

Active components

Introduction

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Active components

Solutions for global industrial use

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:

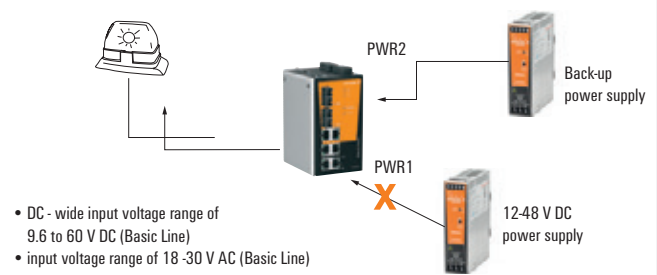
- Reliable (redundant) power supply for uninterrupted network operation
- Resistance to extreme temperatures
- Immune to electromagnetically caused malfunctions
- Insensitive to vibration, shock and corrosive environments
- Conformity with various certification standards
- Longevity

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



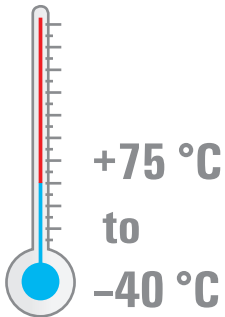
Stable and versatile power supply inputs for industrial applications

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.

The ideal solution, whatever your needs

Our Basic, Value and Premium Line product ranges

Basic Line



Weidmüller's Basic Line series consists of unmanaged Plug & Play switches in a rugged IP 30 rated aluminium housing. The devices are available with Fast Ethernet and Gigabit Ethernet and provide an economical solution for Industrial Ethernet networks. One model is equipped with Fast Ethernet and Power-over-Ethernet ports. All devices have been developed for applications in harsh industrial environments and have international approvals such as CE, cULus, Class I Div. 2 / Atex and DNV / GL and are thus internationally available for different applications.

- Plug & Play switches in a rugged aluminium housing (IP 30)
- Compact design
- Cost efficient entry-level switches
- Fast Ethernet variants with 5 and 8 Ports
- Versions with copper or fibre-optic interface (multimode and single-mode)
- 5 port Full-Gigabit Plug & Play Switch
- Power-over-Ethernet switch with 6 Fast Ethernet ports, thereof 4 PoE+ ports
- Approvals: cULus, Class I Div. 2 / Atex, DNV / GL

Value Line



Weidmüller's Value Line series consists of unmanaged and managed switches in a high quality IP 30 rated metal housing. The devices are available with Fast Ethernet and Gigabit Ethernet ports. Value Line managed switches support a variety of useful management functions, such as fast ring redundancy, VLAN, QoS, RMON, bandwidth management, port mirroring and warning by email message or relay. The ring redundancy can be set up easily using the web-based management interface, or with the DIP switches located on the top panel of the switches.

- Unmanaged Plug & Play switches in a high quality metal housing (IP 30)
- Price-sensitive mid-range class
- Managed switches for entry into configurable network infrastructure
- Unmanaged 8 port Full-Gigabit switches
- Approvals: cULus, Class I Div. 2 / Atex, DNV / GL

Premium Line



Weidmüller's Premium Line series completes the switch range for the high-end sector and is particularly suitable for complex network solutions with high traffic levels. The devices are available in different versions, ie. number of ports, transmission rate (Fast and Gigabit Ethernet) and the Type of connection (copper and fibre-optic).

With their advanced ring redundancy technology (recovery time ≤ 20 ms), these devices increase the reliability and availability of your industrial network. The option to use SFP transceivers offer a high degree of flexibility and the Gigabit variants also allow their use in networks with high traffic loads.

- Managed Fast Ethernet variants in a high quality metal housing (IP 30)
- Managed Power-over-Ethernet switch with 6 Fast Ethernet ports, thereof 4 PoE+ ports
- Variants with 10 or 18 ports and Gigabit uplink ports
- Full-Gigabit switch with 9 ports
- Supports all standard protocols in TCP/IP-based industrial networks (e.g. EtherNet/IP, Modbus/TCP)
- Built-in redundancy mechanisms (recovery time ≤ 20 ms) for increased reliability in network ring structures
- Approvals: cULus, Class I Div. 2 / Atex, DNV / GL

Switches – quick-finder

Ports total		5					6			8			
Ports RJ-45: 10/100Mbit	5			4	3			2	1		8		5
Ports RJ-45: 10/100/1000Mbit			5			1						8	
Ports RJ-45: 10/100Mbit (PoE+)								4	4	4			
Ports RJ-45: 10/100/1000Mbit (PoE+)					4	4							
Ports M12: 10/100Mbit	5												
Ports SC/ST-LWL: 100Mbit				1	2				1	2			3
Ports SFP-LC: 100/1000Mbit													
Ports SFP-LC: 1000Mbit							1						
Order No.	Type												
Industrial Ethernet Switches													
1504410000	IE-SW-IP67-5M12	●											
1504420000	IE-SW-IP67T-5M12	●											
1240840000	IE-SW-BL05-5TX	●											
1240850000	IE-SW-BL05T-5TX	●											
1241250000	IE-SW-BL05-5GT		●										
1286850000	IE-SW-BL05T-5GT		●										
1504320000	IE-SW-BL05-1GT-4GTPoE					●							
1504340000	IE-SW-BL05T-1GT-4GTPoE					●							
1504360000	IE-SW-BL05-1GS-4GTPoE								●				
1504380000	IE-SW-BL05T-1GS-4GTPoE								●				
1240870000	IE-SW-BL05-4TX-1SCS			●									
1286530000	IE-SW-BL05T-4TX-1SCS			●									
1240880000	IE-SW-BL05-4TX-1ST			●									
1286540000	IE-SW-BL05T-4TX-1ST			●									
1240890000	IE-SW-BL05-4TX-1SC			●									
1286550000	IE-SW-BL05T-4TX-1SC			●									
1241380000	IE-SW-BL06-2TX-4PoE							●					
1286920000	IE-SW-BL06T-2TX-4PoE							●					
1504210000	IE-SW-BL06-4PoE-2SC									●			
1504220000	IE-SW-BL06T-4PoE-2SC									●			
1504230000	IE-SW-BL06-4PoE-2ST									●			
1504240000	IE-SW-BL06T-4PoE-2ST									●			
1504250000	IE-SW-BL06-1TX-4PoE-1SC								●				
1504260000	IE-SW-BL06T-1TX-4PoE-1SC								●				
1504270000	IE-SW-BL06-1TX-4PoE-1ST								●				
1504290000	IE-SW-BL06T-1TX-4PoE-1ST								●				
1240900000	IE-SW-BL08-8TX										●		
1286560000	IE-SW-BL08T-8TX										●		
1240910000	IE-SW-BL08-6TX-2SC											●	
1240920000	IE-SW-BL08T-6TX-2SC											●	
1240930000	IE-SW-BL08-6TX-2ST											●	
1286570000	IE-SW-BL08T-6TX-2ST											●	
1412070000	IE-SW-BL08-7TX-1SC												
1412080000	IE-SW-BL08T-7TX-1SC												
1412090000	IE-SW-BL08-7TX-1ST												

- a) Of which 2 ports are designed as combo-ports. Can be used as 10/100/1000BaseT(X) or 100/1000BaseSFP ports as required
b) Designed as combo-ports. Can be used as 10/100/1000BaseT(X) or 100/1000BaseSFP ports as required
c) Of which 5 ports designed as combo-ports. Can be used as 10/100/1000BaseT(X) or 100/1000BaseSFP ports as required
d) Designed as combo-ports. Can be used as 10/100/1000BaseT(X) or 1000BaseSFP ports as required

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Ports RJ-45: 10/100/1000Mbit (PoE+)						4	4						
Ports M12: 10/100Mbit		5											
Ports SC/ST-LWL: 100Mbit				1	2				1	2			3
Ports SFP-LC: 100/1000Mbit													
Ports SFP-LC: 1000Mbit							1						
Order No.	Type												
Industrial Ethernet Switches													
1412100000	IE-SW-BL08T-7TX-1ST												
1240950000	IE-SW-BL08-7TX-1SCS												
1286580000	IE-SW-BL08T-7TX-1SCS												
1412110000	IE-SW-BL08-6TX-2SCS												
1412120000	IE-SW-BL08T-6TX-2SCS												
1241270000	IE-SW-VL08-8GT												
1286860000	IE-SW-VL08T-8GT												
1241280000	IE-SW-VL08-6GT-2GS												
1286870000	IE-SW-VL08T-6GT-2GS												
1240980000	IE-SW-VL09T-6TX-3SC												
1241000000	IE-SW-VL16-16TX												
1286590000	IE-SW-VL16T-16TX												
1241030000	IE-SW-VL16-14TX-2SC												
1286610000	IE-SW-VL16T-14TX-2SC												
1241050000	IE-SW-VL16-14TX-2ST												
1286620000	IE-SW-VL16T-14TX-2ST												
1504280000	IE-SW-VL05M-5TX												
1504310000	IE-SW-VL05MT-5TX												
1504330000	IE-SW-VL05M-3TX-2SC												
1504350000	IE-SW-VL05MT-3TX-2SC												
1504370000	IE-SW-VL05M-3TX-2ST												
1504390000	IE-SW-VL05MT-3TX-2ST												
1240940000	IE-SW-VL08MT-8TX												
1240970000	IE-SW-VL08MT-5TX-3SC												
1345240000	IE-SW-VL08MT-5TX-1SC-2SCS												
1344770000	IE-SW-VL08MT-6TX-2SC												
1240990000	IE-SW-VL08MT-6TX-2ST												
1241020000	IE-SW-VL08MT-6TX-2SCS												
1241390000	IE-SW-PL06M-2TX-4PoE												
1286910000	IE-SW-PL06MT-2TX-4PoE												
1241040000	IE-SW-PL08M-8TX												
1286780000	IE-SW-PL08MT-8TX												
1241070000	IE-SW-PL08M-6TX-2SC												
1286790000	IE-SW-PL08MT-6TX-2SC												
1241080000	IE-SW-PL08M-6TX-2ST												

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Ports RJ-45: 10/100/1000Mbit (PoE+)					4	4							
Ports M12: 10/100Mbit		5											
Ports SC/ST-LWL: 100Mbit				1	2				1	2			3
Ports SFP-LC: 100/1000Mbit													
Ports SFP-LC: 1000Mbit							1						
Order No.	Type												
Industrial Ethernet Switches													
1286800000	IE-SW-PL08MT-6TX-2ST												
1241090000	IE-SW-PL08M-6TX-2SCS												
1286810000	IE-SW-PL08MT-6TX-2SCS												
1241100000	IE-SW-PL16M-16TX												
1286820000	IE-SW-PL16MT-16TX												
1241120000	IE-SW-PL16M-14TX-2SC												
1286830000	IE-SW-PL16MT-14TX-2SC												
1241130000	IE-SW-PL16M-14TX-2ST												
1286840000	IE-SW-PL16MT-14TX-2ST												
1241290000	IE-SW-PL10M-3GT-7TX												
1286930000	IE-SW-PL10MT-3GT-7TX												
1241300000	IE-SW-PL10M-1GT-2GS-7TX												
1286940000	IE-SW-PL10MT-1GT-2GS-7TX												
1241320000	IE-SW-PL18M-2GC-16TX												
1286970000	IE-SW-PL18MT-2GC-16TX												
1241330000	IE-SW-PL18M-2GC-14TX2SC												
1286990000	IE-SW-PL18MT-2GC-14TX2SC												
1241340000	IE-SW-PL18M-2GC-14TX2ST												
1287000000	IE-SW-PL18MT-2GC-14TX2ST												
1241350000	IE-SW-PL18M-2GC-14TX2SCS												
1287010000	IE-SW-PL18MT-2GC-14TX2SCS												
1241370000	IE-SW-PL09M-5GC-4GT												
1287020000	IE-SW-PL09MT-5GC-4GT												

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