

HellermannTyton is a leading global manufacturer of network cabling solutions which connect, manage and identify cable and components. Located in 34 countries, HellermannTyton utilizes global resources channeled to local implementations to offer its customers an integrated approach to design, operation and delivery. Flexibility, agility and the ability to create value-added, market-driven results are the hallmarks of every HellermannTyton company across the world.



## **Custom Solutions**

Because each project has different requirements there may be a need for custom products and solutions. HellermannTyton is adept at identifying customized solutions for our customers. Our skilled sales and customer service team members are happy to discuss your needs, recommend options and even supply samples. Our goal is to provide our customers with the best solutions based on their unique needs.



## **Responsive Service**

HellermannTyton is responsive to provide you with the support and service you need for your network cabling project, no matter the scale. We can assist with every step of the process and always lend the support required for meeting mission critical deadlines. Our knowledge and experience provide you with peace of mind so you can focus time and effort on other challenges.



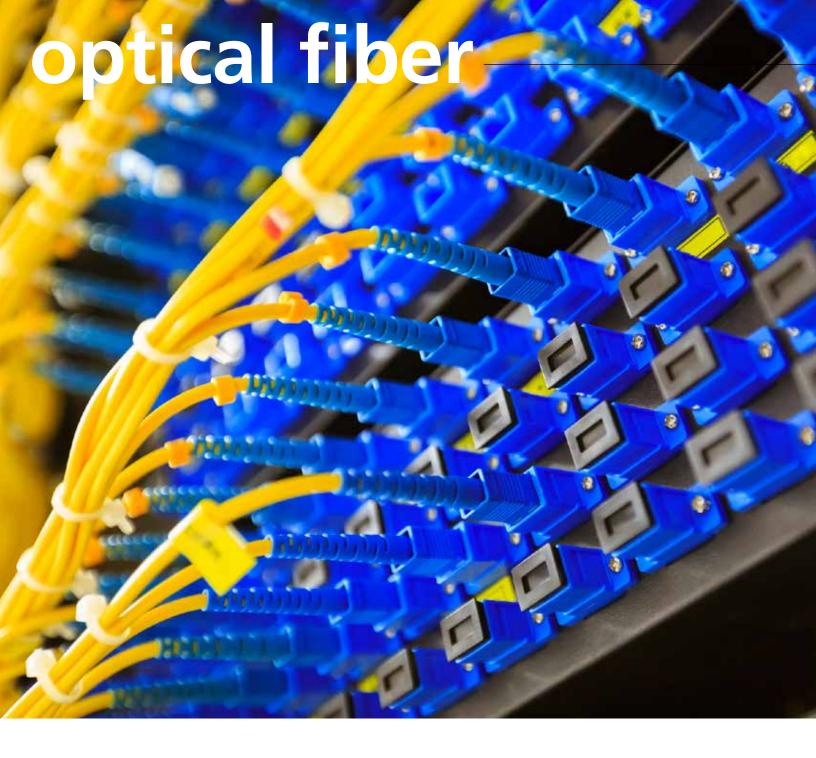
## **Environmental Consciousness**

At HellermannTyton, we work hard to be a greener company. In addition to achieving ISO 14001 accreditation for environmental management, we continually assess our performance as a business and the impact our business has on the environment.



## **Performance Driven**

As the line transmission rates are increased from 10 Gbps to 40 Gbps to 100 Gbps, HellermannTyton is ready to support the physical layer connectivity with high performance, multi-lane distribution of OM3 and OM4, as well as OS1/2 fiber optic components, that enable next generation fiber optic telecommunications and data communications networks.



The digital generation is expanding exponentially. To meet ever-increasing user demands, optimum data infrastructure and management are crucial. While traditional copper cable is prevalent in the data network, fiber optic cable is becoming more widely used in a number of applications. The goal of most network designers is to design and build a system that will last 10 years. When anticipating future network needs, the use of optical fiber should be a consideration.

### Why Optical Fiber?

There are some major advantages to using fiber optic cable over traditional copper cable. With its immunity to electromagnetic interference (EMI) and radio frequency interference (RFI), fiber optic cable is becoming the desired infrastructure for data transmission. Fiber cables can transport more data, and do so over greater distances, than copper cables. While standard copper cables are limited to the transmission distance of 295 feet of installed cable, fiber has the ability to transport signals across significant distances, and has earned a place in most network applications. In fact, fiber optic cable now runs down many residential streets and routes directly into many homes. In an enterprise project, fiber solutions provide an excellent backbone for high speed transmission of data.

The applications for fiber are extensive. Fiber is used to link together networks between office buildings, link dorms to other buildings on a college campus, and increasingly, to provide residential customers with cable television and telephone services from a central office. In most commercial buildings, fiber optic cable is used to join the main distribution frame (MDF), where network servers reside, to telecommunications rooms (TR) throughout the building.



Fiber optic cable is also ideal for installations in which space is limited. One small fiber optic cable can replace hundreds of copper communication cables. Optical fibers are ideally suited for carrying digital information, which is especially useful in computer networks.

One way to categorize the different types of computer network designs is by their scope or scale. The datacom industry refers to nearly every type of design as some kind of area network. Common examples of area network types are:

#### **SAN**

#### Storage Area Network

A secure high-speed data transfer network that provides access to consolidated block-level storage. A SAN makes a network of storage devices accessible to multiple servers.

#### LAN

#### **Local Area Network**

A small network that is generally confined to a single floor or building.

#### MAN

#### **Metropolitan Area Networks**

This typically covers a city with an area of between 3 and 30 miles in diameter.

#### **WAN**

#### Wide Area Networks

This usually refers to a network which covers a large geographical area, potentially encompassing several cities or between continents.



## **Choosing the Right Fiber Cable**

Fiber optic cable is available in two types, multimode and single mode. Multimode fiber, as the name suggests, permits a signal to travel in multiple modes, or pathways, along the inside of the glass strand or core. It is available with a fiber core diameter of 62.5/125 microns (μm) and a slightly smaller 50/125μm. Single mode fiber has a smaller core diameter, 8.3/125 – 9/125μm, than that of multimode fiber. A micron (μm) is 1 millionth of a meter. For comparison, a human hair is about 100μm in diameter.

#### Multimode Fiber

In a multimode fiber, the light is generated from an inexpensive light source called a vertical cavity surface-emitting laser, or VCSEL. VCSELs focus the light to a narrower band within the glass and operate at much higher speeds than traditional light-emitting diode (LED) technology. VCSEL technology allows transmission speeds between 1 Gbps and 10 Gbps, and does so relatively inexpensively, when used with the appropriate grade of fiber called laser optimized optical glass. This ultra-pure glass works exceptionally well carrying digital information at higher data rates, and permits the signals to travel farther. For example, the highest performing laser optimized 50/125µm glass fiber, known as OM4, can transmit data at 10 Gbps up to 550 meters. Multimode fiber is essential in local area network (LAN) applications.

### Single Mode Fiber

Single mode fiber has the ability to carry a signal for miles, which makes it ideal for larger telephone and cable television infrastructure installations. "Long haul" single mode applications require a much stronger laser to transmit data the greater distance. Single mode laser technology is significantly more expensive than multimode laser technology, and therefore is more often used in long distance runs where the ability to transmit data over a long distance is essential. Because of the cost implications, the use of single mode fiber tends to be limited to wide area network (WAN) or metropolitan area network (MAN) applications, linking locations within a region or city, and ultra large data centers.

#### Cable Bandwidth and Performance

Because of evolving data speed demands, fiber cable technology is rapidly changing. Just a few years ago, a 62.5/125µm OM1 fiber was adequate for most data needs. Today, 50/125µm fiber is quickly becoming the new standard, and for good reasons. A 50/125µm fiber can have up to 20 times the bandwidth (data throughput capacity) of a 62.5/125µm fiber. For identification purposes, multimode fiber and single mode fiber is often referred to by its performance level or bandwidth capability as identified by the International Organization of Standards (ISO) and the International Electrotechnical Committee (IEC). Multimode fiber cables are rated OM1 to OM4, with OM1 having the lowest bandwidth capability. 62.5/125µm multimode is referred to as OM1. Higher capacity 50/125µm multimode fiber cable is currently available in OM2, OM3 and OM4 - OM4 having the greatest bandwidth capability.

50/125µm OM3 fiber is designed to accommodate 10 Gb Ethernet up to 300 meters, while OM4 can accommodate 10 Gb Ethernet up to 550 meters. Therefore, many users are now choosing OM3 and OM4 over the other fiber types. Today, nearly 80% of 50/125µm fiber sold is OM3 or OM4. If you require higher data rates, or plan on upgrading your network in the near future, laser optimized 50/125µm (OM3 or OM4) multimode fiber would be the logical choice.

	Optic Cable Speed/Distance Capabilities								
Transmission Standards	100 Mb Ethernet	1 Gb Ethernet	10 Gb Ethernet	40 Gb Ethernet	100 Gb Ethernet				
OM1 (62.5/125)	up to 2000 meters	275 meters	33 meters	Not supported	Not supported				
OM2 (50/125)	up to 2000 meters	550 meters	82 meters	Not supported	Not supported				
OM3 (50/125)	up to 2000 meters	550 meters	300 meters	100 meters	100 meters				
OM4 (50/125)	up to 2000 meters	1000 meters	550 meters	150 meters	150 meters				
OS1/2 (9/125)			Up to 40 kilometers						

Selecting appropriate cable depends on the type of installation and the speed of data required. For backbone applications connecting buildings on a large campus or over long distances, single mode fiber (OS1 or OS2) is a necessity. However, multimode fiber can achieve significant distances across many levels of performance. For a typical enterprise-level project, multimode fiber will satisfy most requirements. The chart above provides fiber cable distance capabilities for each performance level.



## **HelaNet**<sup>™</sup> Fiber Solutions

## The HelaNet™ Fiber Solution from HellermannTyton

HellermannTyton's HelaNet fiber optic connectivity products provide users with the essential components necessary for field terminated fiber applications. Choose from a full array of enclosures, adapter panels, jumpers, trunks, standard connectors, keyed LC solutions, inserts and tools. Like our RapidNet® pre-terminated fiber solutions, HelaNet products offer high quality, reliability and exceptional performance. HelaNet products are intended to meet the growing demands of data networks, by maximizing space, efficiency and organization.









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## enclosures-

### **Fiber Enclosures**

HellermannTyton wall mount and rack mount fiber enclosures provide durable protection for direct termination and splice of LAN applications. Capable of supporting up to 1,728 fibers, our enclosures are equipped with cable management and routing accessories to control cable slack, limit bend radius and add strain relief control. Optional splice trays and sleeves are available for added convenience and versatility. HellermannTyton offers wall mount and rack mount fiber enclosures that work in a standard LGX footprint.

#### **Wall Mount Enclosures**

HellermannTyton wall mount fiber enclosures provide a secure termination solution for applications requiring fully enclosed and/or lockable enclosures. Wall mount enclosures accommodate up to 144 fibers, mount easily and provide easy cable routing access behind the enclosure. Choose from enclosure options to accommodate 1, 2 or 4 standard LGX adapter panels.



#### **APPLICATIONS:**

- Entrance rooms
- Telecommunications rooms
- Consolidation points

#### **FEATURES AND BENEFITS:**

- Durable stainless steel construction for long life
- Cable management spools for effective slack management
- Bend radius control to minimize hand and wrist strain
- Smooth grommet entry to protect cables from damage
- Locking tab for added security
- Meet ANSI/TIA/EIA 568-B standards

Article No.	Part No.	Туре	Description	Height (in.)	Width (in.)	Depth (in.)	Pkg Qty
904-00717	FEWM6	FEWM	Wall Mount Fiber Enclosure - Unloaded Accepts 1 Adapter Panel, Black	7.0	6.5	1.5	1
855-04207	FEWM12	FEWM	Wall Mount Fiber Enclosure - Unloaded Accepts 2 Adapter Panels, 1 Splice Tray, Black	15.63	13.0	2.1	1
855-04208	FEWM24	FEWM	Wall Mount Fiber Enclosure - Unloaded Accepts 4 Adapter Panels, 2 Splice Trays, Black	15.63	15.0	3.5	1

#### **Rack Mount Enclosures**

HellermannTyton rack mount enclosures are durable and support up to 1728 fibers. Rack enclosures work with standard 19" and 23" equipment racks and are designed to work with standard LGX adapter panels. HellermannTyton offers standard and GSA compliant rack mount enclosures. GSA compliant enclosures meet Trade Agreement Act (TAA) requirements, making them acceptable for use in US government projects.



#### **APPLICATIONS:**

- CATV
- Data centers
- Telecommunications rooms
- LAN, WAN and SAN
- Fiber-to-the-x (FTTx)
- Industrial control systems

#### **FEATURES AND BENEFITS:**

- Removable front and rear covers provide easy access to cables
- Slide-out tray with easy-to-grip raised edge
- Cable management spools for effective slack management
- Optional splice trays to assist with cable splicing
- Panel positioning for easier patch cord access
- Round edge plastic fiber saddles for easier patch cord routing
- Meet ANSI/TIA/EIA 568-B standards

Article No.	Part No.	Туре	Description	Height (in.)	Width (in.)	Depth (in.)	Pkg Qty
STANDARD R	ACK MOUNT	ENCLOSURES					
904-00686	FERM1U	FERM	Rack Mount Fiber Enclosure-Unloaded Accepts 3 Adapter Panels, 1U, BK	1.75	17.0	14.0	1
904-00687	FERM2U	FERM	Rack Mount Fiber Enclosure-Unloaded Accepts 6 Adapter Panels, 2U, BK	3.5	17.0	14.0	1
904-00688	FERM4U	FERM	Rack Mount Fiber Enclosure-Unloaded Accepts 12 Adapter Panels, 4U, BK	7.0	17.0	17.0	1
904-00689	FERM1UV	FERM	Rack Mount Fiber Enclosure-Unloaded, No Door Accepts 3 Adapter Panels, 1U, BK	1.75	19.0	8.15	1
GSA COMPLIA	ANT RACK MO	OUNT ENCLOS	SURES				
855-49200	FERM18S	FERM18S	Rack Mount Fiber Enclosure-Unloaded Accepts 3 Adapter Panels, 1U, BK	1.75	17.0	12.14	1
855-49201	FERM36S	FERM36S	Rack Mount Fiber Enclosure-Unloaded Accepts 6 Adapter Panels, 2U, BK	3.5	17.0	14.0	1

## accessories -

### **Enclosure Accessories**

For maximum organization, efficiency and utility, HellermannTyton offers splice sleeves and trays to assist in cable splicing applications. Fiber splice trays are available to accommodate 12 or 24 splices. Each tray provides space for mounting fiber splice protectors and excess fiber storage. Available in different shrink diameters, splice sleeves are constructed with a stainless steel inner tube and a polyolefin outer tube. Sleeves are heat bonded to ensure tubes maintain perfect alignment during shipping, handling and shrinking. Cable management spools organize cable slack.







Article No.	Part No.	Туре	Description	Length (in.)	Width (in.)	Height (in.)	Pkg Qty
SPLICE TRAYS	5						
904-00711	FEST12	FECM	12 Fiber Fusion Splice Tray, Clear Cover, Black	7.0	4.0	.31	1
904-00713	FEST24ST	FECM	24 Fiber Fusion Splice Tray, Stackable, Black	7.0	5.0	.59	1

Trays are compatible with all rack mount enclosures. For wall mount enclosures, select FEST12. Use **Part No.** for ordering and **Type** for specification purposes.

Article No.	Part No.	Туре	Description	Pkg Qty		
SPLICE SLEEVES						
904-00704	FESS3060	FECM	Splice Sleeve, 3.0mm OD, 60mm long	100		
904-00705	FESS2525	FECM	Splice Sleeve, 2.5mm OD, 25mm long	100		
904-00706	FESS2540	FECM	Splice Sleeve, 2.5mm OD, 40mm long	100		
904-00707	FESS2560	FECM	Splice Sleeve, 2.5mm OD, 60mm long	100		
904-00709	FESS2040	FECM	Splice Sleeve, 2.0mm OD, 40mm long	100		
904-00710	FESS2060	FECM	Splice Sleeve, 2.0mm OD, 60mm long	100		
CABLE MANAGEMEN	CABLE MANAGEMENT SPOOLS					
904-00714	FECMS	FECM	Cable Management Spools, Tan	2		

For enhanced cable management, spools can be added to the FERM4U rack mount enclosure. Use **Part No.** for ordering and **Type** for specification purposes.



### **Fiber Inserts**

Fiber inserts provide the final connection when using fiber as a digital loop carrier, or fiber-to-the-x solution. HellermannTyton offers a variety of fiber inserts with industry standard LC, SC, ST and MTRJ connections that can be used with HellermannTyton standard flush wall plates.



#### **FEATURES AND BENEFITS:**

- All single mode, single mode angled and multimode 10 Gb inserts feature durable zirconia ceramic ferrules, which allow for frequent, repeated insertion
- All standard multimode inserts feature phosphor bronze ferrules, which provide an affordable insert option
- Color coded for easy fiber selection
- Meet ANSI/TIA/EIA 568-B standards
- Meet ANSI/TIA/EIA 604 (FOCIS) connector interface requirements

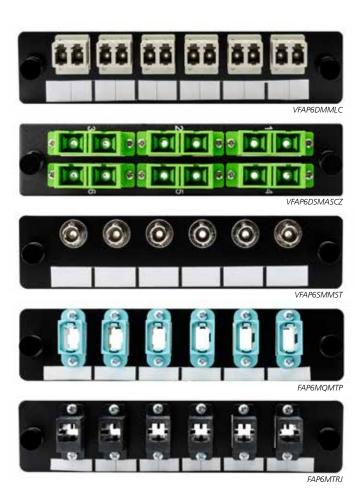
Article No.	Part No.	Туре	Description	Color	Fiber Type	Pkg Qty	Carton Qty
LC							
904-00757	LCMMINSERT-FW	LCINSERT	LC Multimode Fiber Insert	Beige, Office White	Multimode	1	25
904-00758	LCMMINSERT-I	LCINSERT	LC Multimode Fiber Insert	Beige, Ivory	Multimode	1	25
904-00759	LCMMINSERT-W	LCINSERT	LC Multimode Fiber Insert	Beige, White	Multimode	1	25
904-00743	LCSMINSERT-FW	LCINSERT	LC Single mode Fiber Insert	Blue, Office White	Single Mode	1	25
904-00744	LCSMINSERT-I	LCINSERT	LC Single mode Fiber Insert	Blue, Ivory	Single Mode	1	25
904-00745	LCSMINSERT-W	LCINSERT	LC Single mode Fiber Insert	Blue, White	Single Mode	1	25
SC							
904-00749	SCMMINSERT-FW	SCINSERT	SC Multimode Fiber Insert	Beige, Office White	Multimode	1	25
904-00750	SCMMINSERT-I	SCINSERT	SC Multimode Fiber Insert	Beige, Ivory	Multimode	1	25
904-00751	SCMMINSERT-W	SCINSERT	SC Multimode Fiber Insert	Beige, White	Multimode	1	25
904-00754	SCSMINSERT-FW	SCINSERT	SC Single Mode Fiber Insert	Blue, Office White	Single Mode	1	25
904-00755	SCSMINSERT-I	SCINSERT	SC Single Mode Fiber Insert	Blue, Ivory	Single Mode	1	25
904-00756	SCSMINSERT-W	SCINSERT	SC Single Mode Fiber Insert	Blue, White	Single Mode	1	25
904-00746	SCSMAINSERT-FW	SCINSERT	SC Single Mode Fiber Insert	Green, Office White	Single Mode Angled	1	25
904-00747	SCSMAINSERT-I	SCINSERT	SC Single Mode Fiber Insert	Green, Ivory	Single Mode Angled	1	25
904-00748	SCSMAINSERT-W	SCINSERT	SC Single Mode Fiber Insert	Green, White	Single Mode Angled	1	25
ST							
854-44227	FIBERINSERT-FW	FIBERINSERT	ST Fiber Insert	Office White	N/A	1	25
854-44228	FIBERINSERT-I	FIBERINSERT	ST Fiber Insert	lvory	N/A	1	25
854-44229	FIBERINSERT-W	FIBERINSERT	ST Fiber Insert	White	N/A	1	25
MTRJ							
854-44241	MTRJINSERT-FW	MTRJINSERT	MTRJ Fiber Insert	Office White	N/A	1	25
854-44242	MTRJINSERT-I	MTRJINSERT	MTRJ Fiber Insert	lvory	N/A	1	25
854-44243	MTRJINSERT-W	MTRJINSERT	MTRJ Fiber Insert	White	N/A	1	25

Phosphor bronze ferrules for MM; zirconia ceramic ferrules for SM, SM APC and MM 10 Gb. Use **Part No.** for ordering and **Type** for specification purposes.

# adapter panels

## **Fiber Adapter Panels**

For customized wall mount and rack mount fiber optic enclosures, HellermannTyton offers panel options featuring a variety of adapters to suit different preferences and applications. In addition to adapter panels with standard LC, SC, ST, MTP and MTRJ connections, HellermannTyton also offers custom solutions. Our adapter panels include options to accommodate OS1/2 in both standard and angled versions, as well as 62.5/125µm OM1, 50/125µm OM2 and 50/125µm 10 Gb OM3/4. HellermannTyton adapter panels are made with zirconia ceramic or phosphor bronze ferrules for minimal insertion loss contribution. Zirconia ceramic ferrules provided excellent durability and are an ideal choice for use in laser optimized multimode and single mode applications. HellermannTyton offers both standard and GSA compliant adapter panels. GSA compliant panels meet Trade Agreement Act (TAA) requirements, making them acceptable for use in US government projects.



#### **APPLICATIONS:**

- Entrance rooms
- Telecommunications rooms
- Consolidation points
- CATV
- Data centers
- LAN, WAN and SAN
- Fiber-to-the-x (FTTx)
- Industrial control systems

#### **FEATURES AND BENEFITS:**

- High performance zirconia ceramic ferrules allow for frequent, repeated insertion
- Standard LC, SC, ST, MTP and MTRJ connector options to suit specific applications
- "Snap lock" fixtures for easy and secure mounting
- Meet ANSI/TIA/EIA 568-B standards
- Meet ANSI/TIA/EIA 604 (FOCIS) connector interface requirements
- GSA compliant panels meet TAA requirements for use in government projects

#### **Adapter Panel Color Code Chart**

Color	Mode
Beige	Multimode
<ul><li>Black</li></ul>	Multimode
Aqua	10 Gb Multimode
<ul><li>Blue</li></ul>	Single Mode
Green	Single Mode Angled

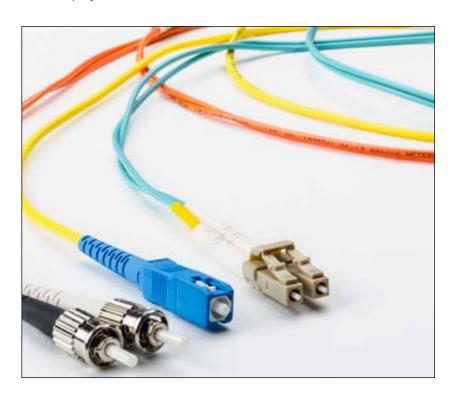
Article No.	Part No.	Туре	Description	Color	Fiber Count	Ferrule Type	Pkg Qty
ıc			STANDARD ADAPTER PANELS				
904-00363	VFAP6DMMLC	FAPLC	FT Adapter Panel Preloaded with 6 Duplex LC MM	Beige	12	PB	1
904-00366	VFAP6QMMLC	FAPLC	FT Adapter Panel Preloaded with 6 Quad LC MM	Beige	24	PB	1
904-00364	VFAP6DMMQLCZ	FAPLC	FT Adapter Panel Preloaded with 6 Duplex LC MM	Aqua	12	ZC	1
904-00367	VFAP6QMMQLCZ	FAPLC	FT Adapter Panel Preloaded with 6 Quad LC MM	Aqua	24	ZC	1
904-00365	VFAP6DSMLCZ	FAPLC	FT Adapter Panel Preloaded with 6 Duplex LC SM	Blue	12	ZC	1
904-00368	VFAP6OSMLCZ	FAPLC	FT Adapter Panel Preloaded with 6 Quad LC SM	Blue	24	ZC	1
SC	TIVE OQUINECE	171120	117 Adapter Farier Freibaded With 6 Quad Ec Sivi	Dide	2-1	20	·
904-00373	VFAP6SMMSC	FAPSC	FT Adapter Panel Preloaded with 6 Simplex SC MM	Beige	6	PB	1
904-00369	VFAP6DMMSC	FAPSC	FT Adapter Panel Preloaded with 6 Duplex SC MM	Beige	12	PB	1
904-00374	VFAP6SMMQSCZ	FAPSC	FT Adapter Panel Preloaded with 6 Simplex SC MM	Aqua	6	ZC	1
904-00370	VFAP6DMMQSCZ	FAPSC	FT Adapter Panel Preloaded with 6 Duplex SC MM	Aqua	12	ZC	1
904-00375	VFAP6SSMSCZ	FAPSC	FT Adapter Panel Preloaded with 6 Simplex SC SM	Blue	6	ZC	1
904-00371	VFAP6DSMSCZ	FAPSC	FT Adapter Panel Preloaded with 6 Duplex SC SM	Blue	12	ZC	1
904-00371	VFAP6SSMASCZ	FAPSC	FT Adapter Panel Preloaded with 6 Simplex SC SMA	Green	6	ZC	1
904-00372	VFAP6DSMASCZ	FAPSC	FT Adapter Panel Preloaded with 6 Duplex SC SMA	Green	12	ZC	1
ST 504 00372	VIAIODSWASCE	TAISC	TT Adapter Fuller Telodaca With 6 Duplex 3c Sivia	Green	12	20	'
904-00377	VFAP6SMMST	FAPST	FT Adapter Panel Preloaded with 6 ST MM	N/A	6	PB	1
904-00378	VFAP6SSMSTZ	FAPST	FT Adapter Panel Preloaded with 6 ST SM	N/A	6	ZC	1
904-00379	VFAP12SMMST	FAPST	FT Adapter Panel Preloaded with 12 ST MM	N/A	12	PB	1
904-00379	VFAP12SSMSTZ	FAPST	FT Adapter Panel Preloaded with 12 ST SM	N/A	12	ZC	1
304-00300	VIAI 12331VI312	IAISI		IWA	12	20	
			GSA COMPLIANT ADAPTER PANELS				
855-04219	FAPB	FAPB	Blank adapter panel	N/A	N/A	N/A	1
LC							
855-04212	FAP6DMMLC	FAPLC	Adapter Panel Preloaded with 6 Duplex LC MM	Beige	12	PB	1
855-24200	FAP8DMMLC	FAPLC	Adapter Panel Preloaded with 8 Duplex LC MM	Beige	16	PB	1
855-04228	FAP12DMMLC	FAPLC	Adapter Panel Preloaded with 6 Quad LC MM	Beige	24	PB	1
855-04230	FAP6DMMQLC	FAPLC	Adapter Panel Preloaded with 6 Duplex LC MM	Aqua	12	PB	1
855-04231	FAP12DMMQLC	FAPLC	Adapter Panel Preloaded with 6 Quad LC MM	Aqua	24	PB	1
855-04225	FAP6DSMLC	FAPLC	Adapter Panel Preloaded with 6 Duplex LC SM	Blue	12	ZC	1
855-04226	FAP12DSMLC	FAPLC	Adapter Panel Preloaded with 6 Quad LC SM	Blue	24	ZC	1
SC							
855-04211	FAP3DMMSC	FAPSC	Adapter Panel Preloaded with 3 Duplex SC MM	Beige	6	PB	1
855-04216	FAP6SMMSC	FAPSC	Adapter Panel Preloaded with 6 Simplex SC MM	Beige	6	PB	1
855-04217	FAP8SMMSC	FAPSC	Adapter Panel Preloaded with 8 Simplex SC MM	Beige	8	PB	1
855-04213	FAP6DMMSC	FAPSC	Adapter Panel Preloaded with 6 Duplex SC MM	Beige	12	PB	1
855-04232	FAP6DMMQSCZ	FAPSC	Adapter Panel Preloaded with 6 Duplex SC MM	Aqua	12	PB	1
855-04224	FAP6SSMSC	FAPSC	Adapter Panel Preloaded with 6 Simplex SC SM	Blue	6	ZC	1
855-04234	FAP6DSMSC	FAPSC	Adapter Panel Preloaded with 6 Duplex LC SM	Blue	12	ZC	1
ST							
855-04218	FAP6MMST	FAPST	Adapter Panel Preloaded with 6 ST MM	N/A	6	PB	1
855-04214	FAP8SMMST	FAPST	Adapter Panel Preloaded with 8 ST MM	N/A	8	PB	1
MTP							
855-04229	FAP6MMTP	FAPMTP	Adapter Panel Preloaded with 6 MTP MM	Black	72/144	N/A	1
855-04233	FAP6MQMTP	FAPMTP	Adapter Panel Preloaded with 6 MTP MM	Aqua	72/144	N/A	1
855-04227	FAP6SMTP	FAPMTP	Adapter Panel Preloaded with 6 MTP SM	Blue	72/144	N/A	1
MTRJ							

**PB** - Bronze phosphor ferrules, **ZC** - Zirconia ceramic ferrules. Use **Part No.** for ordering and **Type** for specification purposes.

# jumpers

## **Fiber Optic Jumpers**

For fiber patching requirements, HellermannTyton offers fiber optic jumpers in various lengths with a wide variety of connector configurations. HellermannTyton offers fiber jumpers in two types – standard and GSA compliant. Our standard jumpers combine quality with value, meeting all ANSI/TIA/EIA fiber optic cable requirements while allowing installers to maximize project budgets. In addition to meeting industry standards, GSA compliant jumpers meet Trade Agreement Act (TAA) requirements, making them acceptable for use in US government contract projects.



#### **APPLICATIONS:**

- Computer work station to outlet and fiber optic patch panels
- Optical cross connect distribution center

#### **FEATURES AND BENEFITS:**

- Pre-radiused zirconia ceramic ferrules for precision alignment
- Industry standard LC, SC, ST or MTRJ connectors to suit specific applications
- Available in 1-5 meter lengths
- 3mm cordage
- Color coded for easy identification
- Individually quality tested for insertion and return loss
- Meet ANSI/TIA/EIA 568-B standards
- Meet ANSI/TIA/EIA 604 (FOCIS) connector interface requirements

#### **Technical Information**

Jumper Type	Insertio	Return Loss	
Jumper Type	Typical	Max	Typical
Standard MM PC	≤ .2dB	≤ .3dB	≤ -25dB
Standard SM UPC	≤ .22dB	≤ .3dB	≤ -57dB
Standard SM APC	≤ .22dB	≤ .3dB	≤ -68dB
GSA Compliant MM	≤ .35dB	≤ .5dB	≤ -25dB
GSA Compliant SM UPC	≤ .2dB	≤ .35dB	≤ -58dB
GSA Compliant SM APC	≤ .25dB	≤ .4dB	≤ -70dB

#### **Cable Color Code Chart**

Color	Mode
Yellow	Single Mode OS1/2
Orange	Multimode OM1/2
Aqua	10 Gb Multimode (OM3)

Article No.	Part No.	Туре	Description	Color	Fiber Type	Length (m)	Pkg Qty
			STANDARD JUMPERS				
LC to LC							
904-00551	VFA1LCLCOM1	FALCLC	FT LC - LC Duplex OM1 Fiber Assembly	Orange	OM1	1	1
904-00552	VFA2LCLCOM1	FALCLC	FT LC - LC Duplex OM1 Fiber Assembly	Orange	OM1	2	1
904-00493	VFA3LCLCOM1	FALCLC	FT LC - LC Duplex OM1 Fiber Assembly	Orange	OM1	3	1
904-00553	VFA4LCLCOM1	FALCLC	FT LC - LC Duplex OM1 Fiber Assembly	Orange	OM1	4	1
904-00554	VFA5LCLCOM1	FALCLC	FT LC - LC Duplex OM1 Fiber Assembly	Orange	OM1	5	1
904-00491	VFA1LCLCOM2	FALCLC	FT LC - LC Duplex OM2 Fiber Assembly	Orange	OM2	1	1
904-00492	VFA2LCLCOM2	FALCLC	FT LC - LC Duplex OM2 Fiber Assembly	Orange	OM2	2	1
904-00494	VFA3LCLCOM2	FALCLC	FT LC - LC Duplex OM2 Fiber Assembly	Orange	OM2	3	1
904-00495	VFA5LCLCOM2	FALCLC	FT LC - LC Duplex OM2 Fiber Assembly	Orange	OM2	5	1
904-00496	VFA4LCLCOM2	FALCLC	FT LC - LC Duplex OM2 Fiber Assembly	Orange	OM2	4	1
904-00462	VFA1LCLCOM3	FALCLC	FT LC - LC Duplex OM3 Fiber Assembly	Aqua	OM3	1	1
904-00463	VFA2LCLCOM3	FALCLC	FT LC - LC Duplex OM3 Fiber Assembly	Aqua	OM3	2	1
904-00464	VFA3LCLCOM3	FALCLC	FT LC - LC Duplex OM3 Fiber Assembly	Aqua	OM3	3	1
904-00465	VFA4LCLCOM3	FALCLC	FT LC - LC Duplex OM3 Fiber Assembly	Aqua	OM3	4	1
904-00466	VFA5LCLCOM3	FALCLC	FT LC - LC Duplex OM3 Fiber Assembly	Aqua	OM3	5	1
904-00599	VFA1LCLCOS2	FALCLC	FT LC - LC Duplex OS2 Fiber Assembly	Yellow	OS2	1	1
904-00590	VFA2LCLCOS2	FALCLC	FT LC - LC Duplex OS2 Fiber Assembly	Yellow	OS2	2	1
904-00591	VFA3LCLCOS2	FALCLC	FT LC - LC Duplex OS2 Fiber Assembly	Yellow	OS2	3	1
904-00592	VFA4LCLCOS2	FALCLC	FT LC - LC Duplex OS2 Fiber Assembly	Yellow	OS2	4	1
904-00593	VFA5LCLCOS2	FALCLC	FT LC - LC Duplex OS2 Fiber Assembly	Yellow	OS2	5	1
LC to SC							
904-00555	VFA1LCSCOM1	FALCSC	FT LC - SC Duplex OM1 Fiber Assembly	Orange	OM1	1	1
904-00557	VFA2LCSCOM1	FALCSC	FT LC - SC Duplex OM1 Fiber Assembly	Orange	OM1	2	1
904-00558	VFA3LCSCOM1	FALCSC	FT LC - SC Duplex OM1 Fiber Assembly	Orange	OM1	3	1
904-00559	VFA4LCSCOM1	FALCSC	FT LC - SC Duplex OM1 Fiber Assembly	Orange	OM1	4	1
904-00560	VFA5LCSCOM1	FALCSC	FT LC - SC Duplex OM1 Fiber Assembly	Orange	OM1	5	1
904-00486	VFA1LCSCOM2	FALCSC	FT LC - SC Duplex OM2 Fiber Assembly	Orange	OM2	1	1
904-00487	VFA2LCSCOM2	FALCSC	FT LC - SC Duplex OM2 Fiber Assembly	Orange	OM2	2	1
904-00488	VFA3LCSCOM2	FALCSC	FT LC - SC Duplex OM2 Fiber Assembly	Orange	OM2	3	1
904-00489	VFA4LCSCOM2	FALCSC	FT LC - SC Duplex OM2 Fiber Assembly	Orange	OM2	4	1
904-00490	VFA5LCSCOM2	FALCSC	FT LC - SC Duplex OM2 Fiber Assembly	Orange	OM2	5	1
904-00467	VFA1LCSCOM3	FALCSC	FT LC - SC Duplex OM3 Fiber Assembly	Aqua	OM3	1	1
904-00468	VFA2LCSCOM3	FALCSC	FT LC - SC Duplex OM3 Fiber Assembly	Aqua	OM3	2	1
904-00670	VFA3LCSCOM3	FALCSC	FT LC - SC Duplex OM3 Fiber Assembly	Aqua	OM3	3	1
904-00671	VFA4LCSCOM3	FALCSC	FT LC - SC Duplex OM3 Fiber Assembly	Aqua	OM3	4	1
904-00472	VFA5LCSCOM3	FALCSC	FT LC - SC Duplex OM3 Fiber Assembly	Aqua	ОМЗ	5	1
904-00594	VFA1LCSCOS2	FALCSC	FT LC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	1	1
904-00595	VFA2LCSCOS2	FALCSC	FT LC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	2	1
904-00596	VFA3LCSCOS2	FALCSC	FT LC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	3	1
904-00597	VFA4LCSCOS2	FALCSC	FT LC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	4	1
904-00598	VFA5LCSCOS2	FALCSC	FT LC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	5	1

Use  $\mbox{\bf Part~No.}$  for ordering and  $\mbox{\bf Type}$  for specification purposes.

# jumpers—

Article No.	Part No.	Туре	Description	Color	Fiber Type	Length (m)	Pkg Qty
			STANDARD JUMPERS				
LC to ST							
904-00561	VFA1LCSTOM1	FALCST	FT LC - ST Duplex OM1 Fiber Assembly	Orange	OM1	1	1
904-00562	VFA2LCSTOM1	FALCST	FT LC - ST Duplex OM1 Fiber Assembly	Orange	OM1	2	1
904-00563	VFA3LCSTOM1	FALCST	FT LC - ST Duplex OM1 Fiber Assembly	Orange	OM1	3	1
904-00564	VFA4LCSTOM1	FALCST	FT LC - ST Duplex OM1 Fiber Assembly	Orange	OM1	4	1
904-00565	VFA5LCSTOM1	FALCST	FT LC - ST Duplex OM1 Fiber Assembly	Orange	OM1	5	1
904-00498	VFA1LCSTOM2	FALCST	FT LC - ST Duplex OM2 Fiber Assembly	Orange	OM2	1	1
904-00499	VFA2LCSTOM2	FALCST	FT LC - ST Duplex OM2 Fiber Assembly	Orange	OM2	2	1
904-00543	VFA3LCSTOM2	FALCST	FT LC - ST Duplex OM2 Fiber Assembly	Orange	OM2	3	1
904-00544	VFA4LCSTOM2	FALCST	FT LC - ST Duplex OM2 Fiber Assembly	Orange	OM2	4	1
904-00545	VFA5LCSTOM2	FALCST	FT LC - ST Duplex OM2 Fiber Assembly	Orange	OM2	5	1
904-00470	VFA1LCSTOM3	FALCST	FT LC - ST Duplex OM3 Fiber Assembly	Aqua	OM3	1	1
904-00471	VFA2LCSTOM3	FALCST	FT LC - ST Duplex OM3 Fiber Assembly	Aqua	OM3	2	1
904-00473	VFA3LCSTOM3	FALCST	FT LC - ST Duplex OM3 Fiber Assembly	Aqua	ОМЗ	3	1
904-00474	VFA4LCSTOM3	FALCST	FT LC - ST Duplex OM3 Fiber Assembly	Aqua	OM3	4	1
904-00475	VFA5LCSTOM3	FALCST	FT LC - ST Duplex OM3 Fiber Assembly	Aqua	ОМЗ	5	1
904-00600	VFA1LCSTOS2	FALCST	FT LC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	1	1
904-00601	VFA2LCSTOS2	FALCST	FT LC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	2	1
904-00602	VFA3LCSTOS2	FALCST	FT LC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	3	1
904-00603	VFA4LCSTOS2	FALCST	FT LC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	4	1
904-00604	VFA5LCSTOS2	FALCST	FT LC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	5	1
LC to MTRJ							
904-00566	VFA1LCMTOM1	FACLCMT	FT LC - MTRJ Duplex OM1 Fiber Assembly	Orange	OM1	1	1
904-00567	VFA2LCMTOM1	FACLCMT	FT LC - MTRJ Duplex OM1 Fiber Assembly	Orange	OM1	2	1
904-00568	VFA3LCMTOM1	FACLCMT	FT LC - MTRJ Duplex OM1 Fiber Assembly	Orange	OM1	3	1
904-00569	VFA4LCMTOM1	FACLCMT	FT LC - MTRJ Duplex OM1 Fiber Assembly	Orange	OM1	4	1
904-00570	VFA5LCMTOM1	FACLCMT	FT LC - MTRJ Duplex OM1 Fiber Assembly	Orange	OM1	5	1
ST to ST	VEAGETSTORE	FACTOT	FT CT CT Dumley CMA 5"	0	0144		
904-00582	VFA1STSTOM1	FASTST	FT ST - ST Duplex OM1 Fiber Assembly	Orange	OM1	1	1
904-00586	VFA2STSTOM1	FASTST	FT ST - ST Duplex OM1 Fiber Assembly	Orange	OM1	2	1
904-00587	VFA3STSTOM1	FASTST	FT ST - ST Duplex OM1 Fiber Assembly	Orange	OM1	3	1
904-00588	VFA4STSTOM1	FASTST	FT ST - ST Duplex OM1 Fiber Assembly	Orange	OM1	4	1
904-00589	VFA5STSTOM1	FASTST	FT ST - ST Duplex OM1 Fiber Assembly	Orange	OM1	5	1
904-00616	VFA1STSTOS2	FASTST	FT ST - ST Duplex OS2 Fiber Assembly	Yellow	OS2	1	1
904-00617	VFA2STSTOS2	FASTST	FT ST - ST Duplex OS2 Fiber Assembly	Yellow	OS2	2	1
904-00618	VFA3STSTOS2	FASTST	FT ST - ST Duplex OS2 Fiber Assembly	Yellow	OS2	3	1
904-00619	VFA4STSTOS2	FASTST	FT ST - ST Duplex OS2 Fiber Assembly	Yellow	OS2	4	1
904-00620	VFA5STSTOS2	FASTST	FT ST - ST Duplex OS2 Fiber Assembly	Yellow	OS2	5	1

904-00573	Article No.	Part No.	Type	Type Description		Fiber Type	Length (m)	Pkg Qty
904-00572				STANDARD JUMPERS				
904-00573	SC to SC							
904-00574	904-00572	VFA1SCSCOM1	FASCSC	FT SC - SC Duplex OM1 Fiber Assembly	Orange	OM1	1	1
904-00575	904-00573	VFA2SCSCOM1	FASCSC	FT SC - SC Duplex OM1 Fiber Assembly	Orange	OM1	2	1
904-00576         VFASSCSCOM1         FASCSC         FT SC - SC Duplex OM1 fiber Assembly         Orange         OM1         5           904-00546         VFA1SCSCOM2         FASCSC         FT SC - SC Duplex OM2 fiber Assembly         Orange         OM2         1           904-00547         VFA2SCSCOM2         FASCSC         FT SC - SC Duplex OM2 fiber Assembly         Orange         OM2         2           904-00548         VFA3SCSCOM2         FASCSC         FT SC - SC Duplex OM2 fiber Assembly         Orange         OM2         3           904-00549         VFA4SCSCOM2         FASCSC         FT SC - SC Duplex OM2 fiber Assembly         Orange         OM2         4           904-00550         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OM2 fiber Assembly         Orange         OM2         5           904-00476         VFA1SCSCOM3         FASCSC         FT SC - SC Duplex OM3 fiber Assembly         Aqua         OM3         1           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC	904-00574	VFA3SCSCOM1	FASCSC	FT SC - SC Duplex OM1 Fiber Assembly	Orange	OM1	3	1
904-00546         VFA1SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         1           904-00547         VFA2SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         2           904-00548         VFA3SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         3           904-00549         VFA4SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         4           904-00476         VFA1SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00477         VFA2SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         2           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         4           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00606         VFA3SCSCOS2         FASCSC <t< td=""><td>904-00575</td><td>VFA4SCSCOM1</td><td>FASCSC</td><td>FT SC - SC Duplex OM1 Fiber Assembly</td><td>Orange</td><td>OM1</td><td>4</td><td>1</td></t<>	904-00575	VFA4SCSCOM1	FASCSC	FT SC - SC Duplex OM1 Fiber Assembly	Orange	OM1	4	1
904-00547         VFA2SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         2           904-00548         VFA3SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         3           904-00549         VFA4SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         4           904-00550         VFA5SCSCOM2         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Orange         OM2         5           904-00476         VFA1SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         2           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00480         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC	904-00576	VFA5SCSCOM1	FASCSC	FT SC - SC Duplex OM1 Fiber Assembly	Orange	OM1	5	1
904-00548         VFA3SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         3           904-00549         VFA4SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         4           904-00550         VFA5SCSCOM2         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Orange         OM2         5           904-00476         VFA1SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00477         VFA2SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         2           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Aqua         OM3         4           904-0040080         VFA1SCSCOM3         FASCSC	904-00546	VFA1SCSCOM2	FASCSC	FT SC - SC Duplex OM2 Fiber Assembly	Orange	OM2	1	1
904-00549         VFAASCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         4           904-00550         VFASSCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         5           904-00476         VFA1SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00477         VFA2SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         2           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         4           904-004080         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Aqua         OM3         5           904-00600         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00609         VFA4SCSCOS2         FASCSC         F	904-00547	VFA2SCSCOM2	FASCSC	FT SC - SC Duplex OM2 Fiber Assembly	Orange	OM2	2	1
904-00550         VFA5SCSCOM2         FASCSC         FT SC - SC Duplex OM2 Fiber Assembly         Orange         OM2         5           904-00476         VFA1SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00477         VFA2SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         2           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         4           904-00480         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00600         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00600         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         4           904-00609         VFA4SCSCOS2         FASCSC <t< td=""><td>904-00548</td><td>VFA3SCSCOM2</td><td>FASCSC</td><td>FT SC - SC Duplex OM2 Fiber Assembly</td><td>Orange</td><td>OM2</td><td>3</td><td>1</td></t<>	904-00548	VFA3SCSCOM2	FASCSC	FT SC - SC Duplex OM2 Fiber Assembly	Orange	OM2	3	1
904-00476         VFA1SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00477         VFA2SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         2           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         4           904-00480         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         5           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00606         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00609         VFA5SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         5           SC to ST         904-00579         VFA1SCSTOM1 <td>904-00549</td> <td>VFA4SCSCOM2</td> <td>FASCSC</td> <td>FT SC - SC Duplex OM2 Fiber Assembly</td> <td>Orange</td> <td>OM2</td> <td>4</td> <td>1</td>	904-00549	VFA4SCSCOM2	FASCSC	FT SC - SC Duplex OM2 Fiber Assembly	Orange	OM2	4	1
904-00477         VFA2SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         2           904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         4           904-00480         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         5           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00606         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00608         VFA4SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         4           904-00609         VFA5SCSCOS2         FASCSC         FT SC - SC Duplex OM1 Fiber Assembly         Yellow         OS2         5           SC to ST         904-00577         VFA1SCSTOM1	904-00550	VFA5SCSCOM2	FASCSC	FT SC - SC Duplex OM2 Fiber Assembly	Orange	OM2	5	1
904-00478         VFA3SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         3           904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         4           904-00480         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         5           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00606         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00608         VFA4SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         4           904-00609         VFA5SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         5           SC to ST         904-00577         VFA1SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         1           904-00578         VFA3SCSTOM1	904-00476	VFA1SCSCOM3	FASCSC	FT SC - SC Duplex OM3 Fiber Assembly	Aqua	ОМЗ	1	1
904-00479         VFA4SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         4           904-00480         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         5           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00606         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00608         VFA4SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         4           904-00609         VFA5SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         5           SC to ST         904-00577         VFA1SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         1           904-00578         VFA3SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         3           904-00580         VFA4SCSTO	904-00477	VFA2SCSCOM3	FASCSC	FT SC - SC Duplex OM3 Fiber Assembly	Aqua	ОМЗ	2	1
904-00480         VFA5SCSCOM3         FASCSC         FT SC - SC Duplex OM3 Fiber Assembly         Aqua         OM3         5           904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00606         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00608         VFA4SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         4           904-00609         VFA5SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         5           SC to ST           904-00577         VFA1SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         1           904-00578         VFA3SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         2           904-00580         VFA4SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         4           904-00481	904-00478	VFA3SCSCOM3	FASCSC	FT SC - SC Duplex OM3 Fiber Assembly	Aqua	ОМЗ	3	1
904-00605         VFA1SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         1           904-00606         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00608         VFA4SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         4           904-00609         VFA5SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         5           SC to ST         904-00577         VFA1SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         1           904-00578         VFA2SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         2           904-00580         VFA4SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         4           904-00581         VFA5SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         5           904-00482         VFA1S	904-00479	VFA4SCSCOM3	FASCSC	FT SC - SC Duplex OM3 Fiber Assembly	Aqua	ОМЗ	4	1
904-00606         VFA2SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         2           904-00607         VFA3SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         3           904-00608         VFA4SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         4           904-00609         VFA5SCSCOS2         FASCSC         FT SC - SC Duplex OS2 Fiber Assembly         Yellow         OS2         5           SC to ST         904-00577         VFA1SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         1           904-00578         VFA2SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         2           904-00579         VFA3SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         3           904-00580         VFA4SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         4           904-00581         VFA5SCSTOM3         FASCST         FT SC - ST Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00482         VFA2SCS	904-00480	VFA5SCSCOM3	FASCSC	FT SC - SC Duplex OM3 Fiber Assembly	Aqua	ОМЗ	5	1
904-00607 VFA3SCSCOS2 FASCSC FT SC - SC Duplex OS2 Fiber Assembly Yellow OS2 3 904-00608 VFA4SCSCOS2 FASCSC FT SC - SC Duplex OS2 Fiber Assembly Yellow OS2 4 904-00609 VFA5SCSCOS2 FASCSC FT SC - SC Duplex OS2 Fiber Assembly Yellow OS2 5 SC to ST 904-00577 VFA1SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 1 904-00578 VFA2SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 2 904-00579 VFA3SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 3 904-00580 VFA4SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 4 904-00581 VFA5SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 5 904-00481 VFA1SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 1 904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00605	VFA1SCSCOS2	FASCSC	FT SC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	1	1
904-00608 VFA4SCSCOS2 FASCSC FT SC - SC Duplex OS2 Fiber Assembly Yellow OS2 4 904-00609 VFA5SCSCOS2 FASCSC FT SC - SC Duplex OS2 Fiber Assembly Yellow OS2 5  SC to ST 904-00577 VFA1SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 1 904-00578 VFA2SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 2 904-00579 VFA3SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 3 904-00580 VFA4SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 4 904-00581 VFA5SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 5 904-00481 VFA1SCSTOM3 FASCST FT SC - ST Duplex OM1 Fiber Assembly Aqua OM3 1 904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00606	VFA2SCSCOS2	FASCSC	FT SC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	2	1
904-00609 VFA5SCSCOS2 FASCSC FT SC - SC Duplex OS2 Fiber Assembly Yellow OS2 5  SC to ST  904-00577 VFA1SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 1  904-00578 VFA2SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 2  904-00579 VFA3SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 3  904-00580 VFA4SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 4  904-00581 VFA5SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 5  904-00481 VFA1SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 1  904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00607	VFA3SCSCOS2	FASCSC	FT SC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	3	1
904-00577 VFA1SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 1 904-00578 VFA2SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 2 904-00579 VFA3SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 3 904-00580 VFA4SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 4 904-00581 VFA5SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 5 904-00481 VFA1SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 1 904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00608	VFA4SCSCOS2	FASCSC	FT SC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	4	1
904-00577 VFA1SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 1 904-00578 VFA2SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 2 904-00579 VFA3SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 3 904-00580 VFA4SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 4 904-00581 VFA5SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 5 904-00481 VFA1SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 1 904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00609	VFA5SCSCOS2	FASCSC	FT SC - SC Duplex OS2 Fiber Assembly	Yellow	OS2	5	1
904-00578         VFA2SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         2           904-00579         VFA3SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         3           904-00580         VFA4SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         4           904-00581         VFA5SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         5           904-00481         VFA1SCSTOM3         FASCST         FT SC - ST Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00482         VFA2SCSTOM3         FASCST         FT SC - ST Duplex OM3 Fiber Assembly         Aqua         OM3         2	SC to ST							
904-00579         VFA3SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         3           904-00580         VFA4SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         4           904-00581         VFA5SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         5           904-00481         VFA1SCSTOM3         FASCST         FT SC - ST Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00482         VFA2SCSTOM3         FASCST         FT SC - ST Duplex OM3 Fiber Assembly         Aqua         OM3         2	904-00577	VFA1SCSTOM1	FASCST	FT SC - ST Duplex OM1 Fiber Assembly	Orange	OM1	1	1
904-00580 VFA4SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 4 904-00581 VFA5SCSTOM1 FASCST FT SC - ST Duplex OM1 Fiber Assembly Orange OM1 5 904-00481 VFA1SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 1 904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00578	VFA2SCSTOM1	FASCST	FT SC - ST Duplex OM1 Fiber Assembly	Orange	OM1	2	1
904-00581         VFA5SCSTOM1         FASCST         FT SC - ST Duplex OM1 Fiber Assembly         Orange         OM1         5           904-00481         VFA1SCSTOM3         FASCST         FT SC - ST Duplex OM3 Fiber Assembly         Aqua         OM3         1           904-00482         VFA2SCSTOM3         FASCST         FT SC - ST Duplex OM3 Fiber Assembly         Aqua         OM3         2	904-00579	VFA3SCSTOM1	FASCST	FT SC - ST Duplex OM1 Fiber Assembly	Orange	OM1	3	1
904-00481 VFA1SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 1 904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00580	VFA4SCSTOM1	FASCST	FT SC - ST Duplex OM1 Fiber Assembly	Orange	OM1	4	1
904-00482 VFA2SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 2	904-00581	VFA5SCSTOM1	FASCST	FT SC - ST Duplex OM1 Fiber Assembly	Orange	OM1	5	1
	904-00481	VFA1SCSTOM3	FASCST	FT SC - ST Duplex OM3 Fiber Assembly	Aqua	OM3	1	1
904-00483 VFA3SCSTOM3 FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 3	904-00482	VFA2SCSTOM3	FASCST	FT SC - ST Duplex OM3 Fiber Assembly	Aqua	OM3	2	1
	904-00483	VFA3SCSTOM3	FASCST	FT SC - ST Duplex OM3 Fiber Assembly	Aqua	OM3	3	1
904-00484 <b>VFA4SCSTOM3</b> FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 4	904-00484	VFA4SCSTOM3	FASCST	FT SC - ST Duplex OM3 Fiber Assembly	Aqua	OM3	4	1
904-00485 <b>VFA5SCSTOM3</b> FASCST FT SC - ST Duplex OM3 Fiber Assembly Aqua OM3 5	904-00485	VFA5SCSTOM3	FASCST	FT SC - ST Duplex OM3 Fiber Assembly	Aqua	ОМЗ	5	1
904-00610 VFA1SCSTOS2 FASCST FT SC - ST Duplex OS2 Fiber Assembly Yellow OS2 1	904-00610	VFA1SCSTOS2	FASCST	FT SC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	1	1
904-00611 VFA2SCSTOS2 FASCST FT SC - ST Duplex OS2 Fiber Assembly Yellow OS2 2	904-00611	VFA2SCSTOS2	FASCST	FT SC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	2	1
904-00613 VFA3SCSTOS2 FASCST FT SC - ST Duplex OS2 Fiber Assembly Yellow OS2 3	904-00613	VFA3SCSTOS2	FASCST	FT SC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	3	1
904-00614 VFA4SCSTOS2 FASCST FT SC - ST Duplex OS2 Fiber Assembly Yellow OS2 4	904-00614	VFA4SCSTOS2	FASCST	FT SC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	4	1
904-00615 <b>VFA5SCSTOS2</b> FASCST FT SC - ST Duplex OS2 Fiber Assembly Yellow OS2 5	904-00615	VFA5SCSTOS2	FASCST	FT SC - ST Duplex OS2 Fiber Assembly	Yellow	OS2	5	1

# jumpers –

Article No.	Part No.	Туре	Description	Color	Fiber Type	Length (m)	Pkg Qty
			GSA COMPLIANT JUMPERS				
LC to LC							
855-34200	FA1LCLC	FALCLC	LC - LC Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34213	FA2LCLC	FALCLC	LC - LC Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34226	FA3LCLC	FALCLC	LC - LC Duplex Multimode Fiber Assembly	Orange	OM1	3	1
904-00719	FA1LCLC50	FALCLC	LC - LC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	1	1
904-00720	FA2LCLC50	FALCLC	LC - LC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	2	1
904-00721	FA3LCLC50	FALCLC	LC - LC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	3	1
855-44200	FA1LCLC10G	FALCLC	LC - LC Duplex 10G Multimode Fiber Assembly	Aqua	OM3	1	1
855-44201	FA2LCLC10G	FALCLC	LC - LC Duplex 10G Multimode Fiber Assembly	Aqua	OM3	2	1
855-44202	FA3LCLC10G	FALCLC	LC - LC Duplex 10G Multimode Fiber Assembly	Aqua	OM3	3	1
855-34208	FA1SMLCLC	FASMLCLC	LC - LC Simplex Single Mode Fiber Assembly	Yellow	OS2	1	1
855-34221	FA2SMLCLC	FASMLCLC	LC - LC Simplex Single Mode Fiber Assembly	Yellow	OS2	2	1
855-34235	FA3SMLCLC	FASMLCLC	LC - LC Simplex Single Mode Fiber Assembly	Yellow	OS2	3	1
LC to SC							
855-34201	FA1LCSC	FALCSC	LC - SC Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34214	FA2LCSC	FALCSC	LC - SC Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34227	FA3LCSC	FALCSC	LC - SC Duplex Multimode Fiber Assembly	Orange	OM1	3	1
904-00722	FA1LCSC50	FALCSC	LC - SC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	1	1
904-00723	FA2LCSC50	FALCSC	LC - SC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	2	1
904-00724	FA3LCSC50	FALCSC	LC - SC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	3	1
904-00725	FA1SMLCSC	FASMLCSC	LC - SC Simplex Single Mode Fiber Assembly	Yellow	OS2	1	1
904-00726	FA2SMLCSC	FASMLCSC	LC - SC Simplex Single Mode Fiber Assembly	Yellow	OS2	2	1
904-00727	FA3SMLCSC	FASMLCSC	LC - SC Simplex Single Mode Fiber Assembly	Yellow	OS2	3	1
LC to ST							
855-34202	FA1LCST	FALCST	LC - ST Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34215	FA2LCST	FALCST	LC - ST Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34228	FA3LCST	FALCST	LC - ST Duplex Multimode Fiber Assembly	Orange	OM1	3	1
904-00728	FA1LCST50	FALCST	LC - ST Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	1	1
904-00729	FA2LCST50	FALCST	LC - ST Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	2	1
904-00730	FA3LCST50	FALCST	LC - ST Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	3	1
904-00731	FA1LCST10G	FALCST	LC - ST Duplex 10G Multimode Fiber Assembly	Aqua	OM3	1	1
904-00732	FA2LCST10G	FALCST	LC - ST Duplex 10G Multimode Fiber Assembly	Aqua	OM3	2	1
904-00733	FA3LCST10G	FALCST	LC - ST Duplex 10G Multimode Fiber Assembly	Aqua	OM3	3	1

Use  $\boldsymbol{\textbf{Part No.}}$  for ordering and  $\boldsymbol{\textbf{Type}}$  for specification purposes.

Article No.	Part No.	Туре	Description	Color	Fiber Type	Length (m)	Pkg Qty
			GSA COMPLIANT JUMPERS				
SC to SC							
855-34206	FA1SCSC	FASCSC	SC - SC Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34219	FA2SCSC	FASCSC	SC - SC Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34233	FA3SCSC	FASCSC	SC - SC Duplex Multimode Fiber Assembly	Orange	OM1	3	1
904-00734	FA1SCSC50	FASCSC	SC - SC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	1	1
904-00735	FA2SCSC50	FASCSC	SC - SC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	2	1
904-00736	FA3SCSC50	FASCSC	SC - SC Duplex 50 Micron Multimode Fiber Assembly	Orange	OM2	3	1
855-34209	FA1SMSCSC	FASMSCSC	SC - SC Simplex Single Mode Fiber Assembly	Yellow	OS2	1	1
855-34222	FA2SMSCSC	FASMSCSC	SC - SC Simplex Single Mode Fiber Assembly	Yellow	OS2	2	1
855-34236	FA3SMSCSC	FASMSCSC	SC - SC Simplex Single Mode Fiber Assembly	Yellow	OS2	3	1
SC to ST							
855-34211	FA1STSC	FASTSC	SC - ST Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34224	FA2STSC	FASTSC	SC - ST Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34238	FA3STSC	FASTSC	SC - ST Duplex Multimode Fiber Assembly	Orange	OM1	3	1
ST to ST							
855-34212	FA1STST	FASTST	ST - ST Duplex Multimode Fiber Assembly		OM1	1	1
855-34225	FA2STST	FASTST	ST - ST Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34239	FA3STST	FASTST	ST - ST Duplex Multimode Fiber Assembly	Orange	OM1	3	1
855-34210	FA1SMSTST	FASMSTST	ST - ST Simplex Single Mode Fiber Assembly	Yellow	OS2	1	1
855-34223	FA2SMSTST	FASMSTST	ST - ST Simplex Single Mode Fiber Assembly	Yellow	OS2	2	1
855-34237	FA3SMSTST	FASMSTST	ST - ST Simplex Single Mode Fiber Assembly	Yellow	OS2	3	1
MTRJ to SC							
855-34204	FA1MTSC	FAMTSC	MTRJ - SC Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34217	FA2MTSC	FAMTSC	MTRJ - SC Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34230	FA3MTSC	FAMTSC	MTRJ - SC Duplex Multimode Fiber Assembly	Orange	OM1	3	1
MTRJ to ST							
855-34205	FA1MTST	FAMTST	MTRJ - ST Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34218	FA2MTST	FAMTST	MTRJ - ST Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34232	FA3MTST	FAMTST	MTRJ - ST Duplex Multimode Fiber Assembly	Orange	OM1	3	1
MTRJ to MTR	J						
855-34203	FA1MTMT	FAMTMT	MTRJ - MTRJ Duplex Multimode Fiber Assembly	Orange	OM1	1	1
855-34216	FA2MTMT	FAMTMT	MTRJ - MTRJ Duplex Multimode Fiber Assembly	Orange	OM1	2	1
855-34229	FA3MTMT	FAMTMT	MTRJ - MTRJ Duplex Multimode Fiber Assembly	Orange	OM1	3	1



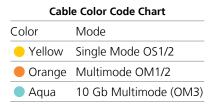
## **Fiber Optic Trunk Cables**

Available in single mode and multimode, HellermannTyton fiber optic trunks are built-to-order, to meet your specifications. Trunks are made with your choice of standard LC, ST, SC, MTRJ or MTP connectors with high quality zirconia ceramic ferrules. By using superior components and a proprietary ferrule polishing process, HellermannTyton manufactures trunk assemblies that meet the highest performance standards. Each assembly is individually tested for insertion loss and return loss. See the matrix below for information on how to configure your custom order.

## Part Numbering Schematic for Custom Fiber Optic Assemblies

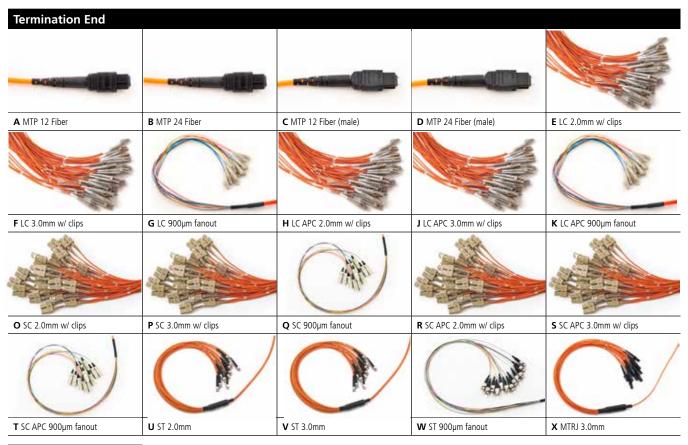
FIXED				VAI	RIABLE - SELECT FROM	THE FOLLOWING				
PREFIX	CABLE COUNT	FIBER TYPE	CABLE TYPE	CABLE FLAME RATING	TERMINATION END 1	TERMINATION END 2	BREAKOUT LENGTH	POLARITY	PULLING KIT	LENGTH
F	A 12 B 24 C 48 D 72 E 96 F 144	A MM 62.5/125μm (OM1) B MM 50/125μm (OM2) C MM 50/125μm (OM3) D MM 50/125μm (OM4) E Single Mode F MM 50/125μm BIF (OM2) G MM 50/125μm BIF (OM3) H MM 50/125μm BIF (OM4) J Single Mode BIF	C Data Center Cable D Distribution	P Plenum R Riser	A MTP 12 Fiber B MTP 24 Fiber C MTP 12 Fiber (male) D MTP 24 Fiber (male) E LC 2.0mm w/ clips F LC 3.0mm w/ clips G LC 900µm fanout H LC APC 2.0mm w/ clips K LC APC 9.00µm fanout O SC 2.0mm w/ clips P SC 3.0mm w/ clips P SC 3.0mm w/ clips Q SC 900µm fanout R SC APC 2.0mm w/ clips T SC APC 9.00µm fanout W ST 3.0mm W ST 900µm fanout X MTRJ 3.0mm	A MTP 12 Fiber B MTP 24 Fiber C MTP 12 Fiber (male) D MTP 24 Fiber (male) E LC 2.0mm w/ clips F LC 3.0mm w/ clips G LC 900µm fanout H LC APC 2.0mm w/ clips J LC APC 3.0mm w/ clips K LC APC 900µm fanout O SC 2.0mm w/ clips P SC 3.0mm w/ clips P SC 3.0mm w/ clips Q SC 900µm fanout R SC APC 2.0mm w/ clips T SC APC 900µm fanout U ST 2.0mm V ST 3.0mm W ST 900µm fanout X MTRJ 3.0mm	A .5m B 1m C 1.5m D 2m E No Breakout	S Straight Thru R Reversed P Pair Reversals	0 No Kit 1 1 Kit 2 2 Kits	10' - 999'
Exam	ple Mod	del Number: FBGCP	DDAS115:							
F	В	G	С	Р	D	D	Α	S	1	15

BIF - Bend insensitive fiber











## connectors.

### **Fiber Connectors**

HellermannTyton offers a variety of pre-polished and epoxy/anaerobic adhesive LC, SC and ST connectors for multimode and single mode fiber. All connector options provide high-quality ferrules for consistent ferrule-end-face geometry and excellent connections.

## **Pre-polished Connectors**

Pre-polished connectors provide high performance and eliminate the need for the time consuming task of hand polishing ferrules in the field. A factory pre-cleaved fiber stub and index-matching gel combine to offer an immediate low loss termination of single mode or multimode fiber.





Article No.	Part No.	Туре	Description	Color	Pkg Qty
855-14208	PFCLC	PFCLC	Pre-polished LC 62.5/125 Multimode Fiber Connector	Beige	1
855-14207	PFCLC50	PFCLC	Pre-polished LC 50/125 Multimode Fiber Connector	Black	1
855-14209	PFCLC10G	PFCLC	Pre-polished LC 10G 50/125 Multimode Fiber Connector	Aqua	1
855-14206	PFCLCSM	PFCLC	Pre-polished LC Single Mode Fiber Connector	Blue	1
855-14215	PFCSC	PFCSC	Pre-polished SC 62.5/125 Multimode Fiber Connector	Beige	1
855-14214	PFCSC50	PFCSC	Pre-polished SC 50/125 Multimode Fiber Connector	Black	1
855-14217	PFCSC10G	PFCSC	Pre-polished SC 10G 50/125 Multimode Fiber Connector	Aqua	1
855-14216	PFCSCSM	PFCSC	Pre-polished SC Single Mode Fiber Connector	Blue	1
855-14211	PFCST	PFCST	Pre-polished ST 62.5/125 Multimode Fiber Connector	Beige	1
855-14210	PFCST50	PFCST	Pre-polished ST 50/125 Multimode Fiber Connector	Black	1
855-14213	PFCST10G	PFCST	Pre-polished ST 10G 50/125 Multimode Fiber Connector	Aqua	1
855-14212	PFCSTSM	PFCST	Pre-polished ST Single Mode Fiber Connector	Blue	1

Use **Part No.** for ordering and **Type** for specification purposes.

#### **APPLICATIONS:**

- Direct equipment termination
- Repair and replacement
- Fiber-to-the-x (FTTx)
- Equipment test leads

#### **FEATURES AND BENEFITS:**

- Factory-polished zirconia ceramic ferrules for quick and reliable field installations
- Unique wedge clip retains connector shape for precision connection
- Easy to use no epoxy, heat curing, polishing or special tools required
- Color coded for easy identification
- Meet ANSI/TIA/EIA 568-B standards
- Meet ANSI/TIA/EIA 604 (FOCIS) connector interface requirements

#### **TECHNICAL INFORMATION:**

- Compatible with 250µm and 900µm optical fibers
- Work with 900μm, 2mm and 3mm cordage
- Insertion loss < 0.3dB</li>
- Typical return loss 56.4dB
- Maximum return loss 45dB

## **Epoxy/Anaerobic Connectors**

Our epoxy/anaerobic connectors are designed for field or factory installation, using either epoxy or anaerobic adhesives. These connectors are made with pre-radiused zirconia ceramic ferrules to provide precision alignment and installation.

Epoxy adhesives provide affordable and reliable connections with lowest losses (less than 0.5dB). The epoxy can be allowed to set overnight or cured in an inexpensive oven. Anaerobic adhesives can be used with accelerators for faster curing.



#### **APPLICATIONS:**

- Direct equipment termination
- Repair and replacement
- Fiber-to-the-x (FTTx)
- Equipment test leads

#### **FEATURES AND BENEFITS:**

- Use with epoxy or anaerobic adhesives for different applications or user preference
- Pre-radiused zirconia ceramic ferrules provide precision installation
- Meet ANSI/TIA/EIA 568-B standards
- Meet ANSI/TIA/EIA 604 (FOCIS) connector interface requirements

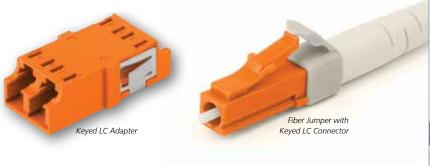
Article No.	Part No.	Туре	Description	Color	Pkg Qty
855-14200	FCLC	FCLC	LC Multimode Fiber Connector	Beige	1
855-14221	FCLCSM	FCLCSM	LC Single Mode Fiber Connector	Blue	1
855-14201	FCSC	FCSC	SC Multimode Fiber Connector	Beige	1
855-14202	FCSCSM	FCSCSM	SC Single Mode Fiber Connector	Blue	1
855-14203	FCST	FCST	ST Multimode Fiber Connector	Beige	1
855-14204	FCSTSM	FCSTSM	ST Single Mode Fiber Connector	Blue	1

# keyed LC fiber—

## **Keyed LC Fiber**

For applications in which privacy and security are primary concerns, HellermannTyton offers a keyed LC fiber solution. Keyed LC fiber pre-terminated cassettes, jumpers, connectors and adapter panels are offered in eight color coded mating configurations that feature a tamper-proof design to reduce unauthorized connections.

HellermannTyton keyed LC fiber can be used to easily segregate and identify parts or pathways within a network infrastructure. In addition, keyed connectors help reduce the risk of accidental or malicious network access, particularly in shared access areas or in secure hierarchical environments such as government, military or research facilities. For these networks, maintaining network integrity and security are of the highest importance.

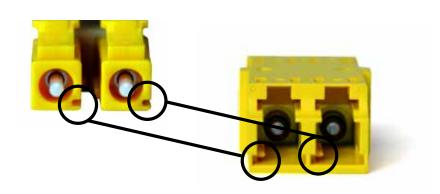


#### **FEATURES AND BENEFITS:**

- "Keyed" mating design reduces the risk of accidental or malicious network access
- Eight different color coded options for easy part identification
- Connectors and adapters are manufactured to ensure precision alignment and low losses, typically 0.15dB for multimode and 0.08dB for single mode
- Mated pairs meet or exceed the performance requirements of TIA 568-C.3 and IEC 874-14 interoperability



The keys are created using combinations of unique protrusions and slots on both the adapter and connector.



#### **Available Colors**

Color		Ordering Code
	YEL	3
	RED	4
	ORG	5
	GRN	8
$\bigcirc$	W	W
	BLU	Н
	BRN	В
	MAG	M

Part No.	Description	Color
KEYED FIBER ADAPTER PANELS		
FAP6DMMKLC3	Keyed Adapter Panel12 LC Yellow	Yellow
FAP6DMMKLC4	Keyed Adapter Panel 12 LC Red	Red
FAP6DMMKLC5	Keyed Adapter Panel 12 LC Orange	Orange
FAP6DMMKLC8	Keyed Adapter Panel 12 LC Green	Green
FAP6DMMKLCW	Keyed Adapter Panel 12 LC White	White
FAP6DMMKLCH	Keyed Adapter Panel 12 LC Blue	Blue
FAP6DMMKLCB	Keyed Adapter Panel 12 LC Brown	Brown
FAP6DMMKLCM	Keyed Adapter Panel 12 LC Magenta	Magenta
KEYED FIBER CONNECTORS		
FCKLC3	Keyed LC Connector Yellow	Yellow
FCKLC4	Keyed LC Connector Red	Red
FCKLC5	Keyed LC Connector Orange	Orange
FCKLC8	Keyed LC Connector Green	Green
FCKLCW	Keyed LC Connector White	White
FCKLCH	Keyed LC Connector Blue	Blue
FCKLCB	Keyed LC Connector Brown	Brown
FCKLCM	Keyed LC Connector Magenta	Magenta

Use **Part No.** for ordering.

## Keyed Fiber Jumper Matrix

Fiber Type	Part Number	Description
MULTIMODE OM3		
KLC – KLC	FADOM3KLCKLCX	KLC – KLC X Duplex OM3, D Meter Fiber Jumper
KLC – LC	FADOM3KLCLCX	KLC – LC X Duplex OM3, D Meter Fiber Jumper
KLC – ST	FADOM3KLCSTX	KLC – ST X Duplex OM3, D Meter Fiber Jumper
KLC – SC	FADOM3KLCSCX	KLC – SC X Duplex OM3, D Meter Fiber Jumper
MULTIMODE OM2		
KLC – KLC	FADOM2KLCKLCX	KLC – KLC X Duplex OM2, D Meter Fiber Jumper
KLC – LC	FADOM2KLCLCX	KLC – LC X Duplex OM2, D Meter Fiber Jumper
KLC – ST	FADOM2KLCSTX	KLC – ST X Duplex OM2, D Meter Fiber Jumper
KLC – SC	FADOM2KLCSCX	KLC – SC X Duplex OM2, D Meter Fiber Jumper
MULTIMODE OM1		
KLC – KLC	FADOM1KLCKLCX	KLC – KLC X Duplex OM1, D Meter Fiber Jumper
KLC – LC	FADOM1KLCLCX	KLC – LC X Duplex OM1, D Meter Fiber Jumper
KLC – ST	FADOM1KLCSTX	KLC – ST X Duplex OM1, D Meter Fiber Jumper
KLC – SC	FADOM1KLCSCX	KLC – SC X Duplex OM1, D Meter Fiber Jumper
SINGLE MODE OS2		
KLC – KLC	FADSMKLCKLCX	KLC – KLC X Duplex SM, D Meter Fiber Jumper
KLC – LC	FADSMKLCLCX	KLC – LC X Duplex SM, D Meter Fiber Jumper
KLC – ST	FADSMKLCSTX	KLC – ST X Duplex SM, D Meter Fiber Jumper
KLC – SC	FADSMKLCSCX	KLC – SC X Duplex SM, D Meter Fiber Jumper

**D** = Length in Meters X = Yellow/3 Red/4 Orange/5 Green/8 White/W Blue/H Brown/B Magenta/M

Use Part No. for ordering and indicate length and color choice from available colors.



## tools & kits

## **Fiber Optic Tools & Kits**

HellermannTyton offers a complete line of tools and accessories to assist with both factory and field terminated installations. In addition to bulkhead and reel cleaners, we offer complete termination kits that include all of the tools necessary for stripping and terminating fiber optic lines.





Article No.	Part No.	Туре	Description	Pkg Qty
855-19200	FCCONSUMABLES	FCCONSUMABLES	Fiber Connector Consumable Kit for SC, ST and LC connectors	1
855-19201	FCEPOXYKIT	FCEPOXYKIT	Replacement Epoxy Kit for Field Installable Connectors	1
855-19207	FCTERMKIT	FCTERMKIT	Termination Kit for ST/SC Multimode Connectors	1
855-49207	FACLC	FACLC	LC In Bulkhead Cleaner, 1/pkg	1
855-19202	FCPAPER1	FCPAPER1	1.0 Micron Polishing Paper for Field Terminated Connectors	50
855-19203	FCPAPER5	FCPAPER5	5.0 Micron Polishing Paper for Field Terminated Connectors	50
855-19204	FCPAPERSM	FCPAPERSM	.1 Micron Diamond Polishing Paper for Single Mode Connectors	1
855-19205	FCPUCKLC	FCPUCKLC	LC Polishing Puck, Black	1
855-19206	FCPUCKSCST	FCPUCKSCST	SC/ST Polishing Puck, Black	1
855-49209	FCRC	FCRC	Reel Cleaner for Fiber Connectors	1
855-49210	FCRCREF	FCRCREF	Reel Cleaner Refills for Fiber Connectors	6
855-49208	FACMTP	FACMTP	MTP In Bulkhead Cleaner	1
590-00171	FO1	FO1	Fiberclean Dispenser, .75" X 1.50", 10' Of Non-Woven Cloth, White	1
590-00172	FO1REF	FO1REF	Fiberclean Refill, .75' X 1.50", 10' Of Non-Woven Cloth, White	1
855-19208	HTFS	HTFS	Multi-Function Fiber Optic Stripper	1
855-49206	PFCCLEAVER	PFCCLEAVER	Pre-polished Connector Precision Cleaver	1
855-49205	PFCTERMKIT	PFCTERMKIT	Pre-polished Connector Termination Kit	1

# pre-terminated—RapidNet® Fiber Solutions

## RapidNet® Pre-terminated **Networking Solutions**

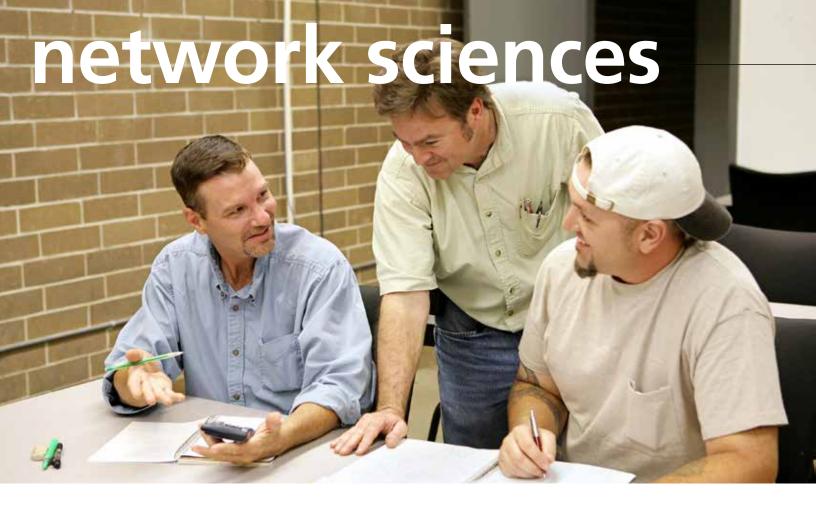
For quick and seamless installations with minimal debris and waste, HellermannTyton offers RapidNet pre-terminated solutions - an ideal choice for data center installations where limited downtime is essential.

RapidNet is our patented, pre-terminated connect-and-go system for both copper and fiber cabling systems. Lengths are customized to your specific needs and every termination is housed in our robust, protective cassettes to make installation a snap. Each cassette inserts easily into the RapidNet modular panel which fits into a standard 19" rack. RapidNet is manufactured in a stringent, quality controlled



environment and arrives pre-labeled and pre-tested which contributes to higher quality and lower installation times. Because it can be installed so quickly and carries a high degree of performance and reliability, RapidNet is the ideal solution for mission critical data centers, temporary networks and disaster recovery operations.





## Network Sciences™

HellermannTyton's Network Sciences<sup>™</sup> program offers training and certification courses and a comprehensive 25 year warranty on HellermannTyton fiber and/or copper systems. HellermannTyton provides contractors with specialized training to ensure reliable and professional installation of our products in order to meet warranty specifications.

## **Fiber Training and Certification**

The Network Sciences Fiber Installation Certification course provides comprehensive training on fiber optic products and proper installation and implementation within the network. This course qualifies for three (3) continuing education credits (CECs) from BICSI. HellermannTyton Certified Installers are the essential connection between HellermannTyton connectivity products and the design, installation, testing and maintenance of a structured cabling system. Only HellermannTyton Certified Fiber Installers from approved companies can provide the 25 Year Network Sciences System Warranty, guaranteeing their work and installed HellermannTyton fiber products.

## 25 Year System Warranty

HellermannTyton assures installation dependability and maximum performance with its 25 Year Network Sciences™ System Warranty program. The Network Sciences Warranty guarantees consistent quality and performance of HellermannTyton structured cabling products and installed systems for the period of 25 years. This warranty covers fiber and/or copper connectivity products and cable (installers must complete fiber and copper training and certification to provide each warranty), ensuring system performance in accordance with current TIA standards. The 25 Year Network Sciences Warranty is only offered through HellermannTyton Certified Installers. These Certified Installers have been trained and successfully passed the required exams to install a system that meets HellermannTyton warranty specifications.



## Registering a Fiber Installation for Warranty

In order to qualify for the HellermannTyton Network Sciences Warranty, the installation must be comprised of only HellermannTyton fiber connectivity products and/or other HellermannTyton approved products, and the installation must be completed by a HellermannTyton Certified Fiber Installer from an approved company. Once installation is complete, the installer will evaluate and test the installation and submit the results to HellermannTyton for review. It typically takes 1-2 weeks to receive the Certificate of Conformance to confirm that the installation is registered for the Network Sciences 25 Year System Warranty and that the installation meets warranty specifications.

## WARRANTY FEATURES AND BENEFITS:

- Network of trained and certified fiber installers
- Covers fiber cable and connectivity
- Full channel warranty or permanent link option
- Cost of replacement and reinstallation fully covered

For more information on our warranty and contractor certification programs, contact a HellermannTyton customer service representative by calling **800.537.1512** or visit **www.hellermann.tyton.com**.

## **Product Warranty**

In addition to a performance warranty, HellermannTyton offers a lifetime warranty on its connectivity products. This guarantees that products are free of factory defects in material and workmanship.

Located in 34 countries, HellermannTyton brings the best to its customers through global resources channeled to local implementations. Flexibility, agility, and ability to create value-added, market driven solutions are the hallmarks of every HellermannTyton company across the world.



ARGENTINA | AUSTRALIA | AUSTRIA | BELGIUM | BRAZIL | CANADA | CHINA

CZECH REPUBLIC | DENMARK | FINLAND | FRANCE | GERMANY | HONG KONG

HUNGARY | IRELAND | ITALY | JAPAN | KOREA | MEXICO | NETHERLANDS | NORWAY | PHILIPPINES

POLAND | PORTUGAL | ROMANIA | RUSSIAN FEDERATION | SINGAPORE | SLOVENIA | SOUTH AFRICA |

SPAIN | SWEDEN | THAILAND | UNITED KINGDOM | UNITED STATES



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ISO 9001 certified

#### Warranty Policy

HellermannTyton products are warranted to be free from defects in material and workmanship at the time sold by us; but our obligation under this warranty and that of the seller is limited to the replacement of the product, and neither we nor the seller are bound by any other warranty, expressed, implied or statutory. Under no circumstances are we or the seller liable for any loss, damage, expenses or consequential damages of any kind arising out of the use or inability to use these products. All are sold with the understanding that the user will test them in actual use and determine their adaptability for the intended uses.