

### product type designation

**SFP991-1LH+**

SCALANCE X accessory, Plug-in transceiver SFP991-1SFP991-1LH+ 1x 100 Mbit/s LC port, optical; single-mode optical up to max. 70 km.



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	1550 nm; Single-mode
connectable optical power relative to 1 mW	
• of the transmitter output / minimum	-5 dB
• of the transmitter output / maximum	0 dB
• of the receiver input / maximum	-10 dB
optical sensitivity relating to 1 mW / of the receiver input / minimum	-34 dB
attenuation factor / of the FOC transmission link / minimum necessary	3 dB
range / at the optical interface / depending on the optical fiber used	12 ... 70 km
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	
• for FM	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4

<ul style="list-style-type: none"> <li>• for hazardous zone</li> </ul>	EN 60079-0: 2006, EN60079-15: 2005, II 3 G Ex nA II T4, KEMA 07 ATEX 0145 X
<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
<ul style="list-style-type: none"> <li>• for emitted interference</li> </ul>	EN 61000-6-4:2007 (Class A)
<ul style="list-style-type: none"> <li>• for interference immunity</li> </ul>	EN 61000-6-2:2005
certificate of suitability	EN 61000-6-2:2005, EN 61000-6-4:2007
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• C-Tick</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• KC approval</li> </ul>	No
<ul style="list-style-type: none"> <li>• CCC / for hazardous zone according to GB standard</li> </ul>	Yes
Marine classification association	
<ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>	Yes
MTBF	420 y

#### further information / internet-Links

##### Internet-Link

- to web page: selection aid TIA Selection Tool
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAX-Download-Manager
- to website: Industry Online Support

<http://www.siemens.com/tia-selection-tool>  
<http://www.siemens.com/simatic-net>  
<https://mall.industry.siemens.com>  
<http://www.siemens.com/industry/infocenter>  
<http://automation.siemens.com/bilddb>  
<http://www.siemens.com/cax>  
<https://support.industry.siemens.com>

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