

# SIEMENS



Brochure

Edition  
10/2018

## Unmanaged Industrial Ethernet Switches

Cost-effective setup of small networks

As active network components, Ethernet switches permit the structuring of an industrial communication network into electrical or optical line and star topologies. These distribute data to defined addressees, thereby structuring the data traffic, which in turn significantly increases the data throughput and network performance.

The various versions of the unmanaged Industrial Ethernet switches (SCALANCE X and Compact Switch Modules (CSM)) ensure an optimized solution, whatever the requirement.

Siemens can always offer the right switch – whether for space-saving installation in the control cabinet, a low-cost, industry-compatible design, or demanding requirements for EMC, shock and vibration resistance or cabling.

### The benefits at a glance

- Cost-effective construction of small networks
- Comprehensive product portfolio
- Simple operation
- Space-saving design
- Data transfer rates from 10/100 Mbit/s or 1 Gbit/s
- Distances up to 26 km
- Auto-crossover/auto-negotiation
- 5 year warranty on all SCALANCE products

				
<b>Compact Switch Modules</b>	LOGO! CSM12/24	LOGO! CSM230	CSM1277	CSM377
<b>Applications</b>	LOGO!		SIMATIC S7-1200	SIMATIC S7-300/ET 200M
<b>Interfaces</b>	4x RJ45			
<b>Transfer rate, max.</b>	10/100 Mbit/s			
<b>Dimensions (WxHxD) in mm</b>	72 x 90 x 55		45 x 100 x 75	40 x 125 x 118
<b>Degree of protection</b>	IP20			
<b>Temperature range</b>	0 °C to +55 °C		0 °C to +60 °C	

## Compact Switch Modules (CSM)

Low-cost modules specially for LOGO! and SIMATIC S7. With these Compact Switch Modules, up to three stations can be connected quickly and easily to LOGO!, SIMATIC S7-1200 or SIMATIC S7-300/ET 200M devices. The CSMs are also ideal for space-saving installation in the control box or small control cabinets.

- Inexpensive
- Fast commissioning, as no configuration is necessary
- Simple and fast status display via LEDs on the device
- Industry-compatible, space-saving plastic enclosure

[siemens.com/csm](http://siemens.com/csm)

### Selection tools

Convenient selection tools are available to help you in selecting these unmanaged Industrial Ethernet switches.

They also assist with selection from the complete portfolio and with configuration of the modular Industrial Ethernet switches:

**SIMATIC NET Selection Tool:**  
[siemens.com/snst-standalone](http://siemens.com/snst-standalone)

**TIA Selection Tool:**  
[siemens.com/tia-selection-tool](http://siemens.com/tia-selection-tool)



	SCALANCE X-000	SCALANCE XB-000			
	X005 / X005TS	XB005 <sup>1)</sup> / XB005G	XB008 <sup>1)</sup> / XB008G	XB004-1 <sup>1)</sup> / XB004-1G / XB004-1LD <sup>1)</sup> / XB004-1LDG	XB004-2
Applications		Machine networking			
Interfaces	5x RJ45	5x RJ45	8x RJ45	4x RJ45, 1x SC single or multimode	4x RJ45, 2x SC multimode
Transfer rate, max.	10/100 Mbit/s	up to 1 Gbit/s			
Special features	X005TS: with railway approval			XB004-1LD: up to 26 km	
				XB004-1LDG: up to 10 km	
		PROFINET CC-A			
Dimensions (WxHxD) in mm	60x125x124	45x100x87			
Degree of protection	IP30	IP20			
Temperature range	-40 °C to +70 °C	-10 °C to +60 °C			

<sup>1)</sup> 24 V DC and 24 V AC power supplies possible

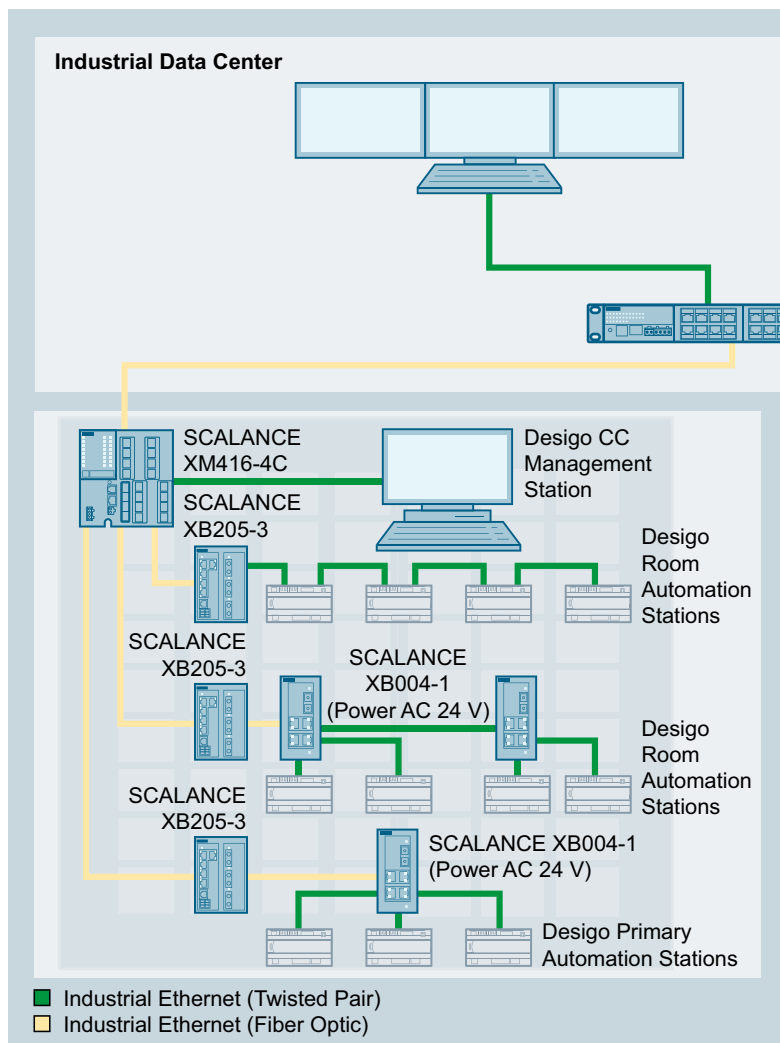
## SCALANCE X-000 / SCALANCE XB-000

Simple, space-saving, industry-compatible: The SCALANCE XB-000 range enables the cost-effective setup of networks in a compact format. The devices achieve gigabit data transmission over distances up to 26 km with fiber-optic cables.

The SCALANCE X-000 has a rugged metal enclosure and enables the cost-effective creation of line and star topologies for simple machine networks.

- Easy handling
- Space-saving installation in control boxes, cabinets or for wall mounting
- Data transmission rates up to 1 Gbit/s
- Industry-standard plastic enclosure
- Creation of line topologies with two fiber-optic interfaces (SCALANCE XB004-2)
- Variants with 24 V AC (50/60 Hz) for building automation
- Use in railway and road traffic applications (SCALANCE X005TS)
- Wide temperature range from -40 °C to +70 °C (SCALANCE X005 and X005TS)
- PROFINET CC-A-compliant

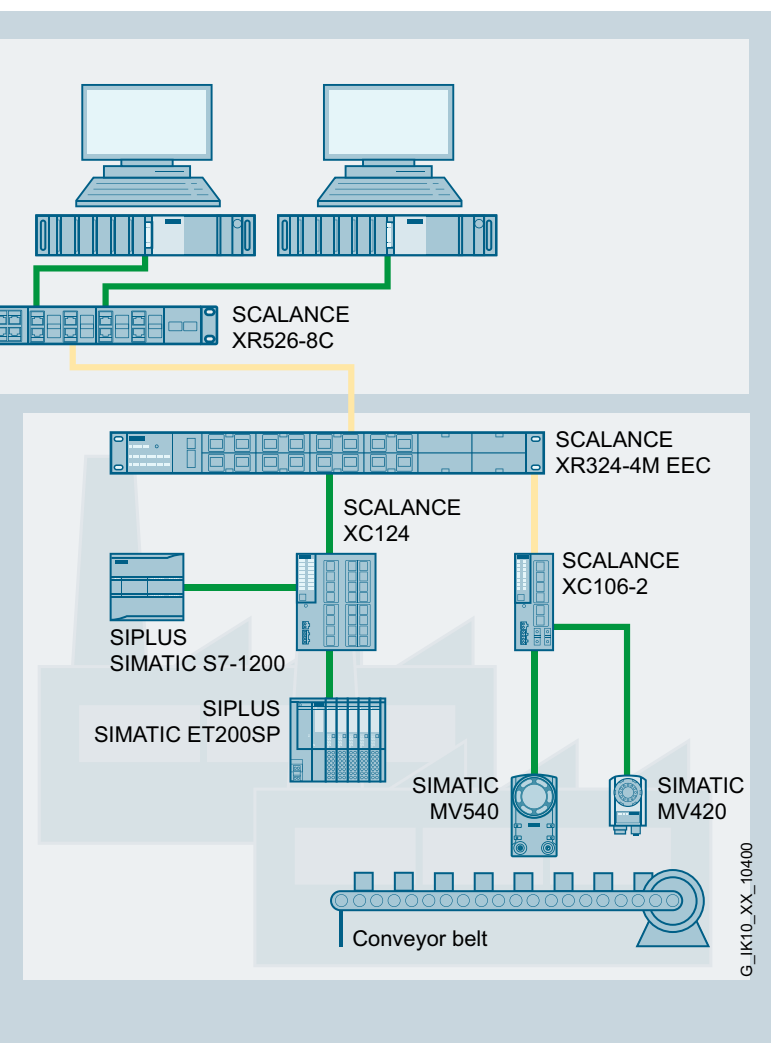
[siemens.com/x-000](http://siemens.com/x-000)





	SCALANCE X-100	SCALANCE XC-100			
	X108PoE	XC106-2	XC108	XC116	XC124
Applications	Machine networking and networks				
Interfaces	8x RJ45	6x RJ45, 2x ST/BFOC, 2x SC	8x RJ45	16x RJ45	24x RJ45
Transfer rate, max.	10/100 Mbit/s				
Special features	Power-over-Ethernet (PoE)	PROFINET CC-A			
Dimensions (WxHxD) in mm	60x125x124	60x147x125		120x147x125	120x147x125
Degree of protection	IP30	IP20			
Temperature range	-20 °C to +60 °C	-40 °C to +70 °C			

## SCALANCE XC-100



The SCALANCE XC-100 and X108PoE feature different port characteristics which enables small networks to be constructed with the right switch for the respective application, e.g. for hazardous areas (IECEx, ATEX Zone 2). The available port density helps to save costs. And with SCALANCE X108PoE, it is possible to supply up to two terminal devices via Power-over-Ethernet (PoE) with data and power simultaneously.

- Rugged plastic/metal enclosure with retaining collar
- Redundant power supply via 4-pole terminal block (2x 24 V DC)
- Clearly positioned interfaces and diagnostics LEDs
- Motor vehicle approval for SCALANCE XC108
- Wide temperature range from -40 °C to +70 °C
- Multitude of mounting options, including on walls, SIMATIC S7-1500 controllers and 35 mm DIN rails
- Use in railway and road traffic applications (SCALANCE X108PoE)
- Supports Power-over-Ethernet (SCALANCE X108PoE)

[siemens.com/xc-100](http://siemens.com/xc-100)



	SCALANCE XB-100				SCALANCE XR-100WG
	XB108-2	XB112	XB116	XB124	XR124WG <sup>1)</sup>
Applications	Machine networking and building automation				Data centers
Interfaces	8x RJ45 / 2x ST/BFOC or 2x SC	12x RJ45	16x RJ45	24x RJ45	24x RJ45
Transfer rate, max.	10/100 Mbit/s				
Special features	PROFINET CC-A				Work group switch
Dimensions (WxHxD) in mm	80x117x109	120x117x109			19"
Degree of protection	IP20				IP30
Temperature range	0 °C to +60 °C				

<sup>1)</sup> 24 V DC and 24 V AC power supplies possible

## SCALANCE XB-100 / Media converters

The SCALANCE XB-100 product line is designed for setting up electrical or optical networks with direct current (24 V DC) and alternating current (24 V AC, 50/60 Hz) for the easy connection of Ethernet nodes in buildings and for industrial purposes. The unmanaged Industrial Ethernet media converters of the SCALANCE X-100 product line facilitate flexible and straightforward media conversion from copper to fiber-optic cables.

## SCALANCE XR-100WG

The low overall depth of the cost-optimized, unmanaged SCALANCE XR-100WG 19" rack switches (work group) mean that two of them can be mounted on both sides of the control cabinet, thus saving space: this makes them ideal for a wide range of industry-related applications and control rooms.

- Can be used in buildings and for industrial purposes with 24 V DC or 24 V AC (50/60 Hz)
- For simple machine networking where an high port density is required (up to 24 ports)
- Redundant power supply
- PROFINET CC-A-compliant
- Suitable for Zone 2 hazardous areas (ATEX, IECEx)
- Signaling contact: signaling mask can be set locally using buttons (media converter)

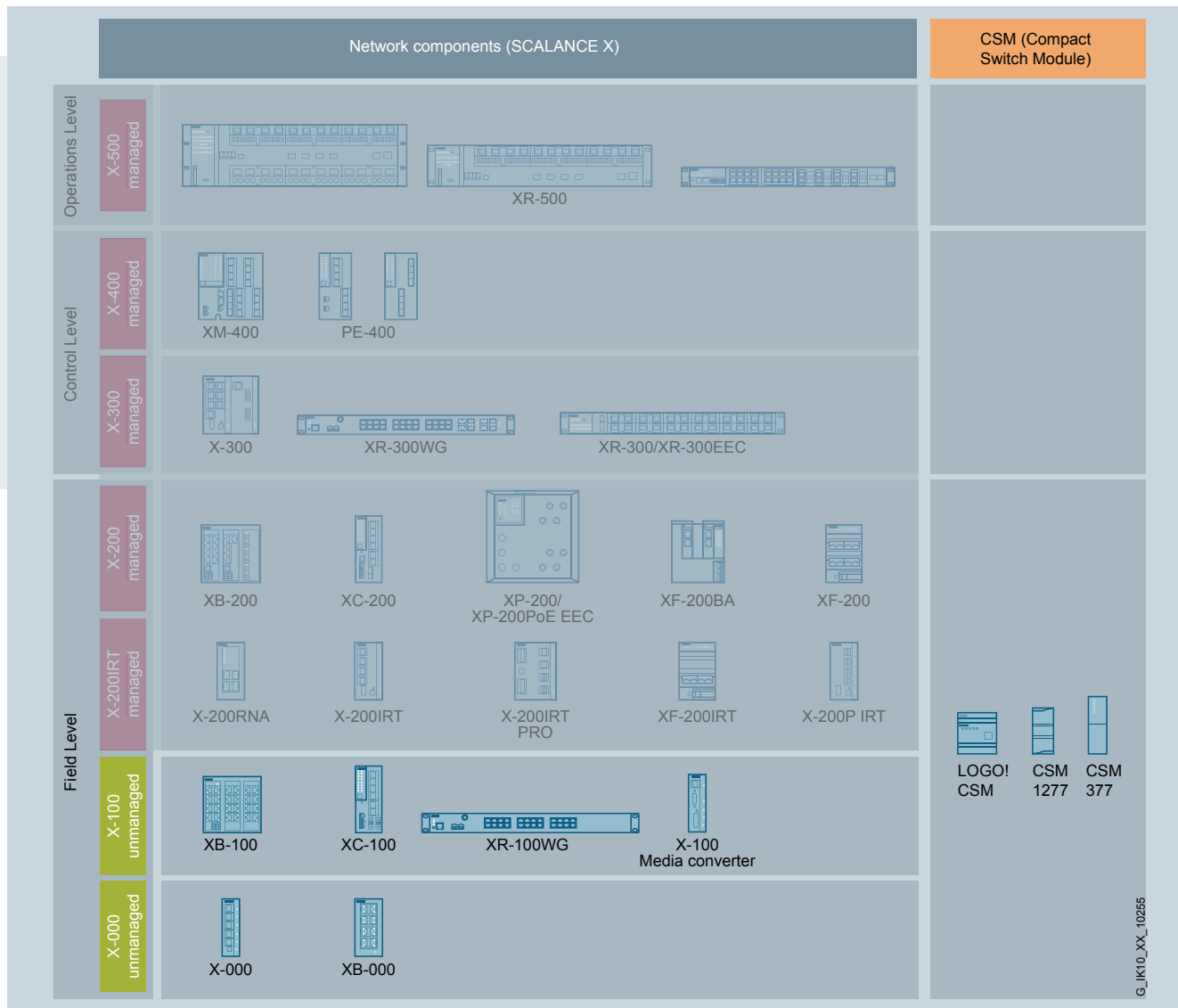
[siemens.com/xb-100](http://siemens.com/xb-100)  
[siemens.com/x-100](http://siemens.com/x-100)

- Can also be used in hazardous areas due to approvals such as ATEX Ex Zone 2
- Work group switch for use in 19" racks, e.g. in industrial data centers
- Versions with 24 V DC and 100–240 V AC (50/60 Hz) available
- High port density (up to 24 ports)
- Redundant power supply at 24 V DC

[siemens.com/xr-100wg](http://siemens.com/xr-100wg)

## SCALANCE X Industrial Ethernet switches

With a graded portfolio, Siemens is able to offer the right switch for any industrial communication network requirements.



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### Security information

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept.

Siemens' products and solutions constitute one element of such a concept. For more information about industrial security, please visit [www.siemens.com/industrialsecurity](http://www.siemens.com/industrialsecurity)

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Article No. 6ZB5530-1BR02-0BA4  
W-FPN8Z-PD-PA247 / Dispo 26000  
BR 1018 1.5 LMB 6 En  
Printed in Germany

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