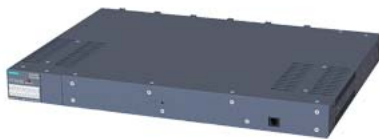


SCALANCE XR324-12M; managed IE switch, 19" rack; 12x 100/1000 Mbit/s 2-port media modules, electrical or optical; LED diagnostics; error signaling Contact; Select/set pushbutton, PROFINET IO device, network management, Integrated redundancy manager, office features (RSTP, VLAN, IGMP,...) C-PLUG in scope of supply; Power supply 24 V DC; Ports at the back.



| product type designation                                    |                                                                                                     |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| product brand name                                          | SCALANCE                                                                                            |
| product type designation                                    | XR324-12M                                                                                           |
| Technical Product Detail Page                               | <a href="https://i.siemens.com/1P6GK5324-0GG10-1HR2">https://i.siemens.com/1P6GK5324-0GG10-1HR2</a> |
| transfer rate                                               |                                                                                                     |
| transfer rate                                               | 10, 100, 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                                                                                                  |
| interfaces / other                                          |                                                                                                     |
| number of electrical connections                            |                                                                                                     |
| • for operator console                                      | 1                                                                                                   |
| • for signaling contact                                     | 1                                                                                                   |
| • for media module                                          | 12                                                                                                  |
| • for power supply                                          | 1                                                                                                   |
| type of electrical connection                               |                                                                                                     |
| • for operator console                                      | RJ11                                                                                                |
| • for signaling contact                                     | 2-pole terminal block                                                                               |
| • for power supply                                          | 4-pole terminal block                                                                               |
| design of the removable storage                             |                                                                                                     |
| • C-PLUG                                                    | Yes                                                                                                 |
| operating voltage / of the signaling contacts               |                                                                                                     |
| • at DC / rated value                                       | 24 V                                                                                                |
| operational current / of the signaling contacts             |                                                                                                     |
| • at DC / maximum                                           | 0.1 A                                                                                               |
| supply voltage, current consumption, power loss             |                                                                                                     |
| product component / connection for redundant voltage supply | Yes                                                                                                 |
| type of voltage supply / redundant power supply unit        | No                                                                                                  |
| type of voltage / 1 / of the supply voltage                 | DC                                                                                                  |
| • supply voltage / 1 / rated value                          | 24 V                                                                                                |
| • power loss [W] / 1 / rated value                          | 44 W                                                                                                |
| • supply voltage / 1 / voltage range                        | 19.2 ... 28.8                                                                                       |
| • consumed current / 1 / maximum                            | 1.8 A                                                                                               |
| • type of electrical connection / 1 / for power supply      | 4-pole terminal block                                                                               |
| • product component / 1 / fusing at power supply input      | Yes                                                                                                 |
| • fuse protection type / 1 / at input for supply voltage    | F 5 A / 125 V                                                                                       |
| 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                                                                                                                                                                                                                                                                                                 |
| <b>design, dimensions and weights</b>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                      |
| design                                                                                                                                                                                                                                                                                                      | 19-inch rack                                                                                                                                                                                                                                                                                         |
| number of modular height units / relating to 19-inch cabinet                                                                                                                                                                                                                                                | 1                                                                                                                                                                                                                                                                                                    |
| width                                                                                                                                                                                                                                                                                                       | 483 mm                                                                                                                                                                                                                                                                                               |
| height                                                                                                                                                                                                                                                                                                      | 44 mm                                                                                                                                                                                                                                                                                                |
| depth                                                                                                                                                                                                                                                                                                       | 305 mm                                                                                                                                                                                                                                                                                               |
| net weight                                                                                                                                                                                                                                                                                                  | 5.5 kg                                                                                                                                                                                                                                                                                               |
| product feature / conformal coating                                                                                                                                                                                                                                                                         | No                                                                                                                                                                                                                                                                                                   |
| fastening method                                                                                                                                                                                                                                                                                            | 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>                                                                                                                 | Yes<br>No<br>No<br>No<br>No                                                                                                                                                                                                                                                                          |
| <b>product features, product functions, product components / general</b>                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                      |
| cascading in the case of a redundant ring / at reconfiguration time of <1~0.3~s                                                                                                                                                                                                                             | 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> <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> <li>switch-managed</li> </ul> | Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes                                                                                                                                                                                                                            |
| PROFINET conformity class                                                                                                                                                                                                                                                                                   | B                                                                                                                                                                                                                                                                                                    |
| 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> <li>SNMP v1</li> <li>SNMP v2</li> <li>SNMP v3</li> <li>IGMP (snooping/querier)</li> </ul>                                                | Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes                                                                                                                                                                                                       |
| identification & maintenance function                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                      |

|                                                                     |     |
|---------------------------------------------------------------------|-----|
| • I&M0 - device-specific information                                | Yes |
| • I&M1 - higher level designation/location designation              | Yes |
| <b>product functions / diagnostics</b>                              |     |
| product function                                                    |     |
| • port diagnostics                                                  | Yes |
| • statistics Packet Size                                            | Yes |
| • statistics packet type                                            | Yes |
| • error statistics                                                  | Yes |
| • SysLog                                                            | Yes |
| <b>product functions / VLAN</b>                                     |     |
| 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 |
| <b>product functions / DHCP</b>                                     |     |
| product function                                                    |     |
| • DHCP client                                                       | Yes |
| • DHCP Option 82                                                    | Yes |
| • DHCP Option 66                                                    | Yes |
| • DHCP Option 67                                                    | Yes |
| <b>product functions / redundancy</b>                               |     |
| protocol / is supported / Media Redundancy Protocol (MRP)           | Yes |
| product function                                                    |     |
| • media redundancy protocol (MRP) with redundancy manager           | Yes |
| • ring redundancy                                                   | Yes |
| • high speed redundancy protocol (HRP) with redundancy manager      | Yes |
| • high speed redundancy protocol (HRP) with standby redundancy      | 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                                                              | Yes |
| • RSTP big network support                                          | Yes |
| • LACP                                                              | Yes |
| <b>product functions / security</b>                                 |     |
| product function                                                    |     |
| • IEEE 802.1x (radius)                                              | Yes |
| • broadcast/multicast/unicast limiter                               | Yes |
| • broadcast blocking                                                | Yes |
| protocol / is supported                                             |     |
| • SSH                                                               | Yes |
| <b>product functions / time</b>                                     |     |
| product function                                                    |     |
| • SICLOCK support                                                   | Yes |
| protocol / is supported                                             |     |
| • NTP                                                               | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>standards, specifications, approvals</b>                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| certificate of suitability                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• CE marking</li> </ul>                                            | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• UKCA marking</li> </ul>                                          | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• KC approval</li> </ul>                                           | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• Regulatory Compliance Mark (RCM)</li> </ul>                      | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| standard                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• for EMC interference emission</li> </ul>                         | EN 61000-6-4:2007 (Class A)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for immunity to EMC</li> </ul>                                   | EN 61000-6-2:2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>standards, specifications, approvals / hazardous environments</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| certificate of suitability                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• ATEX</li> </ul>                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• UKEX</li> </ul>                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• IECEx</li> </ul>                                                 | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• ULhazloc approval</li> </ul>                                     | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• CCC / for hazardous zone according to GB standard</li> </ul>     | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• FM registration</li> </ul>                                       | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>standards, specifications, approvals / other</b>                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| certificate of suitability                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• railway application in accordance with EN 50155</li> </ul>       | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>                                       | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| resistance to air pollution / conformity according to ANSI/ISA-71.04                                      | Yes; G3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>standards, specifications, approvals / marine classification</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| certificate of suitability / shipbuilding approval / note                                                 | Certifications marked 'No' are currently under renewal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Marine classification association                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• Det Norske Veritas (DNV)</li> </ul>                              | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>          | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>standards, specifications, approvals / Environmental Product Declaration</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Environmental Product Declaration                                                                         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| global warming potential [CO2 eq]                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• total</li> </ul>                                                 | 1353.36999 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• during manufacturing</li> </ul>                                  | 132 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>                                      | 1220.78 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>• after end of life</li> </ul>                                     | 0.59 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>product functions / general</b>                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| MTBF                                                                                                      | 25 a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| warranty period                                                                                           | 5 a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>further information / internet links</b>                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| internet link                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> </ul> | <a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>         | <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>                  | <a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• to web page: SiePortal</li> </ul>                                | <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>                            | <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• to website: CAX-Download-Manager</li> </ul>                      | <a href="https://www.siemens.com/cax">https://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 cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement - and continuously maintain - a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial |

cybersecurity measures that may be implemented, please visit [www.siemens.com/cybersecurity-industry](https://www.siemens.com/cybersecurity-industry). Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

Approvals / Certificates

| Environmental Product Declaration                                                                                                                                                                                                                                                          |                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>global warming potential [CO2 eq] / during manufacturing</li> <li>global warming potential [CO2 eq] / during operation</li> <li>global warming potential [CO2 eq] / after end of life</li> <li>global warming potential [CO2 eq] / total</li> </ul> | <div>132 kg</div> <div>1220.78 kg</div> <div>0.59 kg</div> <div>1353.37 kg</div> |
| Environment                                                                                                                                                                                                                                                                                | General Product Approval                                                         |



[Declaration of Con-  
formity](#)



| General Product Approval | EMV | For use in hazardous locations |  |  |  |
|--------------------------|-----|--------------------------------|--|--|--|
|--------------------------|-----|--------------------------------|--|--|--|

[China RoHS](#)



[FM](#)

| For use in hazard-<br>ous locations | Test Certificates | Maritime application |  |  |  |
|-------------------------------------|-------------------|----------------------|--|--|--|
|-------------------------------------|-------------------|----------------------|--|--|--|

[CCC-Ex](#)

[Type Test Certific-  
ates/Test Report](#)



Maritime application

[NK / Nippon Kaiji Ky-  
okai](#)



last modified:

4/23/2026