



SCALANCE X212-2, managed IE switch, 12x 10/100 Mbit/s RJ45 ports, 2x 100 Mbit/s multimode BFOC, LED diagnostics, error-signaling contact with set pushbutton, redundant power supply, PROFINET IO device, network management, redundancy manager integrated, incl. electron. manual on CD-ROM, C-PLUG optional.

<b>product type designation</b>	<b>SCALANCE X212-2</b>
<b>transfer rate</b>	
transfer rate	10 Mbit/s, 100 Mbit/s
<b>interfaces / for communication / integrated</b>	
number of electrical connections	12
<ul style="list-style-type: none"> <li>for network components or terminal equipment</li> </ul>	
number of 10/100 Mbit/s RJ45 ports / integrated	12
<ul style="list-style-type: none"> <li>with securing collar</li> </ul>	
number of 100 Mbit/s ST(BFOC) ports	2
<ul style="list-style-type: none"> <li>for multimode</li> </ul>	
<b>interfaces / other</b>	
number of electrical connections	1
<ul style="list-style-type: none"> <li>for signaling contact</li> </ul>	
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	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	Yes
<ul style="list-style-type: none"> <li>C-PLUG</li> </ul>	
<b>signal inputs/outputs</b>	
operating voltage / of the signaling contacts	24 V
<ul style="list-style-type: none"> <li>at DC / rated value</li> </ul>	
operational current / of the signaling contacts	0.1 A
<ul style="list-style-type: none"> <li>at DC / maximum</li> </ul>	
<b>supply voltage, current consumption, power loss</b>	
product component / connection for redundant voltage supply	Yes
<b>type of voltage / 1 / of the supply voltage</b>	DC
<ul style="list-style-type: none"> <li>supply voltage / 1 / rated value</li> </ul>	24 V
<ul style="list-style-type: none"> <li>power loss [W] / 1 / rated value</li> </ul>	7.92 W
<ul style="list-style-type: none"> <li>supply voltage / 1 / rated value</li> </ul>	18 ... 32 V
<ul style="list-style-type: none"> <li>consumed current / 1 / maximum</li> </ul>	0.33 A
<ul style="list-style-type: none"> <li>type of electrical connection / 1 / for power supply</li> </ul>	4-pole terminal block
<ul style="list-style-type: none"> <li>product component / 1 / fusing at power supply input</li> </ul>	Yes
<ul style="list-style-type: none"> <li>fuse protection type / 1 / at input for supply voltage</li> </ul>	1.1 A / 33 V
<b>ambient conditions</b>	
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
<b>design, dimensions and weights</b>	
design	compact
width	120 mm
height	125 mm
depth	124 mm
net weight	1.2 kg
fastening method	
<ul style="list-style-type: none"> <li>• 35 mm top hat 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
<b>product features, product functions, product components / general</b>	
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)
<b>product functions / management, configuration, engineering</b>	
product function	
<ul style="list-style-type: none"> <li>• CLI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• web-based management</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MIB support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TRAPs via email</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• configuration with STEP 7</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• port mirroring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• multipoint mirroring</li> </ul>	No
<ul style="list-style-type: none"> <li>• with IRT / PROFINET IO switch</li> </ul>	No
<ul style="list-style-type: none"> <li>• PROFINET IO diagnosis</li> </ul>	Yes
PROFINET conformity class	B
product function / switch-managed protocol / is supported	Yes
<ul style="list-style-type: none"> <li>• Telnet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTTPS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• FTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• BOOTP</li> </ul>	No
<ul style="list-style-type: none"> <li>• DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• LLDP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	Yes
identification & maintenance function	
<ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M1 – higher level designation/location designation</li> </ul>	Yes
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>• port diagnostics</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• statistics Packet Size</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• statistics packet type</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• error statistics</li> </ul>	Yes
<b>product functions / DHCP</b>	
product function	
<ul style="list-style-type: none"> <li>• DHCP client</li> </ul>	Yes
<b>product functions / redundancy</b>	
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
<b>product functions / security</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>SSH</li> </ul>	Yes
<b>product functions / time</b>	
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
<b>standards, specifications, approvals</b>	
standard	
<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
MTBF	51.18 y
reference code	
<ul style="list-style-type: none"> <li>according to IEC 81346-2</li> </ul>	KF
<ul style="list-style-type: none"> <li>according to IEC 81346-2:2019</li> </ul>	KFE
<b>standards, specifications, approvals / CE</b>	
certificate of suitability / CE marking	Yes
<b>standards, specifications, approvals / hazardous environments</b>	
standard / for hazardous zone	EN 60079-0: 2006, EN60079-15: 2005, II 3 (2) G Ex nA [op is] IIC T4, KEMA 07 ATEX 0145 X
certificate of suitability	
<ul style="list-style-type: none"> <li>CCC / for hazardous zone according to GB standard</li> </ul>	Yes
<b>standards, specifications, approvals / other</b>	
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>KC approval</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
<b>standards, specifications, approvals / marine classification</b>	
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>French marine classification society (BV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Det Norske Veritas (DNV)</li> </ul>	No
<ul style="list-style-type: none"> <li>Germanische Lloyd (GL)</li> </ul>	No
<ul style="list-style-type: none"> <li>DNV GL</li> </ul>	Yes
<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
<b>further information / internet-Links</b>	
Internet-Link	
<ul style="list-style-type: none"> <li>to web page: selection aid TIA Selection Tool</li> </ul>	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</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>
<b>security information</b>	
security information	Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions.

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