

Product type designation

SCALANCE X302-7EEC

SCALANCE X302-7EEC; MANAGED IE SWITCH, COMPACT; 2 X 10/100/1000MBIT/S RJ45; 7 X 100MBIT/S LC FO PORTS; 100 - 240V AC/DC REDUNDANT POWER SUPPLY; LED-DIAGNOSTICS, FAULT SIGNAL CONTACT WITH SELECT/SET-BUTTON; PROFINET-IO DEVICE, NETWORK- MANAGEMENT, INTEGRATED REDUNDANCY MANAGER, OFFICE FEATURES (RSTP, VLAN, IGMP,...); C-PLUG IN SCOPE OF SUPPLY



Transmission rate

Transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
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Interfaces / for communication / integrated

Number of electrical connections	
• for network components or terminal equipment	2
Number of 10/100/1000 Mbit/s RJ45 ports / Integrated	2
Number of 100 Mbit/s SC ports	
• for multimode	0
Number of 100 Mbit/s LC ports	
• for multimode	7
Number of 1000 Mbit/s LC ports	
• for multimode	0

Interfaces / others

Number of electrical connections	
• for signaling contact	2
• for power supply	1

<ul style="list-style-type: none"> • for redundant voltage supply 	1
Type of electrical connection	
<ul style="list-style-type: none"> • for signaling contact • for power supply 	3-pole terminal block 2 x 3-pole terminal block
design of the removable storage	
<ul style="list-style-type: none"> • C-PLUG 	Yes

Signal-Inputs/outputs

Operating voltage / of the signaling contacts	
<ul style="list-style-type: none"> • at AC / Rated value • at DC / Rated value 	276 V 230 V
Operating current / of the signaling contacts	
<ul style="list-style-type: none"> • at AC / maximum • at DC / maximum 	5 A 0.1 A

Supply voltage, current consumption, power loss

Type of voltage supply / redundant power supply unit	Yes
Type of voltage / of the supply voltage	AC
Supply voltage	
<ul style="list-style-type: none"> • at AC • at AC / rated value 	230 V 80 ... 276 V
Supply voltage / 2 / Rated value	
<ul style="list-style-type: none"> • Type of voltage / 2 / of the supply voltage 	DC
Supply voltage / at DC	220 V
<ul style="list-style-type: none"> • rated value 	46.25 ... 300 V
Product component / fusing at power supply input	Yes
Fuse protection type / at input for supply voltage	T 2 A / 250 V
Consumed current / maximum	0.08 A
Power loss [W]	
<ul style="list-style-type: none"> • at AC / at 230 V • at DC / at 250 V 	18 W 18 W

Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport • Note 	-40 ... +70 °C -40 ... +70 °C -40 ... +70 °C A maximum operating temperature of +85 °C is permissible for a duration of 16 hours
Relative humidity	
<ul style="list-style-type: none"> • at 25 °C / without condensation / during operation / maximum 	95 %
Protection class IP	IP30

Design, dimensions and weight

Design	compact
Width	216 mm
Height	143 mm
Depth	110 mm
Net weight	2.12 kg
Product feature / conformal coating	No
Mounting type	Wall mounting is possible only with an additional wall bracket; 19" mounting only with installation of two X-300EEC switches in pairs using a mounting plate
<ul style="list-style-type: none"> • 19-inch installation • 35 mm DIN rail mounting • wall mounting • S7-300 rail mounting • S7-1500 rail mounting 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p>

Product properties, functions, 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

Product function	
<ul style="list-style-type: none"> • CLI • web-based management • MIB support • TRAPs via email • Configuration with STEP 7 • RMON • Port mirroring • multiport mirroring • CoS • with IRT / PROFINET IO switch • PROFINET IO diagnosis • switch-managed 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>Yes</p>
Protocol / is supported	
<ul style="list-style-type: none"> • Telnet • HTTP • HTTPS • TFTP • FTP • BOOTP • GMRP • DCP 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>

• LLDP	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 / Diagnosis

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	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	No
• 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	Yes

Standards, specifications, approvals

Standard	
• for hazardous zone	-
• for safety / from CSA and UL	UL 508, CSA C22.2 No. 142-M1987
• for hazardous zone / from CSA and UL	-
• for emitted interference	EN 61000-6-4:2007 (Class A)
• for interference immunity	EN 61000-6-2:2005

Certificate of suitability / CE marking	Yes
Standard	IEC 61850, IEEE 1613
<ul style="list-style-type: none"> • for EMC 	IEC 61850, IEEE 1613
Certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007
<ul style="list-style-type: none"> • C-Tick 	Yes
<ul style="list-style-type: none"> • Railway application in accordance with EN 50155 	No
<ul style="list-style-type: none"> • Railway application in accordance with EN 50124-1 	No
<ul style="list-style-type: none"> • IEC 61850-3 	Yes
<ul style="list-style-type: none"> • IEEE 1613 	Yes
<ul style="list-style-type: none"> • KC approval 	Yes
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	Yes
<ul style="list-style-type: none"> • Bureau Veritas (BV) 	Yes
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	Yes
<ul style="list-style-type: none"> • Germanische Lloyd (GL) 	No
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	Yes
<ul style="list-style-type: none"> • Nippon Kaiji Kyokai (NK) 	Yes
<ul style="list-style-type: none"> • Polski Rejestr Statkow (PRS) 	No
<ul style="list-style-type: none"> • Royal Institution of Naval Architects (RINA) 	No
MTBF / at 40 °C	15.3 y

Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> • to website: Selector SIMATIC NET SELECTION TOOL 	http://www.siemens.com/snst
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx Download Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • 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)

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