A1 A2 B1 T1 T2 T3 T

I1 I2 I3 I4 I5 I6 I

wieland

samosPRO
SP-COP2

PWR/EC

MS   LINK

CV   X10

NET   ACT

X9

SD-Card

samos PLAN 5+

I9 I10 I11 I12 I13 I

Q1 Q2 Q3 Q4 IQ1 IQ2 IQ3 IQ4

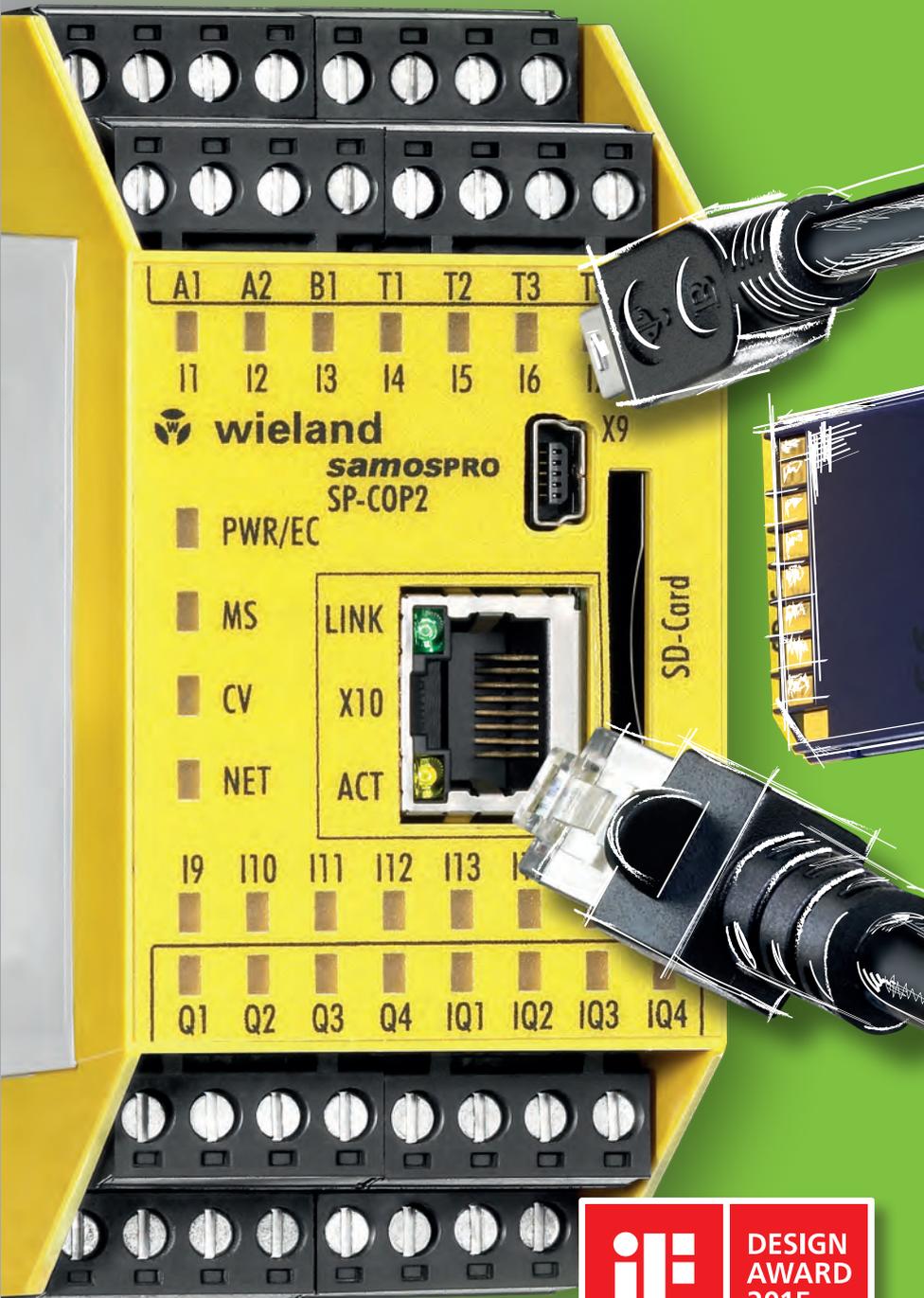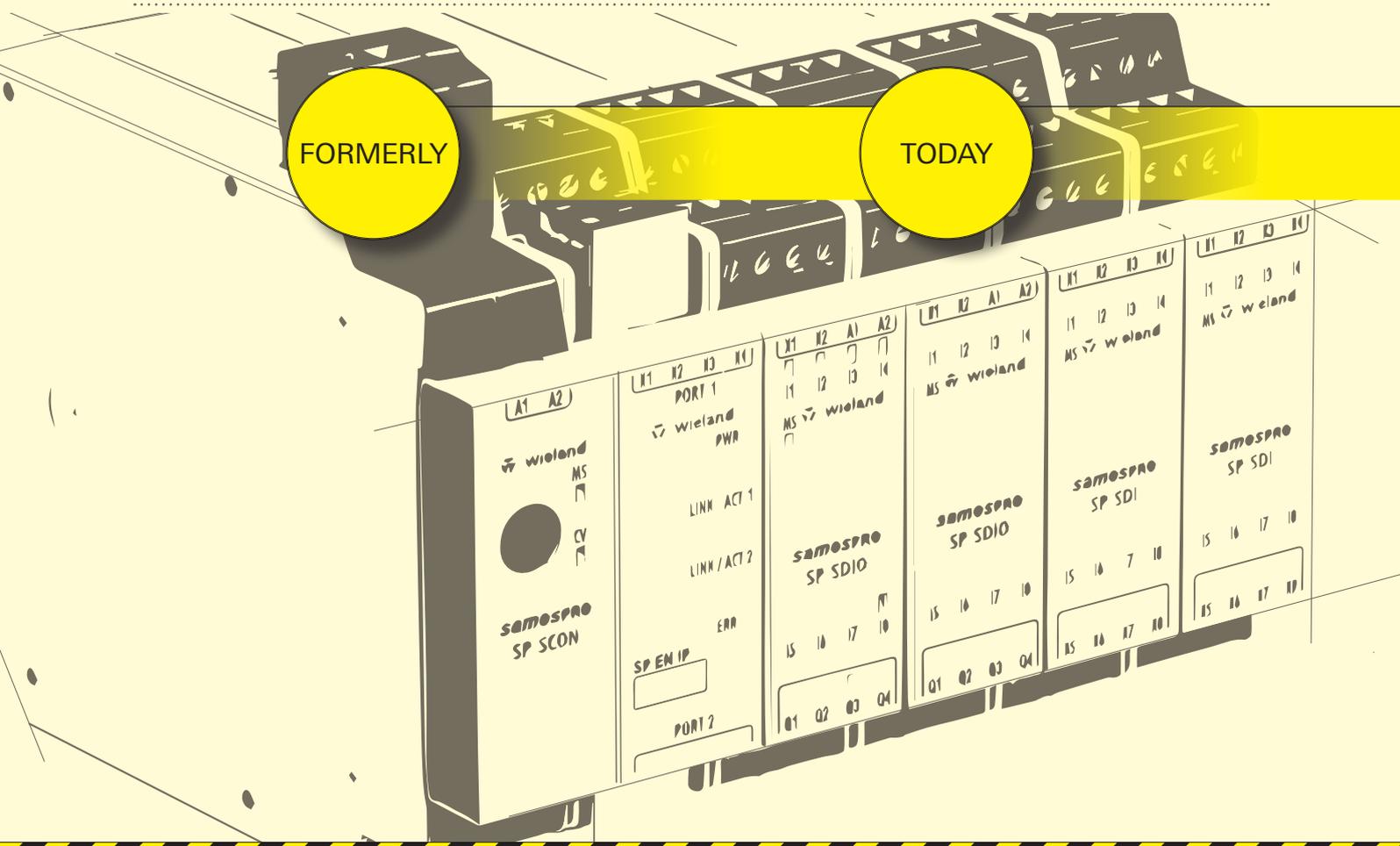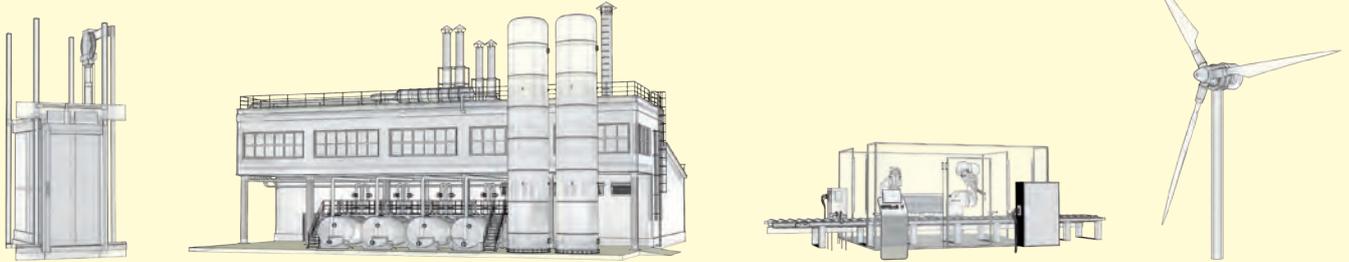iF DESIGN AWARD 2015

samos® PRO COMPACT
The safety control
of the next generation

Because it really does come down to size ...

In the control cabinet in all industries **so far**.

FORMERLY

TODAY

samos® PRO COMPACT
The safety control of the next generation

From **today** on and in the **future**!

Illustration
Original size

45 mm

TOMOR-ROW

```
TEMP. RANGE -25°C to +65°C
45mm HOUSING WIDTH
20 SAFE INPUTS
8 SAFE OUTPUTS, MAX. 4 A
ETHERNET INTERFACE
USB PORT
SD-CARD SLOT
```

POWER in SAFETY

DESIGN AWARD 2015

**samos**® PRO COMPACT innovativ - compact - safe:

The project planning tool **samos**®PLAN5+ for **samos**® PRO COMPACT now offers users still more support, directly extending through all life phases of a machine.

• Comprehensive library of reliable, certified function blocks
• Configurable project documentation at the press of a button
• Integrated simulation and logic analysis of the safety functions
• Convenient integration in the fieldbus and Ethernet networks
• Online diagnosis and remote maintenance for more transparency

# samos® PRO COMPACT

# Universal and future-proof
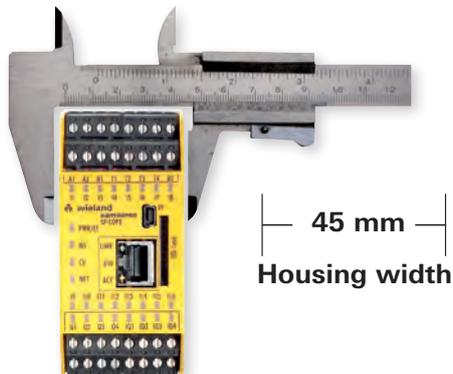
**45 mm**
**Housing width**

## Compact power pack

16 safe inputs, 4 safe outputs and 4 switchable safe in-/outputs on a construction width of 45 mm solve many safety tasks – a safety control of the new generation for universal automation tasks today and in the future.

## Well networked

Industrial Ethernet protocols are available right from the start and fieldbus gateways can be extended as needed – integrated connection in the most widely varying industrial networks is a decisive advantage of the system.

## Modular extendability

For comprehensive applications, the system can be extended with additional modules to as many as 116 secure inputs and 56 secure outputs – ideal precondition for flexible, secure automation, even for larger machines and systems.

NEW
press-function

## Certified expertise

The comprehensive library of certified, tried and tested function blocks makes it easier to realize all safety functions – over 40 different functions are available at any time and with no additional programming effort.
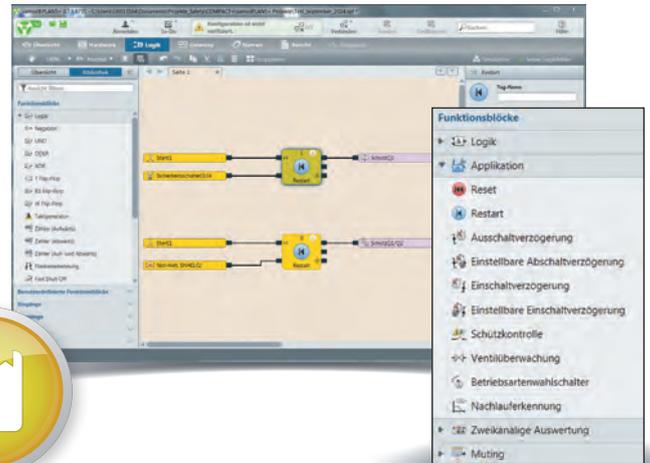
## Globally accessible

Remote maintenance can be easily realized in the system without the additional effort that is typical with other systems – with the integrated online diagnosis and the system log book, problems in global operation are quickly localized and expensive maintenance calls are avoided.
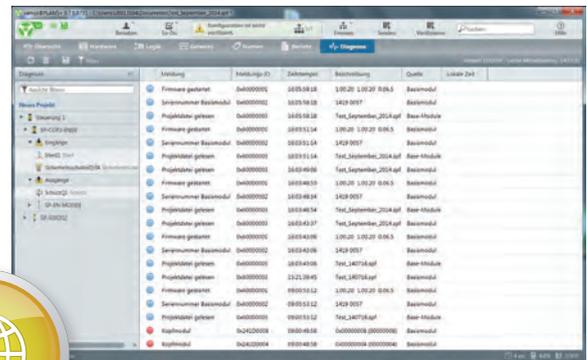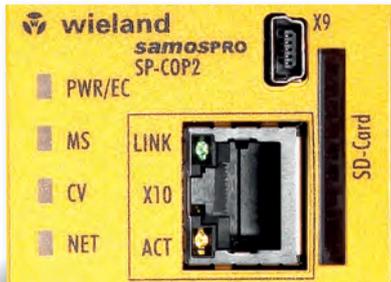
## Individually adaptable

Even user-specific sensors and function blocks can be defined and managed in libraries as needed – no other system offers greater multi-functionality.
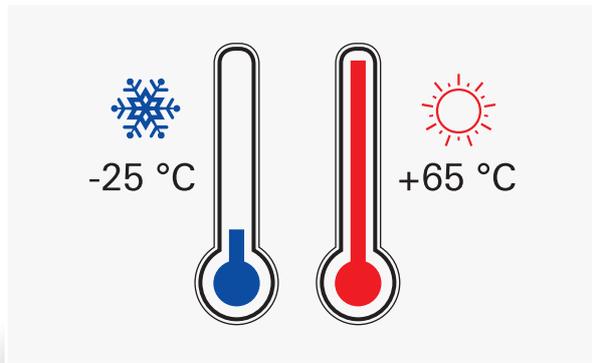
**For a safe press operation**
**samos**®PLAN5+ **provides 6 efficient function blocks.**

# Communicative and powerful



**Integrated interfaces**

Integrated USB and Ethernet interfaces enable custom-tuned access to the system – this means more transparency for the user during the project planning phase and in operation.



-25 °C     +65 °C

**Conceived for the toughest requirements**

The exceptionally wide ambient temperature range from -25 °C to +65 °C provides security for all applications – use even under extreme ambient conditions is now made possible for the first time.



4A
SWITCHING POWER
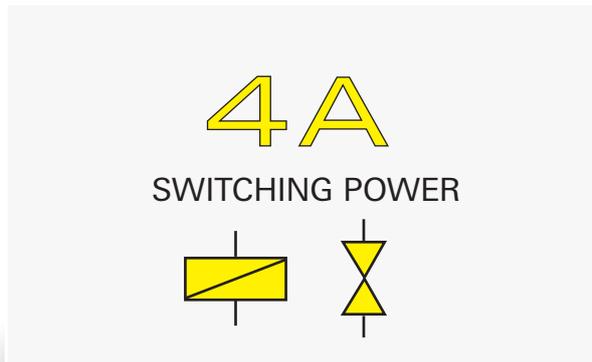
**High switching power**

4 A non-wearing switching power at each individual output of the system – no other safety control offers this kind of switching performance. High performance alternative to contactors and relays.

## Simple communication

Thanks to convenient support in the tool, all industrial Ethernet or fieldbus protocols can be easily used – never before has industrial communication been so easily realized.

## Unrestricted use

All in- and outputs and up to 300 function blocks can be applied in each project with complete freedom – ideal precondition for the solution of simple, but nonetheless complex, safety tasks.

## Protection of expertise

In addition, the tool offers the possibility of individual generation of user-specific function blocks and an integrated expertise protection for projects – performance features sought for in vain in other systems.

# Simple and reliable



**Exchangeable program memory**

The exchangeable SP-COP-CARD in SD card format offers 512 MB memory space for application programs and is easily accessible – the simple handling of projects saves much time during commissioning, reproduction and when serviced is required.



**Optical function display via LED**

All in- and outputs of the system have an optical display to which the connections are explicitly assigned – visualization of the operating status of a machine could not be quicker and more understandable.



**Flexible connection technology**

All modules of the system are available with either screw or push-in terminal blocks – this means even more flexibility for the user, also for the connection technology.

## Perfect process simulation

The simulation function with integrated logic analyzer enables a check of the programmed safety functions already on the PC – this helps in problem solving, spares valuable time during commissioning on the machine and raises functional security overall.
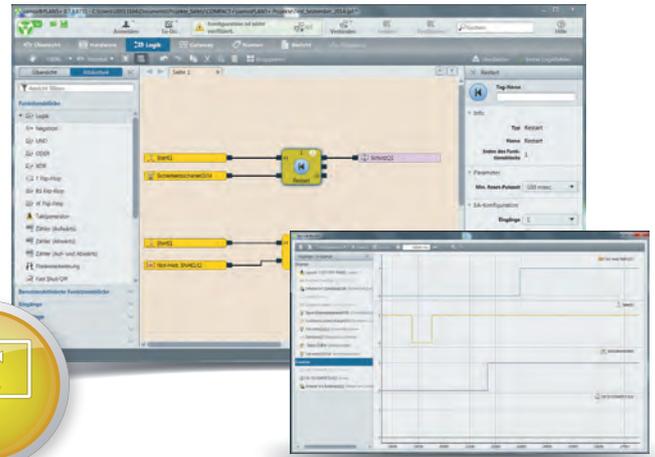
## Integrated documentation

The documentation function generates a customized report of the project at the press of a button – essential part of machine documentation in compliance with regulations.
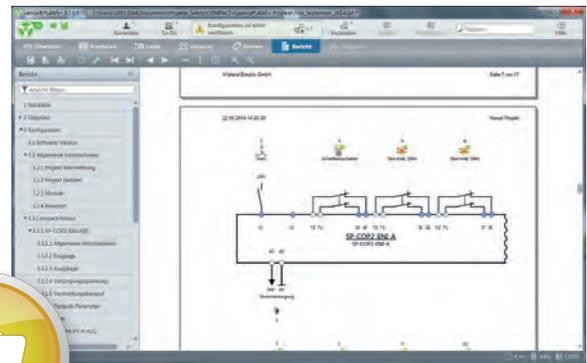
## Compatible and convenient

The modern programming tool *samos*®PLAN5+ offers open interfaces at many places and of course is suitable for all Windows operating systems – a more productive and reliable workflow is also guaranteed for the future.

# **samos**® PRO COMPACT | Ordering overview

**SP-COP1-A**

**SP-COP2-EN-A**
**SP-COP2-ENI-A**

**SP-COP1-C**

**SP-COP2-EN-C**
**SP-COP2-ENI-C**

| Name/type | Description | Art.No. | Std. Pack |
|---|---|---|---|
| **samos**® PRO COMPACT | | | |
| SP-COP1-A | USB connection, 20 inputs / 4 outputs, screw terminal block, pluggable | R1.190.1110.0 | 1 |
| SP-COP2-EN-A | USB and Ethernet connection, 16 inputs / 4 outputs, 4 configurable I/O, screw terminal block, pluggable | R1.190.1210.0 | 1 |
| SP-COP2-ENI-A | USB and industrial Ethernet connection, 16 inputs / 4 outputs, 4 configurable I/O, screw terminal block, pluggable | R1.190.1310.0 | 1 |
| SP-COP1-C | USB connection, 20 inputs / 4 outputs, push-in terminal block, pluggable | R1.190.1120.0 | 1 |
| SP-COP2-EN-C | USB and Ethernet connection, 16 inputs / 4 outputs, 4 configurable I/O, push-in terminal block, pluggable | R1.190.1220.0 | 1 |
| SP-COP2-ENI-C | USB and industrial Ethernet connection, 16 inputs / 4 outputs, 4 configurable I/O, push-in terminal block, pluggable | R1.190.1320.0 | 1 |

**Technical data**
| | |
|---|---|
| Function | Safety control |
| Function display | 24 LED green (in-/outputs) 4 LED green/red/yellow (module status) |
| **Supply circuit** | |
| Operating voltage range | 16.8 V DC to 30 V DC |
| Rated power | 3.5 W |
| Galvanic isolation | No |
| **Secure input circuit $I_n$** | |
| Quantity / type | 20 (16)* / digital |
| Primary voltage range | 15 V DC to 30 V DC |
| Nominal current | 2 mA |
| **Secure output circuit $Q_n$** | |
| Quantity / type | 4 (8)* / digital |
| Nominal output voltage | 24 V DC |
| Output voltage $I_n$ per output | 4 A |
| Short-circuit protective device | Yes |
| **Interfaces** | |
| USB Mini interface | Yes |
| Ethernet interface | Yes* |
| Industrial Ethernet protocol* | Modbus TCP, Profinet IO, Ethernet/IP |
| Program memory | External |
| **General data** | |
| Protection class as per DIN 60529 | IP20 |
| Air and creepage distances | EN 60664-1 |
| Operating ambient temperature | -25 °C to +65 °C |
| Standards | EN 61508, EN 62061, EN ISO 13849-1, EN 50156-1, EN 81-1 |
| Certificates / Approvals | TÜV, cULus |

* Dependent on device type

You will find accessories and additional information in our eShop under **https://eshop.wieland-electric.com**

We will be happy to help you with selection and commissioning. You can reach our Technical Support under the telephone number **+49 951 9324-999**

# **samos**® PRO COMPACT | Ordering overview Accessories

## Extension modules | Gateways

**SP-SDIO84-P1-K-A**
**SP-SDIO84-P1-K-C**

**SP-SDI8-P1-K-A**
**SP-SDI8-P1-K-C**

**SP-CANopen**
**SP-PROFIBUS-DP**
**SP-EN-ETC**

| Name/type | Description | Art.No. | Std. Pack |
|---|---|---|---|
| SP-SDIO84-P1-K-A | In-/output extension with output test pulses, 8 inputs / 4 outputs, screw terminal block, pluggable | R1.190.0030.0 | 1 |
| SP-SDIO84-P1-K-C | In-/output extension with output test pulses, 8 inputs / 4 outputs, push-in terminal block, pluggable | R1.190.0040.0 | 1 |
| SP-SDI8-P1-K-A | Input extension, 8 inputs, screw terminal block, pluggable | R1.190.0050.0 | 1 |
| SP-SDI8-P1-K-C | Input extension, 8 inputs, push-in terminal block, pluggable | R1.190.00060.0 | 1 |
| SP-CANopen | CANopen gateway | R1.190.0210.0 | 1 |
| SP-PROFIBUS-DP | PROFIBUS-DP gateway | R1.190.0190.0 | 1 |
| SP-EN-ETC | Ethercat gateway | R1.190.0160.0 | 1 |

## Accessories

**SP-COP-CARD1**

**SP-CABLE-USB1**
**SP-CABLE-ETH1**

**SP-VISUAL-SET**

| Name/type | Description | Art.No. | Std. Pack |
|---|---|---|---|
| SP-COP-CARD1 | Memory-card for SP-COP | R1.190.1000.0 | 1 |
| SP-CABLE-USB1 | USB cable for SP-COP, 1.8 m | R1.190.1010.0 | 1 |
| SP-CABLE-ETH1 | Ethernet cable for SP-COP, 2 m | R1.190.1020.0 | 1 |
| SP-COP-STARTER-SET | Content: SP-COP2-EN-A, SP-COP-CARD1, SP-PLAN5+, SP-CABLE-USB1, SP-CABLE-ETH1 | R1.190.1100.0 | 1 |
| SP-VISUAL-SET | Visualization set (touch panel 3.5'' color, SP-CABLE4, software driver) | R1.190.0280.0 | 1 |
| SP-COVER | SD card slot cover for SP-COP modules | R1.190.1040.0 | 1 |
| WKFN 2,5 E/35 GO-URL | *fasis* multi-tier terminal with diode | 56.703.8755.9 | 1 |
| APFN 2,5 E/35 | End plate | 07.312.7355.0 | 1 |

**You will find additional information to all products in the safety technology range in our catalog "Safe System Solutions for Automation Technology"**

**Order no. 0860.1**

**safety**
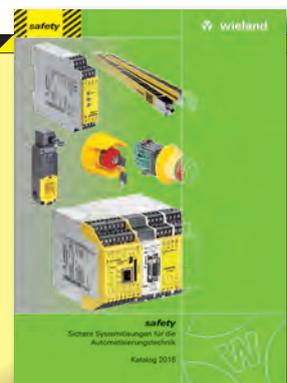
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# contacts
# are
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