

Product type designation

SCALANCE X320-1FE

SCALANCE X320-1FE MANAGED IE SWITCH, 20 X 10/100 MBIT/S RJ45 PORTS, 1 X 100MBIT/S SC PORT MULTIMODE LED-DIAGNOSTICS, FAULT SIGNAL CONTACT WITH SELECT SET BUTTON, PROFINET-IO DEVICE, NETWORK- MANAGEMENT, INTEGRATED REDUNDANCY MANAGER OFFICE FEATURES (RSTP, VLAN, IGMP,..) C-PLUG IN THE SCOPE OF SUPPLY



Transmission rate

| | |
|---------------|-----------------------|
| Transfer rate | 10 Mbit/s, 100 Mbit/s |
|---------------|-----------------------|

Interfaces

| | |
|--|--------------------------------|
| Number of electrical/optical connections | |
| <ul style="list-style-type: none"> for network components or terminal equipment / maximum | 21 |
| Number of electrical connections | |
| <ul style="list-style-type: none"> for network components or terminal equipment | 20 |
| Type of electrical connection | |
| <ul style="list-style-type: none"> for network components or terminal equipment | RJ45 port |
| Number of optical interfaces | |
| <ul style="list-style-type: none"> for fiber optic cable / at 100 Mbit/s | 1 |
| Design of the optical interface | |
| <ul style="list-style-type: none"> for fiber optic cable / at 100 Mbit/s | SC port (multimode up to 5 km) |
| Connectable optical power relative to 1 mW | |
| <ul style="list-style-type: none"> of the transmitter output of the receiver input / maximum | -19 ... -14 -3 dB |
| Optical sensitivity relating to 1 mW / of the receiver input / minimum | -32 dB |
| Damping ratio / of the FOC transmission link / minimum necessary | 0 dB |
| Range / at the optical interface / depending on the optical fiber used | 0 ... 5 km |

Interfaces / for communication / integrated

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|--|---|
| Number of 100 Mbit/s SC ports / for multimode | 1 |
| Number of 1000 Mbit/s LC ports / for multimode | 0 |

Interfaces / others

| | |
|--|-----------------------|
| Number of electrical connections | |
| <ul style="list-style-type: none"> • for signaling contact | 1 |
| <ul style="list-style-type: none"> • for power supply | 1 |
| <ul style="list-style-type: none"> • for redundant voltage supply | 2 |
| Type of electrical connection | |
| <ul style="list-style-type: none"> • for signaling contact | 2-pole terminal block |
| <ul style="list-style-type: none"> • for power supply | 4-pole terminal block |
| design of the removable storage | |
| <ul style="list-style-type: none"> • C-PLUG | Yes |

Signal-Inputs/outputs

| | |
|--|-------|
| Operating voltage / of the signaling contacts | |
| <ul style="list-style-type: none"> • for DC / Rated value | 24 V |
| Operating current / of the signaling contacts | |
| <ul style="list-style-type: none"> • for DC / maximum | 0.1 A |

Supply voltage, current consumption, power loss

| | |
|--|--------------|
| Type of voltage supply / redundant power supply unit | No |
| Type of voltage / of the supply voltage | DC |
| Supply voltage | |
| <ul style="list-style-type: none"> • external | 24 V |
| <ul style="list-style-type: none"> • external | 18 ... 32 V |
| Product component / fusing at power supply input | Yes |
| Fuse protection type / at input for supply voltage | F 3 A / 32 V |
| Consumed current / maximum | 0.4 A |
| Active power loss | |
| <ul style="list-style-type: none"> • for DC / at 24 V | 9.6 W |

Permitted ambient conditions

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|--|----------------|
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation | -40 ... +60 °C |
| <ul style="list-style-type: none"> • during storage | -40 ... +70 °C |
| <ul style="list-style-type: none"> • during transport | -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 weight

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| Design | compact |
| Width | 180 mm |
| Height | 125 mm |

| | |
|---|---|
| Depth | 123 mm |
| Net weight | 1.65 kg |
| Mounting type | 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 DIN rail mounting • wall mounting • S7-300 rail mounting • S7-1500 rail mounting | <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> |

Product properties, functions, components / general

| | |
|---|---|
| Cascading in the case of a redundant ring / at reconfiguration time of $\leq 0.3\text{ s}$ | 100 |
| Cascading in cases of star topology | Any (depending only on signal propagation time) |

Product functions / management, configuration

| | |
|---|--|
| 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 • switch-managed | <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> |
| Protocol / is supported | |
| <ul style="list-style-type: none"> • Telnet • HTTP • HTTPS • TFTP • FTP • BOOTP • GMRP • DCP • LLDP • IGMP (snooping/querier) | <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> |
| Identification & maintenance function | |
| <ul style="list-style-type: none"> • I&M0 - device-specific information • I&M1 – higher-level designation/location designation | <p>Yes</p> <p>Yes</p> |

| | |
|-------------------------|-----|
| Protocol / is supported | |
| • SNMP v1 | Yes |
| • SNMP v2 | Yes |
| • SNMP v3 | Yes |

Product functions / Diagnosis

| | |
|--------------------------|-----|
| Product function | |
| • Port diagnostics | Yes |
| • Statistics Packet Size | Yes |
| • Statistics packet type | Yes |
| • Error statistics | Yes |
| • SysLog | Yes |

Product functions / VLAN

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|-------------------------------------|-----|
| Product function | |
| • VLAN - port based | Yes |
| • VLAN - protocol-based | No |
| • VLAN - IP-based | No |
| • VLAN dynamic | Yes |
| Number of VLANs / maximum | 255 |
| Number of VLANs - dynamic / maximum | 255 |
| Protocol / is supported / GVRP | Yes |

Product functions / DHCP

| | |
|------------------|-----|
| Product function | |
| • DHCP client | Yes |
| • DHCP Option 82 | Yes |
| • DHCP Option 66 | Yes |
| • DHCP Option 67 | Yes |

Product functions / Redundancy

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|--|-----|
| Product function | |
| • Ring redundancy | Yes |
| • High Speed Redundancy Protocol (HRP) | Yes |
| • high speed redundancy protocol (HRP) with redundancy manager | Yes |
| • high speed redundancy protocol (HRP) with standby redundancy | Yes |
| Protocol / is supported / Media Redundancy Protocol (MRP) | Yes |
| Product function | |
| • media redundancy protocol (MRP) with redundancy manager | Yes |
| • redundancy procedure STP | Yes |
| • redundancy procedure RSTP | Yes |

| | |
|---|-----|
| <ul style="list-style-type: none"> • redundancy procedure MSTP | Yes |
| <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 | No |
| <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 |
| Protocol / is supported | |
| <ul style="list-style-type: none"> • NTP | Yes |
| <ul style="list-style-type: none"> • SNTP | Yes |
| <ul style="list-style-type: none"> • IEEE 1588 profile default | No |

Standards, specifications, approvals

| | |
|--|---|
| Standard | |
| <ul style="list-style-type: none"> • for FM | FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4 |
| <ul style="list-style-type: none"> • 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"> • for safety / from CSA and UL | UL 60950-1, CSA C22.2 No. 60950-1 |
| <ul style="list-style-type: none"> • for hazardous zone / 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 |
| <ul style="list-style-type: none"> • for emitted interference | EN 61000-6-4:2007 (Class A) |
| <ul style="list-style-type: none"> • for interference immunity | EN 61000-6-2:2005 |
| Certificate of suitability | EN 61000-6-2:2005, EN 61000-6-4:2007 |
| <ul style="list-style-type: none"> • CE marking | Yes |
| <ul style="list-style-type: none"> • C-Tick | Yes |
| <ul style="list-style-type: none"> • KC approval | Yes |

- Railway application in accordance with EN 50155

No

MTBF / at 40 °C

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Further Information / Internet Links

Internet-Link

- to website: Selector SIMATIC NET 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

<http://www.siemens.com/snst>

<http://www.siemens.com/simatic-net>

<https://mall.industry.siemens.com>

<http://www.siemens.com/automation/net/catalog>

<http://automation.siemens.com/bilddb>

<http://www.siemens.com/cax>

<https://support.industry.siemens.com>

Security information

Security information

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