

Lux-Beam™

Expanded Beam Termini

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 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

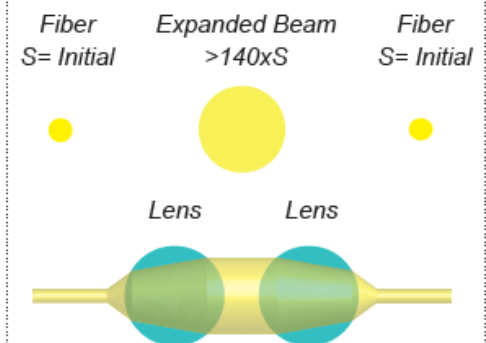
Compatibility

- Cavity #16
 - 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

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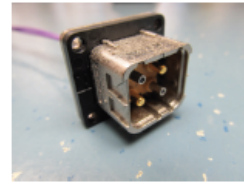
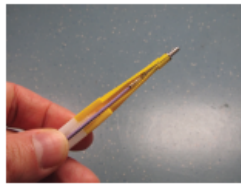
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Technical Data

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

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