

**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 100 m.



product brand name

SIMATIC NET

Technical Product Detail Page

<https://l.siemens.com/1P6XV1820-7BT10>

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

100 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>	
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 <a href="http://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,

Approvals / Certificates

General Product Approval



[Declaration of Con-  
formity](#)



[Manufacturer Declara-  
tion](#)

[China RoHS](#)

General Product Approval

Maritime application

Industrial Communication



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