



SCALANCE XC316-8 managed layer 2 IE switch, 16x 10/100/1000 Mbit/s RJ45, 8x 1/10 Gbit/s SFP+ port, LED diagnostics, error signaling contact with select/set pushbutton, PROFINET IO device, network management, redundancy functions, office features (RSTP, VLAN, IGMP,...) CLP included in scope of supply assembly: DIN rail/S7 mounting rail .

product type designation	
product brand name	SCALANCE
product type designation	XC316-8
Technical Product Detail Page	<a href="https://l.siemens.com/1P6GK5324-8TS00-2AC2">https://l.siemens.com/1P6GK5324-8TS00-2AC2</a>
transfer rate	
transfer rate	10, 100, 1000 Mbit/s
transfer rate	10 Gbit/s
interfaces / for communication / integrated	
number of electrical connections	
• for network components or terminal equipment	16; RJ45
number of 10/100/1000 Mbit/s RJ45 ports	
• with securing collar	16
number of electrical connections	
• for SFP+	8; 1000 Mbps and 10000 Mbps SFP usable
interfaces / other	
number of electrical connections	
• for operator console	1
• for signaling contact	1
• for power supply	1
design of the removable storage	
• CLP	Yes
operating voltage / of the signaling contacts	
• at DC / rated value	24 V
operational current / of the signaling contacts	
• at DC / maximum	0.1 A
supply voltage, current consumption, power loss	
product component / connection for redundant voltage supply	Yes
<b>type of voltage / 1 / of the supply voltage</b>	
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	43.2 W
• power loss [W] / at DC / at 24 V / typical	25.92 W
• supply voltage / 1 / voltage range	19.2 ... 28.8
• consumed current / 1 / maximum	1.8 A
• consumed current / at DC / at 24 V / typical	1.08 A
• product component / 1 / fusing at power supply input	Yes
ambient conditions	
ambient temperature	
• during operation	-40 ... +60 °C
• during storage	-40 ... +85 °C

<ul style="list-style-type: none"> <li>during transport</li> </ul>	-40 ... +85 °C
relative humidity	
<ul style="list-style-type: none"> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
operating condition / fanless operation	Yes
protection class IP	IP20
<b>design, dimensions and weights</b>	
design	compact
width	210 mm
height	147 mm
depth	125 mm
net weight	1.8 kg
fastening method	
<ul style="list-style-type: none"> <li>19-inch installation</li> </ul>	No
<ul style="list-style-type: none"> <li>35 mm DIN-rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>wall mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>S7-300 rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>S7-1500 rail mounting</li> </ul>	Yes
<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>	50
number of automatically learnable MAC addresses	16382
number of QoS queues / per port	8
product function	
<ul style="list-style-type: none"> <li>QoS according to IEEE 802.1Q</li> </ul>	Yes
product feature	
<ul style="list-style-type: none"> <li>Store &amp; Forward switching method</li> </ul>	Yes
<b>product functions / management, configuration, engineering</b>	
product function	
<ul style="list-style-type: none"> <li>CLI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>web-based management</li> </ul>	Yes
<ul style="list-style-type: none"> <li>MIB support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>TRAPs via email</li> </ul>	Yes
<ul style="list-style-type: none"> <li>configuration with STEP 7</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RMON</li> </ul>	Yes
<ul style="list-style-type: none"> <li>port mirroring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>multiport mirroring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>CoS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>PROFINET IO diagnosis</li> </ul>	Yes
<ul style="list-style-type: none"> <li>switch-managed</li> </ul>	Yes
PROFINET conformity class	B
network load class / according to PROFINET	III
telegram length / for Ethernet / maximum	2048 byte
protocol / is supported	
<ul style="list-style-type: none"> <li>Telnet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>HTTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>HTTPS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>FTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>SFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>BOOTP</li> </ul>	No
<ul style="list-style-type: none"> <li>NETCONF</li> </ul>	No
<ul style="list-style-type: none"> <li>GMRP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>LLDP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>EtherNet/IP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>SNMP v2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>SNMP v3</li> </ul>	Yes

<ul style="list-style-type: none"> <li>IGMP (snooping/querier)</li> </ul>	Yes
identification & maintenance function	
<ul style="list-style-type: none"> <li>I&amp;M0 - device-specific information</li> </ul>	Yes
<ul style="list-style-type: none"> <li>I&amp;M1 - higher level designation/location designation</li> </ul>	Yes
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>port diagnostics</li> </ul>	Yes
<ul style="list-style-type: none"> <li>statistics Packet Size</li> </ul>	Yes
<ul style="list-style-type: none"> <li>statistics packet type</li> </ul>	Yes
<ul style="list-style-type: none"> <li>error statistics</li> </ul>	Yes
<ul style="list-style-type: none"> <li>SysLog</li> </ul>	Yes
<b>product functions / VLAN</b>	
product function	
<ul style="list-style-type: none"> <li>VLAN - port based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>VLAN - protocol-based</li> </ul>	No
<ul style="list-style-type: none"> <li>VLAN - IP-based</li> </ul>	No
<ul style="list-style-type: none"> <li>VLAN dynamic</li> </ul>	Yes
number of VLANs / maximum	257
number of VLANs - dynamic / maximum	257
number of VLANs / at ring redundancy (HRP; MRP; standby link)	257
<b>product functions / DHCP</b>	
product function	
<ul style="list-style-type: none"> <li>DHCP server</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DHCP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DHCP Option 82</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DHCP Option 66</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DHCP Option 67</li> </ul>	Yes
<b>product functions / redundancy</b>	
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product function	
<ul style="list-style-type: none"> <li>media redundancy protocol (MRP) with redundancy manager</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Media Redundancy Protocol Interconnection (MRP-I)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>of the PROFINET IO device / is supported / H-Sync forwarding</li> </ul>	Yes
<ul style="list-style-type: none"> <li>of the PROFINET IO device / is supported / PROFINET system redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>ring redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>high speed redundancy protocol (HRP) with redundancy manager</li> </ul>	Yes
<ul style="list-style-type: none"> <li>high speed redundancy protocol (HRP) with standby redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>redundancy procedure STP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>redundancy procedure RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>redundancy procedure RSTP+</li> </ul>	Yes
<ul style="list-style-type: none"> <li>redundancy procedure MSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>High-availability Seamless Redundancy (HSR)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Parallel Redundancy Protocol (PRP)/operation in the PRP-network</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>passive listening</li> </ul>	Yes
<ul style="list-style-type: none"> <li>eRSTP</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>STP/RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>STP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>MSTP</li> </ul>	No
<ul style="list-style-type: none"> <li>RSTP big network support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>LACP</li> </ul>	Yes

**system modification during operation**

product function / configuration in RUN via CiR/H-CiR	Yes
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**product functions / security**

product function	
<ul style="list-style-type: none"> <li>• IEEE 802.1x (radius)</li> <li>• broadcast/multicast/unicast limiter</li> <li>• broadcast blocking</li> </ul>	Yes Yes Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SSH</li> <li>• SSL</li> </ul>	Yes Yes

**product functions / time**

product function	
<ul style="list-style-type: none"> <li>• SICLOCK support</li> <li>• NTP-client</li> <li>• SNTP client</li> <li>• IEEE 1588 v2 transparent forwarding</li> </ul>	Yes Yes Yes Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> <li>• SNTP</li> <li>• IEEE 1588 profile default</li> </ul>	Yes Yes No
accuracy / at IEEE 1588 v2	
<ul style="list-style-type: none"> <li>• not less than</li> <li>• typical</li> </ul>	100 µs 50 ns

**standards, specifications, approvals**

certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> <li>• UKCA marking</li> <li>• cULus approval</li> <li>• KC approval</li> <li>• Regulatory Compliance Mark (RCM)</li> </ul>	Yes Yes Yes Yes Yes
product conformity / according to EMC-guideline	2014/30/EU
standard	
<ul style="list-style-type: none"> <li>• for EMC interference emission</li> <li>• for immunity to EMC</li> <li>• for safety / from CSA and UL</li> </ul>	EN 61000-6-4 EN 61000-6-2 UL-61010-2 E85972

**standards, specifications, approvals / hazardous environments**

certificate of suitability	
<ul style="list-style-type: none"> <li>• ATEX</li> <li>• UKEX</li> <li>• IECEX</li> <li>• ULhazloc approval</li> <li>• CCC / for hazardous zone according to GB standard</li> <li>• FM registration</li> </ul>	Yes Yes Yes Yes Yes Yes

**standards, specifications, approvals / other**

certificate of suitability	
<ul style="list-style-type: none"> <li>• railway application in accordance with EN 50121-4</li> <li>• railway application in accordance with EN 50125-3</li> </ul>	Yes; use only in areas not accessible to the public Yes; Section 4.2: Class AX (up to 2000m); section 4.3: T1: Containers N.T.C and T.C. / Buildings N.C.C and C.C, T2: Containers N.T.C and T.C. / Buildings N.C.C and C.C, TX: Containers N.T.C and T.C. / Buildings N.C.C and C.C., derating according to the manual must be observed when SFP/SFP+ transceivers are used --> only for variants with optical connections; In addition, depending on the installation position, the derating according to the manual must be taken into account; section 4.4: T1: Containers C.C. / Buildings N.C.C and C.C., T2: Containers C.C. / Buildings N.C.C and C.C, T3: Containers C.C. / Buildings N.C.C and C.C; section 4.11: C1: Indoor, C2: Indoor (except condensation), C3: Indoor (except condensation), 4B1, 4S10, UL 61010-2-10; section 4.13: partially, Test Fc: Vibration EN 60068-2-6; IEC 60068-2-6, Test Ea: Shock EN 60068-2-27; IEC 60068-2-27, Test Ec: Rough handling, shocks EN 60068-2-31; IEC 60068-2-31; section 4.14: yes; section 4.15: yes, according to manual.
resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
IT security for industrial automation systems / according to IEC	Yes

62443-4-2:2019			
<b>standards, specifications, approvals / Environmental Product Declaration</b>			
Environmental Product Declaration	Yes		
global warming potential [CO2 eq]			
<ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul>	<ul style="list-style-type: none"> <li>1244.3 kg</li> <li>122.74 kg</li> <li>1120.64 kg</li> <li>0.91 kg</li> </ul>		
<b>product functions / general</b>			
MTBF	13.4 a		
warranty period	5 a		
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022		
<b>further information / internet links</b>			
internet link			
<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAX-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<ul style="list-style-type: none"> <li><a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a></li> <li><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a></li> <li><a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a></li> <li><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a></li> <li><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a></li> <li><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a></li> <li><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></li> </ul>		
<b>security information</b>			
security information	<p>Siemens provides products and solutions with industrial cybersecurity 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 cybersecurity 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 cybersecurity measures that may be implemented, please visit <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</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 Cybersecurity RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a>. (V4.7)</p>		
<b>Approvals / Certificates</b>			
<b>General Product Approval</b>	<b>For use in hazardous locations</b>		
<a href="#">China RoHS</a>  UL	<a href="#">Miscellaneous</a>  ATEX		
 IECEX	<a href="#">TUEV</a>		
<b>For use in hazardous locations</b>	<b>Test Certificates</b>	<b>Environment</b>	<b>Industrial Communication</b>
<a href="#">FM</a>  UL	<a href="#">CCC-Ex</a>	 EPD	<a href="#">PROFINET</a>

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