You're striving towards new solutions
We're presenting the best connections of 2017
Let's connect.





### **Practical connectivity for your industry**

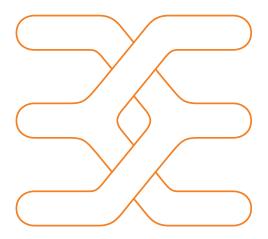
### **Our Industrial Connectivity innovations**

»When creating our innovations, we never lose sight of your future requirements. This is how we shape the industrial connectivity market over the long term.«

Industrial Connectivity means more to us than just electrical connectivity and electronics. The in-depth knowledge we have of our focus industries and our customers' specific applications translates into practical advisory skills and allows for the development of solution-oriented product concepts. Recent proof of this can be found on the following pages with the descriptions of our new products.

Find out about Klippon® Connect. Our pioneering solution in the field of electrical connectivity will provide you with support in all phases of panel building, with tailored application products, universal terminal blocks and process-supporting services. Our intelligent engineering software, the Weidmüller Configurator, makes component-oriented planning quicker and easier. With BLADEcontrol®, our future-oriented monitoring system for wind power installations, you can benefit from efficient, fault-free plant operation. Our RockStar® Moduplug modular plug-in connector system has become a benchmark in the electrical connectivity field. It combines flexibility and functional variety in the smallest of installation spaces, and allows for tool-free installation. With our new LLF PCB terminal blocks, you'll be able to connect power electronics quickly and easily.

Let's connect.

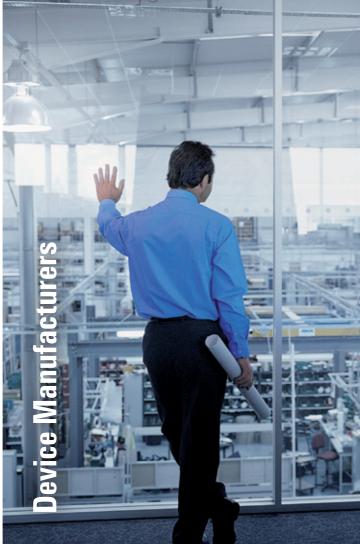














### At home in your industries

### We establish the best connections

Growing technological requirements, such as energy efficiency or cutting lifecycle costs, are industrial challenges - and decisive success factors at the same time. We combine sound industrial know-how with many years of development-related expertise, and thus create flexible, forward-looking connection solutions that grow with the needs of our dynamic markets.

Be it automobile manufacturing, electricity production or water management - hardly any of today's industries can do without electronics and electrical connectivity. In this internationalised, technologically changing world, the complexity of requirements is rapidly increasing due to the emergence of new markets. New, more varied challenges have to be overcome, and the solutions to them will not be found in high-tech products alone. Connectivity is the key, whether it involves power, signals and data, demands and solutions or theory and practice. Industrial Connectivity needs connections. And that's precisely what we stand for.

As an industrial connectivity partner, we support you in all your connectivity requirements, from the panel to the field. To create valuable innovations, we require in-depth insights into the needs of people who have to master industrial connectivity tasks in machine construction, power engineering, process and traffic engineering, in the development of infrastructures or in device manufacturing on a daily basis.

What would bring them a significant benefit? What specific challenges do their industries face? We ask ourselves these questions and respond with strong product solutions, tailored to each industry.

We connect people and markets, technologies and products around the globe - that's what we mean when we say "Let's connect.".

### News

# Highlights

# Connectivity



Extra efficiency in panel planning, installation and operation Klippon® Connect offers added value at all stages

An effective fast track for planning processes

Easy configuration and request process with the Weidmüller

Configurator

Safe supply for consumers in the panel
Klippon® Connect for optimum control voltage distribution

# **Device Connectivity**



Make your connections fit for the future
With the advanced solutions from RockStar® ModuPlug

### Electronics and automation

Greater returns, less risk
BLADEcontrol® provides timely warning of damage and icing



You wish for an all-inclusive supplier
Our complete solution meets all requirements



Reliable and fast connection in power electronic applications
LLF 7.50 PCB terminal with PUSH IN connection system

Connectivity

News

**Overview** 



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Klippon® Connect universal products with PUSH IN technology

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Klippon® Connect for optimum wiring
in confined spaces

Safety, protection and reliable disconnection of electrical circuits Klippon® Connect combines protective functions and quick assembly

Innovative ideas for panel building
Klippon® Connect solutions for
recurring applications

Reliable and efficient power supply
Really convenient with
Klippon® Connect

The secure and efficient way of distributing power
Klippon® Connect provides the required flexibility

Clear wiring for high-density signalling levels
With Klippon® Connect in the smallest

With Klippon® Connect in the smalle of spaces

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### News

### **Overview**

### Electronics and automation



Load monitoring and potential distribution combined maxGUARD – taking control voltage distribution to a new level

Complete transparency down to the sensor-actuator level IO-Link Master for the easy integration of IO-Link devices

Increased failure prevention and functional and operational safety Simultaneous support of two networks with u-remote Modbus TCP coupler

Increased ship automation performance u-remote for shipbuilding, approved by

classification societies

Individual system adaptation taken effortlessly into production u-remote for unique flexible fieldbus architectures

Exact measurement of weight, torque and oscillation
Highly precise analysis of load cells with calibration function

Decentralised collection and forwarding of signals on the panel u-remote Module in IP67: robust, versatile and flexible

Decentralised distribution of power in modular plant designs
FieldPower® with selective protection of system modules

Visualise, evaluate, and optimise energy flows individually
Customised energy monitoring with ecoExplorer 4.0

Optimal retrofitting of energy management solutions
The new EM Connectivity Box is a flexible, complete solution

More transparency about quality parameters of electrical energy Multi-functional power analyser powered by 24 V DC

Achieving the highest measurement accuracy in diverse applications

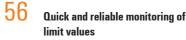
ACT20P PRO RTCI impresses with

extremely simple configuration



Signal converters without auxiliar power supply

ACT20P products can be loop powered via input or output



ACT20P limit monitoring relays for a wide range of applications

Compact timing relay for easy adjustment of the control signals IT-TIMER multi-functional timing relay with multi-voltage input

Installation of particularly compact and reliable connection solutions
BHF 5.00 PUSH IN for CH20M housings



Enhanced class II surge protection devices

VARITECTOR PU II for reliable protection in 230 V power supply networks

Solve simple instrumentation and control tasks economically
Robust logic units for process automation in harsh environments



Improve the profitability of photovoltaic systems
Customer-specific combiner box up to 1.500 V

Detects faults in photovoltaic systems in good time String monitoring device for 1,500 V DC photovoltaic systems

4 Replace PLC5 systems efficiently and without downtimes
Front adapter and pre-mounted cable for PLC migration

Migrate IPC620 systems in the shortest time possible
Simple control system conversion with IPC620 carrier

Connect DCS and PLS systems quickly and reliably
Backplane systems for integrating electronic components

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### News

### **Overview**

### WIN!

### Weidmüller Information & News

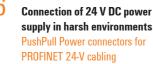
# Connectivity

# Simple power wiring up to 16 A and 630 V AC

Pre-assembled M12 power cables in four codings: S, T, K and L



Access plants, processes and protection units more efficiently FrontCom® Vario double frame provides more ports and a larger interface



Lighting for control cabinets and devices in the field
Weidmüller Industry Light WIL

### **Device Connectivity**

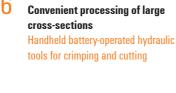


Reliable and fast connection of power electronics devices

LUF and LUFS series PCB terminal with PUSH IN connection

### Tools





Testing a wide range of system

Our instruments provide a helping hand with your electrical installation



# Marking system



Custom-fit labelling for your individual needs
Quick and reliable labelling with MultiMark heat shrink

In the online section of our customer magazine WIN! we keep you up-to-date about news and stories from the world of Industrial Connectivity. Learn through interviews, commentaries and background articles, what moves us and our markets to date. Furthermore, the exemplary stories of our customers' projects give you an idea of how our solutions shape our focus industries in practice.

Visit the magazine section of our website with its regularly updated news and stories:

www.weidmueller.com/WIN

### Service and support



Our expertise for your requirements
Service connects – worldwide

Experience the best connections of 2017 online on our innovations platform:

www.weidmueller.com/best-connections

Here, you will find all the technical information and ordering data – also available for download. If you prefer an overview in printed form, you can also order the catalogue here under the following order no.:

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We constantly offer up-to-date ordering data and technical details on our full range of products at: catalog.weidmueller.com

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### Extra efficiency in panel planning, installation and operation

### Klippon® Connect offers added value at all stages

As your partner in Industrial Connectivity, we consider panel building to be an integrated process - from the planning stage all the way to installation and operation. The latest example of this is Klippon® Connect. Our offer – which consists of tailored application products, universal terminal blocks and processsupporting services - provides you with productivity benefits at all stages of the panel building process. These include benefits such as time-saving planning and project planning, faultless wiring, fast marking and much more besides.

Often, standardisation enables the right solution to be found with our sophisticated, function-oriented universal range. It provides you with practical product features. For recurring application fields, such as control voltage distribution or signal wiring, we offer you the ideal solutions with our application range. Thanks to the high level of application focus, these solutions really do help increase productivity, efficiency and safety.



#### Achieving greater productivity one step at a time

Every panel building process starts with the planning stage. It is here that the foundation for an optimum set-up is laid. Once there is a plan in place, installation starts. The panel components are marked, wired and checked. The fully installed panel can then be put into operation. To ensure that you achieve the greatest possible level of efficiency in this process, we have continuously examined the optimisation potential of both the individual phases (planning, installation and operation) and how they interlink with one another. Innovative products and services that support you in all the stages of the panel building process are the

#### Up to 75 percent engineering time saved

· Faster planning with the Weidmüller Configurator

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- Error-free configuration through compatibility checks on products and accessories
- High level of transparency throughout the process thanks to linked data models
- Convenient creation of product documentation



### during operation

- integrated test point
- without special tools thanks to PUSH IN technology with pusher
- · Gas-tight connections for interference-free operation
- · Flexible, simple modification and extension

#### High wiring density with maximum ease of installation

- Noticeably faster wiring with PUSH IN technology
- · All product functions can be clearly distinguished
- Flexible potential distribution thanks to varied cross-connection options
- Faster marking thanks to endless marker strip and large marking





# Sustainably higher availability

- · Simpler testing procedure thanks to
- Rewiring possible during operation





Integrated request function

pre-installed on a top-hat rail.

The selected components can be requested

directly - either as individual components or

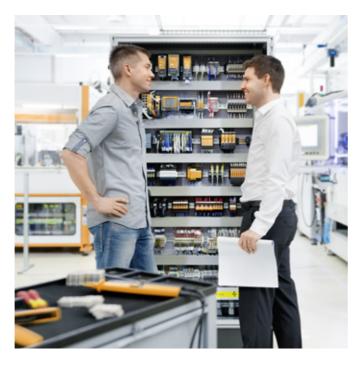
### An effective fast track for planning processes

### Easy configuration and request process with the Weidmüller Configurator

Engineering processes have to be completed with ever greater speed, precision and efficiency. This requires intelligent tools that provide optimum support for the complex planning processes.

The Weidmüller Configurator is a software solution for selecting, configuring and requesting terminal rails and terminal rail components from the Weidmüller range. The tool supports continuous engineering workflows from planning with E-CAD through to documentation.

Simple operation, a clear design and integration in your engineering systems make configuring terminal rails a simple, safe and convenient process. The fantastic attention to detail during the terminal rail assembly process increases planning quality compared with E-CAD systems.



The high-performance software makes it easier to select accessories, perform logic checks and label machinery and plant engineering equipment. It also simplifies the creation of parts lists and much more.

# Your special advantages:

### Simple operation and maximum attention to detail

The modern user interface and clear overview simplify operation and speed up configuration. What's more, the software's high attention to detail during the terminal rail assembly process guarantees improved planning quality compared with E-CAD systems.

The intelligent wizard function documents every instance in which a terminal rail is assembled and only allows permissible configurations.





### **Full engineering support**

The product data can be used in engineering systems such as EPLAN P8 or Zuken E3. 3D models are available for panel set-up.



friendly data exchange between CAD programs and marking systems such as M-Print® PRO.



The Weidmüller Configurator provides many advantages for your engineering processes. All information can be found at





The Weidmüller Configurator enables user-



**Integrated pushers** 

Simply pressing the pusher causes the contact to open and the conductor can be removed and there's no need whatsoever for any special

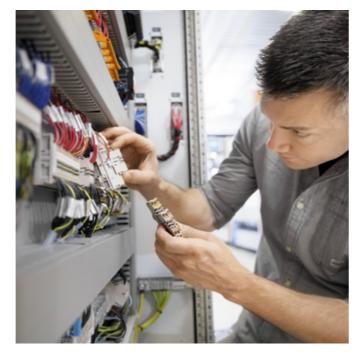
### Standardised implementation of efficient solutions

### Klippon® Connect universal products with PUSH IN technology

Ever more efficiency is required in installation as a result of growing competitive and cost-related pressure. Innovative connection solutions that offer both minimal installation time and maximum safety for users and equipment alike are very much in demand here.

With their simple handling and compact yet clear design, our new Klippon® Connect A-Series PUSH IN terminal blocks allow you to benefit from faster installation times and, in turn, from much higher productivity. Subsequent modifications and rewiring are possible using the simple functional principle and the two-sided, spring-loaded mounting foot without the need for any special tools. And safety is not neglected either: the innovative, spring-based direct insertion also guarantees vibration-resistant, gas-tight contacts even in challenging applications.

With our sophisticated and function-oriented Klippon® Connect universal products, you can address every requirement under the same standard.



Save space and improve clarity and functionality: Klippon® Connect terminal blocks with PUSH IN technology (A-Series) optimise the wiring process

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### Efficient markers

Large marking surfaces at each contact point simplify circuit allocation. The new marker strips make labelling more effective

**Integrated cross-connectors** 

Integrated cross-connection channels increase flexibility and shorten wiring times for panel

building. All cross-connectors can be adapted



**Compensating mounting foot** A spring-loaded mounting foot compensates for differences in terminal rail dimensions. This makes latching and unlatching the terminal

blocks easier



### The innovative PUSH IN technology of the new Klippon® Connect A-Series reduces connection times for solid wires and wires with crimped on wire-end ferrules. They can be directly connected without tools for speed and safety. Coloured pushers prevent incorrect wiring and speed up the installation process.

Take advantage of all the benefits of the PUSH IN technology

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Your

special

advantages:

### Fast wiring - but safe

### Klippon® Connect for optimum wiring in confined spaces

Panel builders need to consolidate multiple connections. With a growing complexity of applications, the number of necessary connections is constantly expanding therefore raising the importance of using the space optimally.

Weidmüller's solution to this challenge are the Klippon® Connect 3-tier terminal blocks with PUSH IN connection. In addition to their space saving design, the coloured pushers and clear marking guarantee secure and structured wiring.

By combining three potentials on a width of just 5.1 mm, Klippon® Connect 3-tier terminal offer an optimal solution to the current industry requirements.



The intelligent design and varied connection options make the Klippon® Connect 3-tier terminal blocks with PUSH IN technology real all-rounders in an extremely wide range of industrial applications.

# Your special advantages:

### Test point on each tier

The integrated test point simplifies wiring tests and troubleshooting at every tier. The requisite measurements can be easily performed with a 2.0 mm test plug.

### **Efficient wiring**

A terminal block is only 5.1 mm wide and can accommodate three potentials in order to save space. Cross connections on each tier permit a bridging of the potentials for shorter wiring time.



#### **Simplified testing**

The integrated test point on each tier allows for fast, straightforward testing procedures with standard testing plugs.



Safe and easy motor connection Klippon® Connect motor connection



### terminal blocks permit a fast and safe

wiring of three-phase motors in confined



### **Professional marking**

Various marking options support an unambiguous identification of each connection



You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections

### **Large variety**

Due to the colour-coded design and the different connection functionality, the terminal blocks are suited to a wide range of specialised applications.





# Safety, protection and reliable disconnection of electrical circuits

Klippon® Connect combines protective functions and quick assembly

Current protection, disconnection, and voltage distribution are critical functions inside a panel. In order to provide staff and machinery with optimal protection, customisable connection solutions have to combine these aspects within

The new Klippon® Connect disconnect and fuse terminal blocks with PUSH IN technology offer passive current protection in combination with both disconnection and voltage distribution.

The terminal blocks from our universal range guarantee a high level of flexibility. Their compact dimensions enable a flexible installation even under confined space conditions.



The Klippon® Connect disconnect and fuse terminal blocks with PUSH IN technology can easily be used for various different protective functions in an extremely wide range of industrial applications.

Your special advantages:

Only a standard screwdriver is required to remove the fuse holder from the terminal block, making maintenance highly efficient.

#### Attached fuse holder

Each fuse holder is attached to a terminal block with a hinge. This means that it will not go missing when the circuit is disconnected or when a fuse is replaced.



#### troubleshooting and maintenance: Any required measurements can be performed with a standard 2.0 mm testing plug.

The integrated test point simplifies

**Integrated test point** 

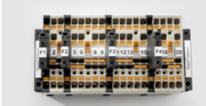




#### Safe power supply to panel equipment

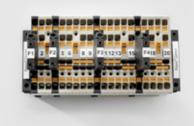
For an efficient control voltage distribution, Weidmüller offers potential distribution terminal blocks with and witout fuse.







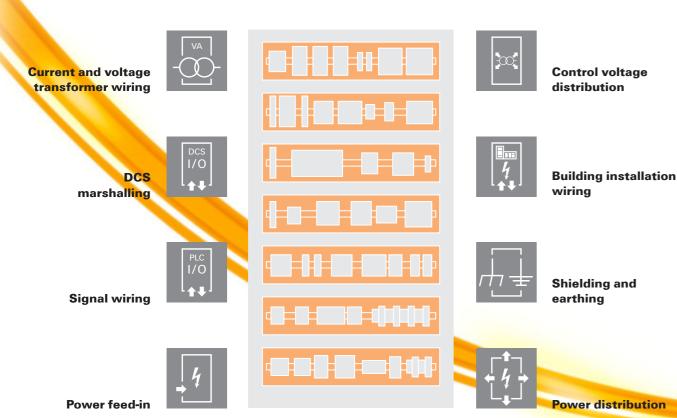
In terms of their design, the terminal blocks are clearly distinguishable according to functionality and thus ensure safe and efficient maintenance



# Innovative ideas for panel building

### Klippon® Connect solutions for recurring applications

Panels are configured individually. But in virtually all industries, there are certain applications that make recurring parts in the panel a necessity. We have identified and developed tailored solutions for these application fields. By purposefully structuring and adapting the product functions to the respective requirements, we are helping to boost productivity, efficiency and safety at all stages of the panel building process.





#### Power feed-in

Our wide range of W-Series terminal blocks with our WPD main line branch terminals, which are optimised to guarantee both convenience and space gains, ensures a secure and convenient connection at the power feed-in.



### Power distribution

You safely and efficiently distribute electricity to the power consumers with our W-Series feed-through terminal blocks and our optimised WPD phase distribution blocks.



#### **Control voltage distribution**

Our tailored AAP potential distribution terminal blocks are ideal for surge current protection and central control voltage distribution. Meanwhile, our new maxGUARD range enables potential distribution with integrated electronic load monitoring in the smallest of installation spaces.



#### **Current and voltage transformer wiring**

Our test disconnect terminal blocks featuring spring and screw connection technology allow you to create all the important converter circuits for measuring current, voltage and power in a safe and sophisticated way.



#### Signal wiring

Tailored and particularly compact: with our AIO initiator/actuator terminal blocks, you are relying on an application-optimised solution for signal wiring. We also offer you other terminal blocks featuring spring and screw connection technology for signal wiring.



#### DCS marshalling

Our innovative PRV terminal blocks for DCS marshalling featuring a PUSH IN connection and our multifunctional DCS marshalling terminals featuring a screw connection (WMF) not only save space in the panel; they also guarantee more effective signal transmission in process control systems.



#### Shielding and earthing

Our protective earth conductor and shielding terminals featuring different connection technologies allow you to effectively protect both people and equipment from interference, such as electrical or magnetic fields.

A comprehensive range of accessories rounds off our range.



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#### **Building installation wiring**

For building installations, we offer a complete system that revolves around the 10×3 copper rail and comprises perfectly coordinated components: from installation terminal blocks, neutral conductor terminal blocks and distribution terminal blocks to comprehensive accessories such as busbars and busbar holders.



Weidmüller 🐔

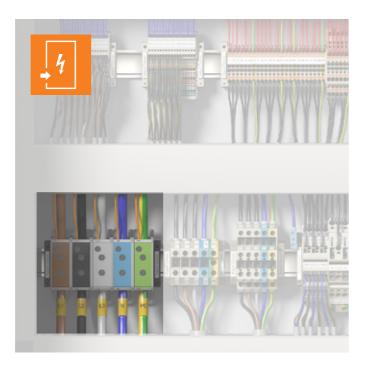
### Reliable and efficient power supply

### Really convenient with Klippon® Connect

A growing number of industrial applications needs to fit a large amount of technology into a very dense space. Different connection types must thereby be interchangeable, because cost-saving aluminium often replaces copper.

Klippon® Connect power feed-in terminal blocks WPD allow for an easy and safe installation of aluminium and copper conductors on a small footprint. A power supply or monitoring connection can also be used as an option.

Customers can use the power feed-in terminal blocks WPD, regardless of the conductor material. They can be mounted either directly or on DIN rail TS35.



With their slim design and approval for aluminium conductors, the new Klippon® Connect power feed-in terminal blocks WPD meet all of the requirements of complex applications.

Your special advantages:

### Pioneering solutions for power feed-in with aluminium and copper conductors

Whether confined spaces, large wire cross-sections or the use of aluminium conductors: the Klippon® Connect power feed-in terminal blocks WPD ensure reliable connections and a compact, clear panel design.

The possibility of direct mounting and the compatibility with the 35-mm DIN rail in accordance with EN 60715 and EN 50022 allow fast processing and installation.

















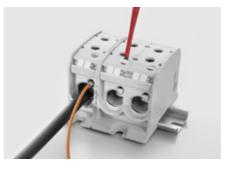






**Uninterrupted monitoring** 

Small power supply and monitoring connections can be installed without disconnecting any previously connected terminal blocks.







compact and robust design.



You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections



Weidmüller offers fitting SK WSD-S Allen keys DIN ISO 2936 L (DIN 911) made

from fully hardened high-alloy chromium-

vanadium-steel with a high-quality refined

Socket wrench sets

**Optimal level connection** 

connected

The terminal blocks enable an efficient potential

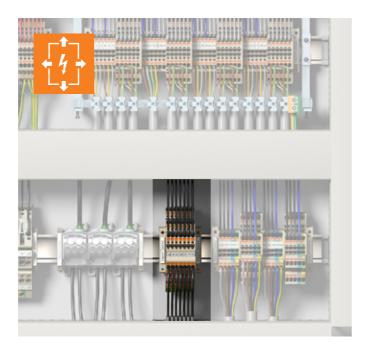
### The secure and efficient way of distributing power

### Klippon® Connect provides the required flexibility

Increasing levels of automation call for many three-phase motors to be attached as efficiently as possible. Thereby, all wires of a three-phase motor need to connect to a single terminal block, which is also used for potential distribution.

The Klippon® Connect motor connection terminal blocks AMC cut an impressive figure with their small design and the PUSH IN technology for the fast and safe wiring. Various marking options support distinctive marking.

Klippon® Connect motor connection terminal blocks AMC allow each potential to be connected to one tier of the terminal block. This potential connection within the terminal block provides reliable potential distribution.



The unique, triple-deck design of the new Klippon® Connect motor connection terminal blocks AMC allows for safe motor connection in the smallest of spaces

# Your special advantages:

### The pioneering solution for space-saving motor connection

The Klippon® Connect motor connection terminal blocks AMC enable a potential connection which can be plugged directly into each tier. Thus, the terminal blocks can also provide potential distribution and represent a remarkable space saving solution for many fields of application.

#### Testing point on each tier

The terminal blocks allow the recording of control measurements on each tier directly through standard 2.0 mm test plug.





ABCD

ABCD





Fast motor connection due to PUSH IN connection with an optional wiring of three potentials and a PE on the same terminal block on a width of just 5.1 mm.

### Applications up to 800 V

With its integrated end plate, the terminal blocks can handle applications of up to 800 V.

PE PE PE PE PE



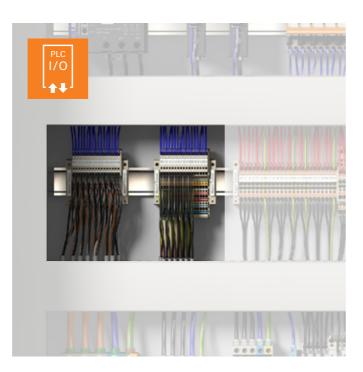
### **Clear wiring for high-density signalling levels**

### With Klippon® Connect in the smallest of spaces

With the current levels of automation, a large number of sensors monitor the production process. Terminal blocks are therefore particularly important for signal wiring.

Compared with conventional wiring solutions, the Klippon® Connect initiator/actuator terminal blocks AIO allow for high wiring densities with up to four different potentials on a width of just 3.5 mm. When combined with an I/O system, they ensure effective and safe potential distribution.

Our signal wiring solutions are geared towards future automation needs and are available in many different design types. The large number of variants allows you to benefit from maximum flexibility when it comes to designing the signal feed.



The Klippon® Connect initiator/actuator terminal blocks AIO resolve the challenge of wiring the large number of signals in a clear way by means of an extremely high wiring density with multiple potentials on a single terminal

# Your special advantages:

### The pioneering solution in the structured distribution of initiator and actuator signals

Klippon® Connect initiator/actuator terminal blocks AIO provide tailored and particularly compact solutions for wiring initiator and actuator signals.

#### **Coloured pushers**

Each conductor - positive, negative, signal or PE - has its own colour. Incorrect wiring is prevented, while installation and maintenance are made more efficient.



#### **Check and test point**

The different potentials can be tested at every contact point. Testing work in the panel is significantly speed up.





















You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections



Both rigid conductors and conductors with wire-end ferrules can be reliably connected directly and without the need for any tools. For maximum contact security in a minimum amount of time.





Whether it's for three- or four-conductor initiators or actuators with and without a protective earth connection, we've got the perfect terminal block in our range.

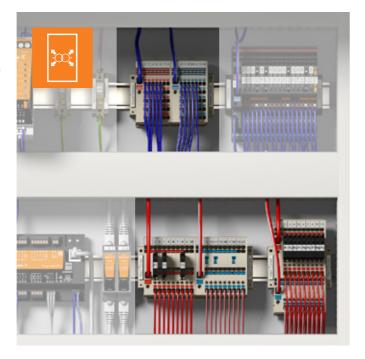
### Safe supply for consumers in the panel

### Klippon® Connect for optimum control voltage distribution

In control circuits, electrical energy from the power supply is distributed to downstream consumers in the panel. In order to guarantee safe supply of power, a confusingly high number of conductors must be connected, which can lead to

Our Klippon® Connect control voltage distribution terminal blocks AAP with and without fuse allow the simple and compact construction of complete control voltage distribution. They ensure effective control voltage for the equipment in the panel. The unique modular concept can be tailored individually to each machine type.

The potential distribution terminal blocks AAP impress with their standardised design with two possible structures alternating or grouped. Simple cross-connection options save space and installation time and prevent incorrect wiring.



The tailor-made Klippon® Connect potential distributor terminal blocks AAP ensure a neat and compact design of the control voltage distribution. Fused distribution can also be implemented in an even smaller space than was previously possible.

Your special advantages:

### The pioneering solution for wiring complex control circuits

The innovative Klippon® Connect potential distributor terminal blocks AAP enable the neat and compact design of complete control voltage distribution. The modular concept provides the corresponding products for implementing control voltage distribution with either fuse protection (AAP21 - AAP22) or without (AAP11 - AAP14).

#### Space saving

The combined functionality of positive and negative potentials in one terminal block enables a significant space saving.







The colours make distinguishing between the different potentials easy. Time-consuming and costly troubleshooting is prevented.

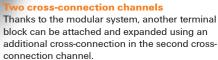


#### Potential distribution with fuse protection

The fuse can be replaced quickly and easily by simply releasing and opening the fuse holder on









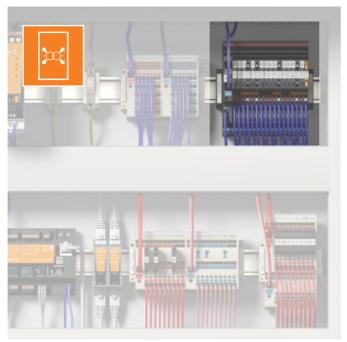




Fail-safe and maintenance-friendly control voltage distributions that can be installed in a time and spacesaving manner are a must for efficient machine and facility

With the new maxGUARD system, the terminal blocks (previously installed separately) for distributing potential to the outputs of the electronic load monitors become an integral part of a 24 V DC control voltage distribution solution.

The innovative combination of load monitoring and potential distribution saves time during installation, increases safety against failure and reduces the amount of space required on the terminal rail by 50 %.



Ideal for machines and systems: the reliable maxGUARD system represents load monitoring and potential distribution all in one. It saves space and time, can be applied in a modular fashion and is extremely service-friendly.

# Your special advantages:

### Unique combination of load monitoring and potential distribution

The unique combinability of electronic load monitoring and potential distribution terminal for a complete 24 V DC control voltage distribution creates plenty of space on the terminal rail, saves valuable wiring time and eliminates wiring errors. The modular system adapts itself optimally to every application.

#### **Extreme ease of servicing**

Sophisticated operating, testing and connection elements permit safe access to



#### **Practical disconnecting lever**

Potential distributor with a disconnecting lever for simple galvanic isolation of the load circuit for testing and checking purposes.



Can be used in a customised way

The sheer range of variants and the very different potential distribution terminals and additional components enable customised











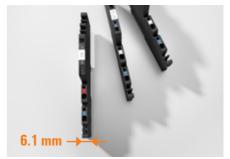
all voltage potentials and load circuits during commissioning and maintenance.



**Innovative cross-connections** Less time and effort needed for wiring due to cross-connections between load monitoring and potential distribution terminals



**Particularly space-saving** Electronic load monitors and potential distributors with a 6.1 mm pitch.



### Complete transparency down to the sensor-actuator level

### IO-Link Master for the easy integration of IO-Link devices

Machines must provide a timely return on investment. Thus, they should be permanently available. Prerequisites for availability are an easy installation, commissioning, parameterisation, and transparent diagnostics in case of errors and downtimes.

u-remote increases machine availability by using IO-Link right down to the sensor/actuator level. This level of transparency permits easy wiring, automatic parameter setting, efficient communication, and extensive diagnostic options.

The new 4-channel IO-Link Master meets current requirements by means of simplified installation and commissioning, extended power supply, automatic parameter setting and expanded diagnostic functions.



For use in the fields of food & beverages, packaging, intralogistics and assembly lines.

# Your special advantages:

### **IO-Link devices offer a greater performance**

The large number of extra features offered by the new u-remote IO-Link Master ensure easier commissioning, more transparent processes, and a greater level of efficiency.

These enhancements generate a higher return on investment.

#### Web-based commissioning

u-remote permits a web-based configuration of the IO-Link Master and IO-Link devices.

Additional standalone software tools are not required



#### Increased power supply

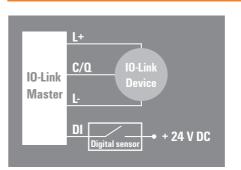
Each type-A IO-Link port can supply 150 % of the minimum current limit, set by the IO-Link interface and system specification. The total is up to 500 mA per port.





### Additional digital inputs

Due to the 4-pin connector technology, the IO-Link Master supplements each IO-Link port with digital input in accordance with EN 61131-2.



#### IO-Link Master in IP67

u-remote also offers IP67 IO-Link Master modules with eight IO-Link channels and an integrated PROFINET gateway.





#### Electronics and automation | u-remote - Modbus TCP Dual LAN

# Increased failure prevention and functional and operational safety

### Simultaneous support of two networks with u-remote Modbus TCP coupler

Redundancy systems in plant engineering are regularly used to prevent the risk of process shutdowns. In plants where production outages are cost-intensive and repairs are not possible every time, redundancy systems are indispensable.

The u-remote Modbus TCP coupler supports both dual LAN and switched modes. The Dual LAN mode has two MAC addresses and works independently with two different networks. In switched mode, the coupler supports a line topology.

One redundant architecture with two controllers and two independent networks allows for communication with two clients simultaneously with equal priority. This significantly reduces the down times.



Suitable for use in continuously running production facilities such as power plants and wastewater applications.

# Your special advantages:

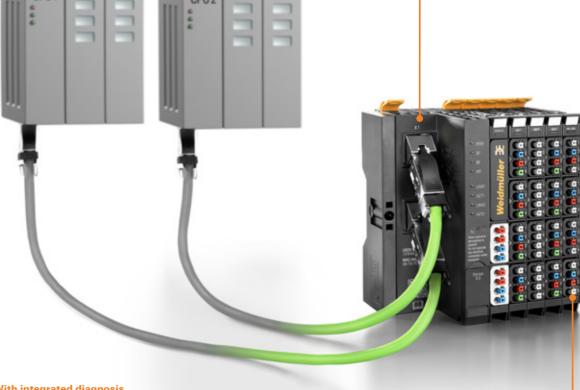
### Simple selection between two functions

The Modbus TCP coupler supports two network functions: The standard switched mode communicates with one PLC in a line topology, and the Dual LAN mode operates with two networks and two PLCs.

#### **Optimises redundant architectures**

Due to its two Ethernet ports, the Modbus TCP V2 coupler communicates with two synchronised controllers in two independent networks.





### With integrated diagnosis

Using the high-performance web server, you can parameterise and simulate the functionality of inputs and outputs prior to connecting a control.



#### Unique planning flexibility

Only with u-remote the supply for the inputs and outputs is separated by two distinct 10 A current paths. The I/O modules can be flexibly distributed without the need for extra power feed modules.



### **Increased ship automation performance**

### u-remote for shipbuilding, approved by classification societies

On a ship, many parameters have to be controlled, monitored, and managed simultaneously. The list includes voltage, current, temperature, pressure, level, flow, viscosity, propulsion plant status, power management, navigation, and

Modern ships increase their efficiency through fully integrated automation systems, which cover many operations. u-remote is the most user-friendly I/O concept on the market to combine high-performance automation with optimal system handling.

u-remote offers unique properties to make ship applications more reliable and efficient, providing significant advantages compared to the competition.



It is suitable for use in the fields of transportation and

# Your special advantages:

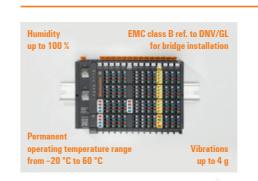
### Modular and flexible I/O solution for ship automation

u-remote is the perfect response to the increasing challenges in ship automation, particularly due to its high level of flexibility and easy handling. Thanks to a smart and robust design, u-remote can flexibly serve any automation task in all areas on a ship - from machine room to bridge installation.

Remote web access

The integrated u-remote web server enables a unique rapid error identification with plain-text diagnostics - even via an Ethernet connection.

Despite its high level of modularity, the u-remote is still able to withstand demanding environmental conditions, such as wide temperature ranges, humidity, vibration, and electromagnetic fields.



#### Rapid error diagnosis

System errors can be localised instantly by an LED signal directly on the channel and diagnosed with status indicators on every











### **Comprehensive certification**

u-remote meets all of the requirements of ship automation applications. It is certified by the biggest and best-referenced classification societies and certification bodies.





### Individual system adaptation taken effortlessly into production

### u-remote for unique flexible fieldbus architectures

Increasingly specific customer requirements need solutions for a flexible fieldbus architecture that are not only adapted to suit demands, but also fast and straightforward to

The new u-remote fieldbus coupler supports the POWERLINK Industrial Ethernet standard. u-remote is fully compatible with Powerlink Version 2 thanks to its certification from the user organisation EPSG. An integrated web server enables system diagnosis to be carried out even before connecting to the control.

u-remote enables you to meet individual customer requirements with needs-based fieldbus architectures. Convenient handling makes installation simple, while the extensive diagnosis function helps to optimise and speed up processes.



When it comes to incorporating machines and plant parts into complex production lines, u-remote's high migration and diagnostic capabilities are what truly give it the edge.

# special

### The ideal way of implementing customised solutions

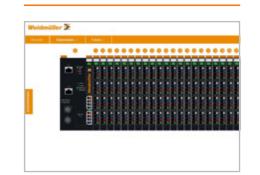
With the new u-remote fieldbus coupler, your automation solutions and processes become more customised and more flexible, as well as faster, more productive and easier to analyse.

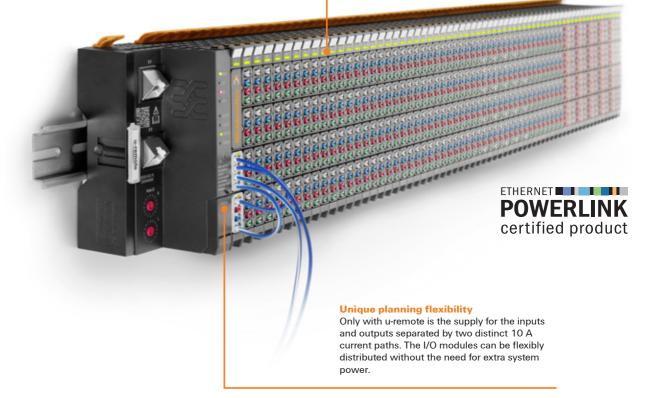
u-remote is the first third-party provider to offer full integration of a modular remote I/O system into the B&R automation studio.



#### With integrated diagnosis

Using the high-performance web server, you can parameterise and simulate the functionality of inputs and outputs prior to connecting a control.





You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections



advantages:

Your

The strain gauge module from u-remote provides an accuracy of up to 0.01% with two 24-bit resolution channels. Calibration and gauging enable industrial applications. A tare function can be triggered per channel

Processes are optimised and costs reduced. Calibration of independent locations can be performed easily via the u-remote web server. User-friendly calibration via the web server has a password protection as well as documentation functionality in order to secure settings.



The u-remote strain gauge module enables the parallel analysis of measurement data from up to four load cells on a single channel.

Your special advantages:

### Simple calibration via web server

Sensor adjustment and the calibration of the u-remote strain gauge module are performed independently via the integrated web server.

#### Flexible tare function

module or via software, thereby the flexibility for



#### **Compact and powerful**

Compact enclosures just 11.5 mm wide as well as the latest analogue technology with 0.01 % input accuracy and 24-bit resolution save space and money.





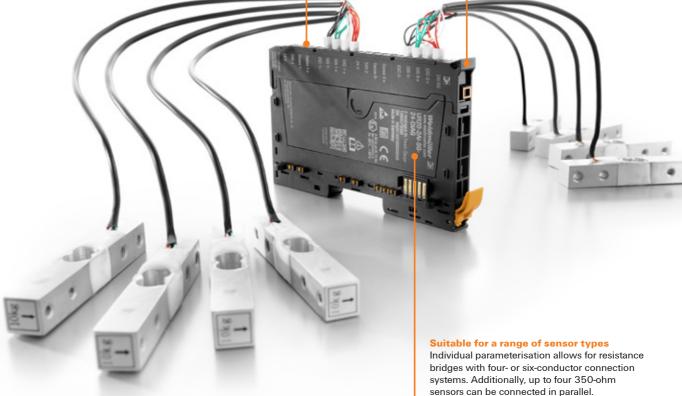






Measured values can be reset directly on the the user increases.





### Decentralised collection and forwarding of signals on the panel

u-remote Module in IP67: robust, versatile and flexible

The progressive decentralisation causes that more and more automation systems are being brought out from the control cabinet into the field. This opens up a wide range of opportunities but also conceals complex challenges.

u-remote IP67 modules bring more power to the system, as 16 A can be supplied through their L-coded plugs. The most compact design in the market and multi-protocol modules with PROFINET and Ethernet/IP are among the other outstanding features of the new member of the u-remote

The new IP67 Remote I/O modules increase the performance and efficiency of your plants and make optimum use of the available space thanks to the two designs. The technical properties are impressive even at the system planning and assembly stage.



IP67 remote I/O modules are used wherever there are increased requirements in terms of particle and humidity protection. With u-remote, you can increase efficiency and open up new potential solutions - discover the variety!

### Your special advantages:

### More efficient and flexible system design

The increasing power-supply energy opens up more efficient design options: up to 17 x 16 DI modules can be wired in a line, which considerably reduces expense. Thanks to the L-coded plug, only one module and a cable set needs to be stocked each for PROFINET and EtherNet/IP.

#### One module for two protocols

Whether PROFINET or Ethernet/IP: thanks to the multi-protocol module of u-remote, you only need one remote I/O module on stock.



#### **Maximum power in the system**

The L-coded plug makes a 16 A power supply possible. It allows a greater number of consumers which can be wired in a line and thus reduces the level of cabling.



### Extension of the remote I/O system The IP67 remote I/O modules are an extension of the innovative u-remote

system. To allow the simple completion of your overall solution, power supplies and switches, cables and plugs also come from Weidmüller.



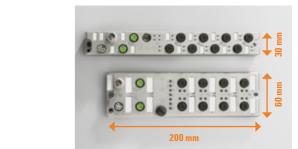
### IO-link type A and B on one module

The benefits of IO-link lie in the improved parameter and diagnostic properties for the connected sensors and actuators. On the type B ports actuators with up to 2 A can be connected. Additionally every port can be configured as an input or an output.

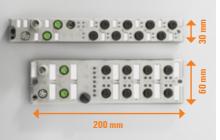


#### **Compact designs**

The 30 mm wide design is particularly suited to confined spaces. Even the short length of the modules and their low weight are to be highlighted as they offer advantages for many applications.







Safe operation

The power line has no disconnection points. This cuts out function problems with downstream loads as a result of increased or

fluctuating contact resistance.

FieldPower® with selective protection of system modules

In machinery and plant engineering, planning and implementation times can only be reduced with modular plant designs. Power distribution with the necessary protection and monitoring functions must be part of the system modules.

The FieldPower® enclosure and power distribution system, which is in itself modular in design, enables the decentralisation of many plant functions. The new installation module for three-phase voltage monitoring makes monitoring and remote reporting of a fuse tripping possible. This is particularly beneficial in combination with CC fuses for the American market.

As part of plant modules, FieldPower® is the multifunctional replacement for central panels. This provides optimum support for fast planning and implementation and efficient operation of plants.



The automotive and robotics industry is a perfect example of the switch from complete panels to decentralised plant operation. FieldPower® guarantees reliable

Your special advantages:

### Protects during maintenance and operation

The unique combination of a 400 V power bus with monitored branch fuses and disconnecting load-break switches is quick to install and protects the plant in the event of a short-circuit and the personnel during maintenance. The differentiated status messages increase plant availability.

#### **Transparent remote monitoring**

The new installation module for three-phase voltage monitoring enables monitoring and conductors.



#### **Easy installation**

Conductor cross-sections of up to 16 mm<sup>2</sup> can be connected via the WPD potential distribution terminals. Smaller crosssections are protected via the built-in WSI fuse holders.













remote reporting of a fuse trip via M12 sensor

supply and monitoring.

**Selective fusing** 

The integration of fuses of up to 32 A enables fusing of individual outlet lines and whole power bus segments.





You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections

### Visualise, evaluate, and optimise energy flows individually

### Customised energy monitoring with ecoExplorer 4.0

Energy-efficient infrastructure and production systems reduce operating costs and increase productivity. This even applies to Industry 4.0 working environments. Knowing the energy consumption is a prerequisite for increasing energy efficiency.

ecoExplorer 4.0 has many new visualisation options. It functions with mobile devices and makes work easier. Scalability, the per-second acquisition of measurement data and flexible user and rights management increase efficiency

The easy integration of field devices and the support of any energy medium as well as process data mean that the ecoExplorer 4.0 can be adjusted to customised requirements and is fit for the digital future.



ecoExplorer 4.0 can be used effectively in almost all industrial sectors.

# Your special advantages:

### User-friendly energy monitoring in real time

ecoExplorer 4.0 is modular and thus combines easy integration and compatibility with existing - even mobile - devices which results in an excellent usability and makes a broad range of relevant measured values available.

Onsite installation is carried out by remote access, so no additional programming is necessary. The configuration can be accessed via a graphical user interface.



### International use

The user interface and documentation are available in German and English. Multiple remote business locations can be integrated.



### High level of upgradeability

The addition of new field devices is possible at any time. The ecoExplorer 4.0 supports a wide range of devices and transmission protocol

#### Technical assistance

Weidmüller is on hand to help you with hardware selection, the measuring point concept, the initial configuration and any subsequent issues.



ecoExplorer 4.0 is compatible with measuring devices, remote IO devices, signal converters and with a wide range of industrial ethernet components from the



plug and play technology.

and split-core type current transformers, a quick

and easy installation is guaranteed thanks to

Industrial Ethernet components.

# **Optimal retrofitting of energy management solutions**

### The new EM Connectivity Box is a flexible, complete solution

An increasing number of companies want to or have to install an energy management system, which typically requires changes at a machine level. In this case, the aim is to avoid integrating measurement hardware into existing

The new EM Connectivity Boxes from Weidmüller provide the perfect conditions for the installation or expansion of an energy management system. All of the connection components required are completely integrated into a single enclosure outside of the machine.

The EM Connectivity Boxes make it easy to integrate an energy management system into almost every application, without the need for major changes.



The EM Connectivity Box from Weidmüller has the perfect properties to allow really effective introduction or extension of an energy

### **Optimal protection**

Our enclosure fulfil up to IP65 requirements and allow for reliable measurements, even in harsh environments.

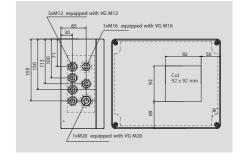


### Minimum adjustment effort

The installation of an energy management system requires only minimal adjustments to be made to existing machines, systems and electrical distributors.

### **High cost efficiency**

Excellent cost-benefit-ratio due to the standardised and fit-to-purpose design.



# Your special advantages:

### Easy and flexible retrofit solution for energy management

EM Connectivity Boxes can be installed quickly and easily without the need for further engineering work. Their tried-and-tested components are all mounted in one IP65 enclosure, which also contains the cables, terminals and fuses.

# More transparency about quality parameters of electrical energy

### Multi-functional power analyser powered by 24 V DC

An increasing number of non-linear loads are entering production plants. Such loads have a strong influence on the "purity" of the electrical energy and, thus, on plant and machine availability.

The new Energy Analyser D550-24 reliably measures all quality parameters of the electrical 230 V AC supply at machine level wherever 24 V DC powers electronic

Monitoring the quality of electrical energy on a production site is the basis for initial optimisation steps, which are used to increase the efficiency and availability of your equipment.



Greater added value for industrial plants and production facilities.

# Your special advantages:

### Comprehensive measurement of power quality down to machine level

The Energy Analyser allows for multiple measurements, for example, of consumption, harmonics, and short-term interruptions of 230 V AC supply in addition to the recording and storage of transients with a single device powered by 24 V DC.

#### **Integrated PLC functionality**

The Energy Analyser has PLC functionality that permits comprehensive programming. External processing power is not needed, which saves on costs.



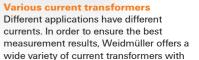
### 24 V DC auxiliary voltage

Wherever 24 V DC powers electronic equipment, e.g. in machines, the Energy Analyser D550-24 is the right choice to measure the consumption of electrical energy as well as the power quality.



### **Integrated gateway**

Through the Modbus gateway function, the Energy Analyser allows for the simple and cheap integration of Modbus-RTU devices into an Ethernet architecture



different maximum ratings.





Achieving the highest measurement accuracy in diverse applications

### ACT20P PRO RTCI impresses with extremely simple configuration

To ensure a smooth process, many industries – from machine construction to process and energy technology - require secure isolations of temperature, resistor, potentiometer, current, or voltage signals as well as precise signal conversions.

The ACT20P PRO RTCI universal temperature converter delivers an impressive performance with a simple configuration via integrated display. It supports many sensor types offers a high isolation level and a superior accuracy.

A digital output for monitoring limit values, a universal power supply and extensive approvals make the ACT20P PRO RTCI one of the most reliable and accurate signal converters on the market.



Ideal for applications where on-site isolation of measured values is required.

### Your special

advantages:

### **Integrated display**

Uniquely simple, the signal converters are configured using the integrated display. It makes configuration a fast and intuitive process that requires no other external devices.

#### ACT20 signal converter

Whatever the requirements are, the analogue signal converters of the ACT20 series will provide reliable and accurate signal conversion and isolation.



#### **Set point limit monitoring**

The additional digital NPN output with over- and under limits, window alarm, hysteresis, and trip delay allows an accurate set point limit





#### Flexible integration

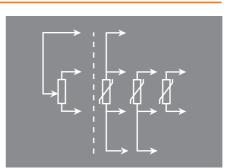
The ACT20P PRO RTCI can be used in a wide range of applications thanks to the unipolar and bipolar current and voltage outputs and the robust universal power supply.



**Universal input** 

### Quick configuration

The integrated display makes the configuration of the ACT20P PRO RTCI universal temperature



The ACT20P PRO RTCI measures any resistance like temperature resitors or motor windings and can be used in combination with a wide variety of RTD, TC, R, Poti, voltage, and current sensors.



converter a considerably faster process.



# Signal converters without auxiliary power supply

### ACT20P products can be loop powered via input or output

From process and energy technology to mechanical engineering: given the need to measure and isolate analogue values on-site, costly auxiliary power supplies are almost always required for supplying the signal converters with

Due to the integrated input or output current loop, the new ACT20P loop-powered products do not require an extra external power supply. They can also be used easily in remote control boxes.

Integrated into a 12.5-mm-wide enclosure, the signal converters take up little space on a DIN rail. A configurable protection against mismatching and a release lever for the female plug guarantee reliable connections.



On-site measurement and isolation of values without auxiliary power supply.

# Your special advantages:

The integrated input and output loop power supply makes the ACT20P product a unique solution for many industries as well as for machine and plant construction. Its small size ensures space-saving installations in remote control boxes.

#### Quick and easy installation

The single-function modules require absolutely no configuration. Therefore, the new ACT20P products speed up installations and reduce

#### No additional power supply

The new ACT20P products are fully supplied



The individually coded connectors ensure a high level of protection against mismatching of the

terminals and facilitate their maintenance.

Reliable connections

with power by the input or output loop. There is no need for an additional auxiliary power supply.



#### Particularly space-saving

The placement of 2 channels at a width of only 12.5 mm allows for a space-saving installation in every control cabinet.



### **ACT20** signal conditioner

Whatever the requirements are, the analogue signal converters in the ACT20 series will provide reliable and accurate signal conversion and isolation



### **Quick and reliable monitoring of limit values**

### ACT20P limit monitoring relays for a wide range of applications

One device – lots of potential applications

Because of its universal power supply, versatile input functions and

international approvals, you now only need one product for limit monitoring.

In many industrial applications, limit values need to be constantly monitored in order to guarantee smooth processes. Specific guidelines and standards often make the use of different limit monitoring relays a necessity.

The new ACT20P limit monitoring relays have a universal power supply and global approvals, so they can be used consistently across a wide range of applications. The products are characterised by their wide range of alarm functions, high repeat accuracy and measurement sensitivity, absolute reliability and simple operation.

ACT20P limit monitoring relays are the reliable, flexible solution to limit monitoring: for example in machine, plant and panel building, in wind energy, in EX areas and shipbuilding.



Thanks to the reliable monitoring of a wide range of measurement parameters, ACT20P limit monitoring relays are perfectly suited to applications in transport, energy and process engineering and in machinery and plant engineering.

The software provided (FDT/DTM or ACT20 tool) means that ACT20P trip amplifiers are quick and easy to configure.



### Usable around the globe

A wide range of international approvals mean the products can be used in a wide range of applications all over the world.

### All-purpose usage

The universal power supply enables use in a



Alongside ACT20M with a 6 mm width, ACT20X for intrinsic safety applications and ACT20C for communicationscompliant applications, ACT20P limit monitoring relays are the latest addition to the ACT20P functions.



very wide range of applications.



#### Addition to the ACT20 family



# Your special advantages:

#### 56 Weidmüller 🛣

### Compact timing relay for easy adjustment of the control signals

### IT-TIMER multi-functional timing relay with multi-voltage input

Timing relays are frequently used in automation engineering in order to compensate malfunctions caused by high cycle rates. Short pulses are extended and hence are reliably identified by downstream control components.

The timing relay offers high functionality on a small footprint. Due to the flat front panel, an easy-to-read LED display as well as operating elements adjustable by standard tools, the configuration is particularly straightforward.

With the IT-TIMER, Weidmüller offers a highly efficient multifunctional timing relay with multi-voltage input, which fulfils the product standards in accordance with IEC 61812-1.



The IT-TIMER timing relays are used in factory automation for easy adjustment of the control signals.

### Your special

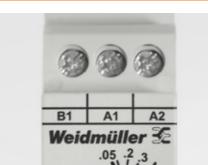
advantages:

### A compact device with easy configuration of the time functions

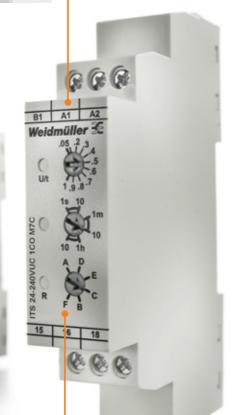
Its compact size, the multi-voltage input and an easy configuration of the time functions make the IT-TIMER a smart solution for your application.

#### Multi-voltage input

The timing relay operates from 24 V DC up to 48 V DC and from 24 V AC up to 240 V AC. It can therefore be used in a wide range of







#### **Global standard**

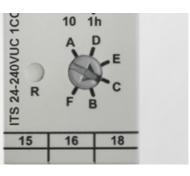
International usage is guaranteed in accordance with the standard IEC 61812-1.







Due to its multi-functional concept, the IT-TIMER covers a broad range of typcially needed time functions

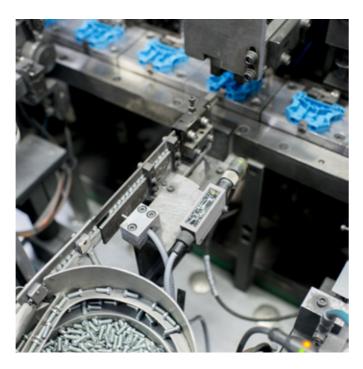


# Installation of particularly compact and reliable connection solutions BHF 5.00 PUSH IN for CH20M housings

Controls, I/O systems and signal interfaces in particular need to have components that are as compact as possible, while also offering excellent functionality, vibration-proofing and simple handling.

The new BHF 5.00 PUSH IN signal plug-in connector achieves these requirements thanks to its space-saving design and innovative PUSH IN connection method, optimised for wire cross-sections of up to 2.5 mm<sup>2</sup>.

The new BHF 5.00 PUSH IN is ideal for installations near pumps, motors, compressors and any applications with strong vibrations where connections must be reliable.



Ideal for use in harsh industrial environments with strong or constant vibrations.

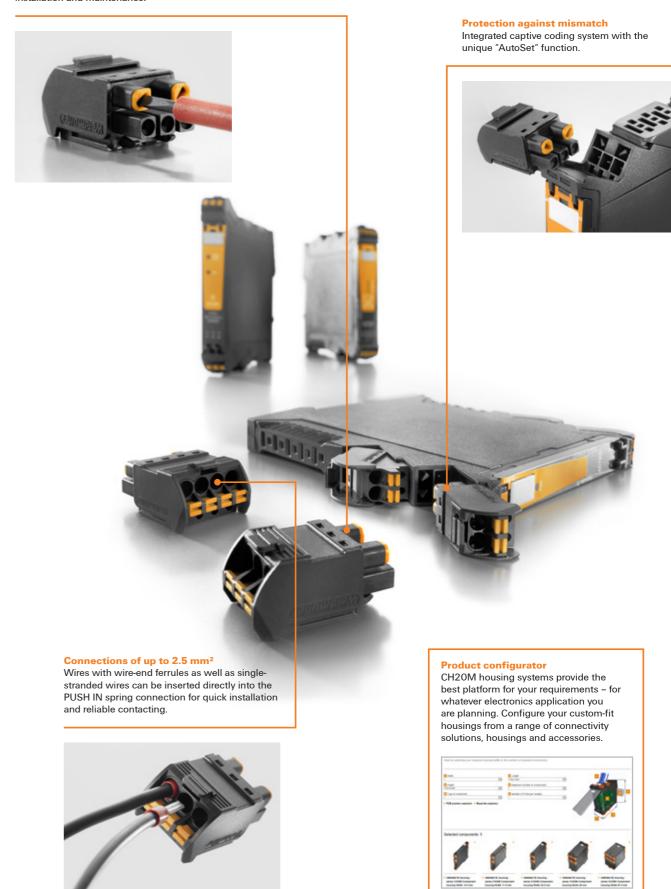
# Your special advantages:

### Perfect handling - small size

All-in-one: the BHF 5.00 combines all of the benefits of a compact, pluggable connection, especially for the CH20M housing solutions

#### **High wiring safety**

The contact is easy to open, and the conductor is removed by pushing the operating lever. This ensures fast, safe and simple wiring during installation and maintenance.



You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections

# **Enhanced class II surge protection devices**

VARITECTOR PU II for reliable protection in 230 V power supply networks

An important VDE regulation for a higher surge protection within power supply networks in buildings was revised in 2016. The new DIN VDE 0100-534:2016-10 defines the protective measures to be implemented and stipulates that greater protection is needed for 230 V systems.

VARITECTOR PU II conforms to the latest standard with an enhanced nominal discharge current. It is therefore particularly suited to systems with enhanced protection requirements.

The new N-PE surge arrester units for single-phase and threephase VARITECTOR PU II 280 V may carry nominal surge currents up to 40 kA, ensuring an optimal surge protection for personnel and machinery.



Surge protection solutions for energy and process industries and mechanical

# Your special advantages:

### Optimal surge protection

VARITECTOR PU II complies with the latest VDE standard and thus guarantees the future-proof protection of sensitive modules, devices and equipment.

#### **Compliant with the latest standard**

VARITECTOR PU II is future-proof and compliant with the latest VDE 0100-543 standard.



#### **Preconfigured products**

Application-oriented product configurations for single-phase and three-phase energy supply infrastructures.



**Enhanced discharge current** 

The nominal discharge current of In = 40 kA ensures increased surge protection.



You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections

#### Improved protection

Provision of reliable protection for power supplies for sensitive modules, devices and systems with enhanced requirements.



The continual rotor blade monitoring of BLADEcontrol® sustainably reduces maintenance and repair costs. The system continually monitors the condition of each individual rotor blade and detects any minor changes, 24 hours a day, 365 days a year.

The highly sensitive sensor system of BLADEcontrol® and its special evaluation method detect minimal changes to natural vibration behaviour, such as those caused by ice build-up and damage.



For manufacturers of wind turbines, for owners and operators of wind farms.

# Your special advantage:

### Monitors rotor blades to detect ice build-up and even minor damage

BLADEcontrol® identifies problems much earlier than visual inspections could do and, thus, prevents damage from escalating in an uncontrolled manner at an early stage. By reducing the risk of expensive repairs, the economic efficiency of the entire installation increases.

#### **Timely damage detection**

If minor damages are detected early, unnecessarily high maintenance and repair costs can be avoided. Older installations can therefore become more efficient.

#### Reliable ice detection

BLADEcontrol® detects critical levels of icing and signals when there is no further risk. This allows the wind power installation to be stopped and restarted automatically according to the level





#### Sustainable revenue increase

Through continual rotor blade monitoring, BLADEcontrol® reduces maintenance and repair costs and ensures installations, sustainable availability and fast amortizing.



### Take control

Along with solutions like screw monitoring and tower installation systems, BLADEcontrol® provides a critical contribution towards the complete monitoring of a wind turbine.



### **Damage monitoring and tracking**

BLADEcontrol® instantly transmits data regarding all detected damage to a monitoring centre, where experts evaluate the data and prepare specific action recommendations for the user







### You wish for an all-inclusive supplier

### Our complete solution meets all requirements

Wind has always been our passion. Indeed, we have been acquiring experience since the "pioneering times" and incorporated it into our products and solutions. We have seen ourselves as being a partner to our customers from the very outset. We wanted to create added value for them, which is why we are continuously developing ourselves making the move from being a component supplier to an application-specific solution provider.

We also regularly anticipate new trends and technologies such as the IOT, sensor systems or cloud services. We take up and further develop innovations and offer innovative solutions - from assembling enclosures for sub-applications to creating a complete automation solution for a wind turbine. We are continuously further developing ourselves in line with our motto "Never stop!" - and all the while keeping an eye on the essentials and our customers' needs.

Our solution for small wind turbines includes hardware, software, engineering for the tower and nacelle, as well as services such as plant project planning and services.



Wind turbines are directly exposed to changing weather conditions and therefore have to withstand high stresses. Our wind energy solutions satisfy all standards, laws, provisions and quidelines to quarantee faultless plant operation even under the toughest conditions.

### Your special advantage:

### Innovativ and future-proof automation solutions

With our tailor-made automation solutions, we offer a complete package or individual components for the wind energy of the future. What option you choose is entirely up to you. In offering such solutions, we make servicing measures simpler, commissioning faster and downtimes a far less frequent occurrence. We call the concept of efficient and flawless plant operation "Never stop!".

#### Cloud services

Our solution for cloud-based plant communication forms the basis of rapid and reliable access - whether you're working on a PC or on the move, for control rooms, service technicians and end customers.

#### Individual assembly

We conceptualise and produce specifically designed boxes and control cabinets - such as top and bottom boxes - to automate your small wind turbine.

#### **Plant project planning**

We support your project at all stages - starting with the conceptual planning via engineering through to the integration test. Our experienced project managers impress with their knowhow and use of modern document and project management systems.



Service technicians can also quickly and intuitively access all relevant information A flexible end-user package is also available to customers. It provides plant information in an individually scalable manner on all common terminal devices via remote access. SCADA solutions are possible too.

**Plant automation** 

functional module library.

You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections

For convenient plant automation and operation management, we offer a modern computer-

aided software engineering tool comprising

a software development environment with a



#### **Full service**

In addition to the appropriate use of hardware and software, we give you technical, commercial and conceptual support by providing you with comprehensive services relating to any issues

you might have.

### Solve simple instrumentation and control tasks economically

### Robust logic units for process automation in harsh environments

Often expensive solutions with sufficiently high temperature stability and vibration resistance are needed for process automation in harsh environments. However, in the case of simple control and regulation tasks with few inputs and outputs, economic solutions are called for, above all.

The fully encapsulated logic units WCU 501 and WCU 650 reliably monitor, control and regulate processes - even under extreme environmental conditions. The graphics programming allows flexible switching of the analog and digital inputs, as well as the power outputs.

Whether in apparatus and panel building, for autonomous automation tasks, as a monitoring system or for signal processing for superordinate controllers: the WCU logic units are small, intelligent, flexible, extremely robust and can be deployed especially cost-effectively.



The WCU 501 logic unit is used in the "Tower Installation" system for wind power installations to inform service technicians with a flashing signal about failure of the external power supply.

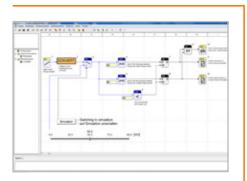
## Your special advantages:

### Intelligent, flexible and robust

Complete encapsulation of the PCB makes the electronics insensitive to humidity. The range of application lies between -40 and +70 °C. The WCU logic unit withstands vibrations up to 5 g and shocks up to 10 g.

#### Intelligent

The WCU logic units have a large number of predefined function blocks - from the basic arithmetic operations through to timers. This makes them into an intelligent automation tool.



**Customer-specific engineering** We combine consultation, application competence and industry expertise and

offer comprehensive solutions for wind

energy applications from a single source.

Thanks to the encapsulated PCB, the electronics are extremely insensitive to humidity, temperature fluctuations, vibrations and shocks.





All WCU logic units have several analog and digital inputs, several power outputs and a PWM output. The WCU 650 communicates via a CAN bus interface to other bus users or superordinate controllers.



#### Simple, graphic programming For programming, the WCU logic units are

connected via USB cable to a standard PC. The free software is intuitive to operate.





Weidmüller ₹ 69

## Improve the profitability of photovoltaic systems

Customer-specific combiner box up to 1,500 V

When designing and setting up your photovoltaic system, what you're really trying to do is to achieve the greatest possible level of cost effectiveness throughout the overall operating time. The best way to do this is not to compromise on quality and performance.

Increasing the string voltage to up to 1,500 V is an effective way of increasing your systems' profitability and cost effectiveness in the long term. The complexity of the photovoltaic system as a whole is reduced, as fewer components and materials are needed. This results in installation and maintenance-related cost benefits.

Our combiner boxes designed up to 1,500 V are a specially high quality and reliable solution for increasing the efficiency of your photovoltaic systems. All of the components are certified in line with the IEC 61439-2 standard and meet the latest safety standards.



Today, return on investment is crucial for the success of a photovoltaic system. The cost aspect will become even more important in the future too due to growing competitive pressure.

### Your special advantages:

### Monitoring of strings for systems with 1,500 V

Many functionally critical components are used in photovoltaic modules and solar inverters. For this reason, a reliable monitoring system should be implemented from the very first use of these products. In this way, power losses and faulty switching in individual strings can be recognised and eliminated in good time.

#### **High protection class**

Ultra-modern protection mechanisms are used to guarantee the best surge protection. The system conforms with the current photovoltaic standard EN 50539-11.



#### **Easy maintenance**

The new 1,500 V combiner box was designed for reliability and economy. Maintenance work is easy to carry out, even after many years of use in the field.

#### WM4 C plug-in connector

rated current of up to 35 A. Thanks to the novel protection against twisting, it offers you addition safety in the assembly of enclosures. The WM4 C plug-in connector is TÜV-approved (German Technical Inspectorate) and meets the requirements



#### The WM4 C withstands loads with a

of the DIN EN 50521 standard.



#### Easy to wire in the field

The 1,500 V combiner box is delivered ready for connection. The integrated Transclinic 16i+ 1K5 monitoring module enables supply from the DC string as an option.



### **Optional monitoring**

We advise monitoring each and every string to ensure that your photovoltaic system delivers optimum performance. We also provide nonmonitored solutions upon request.



#### Long service life

All the components are optimised to guarantee



that they will have a long service life. This is ensured through compliance with the IP standards and certification pursuant to DIN EN 61439-2.

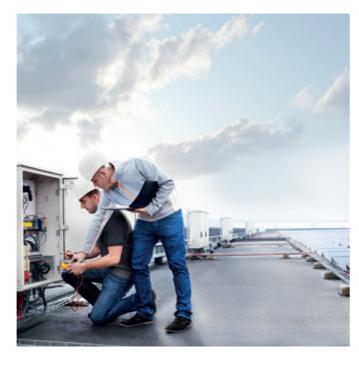
### Detects faults in photovoltaic systems in good time

### String monitoring device for 1,500 V DC photovoltaic systems

Timely detection of faults or loss of performance within a photovoltaic system is of crucial importance for smooth and economical operation.

With the new Transclinic 16i+ 1k5 string monitoring device, voltage and current within a photovoltaic system can be monitored with the DC string up to 1,500 V.

The solution offers the possibility of monitoring individual photovoltaic strings in order to detect faults or loss of performance on the DC side in a timely way. This allows the performance of the entire photovoltaic system to be increased and economy to be enhanced.



In case of complex photovoltaic systems, faults and loss of performance often go unnoticed for a long time. Transclinic 16i+ 1k5 facilitates monitoring and thus raises performance.

Your special advantages:

### A well-proven system for string voltages up to 1,500 V

Proven components make Transclinic 16i+ 1K5 reliable, even under extreme conditions. The system is robust, easy to configure and cost-efficient by enabling voltage measurements of up to 1,500 V.

#### **Extremely reliable**

Transclinic 16i+ 1K5 has been designed for extreme conditions and offers a high level of reliability and operational reliability in a temperature range of -25 °C to +70 °C.

+70°C The integrated system allows safe monitoring of to -25 °C

a kakakakakakalatatatatatata

**Particularly high performance** 

system voltages up to 1,500 V.

**Broad solution competence** 

From system planning through to the connection components: We offer innovative and complete solutions for photovoltaic systems and adapt them individually to your needs.







The system can be easily configured via DIP switches - without any need to use a computer.



The open Modbus RTU RS485 protocol makes incorporation in SCADA systems easier and reinforces communication security







### Replace PLC5 systems efficiently and without downtimes

### Front adapter and pre-mounted cable for PLC migration

PLC and DCS systems quickly become obsolete and regularly need to be replaced with new models, particularly in cases where they no longer meet plant requirements, their manufacturer support expires or where they are not compatible with new elements or applications.

The Rockwell PLC5 is one such system that recently became obsolete. Weidmüller is therefore providing its users with a platform to migrate the PLC5 to more modern controllers supplied by Rockwell or other manufacturers, without changing the existing wiring in the control cabinet.

Migration systems and PLC front-panel adapters from Weidmüller make changes to the PLC or DCS structure simple. In addition, users of the Rockwell PLC5 system can now save time and money when performing the necessary migration to more modern systems.



In many fields of industry, processes and systems need to operate without downtimes - even when upgrading PLCs. Migration systems offer the perfect solution.

## Your special advantages:

### Quick, secure and error-free migration

The existing field wiring is retained, thus reducing the time required to rewire the installation. Production facilities and automation systems can resume normal activity without downtimes during the migration. Pre-mounted cables, FADs and configuration tables allow for error-free cabling.

#### **PLC5-compatible**

The front adapters are compatible with all major PLC5 wiring arms: 1771-WA,1771-WC,1771-WD,1771-WF,1771-WH and 1771-WN.



#### **Space-saving**

The front adapters can either be placed on the old PLC5 rack or directly on the DIN rail.













The wiring arm is securely accommodated in the front adapter thanks to the robust fastening system.



#### **Pre-mounted cables**

Certified, pre-mounted cables simplify the PLC migration process. Cables can be provided with a conductor size up to AWG18 (0.75 mm<sup>2</sup>)



### Migrate IPC620 systems in the shortest time possible

### Simple control system conversion with IPC620 carrier

When upgrading obsolete PLC/DCS systems, an increasing number of users are opting to keep their existing wiring. This allows the migration to be performed considerably faster, more efficiently and with fewer errors.

Many users of IPC620 systems such as the Honeywell Logicmaster will soon have to upgrade their controls. With the system-specific migration system from Weidmüller, the migration to a new system can be completed in just a few hours.

The particular advantage of the Weidmüller migration platform is its clever concept: using a system-specific front adapter, the new PLC/DCS can be connected to the existing field wiring, eliminating the need for time-consuming and costly rewiring.



In many industries, plant operators need to perform PLC system updates without any downtimes. In situations such as these, PLC migration adapters from Weidmüller are the perfect solution.

# Your special advantages:

### Straightforward PLC/DCS conversion within a few short hours

All components are immediately ready for use following the conversion, and existing field terminations remain grounded. Interlocking plug-in connectors prevent cabling errors.

#### **Minimal number of components**

Weidmuller's migration solution includes just two cable types and four versions of a card



#### **PLC** interface cables

The IPC620 carrier is compatible with PLC/DCS systems from Honeywell and other manufacturers, and can be connected using pre-mounted cables.







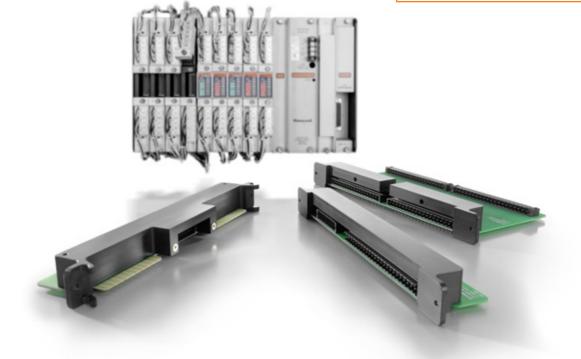






adapter (12, 22, 24 and 38 connection points).





#### **Global approvals**

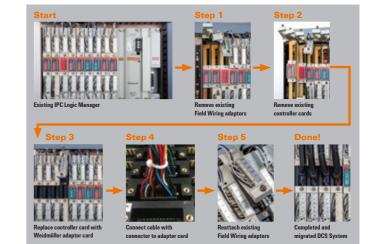
The card adapters are cURus approved.

You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections



### **Straightforward migration process**

The entire migration process can be performed in just five simple steps.



# **Connect DCS and PLS systems quickly and reliably**

### Backplane systems for integrating electronic components

The highly complex connections between DCS, PLC and other electrical components need to be wired as efficiently as possible. In some cases, additional functions also need to be integrated without taking up more space.

Backplane systems allow various electrical components, such as SIL relays or analogue converters, to be connected quickly and conveniently. This speeds up the installation and vastly simplifies the connection to the PLC or DCS.

The reinforced circuit board of our backplane allows various electrical components to be accommodated and makes it easier to add individual extra functions in a confined space. Certified pre-mounted cables simplify the connection to the DCS system and improve efficiency.



Backplane systems can help facilitate installation and wiring in the process industry - particularly when a large number of components need to be connected.

## Your special advantages:

### Simple integration of electrical equipment and components

Save time and costs: backplane systems simplify the installation and wiring of complex circuits and process systems. Using pre-mounted cables during installation can also effectively minimise incorrect wiring.

#### **Integration of additional functions**

If required, functions such as power supply alarms, diagnostic functions or HART connectivity can be integrated in the backplane without taking up extra space.



Pre-mounted cables

variety of lengths.

Pre-mounted cables ensure error-free connections between the backplane and PLC/DCS system, and are available in a

You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections

#### Fast and simple installation

Rigid printed circuit boards in combination with MTA mounting adapters for DIN rails ensure a robust system in the control cabinet.



#### Universally usable system

The system can be be combined with all major commercial PLC models according to customer requirements, including Yokogawa, Honeywell, Invensys, Emerson and Siemens.



### **High compatibility**

Thanks to clip-fit fixing to the DIN rail, modules and components can be installed, replaced and customised quickly and easily.





## Make your connections fit for the future

### With the advanced solutions from RockStar® ModuPlug

Industrial applications are becoming increasingly complex. The demands being made on the connectivity used are growing at the same time. Functionality in the smallest of installation spaces, safe installation and a fast retrofitting process are just some of the product properties that are needed.

Not only does our RockStar® ModuPlug modular plug-in connector system meet current market requirements; it has been specially designed also with the future in mind. Using the individual modules, you combine all the necessary functions for power, signal and data transmission in a single interface. Thanks to the new variety of module sizes, you can fit more applications than ever before in one plug-in connector. The modules reduce the amount of space required and cut costs as compared with fixed-pole inserts and other modular plug-in connector systems.

The sophisticated frames and modules can be installed with extreme ease and integrated into HDC housings with the IP65 and IP68 protection classes. You can even use the RockStar® ModuPlug to supplement existing applications without any need to make system adjustments.



For machines and systems, the supply of energy, signals and data is associated with considerable complexity in terms of cabling. RockStar® ModuPlug is a convenient, space-saving and efficient solution

Your special advantages:

### **Excellent functionality and flexibility and simple installation**

RockStar® ModuPlug sets standards in electrical connectivity: four different module widths ensure maximum flexibility. A reduced pitch distance allows a lot of functions to be fitted into a small space. The easy-to-handle push-in frame reduces assembly times and enables the modules to be fitted without using tools.

#### **Grid size halved**

The module grid size in the frame has been halved. This doubles the number of module spaces and increases the functionality in the same space.



### Safe fixing

The two-point fixing system prevents the module tipping or sliding in the frame. This makes installing and removing the modules really easy, even without tools.





The high-performance 100 A module is available in a new "Single Plus, 1.5" width. It is narrower than the market standard and creates space for further modules.



#### High speed module

The compact bus module can cope with megabit and gigabit data. This allows the integration of up to two Cat. 6, cables, each with 10 GBit in one module.



Perfect combination: RockStar® With the modular RockStar® system, Weidmüller is now offering a whole range of heavy-duty connectors from a single source which meets all the relevant requirements.





# Simple power wiring up to 16 A and 630 V AC

### Pre-assembled M12 power cables in four codings: S, T, K and L

Previously, the power wiring for installation of machine and plant components involved fabricating cables and distribution boxes on site. This led to long installation times and frequent errors. Plug and play solutions based on M12 provide an answer to this problem and enable reduced machine installation times and reduced error rates.

Our pre-assembled M12 power cables simplify power wiring and save time on machine setup. The different codings available ensure high flexibility in designing a modular power supply in the field.

The power cables are augmented by the existing SAI distributors and the free-assembly connectors.



The power supply to the robot is really quick and simple to set up with the pre-assembled M12 power cables

# Your special advantages:

### The one-stop solution

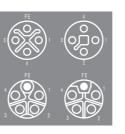
Weidmüller offers a complete solution consisting of free-assembly plug-in connectors, encapsulated cables and the associated SAI distributors. Together, they form the optimum solution for quick, error-free power distribution for machines and plants.

#### Quick and safe

Thanks to the pre-assembled power cables, installation is quick and error-free. Wiring errors caused by incorrect assignment are safely

#### Complete portfolio

The new cables are in addition to our S and T coded system of power cables.





### **New connections** L-coded cables now also enable connections at



up to 16 A by means of M12 plug-in connectors.

### plant power wiring

In addition to the new M12 power cables, Weidmüller offers SAI MVV and SAI SVV distributors and field-attachable plug-in connectors, which is an optimum solution for quick, error-free power wiring in the



### Integrated solution for





# Access plants, processes and protection units more efficiently

### FrontCom® Vario double frame provides more ports and a larger interface

Fast, safe, and efficient access to control elements is a must in diverse industrial fields. Particular applications require access to the protection unit (GFCI/RCBO) from outside a control cabinet. Other applications demand a combination of many ports in one design.

FrontCom® Vario assures technicians fast access to control elements in a cabinet without having to wait for specially authorised personnel. The service interface has a double frame that offers the required amount of space to combine up to 10 ports, with the option to connect a power socket with a circuit breaker.

Given its unique features, FrontCom® Vario is a particularly safe, fast, and future-oriented solution. On-site maintenance and optimisation processes become much more efficient and thus less expensive.



FrontCom® Vario allows fast and safe access to the control elements in the control cabinet for convenient troubleshooting, configuration, programming, and for readout of production data.

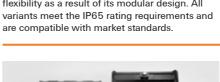
## Your special advantages:

### Multiple onboard ports combined in a double frame

FrontCom® Vario allows concurrent connection of up to 10 ports. It is compatible with single insert plates to permit numerous different port combinations.

#### Flexible and modular system

FrontCom® Vario achieves unparalleled levels of flexibility as a result of its modular design. All



#### Clear identification

**Future-proof data transmission** 

10 GBit/s

RJ45 inserts, under the latest Cat. 6, standard, guarantee the best transmission characteristics.

They allow high data transfer rates of up to

A large marking surface supports perfect equipment identification and legibility. An optional touch-safe protection on the inside offers additional marking options.





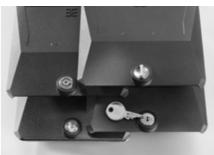
The optional shielding has to be connected only once to the frame's earthing screw to earth all of the metal inserts



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#### **Different protection levels**

FrontCom® Vario is available with various locks. From simple knobs to locks with inverse cabinet keys (Daimler Lock) and further to genuine security locks for perfect protection.





### Connection of 24 V DC power supply in harsh environments

### PushPull Power connectors for PROFINET 24-V cabling

In the automotive industry, connectors need to be able to withstand severe conditions, in particular cablings in industry robots. They must be extremely robust and easy to fit, while ensuring optimal locking even during sharp accelerations.

Weidmüller PushPull Power connectors are standardised for 24 V cablings, following the PROFINET specification. In contrast to other available standard connectors, they have an enhanced connection area that supports conductor crosssections up to 2.5 mm<sup>2</sup>. They also hold sheath diameters from 6 to 13 mm and are assembled of two parts only for faster and simpler installation.

The revised PushPull connector displays a simplified design and a smart twist protection against mismating for simple, reliable connection solutions.



Power connectors in accordance with German norms for robot cabling in the automotive industry

## Your special advantages:

#### Large connection area

An expanded connection area and a range of supported sheath diameters readily permit connecting with 2.5 mm<sup>2</sup> cables. The sheath diameter may range from 6 to 13 mm, thus no additional gasket set is needed for installation.

#### **Smart twist protection**

A clearly visible mark and an additional stopper prevent mismatching and, thus, avoid device



13 mm, even 2.5 mm<sup>2</sup> cables can be connected







#### Simple assembly

The new power connector comprises of only two parts. The insert is simply connected and locked. No additional assembly of the connector housing is required.



You will find technical information and ordering data online on our innovations platform: www.weidmueller.com/best-connections

#### **Extra secure locking**

Secure fastening even in the case of sharp accelerations, which occur when heavy loads have to be moved.



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## Lighting for control cabinets and devices in the field

### Weidmüller Industry Light WIL

Control cabinets are often insufficiently lit. Conventional cabinet lighting, however, is too large and expensive. A favourable lighting solution should be space-saving and effective to make maintenance work in cabinets more efficient and safe.

The new Weidmüller Industry Light meets these requirements. A compact LED light illuminates the inside of the cabinet with a wide light cone. The smart solution can be used as illumination in the field as well.

The new LED light is designed to fit exactly into a standard cabinet and is protected against water and dust for field use in accordance with IP67. Its intelligent design makes it extremely robust and small.



Contemporary and energy-saving lighting solution for various industrial fields.

## Your special advantages:

### **Optimal illumination for any purpose**

Increasing safety requirements and growing cost pressures call for an increasingly more efficient deployment of maintenance workers in the field. Weidmüller Industry Light WIL is a powerful, elegant and economical solution, reducing the time required for and costs of maintenance.



In order to provide maximum flexibility, LUF 90° offers two test points - one beside the cable entry and another beside the actuating lever side. LUFS 180° features one test point located beside the cable entry.

**Convenient access to test points** 



### Reliable and fast connection of power electronics devices

### LUF and LUFS series PCB terminal with PUSH IN connection

Maximum performance with increased economic efficiency - these are the current trends in the field of power electronics. In order to achieve this goal, devices must combine excellent functionality with simple operation. This will have an impact on the device connectivity systems, which need to be fault-free, safe and quick in their usage.

The LUF PCB terminal from the OMNIMATE Power product range features proven PUSH IN connection technology. This has allowed us to carry out tool-free wiring for wire cross-sections up to 16 mm<sup>2</sup> and to meet requirements in accordance with UL 1059 for 600 V in the 10.00 mm pitch and with 1,000 V in the 15.00 mm pitch.

LUF(S) provides high levels of contact reliability based on the Weidmüller Connection Safety Concept. The terminal contact shuts automatically to prevent malfunction. LUF has a tool-free wiring system, and LUFS can be actuated with a simple screwdriver to connect cross sections up to 16 mm<sup>2</sup>. The PUSH IN connection system also allows a quick, convenient and therefore efficient wiring.



The LUF and LUFS are not only proving to be impressive thanks to their good performance and easy operability - ensured by the unusually high level of contact reliability - but also meets all the challenges that arise in power electronic applications.

# Your special advantages:

### Perfect connection thanks to high levels of contact reliability

This contact system is automatically closed after being opened. This intelligent Connection Safety Concept helps to ensure that the wire is always connected safely.



#### **Comfortable actuation**

An ergonomic lever makes it easy to open the clamp and release the wire. The contact point for LUF can be opened comfortably by hand, and LUFS can be opened using a standard screwdriver

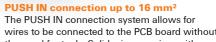


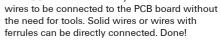


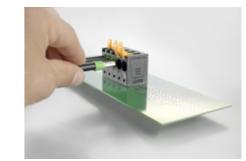
#### **Compliant with UL 1059**

As a result of the offset arrangement of the solder pins, the LUF 15.00 and also the LUFS 15.00 allows unrestricted international use in applications in accordance with UL 1059 up to 1,000 V.











Two test points with LLF, one located beside the

cable entry and another beside the actuating

lever, provide a great flexibility during testing.

**Convenient access to test points** 

### Reliable and fast connection in power electronic applications

LLF 7.50 PCB terminal with PUSH IN connection system

Modern systems and technology - for example, photovoltaic inverters - underlie continuous development and optimisation. Technological advances often depend on powerful, flexible and robust connectivity systems to ensure secure and reliable operation.

The LLF PCB terminal from the OMNIMATE Power product range features proven PUSH IN connection technology. This has allowed us to carry out tool-free wiring for wire cross-sections up to 6 mm<sup>2</sup> and to meet requirements in accordance with UL 1059 for 600 V in pitch 7.5 mm.

Just like the PCB terminals LUF and LUFS, LLF uses the Weidmüller "Connection Safety Concept", which has a PUSH IN connection for quick and safe mounting. The actuation lever allows for quick, simple, and safe wiring with excellent performance.



LLF is capable of handling challenging applications that not only require high current and voltage but also demand a secure connectivity. LLF maximises connection safety and reliability within a compact space.

## Your special advantages:

#### **Comfortable actuation**

The ergonomically designed lever allows an operator to easily actuate and open clamp in order to release the cable. The contact point get readily opened by hand without the need for any physical exertion.



#### **High level of reliability**

LLF provides high levels of contact reliability based on the "Connection Safety Concept". The terminal contact closes automatically to prevent malfunction.







### Compliant with UL 1059 up to 600 V

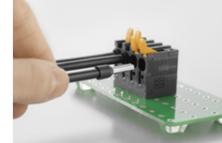
As a result of the offset arrangement of the solder pins, the LLF allows unrestricted international use in applications in accordance with UL 1059 up to 600 V.



The PUSH IN connection and the simple and safe operation of the actuator lever ensure quick, convenient and efficient wiring of cross sections up to 6 mm<sup>2</sup>.









# Easy conductor stripping and crimping in one work step

## Electrically-driven stripping and crimping machine for standard applications

The continuous acceleration of individual work steps is essential to achieving sustainable corporate success, with particular regard to strong international competition.

Crimpfix E unifies conductor stripping and crimping in only one work step. Its unique design allows for efficient cable assembly in small and medium production batches.

With Crimpfix E, Weidmüller expands the range of automated machines that speed up the working processes to meet increasing industrial requirements.



Efficient cable assembly for small and medium production batches, e. g. in panel building.

# Your special advantages:

### Convenient, flexible and durable solution for a wide range of cross-sections

Crimpfix E covers a broad range of industrial requirements for cable assembly. Its characteristics are a consistently high quality and long service life.

#### Simplified usage during production

Easily changing of machine parameters for different cross-sections.





Integrated touch display is showing current machine settings and as well as daily, total and

**Convenient handling** 

service counter.



**Robust and durable** Precisely engineered metal components ensure a long service life.



vith Weidmüller ferrules Crimpfix E operates with Weidmüller standard 8 mm ferrules in different colour codes. The combined usage ensures safe and reliable connections.



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**Easy-to-understand documentation** The battery-powered hydraulic tools have an

internal memory to save all single crimps/cuts for

later documentation. Easy transmission via USB

## **Convenient processing of large cross-sections**

### Handheld battery-operated hydraulic tools for crimping and cutting

Cables with large cross-sections are used in the generation and distribution of electricity. Reliable and safe connections and user-friendly processing of the cables must be guaranteed. These represent benchmarks of technological advances that are growing in importance.

The new handheld tools are ergonomic, battery-powered hydraulic devices which produce safe and resilient crimp connections for loss-free power transmission with minimal contact resistance.

In this way, Weidmüller tools combine superior processing quality for every work step with the best ergonomic performance to meet the market requirements for safety and reliability.



This ensures the simplified processing of large cross-sections for energy supply and distribution

# Your special advantages:

### Optimal ergonomic design meets benchmark-setting crimping and cutting results

Clean cuts facilitate optimal subsequent operations. Compact crimps achieve pull-out values beyond standard requirements. Ergonomic design improves handling and accelerates the work process.

#### Wide cross-section range

The EPG 60 crimping tool comes with various crimping dies to process cross-sections for Euro and DIN 46235/DIN 46234 series of up to 300 mm<sup>2</sup>.



#### **Superior WM crimp shape**

The combined hexagonal/double indent crimp shape leads to optimal processing quality and reduced complexitiy levels in terms of varying types of conductors.



#### Wide range of cable lugs

The new crimping tool in combination with suitable die sets allows for the processing of various standard cable lugs, which Weidmüller also offers in the Euro/ DIN series





Weidmüller ₹ 97

Simple voltage testers

Our voltage testers offer great performance in a handy format and have a wide range of uses

VT CTB is especially suitable for cars, Trucks and

both in and out of industry. For example, the

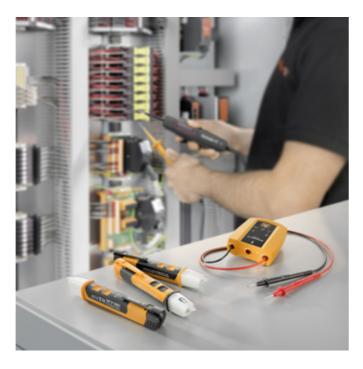
## **Testing a wide range of system functions**

### Our instruments provide a helping hand with your electrical installation

Smooth processes and the safe operation of electrical systems and devices are the basic requirements of any industrial application. In order to guarantee this, all relevant functions must be carefully checked during installation and service. Professional testing instruments are therefore part of the basic toolkit of any electrical installation engineer.

Weidmüller testing instruments combine a range of established functions with additional benefits. They support their users quickly and reliably when it comes to troubleshooting, safety and function testing. It goes without saying that all our testing instruments comply with all relevant standards and VDE requirements.

Our new testing instruments not only comply with all the latest requirements in terms of functionality and compliance with standards, they also have an impressively high quality design and are particularly intuitive to use.



For quick diagnosis and testing voltage, magnetic field and continuity. Even in hard-to-reach spaces.

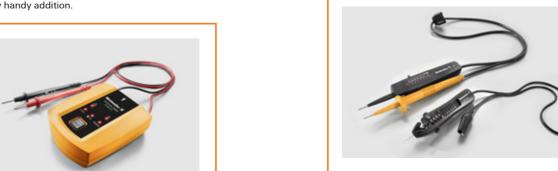
# Your special advantages:

### One-stop shop for measuring and testing instrument

Whether you are testing voltages, magnetic fields or continuities: you will always find a practical, clever testing instrument solution in the wide range of testing instruments from Weidmüller.

#### **Multifunctional continuity testers**

Our continuity testers offer optical and acoustic continuity signals. This means wiring errors and cable and network breaks can be quickly and easily identified. The built-in LED flashlight is a very handy addition.





#### Non-contact voltage and magnetic field testers

Non-contact voltage and magnetic field testers are quick and simple to apply, as stripping the conductor is no longer required. Ideal for hard-to-reach places.



#### 2-pole voltage testers

In the future too, our comprehensive range will include our two-pole voltage testers which allow testing of not only voltage and continuity but also rotating field, frequency and many other values.



### **Custom-fit labelling for your individual needs**

### Quick and reliable labelling with MultiMark heat shrink

The identification of individual conductors in the panel makes maintenance and troubleshooting much easier. However, to date it has been difficult to place data from a CAE system onto a conductor so that it is clearly legible on a long-term basis, space-saving and easy to implement.

MultiMark heat shrinks can be printed directly using the Weidmüller THM MMP thermotransfer printer within a few seconds. The flexible sleeve material is easy to remove from the substrate, push onto the conductor and shrink by applying heat so it fits firmly on the conductor.

The combination of MultiMark heat shrinks and the universal THM MMP thermotransfer printer makes the marking of individual conductors quick and economical.



MultiMark heat shrinks fulfil the demanding fire safety requirements in accordance with CEN/TS 45545-2 HL3 and are therefore ideal for use in the railway industry.

## Your special advantages:

### Standard-compliant marking

MultiMark heat shrinks fulfil all current standards for the marking of cables and conductors: wear resistance in accordance with DIN 72551-5/1992-02-00, salt spray resistance in accordance with DIN EN IS 9227/2015-09-00 and DIN 50021 SS, heat and cold resistance in accordance with UIC 895/1976-07-01 and chemical resistance in accordance with DIN EN ISO 2812-4/2007-05-00.

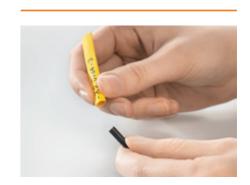
#### **High-quality material**

The halogen-free polyolefin is approved in accordance with DIN EN 45545 HL2 and BS 6853. It is therefore suitable for applications in the traffic engineering, marine or offshore

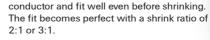


#### **Easy opening**

The sleeve can be easily opened to save on installation time. The slightly oval shape of the material means a quick press on the side is all that is required.







Saving space on the conductor The markers are simply pushed onto the



### A large selection

The large range covers conductor diameters from 0.8 mm to 38.1 mm. A wide range of colours is available as standard.



#### The smart all-in-one system Whether modular terminal blocks, conductors, cables or devices: the MultiMark product family consisting of markers, printers and software is perfect for practical marking in all areas.





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### Our expertise for your requirements

### Service connects - worldwide

Automation technology functions are becoming more complex in a globallyoriented 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

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 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





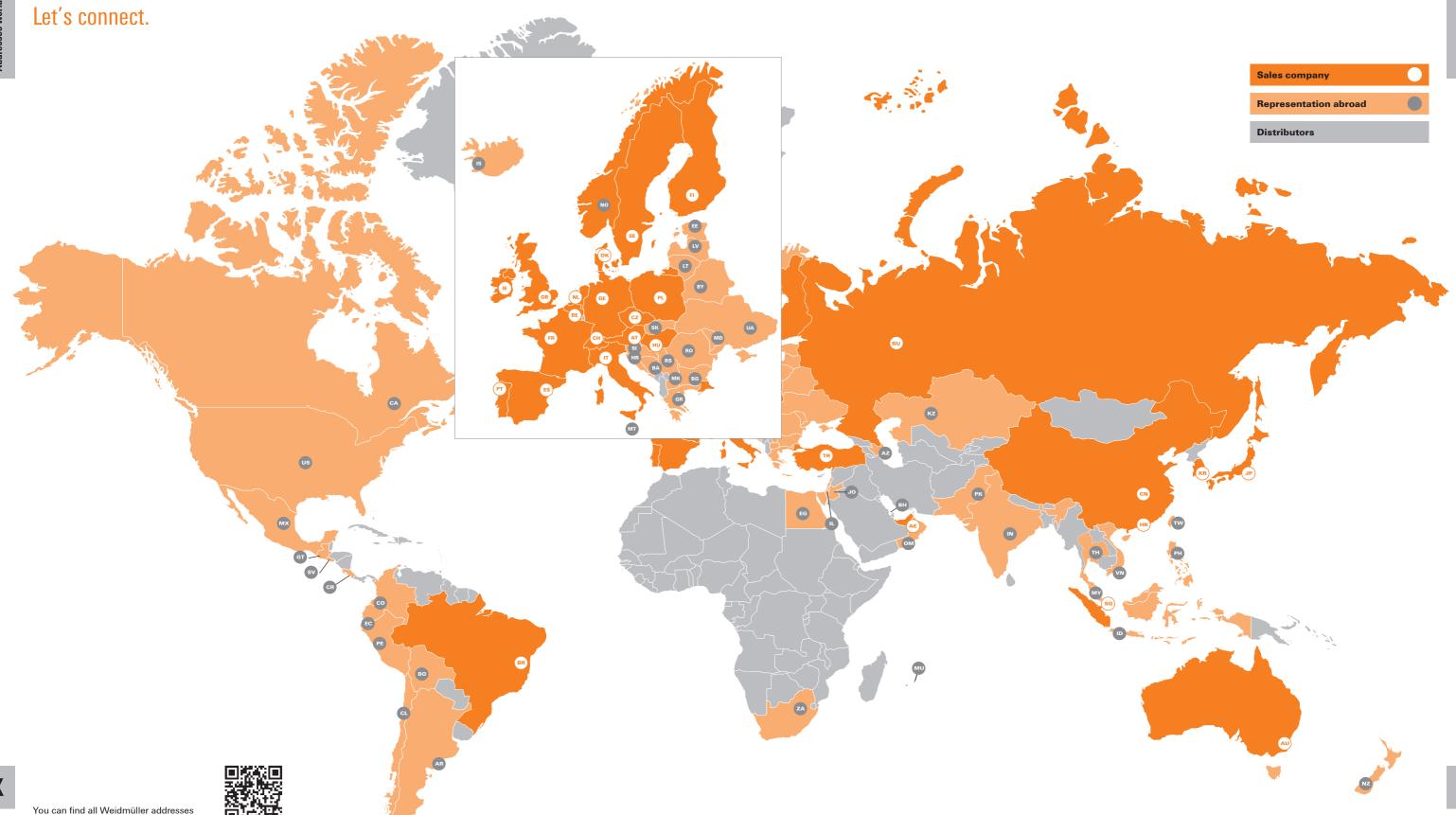
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# Addresses worldwide



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### 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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