | — | 1406124 | — | — | — | — | — | — | 1405869/.../... |
| | Male Straight / RJ45 Straight | 1408733 | — | 1406127 | 1409860 | 1409861 | 1409862 | 1418087 | — | — | 1405872/.../... |
| Male 90° / RJ45 Straight | 1408742 | — | 1406122 | — | — | — | — | — | — | 1405867/.../... | |
| 8-pos. A-code    | Male Straight / Open End | — | — | 1406121 | 1408743 | 1408744 | 1418069 | 1418071 | 1418072 | 1418075 | 1405865/.../... |
| | Male 90° / Open End | — | — | 1406116 | 1408751 | 1408752 | — | — | — | — | 1405860/.../... |
| | Female Straight / Open End | — | — | 1406120 | 1408745 | 1408746 | — | — | — | — | 1405864/.../... |
| | Female 90° / Open End | — | — | 1406115 | 1408754 | 1408755 | — | — | — | — | 1405859/.../... |
| | Male Straight / Male Straight | 1408748 | — | 1406118 | 1418080 | 1418081 | 1418082 | 1418083 | — | — | 1405862/.../... |
| | Male Straight / Female Straight | 1408747 | — | 1406119 | — | — | — | — | — | — | 1405863/.../... |
| | Male 90° / Male 90° | 1408757 | — | 1406113 | — | — | — | — | — | — | 1405857/.../... |
| | Male 90° / Female 90° | 1408756 | — | 1406114 | — | — | — | — | — | — | 1405858/.../... |
| | Male Straight / RJ45 Straight | 1408749 | — | 1406117 | 1409863 | 1409864 | 1409865 | 1417873 | — | — | 1405861/.../... |
| Male 90° / RJ45 Straight | 1408758 | — | 1406112 | — | — | — | — | — | — | 1405856/.../... | |
| 8-pos. X-code   | Male Straight / Open End | — | 1407467 | 1407468 | 1407469 | 1407470 | 1440575 | 1440588 | — | — | 1408648/.../... |
| | Male Straight / Male Straight | 1440465 | 1407483 | 1407484 | 1407485 | 1407486 | 1440517 | 1440520 | — | — | 1408644/.../... |
| | Male Straight / RJ45 Straight | 1440591 | 1407471 | 1407472 | 1407473 | 1407474 | 1440643 | 1440656 | — | — | 1408647/.../... |



RJ45 Patch Cables for Industrial Applications

Individual cabling solutions in industrial applications

The RJ45 patch cables in the INDUSTRIAL series were specifically developed for industrial applications. The shielding concept, vibration resistance, and robust molding ensure reliable data transmission in industrial areas. With the different outlet directions and the wide variety of cables offered by Phoenix Contact, you will find the right cable for flexible installation, drag chains, and robots.



Ideal for demanding data transmission applications in industrial areas

Technical data

- Robust molded connector
- 360° shroud
- Five cable outlet directions
- CAT5 (4-pos. up to 100 Mbps, 8-pos. up to 1 Gbps)
- CAT6_A (up to 10 Gbps)
- One-design connector
- Maximized insertion depth
- All cables are part of the RJ45 INDUSTRIAL connector system
- Approvals: CE, RoHS, REACH, WEEE, EAC, UL

Cable overview: RJ45 INDUSTRIAL

| Cable | 93B | 93C | 93M | 93K | 93R | 94B | 94C | 94F |
|-----------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----------------------------|
| Schema | | | | | | | | |
| Sheath | PVC | PUR | PUR | PVC | PUR | PUR | PUR | PUR |
| Design | AWG 22/7 | AWG 22/19 | AWG 22/7 | AWG 22/7 | AWG 22/19 | AWG 26/7 | AWG 26/19 | AWG 26/7 |
| Shielding | SFTQ | SFTQ | SFTQ | SFTQ | SFTQ | SF/UTP | SF/UTP | S/FTP |
| Transmission category | CAT5 (100 Mbps) | CAT5 (100 Mbps) | CAT5 (100 Mbps) | CAT5 (100 Mbps) | CAT5 (100 Mbps) | CAT5 (1 Gbps) | CAT5 (1 Gbps) | CAT6 _A (10 Gbps) |
| Application | Type B Flexible | Type C Drag chain | Type B Flexible | Type B Flexible | Type R Robot | Type B Flexible | Type C Drag chain | Type B Flexible |

ⓘ Detailed information on our cables can be found in the technical data for the item on our web shop

INDUSTRIAL patch cables

| Configurable item* | | | | | | | | | | | | | | | | | | | | |
|--------------------|-------------------------------|---------|---------|---------|---------|---------|---------|---------|---------------------|---------|---------|---------|-----------------------------------|---------|---------|--|---------|--|---------|--|
| Configurable item* | 1247656 | | | | | | | | 1247661 | | | | 1247639 | | 1247647 | | 1387606 | | 1387607 | |
| Cable | 93B, 93C, 93K, 93M, 93R | | | | | | | | 94B, 94C, 94D | | | | 94F | | | | | | | |
| Protocol | PROFINET / EtherCAT® / Sercos | | | | | | | | Ethernet | | | | | | | | | | | |
| Transmission speed | CAT5 (up to 100 Mbps) | | | | | | | | CAT5 (up to 1 Gbps) | | | | CAT6 _A (up to 10 Gbps) | | | | | | | |
| Cable | 93B | 93C | 93M | 93K | 93B | 93C | 93M | 93K | 94B | 94C | 94B | 94C | 94F | 94F | | | | | | |
| 0.5 m | 1112785 | 1112939 | 1112925 | 1112931 | 1112877 | 1112871 | 1113336 | — | 1441453 | 1112918 | 1441195 | 1113331 | 1113823 | 1113204 | | | | | | |
| 1.0 m | 1112817 | 1112937 | 1112924 | 1112930 | 1112876 | 1112857 | 1113335 | — | 1441456 | 1112916 | 1441200 | 1113212 | 1112909 | 1113202 | | | | | | |
| 2.0 m | 1112820 | 1112936 | 1112923 | 1112929 | 1112875 | 1112870 | 1113334 | — | 1441463 | 1112914 | 1441443 | 1113211 | 1112908 | 1113198 | | | | | | |
| 3.0 m | 1112823 | 1112935 | 1112921 | 1112928 | 1112874 | 1112869 | 1113333 | 1112858 | 1441464 | 1112913 | 1441444 | 1113210 | 1112907 | 1113197 | | | | | | |
| 5.0 m | 1112856 | 1112933 | 1112920 | 1112927 | 1112873 | 1112868 | 1113332 | 1113178 | 1441466 | 1112912 | 1441659 | 1113209 | 1112906 | 1113196 | | | | | | |

Standard item in fixed length (other lengths available under web code #2675)

*Configurable cable and length between 0.5 m and 90.0 m



RJ45 Patch Cables for Industrial Applications

INDUSTRIAL patch cables, angled

| | | | | | | | | | | | | |
|--------------------|---------------------------------|---------|---------|---------|------------------------|---------|---------|--------------------------------------|---------|---------|---------|---------|
| | | | | | | | | | | | | |
| Configurable item* | 1247660 | 1247629 | 1247652 | 1247633 | 1247662 | 1247628 | 1247646 | 1247653 | 1387614 | 1387609 | 1387619 | 1387620 |
| Cable | 93B 93C 93K 93M 93R | | | | 94B 94C 94D | | | 94F | | | | |
| Protocol | PROFINET / EtherCAT / SERCOS | | | | Ethernet | | | | | | | |
| Transmission speed | CAT5 (up to 100 Mbps) | | | | CAT5 (up to 1 Gbps) | | | CAT6 _A (up to 10 Gbps) | | | | |
| Cable | 93B | | | | — | | | 94F | | | | |
| 0.3 m | 1113311 | 1113322 | 1113292 | 1113297 | — | | | 1113237 | 1113249 | 1113221 | 1113225 | |
| 0.5 m | 1113304 | 1113321 | 1113291 | 1113295 | — | | | 1113236 | 1113248 | 1113220 | 1113224 | |
| 1.0 m | 1113310 | 1113320 | 1113290 | 1113294 | — | | | 1113235 | 1113247 | 1113219 | 1113223 | |
| 2.0 m | 1113309 | 1113319 | 1113289 | 1113293 | — | | | 1113234 | 1113246 | 1113218 | 1113222 | |

Standard item in fixed length (other lengths available under web code #2675)

*Configurable cable and length between 0.5 m and 90.0 m

Configurator for cables and lines

Our configurator directs you to the appropriate RJ45 patch cable for your application – whether for industrial or building applications.



USB patch cables

| | | | | |
|-----------------|------------|----------------|------------|----------------|
| | | | | |
| USB version | USB 2.0 | USB 3.2 Gen. 1 | | USB 3.2 Gen. 2 |
| Head 1 USB type | USB type A | | | USB type C |
| Head 2 USB type | USB type A | | USB type C | |
| Sheath material | PVC | | | |
| 1.0 m | 1333136 | 1333151 | 1333165 | 1333197 |
| 2.0 m | 1333139 | 1333156 | 1333187 | 1333213* |
| 3.0 m | 1333140 | 1333157 | 1333190 | 1333214* |

Other lengths available: 0.3, 0.5, 1.5, 1.8, and 5.0 m

*USB 3.2 Gen. 1

HDMI patch cables

| | |
|------------------|---------------------------------------|
| | |
| HDMI version | HDMI high speed with Ethernet channel |
| Head 1 HDMI type | HDMI type A |
| Head 2 HDMI type | HDMI type A |
| 2.0 m | 1332082 |
| 3.0 m | 1332083 |
| 5.0 m | 1332084 |

Other lengths available: 0.3, 0.5, 1.0, 1.5, and 7.5 m



Cabling Solutions

The ideal RJ45 connectors for PROFINET cabling up to 1 Gbps or Ethernet cabling up to 10 Gbps. QUICKON fast connection technology for assembling without the need for special tools guarantees quick and easy installation in the field. Together with the RJ45 connectors with crimp connection technology, Phoenix Contact provides the ideal solution for every application from CAT5 to CAT6_A.

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 | 1658435 | 1414382 |
| CAT6_A | 1419001 | — | — | — | 1414395 |

*Requires crimping tool VS-CT-RJ45-H, 1653265

The RJ45 INDUSTRIAL connectors for data transmission speeds up to 10 Gbps are a future-oriented solution for your interface. The one-piece design and assembly without the need for special tools facilitate easy handling.

RJ45 INDUSTRIAL connectors

| | | | | | | | | |
|------------------------------|--|---------|-------------------|----------|-------------------|---------|-------------------|----------|
| | | | | | | | | |
| Protocol | PROFINET | | | | Ethernet | | | |
| Connection technology | IDC insulation displacement connectors | | | | | | | |
| Connection range | AWG 23 ... AWG 22 | | | | AWG 26 ... AWG 24 | | | |
| Category | CAT5 | | CAT6 _A | | CAT5 | | CAT6 _A | |
| Cable outlet | Straight | Upward | Downward | Straight | Straight | Upward | Downward | Straight |
| Order no. | 1421126 | 1421127 | 1421128 | 1149847 | 1421607 | 1421876 | 1421877 | 1149846 |

The universal DIN rail adapters offer a high degree of flexibility in a small space. The one-piece housing snaps quickly and easily onto the DIN rail. Accepts RJ45 IDC modules and couplers.

DIN rail adapters

| | |
|--------------------------|------------------|
| | |
| Type | DIN rail adapter |
| Gray, kit* | 1100077 |
| Gray, unassembled | 1041740 |

*includes 1 x 1041740 and 1 x 1417274

RJ45 modules for the DIN rail adapter

| | | |
|-------------------------|----------------------|---|
| | | |
| Inserts | RJ45 coupling module | RJ45 cable connection with IDC connection |
| CAT6_A | 1041760 | 1417274 |



RJ45 Version 6 for IP67 / Outdoor Applications

| Version 6 RJ45 connectors | | | | | |
|--|--------------------------------|-------------------|-------------------|-------------------|-------------------|
| <p>The version 6 data connectors from Phoenix Contact are a cost-effective option for IP-protected connectors. The portfolio of packaged RJ45 connectors includes versions with IDC and crimp connection for CAT5 and CAT6_A applications, as well as preassembled patch cables.</p> | | | | | |
| | Connection technology | IDC | Crimp | IDC | Crimp |
| | External cable diameter | 5 mm ... 8.5 mm | | | |
| | Connection range | AWG 26 ... AWG 23 | AWG 27 ... AWG 24 | AWG 26 ... AWG 23 | AWG 27 ... AWG 24 |
| | Colour | Gray | | Black | |
| | CAT5 | 1656990 | 1414383* | 1658493 | 1414408* |
| | CAT6_A | — | 1414406* | — | 1414410* |
| | *Tool 1653265 required | | | | |

| Version 6 panel-mount frames | | | | | |
|---|-----------------------------|----------|---------|---------|---------|
| <p>The version 6 panel-mount frames and further version 6 accessories are a convenient and simple option for creating a reliable IP-protected connection between version 6 data connectors and devices.</p> | | | | | |
| | Panel cutout | Circular | | Square | |
| | Colour | Gray | Black | Gray | Black |
| | For Keystone modules | 1689844 | 1658053 | 1689080 | 1658642 |
| | For Freenet modules | 1653744 | 1658668 | — | — |
| | For PCB modules | — | — | 1689446 | 1658655 |

| Version 6 accessories | | |
|-----------------------|--|---------|
| | | |
| Description | Protective cover, for covering the contact insert in the panel-mount frame | |
| Colour | Gray | Black |
| Order no. | 1652606 | 1658066 |

| RJ45 jack insert | | | | | |
|--|--------------------------|--------------|----------|---------|------------|
| <p>The version 6 panel-mount frames can be extended to create the matching insert for your mating connector by adding the appropriate coupling modules for RJ45 and FO connections as well as the cable connection modules for copper connections.</p> | | | | | |
| | Description | Cable module | Coupler | | PCB module |
| | Connection system | Freenet | Keystone | Freenet | — |
| | CAT5 | 1652936 | 1689064 | — | 1653087 |
| | CAT6_A | 1418984 | 1086108 | 1086111 | — |



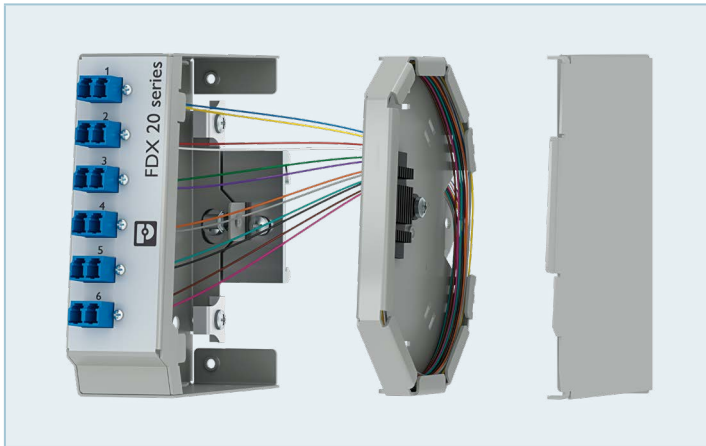
FDX 20 Fusion Splice Boxes

FDX 20 splice boxes are the perfect solution for the integration and protection of fiber optics in the industrial environment. Pre-installed pigtailed are included in these boxes for quick and easy termination of fiber cable runs using the fusion splicing method. Fusion splicing utilizes an electric arc to fuse two optical fibers together, resulting in a splice that is not only stronger than mechanical splices, but also offers much lower loss and reflectance.

The FDX 20 series also features a steel housing, a patented 3-stage strain relief system, a splice tray, top and bottom entry cable glands, and a splice comb for the protection of fiber cables and splices.



Scan the QR code to learn more online



FDX 20 series for DIN rail mounting High-speed, future-proof data transmission

The new splice boxes from Phoenix Contact ensure continuously reliable data transmission in real time. With their compact and uniform design, the splice boxes provide plenty of interior space for the secure connection of fiber optics.

FDX 20 series for 19" rack mounting For all common FO interfaces

The 19-inch splice boxes of the FDX 20 series from Phoenix Contact provide ample interior space for the convenient and secure connection of fiber optics. The IP20 boxes can be extended and their depth can be adjusted. They are particularly suitable for real-time data transmission in industrial applications and data centers.

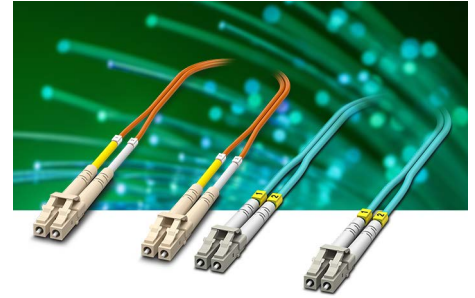
Fiber optic splice boxes, FDX 20 series, IP20, with pre-terminated pigtailed

| Fiber type | DIN rail mounting | | | 19-inch rack mounting | | |
|--------------------|-------------------|---------------|--------------|-----------------------|---------------|---------------|
| | 6x LC duplex | 12x LC duplex | 6x SC duplex | 12x LC duplex | 24x LC duplex | 12x SC duplex |
| OM1 (G62.5/125 μm) | 1343377 | — | 1343380 | — | — | — |
| OM2 (G50/125 μm) | 1019713 | 1019709 | 1019700 | 1145416 | 1145375 | 1145408 |
| OM3 (G50/125 μm) | 1343378 | — | 1343381 | — | — | — |
| OM4 (G50/125 μm) | 1019712 | 1019708 | 1019698 | 1145415 | 1145413 | 1145406 |
| OS2 PC (E9/125 μm) | 1019711 | 1019707 | 1019692 | 1145411 | 1145409 | 1143631 |



FO Singlemode/Multimode Patch Cables

With exceptional quality, the FO patch cables from Phoenix Contact provide the ideal conditions for reliable data transmission with data rates of up to 40 Gbps. The huge variety of connector types and cable lengths enables an individual solution to be created for every application.



| Fiber-optic cables | | | | | | |
|--------------------|------------------------|----------------|----------------|---|--------------------|-----------------|
| | Zip cord fiber classes | Sheath colour | Fiber category | Ethernet protocol / typical range | Typical wavelength | Fiber structure |
| Multimode | | Orange | OM1 | 1000Base-SX: min. 350 m 1000Base-LX: min. 550 m | 850 nm 1300 nm | |
| | | Orange | OM2 | 1000Base-SX: min. 525 m 1000Base-LX: min. 1000 m | 850 nm 1300 nm | |
| | | Aqua | OM3 | 1000Base-SX: min. 1000 m 1000Base-LX: min. 550 m 10GBase-SX: min. 300 m | 850 nm | |
| | | Heather violet | OM4 | 1000Base-SX: min. 1040 m 1000Base-LX: min. 600 m 10GBase-SX: min. 550 m | 850 nm | |
| Singlemode | | Yellow | OS2 | 10GBase-LR: min. 10 km 10GBase-ER: min. 40 km | 1310 nm 1550 nm | |

| FO patch cables (length: 1.0 m*) | | | | | | | | |
|----------------------------------|------------|---------|----------------|------------|---------|----------------|------------|---------|
| | | | | | | | | |
| Description | OM1 | | | OM2 | | | OM3 | |
| Type | LC | SC | ST | LC | SC | ST | LC | SC |
| LC | 1146497 | 1146498 | 1146499 | 1115633 | 1115607 | 1115588 | 1185473 | 1185480 |
| SC | 1146498 | 1146504 | — | 1115607 | 1115536 | 1115574 | 1185480 | 1185485 |
| ST | 1146499 | — | 1146501 | 1115588 | 1115574 | 1115560 | — | — |
| | | | | | | | | |
| Description | OM4 | | OS2 UPC | | | OS2 APC | | |
| Type | LC | SC | LC | SC | ST | LC | SC | |
| LC | 1115625 | 1115601 | 1115636 | 1115618 | 1115596 | 1115630 | 1115613 | |
| SC | 1115601 | 1115424 | 1115618 | 1115550 | 1115582 | 1115613 | 1115544 | |
| ST | — | — | 1115596 | 1115582 | 1115565 | — | — | |

*Further available length versions: 0.5 m, 1 m, 2 m, 3 m, 5 m, 10 m configurable



Automation and Control

The heart of your control cabinet is the logic platform. For OEMs and control engineers alike, it has never been easier to build smaller, smarter machines faster. This also enables builders to free themselves from use of controllers and equipment based solely on prior familiarity or specifications. Industrial PCs/HMIs and scalable controllers can streamline functionality, reduce equipment and costs, and usher in the next generation of intelligent machine automation.



AUTOMATION AND CONTROL

- PLCnext Control
- I/O Systems
- Industrial PCs and HMIs

Scan the QR
code to learn
more online

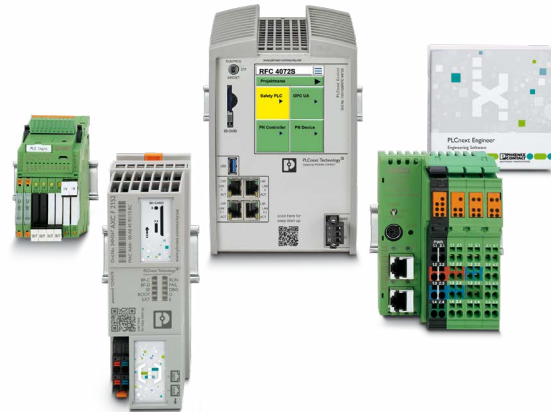




Automation and Control

Programmable controllers

Programmable Logic Controllers (PLCs) from Phoenix Contact are scalable from a simple RTU or data-logger to bumpless, redundant, high-performance automation packages for the most demanding applications. Development is made easy by using either the PC WORX standard IEC 61131 environment or the software platform of your choice with high-level languages (C++, C#, MATLAB, etc.) by using PLCnext Technology. Test and simulation tools, integrated visualization software, and diagnostic tools give developers, users, and technicians an unprecedented level of insight into the running system, along with plenty of flexibility while developing the system.



Remote I/Os and gateways

Let Phoenix Contact help you monitor and control I/O via common industrial protocols like Modbus, PROFINET, PROFIBUS, EtherCAT, and EtherNet/IP. Whether in the cabinet (IP20) or in the field (IP67), Phoenix Contact offers several I/O and gateway variants to meet all your application requirements, including standard digital and analog I/O, as well as safety, intrinsically safe, IO-Link, and special-function applications.



Industrial PCs and HMIs

Industrial PCs from Phoenix Contact are available in a variety of performance classes, screen sizes, and form factors, such as blind-node configurations. Their powerful CPUs, fan-less design, and nonrotating, solid-state drive options make them rugged and reliable, even in the most demanding applications. A wide variety of HMI operator panels connect easily to third-party PLCs. A new generation of HTML5-based web panels connect securely to any web server by simply entering the IP address.





PLCnext Control

PLCnext Control devices are PLCs for the open PLCnext Technology ecosystem. They allow the implementation of automation projects without the limitations of proprietary systems. Take advantage of PROFICLOUD integration, or connect to your own third-party cloud provider (AWS, Azure, etc.). PLCnext Control allows the parallel programming and combination of familiar IEC 61131-3 programming languages, with high-level languages such as C/C++, C#, or MATLAB Simulink. PLCnext Control offers you a full suite of tools to take your application into the future.



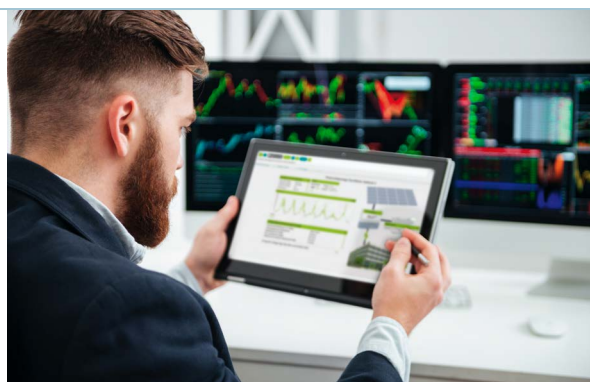
Linux

- ✓ Fully open YOCTO Linux platform right out of the box
- ✓ Hardened Axioline I/O connection
- ✓ PLCnext Technology seamlessly integrates with Linux
- ✓ Develop in C++, Java, Python, etc. Ready for Docker containers
- ✓ Open-source and community-driven development



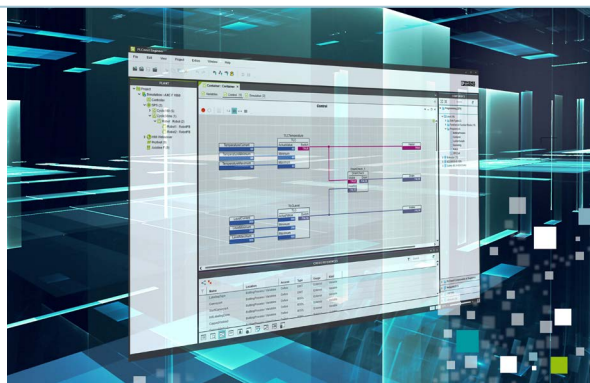
IIoT (Industrial Internet of Things) ready

- ✓ Ready with PROFICLOUD integrated into PLCnext Engineer
- ✓ Easily connect to third-party clouds (AWS, Azure, etc.)
- ✓ Edge device with Axioline I/O capability
- ✓ Pull tags from legacy protocols and controllers



Revolutionary

- ✓ Programmed with free PLCnext Engineer software
- ✓ Parallel programming with ladder, ST, FB, C++, and C#
- ✓ HTML5 embedded eHMI
- ✓ Install premade apps from the PLCnext Store





Programmable Controllers



Standard PLCnext Control
 AXC F 2152
 Order no. 2404267



Performance PLCnext Control
 AXC F 3152
 Order no. 1069208

PLCnext Control

| Backplane | Processor | No. of control tasks | No. of PROFINET devices | Left-hand extensions | Protocols | Application | Desc. | Order no. |
|-----------|----------------------------------|----------------------|-------------------------|----------------------|--|-------------|------------|-----------|
| Axioline | Arm® Cortex®-A9 2x 800 MHz | 32 | 64 | Yes | PROFINET, MODBUS TCP, EtherNet/IP, OPCUA | Standard | AXC F 2152 | 2404267 |
| | Intel® Atom™ x5-E3930 2x 1.3 GHz | 32 | 128 | Yes | | Performance | AXC F 3152 | 1069208 |

Hardware extensions, accessories, and software

| Type | Application description | Description | Order no. |
|-----------------------------|--|---------------------------------|-----------|
| Left-hand extension module* | Extension for an additional ethernet port | AXC F XT ETH 1TX | 2403115 |
| | Profisafe add on module | AXC F XT SPLC 1000 | 1159811 |
| Memory Expansion | 2 GB expansion SD card | SD FLASH 2GB PLCNEXT MEMORY | 1043501 |
| | 8 GB expansion SD card | SD FLASH 8GB PLCNEXT MEMORY | 1061701 |
| | 32GB expansion SD card | SD FLASH 32GB PLCNEX MEMORY LIC | 1151111 |
| Software | Engineering software for IEC 61131-1 programming | PLCNEXT ENGINEER | 1046008 |

*Please note: When adding a left hand extension module, additional accessories are required. Please consult our website for the required add on accessories

PLCnext Control for edge computing

The EPC 15xx controllers combine the robustness of a proven industrial PC platform with the open PLCnext Technology ecosystem, thus providing the ability to develop intelligent IoT Edge solutions. This closes the gap between the OT and IT worlds.

Your advantages

- ✓ Compact IPC design in an all-metal housing and passive cooling
- ✓ Easy integration into existing IT infrastructures and connectivity on the field level with PLCnext Technology
- ✓ Simple and secure management via an integrated web-based management tool



EPC 1502
 Order no. 1185416



EPC 1522
 Order no. 1185423







| Type | Description | Order no. |
|-----------------|-------------|-----------|
| Edge Controller | EPC 1502 | 1185416 |
| Edge Controller | EPC 1522 | 1185423 |









The I/O Modular System

| | | |
|---|--|---|
|  |  |  |
| Smart Elements (SE) | Axioline F | Axioline P |
| <ul style="list-style-type: none"> • Compact • No configuration | <ul style="list-style-type: none"> • Robust and Fast • XC versions available (-40°C ... +70°C) • Variety of approvals | <ul style="list-style-type: none"> • Hot swappable and redundant • Modular block design |

Bus Couplers





| Network connection | | | | |
|--|---|---|-----------------------------|-------------|
| | Function description | Type | Description | Order no. |
|  | Bus coupler for Modbus TCP |  | AXL F BK ETH | 2688459 |
| | Bus coupler for EtherCAT® |  | AXL F BK EC | 2688899 |
| | Bus coupler for EtherNet/IP™ |  | AXL F BK EIP EF | 2702782 |
| | Bus coupler for PROFINET® |  | AXL F BK PN TPS | 2403869 |
| | Axioline PLC conforming to IEC 61131, programmed with PC WORX |  | AXC 1050 PLC Programming | AXC 1050 XC |

Axioline Smart Elements

| Smart elements | | | | |
|---|---|----------|-------------------|-----------|
| | Function description | Type | Description | Order no. |
|  | Analog input, 4 channels, 4-20 mA, single ended | AI | AXL SE AI4 I 4-20 | 1088062 |
| | Analog input, 4 channels, 0-10 V, single ended | AI | AXL SE AI4 U 0-10 | 1088104 |
|  | Analog input, 4 channels for temperature measurement with PT100 | AI | AXL SE RTD4 PT100 | 1088106 |
|  | Analog output, 4 channels, 4-20 mA, single ended | AO | AXL SE AO4 I 4-20 | 1088123 |
| | Analog output, 4 channels, 0-10 V, single ended | AO | AXL SE AO4 U 0-10 | 1088126 |
|  | Digital input, 16 channels, one-wire connection | DI | AXL SE DI16/1 | 1088127 |
| | Digital output, 16 channels, one-wire connection | DO | AXL SE DO16/1 | 1088129 |
| | IO-Link master with 4 channels | Function | AXL SE IOL4 | 1088132 |
|  | Function element with a counter input for 24V DC sensors | Function | AXL SE CNT1 | 1088131 |
|  | Function element for symmetrical incremental encoders | Function | AXL SE INC1 SYM | 1088130 |






Axioline Smart Elements



| | Function description | Type | Description | Order no. |
|---|---|----------|-------------------|-----------|
|  | Function element with a serial interface RS 485 | Function | AXL SE RS485 | 1088128 |
|  | Digital safe input, 8 channels (PROFIsafe) | Safety | AXL SE PSDI8/3 | 1079241 |
| | Digital safe output, 4 channels (PROFIsafe) | Safety | AXL SE PSDO4/2 2A | 1079231 |
|  | Axioline F backplane, 6 Smart Elements slots | System | AXL F BP SE6 | 1088136 |
| | Axioline F backplane, 4 Smart Elements slots | System | AXL F BP SE4 | 1088135 |
|  | Backplane covering element for unused slots | System | AXL SE SC-A | 1088134 |

Axioline F for the Control Cabinet


Acquiring digital data

| | DI Digital input | Type | Description | Order no. |
|---|--|---|----------------------|-----------|
|  | <ul style="list-style-type: none"> • 16 to 64 channels • High-speed inputs • 54 mm and 35 mm design width | 16 digital inputs, 1-wire | AXL F DI16/1 1H | 2688310 |
| | | 16 digital inputs, 1-wire, high speed | AXL F DI16/1 HS 1H | 2701722 |
| | | 16 digital inputs, 4-wire | AXL F DI16/4 2F | 2688022 |
| | | 32 digital inputs, 1-wire | AXL F DI32/1 1F | 2688035 |
| | | 64 digital inputs, 1-wire | AXL F DI64/1 2F | 2701450 |
|  | DO Digital output <ul style="list-style-type: none"> • 8 to 32 channels • 2 A outputs • 54 mm and 35 mm design width | 8 digital outputs, 2-wire, 2 A | AXL F DO8/2 2A 1H | 2688381 |
| | | 16 digital outputs, 1-wire | AXL F DO16/1 1H | 2688349 |
| | | 16 digital outputs, 3-wire | AXL F DO16/3 2F | 2688048 |
| | | 32 digital outputs, 1-wire | AXL F DO32/1 1F | 2688051 |
|  | DI DO Digital input / output <ul style="list-style-type: none"> • 35 mm | 8 digital inputs, 8 digital outputs, 1-wire | AXL F DI8/1 DO8/1 1H | 2701916 |

Acquiring analog data

| | AI Analog input | Type | Description | Order no. |
|--|---|--|---|-----------------------------------|
|  | <ul style="list-style-type: none"> • 4 to 8 channels • 54 mm and 35 mm design width | 4 analog inputs, current | AXL F AI4 I 1H | 2688491 |
| | | 4 analog inputs, voltage | AXL F AI4 U 1H | 2688501 |
| | | 8 analog inputs, current/voltage | AXL F AI8 1F | 2688064 |
| | | 4 temperature inputs, RTD | AXL F RTD4 1H | 2688556 |
| | | 4 temperature inputs, UTH | AXL F UTH4 1H | 2688598 |
| | | 8 temperature inputs, RTD | AXL F RTD8 1F | 2688077 |
| | | 8 temperature inputs, UTH | AXL F UTH8 1F | 2688417 |
| | |  | AO Analog output <ul style="list-style-type: none"> • 4 to 8 channels • 54 mm and 35 mm design width | 4 analog outputs, current/voltage |
| 8 analog outputs, current/voltage | AXL F AO8 1F | | | 2688080 |

Special function modules

| | FKT Special function modules | Type | Description | Order no. |
|--|--|--|--------------------|-----------|
|  | <ul style="list-style-type: none"> • 54 mm and 35 mm design width | 1 interface can be configured as RS-485/RS-422 or RS-232 | AXL F RS UNI 1H | 2688666 |
| | | 2 counter inputs, 2 incremental encoder inputs | AXL F CNT2 INC2 1F | 2688093 |
| | | 1 SSI interface, 1 analog output | AXL F SSI1 AO1 1H | 2688433 |



Industrial PCs

Industrial PCs/HMIs

IPCs control, process, and visualize vital machine data and provide a rugged and reliable platform for industrial processes. Available in a wide array of performance classes and form factors. Our portfolio consists of ultra-compact box IPCs for IIoT edge applications and high-end multitouch panel PCs for larger manufacturing systems. All feature high-performance CPUs and a wide selection of connectivity options for the most demanding industrial applications.

Scan the QR code to learn more online



Edge IPCs

- ✓ BL2 1500 series & UPC
- ✓ Ultra-compact form factor
- ✓ Rugged, fan-less, all metal design
- ✓ Options for TPM 2.0, Wi-Fi, Cellular, etc.
- ✓ DIN rail mounting



Scan the QR code to learn more online



Box IPCs

- ✓ BPC and VL3 BPC series
- ✓ Compact dimensions
- ✓ Rugged, fan-less, all metal design
- ✓ Various performance classes
- ✓ Various mounting options

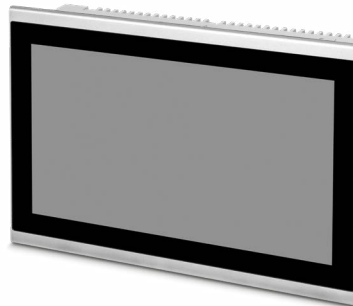


Scan the QR code to learn more online



Panel PCs

- ✓ PPC and VL3 PPC series
- ✓ Resistive or capacitive touch screen
- ✓ 15" to 21.5" screen sizes
- ✓ Various performance classes
- ✓ Panel mounting



Scan the QR code to learn more online



Direct machine-mount PCs

- ✓ BL2 PPC AIO65 and DL PPC series
- ✓ Various performance classes
- ✓ Capacitive multi-touch screen
- ✓ VESA or POLE mounting options
- ✓ Optional push-button box



View the e-paper online now





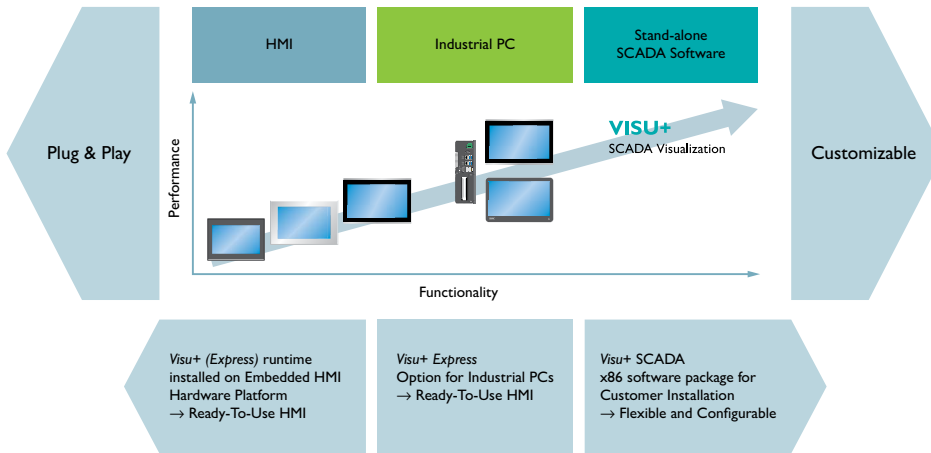
HMI

Robust, scalable, and reliable HMI panels

Scan the QR code to learn more online



Efficient automation requires the right visualization. Our touch panels with integrated Visu+ runtime and web panels with open browser for HTML5 applications simplify the operation and monitoring of your automation solution. Benefit from intuitive user guidance and a high level of efficiency. We have the right HMI that will be the ideal user interface for your application.



Features

Visu+ Express

Free visualization software for connection to all well-known controller manufacturers with a comprehensive range of visualization tools.

Visu+

Powerful visualization software for complex visualization tasks and comprehensive SCADA functions for connection to all well-known controller manufacturers.

HTML5

HMI panels with integrated embedded browser in kiosk/full-screen mode with optimum HTML5 support enable operation and monitoring options for the high-performance display of web-based content.

HTML5 web panels

- ✓ BWP 2000 and WVP 6000 series
- ✓ 4.3" to 21.5" screen sizes*
- ✓ Resistive or capacitive touch
- ✓ Simple connection to any web server

HTML5 web panels

| | Series | Screen size (in) | Resolution | Touch | Brightness | Backlight MTBF | Operation temp. | Class I Div 2 | Description | Order no. |
|--|---------------------|------------------|------------|-----------|------------|----------------|-----------------|---------------|--------------|-----------|
| | Basic HTML5 Panel | 4.3 | 480x272 | Resistive | 400 | 20,000 | 0° to +50°C | ✓ | BWP 2043W | 1060549 |
| | | 7 | 800x480 | | 350 | | | | BWP 2070W | 1060632 |
| | | 10.2 | 1240x600 | | 500 | | | | BWP 2102W | 1060630 |
| | Premium HTML5 Panel | 7 | 800x480 | PCAP | 500 | 50,000 | -20° to +50°C | ✗ | WP 6070-WVPS | 1290800 |
| | | 10.1 | 1280x800 | | | | | | WP 6101-WXPS | 1290801 |
| | | 12.1 | | | | | | | WP 6121-WXPS | 1290802 |

*More screen sizes can be found online at www.phoenixcontact.ca

Traditional HMIs

- ✓ BTP 2000 and TP 6000 series
- ✓ 4.3" to 21.5" screen sizes*
- ✓ Resistive or capacitive touch
- ✓ Free VISU+ EXPRESS design software

Traditional HMIs

| | Series | Screen size (in) | Resolution | Touch | Brightness | Backlight MTBF | Operation temp. | Class I Div 2 | Description | Order no. |
|--|---------------------|------------------|------------|-----------|------------|----------------|-----------------|---------------|--------------|-----------|
| | Basic touch Panel | 4.3 | 480x272 | Resistive | 400 | 20,000 | 0° to +50°C | ✓ | BTP 2043W | 1050387 |
| | | 7 | 800x480 | | 300 | | | | BTP 2070W | 1046666 |
| | | 10.2 | | | 500 | | | | BTP 2102W | 1046667 |
| | Premium touch Panel | 7 | 800x480 | PCAP | 500 | 50,000 | -20° to +50°C | ✗ | TP 6070-WVPS | 1189629 |
| | | 10.1 | 1280x800 | | | | | | TP 6101-WXPS | 1190417 |
| | | 12.1 | | | | | | | TP 6121-WXPS | 1190420 |

*More screen sizes can be found online at www.phoenixcontact.ca

Functional Safety

Machine safety means more than regulations. Proper implementation includes increased productivity, uptime, and profitability. Enact safety measures without limiting production machine flexibility or production cells. Adaptable cabinet configurations with integrated safety give you the freedom to add or reorganize machines dynamically.



FUNCTIONAL SAFETY

- Machine Safety
- Process Safety
- Power Safety

Scan the QR
code to learn
more online





Smart Solutions for Functional Safety

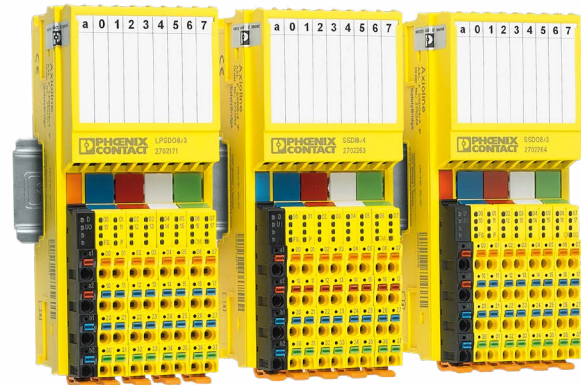
Inputs

Safety sensors initiate the safety function. Safe RFID non-contact door switches offer full SIL 3/PLe safety protection in a series wiring connection. Easily monitor door access and safe position with slim profile, non-contact door switches. PSRswitch allows for up to 30 sensors to be connected in series, with diagnostic status communicated to a controller via IO-Link. Quick and easy connection via M12 cabling makes for a full Phoenix Contact solution.



Logic

Safety logic devices are the brain of the safety system, controlling safety function by monitoring both inputs and outputs. From simple single function, to distributed safe control networks, logic devices ensure proper function and detect any errors from the sensors of output devices. These scalable solutions provide the right safety function for all types of systems, from a single e-stop safety relay to a fully integrated safety solution monitoring a factory automation process.



Outputs

Outputs are responsible for energizing and de-energizing equipment safely and reliably. Hybrid motor starters with integrated safety functionality up SIL 3/PLe allow streamlined integration of emergency stop circuitry for three-phase motors up to 5HP. Eliminating the need for a redundant contactor and all of the associated interlocking wiring can save 75% on space and wiring time. Additional functionality, such as overload protection or reversing contactors, can all be achieved in a slim, 22.5 mm housing. Outputs are available as stand-alone devices, as part of a modular motor starter system, or as a networkable motor starter.





PSRmodular Safety System

Your flexible safety solution — tool-free

Scan the QR code to learn more online



PSRmodular is a configurable small-scale controller. It allows you to monitor several safety functions in a single application. It is easy to create the safety logic using the PSRmodular software and drag and drop.

The system functions as a stand-alone solution, and can act as the overall machine control system for smaller machines. You can use the basic module as a separate component for this purpose.

Your advantages

- ✓ Configure safety with easy SAFECONF software
- ✓ 20 safe inputs and 4 safe outputs
- ✓ Expandable with I/O and relay modules
- ✓ Live program view via USB mini cable
- ✓ Networking gateway available

Safe motion monitoring

Safe extension modules for monitoring downtimes, speed, direction of rotation, and NPN/PNP proximity switches, single or double encoders (HTL, TTL, SINCOS), and monitoring of up to two axis per module.

PSR-M-B1 and PSR-M-B2 base modules

| Safe digital inputs | EDM/ reset inputs | Safe digital outputs | Max. no. of safe I/Os in the system | Signal outputs | Max. no. of signal outputs in the system | Max. no. of operators (blocks) | Max. timer/ muting/ guard locks | Max. no. of external signals | Description | Order no. |
|---------------------|-------------------|----------------------|-------------------------------------|----------------|--|--------------------------------|---------------------------------|------------------------------|-------------------------------|-----------|
| 8 | 2 | 2 x pair | 128 / 16 | 2 | 32 | 64 | 32 / 4 / 4 | 8 / 16 | PSR-M-B1- SDI8-SDO2-DO2-P | 1104972 |
| 8 | 4 | 4 x single | 128 / 32 | 4 | 48 | 128 | 48 / 8 / 8 | 32 / 32 | PSR-M-B2- SDI8-SDO4-DO4-PI | 1104975 |
| 8 | 4 | 4 x single | 128 / 32 | 4 | 48 | 128 | 48 / 8 / 8 | 32 / 32 | *PSR-M-B3-XC-SDI8-SDO4-DO4-PI | 1337855 |

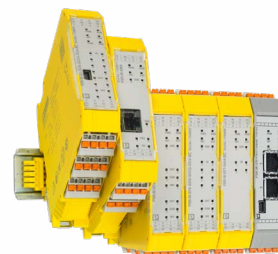
All modules are also available with screw connection — *PSR-M-B3 features an integrated gateway

Flexible extension modules with 8 or 16 signal outputs

If there are not enough I/Os, you can extend the system on a modular basis with up to 14 safety-related extension modules. They are simply connected to the base module via the DIN rail connector. This provides you with additional I/Os for connecting more sensors and actuators.

The modular safety technology can be incorporated into existing networks via a gateway.

PSRmodular combines functionality and flexibility, and closes the gap between simple safety relays and programmable safe controllers.



¹⁾ Some common expansion cards are listed below. Please consult our website for all expansion options

²⁾ When adding additional IO, the T-BUS connector is required for the controller expansion IO includes the connector

Safe extension modules

| Type | Inputs | Outputs | Description | Order no. |
|----------------|------------|---------------|----------------------------|-----------|
| Digital IN/OUT | 8 digital | 4x or 2 pairs | PSR-M-EF1-SDI8-SDO4-DO4-PI | 1104889 |
| Digital IN/OUT | 8 digital | 2 pairs | PSR-M-EF8-SDI8-SDO2-DO2-PI | 1105523 |
| Digital IN | 16 digital | — | PSR-M-EF2-SDI16-PI | 1104887 |
| Digital OUT | — | 4 pairs | PSR-M-EF4-SDO4-DO4-PI | 1104868 |
| Digital OUT | — | 4 x 2 A | PSR-M-EF5-SDO4-2A-DO8-PI | 1104977 |
| Relay | — | 4 x relay | PSR-M-EF6-SDOR4-PI | 1104983 |
| Digital OUT | — | 8 | PSR-M-E1-DO8-PI | 1105133 |
| Digital OUT | — | 16 | PSR-M-E2-DO16-PI | 1105136 |



Safety Relays

PSRmini: Highly compact safety relays for machine building

| Type | Applications | | | | | | | | Output contacts | | | | Safety approvals | | → ← Width in mm | Connection technology | | |
|-----------------------------------|--------------------------------------|---|---|---|---|------------------|---|-----|-----------------|---|---|--------------------------------------|-----------------------------------|------------------|---------------------|-----------------------|---------|---|
| | | | | | | | | | | | | PL in accordance with EN ISO 13849-1 | SILCL in accordance with EN 62061 | Screw connection | | Push-in connection | | |
| PSR-MS20 ¹⁾ 24 V DC | ● | ● | — | ● | — | — | — | A | 1 | — | — | 1 | c ⁴⁾ | 1 ⁴⁾ | 6.8 | 2904950 | — | |
| PSR-MS21 24 V DC | Coupling module for safe controllers | | | | | | | — | A | 1 | — | — | 1 | e | 3 | 6.8 | 2702192 | — |
| PSR-MS25 ¹⁾ 24 V DC | ● | ● | — | ● | — | — | — | M | 1 | — | — | 1 | c ⁴⁾ | 1 ⁴⁾ | 6.8 | 2904951 | — | |
| PSR-MS30 24 V DC | ● | ● | — | ● | — | ● | — | A | 1 | — | — | — | e | 3 | 6.8 | 2904952 | — | |
| PSR-MS35 24 V DC | ● | ● | — | ● | — | ● | — | M | 1 | — | — | — | e | 3 | 6.8 | 2904953 | — | |
| PSR-MS40 ³⁾ 24 V DC | ● | ● | — | — | — | ● | — | A | 1 | — | — | 1 | e | 3 | 6.8 | 2904954 | — | |
| PSR-MS45 ³⁾ 24 V DC | ● | ● | — | — | — | ● | — | M | 1 | — | — | 1 | e | 3 | 6.8 | 2904955 | — | |
| PSR-MS50 ²⁾ 24 V DC | ● | ● | — | ● | — | — | — | A | 1 | — | — | 1 | e | 3 | 6.8 | 2904956 | — | |
| PSR-MS55 ²⁾ 24 V DC | ● | ● | — | ● | — | — | — | M | 1 | — | — | 1 | e | 3 | 6.8 | 2904957 | — | |
| PSR-MS60 ³⁾ 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A | 2 | — | — | — | e | 3 | 6.8 | 2904958 | — | |
| PSR-MC20 ¹⁾ 24 V DC | ● | ● | — | ● | — | — | — | A/M | 3 | — | — | 1 | c ⁴⁾ | 1 ⁴⁾ | 12.5 | 2700466 | 2700467 | |
| PSR-MC30 24 V DC | ● | ● | — | ● | — | ● | — | A/M | 2 | — | — | 1 | e | 3 | 12.5 | 2700498 | 2700499 | |
| PSR-MC31 24 V DC | ● | ● | ● | ● | — | ● | ● | A/M | 2 (pnp) | — | — | 1 | e | 3 | 12.5 | 1015520 | 1015503 | |
| PSR-MC32 24...230 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 3 | — | 1 | — | e | 3 | 12.5 | 2700524 | 2700525 | |

¹⁾ 1-channel sensor circuit ²⁾ Antivalent sensor circuit ³⁾ Without cross-circuit detection ⁴⁾ Up to PL e/SIL 3 possible depending on the application ⁵⁾ EN-81 approval ⁶⁾ In conjunction with suitable evaluation device ⁷⁾ Non-delayed contacts: Cat. 4/PL e, SIL 3, off-delayed contacts: Cat. 3/PL d, SIL 2 ⁸⁾ Type IIIA in accordance EN 574 ⁹⁾ Type IIIC in accordance with EN 574 ¹⁰⁾ Also compatible with PSRswitch ¹¹⁾ IO-Link device ¹²⁾ Safety relay for CONTACTRON pro
A = autostart, M = manual, monitored start



Safety Relays

| PSRmini: Highly compact safety relays for machine building | | | | | | | | | | | | | | | | | | | |
|--|-------------------|---|---|---|---|------------------|---|-----|-----------------|---|---|---|------------------|-----------------|--------------------------------------|-----------------------------------|-------------|------------------|--------------------|
| Type | Applications | | | | | | | | Output contacts | | | | Safety approvals | | → ← | Connection technology | | | |
| | | | | | | | | | | | | | | | PL in accordance with EN ISO 13849-1 | SILCL in accordance with EN 62061 | Width in mm | Screw connection | Push-in connection |
| PSR-MC34 24 V DC | ● | ● | — | ● | — | ● | — | A/M | 3 | — | — | 1 | e | 3 | 12.5 | 2700540 | 2700548 | | |
| PSR-MC37 ⁵⁾ 24 V DC | ● | ● | — | ● | — | — | — | A | 3 | — | 1 | 1 | e | 3 | 22.5 | 2702411 | 2702412 | | |
| PSR-M38 ¹²⁾ 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 2 | — | — | 1 | e | 3 | 22.5 | 1009831 | 1009832 | | |
| PSR-MC40 ³⁾ 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 3 | — | — | 1 | e | 3 | 12.5 | 2700569 | 2700570 | | |
| PSR-MC42 ¹¹⁾ 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 2 | — | — | 1 | e | 3 | 17.5 | 2702801 | 2702902 | | |
| PSR-MC43 ¹¹⁾ 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 2 (pnp) | — | — | 1 | e | 3 | 17.5 | 1087561 | 1087569 | | |
| PSR-MC45 24 V DC | ● | ● | ● | ● | — | ● | — | A/M | 3 | — | — | 1 | e | 3 | 22.5 | 1082024 | 1082029 | | |
| PSR-MC50 ²⁾ 24 V DC | ● | ● | — | ● | — | — | — | A/M | 3 | — | — | 1 | e | 3 | 12.5 | 2700553 | 2700564 | | |
| PSR-MC70 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 1 | 1 | — | 1 | c ⁴⁾ | 1 ⁴⁾ | 12.5 | 2702094 | 2702095 | | |
| PSR-MC72 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 1 | 1 | — | 1 | e | 3 | 12.5 | 2702096 | 2702097 | | |
| PSR-MC73 24 V DC | ● | ● | ● | ● | — | ● ¹⁰⁾ | — | A/M | 3 | 2 | — | 1 | e | 2 | 22.5 | 1015533 | 1015526 | | |
| PSR-MC82 24 V DC | Contact extension | | | | | | | | — | — | 5 | — | 1 | 1 | e ⁶⁾ | 3 ⁶⁾ | 17.5 | 2702382 | 2702383 |

¹⁾ 1-channel sensor circuit ²⁾ Antivalent sensor circuit ³⁾ Without cross-circuit detection ⁴⁾ Up to PL e/SIL 3 possible depending on the application ⁵⁾ EN-81 approval ⁶⁾ In conjunction with suitable evaluation device ⁷⁾ Non-delayed contacts: Cat. 4/PL e, SIL 3, off-delayed contacts: Cat. 3/PL d, SIL 2 ⁸⁾ Type IIIA in accordance EN 574 ⁹⁾ Type IIIC in accordance with EN 574 ¹⁰⁾ Also compatible with PSRswitch ¹¹⁾ IO-Link device ¹²⁾ Safety relay for CONTACTRON pro
A = autostart, M = manual, monitored start



Safety Relays

PSRclassic: Conventional safety relays for machine building

| Type | Applications | | | | | | | Output contacts | | | | Safety approvals | | Connection technology | |
|--------------------------------------|------------------------------------|---|---|---|---|---|-----|-----------------|---|---|---|--------------------------------------|-----------------------------------|-----------------------|--------------------|
| | | | | | | | | | | | | 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 ²⁾ | 1 ²⁾ | 2963802 | 2963954 |
| PSR-ESAM2/3X1-B 230 V AC/DC | ● | ● | — | — | — | — | A/M | 3 | — | 1 | — | c ²⁾ | 1 ²⁾ | 2901430 | 2901431 |
| PSR-ESAM4/2X1 24 V AC/DC | ● | ● | — | — | — | — | A/M | 2 | — | 1 | — | e | 3 | 2900525 | 2900526 |
| PSR-ESAM4/8X1 24 V AC/DC | ● | ● | — | — | — | — | A/M | 8 | — | 1 | — | e | 3 | 2963912 | 2963996 |
| PSR-ESD-30 24 V DC | ● | ● | ● | ● | — | ● | A/M | 2 | 2 | — | — | e | 3 | 2981800 | 2981813 |
| PSR-ESD-300 24 V DC | ● | ● | ● | — | — | ● | A/M | 3 | 2 | 1 | — | e ⁴⁾ | 3 ⁴⁾ | 2981428 | 2981431 |
| PSR-ESL4 ¹⁾ 24 V AC/DC | ● | ● | ● | — | — | ● | A/M | 3 | — | 1 | — | e | 3 | 2981059 | 2981062 |
| PSR-THC4 ⁵⁾ 24 V AC/DC | — | ● | — | — | ● | — | A | 2 | — | 1 | — | e | 3 | 2963721 | 2963983 |
| PSR-URML4 ¹⁾ 24 V DC | Contact extension for OSSD signals | | | | | | | 3 | — | 1 | — | e | 3 | 2903583 | 2903584 |
| PSR-URM4 42 ... 230 V AC/DC | Contact extension | | | | | | | 4 | — | 2 | — | e ³⁾ | 3 ³⁾ | 2702924 | 2702925 |
| PSR-URM4 24 V AC/DC | Contact extension | | | | | | | 5 | — | 2 | — | e ³⁾ | 3 ³⁾ | 2963734 | 2964005 |
| PSR-URM4-B 24 V AC/DC | Contact extension | | | | | | | 5 | — | 2 | — | e ³⁾ | 3 ³⁾ | 2981033 | 2981046 |

¹⁾ Without cross-circuit detection ²⁾ Up to PL e / SILCL 3 possible depending on the application ³⁾ In conjunction with suitable evaluating device


⁴⁾ Non-delayed contacts: Cat. 4 / PL e, SILCL 3, contacts with dropout delay: Cat. 3 / PL d, SILCL 2 ⁵⁾ Type IIIC in accordance with EN 574

A = autostart, M = manual, monitored start



Safety Relays

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

| Type | Applications | Output contacts | | | Diagnostics/proof test | | | | Safety approvals | | | | | → ← | Connection technology | |
|---|---|-----------------|---|---|------------------------|--|---------------------------|-----------------------------------|--|----------------------------------|-------------------------------|---|----|------|-----------------------|------------------|
| | | | | | Visual via LED | Active error feedback via A1 ²⁾ | 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 | | Width in mm | Screw connection |
|  PSR-PS20 24 V DC | Highly compact, safe coupling relays for failsafe controllers: For safety-related shutdown (ESD) | 1 | 1 | 1 | ● | ● | ● | — | 3 | 3 | ● | ● | ● | 6.8 | 2700356 | — |
| PSR-PS21 24 V DC | | 1 | 1 | 1 | ● | ● | ● | — | 2 | 2 | ● | ● | ● | 6.8 | 2700357 | — |
| PSR-PS22 24 V DC | | 1 | 1 | — | ● | ● | ● | — | 3 | 3 | ● | ● | ● | 6.8 | 2702524 | — |
| PSR-PS23 24 V DC | | 1 | 1 | — | ● | — | ● | — | 3 | 3 | ● | ● | ● | 6.8 | 2702663 | — |
| PSR-PS40 24 V DC | | 1 | — | 1 | ● | — | — | ● | 3 | 3 | ● | ● | ● | 6.8 | 2700398 | — |
| PSR-PC20 24 V DC | | 1 | 1 | 1 | ● | ● | ● | — | 3 | 3 | ● | ● | ● | 12.5 | 2700577 | 2700578 |
| PSR-PC21 24 V DC | | 2 | 2 | — | ● | — | ● | — | 3 | — | ● | ● | — | 12.5 | 1086945 | 1086946 |
| PSR-PC32 24 ... 230 V | | 2 | 1 | — | ● | — | ● | — | 3 | 3 | ● | ● | ● | 17.5 | 2700581 | 2700582 |
| PSR-PC40 24 V DC | | 2 | — | 1 | ● | ● | — | ● | 3 | 3 | ● | ● | ● | 12.5 | 2700588 | 2700589 |
| PSR-PC50 24 V DC | | 1 | — | 1 | — | ● | ● | — | 3 ¹⁾ | — | ● | — | ● | 17.5 | 2904664 | 2904665 |
| PSR-PC51 24 V DC | For safety-related switch-on (F&G) | 1 | 1 | — | — | ● | ● | — | 3 | 3 | ● | ● | ● | 17.5 | 2702522 | 2702523 |
| PSR-PC52 24 V DC | | 1 | 1 | — | — | ● | ● | — | 3 | 3 | ● | ● | ● | 17.5 | 1017062 | 1017064 |





¹⁾ Low demand mode

²⁾ With suitable controller









Safety Relays

PSRclassic: Conventional safe coupling relays for the process industry















| Type | Applications | Output contacts | | | Diagnostics/proof test | | | | Safety approvals | | | | → ← | Connection technology | | |
|--|--|---|---|---|------------------------|--|---------------------------|-----------------------------------|--|----------------------------------|-------------------------------|---|------|-----------------------|------------------|--------------------|
| | | NO | NC | COM | Visual via LED | Active error feedback via A1 ²⁾ | 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 | Width in mm | Screw connection |
|  | Classic, safe coupling relays for fail-safe controllers: |  |  |  | Visual via LED | Active error feedback via A1 ²⁾ | 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 | Width in mm | Screw connection | Push-in connection |
| PSR-FSP 24 V DC | For safety-related shutdown (ESD) | 1 | 1 | — | — | — | ● | — | 3 | 3 | — | — | ● | 17.5 | 2981978 | 2981981 |
| PSR-FSP/2x1 24 V DC | | 2 | 1 | — | — | — | ● | — | 3 | 3 | — | — | ● | 17.5 | 2986960 | 2986957 |
| PSR-FSP2/2x1 24 V DC | | 2 | 1 | — | — | — | ● | — | 2 | 2 | — | — | ● | 17.5 | 2986575 | 2986588 |
| PSR-ESP4 24 V DC | | 2 | 1 | — | — | — | — | ● | 1 ¹⁾ | — | — | — | ● | 22.5 | 2981020 | 2981017 |

¹⁾ Up to PL e/SIL 3 possible depending on the application

PSRmotion: Zero-speed and over-speed safety relays

| Type | Applications | | | | | | Output contacts | | Safety approvals | | | Connection technology | |
|---|---|---|---|-----|--------------------|---|---|--|--------------------------------------|---------------------------------|------------------|-----------------------|--|
|  |  |  |  | n=0 | n<n _{max} |  |  | 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-MM25 24 V DC | ● | — | — | ● | — | 1 | 2 | 3 | e | 3 | 2702355 | 2702356 | |
| PSR-MM30 24 V DC | — | ● | ● | ● | ● | 2 | 2 | 4 | e | 3 | 2702357 | 2702358 | |
| PSR-MM35 24 V DC | ● | — | — | — | ● | 1 | 1 | 4 | e | 3 | 1249515 | 1249516 | |

Legend for applications, outputs, and safety approvals

| | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emergency stop | Safety door switch, mechanical | Light grid | Solenoid switch | Two-hand function | Transponder switch | Safety shut-off mats | Start/restart | Enabling current path /N/O contact | Off-delayed contact | N/C contact | Sensor-free motor monitoring | Encoder | Initiators |



Shop Floor Productivity

Efficiently building a quality control cabinet starts with what you use to build it. Quick, flexible marking systems, automated tools and hand tools, cable/wire management, and cabinet accessories are often overlooked methods of reducing errors and cutting commissioning time. Thoughtful selection of these “secret weapons” translates directly to the bottom-line profitability of any shop floor.



SHOP FLOOR PRODUCTIVITY

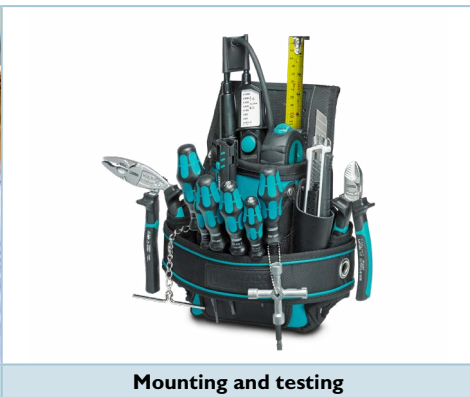
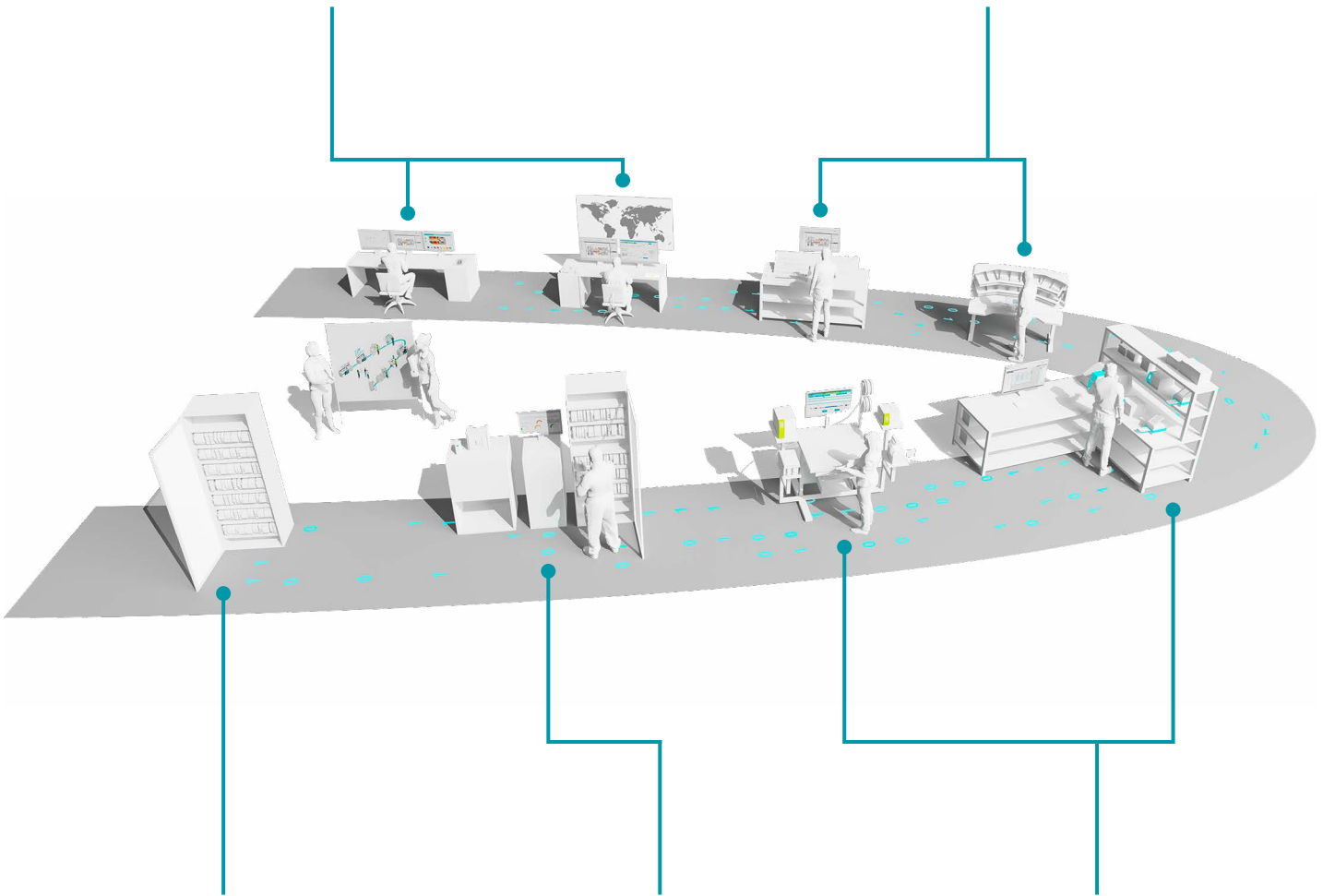
- Printers and Marking Materials
- Installation
- Cable Management
- Accessories

Scan the QR
code to learn
more online





Efficiency in Cabinet Building





Printers

The advantages of our industrial printers

Scan the QR code to learn more online



With our industrial printers, you can create markings more easily than ever before: whether using laser, UV LED, or thermal transfer technology. The wide range of printing and marking systems that we offer is guaranteed to provide you with the right solution for marking terminal blocks, conductors and cables, devices, and systems. All printers are particularly easy to use.





- ✓ THERMOMARK CARD 2.0: Maintenance-free operation with proven thermal transfer printer technology
- ✓ THERMOMARK PRIME: Flexible areas of application with more than 600 different marking materials for marking a wide range of applications
- ✓ THERMOMARK ROLL 2.0: Fast, high-quality, and durable printing
- ✓ THERMOMARK E.300: Suitable for all roll materials in the MARKING system product portfolio
- ✓ THERMOMARK GO.K: Mobile thermal transfer printer for marking materials in cartridge format
- ✓ THERMOMARK GO: Operated entirely via digital devices using MARKING system app

Industrial marking for every application

The right industrial printer is available for all of your marking requirements.


With the various marking technologies, you can create markings that are ideally suited for your application.

Printers

|  | Material | Volume | Size | Description | Order no. |
|---|----------------|---------------------|--|-----------------------|-----------|
|  | Card and sheet | Manual feed | Desktop | THERMOMARK CARD 2.0 | 1085267 |
|  | Card and sheet | Manual feed | Desktop and portable | THERMOMARK PRIME 2.0 | 1472405 |
|  | Roll | < 50,000 labels/yr. | Desktop | THERMOMARK Roll 2.0 | 1085260 |
|  | Roll | > 50,000 labels/yr. | Large/desktop | THERMOMARK E.300 D US | 1287033 |
|  | Cartridge | Low | Hand-held | THERMOMARK GO.K | 1184146 |
|  | Cartridge | Low | Hand-held (Starter Kit) | THERMOMARK GO.K SET | 1184148 |
|  | Cartridge | Low | Hand-held with die cut option labels | THERMOMARK GO | 1090747 |
|  | Cartridge | Low | Hand-held with die cut option labels (Starter Kit) | THERMOMARK GO SET | 1221548 |


Conductor/Cable Marking

Shrink sleeves



| Conductor size | Lettering field size [mm/in] | Markers per roll | Description | Order no. | |
|--------------------------------|------------------------------|-----------------------|-------------------|--------------------|---------|
| 1 - 3.3 mm or 22-18 AWG | 15 x 5 / 0.59 x 0.20 | 1000 | WMS 3,2 (15X5)R | 0800380 | |
| | | 4000 | WMS 3,2 (15X5)RL | 0800390 | |
| | 30 x 5 / 1.18 x 0.20 | 500 | WMS 3,2 (30X5)R | 0800374 | |
| | | 2000 | WMS 3,2 (30X5)RL | 0800387 | |
| | | 5000 | WMS 3,2 (30X5)RXL | 0804268 | |
| | 60 x 5 / 2.36 x 0.20 | 250 | WMS 3,2 (60X5)R | 0800364 | |
| 1000 | | WMS 3,2 (60X5)RL | 0800384 | | |
| 1.6 - 4.8 mm or 18-14 AWG | 15 x 9 / 0.59 x 0.35 | 1000 | WMS 4,8 (15X9)R | 0800382 | |
| | | 4000 | WMS 4,8 (15X9)RL | 0800391 | |
| | | 10000 | WMS 4,8 (15X9)RXL | 0800397 | |
| | 30 x 9 / 1.18 x 0.35 | 500 | WMS 4,8 (30X9)R | 0800375 | |
| | | 2000 | WMS 4,8 (30X9)RL | 0800388 | |
| | | 5000 | WMS 4,8 (30X9)RXL | 0800395 | |
| | | 250 | WMS 4,8 (60X9)R | 0800366 | |
| | 60 x 9 / 2.36 x 0.35 | 1000 | WMS 4,8 (60X9)RL | 0800385 | |
| | | 2500 | WMS 4,8 (60X9)RXL | 0800393 | |
| | | 1000 | WMS 6,4 (15X10)R | 0801593 | |
| | 2.4 - 6.4 mm or 16-10 AWG | 15 x 10 / 0.59 x 0.39 | 4000 | WMS 6,4 (15X10)RL | 0801594 |
| | | | 10000 | WMS 6,4 (15X10)RXL | 0801595 |
| 30 x 10 / 1.18 x 0.39 | | | 500 | WMS 6,4 (30X10)R | 0800376 |
| 60 x 10 / 2.36 x 0.39 | | 250 | WMS 6,4 (60X10)R | 0800367 | |
| | | 500 | WMS 9,5 (30X16)R | 0800377 | |
| 3.5 - 9.5 mm or 12-8 AWG - 2/0 | | 30 x 16 / 1.18 x 0.63 | 2000 | WMS 9,5 (30X16)RL | 0804267 |
| | 250 | | WMS 9,5 (60X16)R | 0800368 | |
| | 60 x 16 / 2.36 x 0.63 | 1000 | WMS 9,5 (60X16)RL | 0803105 | |



Wrap around labels



| | | | | |
|-------------------------|-----------------------|------|------------------|---------|
| < 3 mm or < 10 AWG | 13 x 10 / 0.51 x 0.39 | 5000 | WML 3 (13X10)R | 0800073 |
| < 5 mm or < 6 AWG | 25 x 10 / 0.98 x 0.39 | 3000 | WML 5 (25X10)R | 0817523 |
| < 6 mm or < 4 AWG | 13 x 13 / 0.51 x 0.51 | 7000 | WML 6 (13X13)R | 0816252 |
| < 7.5 mm or < 2 AWG | 13 x 13 / 0.51 x 0.51 | 4000 | WML 7,5 (13X13)R | 0800074 |
| | 17 x 9 / 0.67 x 0.35 | 1500 | WML 7,5 (17X9)R | 0828444 |
| | 25 x 13 / 0.98 x 0.51 | 2100 | WML 7,5 (25X13)R | 0800075 |
| < 12 mm or < 4/0 | 25 x 19 / 0.98 x 0.75 | 1000 | WML 12 (25X19)R | 0800076 |
| < 14 mm or < 0.55 in Ø | 25 x 19 / 0.98 x 0.75 | 1500 | WML 14 (25X19)R | 0817536 |
| | 38 x 19 / 1.5 x 0.75 | 1000 | WML 14 (38X19)R | 0817552 |
| < 18 mm or < 0.75 in Ø | 12 x 12 / 0.47 x 0.47 | 2500 | WML 18 (12X12)R | 0817507 |
| < 20 mm or < 0.79 in Ø | 31 x 25 / 1.22 x 0.98 | 500 | WML 20 (31X25)R | 0828457 |
| < 22 mm or < 0.875 in Ø | 25 x 25 / 0.98 x 0.98 | 900 | WML 22 (25X25)R | 0800078 |
| < 36 mm or < 1.45 in Ø | 25 x 38 / 0.98 x 1.5 | 500 | WML 36 (25X38)R | 0817510 |
| < 46 mm or < 1.825 in Ø | 25 x 38 / 0.98 x 1.5 | 250 | WML 46 (25X38)R | 0800067 |

Available in other sizes, quantities, and colours

Ribbon

| Conductor size | Description | Order no. |
|--|----------------------------|-----------|
| Standard ink ribbon for all thermal marking - CARD PRINTER Length 300m | THERMOMARK-RIBBON 110-TC | 0801371 |
| Standard ink ribbon heat shrink materials - ROLL PRINTER Length 300m | THERMOMARK-RIBBON 110-WMSU | 0801358 |
| Standard ink ribbon for all thermal marking (not heat shrink) ROLL PRINTER Length 300m | THERMOMARK-RIBBON 110 | 5145384 |
| Standard ink ribbon for all thermal marking - PRIME PRINTER Length 70m | TMP-RIBBON 110 BK 100 | 0803374 |

Continuous Format Cartridges

| Heat shrink labels | | | | | |
|-------------------------|---|---------------|-----------------|-----------------------------|-----------|
| Application | Compatibility | Length | Colour | Description | Order no. |
| | THERMOMARK GO.K and THERMOMARK GO | 1.8m / 5.9ft | Black on White | MM-WMS 3,2 (EX5)R C1 WH/BK | 0803923 |
| | | 1.8m / 5.9ft | Black on White | MM-WMS 4,8 (EX9)R C1 WH/BK | 0803924 |
| | | 1.8m / 5.9ft | Black on White | MM-WMS 6,4 (EX10)R C1 WH/BK | 0803925 |
| | | 1.8m / 5.9ft | Black on White | MM-WMS 9,5 (EX16)R C1 WH/BK | 0803926 |
| | | 1.8m / 5.9ft | Black on Yellow | MM-WMS 3,2 (EX5)R C1 YE/BK | 1116139 |
| | | 1.8m / 5.9ft | Black on Yellow | MM-WMS 4,8 (EX9)R C1 YE/BK | 1116140 |
| | | 1.8m / 5.9ft | Black on Yellow | MM-WMS 6,4 (EX10)R C1 YE/BK | 1116141 |
| | | 1.8m / 5.9ft | Black on Yellow | MM-WMS 9,5 (EX16)R C1 YE/BK | 1116142 |
| Wrap around labels | | | | | |
| | THERMOMARK GO.K and THERMOMARK GO | 6.5m / 21.3ft | Black on White | MM-WML 3 (EX10)R C1 WH/BK | 0803931 |
| | | 6.5m | Black on White | MM-WML 5 (EX10)R C1 WH/BK | 0803932 |
| Nylon cloth labels | | | | | |
| | THERMOMARK GO.K and THERMOMARK GO | 6m | Black on White | MM-EMLC (EX12)R C1 WH/BK | 0803934 |
| | | 6m | Black on White | MM-EMLC (EX18)R C1 WH/BK | 0803936 |
| Flexible vinyl labels | | | | | |
| | THERMOMARK GO.K and THERMOMARK GO | 8m | Black on White | MM-EMLF (EX10)R C1 WH/BK | 0803937 |
| | | 8m | Black on White | MM-EMLF (EX12)R C1 WH/BK | 0803938 |
| | | 8m | Black on White | MM-EMLF (EX18)R C1 WH/BK | 0803939 |
| | | 8m | Black on White | MM-EMLF (EX24)R C1 WH/BK | 0803940 |
| Polyester device labels | | | | | |
| | THERMOMARK GO.K and THERMOMARK GO | 8m | Black on White | MM-EML (EX10)R C1 WH/BK | 0803970 |
| | | 8m | Black on White | MM-EML (EX12)R C1 WH/BK | 0803971 |
| | | 8m | Black on White | MM-EML (EX18)R C1 WH/BK | 0803972 |
| | | 8m | Black on White | MM-EML (EX24)R C1 WH/BK | 0803973 |


Die-cut Format Cartridges

| Heat shrink labels | | | | | |
|--------------------|---------------|---------------|-----------------|------------------------------|-----------|
| Application | Compatibility | No. of labels | Colour | Description | Order no. |
| | THERMOMARK GO | 235 | Black on White | MM-WML 5 (24X10)R C1 WH/BK | 1116196 |
| | | 190 | Black on White | MM-WML 6 (13X13)R C1 WH/BK | 1116197 |
| | | 165 | Black on White | MM-WML 7,5 (24X13)R C1 WH/BK | 1116198 |
| Wrap around labels | | | | | |
| | THERMOMARK GO | 50 | Black on White | MM-WMTB HF (40X12)R C1 WH/BK | 1116166 |
| | | 20 | Black on White | MM-WMTB HF (55X15)R C1 WH/BK | 1116207 |
| | | 20 | Black on White | MM-WMTB HF (55X25)R C1 WH/BK | 1116209 |
| Nylon cloth labels | | | | | |
| | THERMOMARK GO | 297 | Black on White | MM-EML (20X8)R C1 WH/BK | 1116204 |
| | | 297 | Black on Yellow | MM-EML (20X8)R C1 YE/BK | 1116205 |


Additional sizes and colours are available

Installation Equipment and Tools


Cutting tools

|  | Function | Conductor size | Description | Order no. |
|--|---------------------|---|----------------|-----------|
| | Cable-cutting tool | Up to 35 mm ² | CUTFOX 12 | 1212128 |
| | Cable-cutting tool | Up to 50 mm ² or 1/0 | CUTFOX 18 | 1212129 |
| | Diagonal cutter | VDE Insulated | CUTFOX S VDE | 1212207 |
| | Cable-binder cutter | For plastic cable binders up to 4.8 mm or 0.187 inches wide | UNIFOX-CT 4,8P | 1212609 |


Stripping tools

|  | Function | Conductor size | Installation type | Description | Order no. |
|--|--------------------------------------|---|-------------------------------|--------------|-----------|
| | Self-adjusting stripping tool | 0.08-2.5 mm ² or 28-14AWG | Standard | WIREFOX 2.5 | 1212368 |
| | Self-adjusting stripping tool | 0.1 - 4 mm ² or 28 - 12 AWG | Special insulation, e.g. PTFE | WIREFOX 4 | 1212156 |
| | Self-adjusting stripping tool | 0.02 - 10 mm ² or 34 - 8 AWG | Standard | WIREFOX 10 | 1212150 |
| | Strips sensor/actuator cables | 4.4 - 7 mm ² or 12 - 8 AWG | SAC cables | WIREFOX SAC | 1212623 |
| | Strips multi-conductor cables | max insulation 1mm 2.5-11mm or 10-3/0 AWG | Any | WIREFOX-D 11 | 1212160 |
| | Strips large, multi-conductor cables | 4.5 - 40 mm Ø or 0.17 - 1.5 in Ø | Any | WIREFOX-D 40 | 1212161 |
| | Replacement blade available | | | | |


Crimping tools

|  | Conductor size | Crimp shape | Description | Order no. |
|--|---|-------------|----------------------|-----------|
| | 0.14 - 6 mm ² or 24 - 10 AWG | Square | CRIMPFOX CENTRUS 6S | 1213144 |
| | | Hex | CRIMPFOX CENTRUS 6H | 1213146 |
| | 0.14 - 10 mm ² or 24 - 8 AWG | Square | CRIMPFOX CENTRUS 10S | 1213154 |
| | | Hex | CRIMPFOX CENTRUS 10H | 1213156 |
| | 0.25 - 6 mm ² or 22 - 10 AWG | Trapezoid | CRIMPFOX 6 | 1212034 |
| | 10 - 25 mm ² or 6 - 4 AWG | Trapezoid | CRIMPFOX 25R | 1212039 |
| | 0.14-10mm ² or 26-8 AWG | Trapezoid | CRIMPFOX DUO 10 | 1031721 |


Ferrules

|  | AWG | Colour | Standard pack | Description | Order no. |
|--|-----|-----------|---------------|-----------------------------------|-----------|
| | 22 | Turquoise | 100 | AI 0,34-8 TQ | 3203066 |
| | 20 | White | 100 | AI 0,5-8 WH | 3200014 |
| | 18 | Grey | 100 | AI 0,75-8 GY (0,75 cross section) | 3200519 |
| | 18 | Red | 100 | AI 1-8 RD (1 cross section) | 3200030 |
| | 16 | Black | 100 | AI 1,5-8 BK | 3200043 |
| | 14 | Blue | 100 | AI 2,5-8 BU | 3200522 |
| | 12 | Grey | 100 | AI 4-10 GY | 3200535 |
| | 10 | Yellow | 100 | AI 6-12 YE | 3200548 |
| | 8 | Red | 100 | AI 10-12 RD | 3200551 |

Screwdrivers

|  | Tool | Description | Order no. |
|--|--|---------------|-----------|
| | Torque screwdriver: 0.3 - 1.2 Nm / 2.6 in. lb - 10.6 in. lb | TSD-M 1,2NM | 1212224 |
| | Torque screwdriver: 1.2 - 3.0 Nm / 10.6 in. lb - 26.5 in. lb | TSD-M 3NM | 1212225 |
| | Torque screwdriver: 3.0 - 6.0 Nm / 26.5 in. lb - 53 in. lb | TSD-M 6NM | 1212226 |
| | Micro screwdriver - Flat head - 0.4 mm blade | SZS 0,4X2,0 | 1205202 |
| | Standard screwdriver - Flat head - 0.6 mm blade | SZF 1-0,6X3,5 | 1204517 |
| | Tool set - 17-part kit | SF-M SET 2 | 1212756 |
| | 16 Speed cordless screwdriver set | SF-ASD 16 SET | 1200295 |
| | #2 Roberston Screwdriver, 8" long | SF-SQ 2-200 | 1072455 |

Multifunction tools and ferrules

|  | Function | Conductor size | Description | Order no. |
|--|--------------------------|--|-------------------|-----------|
| | Complete kit | 0.5 - 2.5 mm ² or 20 - 14 AWG | CRIMPFOX 4in1 set | 1200102 |
| | Cut, strip, and crimp | 0.5 - 2.5 mm ² or 20 - 14 AWG | CRIMPFOX 4in1 | 1200101 |
| | Ferrule carrier | 0.5 - 2.5 mm ² or 20 - 14 AWG | CRIMPFOX 4in1/MAG | 1200103 |
| | 50-ferrule strip - white | 0.5 mm ² or 20 AWG | AI 0,5-8 WH S1 | 1200104 |
| | 50-ferrule strip - gray | 0.75 mm ² or 18 AWG | AI 0,75-8 GY S1 | 1200105 |
| | 50-ferrule strip - red | 1.0 mm ² or 18 AWG | AI 1,0-8 RD S1 | 1200106 |
| | 50-ferrule strip - black | 1.5 mm ² or 16 AWG | AI 1,5-8 BK S1 | 1200107 |
| | 50-ferrule strip - blue | 2.5 mm ² or 14 AWG | AI 2,5-8 BU S1 | 1200108 |



Cable Ducts for Clear Cable Routing

Use cable ducts to bring order to your control cabinet. A large number of cables and conductors are required to connect the various components in the control cabinet. To ensure a good overview and can easily reach every terminal point, cable ducts help to keep the control cabinet tidy and clearly arranged. The portfolio consists of different cable duct sizes, colors, and material types. These various cable ducts allow you to keep cables neatly organized.



Your advantages

- ✓ Cover snaps on easily
- ✓ Single part number for cable duct and cover
- ✓ 2m length, matches Phoenix Contact 2m DIN rail product
- ✓ Two score lines for easy removal of fingers and wall, no sharp edges

Scan the QR code to learn more online



Cable Duct


| DIMENSIONS (W x H) L=2m | | Description | Gray Order no. | Blue Order no. | White Order no. | Halogen Free Gray Order no. | Halogen Free Blue Order no. |
|-------------------------|-------------|-------------|----------------|----------------|-----------------|-----------------------------|-----------------------------|
| Nominal size (inches) | Millimetres | | | | | | |
| 1 x 1 | 25 x 25 | CD 25X25 | 3240187 | — | — | 3240340 | — |
| 1 x 1 ½ | 25 x 40 | CD 25X40 | 3240188 | — | — | 3240341 | — |
| 1 x 2 | 25 x 60 | CD 25X60 | 3240191 | 3240303 | 3240618 | 3240342 | 3240584 |
| 1 x 3 | 25 x 80 | CD 25X80 | 3240197 | 3240304 | 3240619 | 3240343 | 3240585 |
| 1 x 1 ½ | 30 x 40 | CD 30X40 | 3240278 | — | — | 3240344 | — |
| 1 x 2 | 30 x 60 | CD 30X60 | 3240280 | — | — | 3240345 | — |
| 1 x 3 | 30 x 80 | CD 30X80 | 3240282 | — | — | 3240346 | — |
| 1 x 4 | 30 x 100 | CD 30X100 | 3240283 | — | — | 3240347 | — |
| 1 ½ x 1 ½ | 40 x 40 | CD 40X40 | 3240189 | — | — | 3240348 | — |
| 1 ½ x 2 | 40 x 60 | CD 40X60 | 3240192 | 3240310 | 3240625 | 3240349 | 3240591 |
| 1 ½ x 3 | 40 x 80 | CD 40X80 | 3240198 | 3240311 | 3240626 | 3240350 | 3240592 |
| 1 ½ x 4 | 40 x 100 | CD 40X100 | 3240294 | 3240312 | 3240627 | 3240351 | 3240593 |
| 2 x 1 ½ | 60 x 40 | CD 60X40 | 3240190 | — | — | 3240352 | — |
| 2 x 2 | 60 x 60 | CD 60X60 | 3240193 | 3240314 | 3240629 | 3240353 | 3240595 |
| 2 x 3 | 60 x 80 | CD 60X80 | 3240199 | 3240315 | 3240630 | 3240354 | 3240596 |
| 2 x 4 | 60 x 100 | CD 60X100 | 3240263 | 3240316 | 3240631 | 3240355 | 3240597 |
| 3 x 2 | 80 x 60 | CD 80X60 | 3240194 | — | — | 3240358 | — |
| 3 x 3 | 80 x 80 | CD 80X80 | 3240200 | 3240320 | 3240635 | 3240359 | 3240601 |
| 3 x 4 | 80 x 100 | CD 80X100 | 3240264 | 3240321 | 3240636 | 3240360 | 3240602 |
| 4 x 3 | 100 x 80 | CD 100X80 | 3240201 | 3240324 | 3240639 | 3240363 | 3240605 |
| 4 x 4 | 100 x 100 | CD 100X100 | 3240205 | 3240325 | 3240640 | 3240364 | 3240606 |
| 5 x 3 | 120 x 80 | CD 120X80 | 3240202 | 3240327 | 3240642 | 3240366 | 3240608 |

Accessories

Control Cabinet 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.

300 Series enclosure lights

|  | Product information | Motion sensor | Description | Order no. |
|---|---------------------|---|--------------------|-----------------|
| | | Colour temp. 5000 K, length 350 mm, Housing: Polycarbonate, pivoting, can be switched in series, including mounting accessories | ✗ | PLD E 409 W 350 |
| | | ✓ | PLD E 409 W 350 MS | 1319573 |


Accessories

|  | Optional door Switch | Description | Order no. |
|---|----------------------|----------------------|-----------|
| | | PLD E 400-DS-3,0/0,6 | 1318672 |


Electrical Outlets

You can choose to wire the electrical outlets with Push-in or screw connection technology. The procedure for mounting the sockets is also extremely flexible. Either latch them onto the DIN rail or mount them directly using screw or adhesive mounting.


Push-in connection single socket outlets

|  | Description | Order no. |
|---|-------------------|-----------|
| | EO-AB/PT/15 | 0804165 |
| | EO-AB/PT/LED/15 | 0804168 |
| | EO-AB/PT/LED/S/15 | 0804174 |
| | EO-AB/PT/S/15 | 0804173 |

Screw connection single socket outlets

|  | Description | Order no. |
|---|-------------------|-----------|
| | EO-AB/UT/15 | 0804152 |
| | EO-AB/UT/LED/20 | 0804509 |
| | EO-AB/UT/LED/S/15 | 0804160 |
| | EO-AB/UT/S/15 | 0804159 |

Double-socket outlets






|  | Description | Order no. |
|--|-----------------------|-----------|
| | EM-DUO 120/15 | 5600461 |
| | EM-DUO 120/20 | 5600525 |
| | EM-DUO 120/15/IG | 5601677 |
| | EM-DUO 120/15/SPD | 5601283 |
| | EM-DUO 120/15/SPD/AUX | 5604063 |
| | EM-DUO 120/15/V/H | 5604747 |
| | EM-DUO 120/20/V/H | 5604776 |

Double-socket GFI outlets


|  | Description | Order no. |
|---|---------------------------|-----------|
| | EM-DUO 120/20/GFI | 5602519 |
| | EM-DUO 120/20/GFI/AUX | 5603049 |
| | EM-DUO 120/20/GFI/V/H | 5604777 |
| | EM-DUO120/20/GFI/AUX/NO | 5602192 |
| | EO-AB/UT/LED/DUO/V/GFI/15 | 1263628 |
| | EM-DUO 120/15/GFI/AUX | 5600639 |
| | EM-DUO 120/15/GFI/V/H | 5604775 |

DIN Rail and Accessories

DIN rail

|  | Material | Perforated | Length (M) | Size W/H (mm) | Description | Order no. | |
|---|--|------------|------------|---------------|---|--------------------------|---------|
| | Steel, galvanized, passivated with a thick layer | ✓ | 2 | NS 35/ 7,5 |  | NS 35/ 7,5 PERF 2000MM | 0801733 |
| | | ✗ | 2 | NS 35/ 7,5 |  | NS 35/ 7,5 UNPERF 2000MM | 0801681 |
| | | ✓ | 2 | NS 35/15 |  | NS 35/15 PERF 2000MM | 1201730 |
| | | ✗ | 2 | NS 35/15 |  | NS 35/15 UNPERF 2000MM | 1201714 |

End brackets

|  | Mounting | Width (mm) | Description | Order no. |
|---|----------|------------|--------------|-----------|
| | Screw | 9.5 | E/NS 35 N | 0800886 |
| | Snap on | 5.15 | CLIPFIX 35-5 | 3022276 |
| | Snap on | 9.5 | CLIPFIX 35 | 3022218 |



Open communication with customers and partners worldwide

Phoenix Contact is a global market leader based in Germany. We are known for producing future-oriented products and solutions for the electrification, networking, and automation of all sectors of the economy and infrastructure. With a global network reaching across more than 100 countries with over 20,000 employees, we maintain close relationships with our customers, something we believe is essential for our common success.

Our wide range of innovative products makes it easy for our customers to implement the latest technology in a variety of applications and industries. This especially applies to the target markets of energy, infrastructure, industry, and mobility.

You will find our complete product range at:
[phoenixcontact.ca](https://www.phoenixcontact.ca)

PHOENIX CONTACT
 8240 Parkhill Drive
 Milton ON, L9T 5V7
 800.890.2820
cdinfo@phoenixcontact.ca

