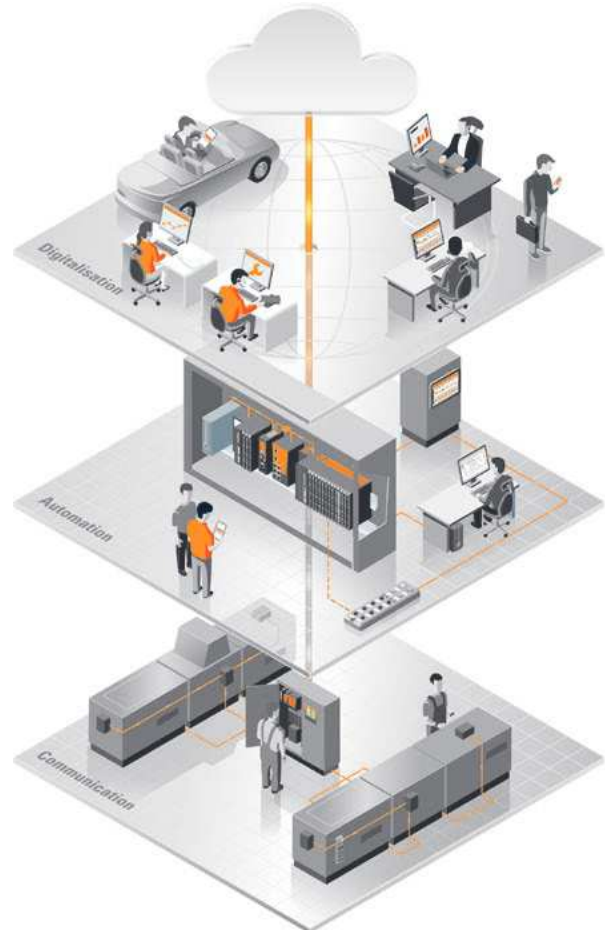


Digitalisation and security

High speed with perfect protection

Weidmüller's Industrial Ethernet portfolio supports you both in the implementation of classic industrial applications and in communication from the sensor to the cloud. Weidmüller's u-link Remote Access Service enables worldwide access to systems with Weidmüller Industrial Security Routers via the u-link portal. The routers allow Internet connections via mobile radio or Ethernet with static or dynamic routing via OSPF, RIP, and RIPv2.

At the automation level, switches with redundancy mechanisms ensure reliable data traffic at gigabit speed – regardless of whether the lines are fibre or copper. Industrial security routers segment the networks and protect against unauthorised communication. At the sensor level, unmanaged switches link various devices cost-effectively. Signals from serial devices can be converted for Ethernet communication to feed them into the network.



Security risks increase with the number of devices that are integrated into networks. The Weidmüller product portfolio supports you in designing secure networks from maintenance access to the communication level. Lockable service interfaces FrontCom® protect against unauthorised physical access. IGMP snooping and GMRP prevent flooding, while VLAN functionality intelligently distributes networks. Network segmentation solutions and firewalling via security routers complete Weidmüller's integrated cybersecurity solution and allow secure remote access.



Active components

Introduction

Introduction – Active components

Introduction – Active components

A.2

Switches – quick-finderA.6

Active components

Solutions for global industrial use

A Ethernet technology is an established standard in office communication and has existed for many years. Without it, effective communications between equipment such as PCs, printers, data servers, etc. would not be possible.

In recent years this technology has been expanded under the term Industrial Ethernet and implemented in automation systems. The common goal of both manufacturer and user is to make the networking of automation system components easier and more effective. To make process data and diagnostic functions device-independent when exchanged between network participants, all equipment in a plant should be linked with just one bus technology.

Industrial applications, however, differ significantly from office applications. In addition, there are normally much higher demands placed on the communication devices in the industrial setting. These include:

- Installation conditions
- Environmental conditions
- Protocols
- Approvals

Weidmüller's Industrial Ethernet components meet all of these requirements as they have the properties listed below:

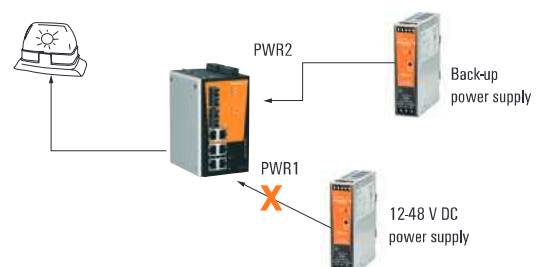
- Reliable (redundant) power supply for uninterrupted network operation
- Resistance to extreme temperatures
- Immune to electromagnetically caused malfunctions
- Insensitive to vibration, shock and corrosive environments
- Conformity with various certification standards
- Longevity

These rugged devices can therefore be used world-wide in different industries and applications.



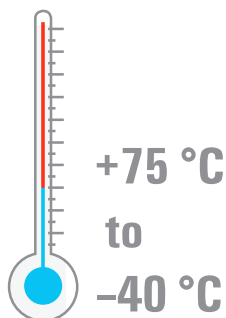
Stable and versatile power supply inputs for industrial applications

The redundant voltage inputs provide reliable functionality of the whole system. If a power supply fails, the redundant power source takes over the energy supply. All of Weidmüller's Industrial Ethernet components have a wide input voltage range of at least 12 to 48 V DC (Basic Line switches 9.6 to 60 V DC). They can also work with large fluctuations in voltage. For instance, with a rated 48 V DC input, a fluctuation of +20 % is acceptable and yet, in one of 12 V DC, a voltage drop of up to 20 % presents no problems for the attached devices.



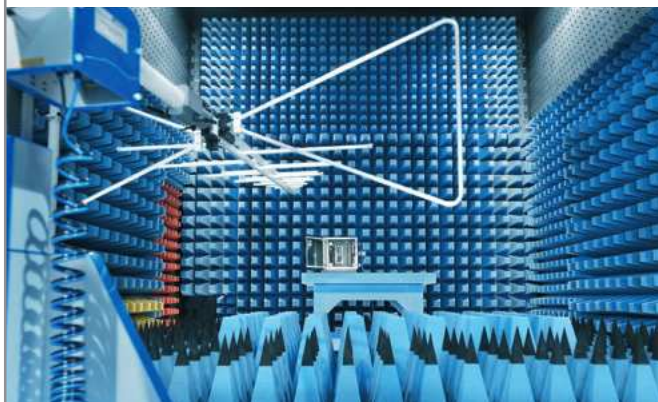
Suitable for use in extreme temperature environments

Industrial environments often experience extreme temperature conditions. This means that devices are needed which can operate flawlessly with the vast temperature fluctuations. All of our Industrial Ethernet components undergo a burn-in test over several hours to ensure they function properly at the guaranteed temperature ranges (e.g. -40 °C to +75 °C).



Outstanding immunity to electromagnetic interference

The robust design of Weidmüller's Industrial Ethernet components also includes excellent electromagnetic compatibility and fully complies with the requirements and standards.



Certified to industry standards

An extensive range of certifications confirm the reliability of Weidmüller's Industrial Ethernet components

- UL 508 and UL 60950-1
- Class I, Division 2 / ATEX Zone 2 for safe use in hazardous areas
- DNV/GL approval for use in maritime settings



Durability and reliability

- Many of the Weidmüller Ethernet components have relay outputs. These can be used for alarm signal notification (e.g. power failures or port problems). This means that, in emergencies, it is possible to react quickly to any failures.
- Weidmüller's unmanaged switches are protected from receiving too many broadcast packets. The switches discard broadcast or multicast packets if they exceed a threshold level in a given time. They then receive further broadcast and multicast packets after a given time has past, until the threshold level is reached again.
- All Weidmüller active Industrial Ethernet components are designed for a long service life and this can be seen from the high MTBF value. Weidmüller also guarantees its Industrial Ethernet components for a period of five years.