



### Fibre optic | Z1101

plastic fibre optic, single core, 1,000 µm with protective PU cladding and Kevlar strain relief, drag-chain suitable

### Cable

Transmission Characteristics	
Attenuation at 650 nm (Laser)	< 190 dB/km
Attenuation at 660 nm (LED)	< 290 dB/km
Bandwidth at 650 nm	> 10 MHz x 100 m
Numerical aperture	0.50
Design	
Fiber	Polymer optical fiber 980/1000 µm, PMMA with fluorine polymer cladding
Fiber diameter	1.0 mm
Cord jacket material	Polyethylene (PE)
Cord jacket color	black
Cord jacket diameter	2.2 mm
Strain Relief	Aramid yam
Outher jacket material	Polyurethan (TPE-U)
Outher jacket thickness	1.4 mm
Outher jacket color	orange
Outher diameter	5.5 mm (typical)
Imprint (black)	-- BECKHOFF Z1101 – I, (imprint every meter)
Mechanical data	
Laying	Polymer fiber optic cable for adverse industrial environments and flexible applications with low mechanical stress and installations in cable ducts, tubes and trays
Drag chain suitable	yes
Direct connector assembly	yes
Min. bending radius short-term (installation)	70 mm
Min. bending radius long-term (operation)	50 mm
Max. tensile force short-term (installation)	400 N
Max. tensile force long-term (operation)	100 N
Crush short-term (installation)	1000 N/dm
Crush long-term (operation)	100 N/dm
Alternate bending strength	30.000 cycles
Drag chain test	Radius 10 x cable diameter, 2 million cycles
Abrasion resistance	according to DIN VDE 0888, part 100, procedure 502 min. 5,000 cycles, 1mm radius of pin point, 5N
Weight	ca. 23 kg/km
Environmental data	
Ambient temperature, transport/storage	-40 °C to +80 °C (-40 °F to 176 °F)
Ambient temperature, Installation	-5 °C to +50 °C ( 23 °F to 122 °F)
Ambient temperature, operation	-20 °C to +70 °C ( -4 °F to 158 °F)
Flame-retardant	yes
Halogen free	according to IEC 60754-2 A1:1997

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<b>Fire behavior</b>	No corrosive and toxic gases
<b>UV resistant</b>	according to DIN EN ISO 4892-2, procedure A
<b>Category</b>	Multimode fiber, class A4a2 according to IEC 60793-2-40
<b>Standardisation</b>	IEC 60794-2-42