

**product type designation**

product description

**Indoor fiber optic indoor cable**

Glass fiber-optic cable, preferred length, preassembled

Indoor Fiber Optic (62.5/125), halogen-free, non-crush and flame-retardant fiber-optic internal cable pre-assembled with 4 BFOC connectors, length 50 m.



product brand name

SIMATIC NET

Technical Product Detail Page

<https://l.siemens.com/1P6XV1820-7BN50>

suitability for use

Non-crush, halogen-free and flame-retardant cable for indoor installation

version of the assembled FO cable

Assembled with four BFOC connectors

cable designation

I-V(ZN)HH 2x1 G 62,5/125 OM1

wire length

50 m

**optical data**

attenuation factor per length

- at 850 nm / maximum
- at 1300 nm / maximum

3 dB/km

0.8 dB/km

bandwidth length product

- at 850 nm
- at 1300 nm

300 GHz·m

800 GHz·m

**mechanical data**

number of fibers / per FOC core

1

number of FO cores / per FOC cable

2

version of the FO conductor fiber

Multimode graded-index fiber 62.5/125 µm, OM 1

design of the FOC core

Solid core, diameter 900 µm

design of the fiber-optic cable

Segmentable inner conductor

outer diameter

- of the optical fibers
- of the optical fiber sheath
- of the FOC core sheath

62.5 µm

125 µm

2.9 mm

symmetrical deviation / of the outer diameter of the FOC core sheath

0.1 mm

width / of cable sheath

6.8 mm

thickness / of cable sheath

3.9 mm

material

- of the fiber-optic cable core
- of the optical fiber sheath
- of the FOC core sheath
- of the fiber-optic cable sheath
- of the strain relief

Quartz glass

Quartz glass

FRNC

FRNC

Aramid fibers

color

- of the FOC core sheath
- of cable sheath

gray

orange

bending radius

<ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> </ul>	30 mm
<ul style="list-style-type: none"> <li>• with multiple bends / minimum permissible</li> </ul>	50 mm
tensile load	
<ul style="list-style-type: none"> <li>• during installation / short-term</li> </ul>	800 N
<ul style="list-style-type: none"> <li>• during operation / maximum</li> </ul>	200 N
short-term shear force per length	300 N/cm
continuous shear force per length	100 N/cm
weight per length	30 kg/km
<b>ambient conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-20 ... +60 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-25 ... +70 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-25 ... +70 °C
<ul style="list-style-type: none"> <li>• during installation</li> </ul>	-5 ... +50 °C
fire behavior	flame-resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)
chemical resistance	
<ul style="list-style-type: none"> <li>• to mineral oil</li> </ul>	acc. to IEC 60811-404 with test oil IRM 902 (acc. to ISO 1817), +70 °C, 4 h and +25 °C, 168 h
<ul style="list-style-type: none"> <li>• to grease</li> </ul>	not resistant
radiological resistance / to UV radiation	not resistant
protection class IP	IP20
<b>product features, product functions, product components / general</b>	
product feature	
<ul style="list-style-type: none"> <li>• halogen-free</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• silicon-free</li> </ul>	Yes
product component / rodent protection	No
wire length	
<ul style="list-style-type: none"> <li>• for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum</li> </ul>	4000 m
<ul style="list-style-type: none"> <li>• for glass FOC / for 1000BaseSX / for Industrial Ethernet / maximum</li> </ul>	500 m
<ul style="list-style-type: none"> <li>• for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum</li> </ul>	1000 m
<ul style="list-style-type: none"> <li>• for glass FOC / with PROFIBUS / maximum</li> </ul>	3000 m
<b>standards, specifications, approvals</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>	Yes
<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 / header</b>	
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Approvals / Certificates

General Product Approval



[Declaration of Conformity](#)



[Manufacturer Declaration](#)

[China RoHS](#)

General Product Approval

Maritime application

Industrial Communication



last modified:

3/10/2026