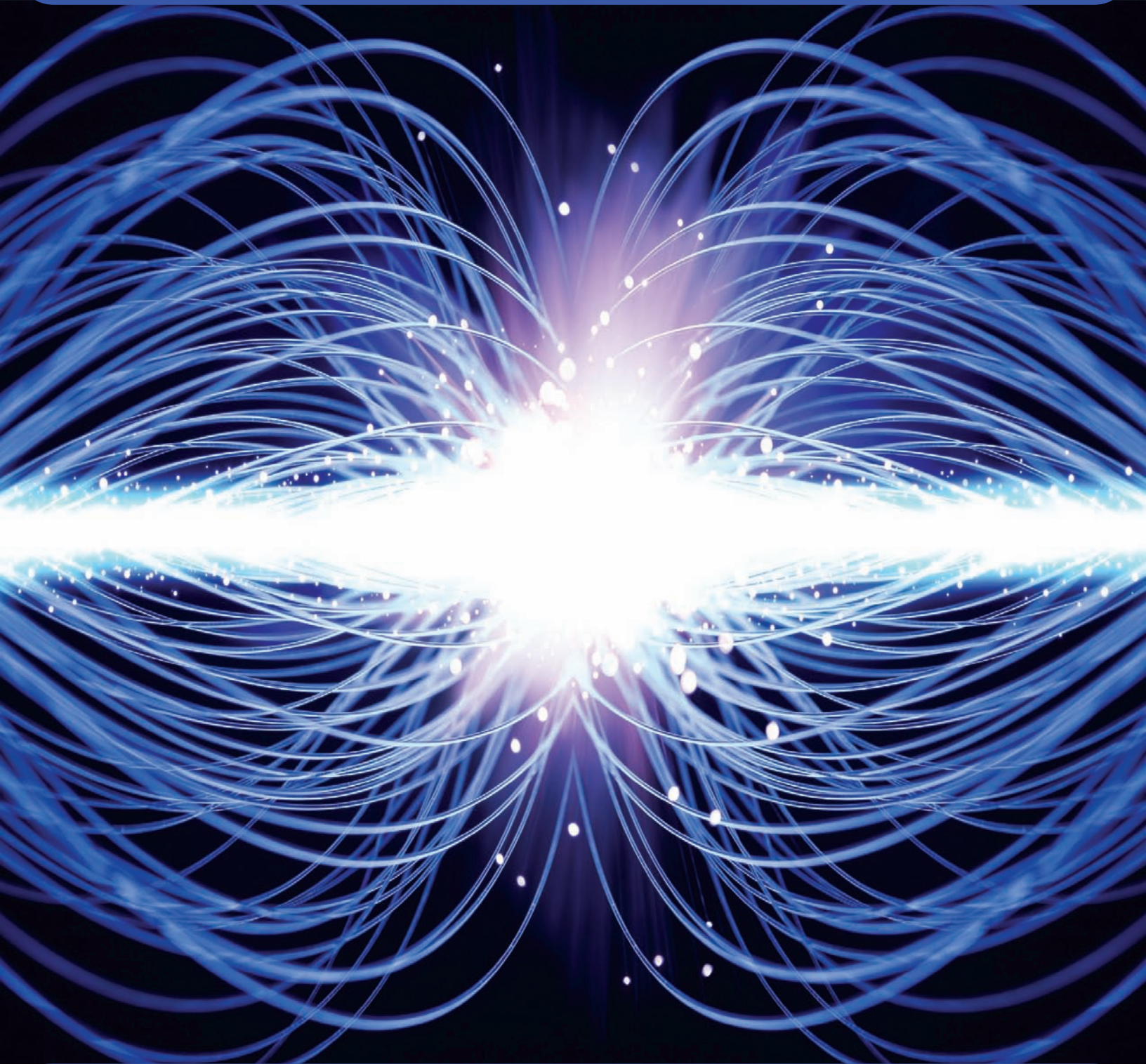


# OMNICABLE



## FIBER OPTIC CABLE

**(800) 292-OMNI**

**[omnicable.com](http://omnicable.com)**



# Fiber Optics

Fiber optic cables offer a distinct set of advantages over traditional copper based category communications cables, i.e. category 5, 5e, 6, etc. In particular, fiber optic cables offer greater bandwidth carrying capacity, complete electrical isolation, small-lightweight designs, and overall system reliability.

Fiber optic cables use light pulses from either an LED or Laser to transmit and receive data. Copper or category communications cables use electrical signals to transmit and receive information. Typically, fiber and copper communications cables interface via media conversion, whereas light pulses transmitted over fiber optic cables are converted into an electrical signal that allows connectivity to copper based communications cables.

The greatest advantage of fiber over copper communications cables is bandwidth. Fiber optic cables can offer up to 100x greater bandwidth carrying capacity. In many cases, the only limitation to the bandwidth capacity is the transmitters and receivers. In addition to bandwidth, another advantage of fiber is the low loss of information that is transmitted or received over long distances. In particular, most long haul communications networks require amplification about every mile. Fiber networks may only require amplification every 100 miles, depending on the type of fiber and transmission equipment used.

Omni Cable carries a full line of optical cables to meet all of your needs. Whether you are looking for fiber cables to service campus networks, LAN/WAN, long haul networks or tough environment applications, Omni Cable has the right cable for you.

## **Indoor**

Indoor fiber optic cables are strictly for indoor use, and come in a selection of plenum, riser, and low smoke zero halogen style cables, with the options of singlemode and multimode fiber grades. Indoor cables come in a tight buffer construction.

## **Indoor/Outdoor**

Indoor/Outdoor cables also come in a selection of plenum, riser, low smoke zero halogen style cables. Indoor/Outdoor cables have the option of a tight buffer or loose tube construction, depending on the environment the cable is installed into.

## **Outdoor**

Outdoor fiber optic cables come with either an all dielectric or direct burial/armored construction. Outdoor cables have a loose tube construction, which is designed to withstand tougher environmental conditions such as rain, ice, snow, and drastic temperature fluctuation. Outdoor cables also contain a water resistant substance within the oversized tubes protect the fibers in the event of a moisture breach.

## **SingleMode vs. MultiMode**




Singlemode fibers, which have the smallest core size, require the use of lasers that produce a precise beam of light to transmit and receive data. Singlemode fibers have a larger bandwidth than multimode fibers and are primarily used in long distance communications networks.

Multimode fibers, which have a core size of either 50 $\mu$  (micron) or 62.5 $\mu$ , require the use of LEDs that product a wide beam of light that transmit and receive in both directions of the fiber. LEDs do not allow for long transmission distances, therefore they are typically for short distance networks such as a LAN (Local Area Network). Multimode fibers support both 1GB and 10GB Ethernet protocol. 50 $\mu$  multimode fibers support 10GB at distances from 150 meter to 600 meters in length.

<b>F</b>	<b>6M</b>	<b>06</b>	<b>LN</b>	<b>R</b>
F - Fiber	Fiber Grade	Fiber Count	Construction	Cable Style
	8S - Singlemode	06	LA - Loose-Tube Armored	PI - Plenum Indoor
	51 - 50μ, 150M @ 10G	12	LN - Loose-Tube Non-Armored	RI - Riser Indoor
	53 - 50μ, 300M @ 10G	24	TA - Tight-Buffer Armored	ZI - Low Smoke Zero Halogen
	6M - 62.5μ		TN - Tight-Buffer Non-Armored	PIO - Plenum Indoor/Outdoor
				RIO - Riser Indoor/Outdoor
				ZIO - LSZH Indoor/Outdoor
				AO - Outdoor (Arid Core)
				GO - Outdoor (Gel filled)

**How to identify the Omni Cable Part Number**

These identifiers will help you determine your fiber optic cable. The fiber grade, the fiber count, the construction, and the cable style. All fiber optic cable part numbers start with the letter F, and are then followed by these letters and numbers.

Cable Style	Omni Part #	Fiber Count	Plenum	Riser	Tight Buffer	Loose Tube	Single Mode	MultiMode		Armor	Outdoor - Tubes		
								50μm	62.5μm		Arid	Gel	
 Indoor	F8S06TNPI	6	X		X		X						
	F8S12TNPI	12	X		X		X						
	F8S24TNPI	24	X		X		X						
	F8S06TAPI	6	X		X		X			X			
	F8S12TAPI	12	X		X		X			X			
	F5106TNPI	6	X		X			X					
	F5112TNPI	12	X		X			X					
	F5306TNPI	6	X		X			X					
	F5312TNPI	12	X		X			X					
	F5106TAPI	6	X		X			X		X			
	F5112TAPI	12	X		X			X		X			
	F5306TAPI	6	X		X			X		X			
	F5312TAPI	12	X		X			X		X			
	F6M06TNPI	6	X			X						X	
	F6M12TNPI	12	X			X						X	
	F6M24TNPI	24	X			X						X	
F6M06TAPI	6	X			X					X			
F6M12TAPI	12	X			X					X			
 Indoor/Outdoor	F8S06TNRIO	6		X	X		X						
	F8S12TNRIO	12		X	X		X						
	F8S06LNRIO	6		X		X	X						
	F8S12LNRIO	12		X		X	X						
	F6M06TNRIO	6		X	X			X					
	F6M12TNRIO	12		X	X			X					
	F6M06LNRIO	6		X		X		X					
	F6M12LNRIO	12		X		X		X					
	F6M06TNZIO	6				X		X					
	F6M12TNZIO	12				X		X					
 Outdoor	F8S12LAAO	12				X	X			X	X		
	F8S12LNAO	12				X	X				X		
	F6M06LNAO	6				X		X			X		
	F6M12LNAO	12				X		X			X		
	F6M12LAAO	12				X		X	X		X		
	F6M24LAAO	24				X		X	X		X		
	F6M06LNGO	6				X		X				X	
	F6M12LNGO	12				X		X				X	
	F8S06LNGO	6				X	X					X	
	F8S12LNGO	12				X	X					X	
	F6M06LAGO	6				X			X	X		X	
	F6M12LAGO	12				X			X	X		X	
	F8S06LAGO	6				X	X			X		X	
	F8S12LAGO	12				X	X			X		X	

# OMNICABLE

## AERIAL CABLES

Aluminum and Copper Conductors  
600V to 35kV  
Messengers - ACSR, Galvanized, or  
Copperweld

## COAXIAL CABLES

CATV/MATV  
Computer, Twinaxial  
Direct Burial  
Plenum & Non-Plenum Constructions

## COMPUTER & ELECTRONIC CABLES

Coaxial and Twinaxial Cables  
Alpha Wire  
Plenum & Non-Plenum Constructions  
Fire Alarm Cable FPLR/FPLP  
Security Grade  
Special Constructions  
Belden Equals

## CONTROL CABLES

Bus Drop - 3 and 4 Conductors  
Instrumentation Cable - 300V - 600V  
SO - 5 through 37 Conductor  
Tray Cable - VNTC, XLP, 20-10, FREP  
EPR - CSPE 600V Single Conductor  
XHHW & XLP-USE Copper Colors  
SDN  
VFD (Variable Frequency Drive)  
IMSA

## FLEXIBLE CABLES

Diesel - DLO 2kV  
Motor Lead - 75°C to 200°C  
Welding - 6 AWG through 500 MCM  
Jumper Cable - 5 to 15kV  
Lutze Industrial Cable

## HIGH TEMPERATURE - 105°C TO 1000°C

Silicone - SRML, SF2, SFF2  
TGGT, MGT  
Teflon - E, EE, ET, FEP  
Tefzel

## MEDIUM VOLTAGE - 5 TO 35kV

Single and Multi Conductor  
XLP and EPR Insulations  
Self-Supporting Aerial Cable  
PVC and CPE Jackets  
Splice and Termination

## HOOK-UP WIRE

UL 1007, UL 1015, UL 1061, UL 1569  
MTW, TEW, AWM  
Military Specification

## ARMOR CABLES - 600 Volt to 15kV

Aluminum or Galvanized Steel Armor  
Aluminum or Copper Conductors  
Continuous Corrugated Armor

## PLENUM CABLES

Article 725, 760, 800  
Type CL2P, CMP, FPLP  
200°C Teflon

## PORTABLE CORDS

Type G, G-GC, SHD-GC  
Type SO - Cord and Control  
Type W - Magnet Crane

## SWITCHBOARD - SIS

VW-1 - All Colors

## TELEPHONE

Aerial and Duct - PE 22  
Figure 8 - PE 38  
Direct Burial - PE 89  
Category 3, 5, LAN Cable

## THERMOCOUPLE CABLES

Type JX, KX, EX, TX  
Single and Multi Pair  
Shielded and Nonshielded  
All Insulations and Jackets

## THERMOSTAT WIRE

UL - 18 AWG, 20 AWG, 22 AWG  
Plenum - CL2P  
Custom Put Ups Available

## VALUE ADDED

Custom Dyeing  
Striping  
Twisting  
Lashing  
Bundled Omni Pull  
Custom Numbering  
Custom Engineered/Designed Cables

## FIBER OPTIC CABLES

OFNR, OFNP, OSP