

## MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

Amikon cover with selected official Siemens pages

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A thick green vertical bar on the left side of the document package.**SCALANCE X ACCESSORIES****6GK5992-1AM00-8AA0**

SFP992-1LD OPTICAL TRANSCEIVER

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**OFFICIAL SOURCES**

Siemens official product documentation for 6GK5992-1AM00-8AA0. Selected pages retain their original content, color and aspect ratio.

product type designation



SFP992-1LD

SCALANCE X accessory; Plug-in transceiver SFP992-1LD; 1x 1000 Mbit/s LC port, optical; single-mode optical up to max. 10 km.

|                                                                                                                                                                                                                          |                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                                                                                                                                                                                       | SCALANCE                                                                                                                                  |
| Technical Product Detail Page                                                                                                                                                                                            | <a href="https://l.siemens.com/1P6GK5992-1AM00-8AA0">https://l.siemens.com/1P6GK5992-1AM00-8AA0</a>                                       |
| interfaces                                                                                                                                                                                                               |                                                                                                                                           |
| number of electrical/optical connections / for network components or terminal equipment / maximum                                                                                                                        | 1                                                                                                                                         |
| number of optical interfaces / for network components or terminal equipment / maximum                                                                                                                                    | 1                                                                                                                                         |
| number of 1000 Mbit/s LC ports / for single mode (LD) / integrated                                                                                                                                                       | 1                                                                                                                                         |
| design of the optical interface / for network components or terminal equipment                                                                                                                                           | LC                                                                                                                                        |
| wavelength / of the optical interface                                                                                                                                                                                    | 1310 nm; Single-mode                                                                                                                      |
| connectable optical power relative to 1 mW <ul style="list-style-type: none"><li>• of the transmitter output / minimum</li><li>• of the transmitter output / maximum</li><li>• of the receiver input / maximum</li></ul> | -9.5 dB<br>-3 dB<br>-3 dB                                                                                                                 |
| optical sensitivity relating to 1 mW / of the receiver input / minimum                                                                                                                                                   | -19 dB                                                                                                                                    |
| attenuation factor / of the FOC transmission link / minimum necessary                                                                                                                                                    | 0 dB                                                                                                                                      |
| range / at the optical interface / depending on the optical fiber used                                                                                                                                                   | 0 ... 10 km                                                                                                                               |
| transmission method / for connection type 1                                                                                                                                                                              | 1000BASE-LX                                                                                                                               |
| 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 ... +85 °C<br>-40 ... +85 °C<br>-40 ... +85 °C<br>A maximum operating temperature of +85 °C is permissible for a duration of 16 hours |
| relative humidity / at 25 °C / without condensation / during operation / maximum                                                                                                                                         | 95 %                                                                                                                                      |
| protection class IP                                                                                                                                                                                                      | IP20                                                                                                                                      |
| design, dimensions and weights                                                                                                                                                                                           |                                                                                                                                           |
| design                                                                                                                                                                                                                   | SFP Module                                                                                                                                |
| width                                                                                                                                                                                                                    | 14 mm                                                                                                                                     |
| height                                                                                                                                                                                                                   | 9 mm                                                                                                                                      |
| depth                                                                                                                                                                                                                    | 57 mm                                                                                                                                     |
| net weight                                                                                                                                                                                                               | 0.02 kg                                                                                                                                   |
| fastening method                                                                                                                                                                                                         | latched                                                                                                                                   |

## standards, specifications, approvals

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| standard                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• for FM</li> <li>• for hazardous zone</li> <li>• for safety / from CSA and UL</li> <li>• for emitted interference</li> <li>• for interference immunity</li> </ul>                                      | <p>FM3611: Class 1, Division 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4</p> <p>EN 60079-0: 2006, EN60079-15: 2005, II 3 G Ex nA II T4, KEMA 07 ATEX 0145 X</p> <p>UL 62368-1 and CAN/CSA C22.2 No. 62368-1:19</p> <p>EN 61000-6-4:2007 (Class A)</p> <p>EN 61000-6-2:2005</p> |
| certificate of suitability                                                                                                                                                                                                                     | EN 61000-6-2:2005, EN 61000-6-4:2007                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• CE marking</li> <li>• C-Tick</li> <li>• KC approval</li> <li>• CCC / for hazardous zone according to GB standard</li> <li>• CCC / for hazardous zone according to GB standard / as marking</li> </ul> | <p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes; GB3836.1, GB3836.8</p> <p>Ex nA IIC T4 Gc</p>                                                                                                                                                                                                       |
| Marine classification association                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>                                                                                                                                                  | Yes                                                                                                                                                                                                                                                                                         |
| MTBF                                                                                                                                                                                                                                           | 600 a                                                                                                                                                                                                                                                                                       |

## standards, specifications, approvals / Environmental Product Declaration

|                                                                                                                                                    |                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Environmental Product Declaration                                                                                                                  | Yes                                                         |
| global warming potential [CO2 eq]                                                                                                                  |                                                             |
| <ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul> | <p>12.91 kg</p> <p>1.7 kg</p> <p>11.2 kg</p> <p>0.01 kg</p> |

## further information / internet links

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| internet link                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAX-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul> | <p><a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a></p> <p><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a></p> <p><a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a></p> <p><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a></p> <p><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a></p> <p><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a></p> <p><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></p> |

## security information

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| security information | <p>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 <a href="https://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a>. 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a>. (V4.7)</p> |
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## Approvals / Certificates

### General Product Approval

[Declaration of Conformity](#)



[China RoHS](#)

General Product Approval

For use in hazardous locations

[Manufacturer Declaration](#)



[China RoHS](#)



For use in hazardous locations

Maritime application

[FM](#)

[CCC-Ex](#)



Maritime application

Environment

[NK / Nippon Kaiji Kyokai](#)



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