



SCALANCE X320-1FE managed IE switch, 20x 10/100 Mbit/s RJ45 ports, 1x 100 Mbit/s SC Port multimode LED-diagnostics, error-signaling contact with Select/set pushbutton, PROFINET IO Device, network management, integrated redundancy manager, Office features (RSTP, VLAN, IGMP,...) C-plug in scope of delivery

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|--|--------------------------|
| product type designation | SCALANCE X320-1FE |
| transfer rate | |
| transfer rate | 10 Mbit/s, 100 Mbit/s |
| interfaces / for communication / integrated | |
| number of electrical connections • for network components or terminal equipment | 20 |
| number of 10/100 Mbit/s RJ45 ports / integrated • with securing collar | 20 |
| number of 100 Mbit/s SC ports • for multimode | 1 |
| interfaces / other | |
| number of electrical connections • for signaling contact | 1 |
| • for power supply | 1 |
| type of electrical connection • for signaling contact | 2-pole terminal block |
| • for power supply | 4-pole terminal block |
| design of the removable storage • C-PLUG | Yes |
| signal inputs/outputs | |
| 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 supply / redundant power supply unit | No |
| type of voltage / 1 / of the supply voltage • supply voltage / 1 / rated value | DC 24 V |
| • power loss [W] / 1 / rated value | 9.6 W |
| • supply voltage / 1 / rated value | 18 ... 32 V |
| • consumed current / 1 / maximum | 0.4 A |
| • type of electrical connection / 1 / for power supply | 4-pole terminal block |
| • product component / 1 / fusing at power supply input | Yes |
| ambient conditions | |
| ambient temperature | |

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| <ul style="list-style-type: none"> during operation during storage during transport | -40 ... +60 °C |
| | -40 ... +70 °C |
| | -40 ... +70 °C |
| relative humidity | |
| <ul style="list-style-type: none"> at 25 °C / without condensation / during operation / maximum | 95 % |
| protection class IP | IP30 |
| design, dimensions and weights | |
| design | compact |
| width | 180 mm |
| height | 125 mm |
| depth | 123 mm |
| net weight | 1.65 kg |
| fastening method | When used in shipbuilding, installation on a 35 mm standard mounting rail is not permitted. |
| <ul style="list-style-type: none"> 19-inch installation 35 mm top hat DIN rail mounting wall mounting S7-300 rail mounting S7-1500 rail mounting | No Yes Yes Yes No |
| product features, product functions, product components / general | |
| cascading in the case of a redundant ring / at reconfiguration time of $\sim 0.3\text{ s}$ | 100 |
| cascading in cases of star topology | any (depending only on signal propagation time) |
| product functions / management, configuration, engineering | |
| product function | |
| <ul style="list-style-type: none"> CLI web-based management MIB support TRAPs via email configuration with STEP 7 RMON port mirroring multiport mirroring CoS PROFINET IO diagnosis | Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes |
| PROFINET conformity class | B |
| product function / switch-managed | Yes |
| protocol / is supported | |
| <ul style="list-style-type: none"> Telnet HTTP HTTPS TFTP FTP BOOTP GMRP DCP LLDP SNMP v1 SNMP v2 SNMP v3 IGMP (snooping/querier) | Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes |
| identification & maintenance function | |
| <ul style="list-style-type: none"> I&M0 - device-specific information I&M1 – higher level designation/location designation | Yes Yes |
| product functions / diagnostics | |
| product function | |
| <ul style="list-style-type: none"> port diagnostics | Yes |

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| <ul style="list-style-type: none"> • statistics Packet Size | Yes |
| <ul style="list-style-type: none"> • statistics packet type | Yes |
| <ul style="list-style-type: none"> • error statistics | Yes |
| <ul style="list-style-type: none"> • SysLog | Yes |
| product functions / VLAN | |
| product function | |
| <ul style="list-style-type: none"> • VLAN - port based | Yes |
| <ul style="list-style-type: none"> • VLAN - protocol-based | No |
| <ul style="list-style-type: none"> • VLAN - IP-based | No |
| <ul style="list-style-type: none"> • VLAN dynamic | Yes |
| number of VLANs / maximum | 255 |
| number of VLANs - dynamic / maximum | 255 |
| protocol / is supported / GVRP | Yes |
| product functions / DHCP | |
| product function | |
| <ul style="list-style-type: none"> • DHCP client | Yes |
| <ul style="list-style-type: none"> • DHCP Option 82 | Yes |
| <ul style="list-style-type: none"> • DHCP Option 66 | Yes |
| <ul style="list-style-type: none"> • DHCP Option 67 | Yes |
| product functions / redundancy | |
| product function | |
| <ul style="list-style-type: none"> • ring redundancy | Yes |
| <ul style="list-style-type: none"> • High Speed Redundancy Protocol (HRP) | Yes |
| <ul style="list-style-type: none"> • high speed redundancy protocol (HRP) with redundancy manager | Yes |
| <ul style="list-style-type: none"> • high speed redundancy protocol (HRP) with standby redundancy | Yes |
| protocol / is supported / Media Redundancy Protocol (MRP) | Yes |
| product function | |
| <ul style="list-style-type: none"> • media redundancy protocol (MRP) with redundancy manager | Yes |
| <ul style="list-style-type: none"> • redundancy procedure STP | Yes |
| <ul style="list-style-type: none"> • redundancy procedure RSTP | Yes |
| <ul style="list-style-type: none"> • redundancy procedure MSTP | Yes |
| <ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/operation in the PRP-network | Yes |
| <ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA) | No |
| <ul style="list-style-type: none"> • passive listening | Yes |
| protocol / is supported | |
| <ul style="list-style-type: none"> • STP/RSTP | Yes |
| <ul style="list-style-type: none"> • STP | Yes |
| <ul style="list-style-type: none"> • RSTP | Yes |
| <ul style="list-style-type: none"> • MSTP | Yes |
| <ul style="list-style-type: none"> • RSTP big network support | Yes |
| <ul style="list-style-type: none"> • LACP | Yes |
| product functions / security | |
| product function | |
| <ul style="list-style-type: none"> • ACL - MAC-based | Yes |
| <ul style="list-style-type: none"> • ACL - port/MAC-based | Yes |
| <ul style="list-style-type: none"> • IEEE 802.1x (radius) | Yes |
| <ul style="list-style-type: none"> • broadcast/multicast/unicast limiter | Yes |
| <ul style="list-style-type: none"> • broadcast blocking | Yes |
| protocol / is supported | |
| <ul style="list-style-type: none"> • SSH | Yes |
| product functions / time | |
| product function | |
| <ul style="list-style-type: none"> • SICLOCK support | Yes |

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| protocol / is supported | |
| <ul style="list-style-type: none"> • NTP • SNTP • IEEE 1588 profile default | <p>Yes</p> <p>Yes</p> <p>No</p> |
| standards, specifications, approvals | |
| standard | |
| <ul style="list-style-type: none"> • for FM • for safety / from CSA and UL • for emitted interference • for interference immunity | <p>FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4</p> <p>UL 60950-1, CSA C22.2 No. 60950-1</p> <p>EN 61000-6-4:2007 (Class A)</p> <p>EN 61000-6-2:2005</p> |
| MTBF | 25 y |
| standards, specifications, approvals / CE | |
| certificate of suitability / CE marking | Yes |
| standards, specifications, approvals / hazardous environments | |
| standard / for hazardous zone | EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X |
| <ul style="list-style-type: none"> • from CSA and UL | UL 1604 and UL 2279-15 (Hazardous Location), CSA C22.2 No. 213-M1987, Class 1 / Division 2 / Group A, B, C, D / T4, Class 1 / Zone 2 / Group IIC / T4 |
| certificate of suitability | |
| <ul style="list-style-type: none"> • CCC / for hazardous zone according to GB standard | Yes |
| standards, specifications, approvals / other | |
| certificate of suitability | EN 61000-6-2:2005, EN 61000-6-4:2007 |
| <ul style="list-style-type: none"> • C-Tick • KC approval • railway application in accordance with EN 50155 | <p>Yes</p> <p>Yes</p> <p>No</p> |
| standards, specifications, approvals / marine classification | |
| Marine classification association | |
| <ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • DNV GL • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) • Royal Institution of Naval Architects (RINA) | <p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p> |
| further information / internet-Links | |
| Internet-Link | |
| <ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support | <p>http://www.siemens.com/tia-selection-tool</p> <p>http://www.siemens.com/simatic-net</p> <p>https://mall.industry.siemens.com</p> <p>http://www.siemens.com/industry/infocenter</p> <p>http://automation.siemens.com/bilddb</p> <p>http://www.siemens.com/cax</p> <p>https://support.industry.siemens.com</p> |
| security information | |
| security information | Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action(e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity . To stay informed about product updates as they occur, sign up for a product-specific newsletter. |

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