SIEMENS

Data sheet 6XV1873-2A

product description

suitability for use

Glass fiber-optic cable, sold by the meter, unassembled

Cable for installation indoors and outdoors, UL approval

FO Standard Cable GP (50/125), standard cable splittable, UL approval, max. length 1000 m minimum order quantity 20 m sold by the meter



cable designation optical data attenuation factor per length • at 850 nm / maximum • at 1300 nm / 1200 GHz:m mechanical data number of FD cores / per FDC core number of FD cores / per FDC cable version of the FD conductor fiber design of the FDC core • Hollow core, filled, diameter 1400 µm design of the fiber-optic cable outer diameter • of the optical fibers • of the optical fibers • of the OFC core sheath • of the FDC core sheath • of the FDC core sheath verified deviation / of the outer diameter of the FDC core sheath thickness / of cable sheath ### thickness / of cable sheath ### of the FDC core sheath • of the ther-optic cable sheath • of the strain relief color • of the FDC core sheath • of the strain relief color • of the strain relief • of the FDC core sheath • of the strain relief • of the proces sheath • of the strain relief •	version of the assembled FO cable	sold by the meter
attenuation factor per length at 850 nm / maximum bandwidth length product at 1300 nm / maximum at 1300 nm / maximum bandwidth length product at 1300 nm / maximum at 1300 nm / maximum bandwidth length product at 1300 nm / 600 GHz/m mochanical data number of fibers / per FOC core number of FD cores / per FOC cable version of the FO conductor fiber design of the FOC core design of the fiber-optic cable outer diameter of the optical fibers sheath of the optical fiber sheath of the optical fiber sheath of the FOC core sheath width / of cable sheath thickness / of cable sheath naterial of the fiber-optic cable core of the optical fiber sheath of the fiber-optic cable core of the optical fiber sheath 4.5 mm material of the fiber-optic cable sheath of the fiber-optic cable sheath of the FOC core sheath of the fiber-optic cable sheath Aramid fibers of the FOC core sheath of the FOC core sheath of the FOC core sheath Aramid fibers color of the FOC core sheath of cable sheath of the FOC core she	cable designation	AT-W(ZN)YY 2x1 G 50/125 OM2++
at 850 nm / maximum bandwidth length product at 850 nm	optical data	
e at 1300 nm / maximum bandwidth length product e at 850 nm e at 1300 nm 1200 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 design of the FOC core elsign of the fiber-optic cable outer diameter of the optical fiber sheath of the FOC core sheath 125 µm of the FOC core sheath 125 µm 101 nm symmetrical deviation / of the outer diameter of the FOC core symmetrical deviation / of the outer diameter of the FOC core width / of cable sheath 1.4.5 mm material of the fiber-optic cable core of the optical fiber sheath 0 deviation / of the outer diameter of the FOC core sheath 0 deviation / of the outer diameter of the FOC core sheath 0 deviation / of the outer diameter of the FOC core sheath 0 deviation / of the outer diameter of the FOC core of the fiber-optic cable core of the fiber-optic cable core of the optical fiber sheath Ouartz glass of the FOC core sheath PVC of the optical fiber sheath Ouartz glass of the FOC core sheath of the strain relief of t	attenuation factor per length	
bandwidth length product • at 850 nm • at 1300 nm 1200 GHz·m	• at 850 nm / maximum	2.7 dB/km
at 1300 nm at 1300 nm 1200 GHz·m mechanical data number of fibers / per FOC core number of FO cores / per FOC cable 2 version of the FO conductor fiber Multi-mode gradient fiber 50/125 µm, OM 2 design of the FOC core Hollow core, filled, diameter 1400 µm design of the fiber-optic cable outer diameter of the optical fibers of the optical fibers of the optical fibers of the optical fiber sheath 125 µm symmetrical deviation / of the outer diameter of the FOC core sheath width / of cable sheath 7.4 mm thickness / of cable sheath 4.5 mm material of the fiber-optic cable core of the optical fiber sheath Quartz glass of the ofther-optic cable sheath Of the fiber-optic cable sheath A fiber-optic cable sheath Of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of cable sheath of the FOC core sheath of the FOC core sheath of the FOC core sheath of the strain relief color of the FOC core sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of cable sheath of the fiber-optic cable one with single bend / minimum permissible of the fiber-optic cable one of the fiber-optic one of the fiber-opt	• at 1300 nm / maximum	0.7 dB/km
e at 1300 nm machanical data number of fibers / per FOC core 1 number of FC cores / per FOC cable 2 version of the FO conductor fiber Multi-mode gradient fiber 50/125 μm, OM 2 design of the FOC core Hollow core, filled, diameter 1400 μm design of the fiber-optic cable segmentable outer diameter of the optical fibers of the optical fibers of the optical fiber sheath 125 μm of the FOC core sheath symmetrical deviation / of the outer diameter of the FOC core sheath vidth / of cable sheath 1.5 mm material of the fiber-optic cable core of the optical fiber sheath Quartz glass of the fiber-optic cable sheath PVC of the fiber optic cable sheath of cable sheath fibers color of the FOC core sheath of cable sheath fibers bending radius with multiple bends / minimum permissible of during installation / short-term 1200 N	bandwidth length product	
number of fibers / per FOC core 1 number of FO cores / per FOC cable 2 version of the FO conductor fiber Multi-mode gradient fiber 50/125 µm, OM 2 design of the FOC core Hollow core, filled, diameter 1400 µm design of the fiber-optic cable segmentable outer diameter	• at 850 nm	600 GHz·m
number of fibers / per FOC core 1 number of FO cores / per FOC cable 2 version of the FO conductor fiber Multi-mode gradient fiber 50/125 µm, OM 2 design of the FOC core Hollow core, filled, diameter 1400 µm design of the fiber-optic cable segmentable segmentable outer diameter • of the optical fibers 50 µm • of the optical fiber sheath 125 µm symmetrical deviation / of the outer diameter of the FOC core sheath 2.9 mm symmetrical deviation / of the outer diameter of the FOC core sheath 7.4 mm width / of cable sheath 4.5 mm material • of the fiber-optic cable core Quartz glass • of the optical fiber sheath Quartz glass • of the FOC core sheath PVC • of the fiber-optic cable sheath PVC • of the fiber-optic cable sheath PVC • of the FOC core sheath PVC • of the FOC core sheath PVC • of the strain relief Aramid fibers color • of the FOC core sheath green bending radius • with single bend / minimum permissible 45 mm • with single bend / minimum permissible 65 mm tensile load • during installation / short-term 1200 N	• at 1300 nm	1200 GHz·m
number of FO cores / per FOC cable version of the FO conductor fiber 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 vidth / of cable sheath thickness / of cable sheath of the fiber-optic cable core of the fiber-optic cable of the optical fiber sheath vidth / of cable sheath 7.4 mm thickness / of cable sheath of the fiber-optic cable core of the optical fiber sheath of the fiber-optic cable sheath vodate glass 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 vodate glass of the often optical fiber sheath of the FOC core sheath of the fiber-optic cable sheath of the fiber-optic cable sheath of the fiber-optic cable sheath of the strain relief color of the fiber-optic sable sheath orange/black of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible of tuning installation / short-term 1200 N	mechanical data	
version of the FO conductor fiber design of the FOC core design of the FOC core design of the fiber-optic cable outer diameter • of the optical fibers seath • of the optical fiber sheath • of the FOC core sheath symmetrical deviation / of the outer diameter of the FOC core sheath symmetrical deviation / of the outer diameter of the FOC core sheath **TA mm** thickness / of cable sheath • of the fiber-optic cable core • 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 • of cable sheath • of the strain relief color • of the FOC core sheath • of cable sheath • of cable sheath • of cable sheath • of cable sheath • of able sheath • of manual size of the siz	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 fiber sheath • of the FOC core sheath symmetrical deviation / of the outer diameter of the FOC core sheath thickness / of cable sheath • of the fiber-optic cable core • of the fiber-optic cable core • of the fiber-optic cable sheath • of the FOC core sheath • of the strain relief color • of the Strain relief color • of the FOC core sheath • of cable sheath • of cable sheath • of cable sheath • of cable sheath • of able sheath • of the FOC core sheath • of able sheath • of the FOC core sheath • of able sheath • of the FOC core sheath • of able sheath • of able sheath • of the FOC core sheath • of the FOC core sheath • of able sheath • of the FOC core sheath • of the F	number of FO cores / per FOC cable	2
design of the fiber-optic cable outer diameter • of the optical fibers • of the optical fibers 125 µm • of the optical fiber sheath 125 µm • of the FOC core sheath 2.9 mm symmetrical deviation / of the outer diameter of the FOC core sheath 1.5 mm width / of cable sheath 7.4 mm thickness / of cable sheath 4.5 mm material • of the fiber-optic cable core Quartz glass • 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 color • of the FOC core sheath green bending radius • with single bend / minimum permissible 45 mm • with multiple bends / minimum permissible 65 mm tensile load • during installation / short-term 1200 N	version of the FO conductor fiber	Multi-mode gradient fiber 50/125 μm, OM 2
outer diameter • of the optical fibers • of the optical fiber sheath • of the FOC core sheath symmetrical deviation / of the outer diameter of the FOC core sheath width / of cable sheath thickness / of cable sheath 4.5 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 fiber-optic cable sheath of the FOC core sheath pvC of the FOC core sheath of the FOC core sheath width / of cable sheath orange/black of the FOC core sheath with single bend / minimum permissible with single bends / minimum permissible of then I cable sheath orange/black orange/b	design of the FOC core	Hollow core, filled, diameter 1400 μm
 of the optical fibers of the optical fiber sheath of the FOC core sheath symmetrical deviation / of the outer diameter of the FOC core sheath symmetrical deviation / of the outer diameter of the FOC core sheath yidth / 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 FOC core sheath of the fiber-optic cable sheath of the strain relief of the FOC core sheath of the FOC core sheath of of the FOC core sheath of the FOC core sheath of the FOC core sheath of the strain relief orange/black of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible during installation / short-term 1200 N 	design of the fiber-optic cable	segmentable
of the optical fiber sheath of the FOC core sheath 2.9 mm symmetrical deviation / of the outer diameter of the FOC core sheath width / of cable sheath thickness / of cable sheath 4.5 mm material of the fiber-optic cable core of the optical fiber sheath of the optical fiber sheath of the FOC core sheath of the fiber-optic cable sheath PVC of the fiber-optic cable sheath of the strain relief color of the FOC core sheath of cable sheath with single bend / minimum permissible with multiple bends / minimum permissible of tuning installation / short-term 1200 N	outer diameter	
of the FOC core sheath symmetrical deviation / of the outer diameter 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 FOC core 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 fiber-optic cable sheath PVC of the strain relief color of the FOC core sheath orange/black of cable sheath orange/black with single bend / minimum permissible with multiple bends / minimum permissible othersile load	 of the optical fibers 	50 μm
symmetrical deviation / of the outer diameter of the FOC core sheath width / of cable sheath 7.4 mm thickness / of cable sheath 4.5 mm material of the fiber-optic cable core of the optical fiber sheath of the FOC core sheath of the fiber-optic cable sheath PVC of the fiber-optic cable sheath of the strain relief color of the FOC core sheath orange/black of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible tensile load oduring installation / short-term 1200 N	 of the optical fiber sheath 	125 μm
sheath width / of cable sheath thickness / of cable sheath 4.5 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 fiber-optic cable sheath PVC of the fiber-optic cable sheath PVC of the strain relief Aramid fibers color of the FOC core sheath orange/black of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible tensile load oduring installation / short-term 1200 N	of the FOC core sheath	2.9 mm
thickness / of cable sheath 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 PVC of the fiber-optic cable sheath PVC of the strain relief Aramid fibers color of the FOC core sheath orange/black of cable sheath green bending radius with single bend / minimum permissible with multiple bends / minimum permissible owith multiple bends / minimum permissible tensile load our during installation / short-term 1200 N		0.1 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 color of the FOC core sheath orange/black of cable sheath green bending radius with single bend / minimum permissible owith multiple bends / minimum permissible tensile load oduring installation / short-term Quartz glass Quartz glass Quartz glass Aramid fibers PVC Aramid fibers orange/black orange/black green 65 mm	width / of cable sheath	7.4 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 Aramid fibers color of the FOC core sheath orange/black of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible oduring installation / short-term 1200 N 	thickness / of cable sheath	4.5 mm
 of the optical fiber sheath of the FOC core sheath PVC of the fiber-optic cable sheath of the strain relief Aramid fibers color of the FOC core sheath of cable sheath orange/black of cable sheath green bending radius with single bend / minimum permissible with multiple bends / minimum permissible other indicates other indic	material	
 of the FOC core sheath of the fiber-optic cable sheath of the strain relief Aramid fibers color of the FOC core sheath orange/black of cable sheath green bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible of smm tensile load during installation / short-term 1200 N	 of the fiber-optic cable core 	Quartz glass
of the fiber-optic cable sheath of the strain relief Aramid fibers color of the FOC core sheath of cable sheath of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible of the FOC core sheath green bending radius with single bend / minimum permissible of the FOC core sheath green bending radius owith multiple bends / minimum permissible of the FOC core sheath orange/black o	 of the optical fiber sheath 	Quartz glass
of the strain relief color of the FOC core sheath orange/black of cable sheath bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible of the FOC core sheath green bending radius with single bend / minimum permissible of the FOC core sheath green bending radius owith single bend / minimum permissible of the FOC core sheath orange/black freen bending radius owith single bend / minimum permissible of the FOC core sheath orange/black freen 1200 N	 of the FOC core sheath 	PVC
color • of the FOC core sheath orange/black • of cable sheath green bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible 65 mm tensile load • during installation / short-term 1200 N	 of the fiber-optic cable sheath 	PVC
of the FOC core sheath orange/black of cable sheath green bending radius with single bend / minimum permissible with multiple bends / minimum permissible with multiple bends / minimum permissible fos mm tensile load during installation / short-term 1200 N	of the strain relief	Aramid fibers
of cable sheath green bending radius with single bend / minimum permissible with multiple bends / minimum permissible tensile load during installation / short-term green 45 mm 65 mm 1200 N	color	
bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible 65 mm tensile load • during installation / short-term 1200 N	 of the FOC core sheath 	orange/black
 with single bend / minimum permissible with multiple bends / minimum permissible 65 mm tensile load during installation / short-term 1200 N 	of cable sheath	green
 with multiple bends / minimum permissible tensile load during installation / short-term 1200 N 	bending radius	
tensile load • during installation / short-term 1200 N	 with single bend / minimum permissible 	45 mm
• during installation / short-term 1200 N	with multiple bends / minimum permissible	65 mm
	tensile load	
• during operation / maximum 500 N	 during installation / short-term 	1200 N
	 during operation / maximum 	500 N

	200 111
short-term shear force per length	600 N/cm
continuous shear force per length	400 N/cm
weight per length ambient conditions	40 kg/km
ambient temperature	25 L00 °C
during operation	-25 +80 °C
during storage	-25 +80 °C
during transport during installation	-25 +80 °C -5 +50 °C
during installation fire behavior	flame-resistant acc. to IEC 60332-1-2 and IEC 60332-3-22 (Cat. A)
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	200
• to mineral oil	acc. to IEC 60811-404 with test oil IRM 902 (acc. to ISO 1817), +70 °C, 4 h
• to grease	conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / gene	eral
product feature	
halogen-free	No
• silicon-free	Yes
product component / rodent protection	No
wire length	
• for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum	5000 m
 for glass FOC / for 1000BaseSX / for Industrial Ethernet / maximum 	750 m
 for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum 	2000 m
• for glass FOC / for 1000BaseLSX / for Industrial Ethernet / maximum	2000 m
 for glass FOC / for 10GBaseLX4 / for Industrial Ethernet / maximum 	300 m
for glass FOC / with PROFIBUS / maximum	3000 m
standards, specifications, approvals	
certificate of suitability	
UL approval	Yes; c(UL)us OFN FT4
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 website: Selection guide for cables and connectors to web pages expecting aid TIA Selection Test	https://support.industry.siemens.com/cs/ww/en/view/109766358
to web page: selection aid TIA Selection Tool to website: Industrial communication	https://www.siemens.com/tstcloud
to web site: Industrial communication to web page: SigPortal	https://www.siemens.com/simatic-net
to web page: SiePortal to website: Image database	https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb
to website: Image database to website: CAy_Download_Manager	https://www.siemens.com/cax
 to website: CAx-Download-Manager to website: Industry Online Support 	https://support.industry.siemens.com
security information / header	napowoupportuniduoti y silemeno toonii
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 www.siemens.com/cybersecurity-industry. 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, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval

Manufacturer Declaration

last modified:





Declaration of Conformity





Marine / Shipping	other	Environment	Industrial Communication
DNV DNV	Confirmation	Confirmation	PROFINET

11/19/2024