

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.

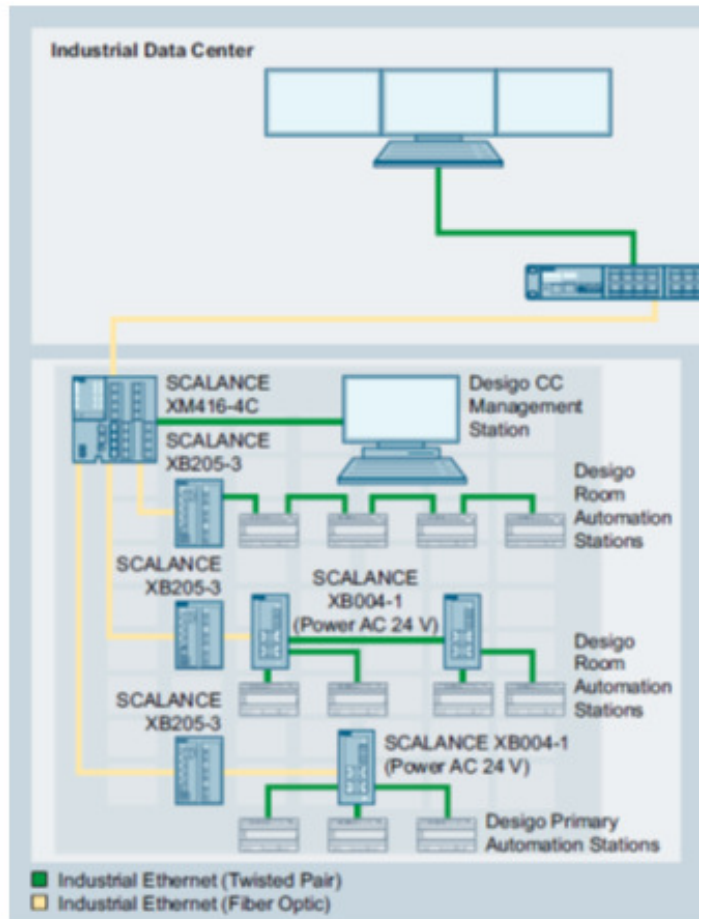
The benefits at a glance

- 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

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.

- BENEFITS**
- 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



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

¹⁾ 24 V DC and 24 V AC power supplies possible



SCALANCE XB005G unmanaged Industrial Ethernet Switch for 10/100/1000 Mbit/s; for setting up small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, with 5x 10/100/1000 Mbit/s RJ45 ports electrical; Manual available as a download

product type designation	SCALANCE XB005G
transfer rate	
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
interfaces / for communication / integrated	
number of electrical connections • for network components or terminal equipment	5; RJ45
number of 100 Mbit/s SC ports • for multimode	0
interfaces / other	
number of electrical connections • for power supply	1
type of electrical connection • for power supply	3-pole terminal block
supply voltage, current consumption, power loss	
type of voltage / 1 / of the supply voltage • supply voltage / 1 / rated value • power loss [W] / 1 / rated value • supply voltage / 1 / rated value • consumed current / 1 / maximum • type of electrical connection / 1 / for power supply • product component / 1 / fusing at power supply input	DC 24 V 10.5 W 19.2 ... 28.8 V 0.44 A 3-pole terminal block Yes
ambient conditions	
ambient temperature • during operation • during storage • during transport	-10 ... +60 °C -40 ... +80 °C -40 ... +80 °C
relative humidity • at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
design	Box
width	45 mm
height	100 mm
depth	87 mm
net weight	0.22 kg

product functions / management, configuration, engineering

product function	No
• multiport mirroring	Yes
• CoS	
PROFINET conformity class	A
product function / switch-managed	No

product functions / redundancy

product function	Yes
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	
• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)	No

standards, specifications, approvals

standard	
• for FM	FM3611: Class 1, Division 2, Group A, B, C, D / T4, CL.1, Zone 2, GP, IIC, T4
• for safety / from CSA and UL	UL 60950-1, CSA C22.2 No. 60950-1
• for emitted interference	EN 61000-6-4 (Class B)
• for interference immunity	EN 61000-6-2
MTBF	139 y

standards, specifications, approvals / CE

certificate of suitability / CE marking	Yes
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standards, specifications, approvals / hazardous environments

standard / for hazardous zone	EN 60079-0:2009, EN60079-15:2010, II 3 G Ex nA IIC T4 Gc, KEMA 07ATEX0145 X
certificate of suitability	
• CCC / for hazardous zone according to GB standard	Yes

standards, specifications, approvals / other

certificate of suitability	EN 61000-6-2, EN 61000-6-4
• C-Tick	Yes
• KC approval	Yes



SCALANCE XB008G unmanaged Industrial Ethernet Switch for 10/100/1000 Mbit/s; for setting up small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, with 8x 10/100/1000 Mbit/s RJ45 ports electrical Manual available as a download

product type designation	SCALANCE XB008G
transfer rate	
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
interfaces / for communication / integrated	
number of electrical connections • for network components or terminal equipment	8; RJ45
number of 100 Mbit/s SC ports • for multimode	0
interfaces / other	
number of electrical connections • for power supply	1
type of electrical connection • for power supply	3-pole terminal block
supply voltage, current consumption, power loss	
type of voltage / 1 / of the supply voltage	DC
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	12.5 W
• supply voltage / 1 / rated value	19.2 ... 28.8 V
• consumed current / 1 / maximum	0.52 A
• type of electrical connection / 1 / for power supply	3-pole terminal block
• product component / 1 / fusing at power supply input	Yes
ambient conditions	
ambient temperature • during operation • during storage • during transport	-10 ... +60 °C -40 ... +80 °C -40 ... +80 °C
relative humidity • at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
design	Box
width	45 mm
height	100 mm
depth	87 mm
net weight	0.26 kg

product functions / management, configuration, engineering	
product function	No
<ul style="list-style-type: none"> • multiport mirroring • CoS 	Yes
PROFINET conformity class	A
product function / switch-managed	No
product functions / redundancy	
product function	Yes
<ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/operation in the PRP-network • Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA) 	No
standards, specifications, approvals	
standard	
<ul style="list-style-type: none"> • for FM • for safety / from CSA and UL • for emitted interference • for interference immunity 	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, CL.1, Zone 2, GP. IIC, T4 UL 60950-1, CSA C22.2 No. 60950-1 EN 61000-6-4 (Class B) EN 61000-6-2
MTBF	112 y
standards, specifications, approvals / CE	
certificate of suitability / CE marking	Yes
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	EN 60079-0:2009, EN60079-15:2010, II 3 G Ex nA IIC T4 Gc, KEMA 07ATEX0145 X
certificate of suitability	
<ul style="list-style-type: none"> • CCC / for hazardous zone according to GB standard 	Yes
standards, specifications, approvals / other	
certificate of suitability	EN 61000-6-2, EN 61000-6-4
<ul style="list-style-type: none"> • C-Tick • KC approval 	Yes Yes



SCALANCE XB004-1G unmanaged Industrial Ethernet Switch for 10/100/1000 Mbit/s; for setting up small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, with 4x 10/100/1000 Mbit/s RJ45 ports electrical and 1 x 1000 Mbit/s SC port optical (multimode, glass), up to max. 750 m Manual available as a download

product type designation	SCALANCE XB004-1G
transfer rate	
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
interfaces / for communication / integrated	
number of electrical connections • for network components or terminal equipment	4; RJ45
number of 100 Mbit/s SC ports • for multimode	0
number of 1000 Mbit/s SC ports • for multimode	1
interfaces / other	
number of electrical connections • for power supply	1
type of electrical connection • for power supply	3-pole terminal block
supply voltage, current consumption, power loss	
type of voltage / 1 / of the supply voltage	DC
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	12.5 W
• supply voltage / 1 / rated value	19.2 ... 28.8 V
• consumed current / 1 / maximum	0.52 A
• type of electrical connection / 1 / for power supply	3-pole terminal block
• product component / 1 / fusing at power supply input	Yes
ambient conditions	
ambient temperature • during operation	-10 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
relative humidity • at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
design	Box
width	45 mm
height	100 mm
depth	87 mm

net weight	0.21 kg
fastening method	
<ul style="list-style-type: none"> • 35 mm top hat DIN rail mounting 	Yes
<ul style="list-style-type: none"> • wall mounting 	Yes
<ul style="list-style-type: none"> • S7-1500 rail mounting 	No
product functions / management, configuration, engineering	
product function	
<ul style="list-style-type: none"> • multiport mirroring 	No
<ul style="list-style-type: none"> • CoS 	Yes
PROFINET conformity class	A
product function / switch-managed	No
product functions / redundancy	
product function	
<ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/operation in the PRP-network 	Yes
<ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA) 	No
standards, specifications, approvals	
standard	
<ul style="list-style-type: none"> • for FM 	FM3611: Class 1, Division 2, Group A, B, C, D / T4, CL.1, Zone 2, GP, IIC, T4
<ul style="list-style-type: none"> • for safety / from CSA and UL 	UL 60950-1, CSA C22.2 No. 60950-1
<ul style="list-style-type: none"> • for emitted interference 	EN 61000-6-4 (Class A)
<ul style="list-style-type: none"> • for interference immunity 	EN 61000-6-2
MTBF	124 y
standards, specifications, approvals / CE	
certificate of suitability / CE marking	Yes
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	EN 60079-0:2009, EN60079-15:2010, II 3 G Ex nA IIC T4 Gc, KEMA 07ATEX0145 X
certificate of suitability	
<ul style="list-style-type: none"> • CCC / for hazardous zone according to GB standard 	Yes
standards, specifications, approvals / other	
certificate of suitability	EN 61000-6-2, EN 61000-6-4
<ul style="list-style-type: none"> • C-Tick 	Yes
<ul style="list-style-type: none"> • KC approval 	Yes



SCALANCE XB004-1LDG unmanaged Industrial Ethernet Switch for 10/100/1000 Mbit/s; for setting up small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, with 4x 10/100/1000 Mbit/s RJ45 Ports electrical and 1 x 1000 Mbit/s SC port optical (single-mode, glass), up to max. 10 km Manual available as a download

product type designation	SCALANCE XB004-1LDG
transfer rate	
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
interfaces / for communication / integrated	
number of electrical connections • for network components or terminal equipment	4; RJ45
number of 100 Mbit/s SC ports • for multimode	0
number of 1000 Mbit/s SC ports • for single mode (LD)	1
interfaces / other	
number of electrical connections • for power supply	1
type of electrical connection • for power supply	3-pole terminal block
supply voltage, current consumption, power loss	
type of voltage / 1 / of the supply voltage	DC
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	12.5 W
• supply voltage / 1 / rated value	19.2 ... 28.8 V
• consumed current / 1 / maximum	0.52 A
• type of electrical connection / 1 / for power supply	3-pole terminal block
• product component / 1 / fusing at power supply input	Yes
ambient conditions	
ambient temperature • during operation	-10 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
relative humidity • at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
design	Box
width	45 mm
height	100 mm
depth	87 mm

net weight	0.21 kg
fastening method	
• 35 mm top hat DIN rail mounting	Yes
• wall mounting	Yes
• S7-1500 rail mounting	No
product functions / management, configuration, engineering	
product function	
• multiport mirroring	No
• CoS	Yes
PROFINET conformity class	A
product function / switch-managed	No
product functions / redundancy	
product function	
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	Yes
• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)	No
standards, specifications, approvals	
standard	
• for FM	FM3611: Class 1, Division 2, Group A, B, C, D / T4, CL.1, Zone 2, GP. IIC, T4
• for safety / from CSA and UL	UL 60950-1, CSA C22.2 No. 60950-1
• for emitted interference	EN 61000-6-4 (Class A)
• for interference immunity	EN 61000-6-2
MTBF	124 y
standards, specifications, approvals / CE	
certificate of suitability / CE marking	Yes
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	EN 60079-0:2009, EN60079-15:2010, II 3 G Ex nA IIC T4 Gc, KEMA 07ATEX0145 X
certificate of suitability	
• CCC / for hazardous zone according to GB standard	Yes
standards, specifications, approvals / other	
certificate of suitability	EN 61000-6-2, EN 61000-6-4
• C-Tick	Yes
• KC approval	Yes



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