

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; 24 V DC REDUNDANT POWER SUPPLY; CONFORMAL COATING; 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
Interfaces	
Number of electrical/optical connections for network components or terminal equipment / maximum	9
Type of electrical connection for network components or terminal equipment	RJ45 port
Number of optical interfaces for fiber optic cable / at 100 Mbit/s	7
Design of the optical interface for fiber optic cable / at 100 Mbit/s	LC port (multimode up to 5 km)
Connectable optical power relative to 1 mW - of the transmitter output - of the receiver input / maximum	-19 ... -14 -14 dB
Optical sensitivity relating to 1 mW / of the receiver input / minimum	-32 dB

Damping ratio / of the FOC transmission link / minimum necessary	0 dB
Range / at the optical interface / depending on the optical fiber used	0 ... 5 km

Interfaces / for communication / integrated

Number of electrical connections / for network components or terminal equipment	2
Number of 100 Mbit/s SC ports	
• for multimode	0
Number of 1000 Mbit/s LC ports	
• for multimode	0
• for single mode (LD)	7

Interfaces / others

Number of electrical connections	
• for signaling contact	2
• for power supply	2
• for redundant voltage supply	2
Type of electrical connection	
• for signaling contact	2-pole terminal block
• for power supply	2 x 4-pole terminal block
design of the removable storage	
• C-PLUG	Yes

Signal-Inputs/outputs

Operating voltage / of the signaling contacts	
• at DC / Rated value	24 V
Operating current / of the signaling contacts	
• at DC / maximum	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	DC
Supply voltage	
• external	24 V
• external	19.2 ... 57.6 V
Supply voltage / 2 / Rated value	
• Type of voltage / 2 / of the supply voltage	DC
Supply voltage	
• at DC	24 V
• at DC / rated value / minimum	19.2 V
• at DC / rated value / maximum	57.6 V
Product component / fusing at power supply input	Yes
Fuse protection type / at input for supply voltage	T 4 A / 125 V

Consumed current / maximum	0.75 A
Power loss [W]	
• at DC / at 24 V	17 W

Permitted ambient conditions

Ambient temperature	
• 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	
• at 25 °C / without condensation / during operation / maximum	95 %
Ambient condition	
• for operation	Conformal coating, yes
Coating	Conformal Coating, yes
Protection class IP	IP30

Design, dimensions and weight

Design	compact
Width	216 mm
Height	143 mm
Depth	110 mm
Net weight	1.8 kg
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
• 19-inch installation • 35 mm DIN rail mounting • wall mounting • S7-300 rail mounting • S7-1500 rail mounting	Yes Yes Yes Yes No

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	
• CLI • web-based management • MIB support • TRAPs via email	Yes Yes Yes Yes

• Configuration with STEP 7	Yes
• RMON	Yes
• Port mirroring	Yes
• multiport mirroring	Yes
• CoS	Yes
• with IRT / PROFINET IO switch	No
• PROFINET IO diagnosis	Yes
• switch-managed	Yes
Protocol / is supported	
• Telnet	Yes
• HTTP	Yes
• HTTPS	Yes
• TFTP	Yes
• FTP	Yes
• BOOTP	Yes
• GMRP	Yes
• DCP	Yes
• LLDP	Yes
• IGMP (snooping/querier)	Yes
Identification & maintenance function	
• I&M0 - device-specific information	Yes
• I&M1 – higher-level designation/location designation	Yes
Protocol / is supported	
• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	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
• 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 EMC	IEC 61850, IEEE 1613
• for FM	FM3611: Class 1, Division 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4
• for hazardous zone	EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4
• for safety / from CSA and UL	UL 508
• for hazardous zone / from CSA and UL	ANSI / ISA 12.12.01, CSA C22.2 No. 213-M1987, UL 1604 and 2279-15, CL. 1 / Div. 2 / GP. A, B, C, D T4, CL. 1 / Zone 2 / GP. IIC, T4
• for emitted interference	EN 61000-6-4:2007 (Class A)
• for interference immunity	EN 61000-6-2:2005
Certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007
• CE marking	Yes
• C-Tick	Yes
• KC approval	Yes
• Railway application in accordance with EN 50155	No
• Railway application in accordance with EN 50121-4	Yes
• Railway application in accordance with EN 50124-1	No
• IEC 61850-3	Yes
• IEEE 1613	Yes
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• Bureau Veritas (BV)	Yes
• Det Norske Veritas (DNV)	Yes
• Germanische Lloyd (GL)	No
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (NK)	Yes
• Polski Rejestr Statkow (PRS)	No
• Royal Institution of Naval Architects (RINA)	No
MTBF / at 40 °C	19.6 y

Further Information / Internet Links

Internet-Link

- to website: Selector SIMATIC NET SELECTION TOOL <http://www.siemens.com/snst>
- 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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