



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 • for power supply • for redundant voltage supply	1 1 2
Type of electrical connection • for signaling contact	2-pole terminal block

• for power supply	4-pole terminal block
design of the removable storage	
• C-PLUG	Yes

Signal inputs/outputs

Operating voltage / of the signaling contacts	
• at DC / Rated value	24 V
Operating current / of the signaling contacts	
• 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	
• external	24 V
• external / minimum	18 V
• 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]	
• at DC / at 24 V	9.6 W

Ambient conditions

Ambient temperature	
• during operation	-40 ... +60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
Relative humidity	
• 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.
• 19-inch installation	No
• 35 mm DIN rail mounting	Yes
• wall mounting	Yes
• 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
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	Yes
• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)	No
• 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	
• 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, Division 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

Standards, specifications, approvals / CE

Certificate of suitability / CE marking	Yes
---	-----

Standards, specifications, approvals / other

Certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007
• C-Tick	Yes
• Railway application in accordance with EN 50155	No
• KC approval	Yes

Standards, specifications, approvals / marine classification

Marine classification association

• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• Bureau Veritas (BV)	Yes
• Det Norske Veritas (DNV)	No
• Germanische Lloyd (GL)	No
• DNV GL	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (NK)	Yes
• Polski Rejestr Statkow (PRS)	Yes
• Royal Institution of Naval Architects (RINA)	Yes

Standards, specifications, approvals / Product conformity

MTBF	40 y
------	------

Further information / Internet-Links

Internet-Link

• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

Security information

Security information

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)

last modified:

02/05/2020 