

LUX-BEAM™ (EN4869)

Single Expanded Beam Termini

Size 16 series III for MIL-DTL-38999 / EN3645 / EN4165

Fiber Optics Solutions



Description

Lux-Beam™ is a single expanded beam termini that enables upgrades from optical physical contact technology to optical contactless technology.

Designed for applications such as avionics and field communication systems, demanding a large amount of data, voice and video to be securely transmitted, this fiber optic termini provide a reliable, easy to install solution.

Lux-Beam™ is easy to clean, and is less sensitive to pollution by dust or debris. The contactless coupling of LUX-BEAM™ is not subject to degradation of performances resulting from friction of optical surfaces as it usual is on traditional butt joint termini.

With its patented pin to socket realignment feature, Lux-Beam™ is compatible with STD connectors from different suppliers and provides an efficient adjustment to tolerances during mating.

Main Features

Expanded Beam technology

- Surface expanded bundle >140X
- Reduced sensitivity to dust
- No degradation of the optical face
- Easy cleaning
- Low maintenance

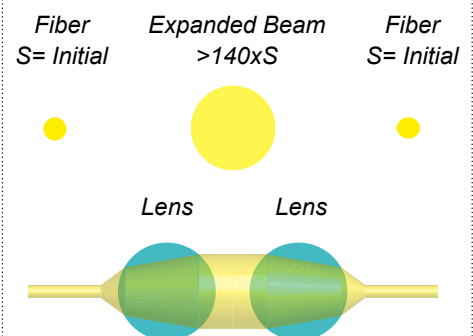
Compatibility

- Cavity #16 series III
 - MIL-DTL-38999 series III TV/CTV, EN3645
 - EN 4165 (SIM)

Other benefits technology

- Easy installation with standard tools
- Possibility to mix with Electrical contact for Hybrid solutions

Expanded Beam Technology



Markets



C4ISR



Ground Vehicle



Military Aerospace



Commercial Aerospace



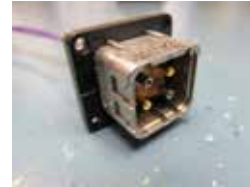
Oil and Gas

Technical Data

SPECIFICATION	MEASUREMENT DETAILS	STANDARD	METHOD
INSERTION LOSS	2dB max multimode, 850nm 2dB max multimode, 1300nm	MIL-PRF-29504D	TIA-455-34
MATING DURABILITY	500 cycles	MIL-DTL-38999	TIA-455-21
OPERATING TEMPERATURE, TEMPERATURE LIFE	125°C 1000H	MIL-PRF-29504D	TIA-455-04
STORAGE TEMPERATURE	-40°C / +85°C	MIL-PRF-29504D	-
TEMPERATURE CYCLING	5 cycles -40°C +70°C	MIL-DTL-38999	TIA-455-03
THERMAL SHOCK	5 cycles -55°C +125°C	MIL-PRF-29504D	TIA-455-34
HUMIDITY	24 h at 50°C max 33% HUM 240 h at 40°C 90% RH	MIL-DTL-38999	TIA-455-05
SALT SPRAY	48h	MIL-PRF-29504D	TIA-455-16
VIBRATION	Connectors mated Method B: Figure 2, Table 1, level J (1g2/Hz) Duration: 8h / axe – 2 axes longitudinal and perpendicular direction. Duration of micro-discontinuity: < 1µs IL max 2dB.	EN2591-6403	-
SHOCK	Method A, severity 100 Number of shocks: 1 each way for each of the 2 directions (6 shocks in all). Duration of micro-discontinuity: < 1µs	EN2591-6402	-
INSERTION AND REMOVAL FORCE	max 22 pounds	MIL-PRF-29504D	3.6.9
MAINTENANCE AGING	10 insertion / removal cycles	MIL-PRF-29504D	3.6.13

Assembling your LUX-BEAM by yourself

Insert LUX-BEAM™ on standart cavity #16 with Standart tool



MIL DTL 38999/EN 3645 EN4165

How to Order Cable Assemblies with LUX-BEAM™

Cable Assemblies With LUX-BEAM™ To Other Termini

Designation	LXB	16	P	A	1	D	1	L	0020	ST2	1	D	0	M
Type of Termini LXB: LUX-BEAM™, Single expanded beam optical termini														
Cavity size 16: size 16 for 38999 series III														
Type of termini P : pin termini S3 : socket termini for series III														
Wavelength A: optimised for wavelength 850nm (Multimode) B: optimised for wavelength 1300nm (Multimode) C : optimised for wavelength 850nm & 1300nm (Multimode)														
Termination type 1: PC Ceramic														
Boot form D: straight boot														
Type of fiber 1: 50/125 Multimode 2: 62.5/125 Multimode														
Type of cable L: Simplex cable with buffer 900µm and outer jacket dia. 1.8mm														
Length XXXX: length in m for L ≥ 10m, ex 0020 for L=20 meters X.XX: length in m for L < 10m, ex 5.00 for L=5.0 meters														
Type of Termini XXX: pigtail ST2: connector ST2 954: connector SC simplex LCS: connector LC simplex ELU: connector ARINC 801 optical termini														
Termination type 1: PC Ceramic														
Boot form D: straight boot														
Protective Cap O: standard protective cap														
Marking - : standard marking MX: specific marking														



Also available LUX-BEAM™ Size 12



Expanded Beam technology

- Surface expanded bundle > 50X
- Reduced sensitivity to dust
- No degradation of the optical face
- Easy cleaning
- Low maintenance

Compatibility

- Cavity #12
 - MIL-DTL-38999 series III & series II TV/CTV, EN3645
 - EN 4165 (SIM)

Other benefits technology

- Easy installation
- Possibility to mix with Electrical contact for Hybrid solutions

How To Order

LUX-BEAM™ in piece part

DESIGNATION	LXB LXB	16 16	P S3	A C	08X 09X
Series LXB: LUX-BEAM™, single expanded beam optical termini					
Cavity size 16: size 16 for 38999 series III					
Type of termini P: pin termini S3 : socket termini for series III					
Wavelength A : optimised for wavelength 850nm (Multimode) B : optimised for wavelength 1300nm (Multimode) C : optimised for wavelength 850nm & 1300nm (Multimode)					
Cable 18X: for cable 1.8mm 08X: for cable 800µm 09X: for cable 900µm					

Tools

Termini insertion & removal tool
for termini p/n M81969/14-03



NOTA: To get the mounting instructions, please contact us.

Other suggested product: PROMI



Description

For easy installation & maintenance, the PROMI is the solution for optical link in harsh Environment. The PROMI (In Line Miniature Optical Adaptor) may be used on patchords already in place. For a reduced space, where the connector is not suitable, the PROMI allows the division of the link into several sections. This optical Miniature extender PROMI realizes a very compact removable splice.

Assembling your Promi without tools

