

### Product type designation

### SCALANCE XR324-12M

SCALANCE XR324-12M MANAGED MANAGED IE SWITCH, 19" RACK; POWER SUPPLY 230V AC; PORTS BACK SIDE; 12 X 100/1000MBIT/S F. 2-PORT- MEDIA MODULES, ELEKTRICAL ORDER OPTICAL; 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 THE SCOPE OF SUPPLY



### Transmission rate

|               |                                    |
|---------------|------------------------------------|
| Transfer rate | 10 Mbit/s, 100 Mbit/s, 1000 Mbit/s |
|---------------|------------------------------------|

### Interfaces / for communication / integrated

#### Number of 100 Mbit/s ST(BFOC) ports

|                 |    |
|-----------------|----|
| • for multimode | 24 |
|-----------------|----|

#### Number of 100 Mbit/s SC ports

|                 |    |
|-----------------|----|
| • for multimode | 24 |
|-----------------|----|

#### Number of 1000 Mbit/s LC ports

|                        |    |
|------------------------|----|
| • for multimode        | 24 |
| • for single mode (LD) | 24 |

### Interfaces / others

#### Number of electrical connections

|                                |    |
|--------------------------------|----|
| • for operator console         | 1  |
| • for signaling contact        | 1  |
| • for media module             | 12 |
| • for power supply             | 1  |
| • for redundant voltage supply | 0  |

|                                                                                                                                       |                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Type of electrical connection                                                                                                         |                                                             |
| <ul style="list-style-type: none"> <li>• for operator console</li> <li>• for signaling contact</li> <li>• for power supply</li> </ul> | RJ11 port<br>2-pole terminal block<br>2-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                             | No                    |
| Type of voltage / of the supply voltage                                          | AC                    |
| Supply voltage                                                                   |                       |
| <ul style="list-style-type: none"> <li>• external</li> <li>• external</li> </ul> | 230 V<br>85 ... 264 V |
| Product component / fusing at power supply input                                 | Yes                   |
| Fuse protection type / at input for supply voltage                               | 3.15 A / 250 V        |
| Consumed current / maximum                                                       | 0.8 A                 |
| Power loss [W]                                                                   |                       |
| <ul style="list-style-type: none"> <li>• at AC / at 230 V</li> </ul>             | 50 W                  |

#### Permitted ambient conditions

|                                                                                                                                            |                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature                                                                                                                        |                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• Note</li> </ul> | -40 ... +70 °C<br>-40 ... +85 °C<br>-40 ... +85 °C<br>Reduced operating temperature through the use of media modules (-40 °C to +70 °C) or SFP plug-in transceivers (-40 °C to +60 °C). If the device is installed in the vertical position, the maximum operating temperature is reduced to +50 °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, dimensions and weight

|                                                              |          |
|--------------------------------------------------------------|----------|
| 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                          | 5.9 kg                                                                               |
| Product feature / conformal coating | Yes                                                                                  |
| Mounting type                       | When used in shipbuilding, the device must be secured in the 19" rack at four points |
| • 19-inch installation              | Yes                                                                                  |
| • 35 mm DIN rail mounting           | No                                                                                   |
| • wall mounting                     | No                                                                                   |
| • S7-300 rail mounting              | No                                                                                   |
| • S7-1500 rail mounting             | No                                                                                   |

#### Product properties, functions, components / general

|                                                                                     |                                                 |
|-------------------------------------------------------------------------------------|-------------------------------------------------|
| Cascading in the case of a redundant ring / at reconfiguration time of $\leq 0.3$ s | 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 |
| • RMON                                                 | Yes |
| • Port mirroring                                       | Yes |
| • multiport mirroring                                  | Yes |
| • CoS                                                  | Yes |
| • 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 |
| • 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            | No                                   |
| • for emitted interference                        | EN 61000-6-4:2007 (Class A)          |
| • for interference immunity                       | EN 61000-6-2:2005                    |
| Certificate of suitability / CE marking           | Yes                                  |
| Certificate of suitability                        | EN 61000-6-2:2005, EN 61000-6-4:2007 |
| • C-Tick                                          | Yes                                  |
| • Railway application in accordance with EN 50155 | No                                   |

|                                                 |      |
|-------------------------------------------------|------|
| • KC approval                                   | 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                                 | 15 y |

#### Further Information / Internet Links

|                                                   |                                                                                                     |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Internet-Link                                     |                                                                                                     |
| • to website: Selector SIMATIC NET SELECTION TOOL | <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>                               |
| • to website: Industrial communication            | <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>                 |
| • to website: Industry Mall                       | <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>                   |
| • to website: Information and Download Center     | <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> |
| • to website: Image database                      | <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>             |
| • to website: CAx Download Manager                | <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>                                 |
| • to website: Industry Online Support             | <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>             |

#### Security information

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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