



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 • for signaling contact • for power supply	1 1 1
type of electrical connection • for operator console • for signaling contact • for power supply	USB (2.0 Port, Type B, serial via USB) 2-pole terminal block 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 • 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 43.2 W 19.2 ... 28.8 V 1.8 A 2 x 2-pole terminal block Yes
ambient conditions	
ambient temperature • during operation • during storage • during transport	-40 ... +60 °C -40 ... +85 °C -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	
security information	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

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