You need flexible I/O systems for your facilities
u-remote offers more performance and reduces complexity
Let's connect.

Remote I/O

u-remote: now with IP67

Weidmüller ƎE

Machine automation with clear added value
u-remote combines powerful technologies with short project durations

You want to perform your machine development operations – from the automation concept to the stable machine operation – in such a way that they are fast, high-performance, smooth and deliver identifiable added value for your customers. The decisive factors for your project's success are consistently efficient processes and unique functions.

With u-remote you're laying the foundation for this. By implementing powerful and easy-to-use signal connection components, you will reap early on the advantages for installation work, machine commissioning and subsequent service applications at your customers' premises.

From planning to operation, u-remote allows you to speed up all work processes and opens up new possibilities in panel building. It is the perfect response to growing complexity in machine and factory automation thanks to its powerful flexibility and simple handling.

Our formula: "More Performance. Simplified. u-remote."

iF **product design award** 2013

universal design award 2013

German Design Award **WINNER 2014**

Cost-saving and flexible system configuration

Easy to install

More Performance. Simplified.

Faster commissioning

Improved operational availability

u-remote – the perfect response to growing complexity
Discover the benefits of flexible system approaches

u-remote offers the perfect solution for all common areas of application within machinery construction. Whether it's used as a pure panel system, in mixed IP20 and IP67 applications, or even positioned directly in the field for signal connection, u-remote grants you complete freedom to create a flexible I/O architecture and gives you the benefits of an integrated complete system.

One system, two protection classes – fully integrated

It is very rare for pure IP20 or IP67 signal connections to be needed in machine automation. With u-remote, you will find that I/O modules are connected directly to the panel system in a highly flexible, fully integrated and fieldbus-independent manner. Soon, you will no longer need to use expensive IP67 gateways, and you will be able to design your automation solution so that it is far more efficient and comes from a single source too.

u-remote: now with IP67

Maximum efficiency in the panel

The only things that are large about u-remote are its savings potential and the system performance. With the most innovative I/O system on the market, you can plan your panels to be a whole size smaller. The modular set-up makes system design easier, and the installation process is sped up. u-remote not only makes your machines more affordable, but also more efficient in every respect.

High-performance decentralisation

As it is a small and multiprotocol-capable system, you can use u-remote wherever you need high performance directly in the field. Whether you're communicating via an I/O-Link or transmitting unprecedentedly high levels of power, design your decentralised system architecture with u-remote so you are well-equipped for ever-growing automation requirements in the future too.

Maximum efficiency in the panel

The only things that are large about u-remote are its savings potential and the system performance
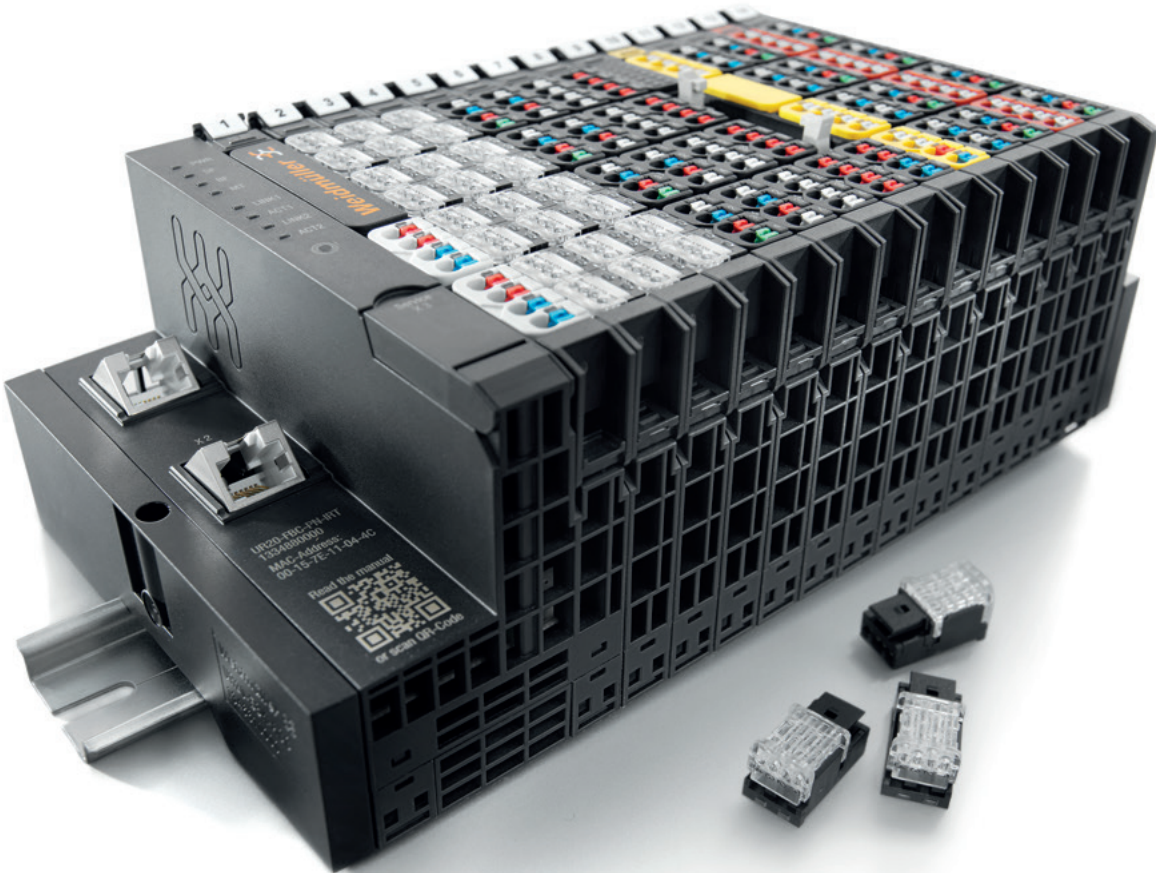
Smarter automation specified in a simpler way
u-remote simplifies your planning activities and offers unique functions

By coming up with new ideas and technologies and delivering the highest connection density on the market, we simplify the planning process for you and provide you with plenty of reserves for the future. Implement your customers' requirements in a perceptibly simpler and quicker manner. u-remote changes the way you work for this purpose. Your system design is simplified. Your automation design is made more flexible. And your systems become more powerful.

More connections on a narrower width

Up to 32 connections on just one module – that's got to be a world record! Connecting eight individually pluggable 4-conductor sensors in the tightest of spaces is child's play. And you even reduce the number of I/O modules required for signal connection.
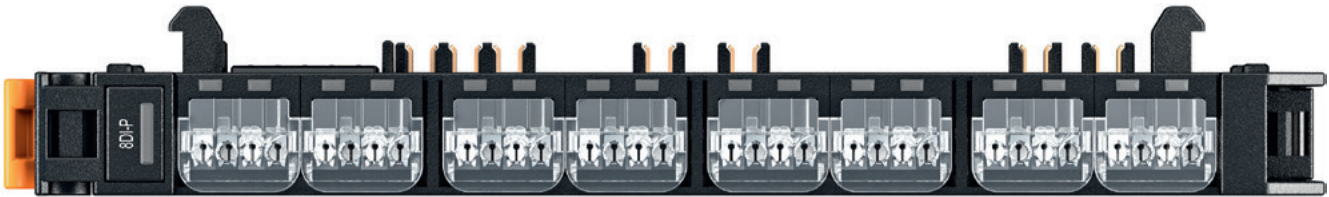
Simpler planning

Speed up your selection process: with a wide diversity of variants due to parameterisation, not a multitude of modules. For you, this translates into only one part number per module, a simplified module selection process and fewer spare parts stored on stock.

Unique separation

It's a feature you'll only find with u-remote: a separate I/O supply via two highly robust 10 A current paths. You reduce the planning effort, as you no longer have to perform any consumption calculations. Flexibly distribute the I/O modules according to the logical structure of your sensor and actuator architecture and save power-feed modules at the same time.

Configured to be thinner

With a module width of just 11.5 mm, u-remote is thinner than any other I/O system. And because intelligent miniaturisation even creates space for more innovations, it now comes with up to 32 connections per module. So you have space left over for flexibility and solutions that save money.

No space for efficiency losses

u-remote enables the most miniature of system solutions
that deliver maximum performance

Handle your projects with maximum performance. u-remote speeds up your installation
process and makes your machines start up faster. The seamlessly pluggable system
means that you can rely on your intuition and trust that there will be no errors.

Consistent minimisation of errors

u-remote's modular design makes for shorter machine
start-up. The intuitive handling, seamless pluggability and
single-row connection strip make your work easy and reduce
cabling errors – even when you're working at high speeds.

Simply plug and go

The fastest way to productive operation: Connect sensors
and actuators with pre-assembled cables. You save time,
improve usage and handling and minimise the error rate.
It's ideal, especially for decentralised sub-assemblies and
tight spaces.

Direct insertion – direct savings

All you have to do is inserting the conductor into the
clamping unit until it stops – job done. Our "PUSH IN"
technology not only makes cabling twice as fast for you, but
also offers you uncompromised connection safety.

Clear colours, clear functions

Easy working thanks to an innovative colour concept. You
can identify all key functions at a glance and the coloured
pushers guarantee intuitively correct working. The extensive
range of marking options also reduce the error rate.

Notably improved production performance
u-remote significantly increases your machines' operating availability

Score top marks from your customers with maximum machine availability. u-remote is the most user-friendly I/O concept on the market that you can use to combine high-performance automation with optimum system handling. This gives your machines a convincing range of functions, decisively minimising the time and effort involved in service and maintenance.

Minimise machine downtimes

The machine may be at a standstill, but communication is still ongoing: u-remote is completely hot-swap-capable. Replace the electronics without the need to switch off the I/O system. A safe solution to keep machine downtimes as short as possible.

Respond faster thanks to integrated diagnostics

The integrated u-remote web server enables start-up in sections even before machinery is commissioned. Shorten production downtimes by making use of unique fast error identification with plain-text diagnostics.

Immediately identify errors

Error diagnosis has never been so easy: You can localise errors instantly with an LED directly on the channel and status indicators on every module. An indispensable benefit for secure commissioning and rapid system maintenance.

Smart support

Thanks to the printed QR code, you can access installation instructions and technical data online. The direct link takes you to all the key information about the scanned component.

Integrated safety for both people and machines
u-remote offers swift restart following a fault

Communicative systems such as u-remote form part of the future in factory automation.
For safety, this means that even after triggering an emergency stop, it is still possible to call up
the system's current status – regardless of how big the safety application is.

With u-remote, a reliable machine shutdown is guaranteed while keeping the sensors active.
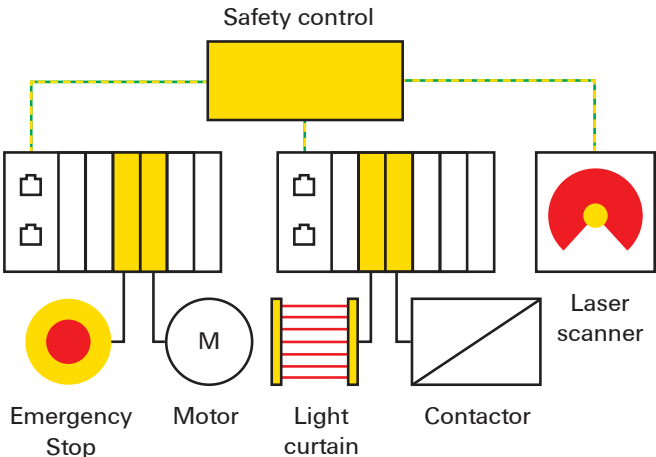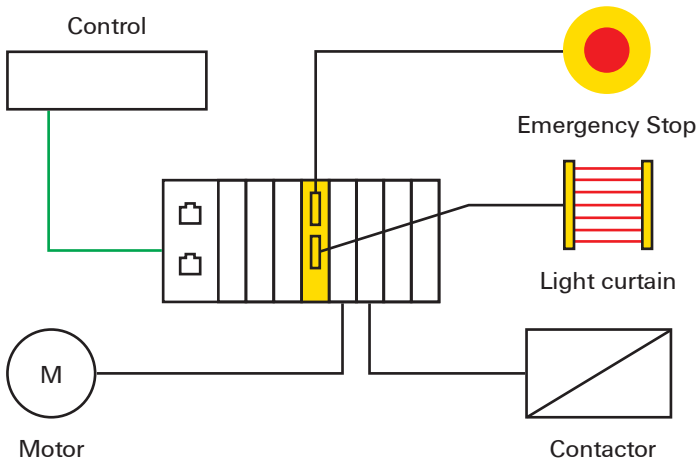And after maintenance, you can restart system operation immediately.

Safety over
EtherCAT®

PROFIsafe

Integrated safety without a safety control

Implement safety solutions by connecting them to the
control. All you have to do is simply position them directly
upstream of the corresponding standard output modules.
And that's without the need for costly safety PLCs featuring
appropriate outputs or the additional use of safety relays. By
safely shutting down the output current path, you switch off
actuators selectively and, at the same time, keep the sensors
fully active. You can therefore send the machine status to
the control at any time, and it quickly takes over the restart
operation once the problem has been rectified.

- Unique on the market: u-remote safe power-feed modules
- Cascadability of safety circuits
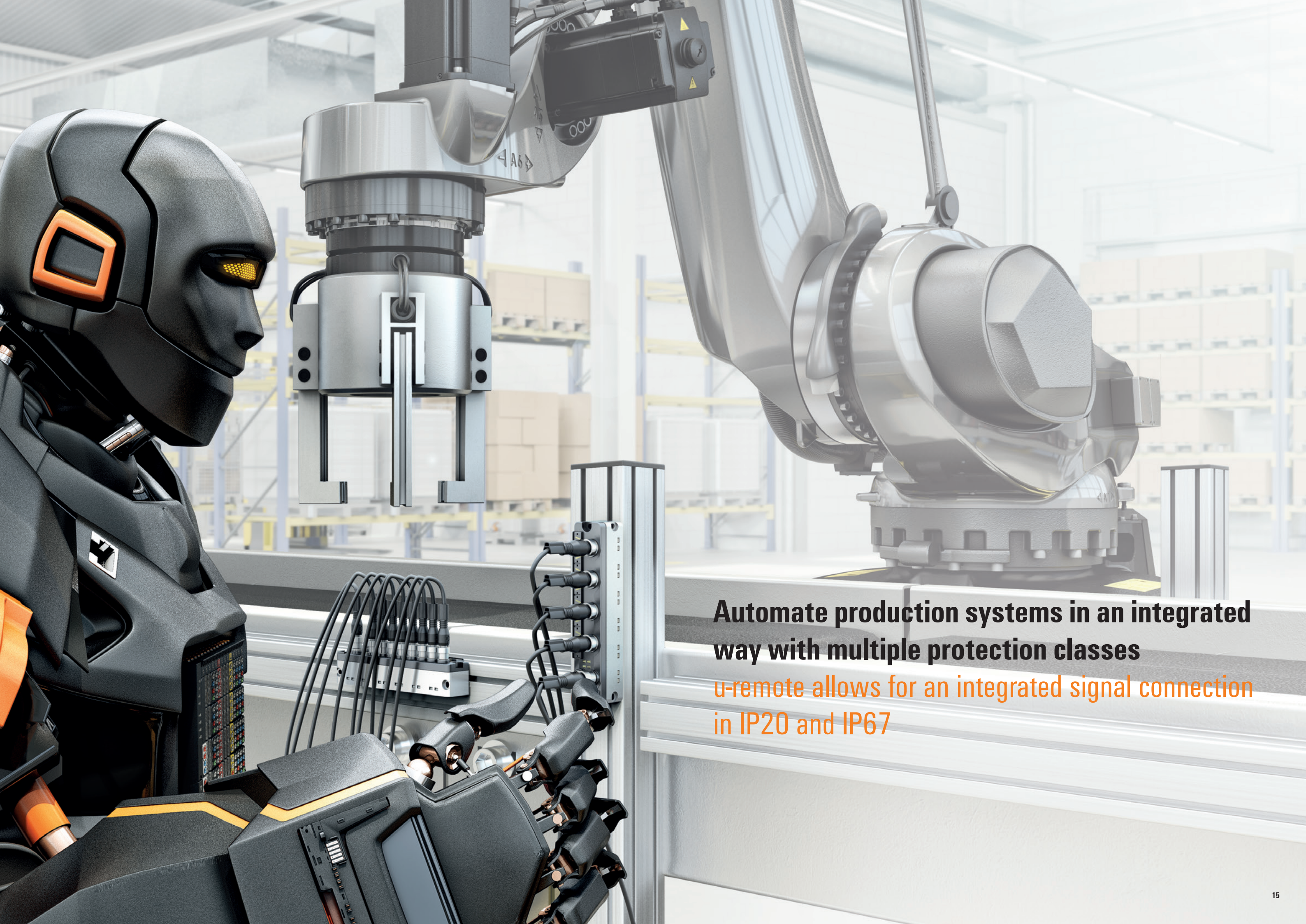- Safe switch-off of standard output modules

Control

Emergency Stop

Light curtain

M

Motor

Contactor

Safely control complex systems using modernfieldbus technology

Use u-remote to connect distributed safety equipment to
form a fully cooperating safety system, which is monitored
using a centralised safety control. You can ideally integrate
the safe u-remote input and output modules in decentralised
architectures to selectively switch off parts of the production
as required.

- PROFIsafe modules for the PROFIBUS
  and PROFINET fieldbuses
- Fail Safe over EtherCAT (FSoE)
  is designed for EtherCAT
- Smallest possible safety I/O solution –
  highest functional density available
- Safe 4DI-4DO modules combine various
  safety functions on only 11.5 mm width
- Easy system configuration due to less variants
  of safe I/O modules

Safety control

Emergency
Stop

Motor

Light
curtain

Contactor

Laser
scanner

Automate production systems in an integrated way with multiple protection classes

u-remote allows for an integrated signal connection in IP20 and IP67

System design to meet individual needs
u-remote guarantees complete information consistency in IP20 and IP67

The growing decentralisation in automation requires more and more flexible solutions. The signal connection is established close to the sensors and actuators, meaning that fewer lines are required and less wiring work needs to be carried out. However, as it is not usually possible to establish pure IP67 connections, IP20 systems are still needed to be integrated.

With u-remote, you can now establish both IP20 and IP67 signal connections within a single I/O system. The innovative gateway module that allows for the direct connection of up to 15 I/O modules in the field means that separate and expensive IP67 fieldbus components become redundant. This tangibly increases the flexibility

120 sensors on a mere 11.5 mm

15 subbus modules with a total cable length of up to 50 m can be connected on an IP20 gateway measuring a mere 11.5 mm wide. This is a feature that's completely unique to u-remote. This innovative solution means that there's no need for expensive IP67 fieldbus gateways for applications with field and switching panel installations.
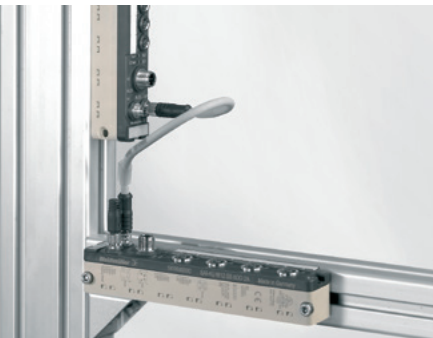
Just switch on and go!

Automatic addressing ensures that the subbus modules are immediately detected after switch-on. Modular device master files make for simple project planning.

Ready for operation earlier on

The more consistent web server display for IP20 and IP67 modules makes it easier to carry out parameterisation, input and output simulation and system diagnostics.

Free alignment

The space-saving modules that make up our IP67 system allow for installation in even the smallest of spaces. One unique feature is that the extremely light modules can be fitted in two different directions – which is perfect on moving parts of your application..

High-performance decentralisation
u-remote in IP67 for more flexible
automation solutions

Higher performance and more flexible automation
u-remote simplifies system design in the field

u-remote's new IP67 family combines all the field benefits offered by u-remote IP20 in a device with an increased degree of protection and is perfectly equipped for signal connection outside of the panel.

It demonstrates a high degree of flexibility in terms of the connection options with IO-Link and scores top marks with a variable power supply. Another impressive feature of IP67 is its multiprotocol capability. For you, this translates into less effort, fewer costs and maximum performance at the same time.
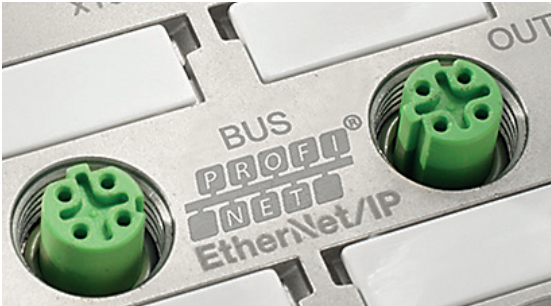
Usable around the globe

u-remote offers you maximum flexibility as regards connectivity. For the power supply, opt for either a 7/8″ connection or an M12 connector with L-coding.

Active communication in the field

Use an I/O-Link to significantly improve your sensors' and actuators' parameter and diagnostic properties. You will find four type A and four type B ports each on one module in u-remote. These firstly enable connection of actuators of up to 2 A. Each port can be configured as an input or an output too.

Adjust a protocol instead of swapping a module

Whether you're using PROFINET or EtherNet/IP, u-remote's multiprotocol function allows you to plan a remote I/O family but still lets you remain flexible in your choice of fieldbus.

IO-Link
Universal · Smart · Easy

Higher performance – less effort

Increase your I/O system's feed-in to 16 A with u-remote and, as a result, connect even more consumers in a line and thus significantly reduce the time and effort needed for wiring.

High performance wherever it's needed

u-remote cuts an impressive figure due to its robustness,
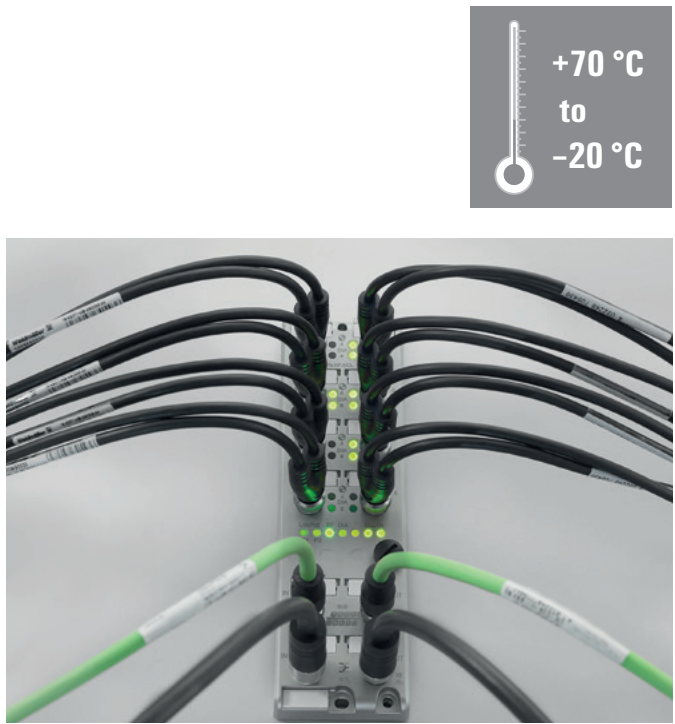compact design and low weight

Decentralising machine automation can prove challenging for I/O systems'
mechanical properties. Indeed, they should offer high performance. But at
the same time, they must remain robust, small and as light as possible, so
they can be put to good use on moving machine parts.

u-remote meets these requirements with a sophisticated complete concept,
which means the innovative system can be put to widespread use.

Robust design

The IP67 modules from u-remote measure up to the most stringent robustness requirements. The fully encapsulated zinc
die-cast enclosures prove extremely reliable wherever resistant signal distributors are needed.

+70 °C
to
−20 °C

Top performance despite temperature fluctuations

As an IP67 system, u-remote is well-protected against water
and particles and can be used in a temperature range of
-20°C to +70°C
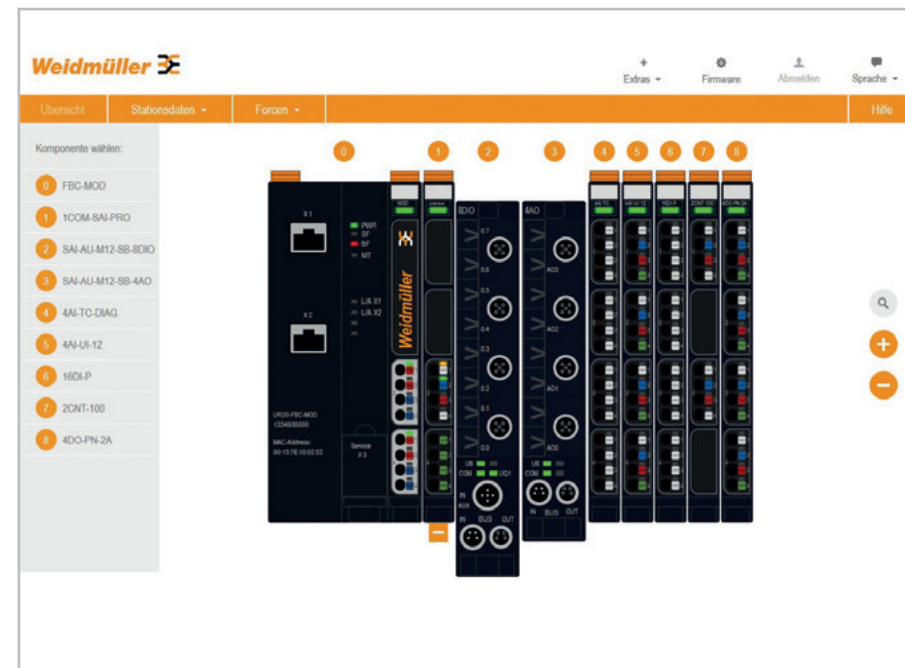
Productivity in a very confined space

Measuring 30 mm and 60 mm wide, u-remote
can be installed both in confined spaces and on
common profiles. What's more, the modules are
counted among the smallest in their class and are
a good 20% lighter than similar rival products on
the market.

Simpler planning, faster operation
u-remote simplifies your processes

Intuitive thought

The new web server design stands out thanks to its extremely user-friendly operation. The clear structure makes it easy to access all of the system functions, and the swype functionality makes for simple navigation on mobile touch-operated devices.

Convenient parameterization and fast plant servicing
The u-remote web server speeds up start-up and maintenance work

Quick and error-free start-up is becoming increasingly important in the area of modern machine construction. Process sequences need to be simulated before the final machine commissioning, and decentralised I/O solutions need to be tested for correct functioning. Inputs and outputs need to be checked to ensure that they perform correctly, and configurations need to be implemented and parameters set. These tasks are usually performed using special software tools, which are used to test the performance of the application and to check that the remote I/O station has been installed correctly. These tools are also used to diagnose and locate process errors during subsequent operation, in order to ensure that repairs are carried out as quickly as possible and without any long downtimes.

With u-remote, powerful software for start-up, status monitoring and error diagnosis is already integrated in the I/O system. The software is accessed via the web server installed on the fieldbus coupler, making it accessible via any standard Internet browser. The I/O station can be parameterised before a control unit is even connected, and status information and diagnostic and process data can easily be accessed on the station. Settings can also be directly changed, tested and stored for subsequent series installations.

u-remote makes it really easy to start up, parameterise and carry out diagnostics on the remote I/O station via an Internet browser. It is a particularly time and cost-efficient system, and there is no need for any special hardware or software.

Status monitoring and diagnostics

Whether on site via USB or via remote access with a fieldbus interface – the u-remote web server means that you can access system status information or diagnostics results at any time. The information can be easily viewed via web browser without the need for any special hardware or software, which helps to create transparency and to make error diagnostics and rectification easier.

Simpler installation tests

The option to force inputs and outputs means that processes and procedures can be simulated even if a PLC is not connected, thus allowing for multiple work steps to be performed in parallel. This significantly reduces the amount of time required prior to machine startup, while also allowing for installation errors to be identified at an early stage.

Quick series configuration

The parameterisation of your u-remote station can be stored as a file and then uploaded in order to be transferred to other u-remote stations. This significantly reduces the configuration time required for series production, while also preventing input errors. Useful tool tips help you work out what information to enter.
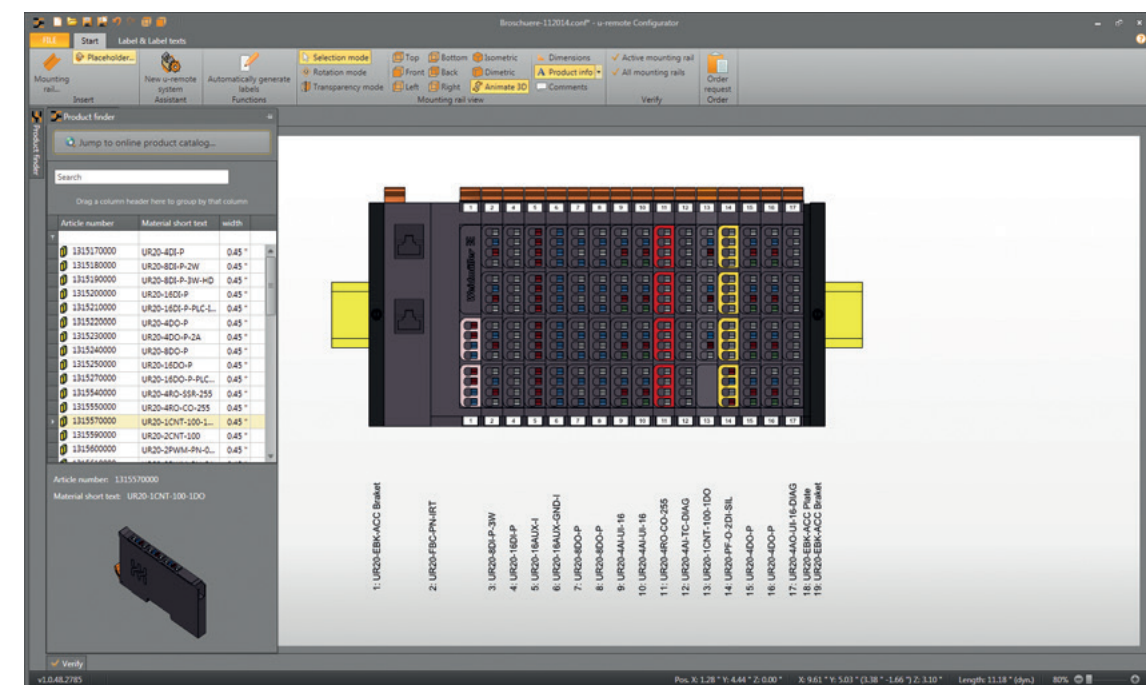
Simplify your system planning processes and prevent configuration errors

The u-remote configurator supports your engineering process
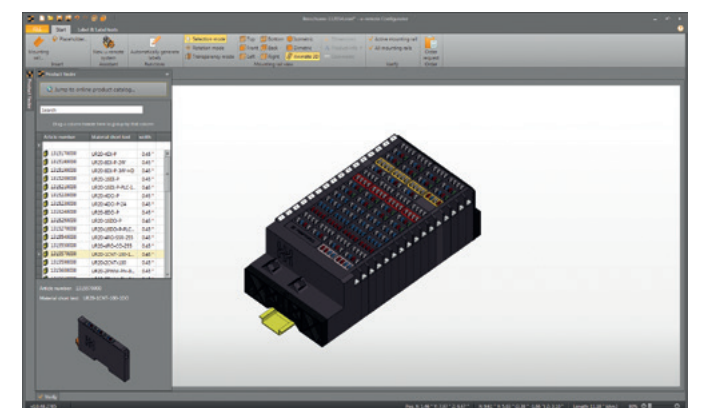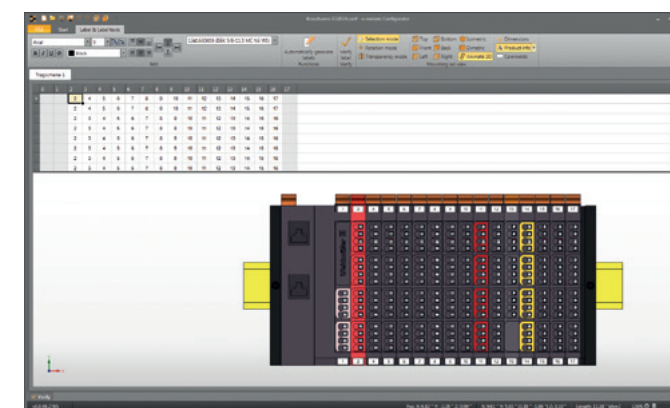
A superior tool for your planning process: Assemble your complete I/O system the quick and easy way with the u-remote configurator.

From the DIN rail, over the coupler, to the modules, the configurator offers you the best practice variation or alternative system components upon request – always perfectly coordinated to your application.
Save yourself time and effort:

- Complete system configuration via one interface
- Automatic testing of all the planned stations
- Display and rectification of configuration errors

Compose I/O systems the simple and safe way: Test our u-remote configurator now!

Save yourself work

Naturally included in our professional planning tool: For a better overview, you can display the dimensions, product information and comments on individual modules and module groups. Also, the configurator automatically creates a detailed list of part numbers, planning data and standard configurations for you.

With just one click of the mouse, you can request a non-binding quotation for your customised u-remote configuration.
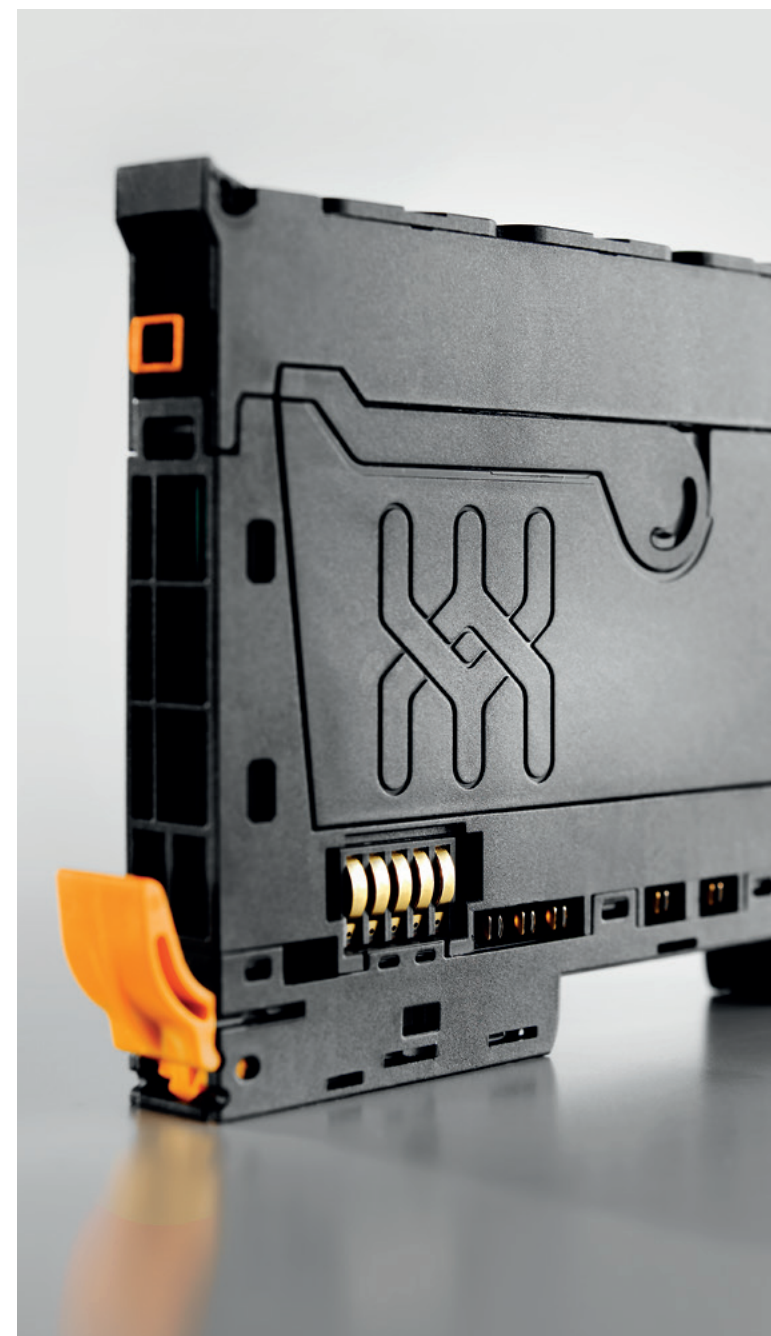
Put through its paces and incorporated in your system
Weidmüller provides you with active support in your projects

Realise your full potential with the help of our experts

u-remote is extremely easy to implement – both as part of completely new projects and during re-designs and system optimisations to existing machine concepts. But Weidmüller won't leave you alone in this regard. Because we want to make your work on your projects as simple as possible. You benefit from our wide range of advisory and support services.

Our experienced application specialists will be more than happy to develop additional optimisation opportunities in complex system architectures together with you.

Visit us online
u-remote.net

Ask for product samples and experience the benefits for yourself!

Experience the convincing concept of u-remote with your own eyes: ask for a personal product sample or a fully functional u-remote test station that you can use to put our system through its paces today.

You'll be inspired by u-remote's simple handling, its high system performance and its efficient and flexible potential uses. Let's connect.

Weidmüller – Your partner in Industrial Connectivity

Let's connect.

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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