

Description ● Basic version ○ Option ◇ Function is dependent on operating software — Not possible	Instructions (footnotes are applicable line by line)	Order No.	Order code	SINUMERIK	
		Type (for complete Order No., see notes)		840DE sl	840D sl
Operation					
Operator panel fronts:					
• SINUMERIK OP 010, 10.4", color		6FC5203-0AF00-0AA1		○	○
• SINUMERIK OP 010C, 10.4", color		6FC5203-0AF01-0AA0		○	○
• SINUMERIK OP 010S, 10.4", color		6FC5203-0AF04-0AA0		○	○
• SINUMERIK OP 012, 12.1", color		6FC5203-0AF02-0AA1		○	○
• SINUMERIK OP 015, 15", color		6FC5203-0AF03-0AA0		○	○
• SINUMERIK OP 015A, 15", color		6FC5203-0AF05-0AB0		○	○
• SINUMERIK TP 015A, 15", color, touch		6FC5203-0AF08-0AB2		○	○
• SINUMERIK OP 019, 19", color	Requirement: PCU 50.5.	6FC5303-0AF13-0AA0		○	○
Thin Client Unit for operator panel fronts:					
• SINUMERIK TCU	Not in combination with SINUMERIK OP 019.	6FC5312-0DA00-0AA1		○	○
Operator panel fronts with integrated TCU:					
• SINUMERIK OP 08T, 8", color		6FC5203-0AF04-1BA0		○	○
• SINUMERIK OP 015AT, 15", color		6FC5203-0AF05-1AB0		○	○
• SINUMERIK TP 015AT, 15", color, touch		6FC5203-0AF08-1AB2		○	○
Additional components for Thin Client:					
• Switch SCALANCE XB005 unmanaged		6GK5005-0BA00-1AB2		○	○
• Switch SCALANCE X005 unmanaged		6GK5005-0BA00-1AA3		○	○
• Switch SCALANCE X108 unmanaged		6GK5108-0BA00-2AA3		○	○
• Switch SCALANCE X208 managed		6GK5208-0BA10-2AA3		○	○
• Switch SCALANCE X208 PRO managed		6GK5208-0HA00-2AA6		○	○
Accessories for operator panels:					
• USB interface for mounting in control cabinet (with connection between cabinet mounting component and the USB connector, length 1 m (39.37 in))		6FC5347-0AF01-1AA0		○	○
Industrial PC for operator panel fronts:					
• SINUMERIK PCU 50.5-C P4505; 1.86 GHZ/1024 MB, Windows XP ProEmbSys		6FC5210-0DF52-2AA0		○	○
• SINUMERIK PCU 50.5-P i5-520E; 2.4 GHZ/2048 MB, Windows XP ProEmbSys		6FC5210-0DF53-2AA0		○	○
• Memory expansion 1024 MB for SINUMERIK PCU 50.5		6ES7648-2AJ40-1KA0		○	○
• Memory expansion 2048 MB for SINUMERIK PCU 50.5		6ES7648-2AJ50-1KA0		○	○

SINUMERIK Operate

Industrial switches

Industrial Ethernet Switches – SCALANCE

Overview



SCALANCE X is the product group of industrial switches from SIMATIC NET for Industrial Ethernet. Switches are active network components that specifically distribute data to the relevant addressees.

Application

SCALANCE XB005 (IP20 degree of protection)

- The unmanaged Industrial Ethernet Switch SCALANCE XB005 is optimized for configuring Industrial Ethernet networks with 10/100 Mbit/s in line and star topologies
- Enclosure for space-saving installation in control cabinets or boxes on a standard mounting rail

SCALANCE X005/X108 (IP30 degree of protection)

- For configuring Industrial Ethernet networks in line and star topologies
- The 5/8 RJ45 sockets are industry-compatible and feature additional retaining collars for connection to the IE FC RJ45 Plug 180

SCALANCE X208/X208PRO (IP30/IP65 degree of protection)

- For configuring Industrial Ethernet networks in line, star or ring topologies (8 electrical ports):
 - SCALANCE X208 for installation in the control cabinet
 - SCALANCE X208PRO, specially for use outside the control cabinet
- The 8 RJ45 sockets of the SCALANCE X208 are industry-compatible and feature additional retaining collars for connection to the IE FC RJ45 Plug 180
- The 8 PROFINET-compatible M12 sockets of the SCALANCE X208PRO are designed with IP65 degree of protection for connection to the IE M12 Plug PRO or the pre-assembled IE M12 connecting cable
- The SCALANCE X208PRO can be installed on a DIN rail/ S7-300 rail or as a compact flat or upright model directly on the installation or machine
- Status information can be read in any mounting position thanks to the inclined row of LEDs
- Power can also be supplied to the SCALANCE X208PRO from outside the control cabinet from the PS791-1PRO power supply module (for 230 V AC)

Selection and ordering data

Description	Order No.
Industrial Ethernet Switch SCALANCE XB005 unmanaged With 5 x 10/100 Mbit/s RJ45 ports for configuring small star and line topologies IP20 degree of protection	6GK5005-0BA00-1AB2
Industrial Ethernet Switch SCALANCE X005 unmanaged With 5 x 10/100 Mbit/s RJ45 ports for configuring small star and line topologies IP30 degree of protection	6GK5005-0BA00-1AA3
Industrial Ethernet Switch SCALANCE X108 unmanaged With 8 x 10/100 Mbit/s RJ45 ports for configuring star and line topologies IP30 degree of protection	6GK5108-0BA00-2AA3
Industrial Ethernet Switch SCALANCE X208 managed With 8 x 10/100 Mbit/s RJ45 ports for configuring line, star and ring topologies IP30 degree of protection	6GK5208-0BA10-2AA3
Industrial Ethernet Switch SCALANCE X208PRO managed With 8 x 10/100 Mbit/s RJ45 ports for configuring linear, star and ring topologies IP65 degree of protection incl. 8 x RJ45 and 3 x M12 dust protection caps	6GK5208-0HA00-2AA6
Ethernet cables and connections	
IE FC RJ45 plug 180 RJ plug connector for Industrial Ethernet with robust metal casing and integrated cutting/clamping contacts; with 180° outgoing cable	6GK1901-1BB10-2AA0
IE FC Standard Cable GP 2 x 2 (Type A) 4-core, shielded TP installation cable for connection to IE FC Outlet RJ45/IE FC RJ45 Plug; PROFINET-compatible; with UL approval; sold by the meter; max. length 1000 m (3281 ft), minimum order quantity 20 m (65.62 ft)	6XV1840-2AH10
IE FC Trailing Cable GP 2 x 2 (Type C) 4-core, shielded TP installation cable for connection to IE FC Outlet RJ45/IE FC RJ45 Plug 180/90 for use in trailing cables; PROFINET-compatible; without UL approval; sold by the meter; max. length 1000 m (3281 ft), minimum order 20 m (65.62 ft)	6XV1840-3AH10

More information

Information on the SIMATIC NET components such as the Industrial Ethernet SCALANCE Electrical Lean Switches and the Industrial Ethernet FC TP Standard/Trailing Cable can be found in the IK PI Catalog or Siemens Industry Mall.

www.siemens.com/industrymall

Technical specifications

Product name	SCALANCE XB005 6GK5005-0BA00-1AB2	SCALANCE X005 6GK5005-0BA00-1AA3	SCALANCE X108 6GK5108-0BA00-2AA3	SCALANCE X208 6GK5208-0BA10-2AA3	SCALANCE X208PRO 6GK5208-0HA00-2AA6
Transmission rate 1	10 Mbit/s				
Transmission rate 2	100 Mbit/s				
Number of electrical connections					
• Signaling contact	–	–	1	1	1
• Network components or terminals	5	5	8	8	8
• Redundant power supply	–	–	1	1	1
• Power supply	1	1	1	1	1
Type of electrical connection					
• Signaling contact	–	–	2-pin terminal block		5-pin M12 socket
• Network components or terminals	RJ45 port	RJ45 port (10/100 Mbit/s; TP)			4-pin M12 socket, (10/100 Mbit/s; D-coded)
• Power supply	3-pin terminal block	2-pin terminal block	4-pin terminal block		4-pin M12 interface
Design of the swap medium C-Plug	–	–	–	Yes	Yes
Type of mounting	Mounting rail	Mounting rail, S7-300 rail, wall mounting			
Type of supply voltage	DC				
Supply voltage, external	24 V				
• Range	19.2 ... 28.8 V	–	18 ... 32 V		
Current consumption	70 mA	80 mA	140 mA	140 mA	185 mA
Effective power loss at 24 V DC	1.68 W	2 W	3.36 W	4 W	4 W
Degree of protection	IP20	IP30	IP30	IP30	IP65
Ambient temperature					
• Storage	-40 ... +80 °C (-40 ... +176 °F)			-40 ... +70 °C (-40 ... +158 °F)	-40 ... +80 °C (-40 ... +176 °F)
• Transport	-40 ... +80 °C (-40 ... +176 °F)			-40 ... +70 °C (-40 ... +158 °F)	-40 ... +80 °C (-40 ... +176 °F)
• Operation	-10 °C ... +60 °C (14 ... 140 °F)	0 °C ... 65 °C (32 ... 149 °F)	-20 ... +70 °C (-4 ... +158 °F)	-40 °C ... +60 °C (-40 ... +140 °C)	-20 ... +70 °C (-4 ... +158 °F)
Relative atmospheric humidity	95 % at 25 °C (77 °F)				100 % at 25 °C (77 °F)
Dimensions					
• Width	45 mm (1.77 in)	45 mm (1.77 in)	60 mm (2.36 in)	60 mm (2.36 in)	90 mm (3.54 in)
• Height	100 mm (3.94 in)	125 mm (4.92 in)			
• Depth	87 mm (3.43 in)	124 mm (4.88 in)			
Weight, approx.	165 g (5.82 oz)	550 g (1.21 lb)	780 g (1.72 lb)	780 g (1.72 lb)	1000 g (2.21 lb)
Approvals, according to	CSA, UL				