wieland



Machine building

Individual customer solutions





"Machine building is the heart of our production.

Constantly-increasing requirements demand greater flexibility.

Thanks to innovative technologies and our experts' extensive knowledge, we have been able to increase efficiency and safety significantly in recent years. "

CHRISTOPH WIELAND

Director of Production Europe

Wieland – your expert partner in machine building

Efficiency and safety

Globalization and the competition it has produced pose ever-increasing requirements for cost-efficiency and time savings. At the same time, legal occupational health and safety requirements must be fulfilled. Wieland Electric can help you with this.

Wieland Electric is not just one of the leading suppliers of safety technology and electrical connection technology, it is also a trend-setting innovator and industry expert. Thanks to in-house machine building and the operation of production lines at home and abroad, Wieland has extensive experience and great industry expertise.

Wieland has detected and solved typical problems on the market. These include the many technical details that significantly improve the availability of a machine. However, the fulfillment of logistical requirements and individual customer requirements also make Wieland Electric a strong and expert partner in machine building.



Wieland Electric GmbH was awarded the TOP 100 innovation prize of German medium-sized companies for the sixth time.

Qualified, certified expertise for design and development engineers



Legislation requires that manufacturers of plants and machinery comply with essential health and safety requirements according to Machinery Directive 2006/42/EC.

CSE certified safety engineer acc. to EN ISO 13849 by SGS-TÜV Saar

The new Wieland training course in becoming as a certified safety engineer not only provides engineers and developers with comprehensive specialist expertise, but also demonstrates how machine manufacturers can increase their level of legal security.

The wealth of practical tasks involved in the course ensures that participants have an excellent command of how to apply standards – from risk assessments in line with EN ISO 12100:2010 right through to EN ISO 13849-1/-2. Through their involvement in the CSE seminar, participants are also permitted to sit a final examination with the SGS-TÜV Saar which, if passed, entitles them to a personalized certificate and the status of certified safety engineer.

Seminar content:

- Safety-related EU directives
- Risk assessment according to EN ISO 12100:2010
- Functional safety according to EN ISO 13849-1
- How to identify and achieve the performance level (PL)
- Safety-related sensor, logic, and actuator technology
- Verification of a complete system
- Systematic errors and validation
- Introduction to the IFA SISTEMA software wizard









"Questions of safety and long service life are central in machine building. The challenge is to have the integrated solutions for tomorrow available today. "

CHRISTOF SOFSKY
Director Sales Machine Building

One reaches into the other -Support by Wieland



On-site service provision

Wieland Electric also provides support for the entire service life of machines by offering direct, on-site services, including:

- Risk assessment
- Verification and validation
- Commissioning check
- Stoptime measurement
- · Periodic inspections of light grids
- Inspections before and during operation
- Programming support

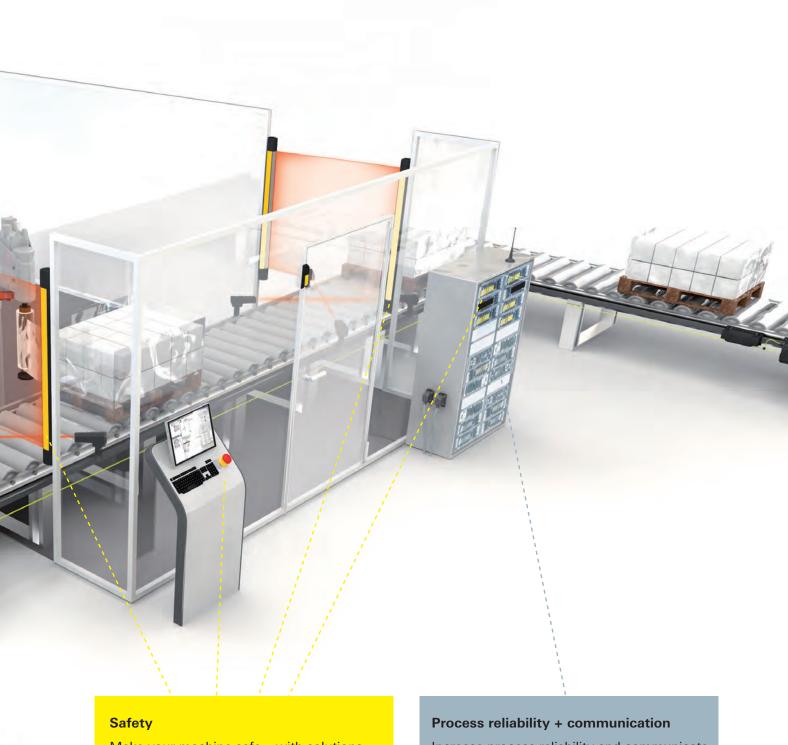




Use our comprehensive support for standard-compliant creation of your risk assessment.

More info at:





Make your machine safe – with solutions from Wieland.



Increase process reliability and communicate with your machines worldwide.



Safety First make your machines safe – with sophisticated technology from Wieland

From support and advice to components

Safety is increasingly the focus of the machine builder, driven also by increasing awareness of each individual's responsibility. Legal principles such as the Machinery Directives and the Ordinance on Occupational Health and Safety must be complied with. New harmonized standards such as EN ISO 13849 pose new requirements for machine builders. At the same time, they present opportunities.



Sensor PRO

sensor PRO: Safe sensors from Wieland are easy and safe to integrate. Great operational reliability and quick adjustment help with installation and start-up. Safe from manipulation due to RFID technology.

Safa RELAY

For each function, there is an appropriate **switch** or intelligent and robust **universal device SNO4083KM** for all sensors.

The diagnostic function reduces downtime in

case of error during operation and start-up.



"Strengthen the prospects of your machine for the future with sound, competent advice and intelligent safety solutions. Wieland Electric is your one-stop shop for both."

> THOMAS KRAMER-WOLF Safety/Engineering specialist



Catalog safety -Safe system solutions for automation technology







Samos[®]

Modules with adjustable parameters reduce the number of switches. The long-lasting output contacts are especially suitable for tactile applications. Thanks to the singlechannel category 4 outputs, it is also possible to save space and money.

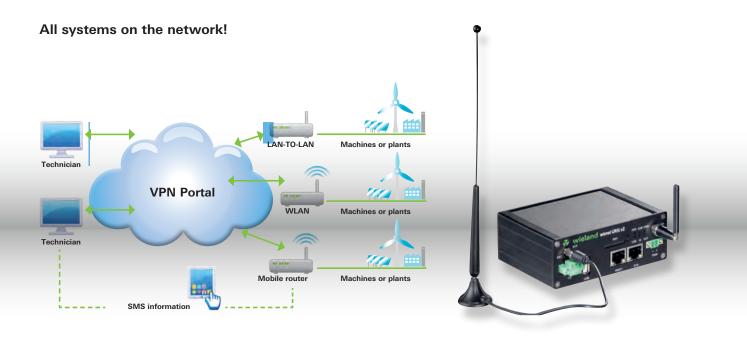
Samos[®]PRO

When it comes to safety controllers, samos®PRO COMPACT is a compact power pack with integrated Industrial Ethernet and 4 A semiconductor outputs. Its modular design means it can even be extended as required, while the simulation function and logic analyzer significantly reduce commissioning times.

Worldwide **communication** – Spare yourself expensive service deployments and travel costs

Communicate securely worldwide

Efficient remote maintenance helps to save money and time. Usually in the first few months after starting up a machine, there are frequent problems and therefore modifications are necessary. For the machine builder, this means expensive trips by service personnel; for the operator, long wait times. Regardless of the customer's network access, which is often not available immediately, Wieland offers the complete solution. And it take into account protection against unauthorized access. Security plays an essential role here.



wienet Router

Wieland's **VPN router** family offers many remote functions, from LAN-TO-LAN to fast LTE-mobile wireless connection. Each additional digital input and output enables the direct evaluation of alarms and remote switching.

The robust metal housing can be used everywhere for machine building.

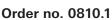
The Wie-Service24-Portal is optimized for use with the Wieland wireless and LAN-to-LAN routers. The portal creates the configurations for these routers automatically and provides them for download. Thanks to the automation of crucial settings, possible sources of errors are minimized. Wie-Service24 creates and manages certificates for the Wieland router and specifies within a large group who may communicate with whom. The combination of Wie-Service24 and the Wieland routers enables quick start-up of the routers with the greatest security of the VPN connection.







Prospect VPN industrial router – on-site remotely.









Compact VPN-Server "Smart Service 24"

The partner of the VPN server portal Wie-Service24 enables up to 100 VPN connections. The Smart-Service 24 server is built on compact computer hardware. The router configuration is done automatically including X.509 certificate management.

wienet Switches

The Wieland switches ensure secure communication in industrial Ethernet networks. The redundant power supply permits the highest level of availability. Unmanaged switches, PoE switches, switches with fiber-optic connection or "light"-managed switches are available, depending on the requirement.

Reliable without **compromise**. Increase the process reliability of your machines!

Prevent failures securely!

A machine should produce. Therefore, the machine and process flow should be protected. So that everything runs smoothly, Wieland offers reliable power supplies, over voltage protection, as well as measurement and monitoring relays, to achive this, all of which are reliable and cost-effective.



wipos

The Wieland power supplies score with robust, proven technology without frills. They feature 100% output up to 60°C, 120% Power-Boost, PFC technology, and long power failure bridging times. A redundancy module and uninterruptible power supply increase security for important processes.

wietap

The energy-coordinated over voltage protection **wietap** distinguishes itself through its short response time and great discharge capability. In the control cabinet, it protects expensive equipment and helps to fulfill the CCF according to EN 13849 (Safety of machines - safety-relevant parts of controllers).



,, A stable process is the basis for economic success. The right design and monitoring are indispensable. "

FRANK WOORTMANN

Director Global Industry Management Machine Building







Catalog *interface* – Solutions for the control cabinet

Order no. 0800.1







flare

This series *flare* CONTROL wins over customers with its universal application by combining all functions of a measurement relay in a single package, which makes planning and stocking easier. The phase monitoring device detects the failure of one or more phases, as well as an incorrect phase sequence.

ricos FLEX

ricos FLEX is a modular and very compact I/O system that distinguishes itself through very quick reaction time and easy installation. The variety of bus couplers enables easy integration, precisely in an international environment.

For robust use. Make your machine pluggable!

Connect quickly and without errors!

Heavy plug connectors are indispensable to machine building. Precisely where conditions are harsh,

the robust design plays a big role. Machines that are built in modular fashion, that must be flexible or that must be installed more than once are especially economical thanks to pluggable connection technology. Errors are avoided, even if the installation on-site cannot always be performed by a trained technician.

Catalogue **revos** – Industrial plug connectors **Order no. 0530.1**







revos® Basic

The extensive range of **revo**s industrial connectors opens up a whole new world of applications for system operators. With the industry constantly calling for shorter installation times, Wieland is now offering inserts with spring-cage connections and push-in technology in addition to its screw and crimping pliers inserts. What's more is that the contacts are available in tin, silver or even gold, allowing customers to select the best possible solutions for their applications.

revos® FLEX COMPACT

The new **revos** FLEX COMPACT is especially robust (up to IP69K) and flexible. EMC damping > 70dB (up to 100 MHz) keeps interference to a minimum. The module inserts can be installed without tools. The installation-friendly design produces time savings of more than 30%.

As a complete installation system in the highest protection class IP6X, the circular connector systems in the *RST*[®] series offer a significant reduction in installation times. With its completely pre-assembled components, which simply have to be reassembled in the required location. The various mechanical codes allow different circuits to be separated safely.

The *saris*[®] connector system enhances the Wieland Electric GmbH product portfolio further still as a major component in the field of automation technology. And together with all of its elements, the system makes it possible to wire not only small functional units, but also entire plants.





For additional technical details, please use our e-catalog online at:

https://eshop.wieland-electric.com

Catalog **RST**® – Pluggable Electrical Installation

Order no. 0690.1

Catalog **saris**® Sensor/actuator wiring

Order no. 0620.1







RST®

RST POWER – High-current connectors for large cross-sections, 4 and 5 pole design, 250/400 V, 50 A

RST CLASSIC – All-rounders with the most comprehensive portfolio, 2 to 5 pole design, 250/400 V, 20 – 32 A

RST MINI – Little connectors for extremely confined spaces, 2 to 5 pole design, 250/400 V, 16 A

saris®

The *saris*® M8/M12 connector system is the ideal solution for a fast and safe field installation in automation technology. Its valve connectors, assembled cables, and various distributor boxes are sure to optimize your sensor/actuator cabling.

Smart installation systems – Save time during planning and installation

Always remain nice and flexible

Time is money. You can save both with intelligent installation technology from Wieland. The requirements are simple: speed, safety, and flexibility.



podis®MOT

podis®MOT functional units can be connected directly to the energy bus and controlled via fieldbus for innovative, remote drive solutions.

podis®LED

podis® LED is the reliable lighting solution for use in industrial environments. With robust housing and protection to IP65, these maintenance-free and durable lights are especially suitable for illuminating working areas and routes in plant and machinery, both inside and out.

Precisely for difficult-to-plan installations, the flat-cable power bus has **podis**® proven itself. With the **podis**® power bus, installation is five times faster than with standard solutions. Start-up is fast and error-free. The connection can be made close to the consumer in any place, entirely without stripping the insulation.





Catalog **podis**®

Decentralized automation technology

Order no. 0830.1 Brochure *podis*®LED LED lights for use in

harsh environments

Order no. 0832.1







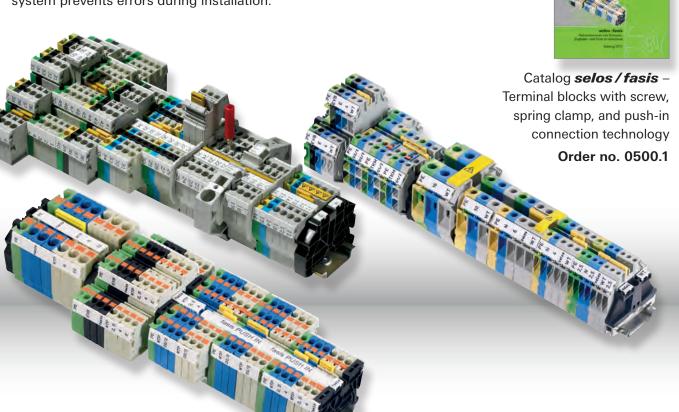
podis®CON

Decentralized energy distribution with **podis**®con offers maximum flexibility in setting the supply modules and energy shunts. To ensure that electrical installation of complex systems is simple and to keep them reliable in operation, the simulation software **podis®PLAN** assists from project design to commissioning.

The all-rounder *fasis* and *selos* – save logistical effort and space in the control cabinet

A line of accessories for three connection technologies

Our line of terminal blocks is the right choice for any installation task, regardless of whether with **screw**, **spring clamp** or **push-in** connection. As the inventor of the secure connection technology, Wieland offers all types. Regardless of which one you select, standardized accessories reduce the variety and a sophisticated labeling system prevents errors during installation.



fasis WTP

Terminal blocks with push-in connection – simply plug conductor in directly and without tools!

fasis WKFN

Terminal blocks in tension-spring technology – simple to handle, secure from vibration and maintenance-free.

selos

DIN rail terminals with screw connection: Secure connection, proven concept! Solid and functional, known around the world, and used millions of times over.

From idea to completed terminal block in 5 steps!



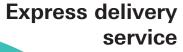
Ordered within 2 minutes delivered within 5 days

www.wieplan-click2buy.com



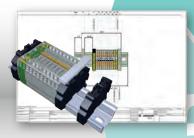
Immediate pricing

→ Online ordering service



→ in 5 workdays maximum

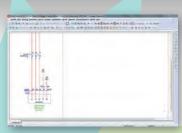




Documentation

→ Complete documentation, including 3-D data





Design in CAE system

→ Interface to wieplan



Product selection in wieplan

→ Simple, intuitive operation

Customized Solutions Concentrate on your strengths – we'll take care of the rest

FSC - Fast Signal Connection

The patented FSC system unites feedthrough and the distribution of signal lines in especially compact form. Intelligent electronics can be integrated directly. The pluggability to the inside and outside enables quick installation thanks to the nearly unlimited variety of coding nearly error-free.







Stop the chaos! A control cabinet no longer has to look like this.



Perfect pre-assembly

We will be glad to assemble the finished terminal strip. This reduces your installation time and eases complicated logistics.



Individual conductors attuned to your needs, combined with a wide variety of components, can be delivered project-specifically in all lengths.



We can also make the custom-tailored solution for your application pluggable, for quick and secure installation. Talk to us about the appropriate concept.



Wieland **Software** perfects your applications



samos® PLAN 6



Docufy Machine Safety



revos Configurator

Wieland offers specially-attuned software for easy operation and quick configuration and product selection for individual products.

• samos®PLAN 6

The programming tool for **samos**®PRO COMPACT assists designers and machine builders with the programming, diagnosis, and documentation of all safety functions on a machine.

• SISTEMA Library

The **SISTEMA** library of all Wieland Electric safety components, combined with the free software tool **SISTEMA** from the IFA (German Institute for Occupational Safety and Health), enables the calculation of safety variables according to EN ISO 1384901 of the safety-relevant functions of a machine.

• revos Configurator

Allows the selection of heavy plug connectors.

• podis® PLAN

With **podis**® PLAN you design your decentralized power bus optimally and check the important parameters.

• wieplan

Terminal blocks: Planning and labeling with system

• Docufy Machine Safety

can significantly reduce the effort and time required to create legally-compliant risk assessments



podis® PLAN



wieplan

Technical consultation and general information

Hotline - one call is all it takes

Industrial Automation – Electromechanical

Hotline +49 951 9324-991

E-Mail AT.TS@wieland-electric.com

Building and Installation Technology

Hotline +49 951 9324-996

E-Mail BIT.TS@wieland-electric.com

Industrial Automation – Electronics

Hotline +49 951 9324-995

E-Mail AT.TS@wieland-electric.com

Safety Technology

Hotline +49 951 9324-999

E-Mail safety@wieland-electric.com



General information and news:

www.wieland-electric.com

Visit our e-catalog at http://eshop.wieland-electric.com



wieland



USA & CANADA Wieland Electric Inc. North American Headquarters

2889 Brighton Road Oakville, Ontario L6H 6C9 Phone +1 905 8298414 Fax +1 905 829 413 www.wielandinc.com www.wieland-electric.ca



GREAT BRITAIN Wieland Electric Ltd.

Riverside Business Center, Walnut Tree Close GB Guildford/Surrey GU1 4UG Phone +44 1483 531213 Fax +44 1483 505029 sales.uk@wieland-electric.com www.wieland.co.uk



Wieland Electric S.r.l.

Via Edison, 209 I-20019 Settimo Milanese Phone +39 02 48 916357 Fax +39 02 48 920685 info.italy@wieland-electric.com www.wieland-electric.it



FRANCE Wieland Electric SARL.

Le Cérame, Hall 6 47, avenue des Genottes CS 48313,

95803 Cergy-Pontoise Cedex Phone +33 1 30320707 Fax +33 1 30320717 info.france@wieland-electric.com



SPAIN Wieland Electric S.L.

C/ Maria Auxiliadora 2, bajos E-08017 Barcelona Phone +34 93 2523820 Fax +34 93 2523825 ventas@wieland-electric.com

www.wieland-electric.es



SWITZERLAND Wieland Electric AG

Harzachstrasse 2b CH-8404 Winterthur Phone +41 52 2352100 Fax +41 52 2352119

Fax +41 52 2352119 info.swiss@wieland-electric.com www.wieland-electric.ch



BELGIUM & GD LUXEMBOURG ATEM-Wieland Electric NV

Bedrijvenpark De Veert 4 B-2830 Willebroek Phone +32 3 8661800 Fax +32 3 8661828 info.belgium@wieland-electric.com www.wieland-electric.be



DENMARK Wieland Electric A/S

Vallørækken 26 DK-4600 Køge Phone +45 70 266635 Fax +45 70 266637 sales.denmark@wieland-electric.com www.wieland-electric.dk



SWEDEN Wieland Electric AB

Krossverksgatan 9B 216 16 Limhamn Phone +46 40 652 90 00 sales.sweden@wieland-electric.com www.wieland-electric.se



Wieland Electric Sp. z o.o.

Św. Antoniego 8 62-080 Swadzim Phone +48 61 2225400 Fax +48 61 8407166 office@wieland-electric.pl www.wieland-electric.pl



Wieland Electric Trading

Unit 2703 International Soho City 889 Renmin Road, Huang Pu District PRC-Shanghai 200010 Phone +86 21 63555833 Fax +86 21 63550090 info-shanghai@wieland-electric.com www.wieland-electric.com



JAPAN Wieland Electric Co, Ltd.

Nisso No. 16 Bldg. 7F 3-8-8 Shin-Yokohama, Kohoku-ku Yokohama 222-0033 Phone +81 45 473 5085 Fax +81 45 470 5408 info-japan@wieland-electric.com



Headquarters Wieland Electric GmbH

Brennerstraße 10 – 14 96052 Bamberg, Germany Phone +49 951 9324-0 Fax +49 951 9324-198 info@wieland-electric.com www.wieland-electric.de Sales Partner:

You can reach us worldwide in more than 70 countries. Find the contact adress at: www.wieland-electric.com

Subject to technical modifications!

gesis[®], RST[®], GST[®], GST18[®], podis[®], samos[®] and saris[®] are registered trademarks of Wieland Electric GmbH

0415.1 S 06/17

contacts are green.