SIEMENS

Data sheet 6XV1820-5BH40

product type designation

product description

suitability for use

Fiber optic standard cable

Flexible glass fiber-optic cable, preferred length, preassembled

Cable for installation indoors and outdoors

Fiber-optic cable (62.5/125), standard cable, splittable, pre-assembled with 4 BFOC connectors, 4 m long



version of the assembled FO cable cable designation AT-V(ZN)YY 2X1 G 62,5/125 OM1 AT-V(ZN)YY 2X1		
wire length optical data attenuation factor per length • at \$50 nm / maximum • at \$300 nm / maximum • at \$50 nm • at \$50 nm • at \$50 nm • at \$1300 nm mechanical data number of fibers / per FOC core 1 number of fibers / per FOC cable version of the FOC core design of the FOC core • of the optical fibers • of the optical fiber sheath of the FOC core sheath width / of cable sheath material • of the fiber-optic cable core • of the optical fiber sheath of the fiber-optic cable core • of the optical fiber sheath of the fiber-optic cable core of the fiber-optic cable core of the fiber-optic cable sheath material • of the fiber-optic cable sheath A conditional of the fiber sheath of the fiber-optic cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with single bend / minimum permissible owth single bend / minimum permissible owth multiple bends / minimum permissible owth single bends / minimum permissible owth single bends / minimum permissible owth single bends / minimum permissible	version of the assembled FO cable	Assembled with four BFOC connectors
attenuation factor per length • at 850 nm / maximum • at 1300 nm / 600 GHz·m mechanical data number of fibers / per FOC core number of FO cores / per FOC cable version of the FO conductor fiber design of the FOC core design of the fiber-optic cable • of the optical fibers • of the optical fiber sheath • of the FOC core sheath • of the FOC core sheath • of the fiber-optic cable sore • of the fiber-optic cable sore • of the fiber-optic cable sheath for the fiber-optic cable sheath • of the FOC core sheath • of the fiber-optic cable sheath • of the strain relief color • of the fiber-optic she sheath • of the strain relief color • of the fiber-optic she sheath bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible • with multiple bends / minimum permissible • with single bend / minimum permissible • with single bends / minimum permissible • with multiple bends / minimum permissible • with multiple bends / minimum permissible	cable designation	AT-V(ZN)YY 2X1 G 62,5/125 OM1
attenuation factor per length at 850 nm / maximum at 1300 nm / maximum at 850 nm at 1300 nm / maximum at 850 nm at 1300 nm / maximum at 1400 nm / maximum at 150 nm / maximum at	wire length	4 m
• at 850 nm / maximum • at 1300 nm / maximum 0.8 dB/km bandwidth length product • at 850 nm • at 1300 nm 600 GHz·m mechanical data number of fibers / per FOC core 1 number of FOC cores / per FOC cable 2 version of the FOC core design of the FOC core classing of the FOC core design of the fiber-optic cable outer diameter • of the optical fibers • of the optical fibers • of the optical fiber sheath • of the FOC core sheath width / of cable sheath fiber-optic cable core • of the fiber-optic cable core • of the fiber-optic cable core • of the optical fiber sheath a s. 5 mm width / of cable sheath fiber-optic cable core • of the optical fiber sheath of the fiber-optic cable core • of the optical fiber sheath of the fiber-optic cable sheath pVC • of the optical fiber sheath of the fiber-optic cable sheath of the FOC core sheath of the FOC core sheath of the fiber-optic cable sheath of the strain relief color of the strain relief Aramid fibers and glass roving color of the FOC core sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible	optical data	
• at 1300 nm / maximum bandwidth length product • at 850 nm • at 1300 nm • at 1300 nm 600 GHz·m mechanical data number of fibers / per FOC core number of FO cores / per FOC cable version of the FO core for ecore design of the FOC core compact core, diameter 900 µm design of the fiber-optic cable outer diameter of the optical fibers of the optical fiber sheath of the FOC core sheath individual of cable sheath for thickness / of cable sheath of the fiber-optic cable core of the optical fiber sheath of the FOC core sheath and thickness / of cable sheath of the FOC core sheath of the fiber-optic cable core of the optical fiber sheath of the fiber-optic cable core of the FOC core sheath pVC of the FOC core sheath pVC of the FOC core sheath pVC of the FOC core sheath Black bending radius with multiple bends / minimum permissible of thensile load	attenuation factor per length	
bandwidth length product • at 850 nm • at 1300 nm mechanical data number of fibers / per FOC core number of FO cores / per FOC cable version of the FOC core design of the FOC core of the optical fibers • of the optical fibers • of the optical fiber sheath • of the FOC core sheath of the fiber-optic cable core of the fiber-optic cable core of the optical fiber sheath for the foc core sheath version of the FOC core design of the fiber-optic cable outer diameter • of the optical fibers • of the optical fibers • of the optical fiber sheath • of the FOC core sheath version of the FOC core sheath of the FOC core sheath for the foc core sheath of the foc core sheath version of the fiber-optic cable core of the optical fiber sheath of the fiber-optic cable sheath of the foc core sheath but the fiber-optic cable sheath of the fiber-optic cable sheath but the fiber optic cable sheath of the strain relief color of the FOC core sheath of the strain relief color of the FOC core sheath of cable sheath Black bending radius with single bend / minimum permissible with single bend / minimum permissible with multiple bends / minimum permissible	• at 850 nm / maximum	3.1 dB/km
at 1300 nm at 1300 nm bechanical data number of fibers / per FOC core 1 number of FO cores / per FOC cable 2 version of the FO conductor fiber design of the FO core design of the FOC core design of the fiber-optic cable outer diameter of the optical fibers of the optical fiber sheath of the FOC core sheath indition of the FOC core sheath of the potical sheath fiber-optic cable sheath 0 sh mm distickness / of cable sheath 0 of the fiber-optic cable core of the optical fiber sheath 0 of the fiber-optic cable core of the fiber-optic cable core of the optical fiber sheath 0 sh mm distickness / of cable sheath 0 of the fiber-optic cable core of the fiber-optic cable sheath 0 of the FOC core sheath 0 of the strain relief 0 of the FOC core sheath 0 of the FOC core sheath 0 of the strain relief 0 of the sheath 0 of the FOC core sheath 0 of the FOC core sheath 0 of the strain relief 0 of the sheath 0 of the sheath 0 of the FOC core sheath 0 of the strain relief 0 of the sheath	• at 1300 nm / maximum	0.8 dB/km
• at 1300 nm mechanical data number of fibers / per FOC core	bandwidth length product	
number of fibers / per FOC core 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 outer diameter • of the optical fibers • of the optical fiber sheath • of the FOC core sheath 125 µm • of the FOC core sheath 9.8 mm thickness / of cable sheath fiber-optic cable core • of the fiber-optic cable core • of the fiber-optic cable core • of the fiber-optic cable sheath Cuartz glass • of the FOC core sheath • of the fiber-optic cable sheath PVC • of the fiber-optic cable sheath • of the FOC core sheath • of the FOC core sheath • of the FOC core sheath • of the fiber-optic cable sheath • of the FOC core sheath • of the Strain relief color • of the FOC core sheath • of cable sheath • of cable sheath Black bending radius • with single bend / minimum permissible • with single bend / minimum permissible • with multiple bends / minimum permissible • with multiple bends / minimum permissible • with multiple bends / minimum permissible tensile load	• at 850 nm	200 GHz·m
number of fibers / per FOC core number of FO cores / per FOC cable version of the FO conductor fiber design of the FOC core compact core, diameter 900 µm design of the fiber-optic cable outer diameter of the optical fibers of the optical fibers of the optical fiber sheath of the FOC core sheath fibickness / of cable sheath of the fiber-optic cable core of the fiber-optic cable core of the fiber-optic cable sheath fickness / of cable sheath of the fiber-optic cable core of the foc core sheath of the foc core sheath of the fiber-optic cable sheath of the strain relief color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with single bends / minimum permissible with multiple bends / minimum permissible owith multiple bends / minimum permissible tensile load	• at 1300 nm	600 GHz·m
number of FO cores / per FOC cable version of the FO conductor fiber design of the FOC core design of the FOC core design of the fiber-optic cable of the optical fibers of the optical fiber sheath of the FOC core sheath indicates / of cable sheath thickness / of cable sheath of the optical fiber sheath of the fiber-optic cable core of the optical fiber sheath of the fiber-optic cable core of the optical fiber sheath of the fiber-optic cable sheath of the fiber-optic cable sheath of the fiber-optic cable sheath of the FOC core sheath of the fiber-optic cable sheath of the fiber-optic cable sheath of the strain relief color of the FOC core sheath of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible multiple bends / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible	mechanical data	
version of the FO conductor fiber design of the FOC core design of the fiber-optic cable outer diameter of the optical fiber sheath of the FOC core sheath width / of cable sheath of the optical fiber sheath thickness / of cable sheath of the optical fiber sheath of the optical fiber sheath fiber-optic cable core of the optical fiber sheath of the fiber-optic cable core of the fiber-optic cable sheath of the fiber-optic cable sheath of the fiber-optic cable sheath of the foc core sheath of the fiber-optic cable sheath of the foc core sheath of the fiber-optic cable sheath of the FOC core sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible tensile load	number of fibers / per FOC core	1
design of the FOC core design of the fiber-optic cable Outer diameter of the optical fibers of the optical fibers of the FOC core sheath of the FOC core sheath width / of cable sheath 125 µm 9.8 mm width / of cable sheath 126 ym 9.8 mm width / of cable sheath 6.3 mm material of the fiber-optic cable core of the optical fiber sheath Quartz glass of the optical fiber sheath of the FOC core sheath PVC of the fiber-optic cable sheath of the fiber-optic cable sheath of the FOC core sheath pVC of the strain relief color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible tensile load	number of FO cores / per FOC cable	2
design of the fiber-optic cable Segmentable outer conductor outer diameter 62.5 μm • of the optical fibers sheath 125 μm • of the FOC core sheath 3.5 mm width / of cable sheath 9.8 mm thickness / of cable sheath 6.3 mm material • of the fiber-optic cable core • of the optical fiber sheath Quartz glass • of the FOC core sheath PVC • of the fiber-optic cable sheath PVC • of the strain relief Aramid fibers and glass roving color • of the FOC core sheath gray • of cable sheath Black bending radius • with single bend / minimum permissible 80 mm • with multiple bends / minimum permissible 80 mm tensile load 62.5 μm	version of the FO conductor fiber	Multimode graded-index fiber 62.5/125 μm, OM 1
outer diameter • of the optical fibers • of the optical fiber sheath • of the FOC core sheath width / of cable sheath thickness / of cable sheath • of the fiber-optic cable core • of the optical fiber sheath • of the optical fiber sheath of the optical fiber sheath • of the optical fiber sheath • of the FOC core sheath • of the FOC core sheath • of the fiber-optic cable sheath • of the strain relief color • of the SC core sheath • of the SC core sheath • of the strain relief color • of the FOC core sheath • of t	design of the FOC core	Compact core, diameter 900 µm
of the optical fibers of the optical fiber sheath of the FOC core sheath 125 µm 3.5 mm width / of cable sheath 9.8 mm thickness / of cable sheath 6.3 mm material of the fiber-optic cable core of the optical fiber sheath Quartz glass of the optical fiber sheath PVC of the fiber-optic cable sheath of the FOC core sheath of the fiber-optic cable sheath PVC of the strain relief Aramid fibers and glass roving color of the FOC core sheath of cable sheath Black bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible and tensile load	design of the fiber-optic cable	Segmentable outer conductor
 of the optical fiber sheath of the FOC core sheath width / of cable sheath thickness / of cable sheath of table sheath of the fiber-optic cable core of the optical fiber sheath of the FOC core sheath of the fiber-optic cable sheath of the FOC core sheath of the fiber-optic cable sheath of the strain relief Aramid fibers and glass roving color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible tensile load 	outer diameter	
of the FOC core sheath width / of cable sheath thickness / of cable sheath 6.3 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 fiber-optic cable sheath of the strain relief of the strain relief of the FOC core sheath of the FOC core sheath of the strain relief of the FOC core sheath of cable sheath of cable sheath with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible of tensile load 3.5 mm 9.8 mm 9.8 mm 9.8 mm 9.8 mm 9.8 mm 9 wurtz glass PVC Aramid fibers and glass roving gray 9 of cable sheath 9 Black 9 of cable sheath 80 mm 1 of the fock of the	 of the optical fibers 	62.5 µm
width / of cable sheath thickness / of cable sheath 6.3 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 fiber-optic cable sheath of the strain relief color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible tensile load	 of the optical fiber sheath 	125 µm
thickness / of cable sheath material of the fiber-optic cable core of the optical fiber sheath Quartz glass of the FOC core sheath Of the fiber-optic cable sheath Of the fiber-optic cable sheath Of the strain relief Aramid fibers and glass roving color of the FOC core sheath Of cable sheath Of cable sheath Of cable sheath Of cable sheath bending radius with single bend / minimum permissible Of with multiple bends / minimum permissible Of tensile load of the FOC core sheath Of cable sheath	of the FOC core sheath	3.5 mm
material of the fiber-optic cable core of the optical fiber sheath Quartz glass of the FOC core sheath of the fiber-optic cable sheath PVC of the fiber-optic cable sheath PVC of the strain relief Aramid fibers and glass roving color of the FOC core sheath gray of cable sheath Black bending radius with single bend / minimum permissible with multiple bends / minimum permissible tensile load	width / of cable sheath	9.8 mm
 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 of the strain relief color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible omm 	thickness / of cable sheath	6.3 mm
 of the optical fiber sheath of the FOC core sheath of the fiber-optic cable sheath of the strain relief color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible omm 		
 of the FOC core sheath of the fiber-optic cable sheath of the strain relief color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible tensile load 		Quartz glass
 of the fiber-optic cable sheath of the strain relief Aramid fibers and glass roving color of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible 80 mm tensile load	·	Quartz glass
of the strain relief Aramid fibers and glass roving of the FOC core sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible so mm tensile load Aramid fibers and glass roving gray 80 mm 80 mm		
color of the FOC core sheath gray of cable sheath Black bending radius with single bend / minimum permissible with multiple bends / minimum permissible 80 mm tensile load		PVC
of the FOC core sheath of cable sheath Black bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible tensile load gray 80 mm	of the strain relief	Aramid fibers and glass roving
of cable sheath bending radius with single bend / minimum permissible 80 mm with multiple bends / minimum permissible 80 mm tensile load		
bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible tensile load 80 mm	 of the FOC core sheath 	gray
 with single bend / minimum permissible with multiple bends / minimum permissible tensile load 80 mm 80 mm 	of cable sheath	Black
• with multiple bends / minimum permissible 80 mm tensile load	3	
tensile load	-	
		80 mm
• during installation / short-term 1500 N		
	during installation / short-term	1500 N

during operation / maximum	1500 N
continuous shear force per length	150 N/cm
weight per length	70 kg/km
ambient conditions	
ambient temperature	
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	
• 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	
halogen-free	No
• silicon-free	Yes
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 	350 m
 for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum 	550 m
for glass FOC / with PROFIBUS / maximum	3000 m
standards, specifications, approvals	
certificate of suitability	
RoHS conformity	Yes
further information / internet-Links	
Internet-Link	
• to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
 to website: Selection guide for cables and connectors 	https://sie.ag/2QdlxcP
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx-Download-Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com
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