



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

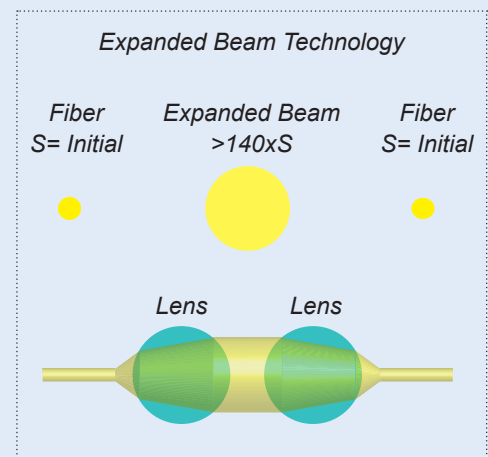
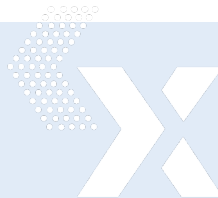
- Surface expanded bundle >140X
- Reduced sensitivity to dust
- No degradation of the optical face
- Easy cleaning
- Low maintenance

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



Markets



C6ISR



Ground Vehicle



Military Aerospace



Commercial Aerospace



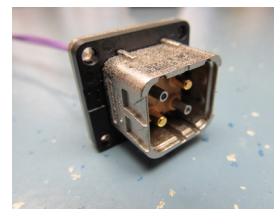
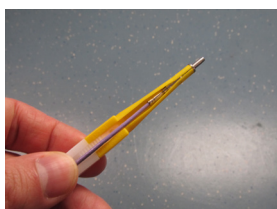
Oil and Gas

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

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
Type of termini	Cavity size	Type of termini	Wave-length	Termination type	Boot form	Type of fiber	Type of cable	Length	Type of termini	Termination type	Boot form	Protective cap	Marking
LXB	16	P	A	1	D	1	L	0020	ST2	1	D	0	M

1. Type of termini

LXB	LUX-BEAM™, Single expanded beam optical termini
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2. Cavity size

16	Size 16 for 38999 series III
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3. Type of termini

P	Pin termini
S3	Socket termini for series III

4. Wavelength

A	Optimised for wavelength 850nm (Multimode)
B	Optimised for wavelength 1300nm (Multimode)
C	Optimised for wavelength 850nm & 1300nm (Multimode)

5. Termination type

1	PC Ceramic
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6. Boot form

D	Straight boot
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7. Type of fiber

1	50/125 Multimode
2	62.5/125 Multimode

8. Type of cable

L	Simplex cable with buffer 900µm and outer jacket dia. 1.8mm
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9. 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

10. Type of termini

XXX	Pigtail
ST2	Connector ST2
954	Connector SC simplex
LCS	Connector LC simplex
ELU	Connector ARINC801 optical termini

11. Termination type

1	PC Ceramic
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12. Boot form

D	Straight boot
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13. Protective cap

0	Standard protective cap
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14. Marking

-	Standard marking
MX	Specific marking

How To Order

LUX-BEAM™ in piece part

1.	2.	3.	4.	5.
Series	Cavity size	Type of termini	Wavelength	Cable
LXB	16	P	S3	08X

1. Series

LXB	LUX-BEAM™, single expanded beam optical termini
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2. Cavity size

16	Size 16 for 38999 series III
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3. Type of termini

P	Pin termini
S3	Socket termini for series III

4. Wavelength

A	Optimised for wavelength 850nm (Multimode)
B	Optimised for wavelength 1300nm (Multimode)
C	Optimised for wavelength 850nm & 1300nm (Multimode)

5. 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.

LUX-BEAM™ Size 12



Expanded Beam technology

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

Compatibility

- Cavity #16
 - 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

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

