SIEMENS

## Data sheet 6GK5991-1AD00-8AA0

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| **product type designation** | **SFP991-1** |
| | SCALANCE X accessory; Plug-in transceiver SFP991-1; 1x 100 Mbit/s LC port, optical; multimode optical up to max. 5 km. |



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| Technical Product Detail Page | https://i.siemens.com/1P6GK5991-1AD00-8AA0 |
| **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 100 Mbit/s LC ports | 1 |
| design of the optical interface / for network components or terminal equipment | LC |
| wavelength / of the optical interface | 1300 nm; Multi-mode |
| connectable optical power relative to 1 mW | |
| ● of the transmitter output / minimum | -24 dB |
| ● of the transmitter output / maximum | -14 dB |
| ● of the receiver input / maximum | -12 dB |
| optical sensitivity relating to 1 mW / of the receiver input / minimum | -31 dB |
| attenuation factor / of the FOC transmission link / minimum necessary | 0 dB |
| range / at the optical interface / depending on the optical fiber used | 0 ... 5 km |
| transmission method / for connection type 1 | 100BASE-FX |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | -40 ... +85 °C |
| ● during storage | -40 ... +85 °C |
| ● during transport | -40 ... +85 °C |
| ● note | 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 | 0.01 kg |
| fastening method | latched |
| **standards, specifications, approvals** | |
| standard | |


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| ● for FM | FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4 |
| ● for hazardous zone | EN 60079-0: 2006, EN60079-15: 2005, II 3 G Ex nA II T4, KEMA 07 ATEX 0145 X |
| ● for safety / from CSA and UL | UL 62368-1 and CAN/CSA C22.2 No. 62368-1:19 |
| ● for emitted interference | EN 61000-6-4:2007 (Class A) |
| ● for interference immunity | EN 61000-6-2:2005 |
| certificate of suitability | EN 61000-6-2:2005, EN 61000-6-4:2007 |
| ● CE marking | Yes |
| ● C-Tick | Yes |
| ● KC approval | No |
| ● CCC / for hazardous zone according to GB standard | Yes; GB3836.1, GB3836.8 |
| ● CCC / for hazardous zone according to GB standard / as marking | Ex nA IIC T4 Gc |
| Marine classification association | |
| ● French marine classification society (BV) | Yes |
| MTBF | 490 a |
| product function / is supported / identification link | Yes; acc. to IEC 61406-1:2022 |

**standards, specifications, approvals / Environmental Product Declaration**

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|---|---|
| Environmental Product Declaration | Yes |
| global warming potential [CO2 eq] | |
| ● total | 11.56 kg |
| ● during manufacturing | 1.7 kg |
| ● during operation | 9.85 kg |
| ● after end of life | 0.01 kg |

**further information / internet links**

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|---|---|
| internet link | |
| ● to website: Selection guide for cables and connectors | https://support.industry.siemens.com/cs/ww/en/view/109766358 |
| ● to web page: selection aid TIA Selection Tool | https://www.siemens.com/tstcloud |
| ● to website: Industrial communication | https://www.siemens.com/simatic-net |
| ● to web page: SiePortal | https://sieportal.siemens.com/ |
| ● to website: Image database | https://www.automation.siemens.com/bilddb |
| ● to website: CAx-Download-Manager | https://www.siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |

**security information**

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| 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. 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**

**General Product Approval**

Declaration of Conformity | CE EG-Konf. | CCC | EAC | UKCA | China RoHS

| General Product Approval | For use in hazardous locations | Maritime application |
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RCM IECEx ATEX FM CCC-Ex ABS

| Maritime application | | | | | |
|---|---|---|---|---|---|
| BUREAU VERITAS | DNV | LRS | NK / Nippon Kaiji Kyokai | PRS | RINA |

| other | Environment |
|---|---|
| Miscellaneous | EPD |

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