



SCALANCE X212-2LD, MANAGED IE SWITCH, 12 X 10/100MBIT/S RJ45 PORTS, 2 X 100MBIT/S SINGLEMODE BFOC, LED-DIAGNOSTICS, FAULT SIGNAL. CONTACT WITH SET BUTTON, REDUNDANT POWER SUPPLY PROFINET-IO DEVICE, NETWORK- MANAGEMENT, INTEGRATED REDUNDANCY MANAGER, INCL. ELECTRONIC MANUAL ON CD, C-PLUG OPTIONAL

### Transmission rate

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

Number of electrical connections	
• for network components or terminal equipment	12
Number of 100 Mbit/s ST(BFOC) ports	
• for single mode (LD)	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)	0

### Interfaces / others

Number of electrical connections	
• for signaling contact	1
• for power supply	1
• for redundant voltage supply	1
Type of electrical connection	

<ul style="list-style-type: none"> <li>• for signaling contact</li> </ul>	2-pole terminal block
<ul style="list-style-type: none"> <li>• for power supply</li> </ul>	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 / 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</li> </ul>	18 ... 32 V
Product component / fusing at power supply input	Yes
Fuse protection type / at input for supply voltage	1.1 A / 33 V
Consumed current / maximum	0.33 A
Power loss [W]	
<ul style="list-style-type: none"> <li>• at DC / at 24 V</li> </ul>	7.92 W

### Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-40 ... +60 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +70 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-40 ... +70 °C
Relative humidity	
<ul style="list-style-type: none"> <li>• at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
Protection class IP	IP30

### Design, dimensions and weight

Design	compact
Width	120 mm
Height	125 mm
Depth	124 mm
Net weight	1.2 kg
Mounting type	
<ul style="list-style-type: none"> <li>• 35 mm DIN rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• wall mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-300 rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-1500 rail mounting</li> </ul>	No

### Product properties, functions, components / general

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

### Product functions / management, configuration

Product function	
• CLI	Yes
• web-based management	Yes
• MIB support	Yes
• TRAPs via email	Yes
• Configuration with STEP 7	Yes
• Port mirroring	Yes
• multiport mirroring	No
• 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	No
• DCP	Yes
• LLDP	Yes
• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	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

### Product functions / DHCP

Product function	
• DHCP client	Yes

## Product functions / Redundancy

Product function	
<ul style="list-style-type: none"> <li>• Ring redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• High Speed Redundancy Protocol (HRP)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• high speed redundancy protocol (HRP) with redundancy manager</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• high speed redundancy protocol (HRP) with standby redundancy</li> </ul>	No
Protocol / is supported / Media Redundancy Protocol (MRP)	Yes
Product function	
<ul style="list-style-type: none"> <li>• media redundancy protocol (MRP) with redundancy manager</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

## Product functions / Security

Protocol / is supported	
<ul style="list-style-type: none"> <li>• SSH</li> </ul>	Yes

## Product functions / Time

Product function	
<ul style="list-style-type: none"> <li>• SICLOCK support</li> </ul>	Yes
Protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	No
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes

## Standards, specifications, approvals

Standard	
<ul style="list-style-type: none"> <li>• for FM</li> </ul>	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, CL.1, Zone 2, GP. 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
<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. 213-M1987, CL. 1 / Div. 2 / GP. A, B, C, D T4, CL. 1 / Zone 2 / GP. IIC, T4
<ul style="list-style-type: none"> <li>• for emitted interference</li> </ul>	EN 61000-6-4:2001 (Class A)
<ul style="list-style-type: none"> <li>• for interference immunity</li> </ul>	EN 61000-6-2:2001
Certificate of suitability / CE marking	Yes
Certificate of suitability	EN 61000-6-2:2001, EN 61000-6-4:2001
<ul style="list-style-type: none"> <li>• C-Tick</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• Railway application in accordance with EN 50155</li> </ul>	No
<ul style="list-style-type: none"> <li>• Railway application in accordance with EN 50124-1</li> </ul>	No
<ul style="list-style-type: none"> <li>• KC approval</li> </ul>	Yes
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Bureau Veritas (BV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Det Norske Veritas (DNV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Germanische Lloyd (GL)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Polski Rejestr Statkow (PRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>	Yes
MTBF / at 40 °C	51.18 y

### Further Information / Internet Links

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

### Security information

Security information	<p>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 <a href="http://www.siemens.com/industrialsecurity">http://www.siemens.com/industrialsecurity</a>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <a href="http://support.automation.siemens.com">http://support.automation.siemens.com</a>. (V3.4)</p>
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