

SCALANCE XR324-4M EEC; Managed IE switch, 19" rack; 16x 10/100/1000 Mbit/s for RJ45 ports electrical; 4x 100/1000 Mbit/s for 2-port media modules, electrical or optical; LED diagnostics; error signaling Contact; Select/set pushbutton, PROFINET IO device, network management, Integrated redundancy manager; Power supply 2x 24 V DC; Ports at the back



<b>Product type designation</b>	<b>SCALANCE XR324-4M EEC</b>
<b>Transfer rate</b>	
Transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
<b>Interfaces / for communication / Integrated</b>	
Number of electrical connections	
• for network components or terminal equipment	16; RJ45
Number of 100 Mbit/s ST(BFOC) ports	
• for multimode	8
Number of 100 Mbit/s SC ports	
• for multimode	8
Number of 1000 Mbit/s LC ports	
• for multimode	8
• for single mode (LD)	8
<b>Interfaces / other</b>	
Number of electrical connections	
• for operator console	1
• for signaling contact	1
• for media module	4

<ul style="list-style-type: none"> <li>• for power supply</li> </ul>	2
<ul style="list-style-type: none"> <li>• for redundant voltage supply</li> </ul>	1
Type of electrical connection	
<ul style="list-style-type: none"> <li>• for operator console</li> </ul>	RJ11
<ul style="list-style-type: none"> <li>• for signaling contact</li> </ul>	2 x 2-pole terminal block
<ul style="list-style-type: none"> <li>• for power supply</li> </ul>	2 x 4-pole terminal block
design of the removable storage	
<ul style="list-style-type: none"> <li>• C-PLUG</li> </ul>	Yes

### Signal inputs/outputs

Operating voltage / of the signaling contacts	
<ul style="list-style-type: none"> <li>• at DC / Rated value</li> </ul>	24 V
Operating current / of the signaling contacts	
<ul style="list-style-type: none"> <li>• at DC / maximum</li> </ul>	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	
<ul style="list-style-type: none"> <li>• external</li> </ul>	24 V
<ul style="list-style-type: none"> <li>• external / minimum</li> </ul>	19.2 V
<ul style="list-style-type: none"> <li>• external / maximum</li> </ul>	57.6 V
<b>Supply voltage / 2 / Rated value</b>	
<ul style="list-style-type: none"> <li>• Type of voltage / 2 / of the supply voltage</li> </ul>	DC
Supply voltage / at DC	24 V
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	19.2 ... 57.6 V
Product component / fusing at power supply input	Yes
Fuse protection type / at input for supply voltage	T2H / 250 V
Consumed current / maximum	1.6 A
Power loss [W]	
<ul style="list-style-type: none"> <li>• at DC / at 24 V</li> </ul>	40 W

### Ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-40 ... +70 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +85 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-40 ... +85 °C
<ul style="list-style-type: none"> <li>• Note</li> </ul>	Extended temperature upper limit of +85° C permitted for 16 hours. Reduced operating temperature through the use of media modules (-40 °C to +70 °C) or SFP plug-in transceivers (-40 °C to +60 °C)
Relative humidity	
<ul style="list-style-type: none"> <li>• at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
Protection class IP	IP20

Design	19" rack
Number of modular height units / relating to 19-inch cabinet	1
Width	483 mm
Height	44 mm
Depth	305 mm
Net weight	6.8 kg
Mounting type	When used in shipbuilding, the device must be secured in the 19" rack at four points
<ul style="list-style-type: none"> <li>• 19-inch installation</li> <li>• 35 mm DIN rail mounting</li> <li>• wall mounting</li> <li>• S7-300 rail mounting</li> <li>• S7-1500 rail mounting</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> <li>No</li> <li>No</li> <li>No</li> </ul>

### Product features, product functions, product components / general

Cascading in the case of a redundant ring / at reconfiguration time of <math>\sim 0.3\text{ s}</math>	100
Cascading in cases of star topology	any (depending only on signal propagation time)

### Product functions / management, configuration, engineering

Product function	
<ul style="list-style-type: none"> <li>• CLI</li> <li>• web-based management</li> <li>• MIB support</li> <li>• TRAPs via email</li> <li>• Configuration with STEP 7</li> <li>• RMON</li> <li>• Port mirroring</li> <li>• multiport mirroring</li> <li>• CoS</li> <li>• PROFINET IO diagnosis</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
PROFINET conformity class	B
Product function / switch-managed	Yes
Protocol / is supported	
<ul style="list-style-type: none"> <li>• Telnet</li> <li>• HTTP</li> <li>• HTTPS</li> <li>• TFTP</li> <li>• FTP</li> <li>• BOOTP</li> <li>• GMRP</li> <li>• DCP</li> <li>• LLDP</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>

• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	Yes
• IGMP (snooping/querier)	Yes
<b>Identification &amp; maintenance function</b>	
• I&M0 - device-specific information	Yes
• I&M1 – higher-level designation/location designation	Yes

### Product functions / Diagnostics

<b>Product function</b>	
• Port diagnostics	Yes
• Statistics Packet Size	Yes
• Statistics packet type	Yes
• Error statistics	Yes
• SysLog	Yes

### Product functions / VLAN

<b>Product function</b>	
• 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

<b>Product function</b>	
• DHCP client	Yes
• DHCP Option 82	Yes
• DHCP Option 66	Yes
• DHCP Option 67	Yes

### Product functions / redundancy

<b>Product function</b>	
• 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
<b>Product function</b>	

<ul style="list-style-type: none"> <li>• media redundancy protocol (MRP) with redundancy manager</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 MSTP</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>	No
<ul style="list-style-type: none"> <li>• Passive listening</li> </ul>	Yes
<b>Protocol / is supported</b>	
<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>	Yes
<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

#### Product functions / Security

<b>Product function</b>	
<ul style="list-style-type: none"> <li>• ACL - MAC-based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• ACL - port/MAC-based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.1x (radius)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Broadcast/Multicast/Unicast Limiter</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• broadcast blocking</li> </ul>	Yes
<b>Protocol / is supported</b>	
<ul style="list-style-type: none"> <li>• SSH</li> </ul>	Yes

#### Product functions / time

<b>Product function</b>	
<ul style="list-style-type: none"> <li>• SICLOCK support</li> </ul>	Yes
<b>Protocol / is supported</b>	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 1588 profile default</li> </ul>	Yes

#### Standards, specifications, approvals

<b>Standard</b>	
<ul style="list-style-type: none"> <li>• for FM</li> </ul>	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4
<ul style="list-style-type: none"> <li>• for hazardous zone</li> </ul>	EN 60079-0 : 2006, EN 60079-15: 2005, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
<ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> </ul>	UL 60950-1, CSA C22.2 No. 60950-1-03
<ul style="list-style-type: none"> <li>• for hazardous zone / from CSA and UL</li> </ul>	ANSI / ISA 12.12.01, CSA C22.2 No. 142-M1987, CL. 1 / Div. 2 / GP. A, B, C, D T4, CL. 1 / Zone 2 / GP. IIC, T4

- for emitted interference
- for interference immunity

EN 61000-6-4:2007 (Class A)

EN 61000-6-2:2005

#### Standards, specifications, approvals / CE

Certificate of suitability / CE marking	Yes
Standard	
<ul style="list-style-type: none"> <li>• for EMC</li> </ul>	IEC 61850, IEEE 1613

#### Standards, specifications, approvals / other

Certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007
<ul style="list-style-type: none"> <li>• C-Tick</li> <li>• IEC 61850-3</li> <li>• KC approval</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p>

#### Standards, specifications, approvals / marine classification

Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• Bureau Veritas (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Germanische Lloyd (GL)</li> <li>• DNV GL</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>	<p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p>

#### Standards, specifications, approvals / Product conformity

MTBF	20 y
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#### Further information / Internet-Links

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

#### Security information

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