

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, dimensions and weights

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

- S7-1500 rail mounting

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

- 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

- 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

- I&M0 - device-specific information
- I&M1 – higher-level designation/location designation

Yes
Yes

Product functions / Diagnostics

Product function

- Port diagnostics
- Statistics Packet Size

Yes
Yes

• Statistics packet type	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>
MTBF	40 y

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	
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- American Bureau of Shipping Europe Ltd. (ABS)
- Bureau Veritas (BV)
- Det Norske Veritas (DNV)
- Germanische Lloyd (GL)
- DNV GL
- Korean Register of Shipping (KRS)
- Polski Rejestr Statkow (PRS)
- Royal Institution of Naval Architects (RINA)

Yes
Yes
No
No
Yes
Yes
Yes
No

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

Security information

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