

# LITEflight® EP Fiber Optic Cables



Ruggedized Simplex

## INTRODUCTION

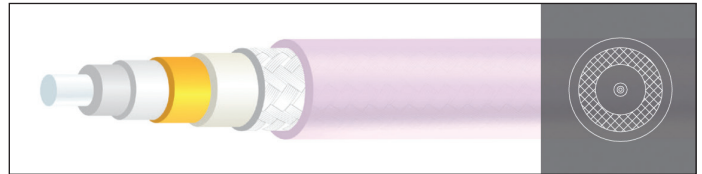
CarlisleIT introduces the LITEflight® EP (Enhanced Performance) family of aerospace grade fiber optic cables. The new LITEflight® EP series provides all the performance and benefits of its predecessor necessary to function in the harsh environments of your aerospace and military applications but with lower loss, tighter bend radius, improved thermal stability and better handling during termination and installation. Unlike tight structure cables, the LITEflight® EP semi-loose structured cables are compatible with all commercially available fiber optic termini and connectors. LITEflight® EP is available in multiple sizes, configurations and temperature ratings to 260°C in order to meet the most demanding application requirements.

LITEflight® EP Characteristics	NFO(EP)-125-1	NFO(EP)-125-3M4
	Typical Value	Typical Value
Outside Diameter	1.8 mm	1.8 mm
Cable Weight	4.6 kg/km	4.6 kg/km
Minimum Bend Radius		
Short Term (Installation)	6.0 mm	6.0 mm
Long Term (Operation / Storage)	9.0 mm	9.0 mm
Attenuation		
850 nm	2.8 dB/km	2.9 dB/km
1300 nm	0.6 dB/km	0.8 dB/km
Temperature Cycling	0.10 dBΔ/30 m	0.10 dBΔ/10 m
Thermal Shock	0.10 dBΔ/30 m	0.10 dBΔ/10 m
Buffer Push-In Force	2.0 N/.45 mm	2.0 N/.45 mm
Cable Kink Resistance		
6.3 mm Loop Diameter	0.18 dB Δ	0.18 dB Δ

## STANDARD CONFIGURATIONS OVERVIEW

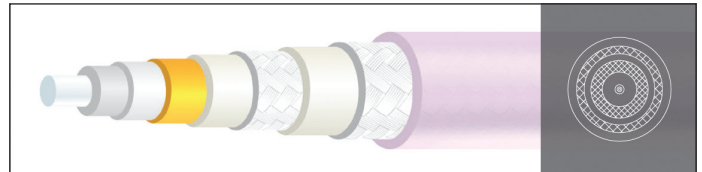
### Simplex

Actual Size / 1.8mm ●



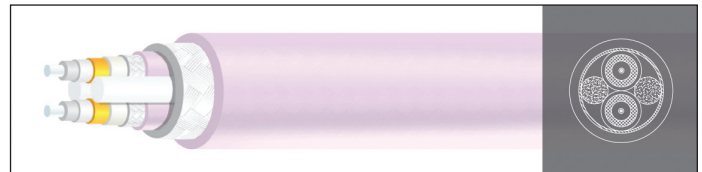
### Ruggedized Simplex

Actual Size / 2.74mm ●



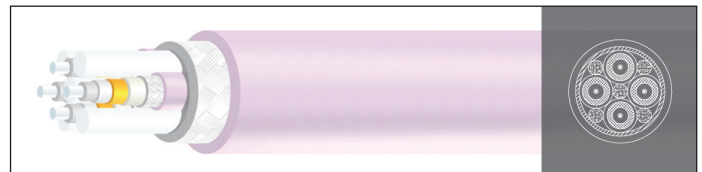
### Ruggedized Duplex

Actual Size / 4.95mm ●



### Ruggedized Quad

Actual Size / 5.72mm ●



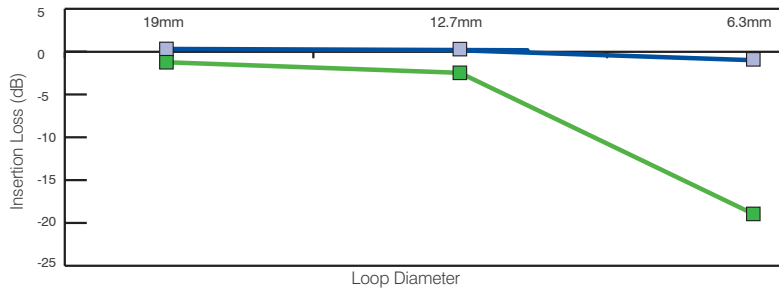
\*All testing performed in accordance with EN-3745 or ARINC 802 Methods.

Learn more: [CarlisleIT.com/products/fiber-optic-products](http://CarlisleIT.com/products/fiber-optic-products)

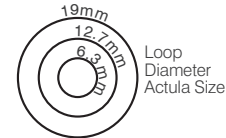
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## PERFORMANCE EXAMPLES

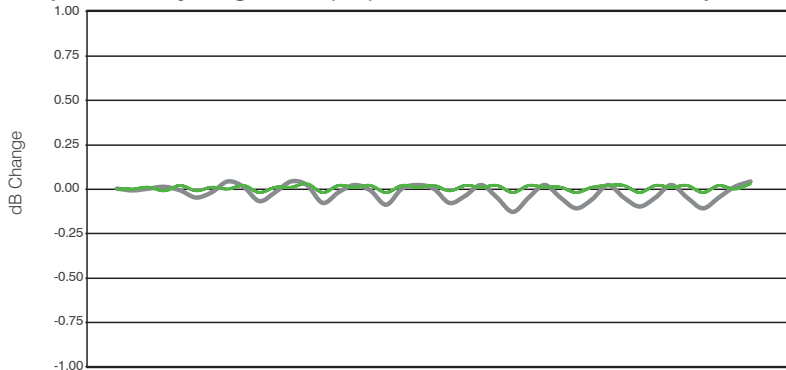
### Cable Kink Performance Loss (per EN3745-509)



— CarlisleIT LITEflight® cable  
— Competitors Tight Structured Cable



### Temperature Cycling / NFO(EP)-125-3M4 / 10m Cable Sample; -65°C to +125°C



— S1-850nm  
— S2-850nm  
— S3-850nm

## PART NUMBER GUIDE

Base Part Number ■ **NFO(EP)- X Y Z**

**Temperature Rating**  
125 125°C Rated Acrylate  
150 150°C Rated Acrylate  
260 260°C Rated Polyimide

**Fiber Type**

- 0 900um Buffered 62.5/125 Multimode
- 1 1.8mm Jacketed 62.5/125 Multimode
- 2 900um Buffered 50/125 Multimode OM2\*
- 2M3 900um Buffered 50/125 Multimode OM3\*
- 2M4 900um Buffered 50/125 Multimode OM4\*
- 3 1.8mm Jacketed 50/125 Multimode OM2\*
- 3M3 1.8mm Jacketed 50/125 Multimode OM3\*
- 3M4 1.8mm Jacketed 50/125 Multimode OM4\*
- 4 900um Buffered Singlemode
- 4B 900um Buffered Singlemode Bend-Insensitive
- 5 1.8mm Jacketed Singlemode
- 5B 1.8mm Jacketed Singlemode Bend-Insensitive

**Rugged Configurations**  
1 Double Jacket 2.74mm  
2 Duplex Double Jacket 4.95mm  
4 Quad Double Jacket 5.72mm

\*Applicable only for Ruggedized Configurations



See CarlisleIT's line of Fiber Optic products at:  
[CarlisleIT.com/products/fiber-optic-products](http://CarlisleIT.com/products/fiber-optic-products)

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