



MACHINE BUILDING

FOCUS **MACHINE**

Safe power supply, safety monitoring + communication.

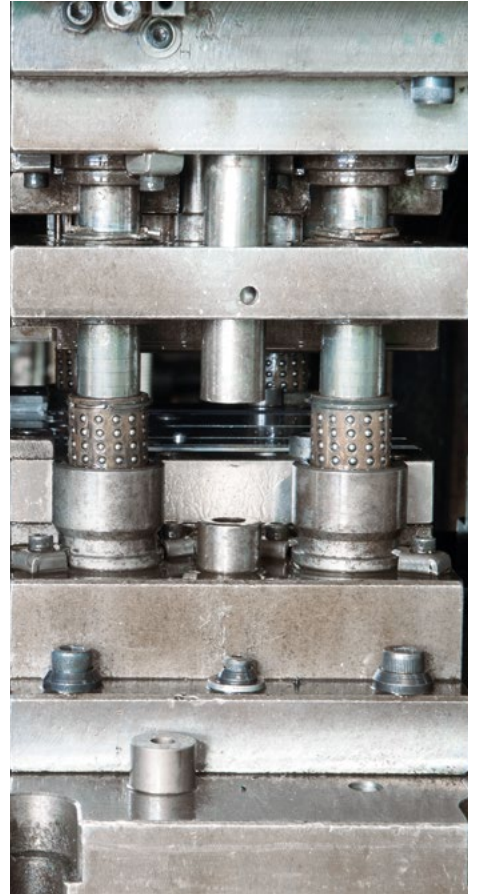


“Machine and plant safety begins with the samos® PRO COMPACT control system – flexible, reliable, and efficient from risk analysis to safe shutdown“

A grayscale background image of a modern industrial factory interior. The scene shows a high ceiling with a complex network of pipes, ducts, and structural beams. In the foreground and middle ground, there are various industrial machines, conveyor systems, and safety railings. The lighting is bright and even, highlighting the metallic surfaces and the organized layout of the facility.

FOCUS MACHINE

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SAFETY FOR MACHINE BUILDING.

In an increasingly competitive market, we help machine builders secure long-term success by enhancing productivity, reducing risk, and supporting investment decisions with confidence. Our integrated safety solutions are designed to streamline implementation, ensure compliance, and protect both people and machinery — giving you a decisive edge in machine performance, reliability, and cost-efficiency.



SAFE

We support you with a complete functional safety package, creating a safe environment for users and legal certainty for you as a manufacturer of machinery and systems. Trouble-free machine communication is crucial for smooth production processes. Our solutions ensure maximum system availability and protection against communication - both within the network and across the electrical infrastructure. Our coded and pluggable installation systems ensure error-free and secure power and signal distribution.



FAST

Avoid time-consuming troubleshooting with our solutions that can be installed quickly, efficiently, and with zero errors. Save time in all phases of a project – we accelerate your planning process, installation, and subsequent maintenance. Our teams and internal processes are geared towards generating solutions quickly and making them available to you for prompt implementation in your machine or system.



FLEXIBLE

Thanks to their modular design, our system solutions can be flexibly adapted to your requirements and enable you to respond quickly to changes from the end customer. By modifying existing components or developing new, customized solutions, we reduce your response time to changes and adapt to your production processes with customized logistics concepts.

SAVINGS WITH:

- + LEGAL CERTAINTY
- + FAILURE PREVENTION DURING IMPLEMENTATION
- + REDUCED COMMISSIONING TIME
- + MODULAR SYSTEM
- + COMPLEMENTARY SERVICES



COMPLETE SOLUTIONS FOR YOUR MACHINES + PLANTS



SAFETY

Production processes must prioritize safety and reliability, while also ensuring efficiency. With our extensive and comprehensive safety solutions, from risk assessment to complete hardware packages, we sustainably minimize the risks and dangers to both people and machinery, guaranteeing safe and dependable plant operations.



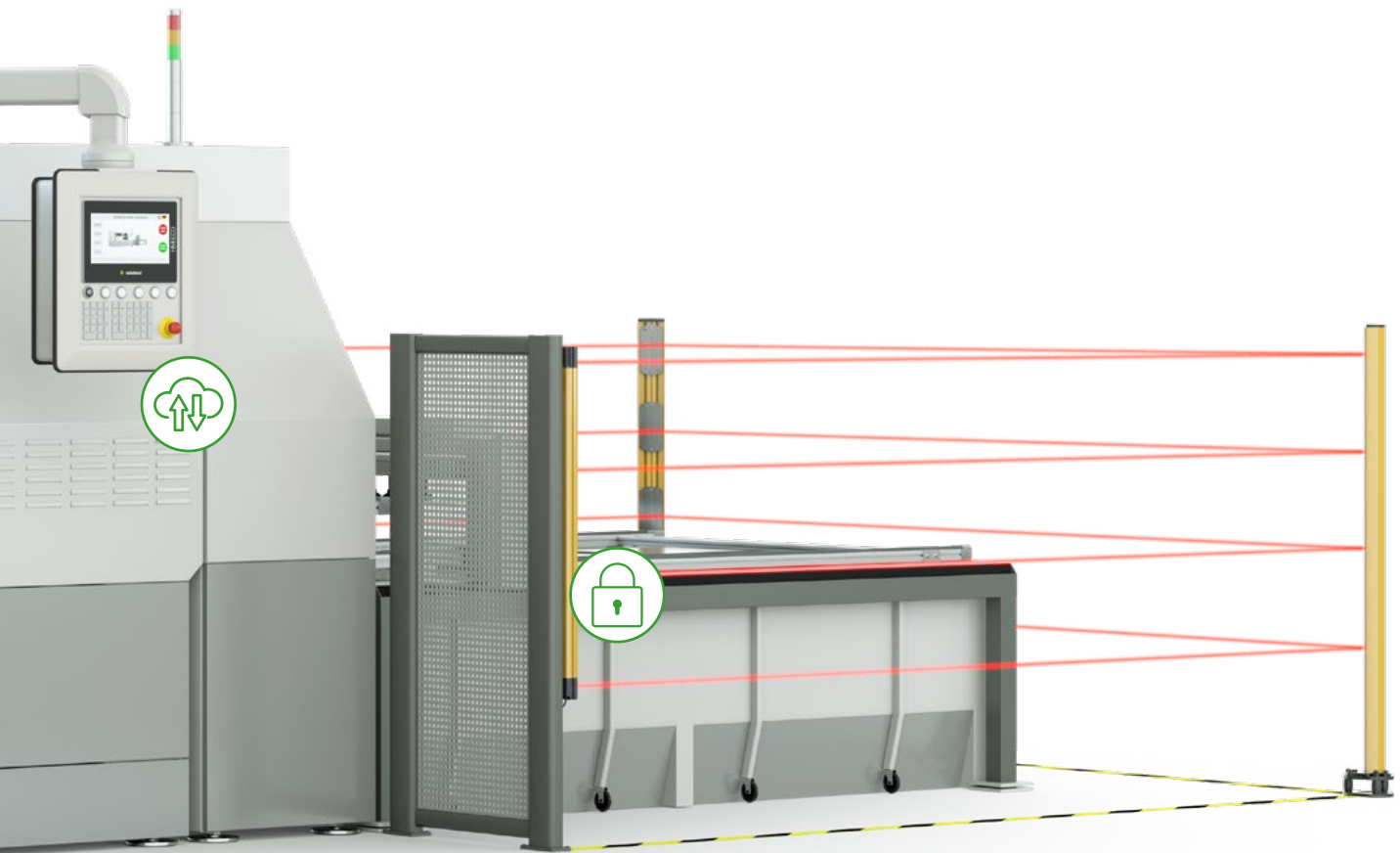
CONNECTIVITY

Is your goal a fast installation and commissioning without any errors? Put your faith in our smart and standardized installation systems with pre-assembled systems for flexible usage in an industrial environment. Our internationally-approved Plug & Play components save time and costs during installation and are completely maintenance-free.



COMMUNICATION & POWER SUPPLY

Ethernet network structures are a standard feature of machines these days. Equipment and machinery are increasingly interconnected so that data can be acquired for control tasks for the purpose of remote maintenance or to optimize processes. We offer an extensive, future-oriented portfolio, including reliable power supplies, so that you are prepared for “tomorrow” today.



CUSTOMER SOLUTIONS

By combining our engineering and production expertise in cross-functional teams, we deliver tailored product and service solutions, including complete safety concepts, that meet your specific requirements.



TRAINING + SERVICE

Our commitment will not end with the commissioning of your plant. We are available at all times to provide advice concerning standards, regulations, and provisions, to train your staff in a wide variety of subjects, and to support the entire lifecycle of your machines from engineering to commissioning and maintenance.



YOUR **ADVANTAGES** POWERED BY OUR **EXPERTISE**

- + **safe** monitoring
- + **fast** installation of signals and energy
- + **flexible** for Industry 4.0 – global availability



BENEFITS

- Reliable, field-proven solutions that mesh together
- Fast, easy, and safe installation based on the principle of modularity
- Standardized interfaces for fast connection + replacement
- Global application assured thanks to international approvals
- Own software tools



OUR EXPERTISE WITH COMPACT MACHINES

For example:

- Presses + punches
- Compressors
- Packaging machines
- Tooling machines
- Measuring stations
- Pick-and-placers



OUR EXPERTISE WITH MODULAR MACHINES

For example:

- Printing machines
- Textile machines
- Casting and soldering machines
- Metal forming machines
- Packaging lines
- Robot cells



OUR EXPERTISE IN PLANT CONSTRUCTION

For example:

- Production lines
- Manufacturing facilities
- Newspaper and publishing machines
- Logistics and conveyor systems
- Warehouse systems
- Wind power plants



SAFETY SYSTEMS

Legal requirements change regularly. Safety concepts in machinery and protective devices in plants must be updated and adapted.

Let our safety experts advise you on everything from risk assessment to CE-compliant documentation. Secure the future viability of your systems with our flexible and smart safety solutions.

From sensors to relays to safety controllers: In our extensive safety portfolio, we are guaranteed to find the best solution for your specific applications.

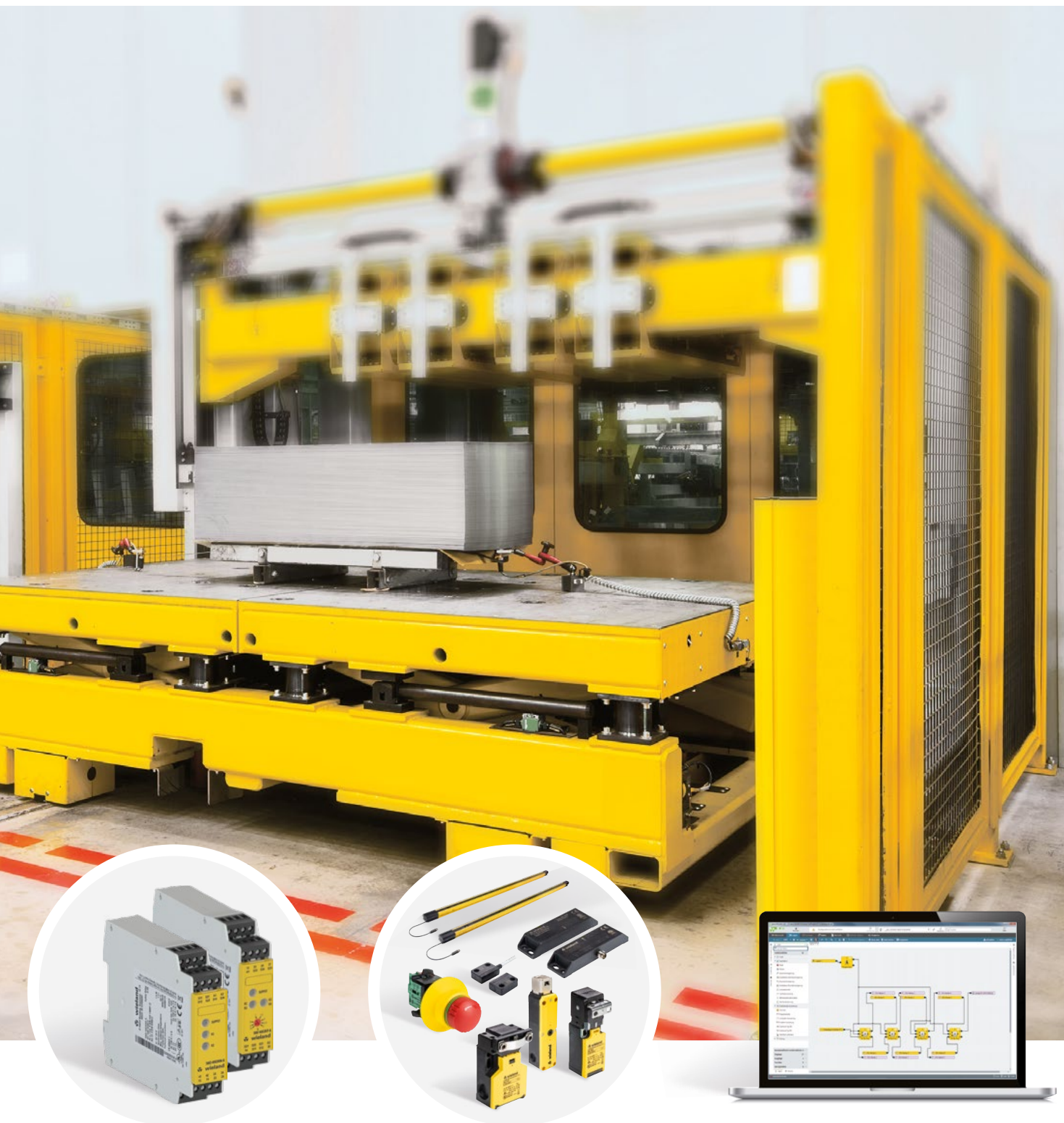


- + Everything from a single source
- + Customized solutions
- + License-free software samos® PLAN 6
- + Simple programming
- + Safety Services + Training

COMPACT + CONFIGURABLE SAFETY CONTROLLERS

samos®PRO COMPACT is our easy-to-integrate and compact safety controller with industrial Ethernet protocol.

- Flexible due to modular extendability
- Motion and communication already integrated in the basic device
- Extreme power - nonwearing 4A outputs



SAFETY AND EXPANSION RELAYS

Our portfolio of safe RELAYS includes powerful safety relays for monitoring all safety functions up to PLe or SIL3.

- Variable connection technology with pluggable screw or push-in terminals
- Monitoring of all standard safety sensors
- Standstill monitoring with or without sensors

SENSOR SOLUTIONS SAFE FROM MANIPULATION

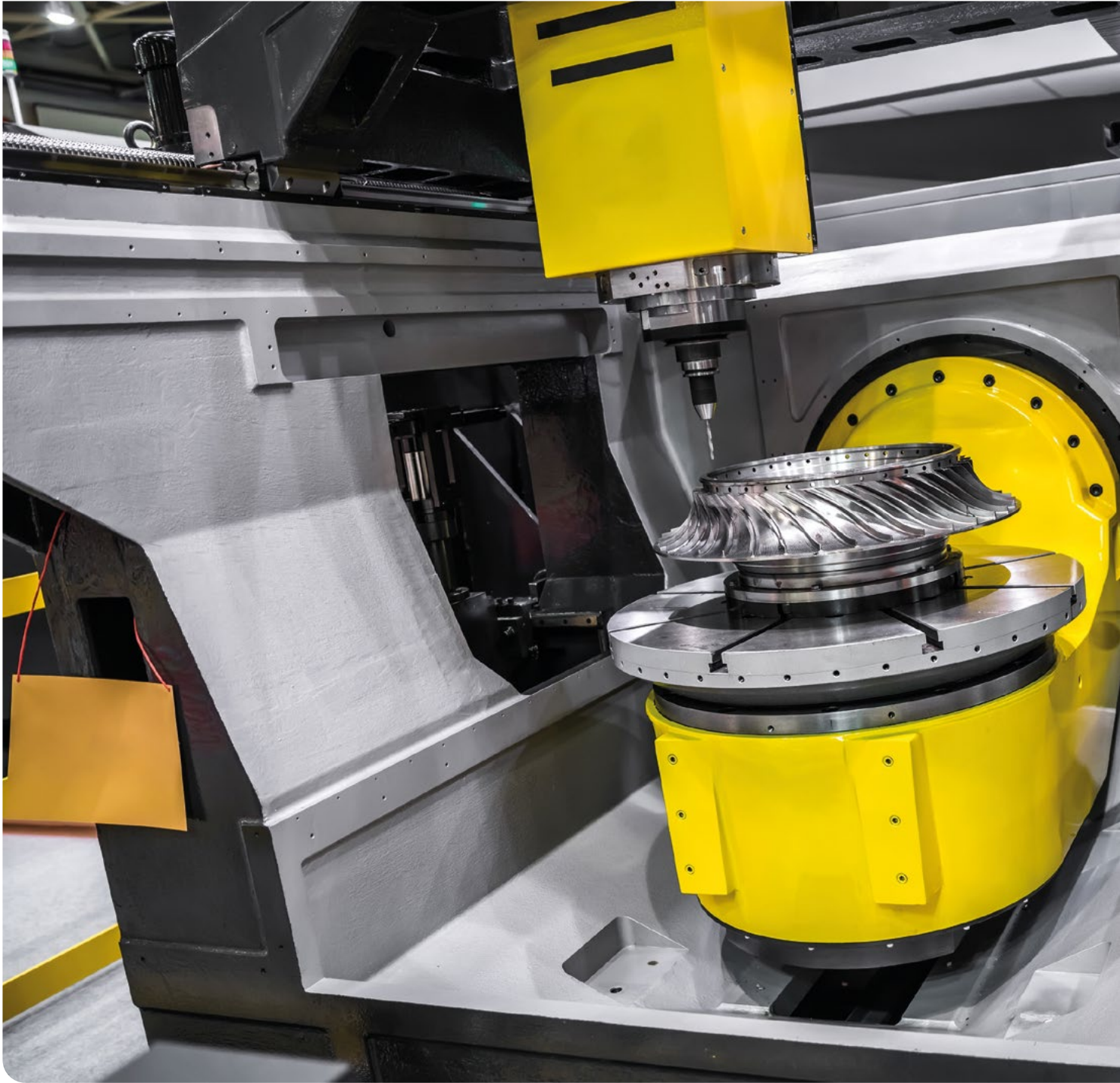
sensor PRO is the range of easily and safely integrated sensors for industrial automation.

- Proven in practice to be quick to adjust
- Safe from manipulation due to RFID technology
- Serial connection possible

FREE + INTUITIVE PROGRAMMING SOFTWARE

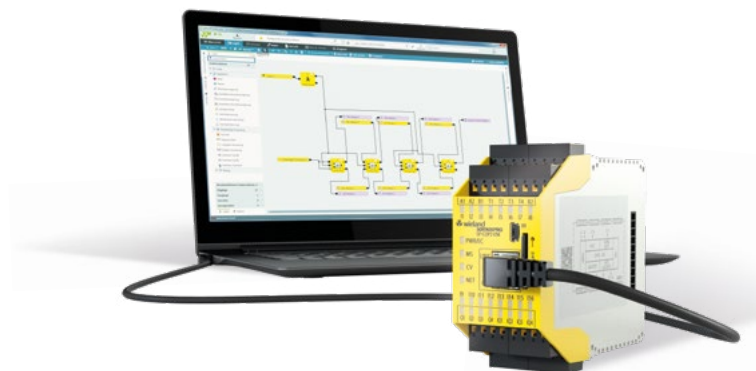
Our intuitive samos® PLAN 6 programming software for configuring, validating, or documenting safety applications with an automatic verification report incl. a circuit diagram.

- Fail-safe software due to simulation and virtual oscilloscope
- Just parameterize and use 50 TÜV-certified function modules



SAFETY IN COMPACT MACHINES

Application example:
Safe monitoring of the movement of several axes





REQUIREMENT

You want to realize various motion control functions on your machines quickly and cost-effectively. The reduced speed for two axes should be monitored in PLd. The respective axis status is transmitted to a PC via Profinet. In the event of an error, the diagnosis must be available to you quickly anywhere in the world.



SOLUTIONS


The compact samos® PRO MOTION safety controller meets all these requirements in one device:

- Fast motion inputs up to 70 kHz
- Safe HTL incremental encoder up to PLe
- Six different motion function modules are integrated as standard
- Profinet and Ethernet interfaces in the module



BENEFITS

- Space-saving and cost-effective solution
- No additional motion module necessary
- Ready-to-use function modules
- Short commissioning time thanks to simple parameterization and quick verification of safety functions
- High machine and plant availability

- 
- + **safe** programming
 - + **fast** commissioning
 - + **flexible** configuration



CONNECTIVITY SYSTEMS

We have practical experience of the day-to-day challenges our clients face.

At the heart of our modular system are our products podis®, revos, and RST®, supplemented with distribution elements, cable assemblies, and accessories. Thanks to standardized interfaces you can build your installation concepts modularly and systematically and also reduce the effort involved in the initial installation significantly thanks to the plug + play principle. Subsequent extensions and changes to your plants can be achieved easily at any time.



- + Energy distribution without control cabinet
- + Flexible and modular
- + Time and cost savings

COST-CUTTING ENERGY DISTRIBUTION

Large machines and plants are installed safely and decentralized with a high IP protection rating using the podis® power bus system.

- Saving time and money – no stripping and dismantling necessary
- Flexible due to pluggable taps
- Insulation-piercing contact minimizes later maintenance



MODULAR + ROBUST INDUSTRIAL CONNECTORS

revos industrial connectors for safe distribution of power and signals.

- Specially designed for use in particularly harsh environments.
- Tin, silver, or gold contacts for optimum contact quality
- Maximum flexibility with connections and applications

ROUND CONNECTORS WITH IP PROTECTION

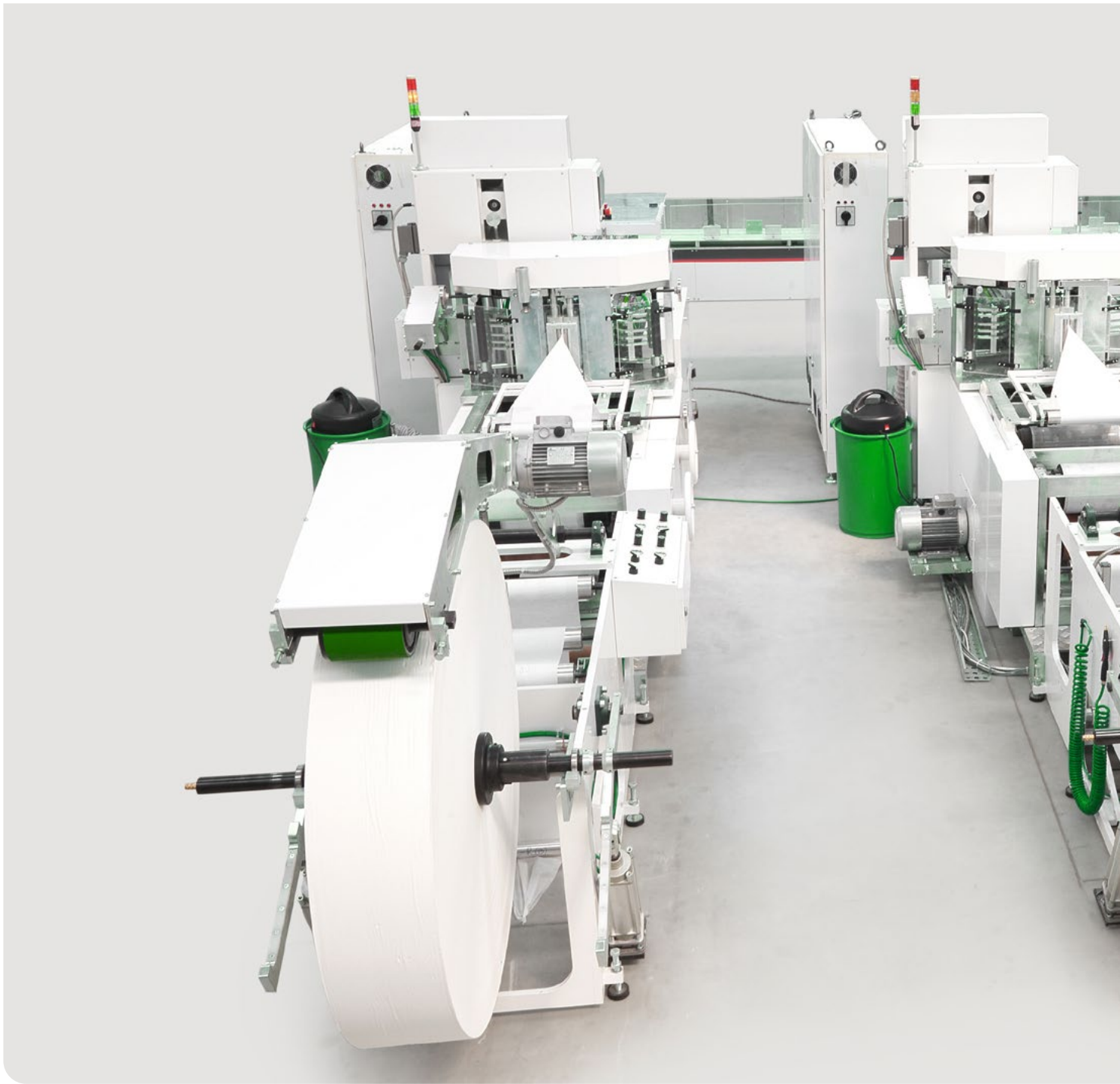
Our 2-pole to 7-pole RST® round connectors offer maximum reliability with protection up to IP69.

- Ideal for robust applications
- Pre-assembled and flexible extension at any time
- Color + mechanical coding, with locking mechanism

SPACE-SAVING TERMINAL BLOCKS

Our selos and fasis terminal blocks with screw, tension spring, or smart push-in connection offer the optimal solution for industrial applications in confined spaces.

- Vibration-safe and maintenance-free terminal
- Saves time and reduces wiring and inventory costs



CONNECTIVITY IN MODULAR PLANTS

Application example:

Decentralized energy supply based on best practice principle





REQUIREMENT

At your modular plant, you require the supply of 400 V to machine parts and motors. You also want to supply the valve islands and peripheral sensors with 24 V decentralized. At the customer's request you will install and test the plant in-house before disassembling it and dispatching it abroad in module packages.



SOLUTIONS

The podis® 5G16 power bus as a backbone offers reliable energy up to 63 A and is extremely flexible due to the pluggability of all the components:

- Pluggable outputs with RST® connectors to the distributors provide flexibility
- Installation with decentralized 24 V power supply unit with 600 W power
- Distribution of 24 V via our pluggable RST® system or the revos® industrial connectors



BENEFITS

- Energy distribution without control cabinet
- Power anywhere – flexible extension always possible without cutting the cable
- Fail-safe pluggable installation saves time during machine setup
- Quick commissioning – pluggable installation can be carried out anywhere in the world without special training (mechanical + color coding)
- Approx. 70% time and cost savings due to pluggability and modularity

- + **safe** due to insulation-piercing contact
- + **fast** installation
- + **flexible** configuration + extension



COMMUNICATION TECHNOLOGY

Our communication technology will provide you efficient support as you become a smart factory.

We ensure that your machines and plants are networked and connected, from the individual sensor to the cloud.

With our field-tested components based on proven standards, you will be able to realize consistent and efficient data networks that are also capable of handling the requirements of tomorrow.



- + Easy introduction to Industry 4.0
- + Scalable, extendable solution
- + Service + support from a single source

SIMPLE + SECURE REMOTE MAINTENANCE

Our remote maintenance components will provide a simple and secure communication connection for your plant – today and in the future.

- Very easy commissioning
- All-in-one: VPN router and mini controller
- Your partner for remote service



SMART NETWORK + DATA TECHNOLOGY

The right wienet switch for an optimal network structure in your automation environment, whatever the situation.

- Easy networking tasks with unmanaged switches
- Managed switches specifically for Profinet and EtherNet/IP
- High network availability

WIRELESS CONNECTION TO THE WLAN ACCESS POINT

The WLAN all-rounder in the control cabinet with flexible configuration options.

- Access point for mobile devices
- Integration into existing WLAN networks
- Replacing wired network routes
- Use as a LAN-to-LAN VPN router including integration into Wie-Service24

MACHINE OPERATION VIA HMI

HMI ECO touch panels make machines + plants easier to operate.

- Software drivers for more than 40 manufacturers of controllers
- Simple visualization with HMI PLAN software and data exchange with samos® PLAN 6
- Design with own customer logo
- Free HMI PLAN programming software



POWER SYSTEMS

Reliable power supplies in the control cabinet are indispensable for mechanical and plant engineering.

Our power supplies and uninterruptible power supplies (UPS) ensure stable voltage and protect your systems from power outages and voltage fluctuations.

With our DC-DC converters, you can create flexible and application-specific solutions, while redundancy modules maximize the reliability of parallel-operated power supplies.

This ensures smooth and efficient production processes and guarantees maximum availability of your machines and systems.



- + High operational reliability
- + Compensation for voltage drops
- + Auto or wide-range voltage input

COMPACT WIDE-VOLTAGE POWER SUPPLIES

With the wide-voltage power supplies of the wipos PSW series, you are prepared for a wide variety of network types. They can withstand a short-term overvoltage of 800 V DC for 3 s.

- Suitable for AC/DC and DC/DC operation
- Models for 24 V/48 V DC output
- High efficiency: >92 %
- Active PFC according to EN 61000-3-2



UPS COMPACT SOLUTION FOR MAXIMUM PROTECTION

Maximum protection is crucial for complex automation processes. Our wipos UPS 20-960 reliably protects against grid problems, outages, voltage spikes, and fluctuations.

- Compatible with all battery technologies
- Connection to DC Bus 12 V...55 V
- Monitoring the battery charge
- Programmable DC/DC

REDUNDANCY TO INCREASE SYSTEM AVAILABILITY

Redundancy modules prevent downtime and increase system availability. Our wipos R20 monitors parallel-connected power supplies and automatically takes over supply in the event of a failure.

- Ensures safe parallel connection
- 2 inputs/1 output
- One signal contact per input

TAILOR-MADE COMPLETE UPS SYSTEMS

With our customized UPS systems, we ensure the process-safe shutdown of your machine control system and stable lighting for your machine.

- Buffer times up to 60 minutes
- 48 V DC output for lighting
- 230 V AC output for machine control



PRE-ASSEMBLED BOXES

Customer-specific signal distribution and system distributors

- Customized and tailored to your needs
- Simple logistics – order the complete distributor box with just one item number
- Ready-to-use with tested industrial quality



CABLES + CONNECTIONS

Pre-assembled cable sets (lengths/connections)

- Perfectly integrated
- Quick and fail-safe assembly on-site
- Quick replacement of components during service and maintenance



TERMINAL BLOCKS

Pre-assembled terminal blocks in just 5* working days at your premises.
(*in Germany)

- Efficient warehousing
- Extremely fast delivery
- Perfect planning capability



INDIVIDUAL CUSTOMER SOLUTIONS

Customized solutions for your applications!

Do you require an individual solution tailored to your needs? Do you want to keep the assembly time and costs down by having optimized production processes?

We combine our development and production expertise in cross-functional teams to provide precise, tailored answers to your “how” questions, delivering practical solutions that fit your specific needs.

Get in touch with us.

Our experienced experts will be happy to clarify all the details with you during an initial consultation.

PROTOTYPING

Development, qualification, certification, and prototyping from a single source.

- Individual solutions tailored to your needs
- Field-proven technologies
- With tested industrial quality

- + Order picking as desired
- + Pre-assembly services
- + High in-house production depth



TRAINING

Our team of trainers will support and assist you in all matters. Training topics will be adapted specifically to the different remits and prior knowledge of the attendees.

SAFETY TRAININGS AS DAY OR WEEKLY COURSES

Our practitioners and standards experts will convey the latest expert knowledge in relation to laws, directives, and standards to seminar participants. The individual seminars include:

- Machinery Directive / Machinery Regulation - Safety of machinery from a management perspective, gain legal certainty
- Functional Safety - Evaluating the functional safety of a machine, key concepts and standards
- Sistema, proper documentation of safety functions
- Validation, creation of secure software

TRAINING TO BECOME A CERTIFIED SAFETY EXPERT · SGS-TÜV SAAR

In cooperation with SGS-TÜV Saar, we offer certified training to become a safety expert. In just three to five days, you'll earn internationally recognized functional safety certificates. The course covers safety-related aspects of machinery and systems, with a focus on electrical engineering, as well as the relevant legal and regulatory principles. You'll learn how to evaluate functional safety and design and calculate safety functions.



All our training courses at a glance:

<https://www.wieland-electric.com/en/support/training>



INDIVIDUAL IN-HOUSE TRAINING

Bring your experts to your company – we're happy to offer training tailored precisely to your needs. Coordinate your desired content with us, and we'll design a tailor-made seminar concept for you.

Contents:

- CE process and/or its sub-steps – normative foundations, content and responsibilities
- New machinery regulation and its amendments
- Retrofit – modification and conversion of old machines



SERVICE

CONNECTIVITY SERVICES

We will support you with these services:

- Wiring plan, e.g. for distributor boxes with complete documentation
- Installation concepts; we will develop complete installation solutions based on application requirements
- Lighting simulation; we will calculate the optimum illumination for you
- Complete solutions, e.g. distributor box including safety controller and electronics

SAFETY SERVICES

Our experienced machine safety experts will advise you on all relevant aspects of machine safety:

- On-site advice; with a machine inspection we can check whether it conforms to current standards
- Safety-technical assessment; we will help you identify and mitigate dangers
- Application creation and engineering from A to Z
- Security concepts for secure data in your machines

ENGINEERING SERVICES

We will happily help you with the following:

- Creating drawings in line with applicable standards
- Ready application, from concept to finished software
- Putting together and setting up a dashboard to view product data online
- Preventive maintenance through analysis of machine data

SAFETY SOFTWARE

samos® PLAN 6 programming software: **intuitive + flexible + license-free.**



samos® PLAN 6 assists designers and machine builders with the programming, diagnosis, and documentation of all safety functions on a machine.

BENEFITS

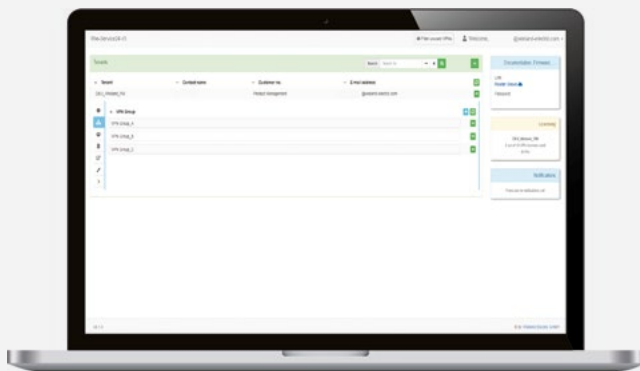
- Intuitive thanks to automatic hardware configuration
- Quicker thanks to easy operation
- More cost-effective thanks to integrated motion control
- Maintenance-friendly thanks to various diagnostic options
- With multi-screen feature

samos® PLAN 6 download:

<https://www.wieland-electric.com/en/support/software-apps/samos-plan-6>

WIE-SERVICE24-PORTAL

The VPN service portal: **Easy remote maintenance.**



With our VPN service portal, systems, machines and networks can be securely connected and protected by individual access rights and encryption.



BENEFITS

- Secure networking based on proven and open standards
- 2-factor authentication
- Multi routing (≥ 2 subnets for each VPN tunnel)
- Flexible expansion of an exploited VPN IP address range
- Clear, compact interface (with "one-page" character)

More information can be found in our brochure:



INDUSTRIAL AUTOMATION

Easy remote access to machines and systems, machine data collection and machine operation.

Part No. 0810.1



INFO TO GO

All brochures from Wieland Electric are available for download on our website.

<https://www.wieland-electric.com/en/support/downloads>



Interesting for you

SAFETY CATALOG

Safe system solutions for automation technology

Part No. 0860.1



SERVICE CATALOG

Services for the safety of your machines

Part No. 0870.1



DIN RAIL TERMINAL BLOCKS CATALOG

Terminal blocks with screw, tension spring, and push-in connection

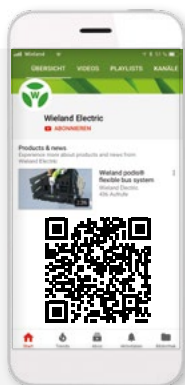
Part No. 0500.1



Wieland on YouTube

See our solutions in motion

<https://www.youtube.com/user/WielandElectric>



Technical consultation Industry Solutions

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Email: building@wieland-electric.com

Worldwide: <https://wie.li/contactinternational>



ONLY ONE TAP AWAY

Our Wieland E-Shop

Over 25,000 products - anytime

In our online store you will find all the information about our products, prices, and technical data.

Order easily and conveniently online, and check availability.

<https://eshop.wieland-electric.com>

Scan QR code – view products in the E-SHOP.





wieland

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