



SCALANCE X320-1FE managed IE switch, 20x 10/100 Mbit/s RJ45 ports, 1x 100 Mbit/s SC Port multimode LED-diagnostics, error-signaling contact with Select/set pushbutton, PROFINET IO Device, network management, integrated redundancy manager, Office features (RSTP, VLAN, IGMP,...) C-plug in scope of delivery .

<b>product type designation</b>	<b>SCALANCE X320-1FE</b>
<b>transfer rate</b>	
transfer rate	10 Mbit/s, 100 Mbit/s
<b>interfaces / for communication / maximum configuration for modular devices</b>	
number of electrical ports / maximum	20
number of optical ports / maximum	1
<b>interfaces / for communication / integrated</b>	
number of electrical connections • for network components or terminal equipment	20
number of 10/100 Mbit/s RJ45 ports / integrated • with securing collar	20
number of 100 Mbit/s SC ports • for multimode	1
<b>interfaces / other</b>	
number of electrical connections • for signaling contact • for power supply	1 1
type of electrical connection • for signaling contact • for power supply	2-pole terminal block 4-pole terminal block
design of the removable storage • C-PLUG	Yes
<b>signal inputs/outputs</b>	
operating voltage / of the signaling contacts • at DC / rated value	24 V
operational current / of the signaling contacts • at DC / maximum	0.1 A
<b>supply voltage, current consumption, power loss</b>	
product component / connection for redundant voltage supply	Yes
type of voltage supply / redundant power supply unit	No
<b>type of voltage / 1 / of the supply voltage</b> • supply voltage / 1 / rated value • power loss [W] / 1 / rated value • supply voltage / 1 / rated value • consumed current / 1 / maximum • type of electrical connection / 1 / for power supply • product component / 1 / fusing at power supply input	DC 24 V 9.6 W 18 ... 32 V 0.4 A 4-pole terminal block Yes
<b>ambient conditions</b>	
ambient temperature • during operation	-40 ... +60 °C

<ul style="list-style-type: none"> <li>during storage</li> <li>during transport</li> </ul>	-40 ... +70 °C
relative humidity	
<ul style="list-style-type: none"> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
protection class IP	IP30
<b>design, dimensions and weights</b>	
design	compact
width	180 mm
height	125 mm
depth	123 mm
net weight	1.65 kg
fastening method	When used in shipbuilding, installation on a 35 mm standard mounting rail is not permitted.
<ul style="list-style-type: none"> <li>19-inch installation</li> <li>35 mm top hat DIN rail mounting</li> <li>wall mounting</li> <li>S7-300 rail mounting</li> <li>S7-1500 rail mounting</li> </ul>	No Yes Yes Yes No
<b>product features, product functions, product components / general</b>	
cascading in the case of a redundant ring / at reconfiguration time of <math>\leq 0.3\text{s}</math>	100
cascading in cases of star topology	any (depending only on signal propagation time)
<b>product functions / management, configuration, engineering</b>	
product function	
<ul style="list-style-type: none"> <li>CLI</li> <li>web-based management</li> <li>MIB support</li> <li>TRAPs via email</li> <li>configuration with STEP 7</li> <li>RMON</li> <li>port mirroring</li> <li>multiport mirroring</li> <li>CoS</li> <li>PROFINET IO diagnosis</li> </ul>	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"> <li>Telnet</li> <li>HTTP</li> <li>HTTPS</li> <li>TFTP</li> <li>FTP</li> <li>BOOTP</li> <li>GMRP</li> <li>DCP</li> <li>LLDP</li> <li>SNMP v1</li> <li>SNMP v2</li> <li>SNMP v3</li> <li>IGMP (snooping/querier)</li> </ul>	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
identification & maintenance function	
<ul style="list-style-type: none"> <li>I&amp;M0 - device-specific information</li> <li>I&amp;M1 - higher level designation/location designation</li> </ul>	Yes Yes
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>port diagnostics</li> <li>statistics Packet Size</li> <li>statistics packet type</li> <li>error statistics</li> <li>SysLog</li> </ul>	Yes Yes Yes Yes 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, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4

<ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> <li>• for emitted interference</li> <li>• for interference immunity</li> </ul>	UL 60950-1, CSA C22.2 No. 60950-1 EN 61000-6-4:2007 (Class A) EN 61000-6-2:2005	
MTBF	25 a	
reference code		
<ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> <li>• according to IEC 81346-2:2019</li> </ul>	KF KFE	
<b>standards, specifications, approvals / CE</b>		
certificate of suitability / CE marking	Yes	
<b>standards, specifications, approvals / hazardous environments</b>		
standard / for hazardous zone	EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X	
<ul style="list-style-type: none"> <li>• from CSA and UL</li> </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	
certificate of suitability	Yes	
<ul style="list-style-type: none"> <li>• CCC / for hazardous zone according to GB standard</li> <li>• CCC / for hazardous zone according to GB standard / as marking</li> </ul>	Ex nA IIC T4 Gc	
<b>standards, specifications, approvals / other</b>		
certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007	
<ul style="list-style-type: none"> <li>• C-Tick</li> <li>• KC approval</li> <li>• railway application in accordance with EN 50155</li> </ul>	Yes Yes No	
<b>standards, specifications, approvals / marine classification</b>		
Marine classification association		
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Germanische Lloyd (GL)</li> <li>• DNV GL</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>	Yes Yes No No Yes Yes Yes No Yes	
<b>further information / internet links</b>		
internet link		
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Image database</li> <li>• to website: CAX-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a> <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>	
<b>security information</b>		
security information	<p>Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial security measures that may be implemented, please visit <a href="https://www.siemens.com/industrialsecurity">https://www.siemens.com/industrialsecurity</a>. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a>. (V4.6)</p>	
<b>Approvals / Certificates</b>		
<b>General Product Approval</b>	<b>EMC</b>	<b>For use in hazardous locations</b>

[Manufacturer Declaration](#)



[Miscellaneous](#)



[ATEX-Zone 2-Declaration](#)



For use in hazardous locations

Declaration of Conformity

[EM](#)

[CCC-Ex](#)



Declaration of Conformity

Marine / Shipping

[Manufacturer Declaration](#)



[NK / Nippon Kaiji Kyokai](#)

Marine / Shipping

other

Environment



[PROFINET-Certification](#)



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