

NKPUxxMA

Fiber Optic - Loose Tube – Armored/Double PE Jacket

 	<p style="text-align: center;">For more information please call 1-800-Belden1</p> <p style="text-align: center;"><u>See Put-ups and Colors</u></p> <p style="text-align: center;">Related Documents: No.10 for Fiber Optic Cables .pdf</p>
---	---

Cable Characteristics:

DESCRIPTION:

6 to 48 optical fibers, Gel filling loose tubes (6f/T), FRP central strength member, Gel filling cable core, CSTA armor, Double PE jacket (black).

PHYSICAL CHARACTERISTICS:

Fiber Type	125/250 µm
Number of Fibers	6 to 48
Number of Fibers per Tube	6
Fiber Color Code Chart:	
Number	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	White
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
5	Grey
6	White
7	Red
8	Black

STRENGTH MEMBER:

NKPU_{xx}MA

Fiber Optic - Loose Tube – Armored/Double PE Jacket

Central Strength Member Material	Fiberglass Epoxy Rod
OVERALL CABLING:	
Overall Cabling Fillers	Polypropylene
Cable Core Filling Material	Synthetic Thixotropic Gel
INNER JACKET:	
Inner Jacket Material	PE – Polyethylene
Inner Jacket Nom. Wall Thickness	1.0 mm
Inner Jacket Color	Black
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	1.8 mm
Outer Jacket Color	Black
OVERALL DIAMETER:	
Overall Nominal Diameter	15.8 mm
MECHANICAL CHARACTERISTICS:	
Operating Temperature Range	- 40°C To + 70°C
Storage Temperature Range	- 40°C To + 70°C
Bulk Cable Weight	226 kg/km
Max. Load for Installation	3000 N, Passes IEC794-1
Max. Load for Long Term Application	1000 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	3000 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

NKPUxxMA

Fiber Optic - Loose Tube – Armored/Double PE Jacket

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
Sunlight Resistance (Y/N)	Y

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

NKPU_{xx}MA

Fiber Optic - Loose Tube – Armored/Double PE Jacket

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
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
NKPU12MA006BKAA	6	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU12MA012BKAA	12	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU12MA018BKAA	18	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU12MA024BKAA	24	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU12MA030BKAA	30	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU12MA036BKAA	36	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU12MA042BKAA	42	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU12MA048BKAA	48	G652.D	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA006BKAA	6	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA012BKAA	12	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA018BKAA	18	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA024BKAA	24	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA030BKAA	30	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA036BKAA	36	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA042BKAA	42	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU62MA048BKAA	48	62.5μm OM1	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU50MA006BKAA	6	50μm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU50MA012BKAA	12	50μm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK

NKPUxxMA

Fiber Optic - Loose Tube – Armored/Double PE Jacket

NKPU50MA018BKAA	18	50µm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU50MA024BKAA	24	50µm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU50MA030BKAA	30	50µm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU50MA036BKAA	36	50µm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU50MA042BKAA	42	50µm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU50MA048BKAA	48	50µm OM2	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA006BKAA	6	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA012BKAA	12	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA018BKAA	18	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA024BKAA	24	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA030BKAA	30	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA036BKAA	36	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA042BKAA	42	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK
NKPU53MA048BKAA	48	50µm OM3	LOOSE TUBE CSTA DOUBLE PE JACKET	2000	BLACK

* Other put-ups available upon request.

Revision Number: 7

Revision Date: 6/3/2014

©Copyright 2014 Belden, Inc
All Rights Reserved.

Although Belden ("Belden") makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with the following environmental regulations: California Proposition 65 Consent Judgment For Wire & amp; Cable Mfgs.(San Francisco Superior Court Nos. 312962 And 320342); EU RoHS (Directive 2002/95/EC, 27-Jan2003); Material manufactured prior to the compliance date may still be in stock at Belden facilities and in our Distributor's inventory. EU ELV (Directive 2000/53/EC, 18-Sept-2000); EU WEEE (Directive 2002/96/EC, 27-Jan-2003); And EU BFR (Directive 2003/11/EC, 6-Feb2003). The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information and belief at the date of its publication. The information provided in the Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.