

### Product type designation

Product description

### FO Ground Cable

Glass fiber-optic cable, preferred length, preassembled  
FO Ground Cable 50/125, pre-assembled 2x2 BFOC connectors,  
insertion aid, Length 300 m



Suitability for use	Waterproof cable (lengthwise and sideways) with non-metallic protection against rodents for use outdoors as well as for direct routing underground
Version of the assembled FO cable	Assembled with four BFOC connectors
Cable designation	AT-WQ(ZN)Y(ZN)B2Y 2G 50/125 OM2++
Wire length	300 m

### Optical data

Damping ratio per length	
<ul style="list-style-type: none"> <li>at 850 nm / maximum</li> <li>at 1300 nm / maximum</li> </ul>	<p>2.7 dB/km</p> <p>0.7 dB/km</p>
Bandwidth length product	
<ul style="list-style-type: none"> <li>at 850 nm</li> <li>at 1300 nm</li> </ul>	<p>600 GHz·m</p> <p>1200 GHz·m</p>

### Mechanical data

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	
• of the optical fibers	50 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	0.1 mm
Outer diameter / of the cable	10.5 mm
Symmetrical deviation / of the outer diameter of the line	0.5 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	PE
• of the strain relief	Aramid fibers
Color	
• of the FOC core sheath	orange/black
• of cable sheath	Black
Bending radius	
• with single bend / minimum permissible	105 mm
• with multiple bends / minimum permissible	155 mm
Tensile load	
• during installation / short-term	2000 N
• during operation / maximum	800 N
Short-term shear force per length	500 N/cm
Continuous lateral force per length	300 N/cm
Weight per length	90 kg/km
<b>Ambient conditions</b>	
Ambient temperature	
• during operation	-40 ... +75 °C
• during storage	-40 ... +75 °C
• during transport	-40 ... +75 °C
• during installation	-5 ... +50 °C
Burning behavior	flammable
Chemical resistance	
• to mineral oil	resistant
• to grease	resistant
• to water	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	Yes
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 / with PROFIBUS / maximum	3000 m

## Standards, specifications, approvals

Certificate of suitability	
• RoHS conformity	Yes

## Further information / Internet-Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
• to website: Industrial communication	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to website: Information and Download Center	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
• to website: Image database	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
• to website: CAx Download Manager	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>last modified:</b>	06/24/2020