

### 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 100 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	100 m

Optical data	
Damping ratio per length	
<ul style="list-style-type: none"> <li>at 850 nm / maximum</li> </ul>	2.7 dB/km
<ul style="list-style-type: none"> <li>at 1300 nm / maximum</li> </ul>	0.7 dB/km
Bandwidth length product	
<ul style="list-style-type: none"> <li>at 850 nm</li> </ul>	600 GHz·m
<ul style="list-style-type: none"> <li>at 1300 nm</li> </ul>	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	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 <ul style="list-style-type: none"> <li>• of the optical fibers</li> <li>• of the optical fiber sheath</li> <li>• of the FOC core sheath</li> </ul>	50 µm 125 µm 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 <ul style="list-style-type: none"> <li>• of the fiber-optic cable core</li> <li>• of the optical fiber sheath</li> <li>• of the FOC core sheath</li> <li>• of the fiber-optic cable sheath</li> <li>• of the strain relief</li> </ul>	Quartz glass Quartz glass PVC PE Aramid fibers
Color <ul style="list-style-type: none"> <li>• of the FOC core sheath</li> <li>• of cable sheath</li> </ul>	orange/black Black
Bending radius <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	105 mm 155 mm
Tensile load <ul style="list-style-type: none"> <li>• during installation / short-term</li> <li>• during operation / maximum</li> </ul>	2000 N 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 <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> </ul>	-40 ... +75 °C -40 ... +75 °C -40 ... +75 °C -5 ... +50 °C
Burning behavior	flammable
Chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>	resistant resistant 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>
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