## SIEMENS

## Data sheet

## 6XV1820-5BT12

product type designation product description

## Fiber optic standard cable

Flexible glass fiber-optic cable, preferred length, preassembled

fiber optic cable (62.5/125), standard cable, splittable, pre-assembled with 4 BFOC connectors, length 120 m.



suitability for use	Cable for installation indoors and outdoors
version of the assembled FO cable	Assembled with four BFOC connectors
cable designation	AT-V(ZN)YY 2X1 G 62,5/125 OM1
wire length	120 m
optical data	
attenuation factor per length	
• at 850 nm / maximum	3 dB/km
• at 1300 nm / maximum	0.8 dB/km
bandwidth length product	
• at 850 nm	300 GHz·m
• at 1300 nm	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	Compact core, diameter 900 µm
design of the fiber-optic cable	Segmentable outer conductor
outer diameter	
<ul> <li>of the optical fibers</li> </ul>	62.5 μm
<ul> <li>of the optical fiber sheath</li> </ul>	125 µm
<ul> <li>of the FOC core sheath</li> </ul>	3.5 mm
width / of cable sheath	9.8 mm
thickness / of cable sheath	6.3 mm
material	
<ul> <li>of the fiber-optic cable core</li> </ul>	Quartz glass
<ul> <li>of the optical fiber sheath</li> </ul>	Quartz glass
<ul> <li>of the FOC core sheath</li> </ul>	PVC
<ul> <li>of the fiber-optic cable sheath</li> </ul>	PVC
of the strain relief	Aramid fibers and glass roving
color	
<ul> <li>of the FOC core sheath</li> </ul>	gray
of cable sheath	Black
bending radius	
<ul> <li>with single bend / minimum permissible</li> </ul>	80 mm
<ul> <li>with multiple bends / minimum permissible</li> </ul>	80 mm
tensile load	
<ul> <li>during installation / short-term</li> </ul>	1500 N
<ul> <li>during operation / maximum</li> </ul>	1500 N

weight per length       70 kg/km         amblent conditions       amblent conditions         amblent conditions       -40 +85 °C         • during operation       -40 +85 °C         • during transport       -40 +85 °C         • during installation       -5 +50 °C         fire behavior       flame-resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)         chemical resistance       not resistant         • to grease       not resistant         radiological resistance / to UV radiation       resistant         product features, product functions, product components / general       IP20         product feature       No         • halogen-free       Yes         product for protection       No         wire length       • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum         • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum       500 m         • for glass FOC / with PROFIBUS / maximum       3000 m         • for glass FOC / with PROFIBUS / maximum       3000 m	
ambient conditions         ambient temperature         • during operation         • during strange         • during installation         • -5 +50 °C         • during installation         • -5 +50 °C         fire behavior         fire behavior         othemical resistance         • to mineral oil         • to grease         not resistant         radiological resistance / to UV radiation         protection class IP         product features         • halogen-free         • loing lass FOC / for 100BaseFX / for Industrial Ethernet / maximum         • for glass FOC / for 100BaseLX / for industrial Ethernet / maximum         • for glass FOC / for 100BaseLX / for industrial Ethernet / maximum         • for glass FOC / with PROFIBUS / maximum	
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• during operation       -40 +85 °C         • during storage       -40 +85 °C         • during transport       -40 +85 °C         • during installation       -5 +50 °C         fire behavior       flame-resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)         chemical resistance       not resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)         chemical resistance       not resistant         • to mineral oil       not resistant         radiological resistance / to UV radiation       resistant         protection class IP       IP20         product features, product functions, product components / general         product feature       No         • halogen-free       Yes         product component / rodent protection       No         wire length       • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum         • for glass FOC / for 1000BaseSX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       1000 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       3000 m	
<ul> <li>during transport</li> <li>-40 +85 °C</li> <li>during installation</li> <li>-5 +50 °C</li> <li>fire behavior</li> <li>flame-resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)</li> <li>chemical resistance</li> <li>to mineral oil</li> <li>not resistant</li> <li>to grease</li> <li>not resistant</li> <li>radiological resistance / to UV radiation</li> <li>resistant</li> <li>product features, product functions, product components / general</li> <li>product feature</li> <li>halogen-free</li> <li>vesilicon-free</li> <li>yes</li> <li>product component / rodent protection</li> <li>vire length</li> <li>of glass FOC / for 1000BaseFX / for Industrial Ethernet / maximum</li> <li>of glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum</li> <li>of glass FOC / with PROFIBUS / maximum</li> <li>for glass FOC / with PROFIBUS / maximum</li> <li>for glass FOC / with PROFIBUS / maximum</li> </ul>	
• during installation       -5 +50 °C         fire behavior       flame-resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)         chemical resistance       not resistant         • to mineral oil       not resistant         • to grease       not resistant         radiological resistance / to UV radiation       resistant         protection class IP       IP20         product features, product functions, product components / general         product feature       No         • halogen-free       No         • silicon-free       Yes         product component / rodent protection       No         wire length       • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum         • for glass FOC / for 100BaseSX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 100BaseLX / for Industrial Ethernet / maximum       3000 m	
fire behavior       flame-resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)         chemical resistance       not resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)         chemical resistance       not resistant         • to mineral oil       not resistant         • to grease       not resistant         radiological resistance / to UV radiation       resistant         protection class IP       IP20         product features, product functions, product components / general         product feature       No         • halogen-free       No         • silicon-free       Yes         product component / rodent protection       No         wire length       • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum         • for glass FOC / for 100DBaseSX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 100DBaseLX / for Industrial Ethernet / maximum       1000 m	
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product feature       No         • halogen-free       No         • silicon-free       Yes         product component / rodent protection       No         wire length       • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum         • for glass FOC / for 1000BaseSX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       3000 m	
• halogen-free       No         • silicon-free       Yes         product component / rodent protection       No         wire length       • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum         • for glass FOC / for 1000BaseSX / for Industrial Ethernet / maximum       4000 m         • for glass FOC / for 1000BaseSX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       3000 m	
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product component / rodent protection       No         wire length       • for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum       4000 m         • for glass FOC / for 1000BaseSX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       500 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       1000 m         • for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum       3000 m	
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for glass FOC / for 100BaseFX / for Industrial Ethernet / 4000 m     maximum     for glass FOC / for 1000BaseSX / for Industrial Ethernet / 500 m     maximum     for glass FOC / for 1000BaseLX / for Industrial Ethernet / 1000 m     for glass FOC / with PROFIBUS / maximum     for glass FOC / with PROFIBUS / maximum	
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maximum  • for glass FOC / with PROFIBUS / maximum  3000 m	
standards, specifications, approvals	
certificate of suitability	
RoHS conformity Yes	
reference code	
according to IEC 81346-2     WH	
according to IEC 81346-2:2019     WHA	
further information / internet links	
internet link	
to web page: selection aid TIA Selection Tool <u>http://www.siemens.com/tia-selection-tool</u>	
• to website: Industrial communication <u>http://www.siemens.com/simatic-net</u>	
to website: Industry Mall <u>https://mall.industry.siemens.com</u>	
• to website: Information and Download Center <u>http://www.siemens.com/industry/infocenter</u>	
• to website: Selection guide for cables and connectors <u>https://sie.ag/2QdlxcP</u>	
• to website: Image database <u>http://automation.siemens.com/bilddb</u>	
• to website: CAx-Download-Manager <u>http://www.siemens.com/cax</u>	
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