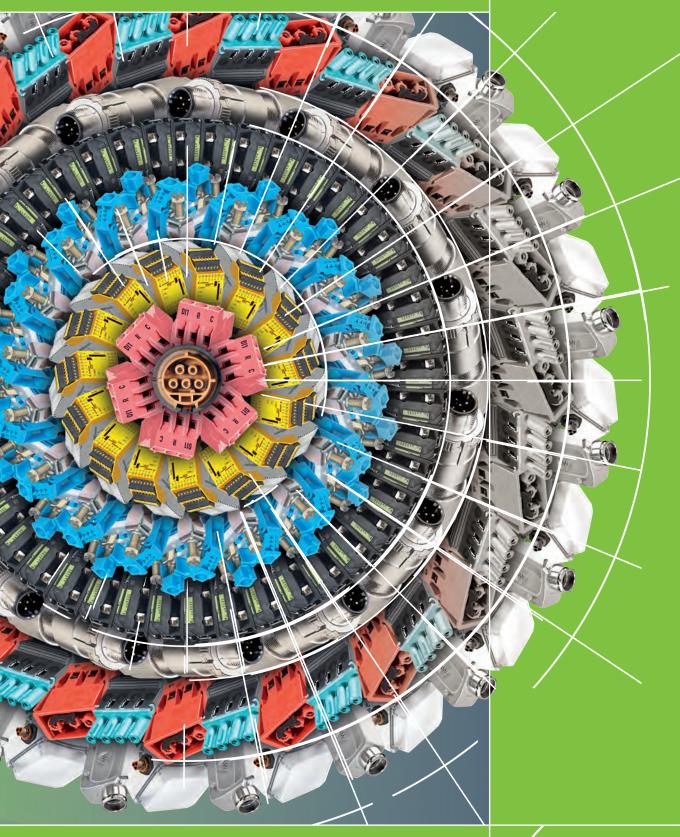
# wieland



### **Product range**

Solutions for industrial, building and installation technology









▲ Company headquarters in Bamberg



▲ STOCKO main plant in Wuppertal



# wieland group

#### AT HOME ALL OVER THE WORLD

Wieland Electric GmbH is a medium-sized family-run electrical and electronics company headquartered in Bamberg. Founded in 1910, Wieland is one of the pioneers of electrical connection technology.

This family business with its international outlook is a market leader in pluggable installation technology for functional buildings, with subsidiaries worldwide and production lines not only in Bamberg but also in the Czech Republic and China.

The Wieland Group, which has included STOCKO Contact GmbH & Co. KG since 1998, is therefore represented in over 70 countries and employs some 2,200 people.

Solutions for

- Building technology
- Wind power
- Machine building
- Lighting technology
- Heating, ventilation, air conditioning

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### Services, training, information.

### Optimal service does not stop with the product.

Our products go hand in hand with comprehensive services. Wieland Electric offers sets of solutions that are ideally adapted to the corresponding phases of your project and beyond.

#### Comprehensive service

Our automation and building installation products come with holistic solutions that relieve you of those steps in which you do not have special expertise. This reduces both complexity and costs. Alongside telephone advice and on-site support during planning and implementation, we provide a product labeling service, product pre-assembly and wiring on a top-hat rail, configuration of integrated solutions in distribution units, and so much more.

As a specialist of many years' standing in machine safety, our **safety** experts will support and advise you with the realization of machine safety requirements in accordance with EN 13849-1.

#### Interesting training programs

Seminars, workshops and training complete the range of services which Wieland Electric provides for the user. Whether you require seminars in functional machine and plant safety, seminars in optimal use of our planning software, or Certified Safety Engineer training, the focus is always on the best possible solution for the user and on expert advice. Our training programs are also customized and offered in-house.

#### **Software & information**

Our software tools will help you select the right products for your project. The integrated simulations ensure safe installation. The **revos** configurator offers the option of ordering your desired configuration directly using the integrated shopping cart. The Wieland eShop is a catalog and ordering interface in one. Numerous interactive configurators simplify product selection. You will also find the necessary technical data for all products.







#### **Training and development**

- Safety training
- CSE Certified Safety Engineer training in accordance with EN ISO 13849 in collaboration with SGS-TÜV Saar
- Workshops for our products
- Software training
- Individual training offers



#### **Comprehensive service**

- Customized pre-assembly
- Inspections and on-site support
- Programming support with samos®PLAN5+ and SISTEMA
- On-site safety-related function tests for your machines
- Building configuration
- Project planning support



#### **Software & information**

- wieplan configuration software for DIN rail terminal blocks
- **revos** PLAN product configurator with integrated ordering interface
- **podis**® PLAN configuration software for power bus configuration
- **gesis**® PLAN 3D planning tool for pluggable building installation
- **samos**® PLAN 5+ safety-related programming software
- Wie-Service24 remote maintenance portal on the internet for extremely easy and secure VPN remote maintenance
- e-Shop products with current delivery times, prices and technical data
- "Order tracking" overview of order status
- Hotline for technical questions





#### selos

**selos** – **New Generation** combines the advantages of the classic screw connection with those of modern connection technology, focusing on customer value and on increasing the efficiency of wiring and logistics.

#### **Features**

- Maintenance-free screw connection
- Double-row, pluggable bridging duct
- Multi-wire connection possible
- Wire can be connected with and without cable end sleeves



#### fasis WKFN

The DIN rail terminal blocks with tension spring technology: **fasis** WKFN s easy to operate, saves time and costs during wiring and reduces inventory costs, and guarantees vibration-proof and maintenance-free connections with high contact forces.

#### **Features**

- Optimal connection for flexible wires
- Vibration-resistant tension spring connection
- Double-row, pluggable bridging duct
- Easy handling



#### fasis WTP

Do you wish to terminate wires easily, directly and without tools? *fasis* WTP – these are DIN rail terminal blocks with **push-in**-connection. With an effective global concept, compact design and high-performance contact technology, *fasis* WTP minimizes the installation time and reduces inventory costs to a minimum.

#### **Features**

- Tool-free push-in connection
- Double-row, pluggable bridging duct
- Optimized portfolio fewer terminal blocks same functionality
- Integrated release lever



#### Accessories, software and service

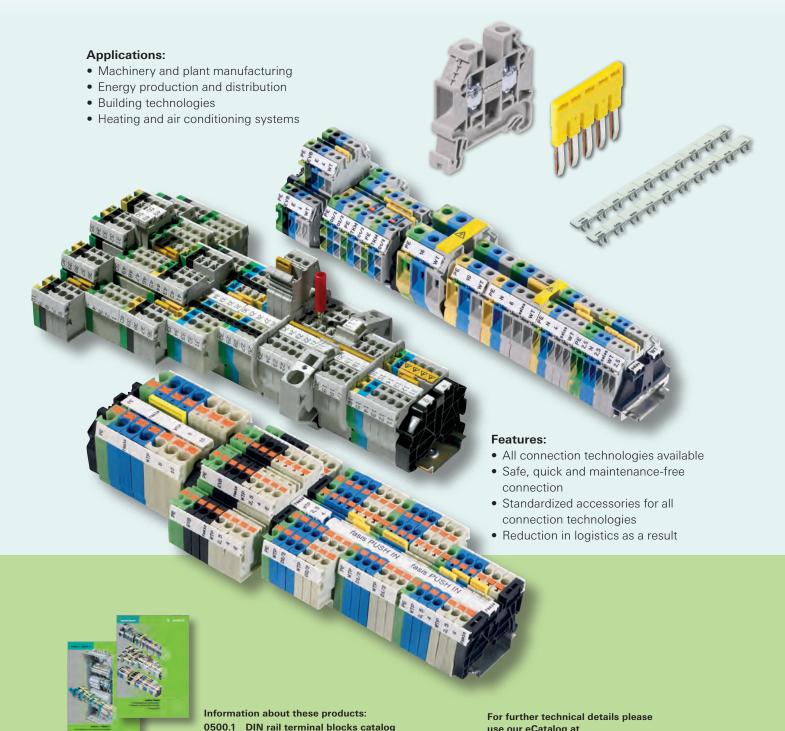
**selos**, **fasis** WTP and **fasis** WKFN have been adapted completely to the uniformly configured and universally usable Wieland accessories. Assembly service, customized solutions and a comprehensive service portfolio complement our products and enable an individual approach to our customers' needs.

- wieplan software support for (project) planning
- Customer-specific packaging
- The Wieland marking system: versatile possibilities and optimum handling
- The Wieland jumpering system universal and technically perfect

### Wieland DIN Rail Terminal Blocks – – One System – Many Possibilities

**3 product families, 3 connection technologies** – our DIN rail terminal block program is the right choice for every installation, wherever the control cabinet is found – in machinery or plant engineering, energy technology or building installation, or with **screw**, **tension spring-** or **push-in** connection.

The ultimately flexible DIN rail terminal block systems **selos** and **fasis** offer optimum handling and harmonized **accessories**. **Customized assembly service**, customer-specific solutions and a comprehensive service portfolio match our products individually with the requirements of our customers.



0510.0 Reihenklemmen für Installationsverteiler



#### sensor PRO, secure signal detection

A secure signal detection is a prerequisite for a reliable safety function. The position monitoring of doors and other movable installations can be performed in a contact-free as well as in a conventional mechanical manner – or even combined with a locking mechanism if required.

#### **Features**

- Emergency stop button with failsafe element
- High protection class (up to IP69k)
- Easy adjustment for increased availability
- Diverse types of operation enabling easy integration
- Locking mechanisms with protection against unintentional closing



#### safe RELAY, universal safety relays

The **safe** RELAY product group includes safe basic devices with and without time function and supplementary contact expansion relay – and thus covers the entire spectrum of important safety functions.

#### **Features**

- Increased device availability through Monoflop function
- Manifold certifications also prove suitability for tough conditions (TÜV, BG, cULus, CCC, GOST, EN81-1, EN 50156-1)
- Universal relay with diagnostic function for quicker availability
- Compact design and variable connection options



#### samos®, modular security system

Our parameterizable system **samos**<sup>®</sup> closes the gap between switching devices and freely programmable solutions – being modularly extendable.

#### **Features**

- Several functions in one module
- 2 modules replace up to 6 switching devices, saving space and costs
- Diagnosis by means of gateways at common fieldbuses
- Parameterizable without software



#### samos®PRO COMPACT, the next generation safety controller

With the highest power in the smallest space, the safety control **samos** PRO COMPACT sets new standards in the area of machine automation

- 24 safe in- and outputs on 45 mm construction width
- USB and Ethernet interfaces on board
- Modular extendability up to 172 secure in-/outputs
- License-free software tool with TÜV-certified function blocks

### Easy to Use.

### Safety is a Matter of Trust.

In the planning and design of modern installations and equipment, the safety of persons who later work with these machines is also to be considered.

Reliable and innovative solutions that additionally help to increase the productivity and availability of the equipment are crucial.

With the product groups **sensor** PRO, **safe** RELAY, **samos**® and **samos**® PRO, Wieland Electric offers safety-relevant components of the highest quality which can considerably contribute to safety in the manufacturing and operation of cutting-edge installations and machines.

#### Safety-relevant components

Depending on the complexity and the desired diagnosis, it is possible to select the right component – from a safety switching device to a small safety control system. For a simple calculation of the PL according to EN 13849-1, there is a SISTEMA library with all the components available.

#### Typical applications:

- Emergency stop and door switch monitoring
- Realization of non-contact safety installations and muting devices
- Two-hand operator control and press monitoring
- Standstill monitoring and motion monitoring
- Fast shut-off applications for extremely fast reaction times



#### **Greater safety and lower costs**

With samos PLAN5+ it is possible to maintain **samos**® PRO COMPACT remotely with no additional effort. Thanks to integrated online diagnostics and the system logbook, expensive maintenance can be avoided. The programmed safety functions can already be monitored on the PC. This saves time and money. This is made possible by the simulation function with integrated logic analyzer which also guarantees improved functional safety in later operation. Integration in industrial networks is simple. After all, industrial Ethernet or fieldbus protocols are very easy to use thanks to convenient support in the tool. Particularly convenient with **samos**®PLAN5+: The configurable documentation function allows the production of a report that conforms to guidelines at the touch of a



button.









Information about these products:
0860.1 safety
Safe system solutions for the automation technology or at http://eshop.wieland-electric.com



#### Reliable supply of control units

The dependability of the **wipos** power supply has a great influence over the availability of the machine or the process. And so a robust, proven power supply structure is extremely important. At the same time, the new series boast a very narrow overall width.

#### **Features**

- Durable in harsh environments
- Compact design (up to 50% smaller than comparable products)
- 120% power boost for 10 s
- Full output during 2-phase operation
- Wide voltage input
- Temperature range of -40 to +70 °C
- Lloyds Register Ship Certification ( )



#### Fieldbus system

The new I/O fieldbus system **ricos** offers a cohesive concept for the interchange of data between controller and field periphery. The modular I/O nodes are installed decentrally, close to the machine, and networked via the fieldbus. Diverse diagnostic functions permit a significant reduction in machine standstill times.

#### **Features and variants**

- Cost-efficiency through a highly-modular design
- Narrow module width of 12.9 mm
- Up to 64 modules can be connected to each bus coupler
- Maintenance-free connector clamps
- Very fast reaction time
- Individual channel inscription



#### Network and remote maintenance technology

Our Ethernet switches are part of the Ethernet physical layer – no matter whether on a copper or FO basis. Within automation technology, Ethernet connections are now the standard. The combination of VPN industrial routers (mobile radio or LAN-to-LAN) with the Wie-Service24 VPN Service Portal allows global and future-proof online remote maintenance.

#### **Features**

- Redundant power supply
- Fast Ethernet and Giga Ethernet
- GSM, GPRS, EDGE, HSPA, LTE
- VPN server and routers for a configuration as simple as possible



#### Protection against overvoltage

**wietap** systems are surge protection devices for voltage and signal interference; they protect electrical and electronic systems against high-power overvoltage (e.g. during a lightning strike).

- Discharge capacity of up to 100 kA, type 1 to 3
- Modules are pluggable, vibration-proof, and shock-proof in accordance with EN 60968-2
- Energetically coordinated for all network systems
- Function/fault display according to VDE 0100-534 for each path
- Fuse protection through follow current limitation

### Versatility for Every Application.

### Pure Power - Without Any Doubt.

### Signal conditioning for control and our connection technology

**interface** products from Wieland Electric reveal their unique strength ever time current flows and signals are processed. Through the wide range of relays, the components for power supply and the overvoltage protection units as well as the transfer and analog modules, your application will be a real all-rounder as well.

Set the signals with our *interface* technology.

#### Applications:

- In the control cabinet on the top-hat rail
- For coupling, supply and protection for the control unit

#### Features:

- Compact
- Wide temperature range
- Worldwide application possible







Information about these products:
0800.1 *interface*Solutions for the control cabinet or at http://eshop.wieland-electric.com





#### podis®MCU

The remote **podis**® MCU motor starters are supplied with power via **podis**® con and parameterized and controlled via AS-i.

#### **Features**

- Plug in load the parameters start
- Easy installation
- Quick commissioning
- Long service life
- Compact design



#### podis®MOT

The *podis*®MOT field distributors supply the remotely switched drives with power, and also connect them to the 24V auxiliary voltage and the fieldbus.

#### **Features**

- Pluggable field distributors for control of SEW Movimot/Moviswitch drives
- Compact field distributors in high protection class IP 65
- Ideal on-site diagnosis



#### podis®con

The **podis**® energy bus is the innovative solution for decentralized power distribution. The system includes fixed and pluggable power branches and active field components.

#### **Features**

- Quick and error-free installation
- Without stripping
- Branches can be added easily at any point
- 5+2-pole flat cable for distribution of 400 V, auxiliary energy or AS-i
- Modular, attachable function modules
- Robust design in high protection class IP 65



#### podis®LED

The **podis**®LED luminaires are the ideal lighting components for machines and industrial plants. A high protection class makes them particularly suitable for outdoor lighting.

- Robust housing
- Wide operating temperature range
- Even illumination, optimized light distribution, anti-glare and flicker-free
- Long service life
- High protection class

### Remote Automation Technology.

### Fast and Highly Available System.

**podis**® is a modular power bus system for decentralized power distribution which simplifies

- planning and configuration
- procurement and materials management
- installation and
- maintenance

of power distribution systems.

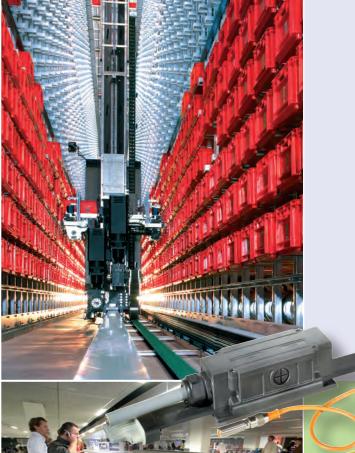
#### **Application:**

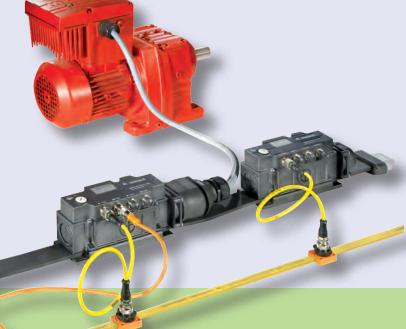
- Airport logistics
- Automotive production and logistics
- Intralogistics
- Wind turbines
- Functional buildings

Energy and auxiliary power or the AS interface bus signal are distributed in the field via a 5+2-pole flat cable. Compact remote motor starters, fieldbus interfaces or I/O modules can be connected in an easy and error-free manner close to the consumers without stripping at any point desired by means of insulation-piercing termination.

Make use of the possibilities of the innovative **podis**® system. **podis**® energy bus solutions shorten the installation times, reduce the project costs, and increase the flexibility for system extensions or later reconstructions.

- lexible, modular system
- Easy to engineer
- Quick and error-free installation
- · Reduced wiring
- Reduced complexity
- High plant availability











#### revos Basic / Power

#### The classic industrial multipole connector

Reliable protection is provided by the housing made from die-cast aluminum with a powder-coated surface. The contact inserts are available in 6 to 92-pole designs for up to 100 A.

#### **Features**

- Robust aluminum housing, also available as a corrosion-resistant variant
- Contact inserts available with various connection techniques
- Protection class IP 65, IP 69 K
- Mechanical coding options



#### revos FLEX

#### Modular connector system

For mixed equipping of connectors to suit the application – contact inserts. Suitable for *revos* BASIC die-cast aluminium housing.

#### **Features**

- Application-related configuration
- Mixed equipping of signal and power modules in a contact insert
- Connection of FO conductors and pneumatic hoses
- Modules for several bus systems available
- Mechanical coding options



#### **revos** HD

#### Robust multipole connector

Acc. to DIN EN 17 5301-801 with up to 64 poles and designed for 10 A rated voltage. The housing consists of die-cast aluminium with a powder-coated surface.

#### **Features**

- Compact multipole connector
- Protection class IP65
- Screw and crimp connection systems



#### revos MINI

#### The robust and small connector

In metal or plastic housing. Contact inserts are available with 3 to 12 poles with a rated voltage of up to 690 V.

- Compact and robust connector
- Protection class IP65
- Screw and crimp connection systems

### Combined Models for Industrial Use.

### revos Reliably Connects.

Heavy industrial multipole connectors are designed especially for use in particularly harsh environments. A diversified standard program as well as modular components that can be combined individually are available. Heavy connectors for any application at or inside control cabinets realize the coupling of electrical, pneumatic and FO systems in machinery and plant manufacturing.

Through clear assignments for wiring, the service-friendly features for maintenance and the individual labeling options, you will always maintain a good overview.

**revos** heavy industrial multipole connectors simplify and speed up the electrical installation of machines and systems all over the world.

#### Application:

- Mechanical engineering / conveyor technology
- Construction machinery
- Special vehicle manufacturing



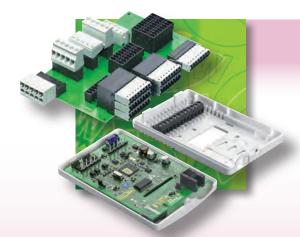
#### Features:

- Globally available
- Approved according to international standards
- Easy handling
- Robust, secure, easy to service



Information about these products:
0530.1 *revos*Industrial Multipole Connectors
or at http://eshop.wieland-electric.com





#### PCB connectors and pluggable PC board terminals

**PCB connectors** make the device more service-friendly during wire connection and device replacement. The free selection of connection technology offers you solutions for the most diverse applications.

**Pluggable PCB terminals** are used especially in building technology as well as in air conditioning systems. Their compact design offers the additional advantage of pluggability.

#### **Features**

- Pitch 3.5 7.62 or 3.5 / 5 / 7.5 mm
- Compact and pluggable
- THR material pinstrips
- Customized printing
- Snap-in variants

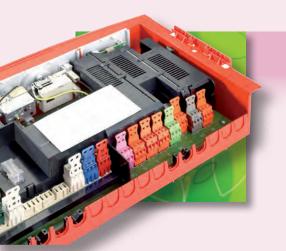


#### PC board terminals, screw connection

Secure connection, high quality, economic solution! The simple wire connection is available in manifold variants and impresses with its high contact performance. Wieland offers a wide range of products.

#### **Features**

- Pitch 3.5 10.16
- Screw connection with clamping yoke
- Good marking possibilities
- High quality



#### RAST 5, series 8105 B and FU

The 8105 series from Wieland offers a wide variety of codings, colors and markings and represents the quality benchmark on the market. The available materials satisfy standard requirements as well as those of EN 60335-1.

#### **Features**

- Wide range of variants
- High quality
- Fix coding



#### wiecon FSC Fast Signal Connection, pluggable

The FSC system will save you time and space for signal wiring in the control cabinet. This fully pluggable system can be adapted individually to customer needs through the integrated signal distribution with and without electronics. Cable glands are superfluous. Coding prevents any mismating.

- Quick installation
- Safe thanks to codability
- Customized

### PC Board Connector Technology.

### Reliable Connections for Your Electronic System.

PC board terminals and pluggable connectors from Wieland are used in device connection for measurement, control and regulation technology in the most diverse fields of application. Industrial requirements of mechanical engineering and process technology are complied with in the same extent as the requirements in the field of building technology as well as in heating and air conditioning systems. Highquality materials and surfaces are the basis for this; a gas-proof connection technology with low contact resistances guarantees low performance losses and a secure connection of electrical conductors. The product range from Wieland offers a variety of products in the pitches of 3.5 mm - 10.16 mm, in metric pitches as well as in inch pitches. Owing to voltages of up to 600 V acc. to IEC (UL/CSA 300 V), currents of up to 57 A acc. to IEC (UL/CSA 30 A) and a connection capacity of up to 10 mm<sup>2</sup> (AWG 8), Wieland provides solutions for a wide range of applications.

#### Application:

- Machine building
- Process technology
- Building technology
- Heating and air conditioning systems

#### Features:

- Several connection technologies, also available in pluggable versions
- Shock and vibration resistant
- Integrated test function



Information about these products:
0550.1 wiecon
Printed Circuit Board Terminals
or at http://eshop.wieland-electric.com



#### Pre-assembled cables M8/M12

The pre-assembled cables with molded M8 and M12 connectors offer the ideal solution for passive field installation. The large number of possible head combinations offers an almost boundless variety of installation topologies.

#### **Features**

- Simple and intuitive operation
- Tested and certified products
- Quick and safe thanks to pre-assembled components
- High drag chain suitability and oil resistance of cables



#### Pre-assembled cables with valve connectors

Pre-assembled valve connectors are available in all models. The robust design guarantees enduring usability.

#### **Features**

- In models A, AD, B, BI, C and CI
- Captive seal and fixation screw
- With integrated labeling strip
- With printed circuit diagram



#### Field-wireable connectors M8/M12

The M8/M12 connectors are also available for field assembly. Cables can be connected quickly and safely with IDC termination.

#### **Features**

- Mechanical coding eliminates mismating
- High IP65/67 protective class for use in rough conditions
- Quick and safe connection thanks to reliable IDC termination technology, now also for shielded cables



#### saris® M8/M12 distributors

The distributor of the M8/M12 field installation program makes decentralized installation child's play. The installation effort is significantly reduced by replacing cables laid in parallel with just one single main cable.

- Decentralized field installation
- Defined and standardized interfaces
- Quick and safe installation thanks to pre-assembled components
- With main cable, M12/M16 connection, also available with a connection that can be assembled

## The saris® connector system.

### Pluggable flexibility.

The M8/M12 connector system **saris**® adds a major component of automation technology to the product portfolio. Thanks to the large number of basic components, virtually any installation topology is possible.

The standardized components of **saris**® make it just as suitable for wiring small functional units as it is for installing entire systems. For decentralized field installation between a PLC and sensors or actuators, the **saris**® line is the ideal solution. Especially in automation applications, the machinery industry, the packaging industry as well as warehousing and logistics.

The standardized connector interfaces assure the ability to purchase and use worldwide and over the long term. In combination with the wide variety of components **saris**® provides a very flexible, timesaving and thus economically interesting system.

The comprehensive product portfolio includes passive M8 and M12 distributor boxes, pre-assembled cables with M8/M12 and valve connectors, as well as self-assembly connectors.

The *saris*® connector system is also very robust. The high IP 65/67 protection class for the components also enables use in dusty and damp industrial environments with possible mechanical pollution. All standard cables also feature high drag chain suitability and good oil resistance.

Despite this extensive product range, it is not always possible to satisfy customer requirements with standard products. That is why Wieland Electric offers custom solutions for customers with special requests.

#### **Applications:**

- Automation technology
- Machine building
- Packaging
- Warehousing and logistics

#### Features:

- Decentralized and flexible installation due to countless varieties of distributors
- Trouble-free signal transmission due to shielded cables
- Reduction in installation effort thanks to the pluggable and standardized installation method
- High drag chain suitability and oil resistance of standard cables
- High IP65/67 protection class enables use in dusty and damp industrial environments







Information about these products:

0620.1 saris®
Sensor/actor wiring,
M8 / M12 and valve connectors
or at http://eshop.wieland-electric.com



#### **RST® MINI**

#### Little connectors for extremely confined spaces

2 to 5-pole design, 250 / 400 V, 16 A

Product lines: RST16i 2-5

#### **Features**

- Diameter < 25 mm (4 and 5-pole)
- Diameter < 20 mm (2 and 3-pole)
- TWISTLOCK lock



#### **RST® CLASSIC**

#### All-rounders with the most comprehensive portfolio

2 to 5-pole design, 250 / 400V, 20 – 32 A

Product lines: RST20i 2-5 and RST25i 3 and 5

#### **Features**

- Cross sections of up to 6.0 mm<sup>2</sup>
- Spring, screw and crimp technology
- M16 25 device connectors



#### **RST® Power**

#### High-current connectors for large cross-sections

4 and 5-pole design, 250 / 400 V, 50 A

Product lines: RST50i 4-5

#### **Features**

- Cross sections of up to 16 mm<sup>2</sup>
- Compact design
- M32 device connectors



### RST® compact and multiple distribution unit

#### Flexibility according to RST modularity

The project-specific distributors enable an efficient field installation. Alongside optional equipping with RST series connectors or Schuko connectors and switches, they can also support electronic modules.

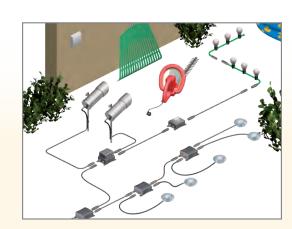
- Two distributor sizes with up to 8 slots
- Tested and ready for connection
- Practical and appealing design

### Overview of the RST® product family.

### Pluggable in many dimensions.

The RST installation connectors in protection classes IP65/66/68(3m; 2h)/ IP69K are geared systematically toward the needs of the market and present themselves as a complete electrical installation system. A choice can be made between the series RST MINI, RST CLASSIC and RST POWER to suit requirements. The RST distribution boxes complete the system and supply the best possible solution for project business.

All installation connectors have one thing in common: They are innately fitter-friendly and adhere strictly to the system philosophy. Complex installations can be built flexibly, and consumers can simply be plugged into the installation. Mechanical codings within the product lines ensure a clear distinction between different circuits. This practically rules out incorrect connections.



#### Fields of application:

- Technical lighting
- Decorative lighting
- Event equipment
- Machinery and plant manufacturing
- Construction site power systems
- Shipbuilding
- Solar technology

#### Features:

- Protection class IP65 to IP68 and IP69K
- Mechanically coded + color-coded connections
- Wire cross-section of up to 16.0 mm<sup>2</sup> and 50 A
- Distribution boxes with individual wiring
- Reduction in installation time and costs





Information about these products:

0690.1 *gesis*°RST°

Pluggable electrical installation in highest protection (IP6X)

or at http://eshop.wieland-electric.com



#### gesis®con

Over 40 years ago, one idea changed electrical installation. These days, this idea is a standard. Functional buildings are easily, quickly and safely installed with the 4 basic pluggable components: connectors, device connectors, pre-assembled cables and distribution blocks.

#### **Features**

- Prefabricated components can be plugged in easily in a time-saving manner
- Color and mechanical codings for a variety of applications
- Numerous components for a complete installation
- Many partners fit their products in the factory with GST18®

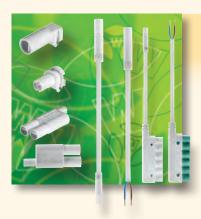


#### gesis®mini

The little brother. Miniaturization is found in electrical installation as well. **gesis**®MINI is up to a third smaller than **gesis**®con for comparable technical data and has a similar range of functions.

#### **Features**

- Complete and compact installation connector system with tiny dimensions
- The coding concept is similar to GST18<sup>®</sup>.
- Universally integrated locks simplify handling and make the connection safe and durable.



#### gesis®MICRO

Ever smaller consumers such as LED luminaires are used behind the fixed installation. These have reduced electricity requirements and/or smaller cable cross-sections. Here **gesis®** MICRO is the ideal addition to the **gesis®** family which also makes this area of the electrical installation pluggable.

#### **Features**

- Connectors and cables are easy to install through drilled holes.
- An outer diameter of only 7.5 mm for confined spaces, e.g. on shelves or behind furniture
- Codings for 250 V and low-voltage applications



#### gesis®BSt

BST14 is the pluggable standard for building automation with KNX and the extension of the *gesis*® idea to this area of electrical installation.

- Standardized KNX-listed connector interface
- All components for a complete, pluggable installation

# Facility Management – Simply Plug It. And the Building Installation Is Perfect

**gesis®** – one name, one idea, an inimitable story of success! With its pluggable electrical installation technology, Wieland Electric has been setting new standards for 40 years. No wonder, since 70% less time and 30% lower costs continue to speak for themselves.

The benefits of the plug-and-play principle are apparent everywhere: No more cutting to length, stripping and threading into terminals: **gesis**® system components are industrially pre-assembled and tested. Everything fits perfectly and only needs to be plugged together on site. **gesis**® is the standard for a safe and error-free installation.

The *gesis*® system includes connectors with preassembled cables and distribution blocks, radio-controlled switchgears, devices for remote building automation and pluggable distribution boxes for modern facility management, cables and flat cables as well as low-voltage systems.

**gesis**® con is the ingenious principle for building installation technology – in high-rise buildings just as in family homes, and from the basement to the roof. The unique variety of over 5,000 components offers solutions for any kind of electrical installation. A figure of over 5 billion installed contacts to date speaks for itself.

# Applications: • Building installation • Building automation • Lighting technology • Store and exhibition

Store and exhibition stand construction

• Furniture construction









- Safe due to color and mechanical coding
- Quick due to pluggable prefabricated components
- Suitable for confined spaces
- Comprehensive, coordinated product range





Information about these products:
0670.1 *gesis*\* Pluggable electrical installation for indoors or at http://eshop.wieland-electric.com



#### gesis®KNX - Building automation with KNX

Building automation using KNX has long been established as the worldwide standard for automating heating, lighting, sunblinds, ventilation and other building functions. Products of various manufacturers cooperate under the same roof without a problem.

#### **Features**

- Bus system standardized worldwide
- Different product ranges for decentralized installation
- Ideal for pluggable electrical installations



#### gesis®FLEX - The future of room automation

Future-proof building automation systems rely on standards. KNX has been established for many years, and it is standardized worldwide and proven in numerous applications. In parallel with this, the pluggable electrical installation with *gesis*® from Wieland Electric has been used successfully for the last 40 years and more. The combined advantages of both these tried and tested systems can be found in the modular room automation *gesis*® FLEX. *gesis*® FLEX prepares any building perfectly for the future.

#### **Features**

- Modular, the device arrangement defines the function
- Compact, the design has been optimized for decentralized installation
- Pluggable, enables quick and error-free installation



#### gesis®RC - Building automation with radio technology

Wireless is "in". Radio technology is becoming increasingly important in modern building automation. The system can be operated independently. However, more often than not the wireless sensors are coupled to the automation technology with gateways. **gesis**® ELECTRONIC from Wieland Electric offers both on the basis of battery-free EnOcean technology.

#### **Features**

- Wireless sensors without batteries
- Simple and unambiguous programming
- Stand-alone or as one element in building automation
- Integrated into building automation via gateway



### gesis®RAN – Pluggable distribution box for decentralized installation

The pluggable **gesis**®RAN distribution boxes help to integrate even comprehensive customized room automation components into the electrical installation system. All functions required are concentrated in one single compact distribution box.

#### **Features and variants**

- Customer-specific size and configuration
- Optimized for decentralized installation
- Deliveries are 100% inspected and fully documented

### Smart Installation via Plug & Play.

### Intelligent Distributed Modules.

Use the quickness and flexibility of **gesis** of for intelligent building automation as well – with the radio technology of the **gesis** RC series, with **gesis** KNX components or with pluggable conventional components, such as presence detectors, everything is possible.

Modern facility management can no longer do without intelligent building automation. The demands on automation systems are high. Usage requirements change, furniture and lighting equipment can be moved around, and the installation architecture and its functions must be able to adapt quickly in order to keep pace.

The *gesis*®RAN distribution boxes are individually planned, manufactured and functionally tested according to the customer's requirements. All that is left to do on the construction site is to mount them. Each slot is assigned its own very specific function. Mismating is excluded due to the mechanical coding. The different color markings of the plug connections as well as a circuit diagram also ensure an efficient and error-free installation.

With *gesis®*RAN complex functions in building technology can be disentangled and thus implemented in a clear manner. Compared to central building technology it also considerably reduces the amount of cables.



#### **Applications:**

- Room automation / building automation
- Lighting, sunblinds and room temperature control
- Installation in functional buildings such as offices, schools, administrative buildings

#### Features:

- Flexible, modular device series
- Easy to engineer
- Quick and error-free installation
- Reduced need for cables
- Future-proof due to the use of standards KNX/EnOcean/ DALI/SMI

Information about these products: 0700.1 *gesis*®ELECTRONIC

Dezentralized building installation via plug&play or at http://eshop.wieland-electric.com



#### gesis® Black Box and gesis® Grey Box

The Black Box has been developed for smaller, pluggable power distribution functions or pre-assembled, pluggable switching functions. It can be used, for example, to distribute three-phase mains with dynamic phasing in the building in a pluggable manner or to realize alternate switching fully pre-wired. If the 8 connections of the Black Box are no longer enough, the Grey Box is used, offering up to 12 connections.

#### **Features**

- Small to medium-sized pluggable power distribution and switching functions
- Very flexible, flat design, up to 12 slots
- Equip as needed with male or female connector components 3, 4 and 5-pole
- Wiring inside as required for the application



#### gesis®RAN - Distribution box for decentralized installation

For all other applications **gesis**®RAN sheet metal distribution boxes with variable dimensions are used. The **gesis®RAN** are individually planned, manufactured and functionally tested according to the customer's requirements. All that is left to do on the construction site is to mount them. Each slot is assigned its own very specific function. Mismating is excluded due to the mechanical coding.

#### **Features**

- Dimensions and equipping as required by the customer
- Individual attachment options for a huge variety of installation spaces
- Customer-specific labeling of all inputs and outputs



#### gesis®RAN distribution box for decentralized automation

Decentralized fuses and components for room automation can also be installed in the *gesis*®RAN. The desired components are specified, assembled and pre-wired in close coordination with the customer. The distribution box is also available with a variety of different connection technologies.

#### **Features**

- Customer-specific specifications for built-in units
- Project-specific optimization of dimensions
- Individual testing in accordance with customer specifications



#### gesis®RAN distribution box for IP-protected areas

The combination of IP-protected housing with the RST connector system offers the option of using all the advantages of a **gesis®RAN** in areas that demand a higher protection class as well. For example, it can also be used in underground parking lots or outdoors.

- Protection class up to IP69K
- Various housing forms to suit your application
- Unused inputs and outputs can be closed with IP protection.

# Intelligent Distribution with gesis®RAN.

### Decentralized Distribution Boxes for Buildings.

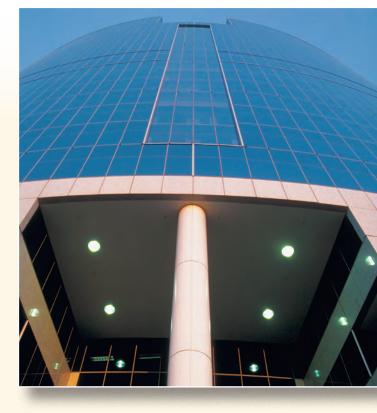
Intelligent and decentralized *smart* installation systems are becoming increasingly important in building equipment. They have to offer maximum flexibility in the planning, construction and usage phases, yet be easy to handle and quick to install.

The **gesis®**RAN system provides crucial time and cost advantages compared with traditional building installation. The pre-assembled, pluggable **gesis®** cables connect the building technology sensors and consumers with the integrated, modular components of the building automation without any problem. You are free to choose the automation system and to adapt it to suit the requirements of your project perfectly.

We will help you with every phase and provide you with specialist support as your partner.

#### **Applications:**

- Energy distribution
- Protection
- Room automation
- Climate control
- Decentralized installation in ...
  - ... office buildings
  - ... hotels
  - ... hospitals
  - ... schools



- Decentralized and flexible solution
- Routinely tested distribution boxes
- Project-related design
- Optimization support
- Flexible degree of prefabrication
- Various connection technologies
- Miscellaneous attachment options





#### gesis®NRG BASIC and gesis®NRG DIMM

The flexible busbar of the **gesis**®NRG BASIC and **gesis**®NRG DIMM systems makes it even easier to distribute power. The pluggable outputs of the system are mounted easily without cutting or stripping the flat cable and connected with piercing screws. **gesis**®NRG BASIC is used for conventional 1 or 3-phase power distribution and **gesis**®NRG DIMM for installing dimmable lighting, e.g. with DALI.

#### **Features**

- The busbar, which can be laid simply and flexibly around corners
- Variable phase selection
- 2 wire cross-sections in a cable geometry (2.5 mm<sup>2</sup> and 4 mm<sup>2</sup>)



#### gesis®NRG 10 mm<sup>2</sup> and 16 mm<sup>2</sup>

Large wire cross-sections are indispensable for decentralized power distribution. Here, too, the same advantages of installation with flat cables apply. Outputs can be added at any time without major intervention in the installation.

#### **Features**

- Able to tolerate high currents with 10 or 16 mm²
- Energy-saving three-phase cabling up to just before the consumers which are then supplied decentrally via system components



#### gesis®PLAN configuration software

Wieland Electric offers the **gesis**®PLAN software for planning pluggable electrical installations with **gesis**®. The planning tool uses CAD building data to generate installation drafts as well as parts and price lists

#### **Features and variants**

- Creation of realistic 3D animations
- Calculation of voltage drop and current load
- Assistance in the selection of components
- Generation of parts list

### Wherever Energy Is Needed.

### Flexible Contacting Without Interruption!

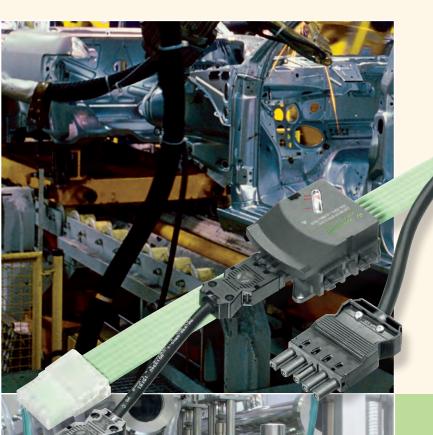
The flexible busbar <code>gesis</code>\*NRG functions as a central supply cable for efficient installations. Contacts are made by means of insulation-piercing connection technology using V screws and are possible in any position along the main line. This means that transfer to the desired <code>gesis</code>\* product line is achieved without having to cut the cable.

The advantage is its flexibility: Unlike rigid busbars, the flat cable can be installed conveniently in cable ducts and adapts optimally to the structural conditions on site. Once inserted, the branches can be set exactly where they are needed – without line interruption.

Thanks to the different flat cable options with various pole counts and cross-sections, you can plan your application individually. From the 2-pole, shielded bus/ signal flat cable for SELV voltages, the 5-pole flat cables with 2.5 mm² and 4 mm² for decentralized circuit distribution, the 7-pole combined bus/signal cables (SELV) and the mains flat cables to the 5-pole flat cables with 10 mm² or 16 mm² for decentralized energy distribution, the system is perfectly capable of meeting requirements in the building. Installation is quick and easy.

#### **Applications:**

- Building installation
- Decentralized energy supply



#### Features:

- Feed-in up to 16 mm<sup>2</sup>
- 2-pole, 1.5 mm<sup>2</sup>
- 5-pole, 2.5 mm², 4 mm², 10 mm² and 16 mm²
- 7-pole, 5x2.5 mm<sup>2</sup> + 2x1.5 mm<sup>2</sup>
- Up to 63 A, 250/400 V
- Insulation-piercing connection



Information about these products:

0670.1 *gesis*° Pluggable electrical installation for indoors

or at http://eshop.wieland-electric.com

### Technical consultation and general information

#### Hotline - one call is all it takes

#### Industrial Automation -Electromechanical

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

#### **Building and Installation Technology**

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#### General information and news:

www.wieland-electric.com

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





#### **Product portfolio**

- Electronic and electrical engineering for the control cabinet
- Safety technology
- Network and field bus systems
- Energy bus systems for industry and buildings
- Connectors up to protection type IP6X
- Building automation
- PCB terminals and plug connectors
- · Sensor/actuator cabling



#### **Industries**

- Machine building
- Construction machines & cranes
- Buildings and lighting
- Logistics
- Power engineering
- Renewable energy sources
- Heating, ventilation and air conditioning systems



#### **Business services**

- Pre-assembly and wiring
- Product labeling service
- Integrated solutions inside distributors
- Customized solutions
- On-site project support
- Optimization of decentralized, pluggable installation solutions
- Certified machine safety tests



#### Safety training

- Software validation
- CSE certified safety engineers
- Basics and standards of functional safety
- Modification of old machines and major changes
- Design of safety functions and calculation with Sistema
- Machinery Directive, liability issues and CE conformity explanations



#### Software/configuration tools

- wiemarc, labeling of terminal strips
- **wieplan**, configuration of terminal strips
- **revos** configurator for connectors
- **gesis**®PLAN for building installation
- **podis**®PLAN for configuring the **podis**® energy bus system
- samos®PLAN5+, programming tool for samos®PRO COMPACT



#### Why Wieland?

- Standardized industrial solutions
- Customized solutions
- Support for your project
- Broad product portfolio
- Application worldwide due to international licenses
- Group-wide observance of human rights, including at suppliers
- Eco-friendly production











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#### Sales Partner:

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

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# contacts are green.