

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6GK5116-0BA00-2AC2

UNMANAGED INDUSTRIAL ETHERNET SWITCH

Used with the applicable SCALANCE XC116 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SCALANCE XC116 manufacturer documentation; applicable pages 11, 12, 16, 18, 19, 44

Description of the device

3.1 Product overview

Article numbers

Device	Description	Article number
SCALANCE XC106-2 (SC)	6 x 10/100 Mbps RJ-45 ports, 2 x 10/100 Mbps SC ports, multimode fiber-optic cable	6GK5 106-2BD00-2AC2
SCALANCE XC106-2 (ST/BFOC)	6 x 10/100 Mbps RJ-45 ports, 2 x 10/100 Mbps ST/BFOC ports, multimode FO cable	6GK5 106-2BB00-2AC2
SCALANCE XC108	8 x 10/100 Mbps RJ-45 ports	6GK5 108-0BA00-2AC2
SCALANCE XC116	16 x 10/100 Mbps RJ-45 ports	6GK5 116-0BA00-2AC2
SCALANCE XC124	24 x 10/100 Mbps RJ-45 ports	6GK5 124-0BA00-2AC2

Unpacking and checking

 WARNING
Do not use any parts that show evidence of damage If you use damaged parts, there is no guarantee that the device will function according to the specification. If you use damaged parts, this can lead to the following problems: • Injury to persons • Loss of the approvals • Violation of the EMC regulations • Damage to the device and other components Use only undamaged parts.

1. Make sure that the package is complete.
2. Check all the parts for transport damage.

Components of the product

The following components are supplied with a SCALANCE XC-100:

- One IE switch
- A 4-pin terminal block for the power supply (spring-loaded terminal)
- A 2-pin terminal block for the signaling contact (spring-loaded terminal)

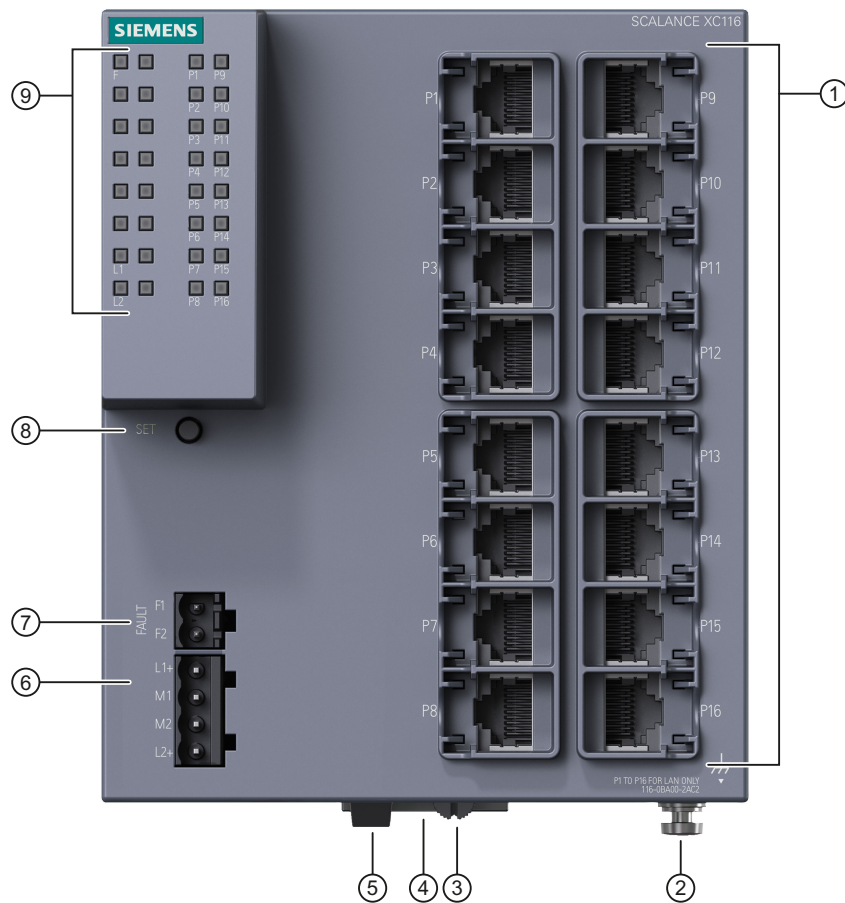
Spare parts

The following spare parts are available for SCALANCE XC-100:

Component	Description	Article number
Spring-loaded terminal block, 4 terminals	4-terminal spring-loaded terminal block to connect the power supply (24 VDC), for SCALANCE X/W/S/M, pack of 5	6GK5 980-1DB10-0AA5
Spring-loaded terminal block, 2 terminals	2-terminal spring-loaded terminal block to connect the signaling contact (24 VDC), for SCALANCE X/W/S/M, pack of 5	6GK5 980-0BB10-0AA5

3.2.4 Device view of a SCALANCE XC116

The following figure shows an overview of the components of the SCALANCE XC116.



- ① Electrical ports
- ② Grounding screw
- ③ Knurled screw
- ④ Securing bar
- ⑤ Levering aid for moving the securing bar with a screwdriver
- ⑥ Power supply
- ⑦ Signaling contact
- ⑧ "SET" button
- ⑨ LED display

3.3 LED display

Fault LED "F" (red LED)

The fault LED indicates the incorrect functioning of the device.

LED color	LED status	Meaning
Red	Lit	The IE switch detects an error. At the same time, the signaling contact opens. The following faults/errors are detected: 1. Link down event on a monitored port. 2. Loss of the power supply of one of the two redundant power supplies or the power supply drops below 9.6 V. 3. Both power supplies are below approximately 9.6 V (voltage too low).
-	Off	No error detected.

Power LEDs "L1" and "L2" (green LEDs)

The power LEDs show the status of the power supply at connectors L1 and L2.

L1/L2 LEDs		L1/L2 connector
LED color	LED status	
Green	Lit	Power supply L1 or L2 is connected.
-	Off	Power supply L1 and L2 are not connected or L1 and L2 <9.6 V.

Note

If the green LED is not lit, no other signal LED lights up either.

Port LEDs "P" (green/yellow LEDs)

The port LEDs indicate the status of the ports.

LED color	LED status	Meaning
Green	Lit	Link exists, no data reception at port
Yellow	Lit	Link exists, data reception at port
Yellow	Flashing	Setting or display of the fault mask

3.4 SET button

Position

The "SET" button is located on the front of the SCALANCE XC-100.

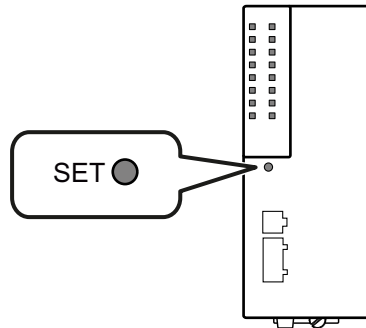


Figure 3-1 Position of the "SET" button

Function

With the SET button, you can display and change the set fault mask.

Setting the fault mask

Factory setting

In its delivery condition (factory default), the following settings are monitored via the message screen:

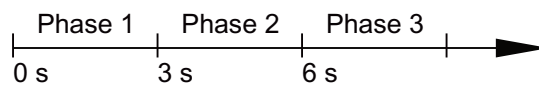
- Link up to all ports
- Redundant power supply (L1+/M1 und L2+/M2) connected

When you turn the device on and at least one of the settings is not fulfilled, the device registers a fault. Switch the device to the required operating mode and save these settings in the message screen.

Changing the setting

The changed settings remain after cycling power to the device.

Different settings are made depending on how long you hold down the SET button, as described in the following table:



Time the button is pressed
in seconds

7.4 Technical specifications of the SCALANCE XC116

The following technical specifications apply to the SCALANCE XC116.

Technical specifications		
Attachment to Industrial Ethernet		
Electrical connectors	Quantity	16
	Connector	RJ-45 jack
	Properties	Half/full duplex, MDI-X pinning
	Transmission speed	10 / 100 Mbps
Electrical data		
Power supply	Rated voltage	12 to 24 VDC
	Voltage range (incl. tolerance)	9.6 to 31.2 VDC Safe Extra Low Voltage (SELV)
	Design	Terminal block, 4 terminals
	Properties	Implemented redundantly
Current consumption	At 12 VDC	450 mA
	at 24 VDC	225 mA
Effective power loss		5.4 W
Fusing		2.5 A
Signaling contact	Quantity	1
	Design	Terminal block, 2 terminals
	Permitted voltage range	24 VDC
	Load capability	max. 100 mA
Permitted ambient conditions		
Ambient temperature	During operation up to 2000 m	-40 °C to +70 °C
	During storage	-40 °C to +85 °C
	During transportation	-40 °C to +85 °C
Relative humidity	During operation at 25 °C	≤ 95 % no condensation
Housing, dimensions and weight		
Design	compact	
Housing material	Polycarbonate (PC-GF10)	
Degree of protection	IP20	
Dimensions (W x H x D)	120 x 147 x 125 mm	
Weight	775 g	
Installation options	• Wall mounting • Installation on a DIN rail • Mounting on an S7-300 standard rail • Mounting on an S7-1500 standard rail	
Mean time between failure (MTBF)		
MTBF (EN/IEC 61709; 40 °C)	> 73.69 years	