SIEMENS

Data sheet	6XV1843-2R

product description	single-mode glass fiber-optic cable, sold by the meter, unassembled
	SM FO robust cable GP (4E9/125) Outdoor cable; with Rodent protection; splittable; without connector; sold by the meter; minimum order quantity 20 m; max. length 2000 m;

suitability for use	Waterproof cable (lengthwise and sideways) with non-metallic protection against rodents for use indoors and outdoors as well as for direct routing underground
version of the assembled FO cable	sold by the meter
cable designation	AT-V(ZN)H(ZN)BH 4E9/125

optical data

attenuation factor per length	
● at 1300 nm / maximum	0.5 dB/km
● at 1550 nm / maximum	0.5 dB/km

mechanical data

number of fibers / per FOC core	1
number of FO cores / per FOC cable	4
version of the FO conductor fiber	Single mode fiber 4E9/125/900, OS1 and OS2
design of the FOC core	Solid core, diameter 900 µm
design of the fiber-optic cable	segmentable
outer diameter	
● of the optical fibers	9 µm
● of the optical fiber sheath	125 µm
● of the FOC core sheath	2.2 mm
outer diameter / of the cable	9 mm
material	
● of the fiber-optic cable core	Quartz glass
● of the optical fiber sheath	Quartz glass
● of the FOC core sheath	PE flame retardant
● of the fiber-optic cable sheath	PE flame retardant
● of the strain relief	Aramid fibers, also central support element and glass roving
color	
● of the FOC core sheath	orange/black, with direction arrow (core pairs numbered with 1 and 2)
● of cable sheath	Black
bending radius	
● with single bend / minimum permissible	90 mm
● with multiple bends / minimum permissible	135 mm
tensile load	
● during installation / short-term	2000 N
● during operation / maximum	1000 N
short-term shear force per length	600 N/cm
continuous shear force per length	200 N/cm
weight per length	87 kg/km

ambient conditions

ambient temperature	

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● during operation	-40 ... +70 °C
● during storage	-40 ... +70 °C
● during transport	-40 ... +70 °C
● during installation	-20 ... +60 °C
fire behavior	flame-resistant acc. to IEC 60332-3-24
class of burning behaviour / according to EN 13501-6	Ccas1a,d0,a1
chemical resistance	
● to mineral oil	conditional resistance
● to grease	conditional resistance
● to water	resistant
radiological resistance / to UV radiation	resistant
product features, product functions, product components / general	
product feature	
● halogen-free	Yes
● silicon-free	Yes
product component / rodent protection	Yes
wire length	
● for glass FOC / for 100BaseFX / for Industrial Ethernet / maximum	26000 m
● for glass FOC / for 1000BaseLX / for Industrial Ethernet / maximum	5000 m
● for glass FOC / for 10GBaseLR / for Industrial Ethernet / maximum	10000 m
● for glass FOC / with 10GBaseER / for Industrial Ethernet / maximum	40000 m
● for glass FOC / with PROFIBUS / maximum	15000 m
standards, specifications, approvals	
certificate of suitability	
● UL approval	Yes; UL approval: OFN/OFNG acc. to UL 1651
● 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	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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