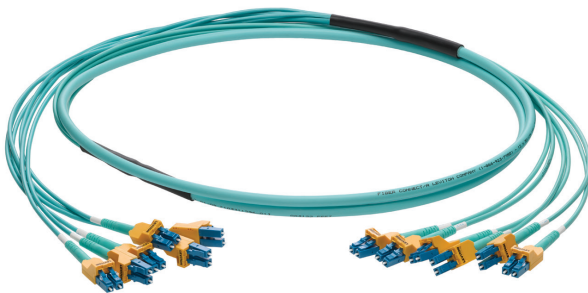


Secure Keyed LC Fiber Trunk Cables

APPLICATION

Factory-terminated and factory-tested Secure Keyed LC fiber trunk cables connect central patching locations to zones or “pods”. Eight keyed connector colors are available to segregate and secure networks. The patent-pending duplex LC unibody design prevents removal of connector by hand, and can only be removed with a matching color extraction tool.* The system is ideal for government and military networks, data centers and colocation equipment rooms, and financial, academic, and healthcare market sectors.

*Does not prevent malicious removal of connector.



SPECIFICATION

Leviton's Secure Keyed LC pre-terminated fiber trunks shall engage with industry standard compliant LC duplex and quad adapters. Fiber trunk is secured in a manner that connector cannot be removed by hand, but with an extraction tool to prevent unauthorized or accidental moves/adds/changes. Eight colors shall be offered to identify and segregate fiber networks. Hybrid configurations such as SC, ST, MT-RJ, MTP, FC, and MU shall be offered. Fiber cable shall consist of 4, 6, 12, 24, 36, 48, 72, 96, and 144 fiber strands for all fiber types (OM1, OM2, OM3, OM4, OS1) in loose tube or armor style cable and either riser or plenum rated jacket. Standard polarity shall be A - B or MTP Method C configuration. Insertion loss performance shall be less than 0.5 dB maximum for both multimode and single-mode. Return loss performance shall be greater than -25 dB for multimode and greater than -45 dB for single-mode. Fiber trunk shall be factory tested with test documentation shipped with product. Fiber trunk shall be in compliance with TIA-568-C.3, TIA-604-xx, and FOCIS-xx.

FEATURES

- Patent-pending unibody design prevents unauthorized and inadvertent MACs
- Duplex LC connectors plug into any industry compliant LC adapter or interface, unlike traditional keyed LC solutions
- Eight colors to segregate and secure network: white, yellow, orange, red, blue, green, slate, and black
- Up to 70% faster install over field termination of connectors
- All connectors are heat cured and use ceramic ferrules for optimal performance
- Standard breakout lengths can be staggered for better cable routing and management
- Trunks are part of Leviton's custom-build make-to-order program
- Extraction tools (sold separately) allow for easy cable assembly removal with push-in/pull-out motion, and are color-coded to match connector key type
- Custom dust caps are included with trunk cables, extraction tools, and port protection plugs
- Made in the United States

DESIGN CONSIDERATIONS

- Extraction tool of same color required to disengage assembly from adapter
- In order to remove extraction tool from trunk, dust cap must be inserted back onto connector, promoting good fiber discipline
- Cable jacket (and boot color) designates fiber type:
 - 62.5/125 μm and 50/125 μm multimode is orange color (boot colors are beige and black, respectively)
 - 50/125 μm laser optimized multimode is aqua color (boot color is aqua)
 - Single-mode is yellow color (boot color is blue)
- Pulling eye is typically on first end termination, if selected. First end breakout length must be staggered if selecting pulling eye
- Sub-units of 12 fibers are staggered 1.5", if selected. First sub-unit (or 1-12 fibers) is shortest length, then second sub-unit (or 13-24 fiber), and so forth
- Standard polarity: A-B or MTP Method C, others available
- Total trunk length is from connector to connector
- Trunks over 125 feet long are shipped on spools, or upon request for shorter lengths
- 900 μm breakout leg uses distribution style cable
- 2 or 3 mm breakout legs uses loose tube style cable

STANDARDS COMPLIANCE

TIA-568-C.3; Optical Fiber Cabling Components Standard
TIA-604-xx; Fiber Optic Connector Intermateability Standard
GR-326; Generic Requirements for Single-mode Optical
Connector and Jumper Assemblies

WARRANTY INFORMATION

For a copy of Leviton product warranties, visit www.leviton.com.

ELECTRONIC FILES

For CAD files, typical specs, or technical drawings (.DXF, .DWG), visit www.leviton.com.

PERFORMANCE SPECIFICATIONS — SECURE KEYED LC FIBER TRUNK CABLES

Cable Performance									
Fiber Type	Maximum Attenuation (db/km)				Bandwidth (MHz*km)		Transmission Distance (meters)		
	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm	100Mb	1GbE	10GbE
Single-mode (OS1)	N/A	N/A	0.4	0.3	N/A	N/A	>5,000 @ 1,310 nm		>10,000 @ 1,310 nm
62.5/125 µm Multimode (OM1)	3.5	1.0	N/A	N/A	200	500	300/2,000 @ 850/1,300 nm	300/600 @ 850/1,300 nm	36/300 @ 850/1,300 nm
50/125 µm Multimode (OM2)	3.0	1.0	N/A	N/A	950	500		750/600 @ 850/1,300 nm	150/300 @ 850/1,300 nm
50/125 µm Laser Optimized (10G-300 m) Multimode (OM3)	3.0	1.0	N/A	N/A	2,000 ¹	500 ²		1,000/600 @ 850/1,300 nm	300/300 @ 850/1,300 nm
50/125 µm Laser Optimized (10G-550 m) Multimode (OM4)	3.0	1.0	N/A	N/A	4,900 ¹	500 ²		1,210/600 @ 850/1,300 nm	600/300 @ 850/1,300 nm

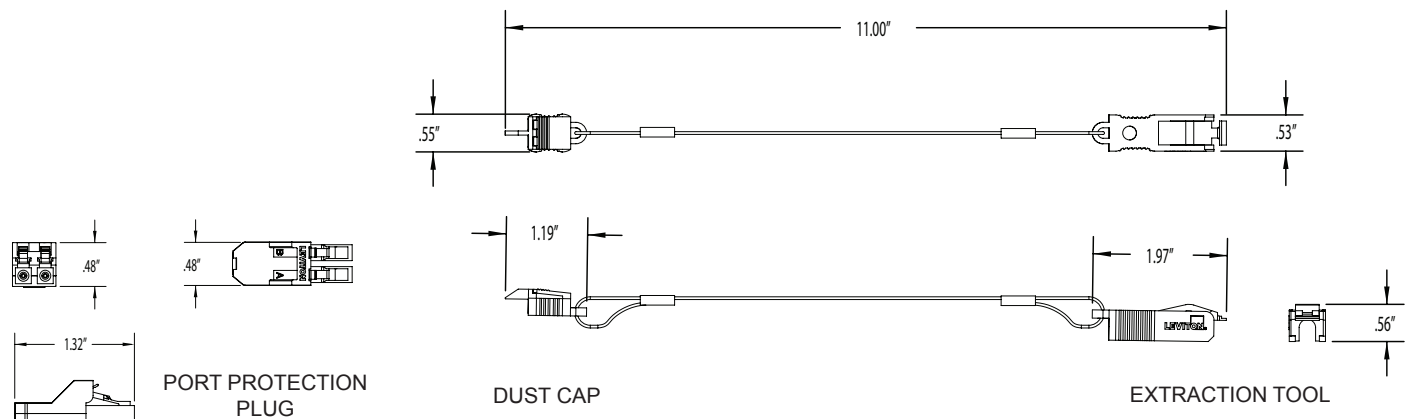
¹ The effective modal bandwidth is determined based on an overfill launch (OFL) per TIA-455-204, except on laser optimized fiber types.

² 10GbE transmission @ 1,300 nm only applies to 10GBASE-LX4 (CWDM).

FIBER INSERTION LOSS PERFORMANCE (DB)						
Connector Mated Pairs	Multimode			Single-mode		
	TYP IL	MAX IL	MIN RL	TYP IL	MAX IL	MIN RL
LC	0.15	0.25	-25	0.15	0.25	-45 (-60 for APC)
SC	0.20	0.25		0.25	0.35	
MU	0.15	0.25		0.25	0.35	
MTP	0.35	0.50		0.35	0.50	

TRUNK CABLE PHYSICAL SPECIFICATIONS

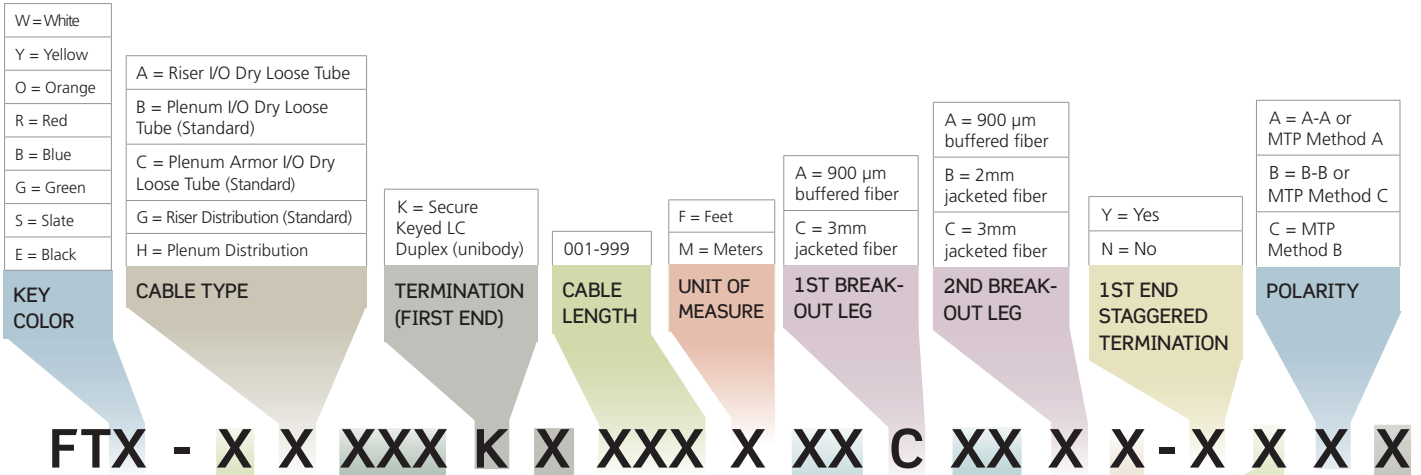
Fiber Count	Nominal Outside Diameter	Weight lbs/100 ft (kg/km)	Max Installation Tension lbs (N)	Minimum Bend Radius in (CM)		Temperature Range	
	In (mm)			Installation	Long Term	Operating	Storage
12	0.18 (4.5)	15 (22)	100 (445)	2.7 (6.8)	1.8 (4.5)	0° C to +70° C	-40° C to +70° C
24	0.38 (9.7)	54 (80)	300 (1335)	5.7 (15.5)	3.8 (4.5)		
36	0.38 (9.7)	54 (80)	300 (1335)	5.7 (15.5)	3.8 (4.5)		
48	0.38 (9.7)	54 (80)	300 (1335)	5.7 (15.5)	3.8 (4.5)		
72	0.44 (11.1)	84 (125)	300 (1335)	6.6 (16.8)	4.4 (11.1)		
96	0.52 (13.3)	118 (175)	300 (1335)	7.8 (19.8)	5.2 (13.3)		
144	0.69 (17.4)	155 (230)	300 (1335)	10.4 (26.3)	6.9 (17.4)		



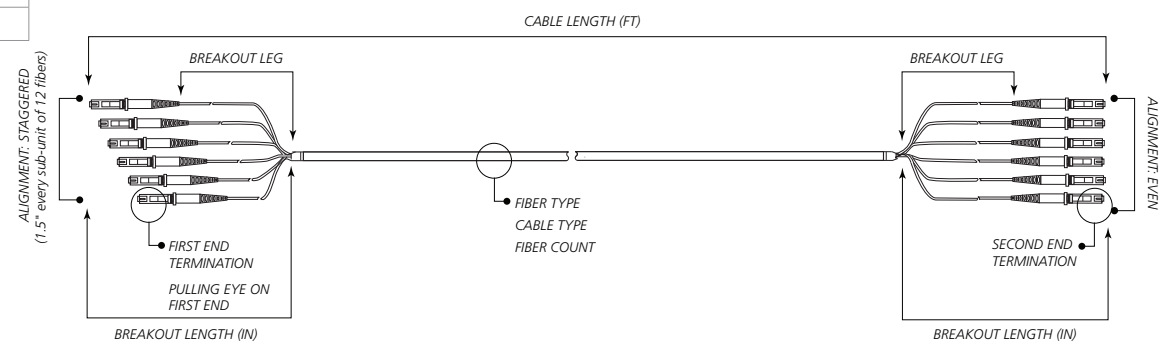
PART NUMBER CONFIGURATOR - SECURE KEYED LC FIBER TRUNK CABLES

Example part number: **FTG-EB072KB150F36C36CY-YNBS**. Fiber trunk, 72-fiber Laser Optimized Multimode plenum cable (10G-300m), Keyed Duplex LC (Green) to SC, overall length of 150 feet with breakout lengths (to 3 mm jacketed fiber) of 36 inches on both ends, with pulling eye on first end connector termination. First end termination is staggered. Second end termination is even (polarity A-B).

For assistance configuring your trunks or for configurations not shown, please call 1.206.722.2082



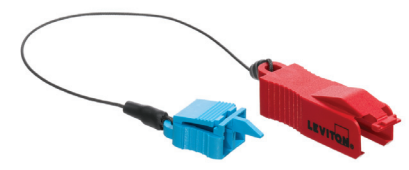
FIBER TYPE	FIBER COUNT	TERMINATION (SECOND END)		1ST BREAK-OUT (INCHES)	2ND BREAK-OUT (INCHES)	PULLING EYE	2ND END STAGGERED TERMINATION	LABELING
A = Single-Mode (OS1)	004	A = ST	K = Secured Keyed LC Duplex (unibody)	12-99 (Typ 36")	12-99 (Typ 36")	Y = Yes N = No	Y = Yes N = No	S = Standard C = Custom
B = 50/125 μm std Multimode (OM2)	006	B = SC (duplex clip)	Q = MT-RJ (female)					
C = 62.5/125 μm Multimode (OM1)	012	C = LC (duplex clip)	R = MT-RJ (male)					
E = 50/125 μm Laser Optimized Multimode (10G, 300m) (OM3)	024	D = FC	S = MTP (female)					
F = 50/125 μm Laser Optimized Multimode (10G, 550m) (OM4)	036	E = SC/APC	T = MTP (male)					
	048	F = LC/APC	U = MU					
	072	G = FC/APC	Z = Pigtail					
	096							
	144							



SECURE KEYED LC ACCESSORIES

Description	Part No.
Extraction Tool w/ dust cap	ETRTN-xTL
Port Protection Plug w/ dust cap	PPRTN-xLG
Dust Cap (bag of 10)	DUSTK-CAP

x = color: White (W), Yellow (Y), Orange (O), Red (R), Blue (L), Green (V), Slate (G), Black (E)



Extraction Tool w/ dust cap

