

Global Compact Report
Wieland Division
Environmental
Statement

Bamberg and Sokolov locations

Corporate Sustainability 2014









▲ Company headquarters in Bamberg



▲ Exterior view of plant II



automationbuildingelectronics

wieland group

ACTIVE WORLDWIDE

The Wieland Group employs more than 2,000 people all around the globe. With currently 15 locations and subsidiaries, and sales partners in more than 70 countries, the Wieland Holding is present in nearly all important key markets worldwide.

Always with a clear commitment to the German location where most of the products are still manufactured.

The group makes us strong

The Wieland Holding is based in Bamberg, Bavaria, and comprises two independently acting subsidiaries: Wieland Electric and STOCKO Contact.

Groundbreaking innovations made Wieland Electric one of the leading suppliers of electrical connection technology. This company, founded in Bamberg in 1910, is the largest subsidiary of the Wieland Holding.

STOCKO Contact is based in Wuppertal and joined the Wieland Group in 2001. Stocko has also more than 100 years of company history to its credit and is one of the greatest manufacturers of connector systems and crimp contacts.

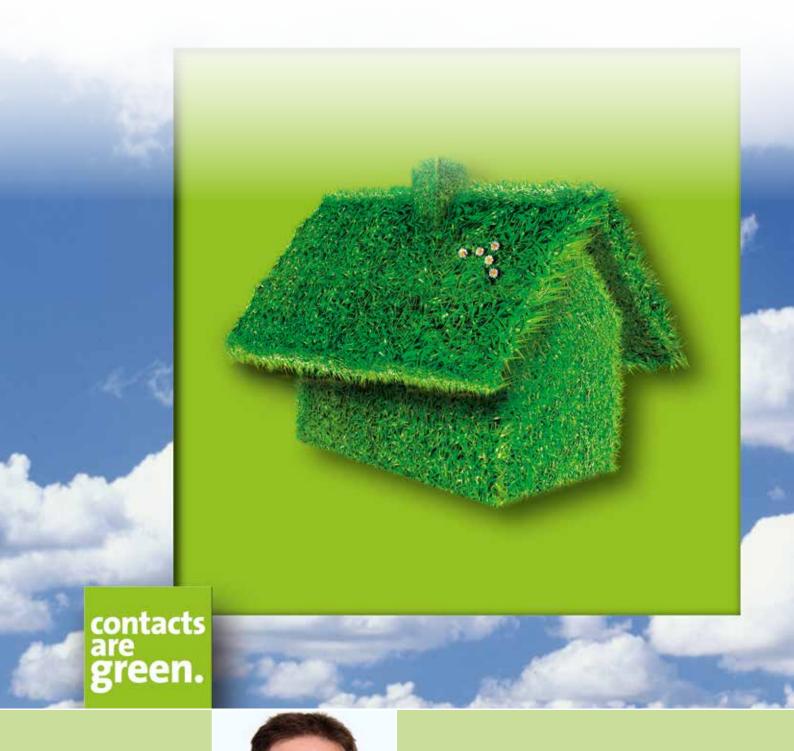


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Global Compact at Wieland







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Statement of support

from the Board

Wieland Electric GmbH celebrated its centenary in 2010. From its early beginnings right up to now as a medium-sized global player, the company has held true to the Wieland commercial principle of providing customers with safe and innovative products for building installation and industrial automation.

Alongside the achievement of economic objectives, a responsible approach to people and the environment is an ever-present within the company philosophy. As a company that operates worldwide, we acknowledge our ecological and social responsibilities. The introduction of an environmental management system according to ISO 14001 and EMAS back in 1997 and its ongoing improvement underline the high level of importance we attach to these endeavors.

We base our actions on the environmental policy developed and published by the management and on the manner in which it is implemented in all areas of the company. The selection of ecologically harmless raw materials, the planning and introduction of energy-saving and environmentally friendly production processes, and the recyclability of our products are the result of these efforts.

We firmly believe that the working conditions, training opportunities, and motivation of our staff contribute decisively to the company's success and help to secure its future.

This belief is reflected in both our training concept and our support for numerous community projects and social institutions. As a clear sign of our conviction, we joined the United Nations Global Compact back in 2008 and support the **ten principles** of this initiative in our entrepreneurial activities:

- We support and respect the protection of internationally proclaimed human rights in our sphere of influence.
- 2. We make sure that our company is not complicit in human rights abuse.
- We uphold the freedom of association and the effective recognition of the right to collective bargaining.
- **4.** We are committed to the elimination of all forms of forced and compulsory labor.
- **5.** We are dedicated to the effective abolition of child labor.
- **6.** We stand up for the elimination of discrimination in respect of employment and occupation.
- **7.** We support a precautionary approach to environmental challenges.
- **8.** Within our operations we undertake initiatives to promote greater environmental responsibility.
- **9.** We encourage the development and diffusion of environmentally friendly technologies.
- **10.** We work against corruption in all its forms, including extortion and bribery.

This progress report represents the first time we have collated all our activities in relation to our corporate social responsibility in one report. We have prepared this report for our shareholders, customers, employees, and interested members of the general public as a way of transparently setting out the correlations between the principles of the Global Compact, our company guidelines and the resulting objectives, projects, and activities.



Managing Directors

■ Dr. Oliver Eitrich

Dr. Ulrich Schaarschmidt >



The Wieland Group

A winning structure

Wieland Group

Wieland Division

Wieland Electric GmbH

Sales Center

Development

Plastics production

Metal production

Electro-plating

Assembly

Cable assembly

Electronics production

Technical training center

Wieland Electric International

Wieland Electric Inc. Oakville, Ontario, Canada

Wieland Electric Ltd. Guildford/Surrey, U.K.

Wieland Electric SARL. Cergy-Pontoise Cedex, France

Wieland Electric S.r.l. Settimo Milanese, Italy

Wieland Electric S.L. Barcelona, Spain

Wieland Electric Sp. Zo.o. Swadzim, Poland

ATEM-Wieland Electric NV Willebroek, Belgium

Wieland Electric A/S Køge, Denmark

Wieland Electric AG Winterthur, Switzerland

Wieland Electric Trading Soho City, Shanghai, China

Wieland Electric Co, Ltd. Yokohama, Japan Wieland Electric GmbH VMC (Sales Center)

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Wieland Holding GmbH Wieland Electric GmbH Plant I

Brennerstraße 10–14 D-96052 Bamberg Phone: +49 951 9324-0 Fax: +49 951 9324-198



Wieland Electric GmbH Plant II

Rodezstraße 10 D-96052 Bamberg

Wieland Electric GmbH Plant III

Neuerbstraße 13 D-96052 Bamberg





Wieland Electric s.r.o. ▶ Production

Nádražní 1557 356 01 Sokolov Czech Republic





Established in industries

Control cabinet engineering, industrial automation, building system technology – our large product portfolio provides solutions for all kinds of applications.

From innovative interface and network technology to terminal blocks to "safety first" – with modular system solutions and safety components. With Wieland products in your control cabinet, you are always on the safe side.

Energy bus systems for distributed automation or indoor and outdoor field-

bus components – Wieland technology can be found everywhere, and in all kinds of applications.

In building system technology, Wieland Electric is the world market leader in pluggable eletrical installation.

There are good reasons why our system solutions can be found in the most spectacular building projects worldwide. When it comes to electronic networking, Wieland leads the way to the "intelligent house".

Welcome Future

Wieland Electric is 100 years young, and full of innovative energy. And our commitment for the future is not only to find constantly new system solutions for our customers but also social responsibility.

Environmentally friendly high-tech products, manufactured to the latest production standards, an audited environmental management system and substantial investments in our locations are all part to this concept.

Global commitment and sustainable regional action – Wieland Electric is fit for the future: Contacts are green.



Corporate sustainability

Company guideline

The values and philosophy of the Wieland Group as a whole are embedded in our company guideline.

In keeping with the internationalization of the company, this guideline is continuously updated and forms the basis for the actions and activities of all employees.



Our strategic direction

We see ourselves as an expert partner for electromechanical and electronic power and signal distribution products and their management in industrial automation and building system technology. Our products are also widely used in the context of "green", sustainable forms of energy (solar and wind power).

Our corporate culture

Our operations are shaped by entrepreneurial and customer-oriented thinking. Team spirit, mutual trust, and great respect for the dignity of the individual underpin our actions and activities.

We value the observance of human rights as enshrined in the whole Group. We do not tolerate any human rights abuse, forced labor, or child labor in our sphere of influence. We also impose these strict requirements on all our business partners, subcontractors, and suppliers.

We respect the laws and cultural customs of every country in which we operate.

Our customers

We constantly strive, through supreme flexibility, to adjust continuously to the needs of the market and to serve our customers in the best possible manner at all times. Innovation and customer proximity built on cooperation are paramount. We set great store by satisfying our customers so that long-term ties and relations with our company are forged and maintained...

Our employees

Our staff, with their skills and dedication, contribute greatly to the company's success. Future-oriented workstations in a creative and innovative environment form the basis for successful activity. We want to have satisfied employees who are actively committed





to our company and its objectives, proud of our Group, and happy to call themselves Wieland people. We invest regularly in staff training and promote career development measures. We create a safe and healthy working environment and a pleasant atmosphere at all our locations and in all areas of our company.

It goes without saying that all our staff are given access to the same opportunities and development possibilities, regardless of age, gender, nationality, color, religion, or sexual orientation.

Our suppliers

We have a close and trusting relationship with our suppliers that brings mutual benefit. Our suppliers know, appreciate, and support our economic objectives as well as our efforts with regard to sustainability and social responsibility.

Our commitment to quality

We work according to the standard of using carefully defined and documented processes to make products that satisfy every single one of the requirements of the market for our clearly defined target applications and industries. We also see it as our obligation to comply strictly with legal requirements. We regard this commitment to quality as a matter for everyone, our managers as well as our employees.

A constant commitment to quality requires unwavering dedication of the highest order and active collaboration across all areas and departments.

Our attitude to the environment and sustainability

We feel obliged to show respect for and to protect the interests of both mankind and nature by achieving a balance between economy and ecology within the context of responsible engagement in the area of environmental protection. We continuously improve the environmental acceptability of our processes and products by proactively encouraging energy saving and promoting the avoidance of harmful materials within our products.

We demand that our business partners, subcontractors, and suppliers observe all relevant environmental laws without making any compromises.

Our pursuit of continuous improvement

Continuous improvement is at the heart of our operations and involves all the company's employees and processes. The pursuit of continuous improvement is not a substitute for the need to work constantly on the development of innovations. Improvements relate, for example, to quality, price, service, and delivery reliability, while also supporting the pursuit of customer satisfaction.

Our social commitment

We actively recognize our social responsibility. From our Bamberg headquarters, in particular, we provide regular support for social projects and, in so doing, make an active contribution as a strong partner of the city of Bamberg and the Upper Franconian region, be this in the context of social commitment or in connection with funding for culture and sport. Our company also promotes the training of young staff and the integration of people with disabilities into the workplace.









Corporate sustainability

Commitment to safety and society

The health & safety and waste management experts at Wieland specially entrusted with these fields as well as the relevant company physicians guarantee that work is carried out safely, carefully, and in a health-conscious manner, that hazardous substances and waste are handled correctly from the point of view of using resources responsibly, and that in-house medical care and supervision are provided at all times.

Occupational safety and health promotion

Through various health projects and measures we demonstrate the responsibility we feel towards our staff and raise awareness of the supreme value of all our health. In this context, fire protection officers, first aiders, members of the ASI (health & safety) committee in Bamberg, which meets quarterly, as well as external parties entrusted with these duties at the locations in the Czech Republic and China, make an important contribution to this whole issue.

There are also health campaigns that take place as an additional service offered by company physicians in collaboration with occupational safety officers and health promoters, such as regular healthy eating campaigns and "Rückenfit" (back fit) events. It goes without saying that company physicians also offer advice on vaccinations, trips abroad, and other health issues. These services, which are offered every three months or so and enjoy immense popularity, go well beyond what is required by law in terms of health promotion and demonstrate Wieland's dedication and willingness to go the extra mile and do all it can for the health of its staff and to establish health awareness.

Admittedly, this heightened appreciation for health management can also be attributed to demographic change and the potential for a shortage of skilled personnel. Looking to the future, we are committed to preserving and promoting the health of our employees continuously so that our entire workforce, regardless of an individual's age and stage of career, feels appreciated at Wieland and looked after health-wise.



Social engagements

Our commitment in this area extends to a whole range of fields - social, cultural, and also sporting. At the Wieland headquarters in Bamberg, especially, the birthplace of this family-run company established in 1910, we regard it as our duty to act as a strong partner to the region in various ways.

For example, through our membership of vbm bayme, our employees have been benefitting from the opportunity, since 2011, to take advantage of helpful assistance at fair prices, even at very short notice, in the event that they need someone to look after their children or dependent family members due to illness or recuperation, via the so-called "Plattform Betreuung" (care platform).

As regards vacation activities for the children of our staff, for several years now we have been a regular participant in "Bamberger Ferienabenteuer" (Bamberg vacation adventure), enabling our employees to organize fun vacation time for their offspring on special early-bird terms.

Wieland already reveals its sporty side once every two years, whenever the Bamberg World Heritage Run takes place - Wieland sponsors the event and proudly puts forward its own Wieland running teams who, joined by children, run with enjoyment and dedication to the cause. We also support the annual Bamberg inter-company indoor football tournament, both financially and with a strong Wieland side.

When it comes to assisting people with a disability, Wieland demonstrates its commitment by regularly collaborating with the association "Lebenshilfe e. V." or, for example, contributing know-how through the involvement of our marketing department in the organization of charitable poster campaigns aimed at the integration of socially disadvantaged people.

As for our cultural engagements, we sponsor the Bamberg Symphony Orchestra, an orchestra of international repute, which represents Bamberg with dignity as a musical ambassador all over the world, as well as the Bamberg University Association. Collaborating with universities is very important to us generally as a way of fulfilling our social and educational responsibility as a large company. This is reflected, for example, in the dedication of our managers, who not only regularly devote their free time to their "own" universities in a teaching capacity but also foster collaboration with other universities and institutions of higher education in Bavaria and Baden-Württemberg (e.g. University of Konstanz, University of Tübingen, University of Erlangen-Nuremberg, and Coburg University of Applied Sciences).

We are very keen to demonstrate social commitment in a sustainable manner as a dependable partner, always placing quality before quantity when in doubt and always ready and willing to promote selected projects.









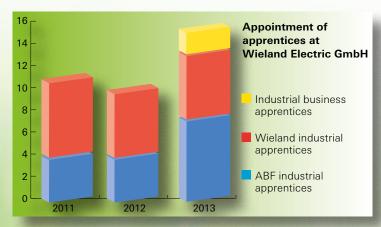
Corporate sustainability

Responsibility for the future

The professional qualifications successfully attained by our apprentices, who also regularly receive special distinctions from the Chamber of Commerce and internal awards, are ample evidence of the very high quality and popularity of the industrial training that is provided at Wieland.

Training

The high sense of responsibility we feel here is reflected firstly in the industrial training we provide.



From autumn 2013 onwards, we will also be taking on apprentices with a background in European industrial business management. We greatly value their in-depth language training, which is an excellent match for Wieland's internationalization objectives. The share of apprentices who complete their training and immediately go on to become employees of Wieland lies at almost 100 percent. The percentage of those who are still employed by the company three years later is also pleasantly high at approximately 50 percent.

Wieland's social commitment is also demonstrated by the fact that with every intake of apprentices we provide a few places for apprentices from the ABF (Forchheim Training Alliance) Initiative so that young people whose school careers have not gone all that smoothly can benefit as well from good, sound professional training and make their way in the world.







We also give our apprentices access to attractive additional offers while they are learning, such as an all-day welcome workshop as a team-building measure, participation in the plain-language program offered by the publishing house Mediengruppe Oberfranken with regular newspaper reading and tests to improve general knowledge, as well as involvement in various training fairs (Bamberg, Baunach, Ebrach, and others) aimed at giving students and other interested parties a better understanding of their career profile, the training required, and what it means to belong to a future-oriented corporate group.

The professional qualifications successfully attained by our apprentices, who also regularly receive special distinctions from the Chamber of Commerce and internal awards, are ample evidence of the very high quality and popularity of the industrial training that is provided at Wieland.

The quality of the vocational training available from Wieland can also be seen in other areas: at regular intervals, Wieland's industrial staff acquire greater skills within the skilled labor concept by participating in corresponding Chamber of Commerce programs. This willingness on the part of employees to attend courses alongside their normal job receives special recognition at Wieland.

Engagement by Wieland's own personnel officers is nothing new with their involvement in youth project days (e.g. implementation of applicant training programs at schools with simulated interviews), but from 2012 solid building blocks are also to be put in place for manager training:

Besides the regular presentations to instruct managers on the annual performance appraisal and career development interviews with the staff in their charge as well as other management briefings, from 2012 workshops will also be offered on the subject of "communication and conflict communication" (for all middle managers and senior engineers) to ensure that all managerial personnel at Wieland have the same basic knowledge in this area and "sing from the same hymn sheet". At Wieland, we consider it very important that we enhance our managers' skills because many things have to be communicated and demonstrated in a "top-down" fashion so that we continue to secure and foster a good climate as well as an innovative and open working atmosphere throughout the company.

Involvement of the supply chain

We expressly demand that our company guidelines are observed by our subcontractors as well. Compliance with the principles of the Global Compact and all laws protecting the environment forms part of our quality assurance agreements with suppliers.









Clear policy – preserve values

Our actions are based on the environmental policy developed and published by the management.

Environmentally responsible conduct at every stage of the value creation process

The parameters for evaluating our environmental performance include not just the consumption figures for our production and operating materials and the data for the energy and resources we use, but also the results of the internal environmental audits that enable us to assess the effectiveness of our environmental management system.



Clear guidance for our actions

Environmental policy

- Protection of the environment is an important mission for our company.
- All employees are obliged to act in a way that protects the environment. We provide training and information to motivate staff to behave in an eco-friendly manner.
- Compliance with official and legal requirements as well as our company guidelines underpins our environmental protection measures.
- We conduct regular reviews to improve our management system continuously and to document our achievements. The defined environmental and energy targets are our benchmark.
- In the event of deviations from our environmental policy, we intervene with appropriate corrective measures.
- We plan, set up, operate, and develop our plant technology according to the latest technological advancements with a view to "improving energy efficiency".
- We fully utilize technical and economic possibilities in order to avoid waste and emissions and to reduce energy consumption. Where waste is nevertheless produced, we examine recycling and recovery options for these substances. Non-recyclable waste is disposed of in an eco-friendly way.
- We select, transport, store, use, and dispose of operating and auxiliary materials in line with environmental considerations.

 If we employ third parties for these purposes, we validate their technical know-how and reliability.
- We use raw materials and energy in a manner that is as economical and as eco-friendly as possible. We pursue this goal from the development to the disposal of our products.
- In all matters of environmental protection we cooperate with the public authorities, associations, and other technical institutions.

 We provide open and objective information on matters of internal environmental protection.
- We provide our customers with appropriate information on environmental aspects relating to our products.
- We pursue the target of involving our contract partners in improving our environmental performance.



Sustainable technologies - photovoltaics

Our products are widely used in the context of "green", sustainable forms of energy (solar and wind power).

Eco-friendly product development/ products for sustainable technologies

Wieland Electric was quick to recognize that pluggable installation of photovoltaic systems is safer and far more effective and flexible than conventional cabling. We designed not only special PV connectors but also an extensive portfolio of standard products for the DC and AC sides (DIN rail terminal blocks with spring clamp and screw connection technology, PC board terminals, empty electronics housings, industrial connectors, overvoltage protection, string monitoring, DC distributors, and AC distributors) as well as professional project planning support and project-specific components.



Sustainable technologies - wind power plants

◯ Wind power plants

Spaces inside wind power plants have to be fully illuminated in compliance with standards in order to ensure that service personnel can climb up the tower safely, including in an emergency.

With its pluggable energy bus solution *podis*® Wieland Electric offers a system that is not only cheaper and quicker to install, but can be adapted very flexibly to individual tower models because of its modular structure. The components have international approval and are particularly suitable for use in the industrial environment worldwide.

The energy bus system is installed using a flat cable system that has already been partly pre-assembled at the factory. This is delivered to the tower builder as required for the project and then assembled and pre-installed in segments. Upon the erection of the tower, the system is simply connected using connectors.



smart installation - building installation

The environmental aspect of the Wieland product range is most visible when it comes to the certification of buildings by different companies. Wieland products, especially the systems, contribute to many of the ratings.

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Green building certification is voluntary, unlike compliance with the EnEV and issue of the energy pass. The project is certified by the respective organization. Generally, construction and renovation projects are already monitored by the organization, which ensures that the targeted certification level is reached. The actual certification is then performed using point systems with checklists.

The *smart* installation concept excels here. From simple electrical connection to room automation with presence detectors and room thermostats, Wieland helps to create sustainable buildings. The pluggable electrical installation scores well in all areas, from planning, execution, and operation all the way through to renovation and demolition.

Flat cable systems and distributed automation reduce wiring expenses considerably. Besides being pluggable, the electrical installation also remains flexible during operation.

The use of room automation devices, especially presence detectors and room thermostats, plays an active role in helping to save energy. The most recent studies by Biberach Technical University produced potential savings in electrical energy of over 30% and in thermal energy of over 50% thanks to room automation. These values were calculated using seminar rooms at the university over two years during ongoing operation – without any structural measures!









Eco-friendly manufacturing processes

All aspects of environmental protection and health & safety are considered right from the start with the selection of the copper, steel, and aluminum alloys used.



Metalworking

We manufacture our metal components in very close proximity to residential areas, nature, and water, so we bear special responsibility for providing protection against noise as well as for keeping water, air, and soil clean.

The cutting and non-cutting production technologies we use, such as stamping, stamp-bending, drilling, milling, and turning, are reviewed and optimized continuously to minimize their impact on the environment and on health & safety. Electricity and compressed air are used efficiently; oil-based coolants are treated and recycled.

The filings and punching scrap accrued are all sorted, de-oiled, and recycled as raw materials.







Plastics production

Thermoplastics are processed on fully automated injection molding machines.

Mechanical, electrical, and fire-protection properties are taken into account when selecting the plastics used, as are all environmental aspects. The priority is given to halogen-free flame-retardant plastics that exhibit an extremely low smoke density and toxicity during a fire. This aspect is becoming increasingly important.

The heat generated while processing plastics is extracted via plate heat exchangers and cooling towers. Energy input is minimized by using closed cooling systems to cool both the tools and the machines. This measure means that refrigerating units to cool the machines can be dispensed with all year round.

The sprue material accrued is recycled and integrated into the production process again in compliance with regulations.









Eco-friendly manufacturing processes

Electro-plating

In 2004, a new electroplating process to state-of-the art production and environmental technology was deployed. Tin, zinc, copper, nickel and silver surfaces are applied on 6 bath lines.

The plant technology installed, including the pretreatment and post-treatment of materials, corresponds to the latest standards in production and environmental technology. The waste water treatment facility that was also commissioned in 2004 processes all the waste water generated from electro-plating in streams using electrolytic cells, heavy metal precipitation, and ion exchangers. The galvanic sludge accrued is recycled.

Average concentration of the constituents of processed waste water from the electro-plating waste water treatment facility

Constituent	Unit	Measurement	Limit	
pH value		7.89	6.5 – 10	
AOX	[mg/l]	0.68	1	
COD	[mg/l]	590	750	
Chlorides	[mg/l]	0	100,000	
Sulfates (external)	[mg/l]	1248	2,500	
Sulfates (internal)	[mg/l]	1510	2,500	
Chromium	[mg/l]	0.14	0.5	
Copper	[mg/l]	0.2	0.5	
Nickel	[mg/l]	0.16	0.5	
Zinc	[mg/l]	0.28	2	
Tin	[mg/l]	0.08	2	
Cyanide (free)	[mg/l]	0	0.2	
Silver	[mg/l]	0.07	0.1	

Source: Annual Waste Water Report 2013 TBO



Electronics production

Modules are made in electronics production from PCB assembly through to final device assembly.

Right from the development of new products as well as the implementation of production processes, attention is paid to the use of eco-friendly, RoHS-compliant components and resource-efficient plant technology. Ever since January 2005, all welding processes have been switched to lead-free filler materials.

Energy-saving potentials are identified and realized; for example, the waste heat generated by equipment is fed back into the heating system.

Final assembly

The entire final assembly section is highly automated. Equipping the automatic assembly machines with integrated inspection and monitoring systems ensures extremely low reject rates and, as a result, low quantities of production waste.

Wherever possible, production waste is sorted and recycled.

The use of ultra-welding technology in housing assembly minimizes the consumption of adhesives.









Environmental reporting according to EMAS

Wieland Electric is working to create uniform environmental management standards at all its locations.



The Sokolov location is now Wieland's largest production site. The relocation of production processes has been accompanied by the relocation of existing environmental aspects. The aspects that are relevant in Sokolov – waste, water, emissions, handling of hazardous substances, emergency management, and energy consumption – are subject to statutory regulations similar to EU requirements, though with partly divergent implementing rules.

In June 2011, the Wieland Sokolov location passed an audit by DQS according to ISO 14001 and was issued with a certificate. As a responsible company that takes its obligation of prudent environmental management seriously in the interests of future generations, we are delighted about this recent success at our Czech location. This also sends out an important signal to all employees and customers about the value that is placed on environmental protection and health & safety within our company.

Material efficiency

Wieland Electric currently produces and markets some 20,000 electromechanical and electronic products for industrial automation and building system technology in a wide variety of product groups. The input of feed materials is fully recorded and managed in the SAP system in the relevant quantity units (pieces, kg, meters, liters, etc.).







Environmental performance indicators

The total output volume is recorded and managed as a quantity. To satisfy the requirements of EMAS III, Wieland Electric has calculated and published the required indicators based on the total production volume in tons, beginning with the Environmental Statement for 2011.

Compliance with legal regulations

Information

An online environmental law database is used as a source of information on changes to environmentrelated laws and regulations that concern the company. Responsibility for observing these changes has been allocated to members of the environment team on the basis of the classification of the legal areas set out in this database. The scope of the team member's responsibility within the company is taken into account. Relevant legal changes are discussed at meetings of the environment team and any necessary measures are initiated for implementation.

Review of compliance

Compliance with legal regulations is reviewed via the regular internal audits and environmental inspections. The auditors used have the necessary expertise and qualifications.

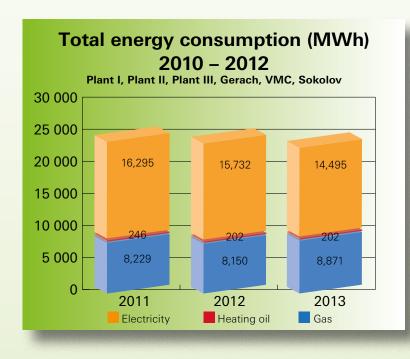
The measurements, operating tests, and function checks for our electro-plating waste water treatment facility, as required under the Self-Monitoring Ordinance, are carried out by qualified staff. In addition, regular measurements are taken by an accredited environmental laboratory commissioned by the company as well as by the relevant environment agencies.



Indicators

Energy input

Energy consumption in 2013 by plant							
Total energy	Plant I	Plant II	Plant III	Gerach	VMC	Sokolov	Total
Electricity (MWh)	2,299	9,800	546	207	194	1,448	14,495
Gas (MWh)	2,119	3,885	821	0	908	1,138	8.871
Heating oil (MWh)	0	0	0	202	0	0	202
Total (MWh)	4,418	13,685	1,367	409	1,102	2,586	23,568



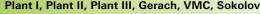
Energy

As a company with energy-intensive production processes, energy saving has become a top priority at Wieland, as also reflected in our environmental targets and program.

We exploit existing savings potentials by investing purposefully in energy-saving operating and production technology. Since absolute consumption quantities depend heavily on the utilization of production capacity and on climatic fluctuations, the indicator for energy consumption/manufactured product was introduced so the current values do not necessarily represent the savings in this area.

Aspects Energy Emissions

Indicator for energy consumption 2011 – 2013 Plant I, Plant II, Plant III, Gerach, VMC, Sokolov

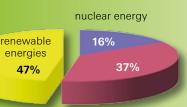




The energy consumption indicator shows the relationship between the total consumption of the individual energy sources (electricity, natural gas, heating oil) and the total product output.

Energy source mix and environmental impacts Electricity consumption in 2013

Bamberg location



fossil fuels and other energy sources



fossil fuels and other energy sources

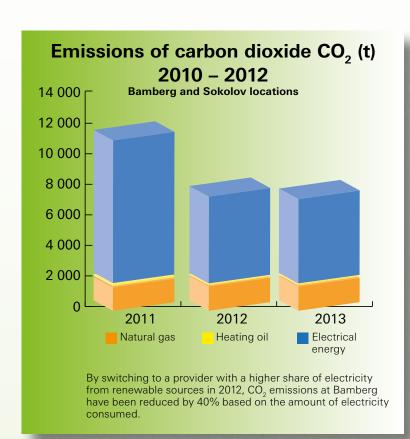
Year 2013	CO ₂ emissions (g/kWh)	Radioactive waste (g/kWh)	Source
Bamberg	372	0.0004	STWB
Sokolov	490	0.0009	CEZ





Indicators

Emissions





Greenhouse gases

Of the greenhouse gases ($\mathrm{CO_2}$, $\mathrm{CH_4}$, $\mathrm{N_2O}$, HFC, PFC, $\mathrm{SF_6}$) only the $\mathrm{CO_2}$ emissions from the consumption of electricity and thermal energy (natural gas, heating oil) are regarded as having significant environmental impacts.

The other greenhouse gases are also created during the combustion of fossil fuels, but the characteristic emission values are not known or are not measured and involve negligible quantities compared to CO_2 . There are no direct greenhouse gas emissions or other emissions from our production processes.

Sources:

- CO₂, SO₂, NOx emissions of electrical energy: EnBW sustainability report 2008/09 + information from individual calculations
- Information according to Energy Act §42 from the energy suppliers STWB, CEZ
- Characteristic emission values: GEMIS (Global Emission Model for Integrated Systems V 4.5, 2009), Institute for Applied Ecology in Freiburg
- Federal Environment Agency 2010



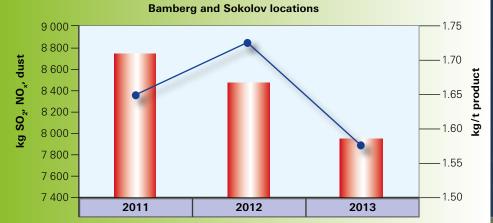
Aspects Energy Emissions

Emissions indicator for CO₂ 2011 – 2013 Bamberg and Sokolov locations



The emissions indicator for CO₂ shows the relationship between the total output of CO₂ of the individual energy sources (electricity, natural gas, heating oil) and the total product output.

Emissions indicator \sum for SO_2 , NO_x , dust 2011 – 2013

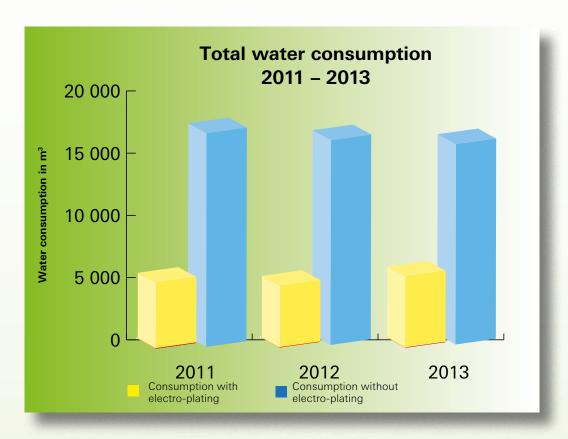


The emissions indicator for SO_2 , NO_x and dust shows the relationship between the total output of these emissions and the total product output.



Indicators

Water







Indicator for water 2011 - 2013



The water indicator shows the relationship between the total consumption of water and the total product output.

Water

We feel obliged to use the resource water in a sustainable manner. We have therefore put a halt to the consumption of water for cooling purposes by switching to closed circulation cooling systems. As a consequence of this measure, water consumption has been in decline for years now at Wieland.

The process water needed in electro-plating is processed in separate streams in the waste water treatment facility commissioned in 2004 using the very latest waste water technology and fed into the sewer system, but only once the contents have been analyzed.





Indicators

Land use

Areal Data 2013							
Plant I	Plant II	Plant III	Gerach	VMC	Wieland s.r.o.	Wieland s.r.o.	Total
Administration Assembly	Plastics production Metal production	Cable assembly Technical	Electronics production	Sales	Solokov	Lomnice	
Dispatch	Surface finishing	training center		Cable assembly	Warehouse		
39,700	40,860	8,229	36,136	6,718	7,040	1,436	Size of site 140,119 m ²
17,400	16,315	3,900	1,470	1,930	2,979	880	Built-over area 44,874 m ²
25,500	18,725	7,700	2,100	2,751	4,061	556	Fortified area 61,393 m ²
176,900	163,830	27,800	5,300	23,425	n. s.	n. s.	Structure volume 397,255 m ³



CSR-Report 2014 Aspects Land use

Indicator for land use 2011 - 2013 **Bamberg and Sokolov locations** 60 000 -10.0 50 000 -9.75 m²/ton of product 40 000 -9.5 **E** 30 000 · 9.25 20 000 -9.0 8.75 10 000 0 8.5 2011 2012 2013 building area indicator for land use The land use indicator shows the relationship between the

Buildings and infrastructure

of the storage area.

Required traffic areas and car parks are not fully sealed but covered with grass pavers and paving with gaps to keep as much falling rainwater in the natural water cycle as possible.

built-over area and the total output of products. In 2013, the performance figure improved considerably due to the reduction

All the facilities for handling water-pollutant substances are equipped with suitable impermeable floors and restraint systems and monitored regularly by internal inspectors and external experts.

Through investment in modern heating systems and renovation measures, the thermal energy consumption of the location has not risen in recent years despite significant sales growth and an increase in the production area.





Indicators

Waste

(AVV) code	∑ 2011	∑ 2012	∑ 2013
110109	47.0	43.9	34.6
080117 080111	0.8	0.2	0.0
150202	1.1	0.4	0.1
130205 130802 120109 140603 130208	58.1	41.5	24.1
130 502 130 507	0.0	0.0	0.0
160 107	0.3	0.0	0.3
200 133	0.0	0.0	0.2
160 506	0.0	0.0	0.5
160 504	1.0	0.0	0.0
140 603	0.0	1.2	2.0
200 121	0.2	0.0	0.0
120 115	0.0	0.0	0.0
150 202	2.5	2.4	5.7
150110	2.5	2.4	3.0
110199		0.8	0.0
160506	2.0	0.0	0.0
	080117 080111 150202 130205 130802 120109 140603 130208 130 502 130 507 160 107 200 133 160 506 160 504 140 603 200 121 120 115 150 202 150110 110199	080117 080111 150202 1.1 130205 130802 120109 58.1 140603 130208 130 502 130 507 160 107 0.0 200 133 0.0 160 506 0.0 160 504 1.0 140 603 200 121 0.2 120 115 0.0 150 202 2.5 150110 2.5 110199	080117 080111 0.8 0.2 150202 1.1 0.4 130205 130802 1.1 0.4 140603 130208 58.1 41.5 140603 130 502 130 507 0.0 0.0 160 107 0.3 0.0 200 133 0.0 0.0 160 506 0.0 0.0 140 603 0.0 1.2 200 121 0.2 0.0 120 115 0.0 0.0 150 202 2.5 2.4 150110 2.5 2.4 110199 - 0.8 160506 2.0 0.0

Waste

The avoidance of waste is a top priority for Wieland. Where waste cannot be avoided, we look to recycle it using methods that are as high-quality as possible. The last resort is the disposal of waste in an environmentally sound manner.

Recycling and disposal are carried out exclusively by service providers who are able to produce a specialist waste disposal operation certificate or who have introduced an environmental management system. The criteria for selecting waste disposal companies also include references and the findings of our own evaluations.

The indicator for quantity of waste/manufactured product was introduced to enable an objective evaluation of the trend for this environmental aspect. The trend reveals a clear reduction in the share of waste as a result of rigorous avoidance strategies in product development and production.



Waste 2011 - 2013

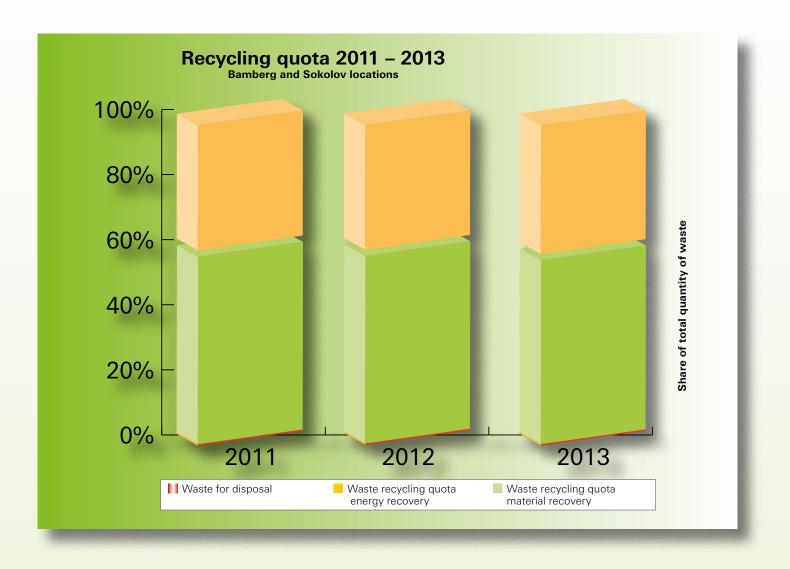
Non-hazardous waste (t)	AVV code	Σ 2011	Σ 2012	∑ 2013
Granulate sacks	150 105	0.0	0.0	0.0
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	150 101	107.5	110 5	1100
Waste paper	200101	107.5	119.5	110.2
	170401			
	170402			
Scrap metal	170405	53.8	55.8	35.3
	170 407			
	160104			
Scrap metal, contaminated	170409	0.0	0.0	0.0
Cable scrap	170 411	119.3	57.6	54.4
	160 214			
Assembly waste/electrical	160 213	F0.0	20.5	00.0
and electronic waste	200135	59.2	32.5	26.6
	200136			
Commercial waste	200301	182.0	197.6	173.3
Burr waste to suppliers	120 103	825.8	771.5	706.4
Punch waste to suppliers	120 101	674.0	679.6	317.1
Functi waste to suppliers	120 103	074.0	079.0	317.1
Plastic regranulates	200 139	13.1	3.1	0.0
Compostable waste	200 201	1.0	7.3	7.8
Natural wood waste	150 103	12.2	9.9	10.3
PE films	150 102	4.9	12.0	9.7
Styrofoam chips	150 102	0.0	0.0	0.0
PVC cable sheath sleeves	200 139	14.5	0.0	11.2
Plastic waste	070213	20.6	40.8	46.1
Mixed packaging	150106	1.3	0.0	0.0
Toner cartridges	080318	0.0	0.0	0.0
Food residue	200 108	6.4	6.2	7.6
Fat separator contents	020 204	0.0	3.0	6.0
Gypsum-based construction	170802	_	9.9	0.4
materials				0.0
Non-ferrous scrap	191203	_	1.0	0.0
Construction and demolition	170201	_	6.4	3.1
waste wood Total		2096	2013.7	1525,4
Total non-hazardous waste				
without metal recycling		596	563	502
Total waste		2216	2109.9	1595,9
Total waste [t]				
(without metal recycling component)		716	659	572
(without metal recycling component)				





Indicators

Waste





Waste indicator 2011 - 2013



Waste indicator for hazardous waste 2011 – 2013



The waste indicator shows the relationship between the total quantity of waste/quantity of hazardous waste and the total product output.



kg of waste/ton of product



Reporting and targets

Environmental targets 2010 – 2014.

Environmental	Measures	Planned effect	Status	Implementation deadline
aspect/target	Analysis of energy cost and consumption structure	Identification of potential to optimize energy costs	Completed	May 2011
	Upgrading of VMC heating control system	Saving of thermal energy	Completed	September 2010
	Construction of Plant I bicycle park	Motivation for staff to leave cars at home	Completed	April 2011
	Optimization of Plant II heat supply	Emissions reduction of 800 t CO ₂ p.a.	Concept implementa-	Open-ended
	Heat recovery for Plant II electro-plating, (refrigerating plant for bath cooling,compressed air)	50 % reduction in energy costs Saving of € 950,000 over a term of 10 years	tion through the realization of certain aspects.	
	Plant II CHP	Portion of the total saving: - EUR 1.5 mio. over a 10- year period - 500 t CO2/a	Use of waste heat CHP via heat ex- changers	Commissioned in May 2014
	Renewal of heating system VMC	Approx. 25% energy saving	Planning ongoing	Start Q4/2014
Energy saving,	Replacement of lighting (switch of 1100 T8 to T5 tubes, use of LED technology).	Saving of € 17,000 p.a. on electricity consumption Approx. 35% energy saving	Implementation ongo- ing Umgesetzte Bereiche: - Spiegelfelder Erd- geschoss - Werk III Erdgeschoss - Elektronikfertigung - ISV-Fertigung	Ongoing with every replacement and with conversion of areas
CO ₂ reduction	Introduction of LED technology in the plastic technology sector. Conversion of T8 tubes to LED.	Increase in service life from 6-8000 hours to 50,000 hours.	Concept is being deve- loped and reviewed and a cost analysis is being performed. Pattern built and tested in PR-TBK	Open-ended
	Installation of 20 presence detectors in sanitary rooms		of Plant II/BA2 and plant I/ITB completed	The concept is consistently implemented with each conversion.
	Intelligent lighting for Plant Il storage area (Light is re- duced to 20% and activated at 100% when motion is detected.)	80 % reduction in electricity consumption	Implementation ongo- ing 2 rack aisles were con- verted, approx. 10% of the total volume	2013 / 2014
	PV system (examination of leasing of roof areas)	Enhancement of company image	Concept	rejected
	PV system on open area in Plant II for own energy consumption (900 KW)	EUR 1.8 mio. / over 20a	Concept is being developed	Open-ended
	Plant I roof renovation (reflector field construction) as per Energy Saving Ordinance – EnEV (thermal insulation)	Saving of Approved, Plant I / thermal energy Building 1 conversion		By end 2014
	Consumption-dependent compressed air generation in Plant III Replacement. Speed-controlled compressors adapt to the required output.	9.000 €/a	Completed	in April 2014

Targets 2010 – 2014

	Environmental aspect/target	Measures	Planned effect Status		Implementation deadline	
	Reduction in CFCs	Switch from R22 refrigeration systems	Replacement of 120 kg of R22	Implementation on- going	December 2014	
	Consolidation of pro- duction areas/plants	Relocation from Gerach to Bamberg	Saving of 20,000 I heating oil in Gerach Heating energy saving approx. 70%, 42 t CO2/a	Completed	in April 2014	
		Reduction of Gerach – Bamberg journeys	Reduction of CO2 emissions 5t CO2/a	Completed	in April 2014	
F	Fire protection	Fire alarm system in Plant I production areas	Full and quick evacuation of buildings due to fire alarm and other events	Completed	in March 2012	
		Fire alarm system in production areas of Plant II/BA2		in Implementation ongoing	2013 / Q3 2014	





Reporting and targets

Status table with reference to the 10 principles

GRI indicator	Description	Covered by CSR report	Answer/reference to report
	Economic performance indicators	Con report	
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Partially	Page 16 – 19
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	Partially	The management of each international location is made up solely of people of the nationality concerned; the employees come almost exclusively from the local area.
	Environmental performance indicators		
EN1	Materials used by weight or volume	Partially	Page 35 – 37
EN2	Percentage of materials used that are recycled input materials	Partially	Page 35 – 37
EN3	Direct energy consumption by primary energy source	Comprehensively	Page 26
EN6	Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives	Partially	
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	Partially	Energy saving through building management and use of energy-saving lighting
EN8	Total water with drawal by source	Comprehensively	Page 30
EN16	Total direct and indirect greenhouse gas emissions by weight	Comprehensively	Page 28 – 29
EN20	NOx, SOx, and other significant air emissions by type and weight	Comprehensively	Page 28
EN21	Total water discharge by quality and destination	Partially	Page 30
EN22	Total weight of waste by type and disposal method	Comprehensively	Page 34 – 35
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	Partially	Page 20 – 23
		Comprehensively	
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	Comprehensively	No reclaiming of packaging; participation in VfW's Dual System
	Labor practices and decent work	l	
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	Partially	Page 10 – 13
LA12	Percentage of employees receiving regular performance and career development reviews	Partially	100% at the Bamberg location
	Human rights		
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	Internal report	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Internal report	Annual management training on issues, such as equality
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	Internal report	
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor	Internal report	
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor	Internal report	
	Society		
SO2	Percentage and total number of business units analyzed for risks related to corruption	Internal report	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures	Partially	Annual management training
SO4	Actions taken in response to incidents of corruption	Partially	No incidents in 2013
	Product responsibility		
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	Partially	Monthly analysis of incoming customers' assessments

Explanation	Targets	Reporting year			
New products for use in the generation of "green" energy and in energy management inside buildings		2013			
		2013			
All indicators relate to the unit "ton of product".		2013			
Recycling quota for Cu alloys approx. 50 %.		2013			
Energy consumption by energy source for the Bamberg and Sokolov locations		2013			
	Goal for basic manufacturing: 5% energy saving for compressed air	2013			
	6.5 % energy saving in 2010/11	2013			
Water consumption of the Bamberg and Sokolov locations		2013			
Indicators of the Bamberg and Sokolov locations		2013			
Indicators of the Bamberg and Sokolov locations Indicators of the Bamberg and Sokolov locations		2013			
Indicators of the Bamberg and Sokolov locations		2013			
Avoidance of prohibited and restricted substances	Destination Sokolov plant: 10% reduction in the number of auxiliary materials used, 5% consumption reduction. Reduction of environmental burden through VOC by	2013			
	reducing solvent consumption by 200 l/a. Destination Sokolov plant: Creation of contingency	2013			
	plan to prevent water contamination.	2013			
		2013			
		2013			
	Supplier policy is being drafted	2013			
	Training for managers on how to work with the company guideline "Legal matters"	2013			
	Extension of supplier audits to include Global Compact aspects	2013			
	Extension of supplier audits to include Global Compact aspects	2013			
	Extension of supplier audits to include Global Compact aspects	2013			
	All locations were examined in 2013	2013			
		2013			
		2013			
		2013			

Product overview. CONNECT segment





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
- Two-row, plug-in jumpering channel
- Multi-wire connection possible
- Wires can be connected with or without ferrules



fasis - DIN rail terminal blocks with spring connection

Would you like to be able to plug in terminal blocks simply, directly, and without using any tools?

fasis WTP - DIN rail terminal blocks with push-in connection.

The DIN rail terminal block with tension spring connection: **fasis** WKFN is easy to operate, saves time, and reduces wiring and inventory costs.

Features

- Tool-free push-in connection
- Vibration-resistant tension spring connection
- Two-row, plug-in jumpering channel
- Optimized portfolio fewer terminal blocks same functionality



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

Features

- The Wieland jumpering system perfect technology Extremely robust and individually adaptable
- The Wieland marking system: optimum grip on the terminal block
- wieplan software support for (project) planning
- Customer-specific packaging



PCB connector

Pluggable PCB solution

PCB connectors make the device more service-friendly during wire connection and device replacement. The free choice of connection technology offers solutions for a vast range of applications. Marking and coding simplify assignment during wiring.

- Grid 3.5 7.62
- Huge diversity
- Pin strips in THR
- Custom marking possible



RAST 5 Wieland 8105 B and FU series

Mechanical and color coding

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

Features

- Huge diversity
- High quality
- Fixed coding



revos BASIC / POWER

The traditional industrial connector

Reliable protection is provided by the housing made from die-cast aluminum with a powder-coated surface. The contact inserts are available in 2 to 216-pole designs for up to 100 A.

Features

- Robust aluminum housing, corrosion-resistant version also available
- Contact inserts available with various connection techniques
- Protection class IP 65
- Mechanical coding options



revos HD

Robust multipole connector

According to DINEN175301-801 with up to 64 poles and designed for 10 A rated voltage. The housing is made from die-cast aluminum with a powder-coated surface.

Features

- Compact multipole connector
- Protection class IP 65
- Screw and crimp connection technology



revos PLAN configuration

Configure and order simultaneously online

Interactive tool for the configuration of heavy-duty connectors of the **revos** product family. Configure your industrial connector from a selection of 1,500 individual parts with just a few clicks of the mouse and order simultaneously via the integrated shopping basket.

- Direct configuration of connectors online
- Huge product variety
- Immediate ordering of connectors via integrated shopping basket



Product overview. CONNECT segment





GST 18i 3-pole to 6-pole

The product line for installation of lighting systems, switches, and outlets, with 3, 4, 5, or 6 poles. Mechanical coding enables clear separation of different applications; the connector color identifies the connections that belong together.

Features

- Proven connector system for fixed installation
- Compliant throughout with IEC 61535:2010
- Pre-assembled cables save time at the construction site





BST 14i2 and BST 14i3

BST allows the pluggable installation even of signal applications.

Mechanical coding and clear assignment by different colors make installation easy: green for EIB/KNX applications, black for general signal or LON applications, and blue for dimming or DALI functionalities (observe technical data).

Features

- Standard connectors for KNX applications
- Distribution units and device connectors
- Pre-assembled cables





Two-pole low-voltage connector system

The product line for the connection of low-voltage lamps. Great ease of connection thanks to compact design and minimum space requirements.

Features

- Hermaphroditic connector system
- Distribution units and cable assemblies
- Pre-assembled transformers with GST 18 infeed





Connectors

Connector for connection directly on-site.

Male or female complete with strain relief for connection of all current types of cable. 2- to 5-pole with different mechanical codings.

- Compact MINI connectors
- Integrated locking device
- Connection of wires up to a cross-section of 2.5 mm²
- Codings for mains voltage, low-voltage and dimmer applications
- Straight and elbow strain relief for 4- and 5-pole connectors



Cable assemblies and GST08i2 GST08i3 device connectors

2-/3-pole round connector system for quick and easy installation of the "last three feet". The plug side can be run through an 8 mm drilled hole so that installation with basic tools is possible.

Features

- Device connectors with solder contacts
- Power cords and connecting cables
- One 250 volt and two low-voltage codings
- Built-in frame for the socket side
- Distribution units with fixing holes for standard screws
- Flat design allows installation behind furniture



Connectors

Connectors can be assembled on site and used, among other things, for infeed into the *gesis* IP+ system. Designed as female and male parts, they are supplied complete with strain relief and can be used to connect any current type of cable.

Features

- Compact design
- Simple handling
- Also with splitter connection



gesis DC Solar - PST40i1

The **PST 40i1** photovoltaic connectors from Wieland Electric for the connection of PV modules and inverters are safe, easy to install, and sealed. Their IP68 protection degree, the robust design, and the TÜV-tested pluggability at market standard enable flexible use.

With cable cross-sections from 2.5 mm² to 10.0 mm² even long distances to the inverter can be implemented pluggably and efficiently.

Features

- Safe, easy to install, and sealed
- Robust design
- Flexible use



gesis PLAN Planning 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 lists





Product overview. COUPLE - PROTECT segment



sensor PRO

Safe signal acquisition is a prerequisite for the reliability of the safety function. **sensor** PRO offers the appropriate safety sensor for all protection tasks, whether actuated mechanically or contactlessly.

Features

- Emergency stop with fail-safe element
- Safety light grids and light curtains BWS type 4
- Coded magnetic switches in IP67
- Interlocking devices with guard locking



safe RELAY

The **safe** RELAY range 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
- Numerous approvals (e.g. GOST, EN81-1, EN50156-1, CCC, UL, CSA)
- Universal relay with diagnosis function for quicker availability
- Compact design and variable connection options



Reliable power for control systems

The **wipos** series includes power supply units that play a major role inside the control cabinet. Their reliability has a great impact on the operational availability of the machine or process. Consequently, a robust power supply with a proven design is essential.

Features

- Number of phases 1 to 3 phase
- Rated current 0.42 ... 40 A
- Power 100% up to +60 °C
- Series or parallel connection possible
- PFC technology



podis MCU, MOT, CON, **and** *gesis* MOT

podis is a modular bus system for decentralized energy supply, which simplifies (project) planning, procurement, and materials management.

- Plug in load parameters start
- Easy installation
- Standardized function modules
- Compact design
- Quick replacement during maintenance



Product overview. COUPLE - PROTECT segment





gesis KNX - Building automation with KNX

Building automation using KNX has long been established as the worldwide standard for controlling functions such as heating, lighting, sunblinds, ventilation, or 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 installation



gesis LON - Building automation with LON

LONWorks (Local Operating Network) is an internationally standardized remote network for automation in buildings that serves all trades and can be used universally. Intelligent sensors, actuators, and operating devices can be interconnected flexibly using different transmission media. The devices communicate as desired from each point to every other point. Modifications and enhancements of the software, e.g. adding or removing central commands, can be performed easily in the network during operation.

Features

- Bus system standardized worldwide
- Ideal for combination with LON-based HVAC systems
- Developed for decentralized installation



Surge protection

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).

Features

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



samos PRO

Complex applications can best be resolved with a programmable system like *samos* PRO with its modular extension capability.

- Simulation and diagnostics
- Reliable networkability of machines with **samos** NET
- Remote maintenance and programming possible
- License-free software tool with TÜV-certified function blocks





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