

MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS SCALANCE

## 6GK5216-0BA00-2AA3

SCALANCE X216 MANAGED ETHERNET SWITCH

Used with the applicable SCALANCE X Industrial Ethernet configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official manufacturer documentation

### Product-type designation

### SCALANCE X216



SCALANCE X216, MANAGED IE SWITCH,  
16 X 10/100MBIT/S RJ45 PORTS,  
LED DIAGNOSTICS,  
FAULT SIGNAL. CONTACT WITH SET BUTTON  
REDUNDANT POWER SUPPLY,  
PROFINET-IO DEVICE,  
NETWORK- MANAGEMENT,  
INTEGRATED REDUNDANCY MANAGER,  
INCL. ELECTRONIC MANUAL ON CD,  
C-PLUG OPTIONAL

### Transmission rate

|                   |            |
|-------------------|------------|
| Transfer rate / 1 | 10 Mbit/s  |
| Transfer rate / 2 | 100 Mbit/s |

### Interfaces

|                                                          |                       |
|----------------------------------------------------------|-----------------------|
| Number of electrical/optical connections                 |                       |
| • for network components or terminal equipment / maximum | 16                    |
| Number of electrical connections                         |                       |
| • for network components and terminal equipment          | 16                    |
| • for alarm contact                                      | 1                     |
| • for power supply                                       | 1                     |
| • for redundant power supply                             | 1                     |
| Design of electrical connection                          |                       |
| • for network components and terminal equipment          | RJ45 port             |
| • for signaling contact                                  | 2-pole terminal block |
| • for power supply                                       | 4-pole terminal block |
| design of the removable storage / C-PLUG                 | Yes                   |

### Inputs/outputs

|                                                                 |       |
|-----------------------------------------------------------------|-------|
| Operating voltage / of signaling contacts / at DC / rated value | 24 V  |
| Operating current / of signaling contacts / at DC / maximum     | 0.1 A |

### Supply voltage, current consumption, power loss

|                                                                                  |                                                 |
|----------------------------------------------------------------------------------|-------------------------------------------------|
| Type of voltage / of supply voltage                                              | DC                                              |
| Supply voltage / external                                                        | 24 V                                            |
| • minimum                                                                        | 18 V                                            |
| • maximum                                                                        | 32 V                                            |
| Product component / fusing at power supply input                                 | Yes                                             |
| Consumed current / maximum                                                       | 0.24 A                                          |
| Active power loss / at 24 V / for DC                                             | 5.76 W                                          |
| <b>Permitted ambient conditions</b>                                              |                                                 |
| Ambient temperature                                                              |                                                 |
| • during operating                                                               | -40 ... +60 °C                                  |
| • during storage                                                                 | -40 ... +70 °C                                  |
| • during transport                                                               | -40 ... +70 °C                                  |
| Relative humidity / at 25 °C / without condensation / during operating / maximum | 95 %                                            |
| Protection class IP                                                              | IP30                                            |
| <b>Design, dimensions and weight</b>                                             |                                                 |
| Design                                                                           | compact                                         |
| Width                                                                            | 120 mm                                          |
| Height                                                                           | 125 mm                                          |
| Depth                                                                            | 124 mm                                          |
| Net weight                                                                       | 1.2 kg                                          |
| Type of mounting                                                                 |                                                 |
| • 35 mm DIN rail mounting                                                        | Yes                                             |
| • wall mounting                                                                  | Yes                                             |
| • S7-300 rail mounting                                                           | Yes                                             |
| <b>Product properties, functions, components / general</b>                       |                                                 |
| Cascading in the case of a redundant ring / at reconfiguration time of <1-0.3\~s | 50                                              |
| Cascading in cases of star structuring                                           | Any (depending only on signal propagation time) |
| Product function                                                                 |                                                 |
| • CLI                                                                            | Yes                                             |
| • web-based management                                                           | Yes                                             |
| • MIB support                                                                    | Yes                                             |
| • TRAPs via email                                                                | Yes                                             |
| • Configuration with STEP 7                                                      | Yes                                             |
| • Port mirroring                                                                 | Yes                                             |
| • for IRT / PROFINET IO switch                                                   | No                                              |
| • PROFINET IO diagnosis                                                          | Yes                                             |
| • switch-managed                                                                 | Yes                                             |
| Protocol / is supported                                                          |                                                 |

|                                             |     |
|---------------------------------------------|-----|
| • Telnet                                    | Yes |
| • HTTP                                      | Yes |
| • HTTPS                                     | Yes |
| • TFTP                                      | Yes |
| • FTP                                       | Yes |
| • BOOTP                                     | No  |
| • SNMP v1                                   | Yes |
| • SNMP v2                                   | Yes |
| • SNMP v3                                   | Yes |
| • DCP                                       | Yes |
| • LLDP                                      | Yes |
| Identification & maintenance                |     |
| • I&M0 - device-specific information        | Yes |
| • I&M1 - plant identification/location name | Yes |
| <b>Product functions / Diagnosis</b>        |     |
| Product function                            |     |
| • Port diagnostics                          | Yes |
| • Statistics Packet Size                    | Yes |
| • Statistics packet type                    | Yes |
| • Error statistics                          | Yes |
| <b>Product functions / DHCP</b>             |     |
| Product function / DHCP client              | Yes |
| <b>Product functions / Redundancy</b>       |     |
| Product function                            |     |
| • Ring redundancy                           | Yes |
| • Redundancy manager                        | Yes |
| • Standby redundancy                        | No  |
| • HSR redundancy protocol                   | Yes |
| • MRP redundancy protocol                   | Yes |
| • redundancy procedure PRP                  | No  |
| • Passive listening                         | Yes |
| Protocol / is supported / PRP               | Yes |
| <b>Product functions / Security</b>         |     |
| Protocol / is supported / SSH               | Yes |
| <b>Product functions / Time</b>             |     |
| Product function / SICLOCK support          | Yes |
| Protocol / is supported                     |     |
| • NTP                                       | No  |
| • SNTP                                      | Yes |

## Standards, specifications, approvals

### Standard

- for EMC / from FM FM3611: Class 1, Division 2, Group A, B, C, D / T4, CL.1, Zone 2, GP. IIC, T4
- for hazardous zone EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
- for safety / of CSA and UL UL 60950-1, CSA C22.2 No. 60950-1
- for hazardous area / of CSA and UL ANSI / ISA 12.12.01, CSA C22.2 No. 213-M1987, CL. 1 / Div. 2 / GP. A, B, C, D T4, CL. 1 / Zone 2 / GP. IIC, T4
- for emitted interference EN 61000-6-4:2001 (Class A)
- for interference immunity EN 61000-6-2:2001

### Verification of suitability

- CE mark Yes
- C-Tick Yes
- KC approval Yes
- Railway application in accordance with EN 50155 No
- Railway application in accordance with EN 50124-1 No

### Marine classification association

- American Bureau of Shipping Europe Ltd. (ABS) Yes
- Bureau Veritas (BV) Yes
- Det Norske Veritas (DNV) Yes
- Germanische Lloyd (GL) Yes
- Lloyds Register of Shipping (LRS) Yes
- Nippon Kaiji Kyokai (NK) Yes
- Polski Rejestr Statkow (PRS) No

### letzte Änderung:

May 14, 2012