

# Fibreco Senior Series Expanded Beam



Fibreco Senior expanded beam fibre optic connectors have been designed for use in the most demanding harsh environment applications including military tactical communications, outside broadcast, petrochemical plant, mining, and offshore systems.

The Fibreco Senior connector range includes 1, 2, 4, 6 and 8 optical channel versions and five fibre optic / electrical hybrid variants.

The connectors are terminated using an epoxy-polish ferrule termination process with standard fibre optic termination tools and equipment. The terminated ferrules are simply inserted into the expanded beam housing and fixed in place via a spring and cover-plate. Ferrule alignment to the lenses is achieved automatically by the unique optical arrangement developed and patented by Fibreco. In hybrid connectors, electrical connections are made via standard gold plated MIL-C-39029 crimp contacts..

Fibreco Senior expanded beam connectors offer a cost effective high performing and flexible solution that is proven in the toughest environments and is the solution for mission critical communications.

## Applications

- Broadcast
- Military communications
- Industrial, mining and petrochemical

## Features & Benefits

- Advanced expanded beam technology
- Hermaphroditic interconnection
- 1 to 8 fibre channels single mode or multi mode
- Hybrid electrical & fibre channel options available
- Rugged housing and construction
- Keyed boot for 'Blind Mating'
- Industry leading expanded beam optical performance
- No adapters necessary
- Inexpensive, low downtime field cleaning requiring no special tools
- Designed to match optical performance requirements of MIL83526 /20 & /21

Active | Passive | Test Equipment | Tooling | Cable | Fibre Management

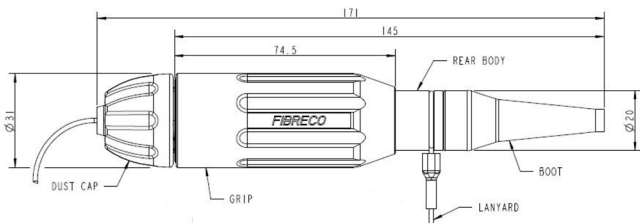
For further information:  
[www.fibreoptic.com.au](http://www.fibreoptic.com.au)  
+61 3 9757 3000

## Technical Specifications

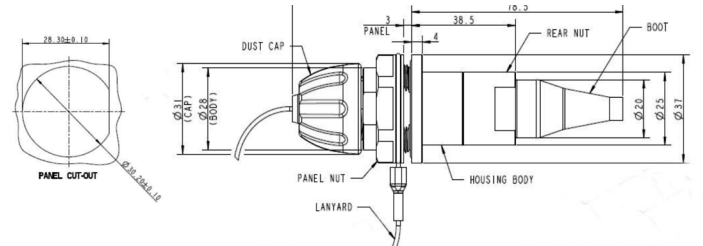
	Singlemode 9/125um @1310/1550nm	Multimode 50/125um @ 850/1300nm
Insertion loss	1-4 Channel: 1.5 dB max 6-8 Channel: 2.0 dB max	1-4 Channel: 1.0 dB max 6-8 Channel: 1.5 dB max
Return loss	> 32 dB (typical 40dB)	> 20 dB
Durability	3000 matings minimum	
Operating temperature	-40 to +85°C	
Storage temperature	-55 to +85°C	
Water immersion	up to 15M depth	
Vibration sinusoidal	10-500Hz, 0.75 amplitude @ 10g acceleration, 3 directions	
Free fall resistance	500 falls onto concrete from 1.2M height	
Bump resistance	4000 bumps @ 40g acceleration	
Crush resistance	6.7 kN	
Corrosion resistance	500 hours salt spray	
Tensile strength	Tensile of 1500N, cable dependent	
Weight (nominal)	<b>Plug</b>	<b>Bulkhead</b>
	Aluminium: 160g Stainless steel: 300g	150g 255g
Connector shell material & colour	Body: Black anodised aluminium or stainless steel Grip and boot: black or olive green	

## Connector Geometry & End Face Arrangement

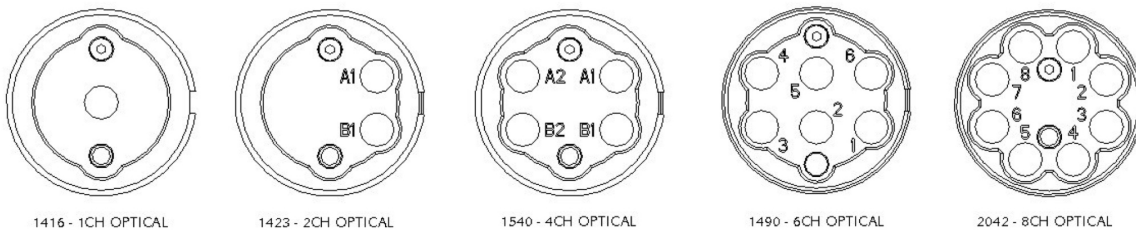
### Senior EB Plug



### Senior EB Jam Nut Bulkhead



## Channel Arrangement



Note: All dimensions are in mm

Active | Passive | Test Equipment | Tooling | Cable | Fibre Management

For further information:  
[www.fibreoptic.com.au](http://www.fibreoptic.com.au)  
 +61 3 9757 3000