

Product type designation

SCALANCE X310

SCALANCE X310, MANAGED PLUS IE SWITCH, 3 X 10/100/1000MBIT/S AND 7 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, 1000 Mbit/s
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Interfaces / for communication / integrated

Number of electrical connections	
<ul style="list-style-type: none"> for network components or terminal equipment 	10
Number of 100 Mbit/s SC ports	
<ul style="list-style-type: none"> for multimode 	0
Number of 1000 Mbit/s LC ports	
<ul style="list-style-type: none"> for multimode for single mode (LD) 	0 0

Interfaces / others

Number of electrical connections	
<ul style="list-style-type: none"> for signaling contact for power supply for redundant voltage supply 	1 1 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"> • 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 	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
Power loss [W]	
<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 	-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

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 • 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	
<ul style="list-style-type: none"> • SNMP v1 • SNMP v2 • SNMP v3 	<p>Yes</p> <p>Yes</p> <p>Yes</p>

Product functions / Diagnosis

Product function	
<ul style="list-style-type: none"> • Port diagnostics • Statistics Packet Size • Statistics packet type 	<p>Yes</p> <p>Yes</p> <p>Yes</p>

- Error statistics Yes
- SysLog Yes

Product functions / VLAN

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

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	
<ul style="list-style-type: none"> • ACL - MAC-based • ACL - port/MAC-based • IEEE 802.1x (radius) • Broadcast/Multicast/Unicast Limiter • broadcast blocking 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
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 • 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 hazardous zone • for safety / from CSA and UL • for hazardous zone / 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>EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X</p> <p>UL 60950-1, CSA C22.2 No. 60950-1</p> <p>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</p> <p>EN 61000-6-4:2007 (Class A)</p> <p>EN 61000-6-2:2005</p>
Certificate of suitability / CE marking	Yes
<ul style="list-style-type: none"> • Certificate of suitability • Certificate of suitability / C-Tick • Certificate of suitability / Railway application in accordance with EN 50155 • Certificate of suitability / KC approval 	<p>EN 61000-6-2:2005, EN 61000-6-4:2007</p> <p>Yes</p> <p>No</p> <p>Yes</p>
<ul style="list-style-type: none"> • Marine classification association / American Bureau of Shipping Europe Ltd. (ABS) • Marine classification association / Bureau Veritas (BV) • Marine classification association / Det Norske Veritas (DNV) • Marine classification association / Germanische Lloyd (GL) 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p>

<ul style="list-style-type: none"> • Marine classification association / Lloyds Register of Shipping (LRS) 	Yes
<ul style="list-style-type: none"> • Marine classification association / Nippon Kaiji Kyokai (NK) 	Yes
<ul style="list-style-type: none"> • Marine classification association / Polski Rejestr Statkow (PRS) 	No
<ul style="list-style-type: none"> • Marine classification association / Royal Institution of Naval Architects (RINA) 	No
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 	http://www.siemens.com/snst
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx Download Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • to website: Industry Online Support 	https://support.industry.siemens.com

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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last modified: 15.02.2016