

SCALANCE X310, managed plus IE switch, 3x 10/100/1000 Mbit/ and 7x 10/100 Mbit/s RJ45 ports LED diagnostics, error signaling Contact with select/set button, PROFINET IO device, network management, Integrated redundancy manager, office features (RSTP, VLAN, IGMP,...) C-plug in scope of delivery



Product type designation	SCALANCE X310
Transfer rate	
Transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
Interfaces / for communication / Integrated	
Number of electrical connections	
• for network components or terminal equipment	10
Number of 10/100 Mbit/s RJ45 ports / Integrated	
• with securing collar	7
Number of 10/100/1000 Mbit/s RJ45 ports / Integrated	
• with securing collar	3
Interfaces / other	
Number of electrical connections	
• for signaling contact	1
• for power supply	1
• for redundant voltage supply	2
Type of electrical connection	
• 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 / minimum 	18 V
<ul style="list-style-type: none"> • external / maximum 	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

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	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 features, product functions, product 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, 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 	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Yes Yes

Product functions / Diagnostics

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

• 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	Yes
• 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>

Standards, specifications, approvals / CE

Certificate of suitability / CE marking	Yes
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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 • Railway application in accordance with EN 50155 • KC approval 	<p>Yes</p> <p>No</p> <p>Yes</p>

Standards, specifications, approvals / marine classification

Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • Bureau Veritas (BV) 	<p>Yes</p> <p>Yes</p>

- Det Norske Veritas (DNV)
- Germanische Lloyd (GL)
- DNV GL
- Korean Register of Shipping (KRS)
- Polski Rejestr Statkow (PRS)
- Royal Institution of Naval Architects (RINA)

No
No
Yes
Yes
Yes
No

Standards, specifications, approvals / Product conformity

MTBF 40 y

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/industry/infocenter>
<http://automation.siemens.com/bilddb>
<http://www.siemens.com/cax>
<https://support.industry.siemens.com>

Security information

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