

# High Density Expanded Beam Connectors

Rugged fibre optic connectors up to 2-12 channels in M83526 compatible shells

**TechOptics**

Tech Optics offers a wide range of rugged military fibre optic expanded beam connectors suitable for deployable and fixed communication systems.

Solutions are available in the standard M83526 shell configurations but ranging from 2 up to 12 channels. These connectors are ideal for harsh environments where M83526 connectors are deployed but higher channel counts are required.

## Features and Benefits

- Compatible with MIL-DTL-83526/20 and /21
- Easy to clean / maintain
- 2, 4, 8 and 12 channel planforms
- Single and Multimode Variants
- Hermaphroditic mating
- Low loss

## Applications

- Ship to shore links
- Mobile tactical shelters
- Electronic battlefield networks
- Mobile emergency telecommunications stations
- Deployable outdoor, harsh environment



12 way plug in standard M83526 size shell



Square flange receptacle

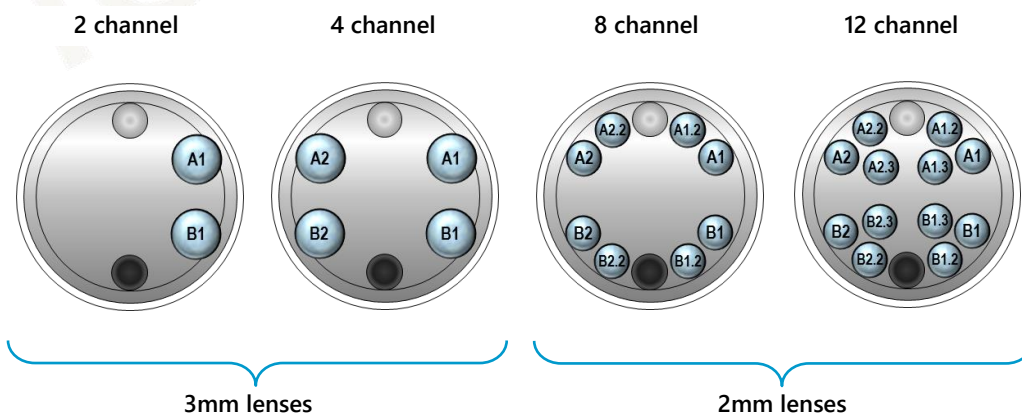


Jam nut receptacle

## Typical Environmental Performance Specifications

Specification	Measurement Requirements	
Insertion Loss (per mating pair of plugs)	Singlemode @ 1310 / 1550nm See lens arrangements below	Multimode @ 850 / 1300nm See lens arrangements below
Durability	3,000 matings minimum	
Operating Temperature	-55°C to +85°C (cable dependent)	
Storage Temperature	-55°C to +85°C (cable dependent)	
IP Rating	IP67	
Cable Retention	~1,500N (cable dependent)	

## Lens Arrangements



All lens configurations are compatible.

Typical Insertion Loss	Lens configuration (mated pairs of connectors)		
	3mm to 3mm lenses	3mm to 2mm lenses	2mm to 2mm lenses
IL MM @ 850/1300nm	≤ 0.8dB	≤ 1.5dB	≤ 0.8dB
IL SM @ 1310 / 1550nm	≤ 1.5dB	≤ 1.5dB	≤ 1.5dB

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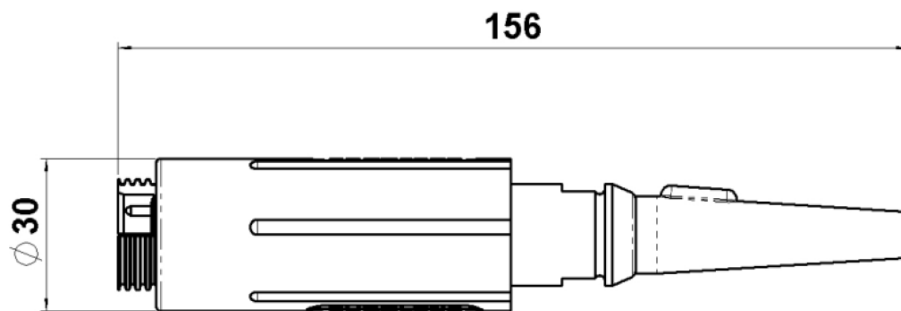
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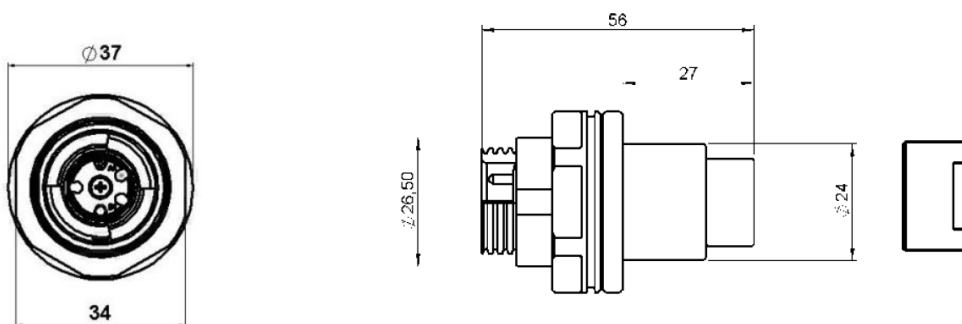
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## Dimensions (mm)

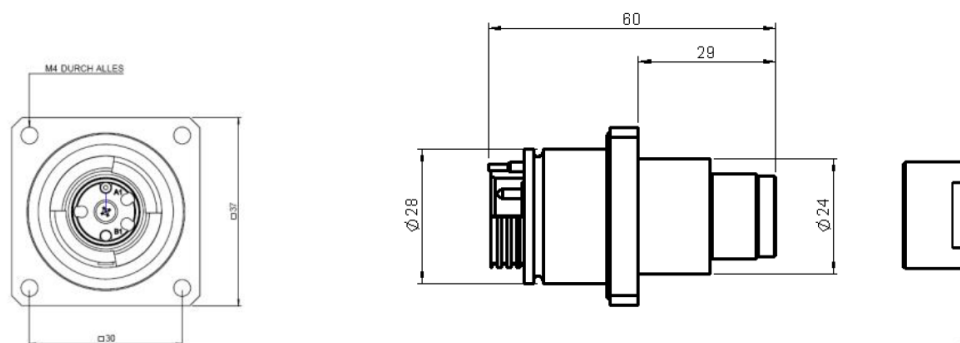
### Plug Connector



### Jam Nut Receptacle



### Square Flange Receptacle



Contact us for further details and cable accessories / adaptors.



For further information and to discuss your application please contact:-

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**TechOptics**

THE FIBRE OPTICS EXPERTS

**ISO9001:2015**  
for the distribution  
of fibre optic  
products and the  
manufacture of fibre  
optic assemblies.



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Specifications subject to change without notice.

Expanded Beam HD Range – 2018

[www.techoptics.com](http://www.techoptics.com)