

Product type designation

SCALANCE X310FE

SCALANCE X310FE, MANAGED PLUS IE SWITCH, 10 X 10/100MBIT/S RJ45 PORTS, 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 SCOPE OF SUPPLY



Transmission rate

Transfer rate	10 Mbit/s, 100 Mbit/s
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Interfaces

Number of electrical/optical connections	10
<ul style="list-style-type: none"> for network components or terminal equipment / maximum 	
Number of electrical connections	10
<ul style="list-style-type: none"> for network components or terminal equipment 	
Type of electrical connection	RJ45 port
<ul style="list-style-type: none"> for network components or terminal equipment 	

Interfaces / for communication / integrated

Number of 100 Mbit/s SC ports	0
<ul style="list-style-type: none"> for multimode 	
Number of 1000 Mbit/s LC ports	0
<ul style="list-style-type: none"> for multimode 	
<ul style="list-style-type: none"> for single mode (LD) 	

Interfaces / others

Number of electrical connections	
<ul style="list-style-type: none"> • for signaling contact • for power supply • for redundant voltage supply 	<p>1</p> <p>1</p> <p>2</p>
Type of electrical connection	
<ul style="list-style-type: none"> • for signaling contact • for power supply 	<p>2-pole terminal block</p> <p>4-pole terminal block</p>
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"> • at DC / Rated value 	24 V
Operating current / of the signaling contacts	
<ul style="list-style-type: none"> • at 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 • external 	<p>24 V</p> <p>18 ... 32 V</p>
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"> • at DC / at 24 V 	9.6 W

Permitted ambient conditions

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

Design	compact
Width	120 mm
Height	125 mm
Depth	123 mm
Net weight	1.4 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 	No
<ul style="list-style-type: none"> • 35 mm DIN rail mounting 	Yes
<ul style="list-style-type: none"> • wall mounting 	Yes
<ul style="list-style-type: none"> • S7-300 rail mounting 	Yes
<ul style="list-style-type: none"> • S7-1500 rail mounting 	No

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 	Yes
<ul style="list-style-type: none"> • web-based management 	Yes
<ul style="list-style-type: none"> • MIB support 	Yes
<ul style="list-style-type: none"> • TRAPs via email 	Yes
<ul style="list-style-type: none"> • Configuration with STEP 7 	Yes
<ul style="list-style-type: none"> • RMON 	Yes
<ul style="list-style-type: none"> • Port mirroring 	Yes
<ul style="list-style-type: none"> • multiport mirroring 	Yes
<ul style="list-style-type: none"> • CoS 	Yes
<ul style="list-style-type: none"> • PROFINET IO diagnosis 	Yes
<ul style="list-style-type: none"> • switch-managed 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • Telnet 	Yes
<ul style="list-style-type: none"> • HTTP 	Yes
<ul style="list-style-type: none"> • HTTPS 	Yes
<ul style="list-style-type: none"> • TFTP 	Yes
<ul style="list-style-type: none"> • FTP 	Yes
<ul style="list-style-type: none"> • BOOTP 	Yes
<ul style="list-style-type: none"> • GMRP 	Yes
<ul style="list-style-type: none"> • DCP 	Yes
<ul style="list-style-type: none"> • LLDP 	Yes
<ul style="list-style-type: none"> • IGMP (snooping/querier) 	Yes
Identification & maintenance function	
<ul style="list-style-type: none"> • I&M0 - device-specific information 	Yes
<ul style="list-style-type: none"> • I&M1 – higher-level designation/location designation 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • SNMP v1 	Yes

- SNMP v2 Yes
- SNMP v3 Yes

Product functions / Diagnosis

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|--------------------------|-----|
| 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

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| 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 |
| • redundancy procedure MSTP | Yes |
| • Passive listening | Yes |

Protocol / is supported	
• STP/RSTP	Yes
• STP	Yes
• RSTP	Yes
• MSTP	No
• RSTP big network support	Yes
• LACP	Yes

Product functions / Security

Product function	
• ACL - MAC-based	Yes
• ACL - port/MAC-based	Yes
• IEEE 802.1x (radius)	Yes
• Broadcast/Multicast/Unicast Limiter	Yes
• broadcast blocking	Yes

Protocol / is supported	
• SSH	Yes

Product functions / Time

Product function	
• SICLOCK support	Yes

Protocol / is supported	
• NTP	Yes
• SNTP	Yes
• IEEE 1588 profile default	No

Standards, specifications, approvals

Standard	
• for FM	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group 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 / from CSA and UL	UL 60950-1, CSA C22.2 No. 60950-1
• 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
• for emitted interference	EN 61000-6-4:2007 (Class A)
• for interference immunity	EN 61000-6-2:2005
Certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007
• CE marking	Yes
• C-Tick	Yes
• KC approval	Yes
• Railway application in accordance with EN 50155	No

Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • Bureau Veritas (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p>
MTBF / at 40 °C	40 y

Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> • 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 	<p>http://www.siemens.com/snst</p> <p>http://www.siemens.com/simatic-net</p> <p>https://mall.industry.siemens.com</p> <p>http://www.siemens.com/automation/net/catalog</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	<p>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. For more information, visit http://support.automation.siemens.com. (V3.4)</p>
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