

You shape the future of wind energy
We support you with individual solutions
Let's connect.

Individually assembled enclosure solutions



Weidmüller 

You have strict requirements
Our individual concepts will impress you
Let's connect.



Dear readers,

the electrical components of a wind turbine are subject to high demands. Vibration, heat, cold, changing humidity or even lightning strikes can seriously affect the reliability and service life of individual components. At the same time, the market increasingly demands more cost-effective systems which can deliver maximum power and efficiency with low operating costs. To succeed in the market, therefore, the correct choice and combination of electrical components is vitally important.

For cost reasons alone, ready assembled enclosure units are now widely used in the production of wind turbines. This is why we offer individually assembled enclosure solutions as functional modules, which we create on the basis of our many years of experience in the sector and assemble with suitable components from the Weidmüller catalogue. Our services range from the adaptation of existing solutions to the development of all-new products and concepts tailored to your individual needs.

You will receive ready assembled enclosures, optimised for use in your wind turbines which guarantee secure and trouble-free system operation under the prevailing environmental conditions – tested and approved in accordance with national and international standards and regulations.

Take the decisive step and move ahead of the competition. Let yourself be impressed by the many advantages of our individual enclosure solutions. Let's connect.

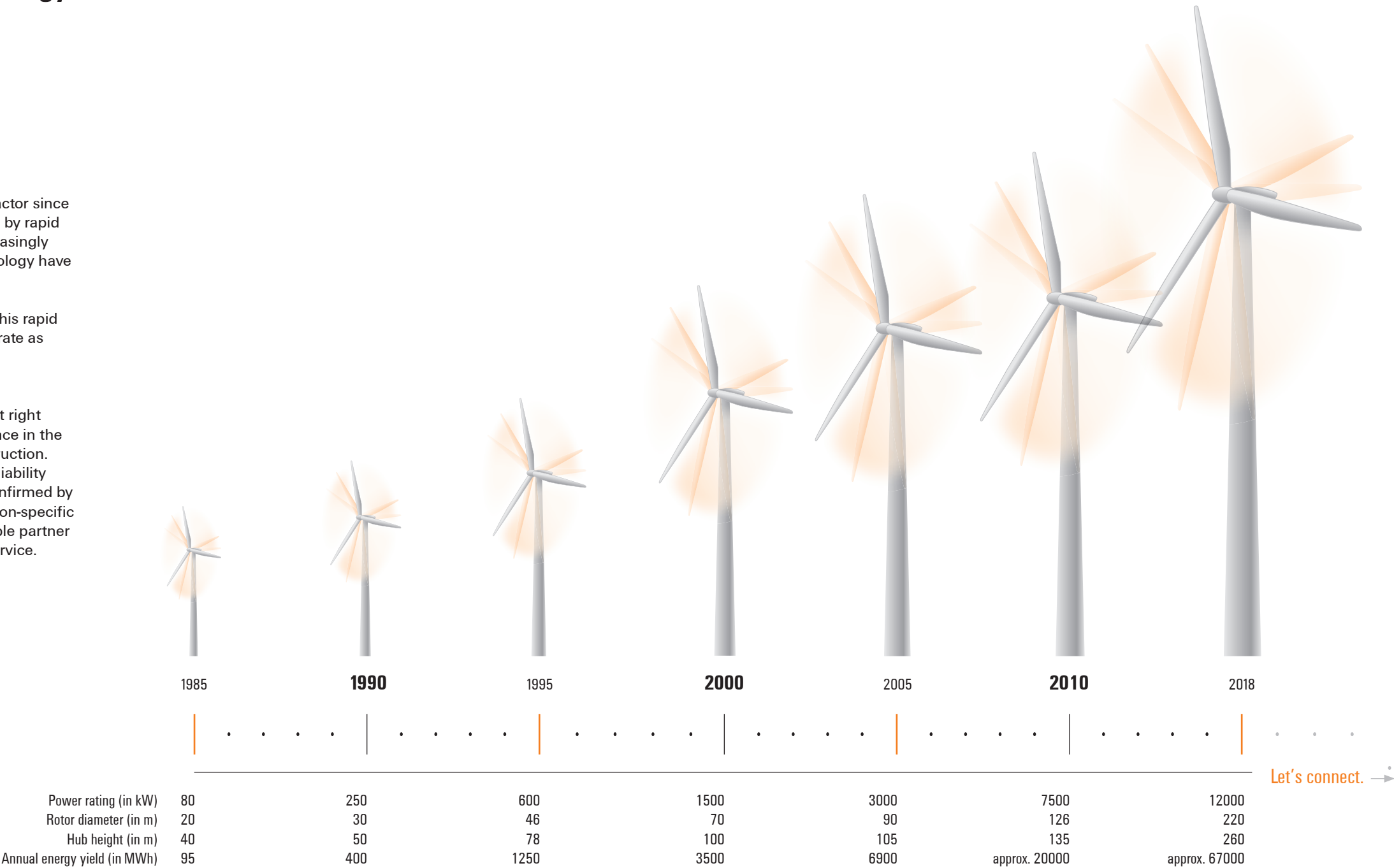
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You want to be successful in the wind energy sector
You can count on our experience

Wind energy has developed into an important international economic factor since the 1990s. The market for wind turbines is growing and is characterised by rapid innovation. Ever larger and more powerful wind turbines serve the increasingly growing demand for energy, and remarkable advances in turbine technology have increased their average power output more than fortyfold since 1990.

Anyone wishing to be a step ahead as a manufacturer or supplier with this rapid pace of development must offer real competitive advantages – and operate as cost-effectively as possible.

Here at Weidmüller we have been involved in wind turbine development right from the start and are able to offer you the benefit of our entire experience in the implementation of innovative ideas and solutions in wind turbine construction. Our products and components are characterised by excellent quality, reliability and cost-effectiveness and meet the highest safety standards. This is confirmed by international certificates and approvals as well as country- and application-specific test certificates, and much more. Become acquainted with us as a reliable partner in the field of wind energy and take advantage of our comprehensive service.



Development of wind turbines since 1990: modern wind turbines are not only bigger and more powerful, they also generate electricity much more efficiently than earlier generations of turbines. They also produce lower noise emissions and have better grid compatibility (Source: DEWI GmbH). Weidmüller has been a part of this development right from the start, providing ever more powerful components and innovative ideas.



Pioneering work
Weidmüller supplies the company Jas with products for assembling wind turbines. Howden in Glasgow, one of the pioneers in the mass production of modern wind turbines.



Ambitious project
As early as 1990, Weidmüller supported an energy supply concept for the island of Helgoland with a 100 meter high wind turbine which stood in its centre.



Know-how for China
The wind energy market is also booming in China. The Chinese manufacturer Dongfang relies on Weidmüller's heavy duty connectors from its RockStar® series for its pitch systems for wind turbines.



The Weidmüller range at a glance

A world full of connections

Applications



Photovoltaics



Wind



Weidmüller Monitoring Systems



Machinery



Remote Maintenance



Terminal Strip Assembly



Enclosure Assembly



Industrial Analytics

Devices

Electronic housings

PCB RJ 45 sockets

PCB USB sockets

PCB power connectors PUSH IN

PCB power connectors screw

PCB power terminals PUSH IN

PCB power terminals screw

PCB signal connectors PUSH IN

PCB signal connectors screw

PCB signal terminals PUSH IN

PCB signal terminals screw

Cabinet

Wireless routers

Routers

IoT gateways

IoT controllers with web-based engineering

Multi-touch panels

Communicative signal processing

Remote I/O

Switches unmanaged

Switches managed

Cable connectors

Communication-capable power supply

Service interfaces

Energy monitoring

Analogue signal conditioning

Solid-state relays

Power supplies

Buffer/UPS/Batteries

Control voltage distribution

Safety relays

Surge protection signals

Terminals stud

Terminals screw

Terminals tension clamp

Terminals PUSH IN

Shielding and earthing

Interfaces

Surge protection power

Relay modules

Relays and solid-state relays

Mounting rails

Assembled rails

Cable ducts

Filter fans

Field

IE connections

Unmanaged switches IP 67

Contactless power transmission

SAI remote I/O

SAI passive

SAI interfaces

Decentralised power bus systems

Heavy-duty connectors

HighPower connectors

IE interfaces

Cord sets

Cable entry systems

Stainless steel enclosures

Aluminium enclosures

Plastic enclosures

Cable glands

Workplace

Weidmüller Configurator

Systemised marking software

Printers (ink application)

Printers (thermal transfer)

Wire markers

Cable markers

Terminal markers

Device markers

Testing

Other tools

Cutting

Stripping

Crimping

Machines

From the initial idea through to delivery

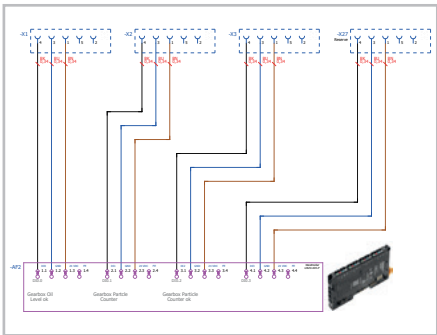
Individual solutions from a single source

The smart combination of consultation, application expertise and industry know-how is our key to finding a custom-fit solution for your application. Our end-products, developed and crafted exclusively for you, are assembled from high quality individual components from the Weidmüller catalogue.

The EPLAN Pro Panel and EPLAN Electric P8 ensure efficient engineering

To enhance efficiency from the outset, we develop your solution with the CAE tools EPLAN Pro Panel and EPLAN Electric P8. By compiling high-quality data such as connection lists, model views, data for mechanical CNC processing, parts lists and PLC overviews, your solution is processed quickly, easily and automatically, and wired by our professionals. 3D models are also placed at your disposal to help you visualise the implementation.

This offers you numerous advantages: you unlock new potential for reducing costs and increasing efficiency, and at the same time simplify your quality management, as the high production quality from a single source makes arrangements with different component suppliers unnecessary. You will also make savings in terms of development and production in addition to reducing your storage and logistics costs. All of this makes our assembled enclosures a guarantee of your success.



Professional circuit diagram preparation

A professional circuit diagram serves as a data base for your solution and is important for documentation.



3D models in line with your circuit diagram

3D models not only improve visualisation, but also allow you to process your solution cost-effectively using modern tools. Drill views and CNC data can also be exported and sent directly to the machine.



Sample production

Nothing is clearer than a sample produced to your individual specifications, providing you with a basis to discuss production planning and implementation.



Simplified ordering process and warehousing

One solution, one order number! Individual components no longer need to be procured, product range and inventories are reduced.

Competence of the highest level

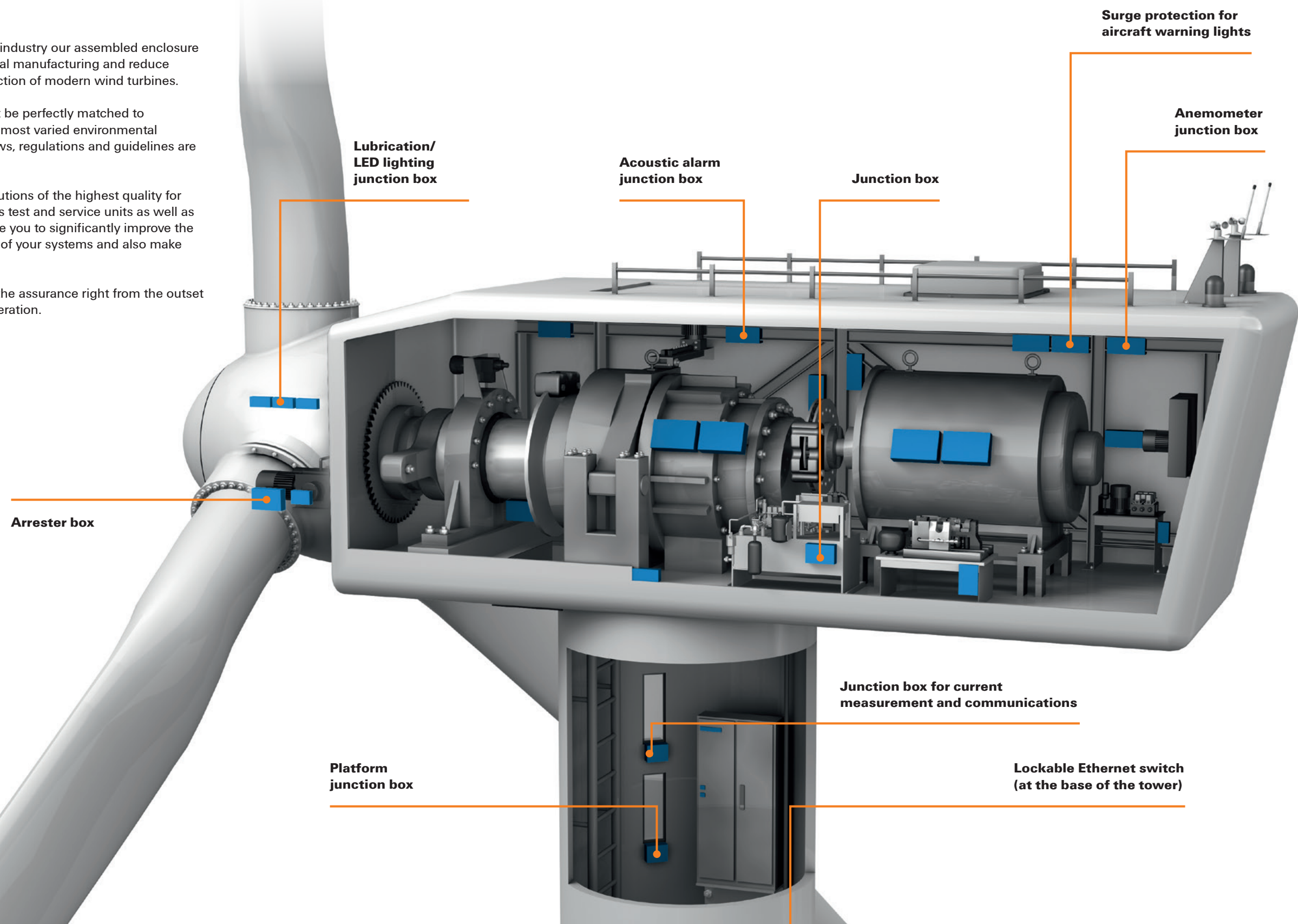
Solutions for tower, nacelle and hub

In more and more manufacturing sectors of the industry our assembled enclosure solutions are being employed to minimise vertical manufacturing and reduce production costs. This also applies to the production of modern wind turbines.

Your electrical and electronic components must be perfectly matched to guarantee the highest possible efficiency in the most varied environmental conditions, while ensuring that all standards, laws, regulations and guidelines are adhered, too.

We provide you with individually assembled solutions of the highest quality for grid connection and control systems, the various test and service units as well as for protection and safety devices. This will enable you to significantly improve the performance, durability and service-friendliness of your systems and also make savings in installation costs.

And best of all: our assembly service gives you the assurance right from the outset that all relevant factors will be taken into consideration.



Tailored to your requirements

Application-specific solutions for the nacelle

Nacelle



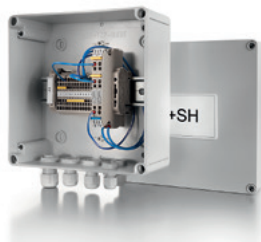
Surge protection for aircraft warning lights

Multifunctional junction box for the nacelle, with surge protection modules and relay modules to protect the unit during lightning strikes and transmits digital status signals of the aircraft warning lights.



Lubrication/LED lighting junction box

For connecting the signal lines for the central lubrication in the hub area. The enclosure cover has been fitted with a Fieldpower LED to illuminate the hub during service.



Acoustic alarm junction box

Safety device in the nacelle emits an acoustic alarm if anyone tries to access the rotor hub without all the necessary safety provisions having been met.



Arrester box

Surge protection for the slip ring transmission for power, data and signals.



Arrester box V2

Updated version equipped with the latest surge protection modules from Weidmüller.



Junction box

For the wiring of the electromagnetic valves of the hybrid pumps.



Gearbox control unit

Acquisition and evaluation of various sensor data



Junction box V2

Updated version equipped with the Weidmüller u-remote I/O system.



Surge protection for generator und converter

Application specific connection box for generator und converter stations. VARITECTOR surge protection ensures best protection and highest system availability in 400/690 V systems.

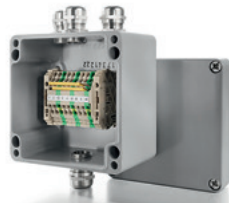
Optimized to your requirements

Application-specific solutions for tower and hub

Tower



Junction box for current measurements
For easy and error-free current and voltage measurements on live conductors in the tower, positioned after the U/I converter.



Communications junction box
Junction box for connecting the cables of communication systems along the tower simply and securely.



Feeder box for lighting systems
For 48V DC feed-in to our Fieldpower LED tower lighting. In the event of power loss, continued operation is ensured for 60 minutes.



Lockable Ethernet switch
Safety device in the tower for reliably preventing the accidental activation of the turbine during service.



Platform connection boxes for maintenance work
To connect manual tools and portable lighting to the individual platforms.



High-performance industrial security router with integrated firewall
An integrated LTE/4G modem ensures external communication.

Hub



Anemometer junction box
For connecting the power supply and signal transmission lines to the anemometer. An additional built-in surge protection module protects the downstream of electrical components in the event of a lightning strike.



Condition Monitoring Box
Evaluation unit for a condition monitoring system for screw monitoring at the blade bearings.

You demand perfection
We take care of every detail

To compete internationally, your plants need to satisfy high standards of safety, quality and performance. These targets can be achieved with our products and services. Thanks to years of experience, we know precisely which combinations of electrical components are suitable for your specific type of plant and in which countries and under what conditions they are permitted. We can also help you bring to fruition new ideas for providing customers around the world with real added value in the operation of their power plants. This is also what we understand by service.



Our own laboratory

In the early stages of product development we test in our laboratory exactly which components, materials and systems are suitable for your application. This ensures that our solutions work with absolute reliability, are perfectly tailored to your requirements and can be used internationally. Satisfied customers around the world attest to the high quality of our work and trust the expert advice of our staff when it comes to the implementation of individual solutions.

Each housing is only as strong as its weakest component. That is why we make sure that each individual part meets the same high quality standards in order to avoid weak points in our housings.

The high quality and functionality of our enclosures are proven by intensive and accurate tests in our in-house laboratory in accordance with international standards.

International approvals

Weidmüller's products and services meet our own strict standards as well as international quality and safety standards. All Weidmüller enclosures are specially tailored to the harsh, fluctuating conditions found in demanding industries. They are certified for compliance with international standards and comply with the latest ATEX and IECEx directives concerning areas requiring explosion protection. They also have approvals for use in standard industrial applications (such as UL, cULus, EAC, Germanischer Lloyd, Lloyds Register and Russian Maritime Register). Weidmüller products and technology have proven superiority in electrical distribution systems, control/monitoring systems, boiler and turbine monitoring systems, fuel management control, combustion control, and in monitoring and distribution systems.



Competent enclosure production

Enclosures from Weidmüller are synonymous with competence and quality in enclosure construction. Either for the usage in standard applications, in hazardous areas or with weather protection features, in each field of application we offer you a suitable enclosure solution in metal or plastic. Precisely manufactured, with special coatings as required, and assembled ready for connection.

Rapid prototyping

Sometimes you need to touch something to be able to understand its special characteristics and advantages. This is where rapid prototyping comes in. In a very short period of time we can produce a prototype, which serves as a basis for discussing the subsequent implementation.

Fast delivery

Even for individually assembled products, we guarantee fast, quality-oriented production and product availability as ordered. From small quantities to the provision of complete sites: everything is where it is needed in no time at all.

Our expertise for your requirements

Service connects – worldwide

Automation technology functions are becoming more complex in a globally-oriented world facing ambitious targets in terms of energy efficiency and smart production. We are your equal partners for the best connections in Industrial Connectivity. Our worldwide network of industrial managers for machine construction, process automation, energy and traffic engineering and for device manufacturers know the challenges you face and can support you in your specific applications.

Training course on technologies, applications and the detailed functionality of our products is available to you locally or at our headquarter in Germany. Our personal support can answer any questions reliably and expertly. Our online services are available 365 day a year around the clock to provide answers to your questions on our products - from user documentation through software to planning tools.

In short: Weidmüller's global service combines our expertise with your requirements.



Professional advice on planning

Our global network of industrial managers has extensive experience in automation technology and electrical connectivity. This expertise allows us to assist you with advice and planning support in order to work with you on resolving the everyday challenges of your applications.



Technology and application training

Industrial automation is moving towards smart production. It faces the challenges of new technologies and applications. Our varied range of training courses develops this knowledge further or provides more in-depth information on the handling of our products and solutions. Our seminars are modular and can be customised. We can train you and your employees in our academy, on your premises if you wish or online in our webinars at any time.



Customised installation

The challenges for the future are reducing costs and increasing efficiency. This requires intelligent, individual solutions which are tailored to your requirements. We can offer a highly qualified customer-specific production service in our application centre. Whether you need modified products, pre-assembled terminal rails or complete small cabinets: we produce the solutions developed for your application quickly and flexibly.

Online support and downloads

Exactly the right help and information on our solutions and products

If our products are used in your automation technology applications, you need the best possible individual support, from planning through installation to operation.

For every stage of your application, we can offer the right tools and information for our products and solutions. Up-to-date, uncomplicated, comprehensive and around the clock via our service portal at www.weidmueller.com/service.

Fast access to our support and services is available via Weidmüller webcodes. Simply select the service you want on the right hand side, then enter the webcode made up of five digits with a preceding hashtag into the search field in the top right corner of www.weidmueller.com and it will bring up the details you need.



Online and personal support
From planning through installation to operation, we can provide exactly the right help and information for each step of your application based on our solutions and products: up-to-date, uncomplicated and comprehensive, around the clock, online or in person.



Visit our website for more information

www.weidmueller.com/service

Let's connect.

Engineering Support

As a developer, you need simple processes and system-wide tools. We support you in your development environment with comprehensive data, software tools and interfaces, product selection guides and development samples.

Technical data and downloads

Download all the documents and software relating to our products by simply entering the item number. You can also view our Online Catalogue and research the technical properties of our products.

Commercial support

Integrate our product data into your commercial sytem using standardised interfaces or familiarise yourself with the wide range of products in our technical catalogues.



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Whitepaper for device connectivity
Webcode #11359



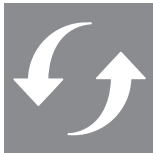
Security Advisory Board
Webcode #11424



Technical catalogue in PDF Format
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Engineering software
Webcode #11377



Product Change Notification
Webcode #11425



Product configurators, product selection guides and samples
Webcode #01214

More offers in online support and downloads

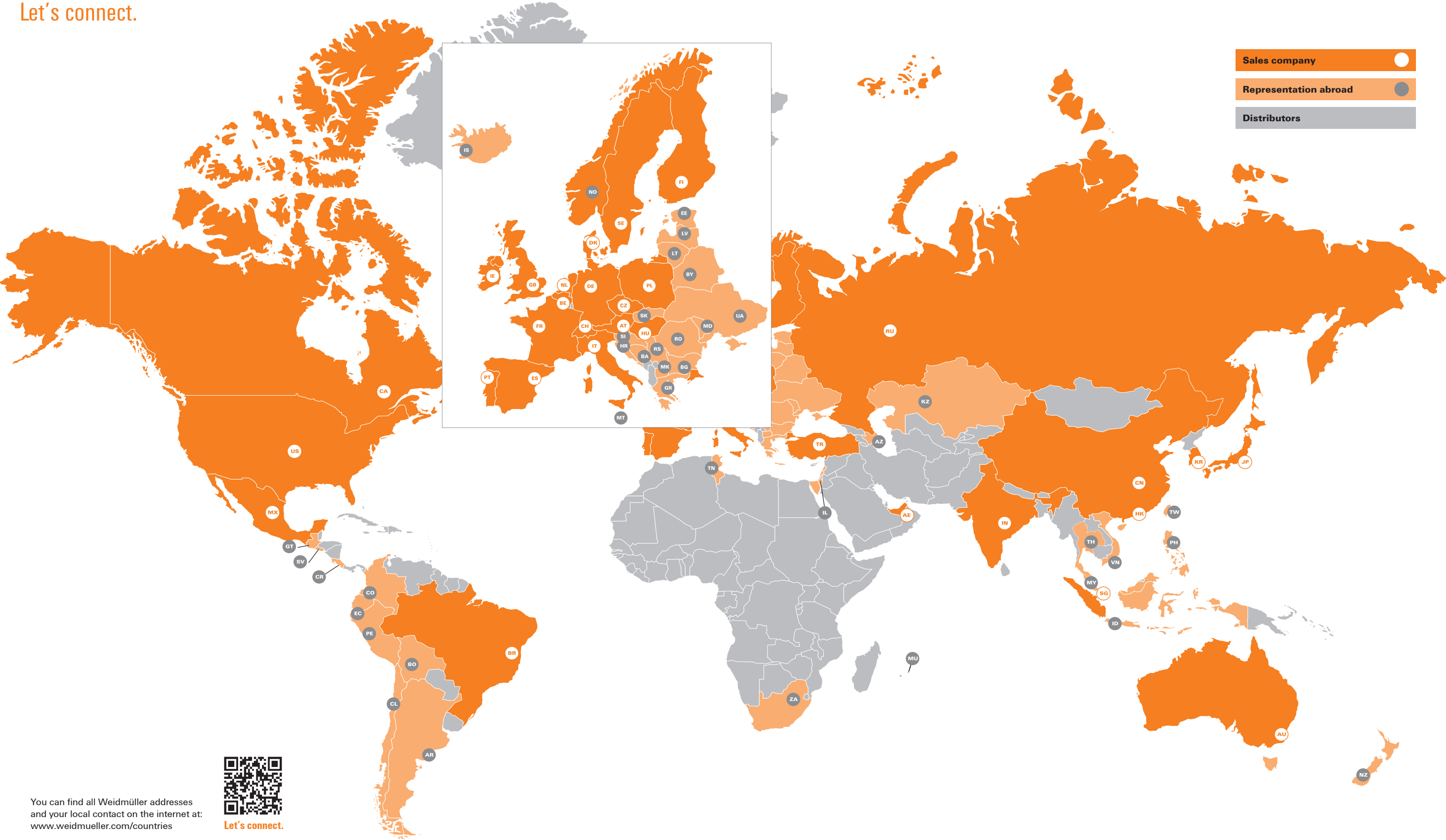
Not found what you are looking for? We have even more to offer you in online support and downloads.



Approvals, certificates and declaration of conformity
Webcode #11374

Here you will find information on the CE declaration of conformity, on RoHS and REACH and other company related certificates and approvals.

Adressen weltweit
Let's connect.



Weidmüller – Your partner in Industrial Connectivity

As experienced experts we support our customers and partners around the world with products, solutions and services in the industrial environment of power, signal and data. We are at home in their industries and markets and know the technological challenges of tomorrow. We are therefore continuously developing innovative, sustainable and useful solutions for their individual needs. Together we set standards in Industrial Connectivity.

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