

Why choose the SCALANCE XB family of unmanaged switches?

Designed for simple and cost effective entry into the Industrial Ethernet switch market, the Scalance XB family allows engineers to increase the number of end devices or network segments without the need for configuration.

- Cost-effective solutions starting at \$95
- FastEthernet and Gigabit models for maximum performance
- Seamless integration with SIMATIC design
- Compact design
- Plug-and-Play networking; no configuration required
- Distances up to 26km using Fiber
- DIN and wall mountable

Reliability

Experience the rugged durability and extended reliability designed into all Siemens Industrial Ethernet products.

- Mean Time Between Failure (MTBF) over 100 years
- UL, CSA, CE and C-Tick Certified
- Large operating temperature range from -10° C to 60° C
- LED-diagnostics conveniently indicate power, link and transmission status on the faceplate

Fiber Optics

Utilize SCALANCE XB Fiber Optic data transmission to evade electromagnetic interference and reach vast distances with minimal data loss.

- Optical SC-Port available
- Length of fiber-optic transmission:
 - Max. 5 km with Industrial Ethernet FO cables Multimode
 - Max. 26 km with Industrial Ethernet FO cables Singlemode

Expand your industrial network with Siemens reliable unmanaged switching solutions

Compact Design

Pocket-sized design allows for convenient placement of your industrial switch inside a panel, especially when space is at a premium.

- Dimensions: 45mm x 100mm x 87mm
- Weight: 165g to 260g

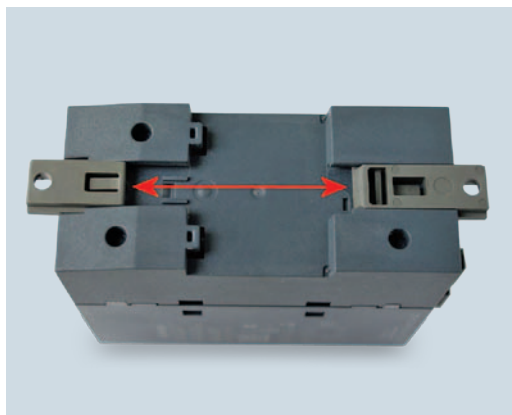
Flexibility

The SCALANCE XB line offers a comprehensive variety of unmanaged switches: full Gigabit capability and distances reaching up to 26 km with optional Fiber Optic ports. All eight switches come with the innovative dual-purpose DIN and Wall mount.

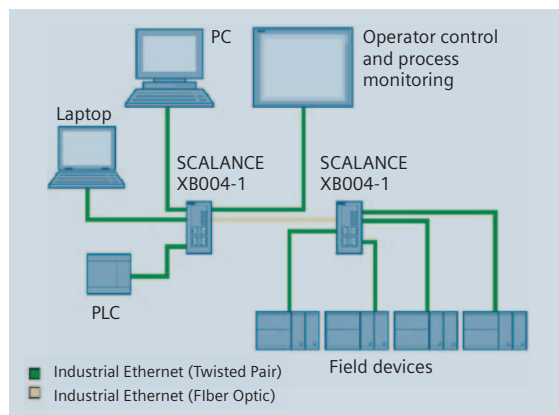
- 4 + 1, 5 and 8 Port models
- RJ45 and SC Fiber Optic connectors
- FastEthernet and Gigabit capability
- Singlemode or Multimode Fiber Optics
- Hybrid DIN/Wall mount

Simply connect your end devices to a SCALANCE XB and allow autosensing, autocrossover detection and autonegotiation features to set data transmission parameters. Large MAC learning tables allow seamless integration of Bus and Star topologies into your Industrial Ethernet network.

- Easy integration with PROFINET networks
- Data transmission rate detection via autosensing
- Autocrossover and autonegotiation
- MAC address learning tables up to 8 k



Hybrid DIN/wall mount



Mixed star topology with SCALANCE XB004-1

Technical specifications

Interfaces	
Connection of terminal equipment or network components via twisted pair	4, 5 or 8 x 10/100/1000 Mbit/s RJ45 electrical ports
Number of optical ports for fiber-optic cables	1 x 100 or 1 x 1000 Mbit/s optical SC port in multimode and singlemode versions
Connection for power supply	1 x 3 plug-in terminal block
Electrical data	
Power supply Permissible range	+24 V DC +19.2 to +28.8 V DC
Power loss at 24 V DC	1.68 W to 12.5 W
Current consumption at rated voltage	70 mA to 520 mA
Power supply input fuse design	0.6 A / 60 V
Permissible ambient conditions/EMC	
Operating temperature	-10 °C to +60 °C
Transport/storage temperature	-40 °C to +80 °C
Relative humidity in operation	< 95% (no condensation)
Interference immunity	EN 6100-6-2
Emitted interference	EN 6100-6-4
Degree of protection	IP20
Safety certifications	UL, CSA, CE and C-Tick
Construction	
Dimensions (W x H x D)	45mm x 100mm x 87mm
Weight	0.165 kg to 0.260 kg
Installation options	DIN rail, wall mounting

Accessories

FastConnect	Part Number
TP cable 2 x 2 (per meter)	
IE FC Standard Cable 2x2	6XV1840-2AH10
IE FC Flexible Cable GP 2x2	6XV1870-2B
TP cable 4 x 2 (per meter)	
IE FC TP Standard Cable GP 4 x 2 (AWG24)	6XV1878-2A
IE FL TP Flexible Cable GP 4x2 (AWG24)	6XV1878-2B
Tools	
IE FC Stripping Tool	6GK1901-1GA00
Connectors	
IE FC RJ45 180° Connector	6GK1901-1BB10-2AA0
IE FC RJ45 Plug 180° Gigabit Connector	6GK1901-1BB11-2AA0
Cables	
FO Standard Cable GP 50/125 Fiber-optic Cable pre-assembled for use with multimode switches	
80 m	6XV1873-6AN80
100 m	6XV1873-6AT10
150 m	6XV1873-6AT15
200 m	6XV1873-6AT20
300 m	6XV1873-6AT30
IE Standard Cable TP RJ45/RJ45 TP cable 4x2 with 2 RJ45 connectors	
0.5 m	6XV1870-3QE50
1 m	6XV1870-3QH10
2 m	6XV1870-3QH20
6 m	6XV1870-3QH60
10 m	6XV1870-3QN10
20 m	6XV1871-5BN20
24 V DC Power Supply	
SITOP compact 24 V/0.6 A	6EP1331-5BA00

FastConnect Cabling System

Introduction

FastConnect Cabling System

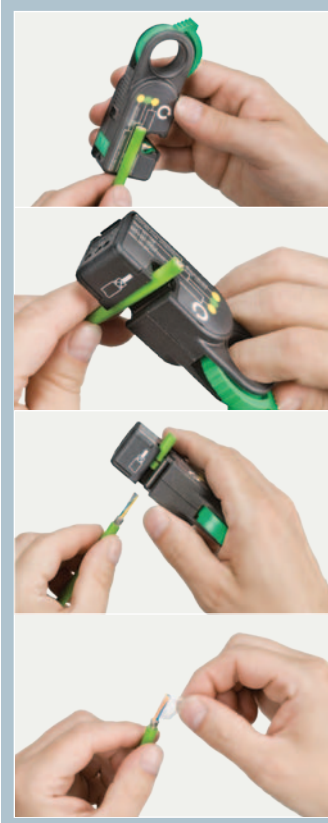
The FastConnect system provides a complete cabling solution for on-site assembly of custom length industrial Ethernet cables. The system comprises of a stripping tool, a full range of connectors, and various cable options.

Regardless of the type of connector you need, the assembly follows the same procedure.

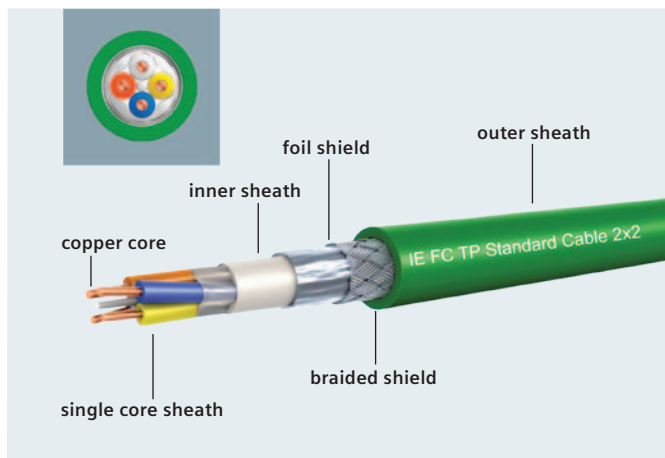
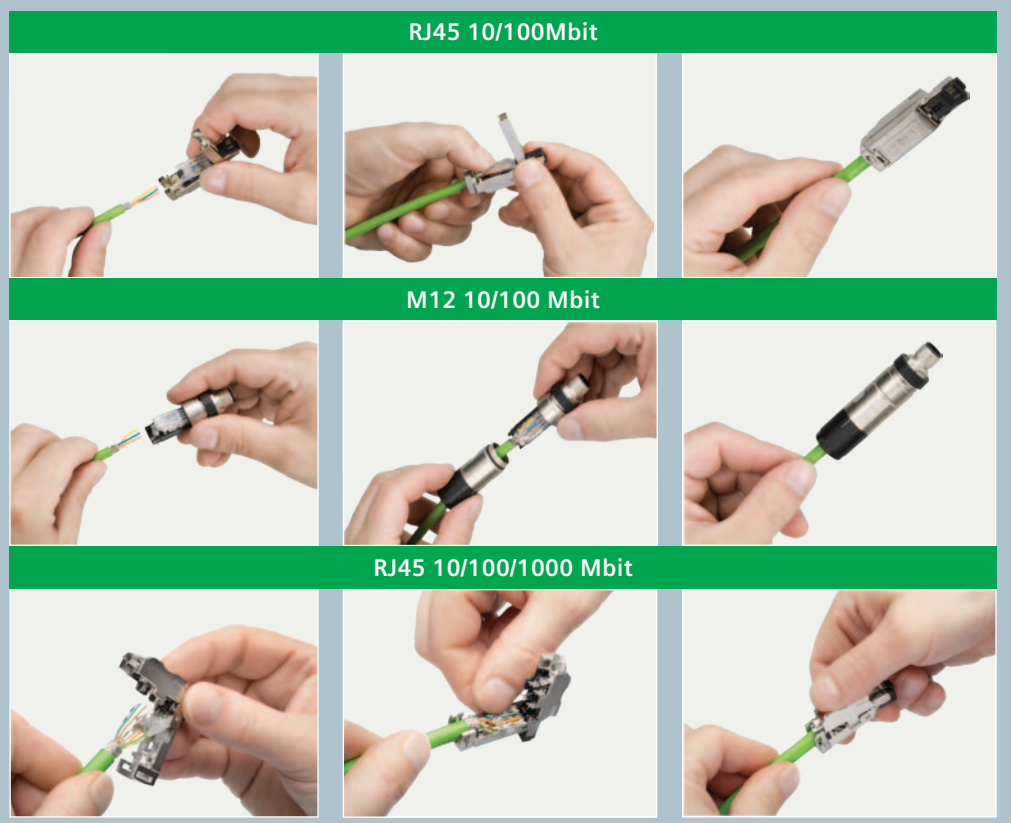
Your benefits:

- Greater flexibility for configuring the optimum cable length with the right connector on site
- Reduced stocking costs for ordering pre-assembled cables
- Easy installation using just one tool
- Easy routing of cables with pre-assembled, angled connectors
- Wiring is simplified due to color coding and the transparent contact cover






Cable Preparation






Termination




Connectors for Industrial Ethernet FastConnect System

	Product	Comments	Article no *)	
IE FC RJ45 Plug 2 x 2				
	10/100 FastConnect RJ45 Plug 180	RJ45 data connector; for connecting to IE FC TP cables 2x2, 180° cable outlet		
		1 pack = 1 piece	1 piece	6GK1901-1BB10-2AA0
		1 pack = 10 pieces	10 pieces	6GK1901-1BB10-2AB0
	10/100 FastConnect RJ45 Plug 90	90° cable outlet;		
		1 pack = 1 piece	1 piece	6GK1901-1BB20-2AA0
		1 pack = 10 pieces	10 pieces	6GK1901-1BB20-2AB0
	10/100 FastConnect RJ45 Plug 145	145° cable outlet;		
		1 pack = 1 piece	1 piece	6GK1901-1BB30-0AA0
		1 pack = 10 pieces	10 pieces	6GK1901-1BB30-0AB0
		1 pack = 50 pieces	50 pieces	6GK1901-1BB30-0AE0
IE FC RJ45 Plug 4 x 2				
	10/100/1000 FastConnect RJ45 Plug (4x2)	RJ45 data connector; for connecting to IE FC TP cables 4x2		
		1 pack = 1 piece	1 piece	6GK1901-1BB12-2AA0
		1 pack = 10 pieces	10 pieces	6GK1901-1BB12-2AB0
		1 pack = 50 pieces	50 pieces	6GK1901-1BB12-2AE0
M12 connectors				
	10/100 FastConnect M12 PRO	M12 connector with high degree of protection, 4-pin, D-coded for connection of electrical cables to SCALANCE X208PRO, ET 200 PRO PN or ET 200 eco PN	1 piece	6GK1901-0DB30-6AA0
			8 pieces	6GK1901-0DB30-6AA8
	10/100/1000 FastConnect M12 PRO	M12 connector with high degree of protection, 8-pin, X-coded for connection of electrical cables to SCALANCE W (Gigabit M12 interface),	1 piece	6GK1901-0DB30-6AA0
			8 pieces	6GK1901-0DB30-6AA8

Cables for Industrial Ethernet FastConnect System

	Product	Comments	Article no *)	
Industrial Ethernet FastConnect cables 2 x 2 at 100 Mbit/s, sold by the meter, in bulk				
	IE FC TP Standard Cable GP 2 x 2 (Type A)	Standard bus cable (4-core) with rigid cores for fast assembly		6XV1840-2AH10
	IE FC TP Flexible Cable GP 2 x 2 (Type B)	Flexible bus cable (4-core), for occasionally moved machine components		6XV1870-2B
	IE FC TP FRNC Cable GP 2 x 2 (Type B)	Flexible, halogen-free bus cable (4-core), for occasionally moved machine components		6XV1871-2F
	IE FC TP Trailing Cable GP 2 x 2 (Type C)	Highly flexible bus cable (4-core) for continuous movement in cable carriers		6XV1870-2D
	IE FC TP Trailing Cable 2 x 2 (Type C)	Highly flexible bus cable (4-core) for continuous movement in cable carriers		6XV1840-3AH10
	IE TP Torsion Cable 2 x 2 (Type C)	Highly flexible bus cable (4-core) for continuous movement when using with robots		6XV1870-2F
	IE FC TP Food Cable 2 x 2 (Type C)	Flexible bus cable (4-core), for food, beverages and tobacco industries		6XV1871-2L
	IE FC TP Marine Cable 2 x 2 (Type B)	Bus cable (4-core), for marine and offshore use		6XV1840-4AH10
	IE TP Ground Cable 2 x 2 (Type C)	Bus cable (4-core) for fixed routing in soil		6XV1871-2G
	IE TP Train Cable GP 2 (Type C)	Bus cable (4-core) for special applications in trains; certified for railway applications		6XV1871-2T
Industrial Ethernet FastConnect cables 4 x 2 at 1000 Mbit/s, sold by the meter, in bulk				
	IE FC TP Standard Cable GP 4 x 2	Standard bus cable (8-core), AWG22, Standard cable with rigid cores for fast assembly, for fixed installation		6XV1870-2E
	IE FC TP Flexible Cable GP 4 x 2	Bus cable (8-core, AWG24) with flexible cores, Flexible cable for quick assembly, for occasionally moving machine parts		6XV1878-2B

Pre-molded Industrial Ethernet cables

	IE TP Cord RJ45/RJ45	Patch cord, preferred length, pre-assembled with two RJ45 connectors	0.5 m	6XV1870-3QE50
			1.0 m	6XV1870-3QH10
			2.0 m	6XV1870-3QH20
			6.0 m	6XV1870-3QH60
			10 m	6XV1870-3QN10

*For additional cabling options, please refer to U.S. Part Number NTB-1BK02-0114.