



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	SCALANCE
transfer rate	
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s, 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 / integrated	
• 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
type of electrical connection	
• for operator console	USB (2.0 Port, Type B, serial via USB)
• for signaling contact	2-pole terminal block
• for power supply	2 x 2-pin terminal block
design of the removable storage	
• CLP	Yes
signal inputs/outputs	
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
type of voltage / 1 / of the supply voltage	DC
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	43.2 W
• supply voltage / 1 / rated value	19.2 ... 28.8 V
• consumed current / 1 / maximum	1.8 A
• type of electrical connection / 1 / for power supply	2 x 2-pole terminal block
• product component / 1 / fusing at power supply input	Yes
ambient conditions	
ambient temperature	
• during operation	-40 ... +60 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C

relative humidity	
at 25 °C / without condensation / during operation / maximum	95 %
operating condition / fanless operation	Yes
protection class IP	IP20
design, dimensions and weights	
design	compact
width	210 mm
height	147 mm
depth	125 mm
net weight	1.8 kg
fastening method	
19-inch installation	No
35 mm top hat DIN rail mounting	Yes
wall mounting	Yes
S7-300 rail mounting	Yes
S7-1500 rail mounting	Yes
product features, product functions, product components / general	
cascading in the case of a redundant ring / at reconfiguration time of <1~0.31~s	50
number of automatically learnable MAC addresses	16382
number of QoS queues / per port	8
product function / QoS according to IEEE 802.1Q	Yes
product feature	
Store & Forward switching method	Yes
product functions / management, configuration, engineering	
product function	
CLI	Yes
web-based management	Yes
MIB support	Yes
TRAPs via email	Yes
configuration with STEP 7	Yes
RMON	Yes
port mirroring	Yes
multiport mirroring	Yes
CoS	Yes
PROFINET IO diagnosis	Yes
PROFINET conformity class	B
network load class / according to PROFINET	3
product function / switch-managed	Yes
telegram length / for Ethernet / maximum	2048 byte
protocol / is supported	
Telnet	Yes
HTTP	Yes
HTTPS	Yes
TFTP	Yes
FTP	Yes
SFTP	Yes
BOOTP	No
NETCONF	Yes
GMRP	Yes
DCP	Yes
LLDP	Yes
EtherNet/IP	Yes
SNMP v1	Yes
SNMP v2	Yes
SNMP v3	Yes
IGMP (snooping/querier)	Yes
identification & maintenance function	
I&M0 - device-specific information	Yes
I&M1 - higher level designation/location designation	Yes

product functions / diagnostics

product function	
• port diagnostics	Yes
• statistics Packet Size	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	257
number of VLANs - dynamic / maximum	257
number of VLANs / at ring redundancy (HRP; MRP; standby link)	257
protocol / is supported / GVRP	Yes

product functions / DHCP

product function	
• DHCP server	Yes
• DHCP client	Yes
• DHCP Option 82	Yes
• DHCP Option 66	Yes
• DHCP Option 67	Yes

product functions / redundancy

product function	
• of the PROFINET IO device / is supported / PROFINET system redundancy	Yes
• 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
• Media Redundancy Protocol Interconnection (MRP-I)	Yes
• of the PROFINET IO device / is supported / H-Sync forwarding	Yes
• redundancy procedure STP	Yes
• redundancy procedure RSTP	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
• eRSTP	Yes
protocol / is supported	
• STP/RSTP	Yes
• STP	Yes
• RSTP	Yes
• MSTP	No
• RSTP big network support	Yes
• LACP	Yes

product functions / security

product function	
• IEEE 802.1x (radius)	Yes
• broadcast/multicast/unicast limiter	Yes

• broadcast blocking	Yes
protocol / is supported	
• SSH	Yes
• SSL	Yes
product functions / time	
product function	
• SICLOCK support	Yes
• NTP-client	Yes
• SNTP client	Yes
• IEEE 1588 v2 transparent forwarding	Yes
protocol / is supported	
• NTP	Yes
• SNTP	Yes
• IEEE 1588 profile default	No
accuracy / at IEEE 1588 v2	
• not less than	100 µs
• typical	50 ns
system modification during operation	
product function / configuration in RUN via CiR/H-CiR	Yes
standards, specifications, approvals	
standard	
• for FM	in preparation
• for safety / from CSA and UL	in preparation
• for emitted interference	EN 61000-6-4 (Class A)
• for interference immunity	EN 61000-6-2
MTBF	13.4 a
• reference temperature	40 °C
reference code	
• according to IEC 81346-2	KF
• according to IEC 81346-2:2019	KFE
standards, specifications, approvals / CE	
certificate of suitability / CE marking	Yes
product conformity / according to EMC-guideline	2014/30/EU
standard	
• for EMC interference emission	EN 61000-6-4, EN 50121-9
• for immunity to EMC	EN 61000-6-2, EN 50121-4
certificate of suitability / RoHS conformity	Yes; 2011/65/EU
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	in preparation
• from CSA and UL	in preparation
standards, specifications, approvals / other	
certificate of suitability	
• C-Tick	Yes
• KC approval	Yes
further information / internet links	
internet link	
• to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
• 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	
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