

NOGUxxMA

Fiber Optic - Loose Tube – Armored/Single PE Jacket

	<p>For more information please call 1-800-Belden1</p> <p><u>See Put-ups and Colors</u></p> <p>Related Documents: No.10 for Fiber Optic Cables .pdf</p>
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Cable Characteristics:

DESCRIPTION:

4 to 16 optical fibers, Gel filling loose tubes (4f/T), FRP central strength member, Gel filling cable core, CSTA armor, Single PE jacket (black).

PHYSICAL CHARACTERISTICS:

Fiber Type	125/250 µm
Number of Fibers	4 to 16
Number of Fibers per Tube	4
Fiber Color Code Chart:	
Number	Color
1	Blue
2	Orange
3	Green
4	Brown
Buffer Tube Diameter	2.0 mm
Buffer Tube Material	PBT – Polybutylene Terephthalate
Buffer Tube Filling Material	Synthetic Thixotropic Gel
Buffer Tube Color Code Chart:	
Number	Color
1	Blue
2	Orange
3	Green
4	Brown

STRENGTH MEMBER:

Central Strength Member Material	Fiberglass Epoxy Rod
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OVERALL CABLING:

Overall Cabling Fillers	Polypropylene
Cable Core Filling Material	Synthetic Thixotropic Gel

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ARMORING:

Armor Type	Corrugated
Armor Material	Steel Tape
Armor Thickness	0.15 mm

OUTER JACKET:

Outer Jacket Material	PE – Polyethylene
Outer Jacket Nom. Wall Thickness	1.6 mm
Outer Jacket Color	Black

OVERALL DIAMETER:

Overall Nominal Diameter	12.0 mm
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MECHANICAL CHARACTERISTICS:

Operating Temperature Range	- 40°C To + 70°C
Storage Temperature Range	- 40°C To + 70°C
Bulk Cable Weight	132 kg/km
Max. Load for Installation	1000 N, Passes IEC794-1
Max. Load for Long Term Application	400 N, Passes IEC794-1
Min Bend Radius for Installation	20 × Cable OD, Passes IEC794-1
Min Bend Radius for Long Term Application	10 × Cable OD, Passes IEC794-1
Crush Resistance	1000 N/100mm, Passes IEC794-1
Impact Resistance	Passes IEC794-1
Solar Radiation Resistance	Passes IEC794-1
Water Penetration	Passes IEC794-1
Compound Flow	Passes IEC794-1
Cyclic Flexing	Passes IEC794-1

APPLICABLE SPECIFICATION AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

Specification	IEC 60794-1, EIA/TIA-455
EU RoHS Compliant (Y/N)	Y
EU RoHS Compliance Date	Aug 2007

SUITABILITY:

Suitability – Indoor (Y/N)	Y
Suitability - Outdoor (Y/N)	Y
Suitability - Aerial (Y/N)	Y
Suitability – Duct (Y/N)	Y
Suitability – Direct Burial (Y/N)	Y

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Sunlight Resistance (Y/N)	Y
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Optical Characteristics:

SINGLE MODE FIBERS	G652.D (OS2)
Belden Fiber Code	U12
Typical Mode Field Diameter @ 1310nm	9.2 ± 0.4 μm
Typical Mode Field Diameter @ 1550nm	10.4 ± 0.5 μm
Cladding Diameter	125 ± 0.7 μm
Clad Non-Circularity	≤ 0.7 %
Core-Clad Concentricity Error	≤ 0.5 μm
Primary Coating Material	Acrylate
Primary Coating Diameter	245 ± 5 μm
Secondary Color Coating Diameter	250 ± 10 μm
Max. Attenuation @ 1310nm	0.36 dB/km
Max. Attenuation @ 1550nm	0.22 dB/km
Point Loss @ 1310nm & 1550nm	0.05 dB
Zero Dispersion Wavelength	1302 – 1322 nm
Max. Slope @ Zero Dispersion Wavelength	0.090 ps/(nm ² km)
Max. PMD @ Link Design Value	0.1 ps/√km
Cable Cutoff Wavelength	≤ 1260 nm
Refractive Index @ 1310nm	1.466
Refractive Index @ 1550nm	1.467

MULTI-MODE FIBERS	62.5μm OM1	50μm OM2	50μm OM3
Belden Fiber Code	U62	U50	U53
Typical Core Diameter	62.5 ± 2.5 μm	50.0 ± 2.5 μm	50.0 ± 2.5 μm
Cladding Diameter	125 ± 1.0 μm	125 ± 1.0 μm	125 ± 1.0 μm
Clad Non-Circularity	≤ 1 %	≤ 1 %	≤ 1 %
Core-Clad Concentricity Error	≤ 1.5 μm	≤ 1.5 μm	≤ 1.0 μm
Primary Coating Material	Acrylate	Acrylate	Acrylate
Primary Coating Diameter	245 ± 7 μm	245 ± 7 μm	245 ± 7 μm
Secondary Color Coating Diameter	250 ± 10 μm	250 ± 10 μm	250 ± 10 μm
Max. Attenuation @ 850nm	3.5 dB/km	3.0 dB/km	3.0 dB/km
Max. Attenuation @ 1300nm	1.0 dB/km	1.0 dB/km	1.0 dB/km
Min. Overfilled Bandwidth @ 850nm	200 MHz.km	500 MHz.km	1500 MHz.km

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Min. Overfilled Bandwidth @ 1300nm	600 MHz.km	500 MHz.km	500 MHz.km
Point Loss @ 850nm & 1300nm	0.10 dB	0.10 dB	0.10 dB
Numerical Aperture	0.275 ±0.015	0.200 ±0.015	0.200 ±0.015
Refractive Index @ 850nm	1.496	1.482	1.482
Refractive Index @ 1300nm	1.491	1.477	1.477
Min. G-Ethernet Transmission Distance@850nm	300 m	550 m	1000 m
Min.G-EthernetTransmissionDistance@1300nm	550 m	550 m	600 m

PUT-UPS AND COLORS:

Item	# Fibers	Fiber Type	Cable Description	Put-up * (metre)	Jacket Color
NOGU12MA004BKAA	4	G652.D	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU12MA008BKAA	8	G652.D	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU12MA016BKAA	16	G652.D	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU62MA004BKAA	4	62.5µm OM1	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU62MA008BKAA	8	62.5µm OM1	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU62MA016BKAA	16	62.5µm OM1	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU50MA004BKAA	4	50µm OM2	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU50MA008BKAA	8	50µm OM2	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU50MA016BKAA	16	50µm OM2	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU53MA004BKAA	4	50µm OM3	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU53MA008BKAA	8	50µm OM3	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK
NOGU53MA016BKAA	16	50µm OM3	LOOSE TUBE CSTA SINGLE PE JACKET	2000	BLACK

* Other put-ups available upon request.

Revision Number: 7

Revision Date: 6/3/2014

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