



SCALANCE XC224 manageable Layer 2 IE switch; IEC 62443-4-2 certified; 24x 10/100 Mbit/s RJ45 ports; 1x console port, diagnostics LED; redundant power supply; temperature range -40 °C to +70 °C; assembly: DIN rail/S7 mounting rail/wall Office redundancy functions features (RSTP, VLAN,...); PROFINET IO device Ethernet/IP-compliant, C-plug slot;

| product type designation                                    |                       |
|-------------------------------------------------------------|-----------------------|
| product brand name                                          | SCALANCE              |
| product type designation                                    | XC224                 |
| transfer rate                                               |                       |
| transfer rate                                               | 10 Mbit/s, 100 Mbit/s |
| interfaces / for communication / integrated                 |                       |
| number of electrical connections                            |                       |
| • for network components or terminal equipment              | 24; RJ45              |
| number of 10/100 Mbit/s RJ45 ports                          |                       |
| • with securing collar                                      | 24                    |
| interfaces / other                                          |                       |
| number of electrical connections                            |                       |
| • for operator console                                      | 1                     |
| • for signaling contact                                     | 1                     |
| • for power supply                                          | 1                     |
| type of electrical connection                               |                       |
| • for operator console                                      | RJ11                  |
| • for signaling contact                                     | 2-pole terminal block |
| • for power supply                                          | 4-pole terminal block |
| design of the removable storage                             |                       |
| • C-PLUG                                                    | Yes                   |
| operating voltage / of the signaling contacts               |                       |
| • at DC / rated value                                       | 24 V                  |
| operational current / of the signaling contacts             |                       |
| • at DC / maximum                                           | 0.1 A                 |
| supply voltage, current consumption, power loss             |                       |
| product component / connection for redundant voltage supply | Yes                   |
| type of voltage / 1 / of the supply voltage                 | DC                    |
| • supply voltage / 1 / rated value                          | 24 V                  |
| • power loss [W] / 1 / rated value                          | 9 W                   |
| • consumed current / 1 / at rated supply voltage / maximum  | 0.375 A               |
| • supply voltage / 1 / rated value                          | 9.6 ... 31.2 V        |
| • consumed current / 1 / maximum                            | 0.75 A                |
| • type of electrical connection / 1 / for power supply      | 4-pole terminal block |
| • product component / 1 / fusing at power supply input      | Yes                   |
| • fuse protection type / 1 / at input for supply voltage    | 2.5 A/ 125 V          |
| ambient conditions                                          |                       |
| ambient temperature                                         |                       |
| • during operation                                          | -40 ... +70 °C        |
| • during storage                                            | -40 ... +85 °C        |

|                                                                                  |                                                      |
|----------------------------------------------------------------------------------|------------------------------------------------------|
| • during transport                                                               | -40 ... +85 °C                                       |
| relative humidity                                                                |                                                      |
| • at 25 °C / without condensation / during operation / maximum                   | 95 %                                                 |
| protection class IP                                                              | IP20                                                 |
| <b>design, dimensions and weights</b>                                            |                                                      |
| design                                                                           | compact                                              |
| width                                                                            | 120 mm                                               |
| height                                                                           | 147 mm                                               |
| depth                                                                            | 125 mm                                               |
| net weight                                                                       | 0.88 kg                                              |
| material / of the enclosure                                                      | Polycarbonate (PC-GF10) / pressure die cast aluminum |
| fastening method                                                                 |                                                      |
| • 35 mm DIN-rail mounting                                                        | Yes                                                  |
| • wall mounting                                                                  | Yes                                                  |
| • S7-300 rail mounting                                                           | Yes                                                  |
| • S7-1500 rail mounting                                                          | Yes                                                  |
| <b>product features, product functions, product components / general</b>         |                                                      |
| cascading in the case of a redundant ring / at reconfiguration time of <1~0.31~s | 50                                                   |
| cascading in cases of star topology                                              | any (depending only on signal propagation time)      |
| product function                                                                 |                                                      |
| • QoS according to DSCP                                                          | Yes                                                  |
| product feature                                                                  |                                                      |
| • Cut Through switching method                                                   | No                                                   |
| • Store & Forward switching method                                               | Yes                                                  |
| <b>product functions / management, configuration, engineering</b>                |                                                      |
| product function                                                                 |                                                      |
| • CLI                                                                            | Yes                                                  |
| • web-based management                                                           | Yes                                                  |
| • MIB support                                                                    | Yes                                                  |
| • TRAPs via email                                                                | Yes                                                  |
| • configuration with STEP 7                                                      | Yes                                                  |
| • RMON                                                                           | Yes                                                  |
| • SMTP server                                                                    | No                                                   |
| • port mirroring                                                                 | Yes                                                  |
| • multiport mirroring                                                            | Yes                                                  |
| • CoS                                                                            | Yes                                                  |
| • PROFINET IO diagnosis                                                          | Yes                                                  |
| • switch-managed                                                                 | Yes                                                  |
| PROFINET conformity class                                                        | B                                                    |
| telegram length / for Ethernet / maximum                                         | 1632 byte                                            |
| protocol / is supported                                                          |                                                      |
| • Telnet                                                                         | Yes                                                  |
| • HTTP                                                                           | Yes                                                  |
| • HTTPS                                                                          | Yes                                                  |
| • TFTP                                                                           | Yes                                                  |
| • SFTP                                                                           | Yes                                                  |
| • BOOTP                                                                          | No                                                   |
| • GMRP                                                                           | Yes                                                  |
| • DCP                                                                            | Yes                                                  |
| • LLDP                                                                           | Yes                                                  |
| • EtherNet/IP                                                                    | Yes                                                  |
| • SNMP v1                                                                        | Yes                                                  |
| • SNMP v2                                                                        | Yes                                                  |
| • SNMP v3                                                                        | Yes                                                  |
| • IGMP (snooping/querier)                                                        | Yes                                                  |
| identification & maintenance function                                            |                                                      |
| • I&M0 - device-specific information                                             | Yes                                                  |
| • I&M1 - higher level designation/location designation                           | Yes                                                  |
| <b>product functions / diagnostics</b>                                           |                                                      |

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| product function                                                        |     |
| • port diagnostics                                                      | Yes |
| • statistics Packet Size                                                | Yes |
| • statistics packet type                                                | Yes |
| • error statistics                                                      | Yes |
| • SysLog                                                                | Yes |
| <b>product functions / VLAN</b>                                         |     |
| product function                                                        |     |
| • VLAN - port based                                                     | Yes |
| • VLAN - protocol-based                                                 | No  |
| • VLAN - IP-based                                                       | No  |
| number of VLANs / maximum                                               | 257 |
| number of VLANs - dynamic / maximum                                     | 257 |
| number of VLANs / at ring redundancy (HRP; MRP; standby link)           | 257 |
| <b>product functions / DHCP</b>                                         |     |
| product function                                                        |     |
| • DHCP server                                                           | Yes |
| • DHCP client                                                           | Yes |
| • DHCP Option 82                                                        | Yes |
| • DHCP Option 66                                                        | Yes |
| • DHCP Option 67                                                        | Yes |
| <b>product functions / redundancy</b>                                   |     |
| protocol / is supported / Media Redundancy Protocol (MRP)               | Yes |
| product function                                                        |     |
| • media redundancy protocol (MRP) with redundancy manager               | Yes |
| • Media Redundancy Protocol Interconnection (MRP-I)                     | Yes |
| • of the PROFINET IO device / is supported / H-Sync forwarding          | Yes |
| • of the PROFINET IO device / is supported / PROFINET system redundancy | Yes |
| • ring redundancy                                                       | Yes |
| • high speed redundancy protocol (HRP) with redundancy manager          | Yes |
| • high speed redundancy protocol (HRP) with standby redundancy          | Yes |
| • redundancy procedure STP                                              | Yes |
| • redundancy procedure RSTP                                             | Yes |
| • redundancy procedure RSTP+                                            | Yes |
| • redundancy procedure MSTP                                             | Yes |
| • Parallel Redundancy Protocol (PRP)/operation in the PRP-network       | Yes |
| • Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)     | No  |
| • passive listening                                                     | Yes |
| protocol / is supported                                                 |     |
| • LACP                                                                  | Yes |
| <b>system modification during operation</b>                             |     |
| product function / configuration in RUN via CiR/H-CiR                   | Yes |
| <b>product functions / security</b>                                     |     |
| product function                                                        |     |
| • IEEE 802.1x (radius)                                                  | Yes |
| • RADIUS client                                                         | Yes |
| • broadcast/multicast/unicast limiter                                   | Yes |
| • broadcast blocking                                                    | Yes |
| protocol / is supported                                                 |     |
| • SSH                                                                   | Yes |
| • SSL                                                                   | Yes |
| <b>product functions / time</b>                                         |     |
| product function                                                        |     |
| • SICLOCK support                                                       | Yes |
| • NTP-client                                                            | Yes |

|                                                                                                           |                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• SNTP client</li> </ul>                                           | Yes                                                                                                                                     |
| protocol / is supported                                                                                   |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• NTP</li> </ul>                                                   | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• SNTP</li> </ul>                                                  | Yes                                                                                                                                     |
| <b>standards, specifications, approvals</b>                                                               |                                                                                                                                         |
| certificate of suitability                                                                                |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• CE marking</li> </ul>                                            | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Regulatory Compliance Mark (RCM)</li> </ul>                      | Yes                                                                                                                                     |
| product conformity / according to EMC-guideline                                                           | 2014/30/EU                                                                                                                              |
| standard                                                                                                  |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• for EMC interference emission</li> </ul>                         | EN 61000-6-4, EN 50121-4                                                                                                                |
| <ul style="list-style-type: none"> <li>• for immunity to EMC</li> </ul>                                   | EN 61000-6-2, EN 50121-4                                                                                                                |
| <ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> </ul>                          | UL 60950-1 E115352                                                                                                                      |
| <b>standards, specifications, approvals / hazardous environments</b>                                      |                                                                                                                                         |
| certificate of suitability                                                                                |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• ATEX</li> </ul>                                                  | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• UKEX</li> </ul>                                                  | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• IECEx</li> </ul>                                                 | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• ULhazloc approval</li> </ul>                                     | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• CCC / for hazardous zone according to GB standard</li> </ul>     | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• FM registration</li> </ul>                                       | Yes                                                                                                                                     |
| <b>standards, specifications, approvals / other</b>                                                       |                                                                                                                                         |
| certificate of suitability                                                                                |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• railway application in accordance with EN 50121-4</li> </ul>     | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>                                       | Yes                                                                                                                                     |
| resistance to air pollution / conformity according to ANSI/ISA-71.04                                      | Yes; G3                                                                                                                                 |
| IT security for industrial automation systems / according to IEC 62443-4-2:2019                           | Yes                                                                                                                                     |
| <b>standards, specifications, approvals / marine classification</b>                                       |                                                                                                                                         |
| Marine classification association                                                                         |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>         | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>             | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• DNV GL</li> </ul>                                                | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Korean Register of Shipping (KRS)</li> </ul>                     | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>                     | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>                              | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Polski Rejestr Statkow (PRS)</li> </ul>                          | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>          | Yes                                                                                                                                     |
| <b>standards, specifications, approvals / Environmental Product Declaration</b>                           |                                                                                                                                         |
| Environmental Product Declaration                                                                         | Yes                                                                                                                                     |
| global warming potential [CO2 eq]                                                                         |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• total</li> </ul>                                                 | 441.1 kg                                                                                                                                |
| <ul style="list-style-type: none"> <li>• during manufacturing</li> </ul>                                  | 47.67 kg                                                                                                                                |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>                                      | 392.82 kg                                                                                                                               |
| <ul style="list-style-type: none"> <li>• after end of life</li> </ul>                                     | 0.57 kg                                                                                                                                 |
| <b>product functions / general</b>                                                                        |                                                                                                                                         |
| MTBF                                                                                                      | 41 a                                                                                                                                    |
| reference code                                                                                            |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> </ul>                              | KF                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• according to IEC 81346-2:2019</li> </ul>                         | KFE                                                                                                                                     |
| Warranty period                                                                                           | 5 a                                                                                                                                     |
| product function / is supported / identification link                                                     | Yes; acc. to IEC 61406-1:2022                                                                                                           |
| <b>further information / internet links</b>                                                               |                                                                                                                                         |
| internet link                                                                                             |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> </ul> | <a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a> |
| <ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>         | <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>                                                         |
| <ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>                  | <a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>                                                   |
| <ul style="list-style-type: none"> <li>• to web page: SiePortal</li> </ul>                                | <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>                                                             |
| <ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>                            | <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>                                       |
| <ul style="list-style-type: none"> <li>• to website: CAx-Download-Manager</li> </ul>                      | <a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>                                                                   |

## security information

### security information

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## Approvals / Certificates

### General Product Approval



EG-Konf.

[Declaration of Conformity](#)



CCC



UL

[Declaration of Conformity](#)

### General Product Approval

#### EMV

#### For use in hazardous locations



RCM



TUV

[KC](#)



IECEx



ATEX

[FM](#)

### For use in hazardous locations

#### Test Certificates

#### Marine / Shipping

[CCC-Ex](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU  
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LRS

### Marine / Shipping

#### Environment

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