



Senior Expanded Beam Connector



1 to 8 Optical Channels

Fibre Optic / Electrical hybrid variants

Singlemode or Multimode

Low insertion loss / high return loss

Field terminable / repairable

Hermaphroditic design

Aluminium, Nickel Aluminium Bronze or
Stainless Steel shell options

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

In the event of the connector suffering severe damage in use, the connector design enables replacement of the expanded beam insert, connector front body and grip ring without the need to re-terminate the fibres. Typically, an expanded beam insert can be replaced within 30 minutes in field conditions.

Fibreco Senior expanded beam connectors offer high performance, flexibility and cost effectiveness, combined with a simple termination process allowing rapid in-field termination and repair.

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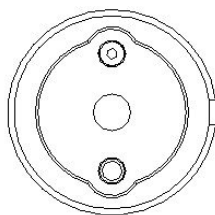


Senior Expanded Beam Connector - Outline Specification

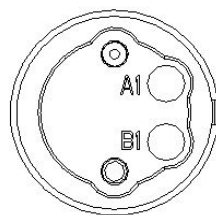
Connector Specification:

Insertion Loss	9/125 Fibre at 1310nm / 1550nm : -1.5dB maximum (typical -1.0dB) 50/125 Fibre at 850nm / 1300nm : -1.0dB maximum (typical -0.7dB)		
Return Loss	>-32dB (typical -40dB)		
Electrical: Power Contacts	Size 20 & size 16 MIL-C-39029. Contact resistance <4mΩ. Operating voltage 1000VAC. Operating current 5A (short term 15A)		
Electrical: Test Voltage	Between contacts and contact / housing: 3000V / 50Hz, 1 minute EN61984		
Durability	3000 Matings minimum		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-55°C to +85°C		
Water Immersion	15m		
Free Fall Resistance	500 Falls from 1.2m height		
Vibration	10-500Hz, 3 directions, 0.75mm amplitude@ 10g acceleration		
Bump	4000 bumps @ 40g acceleration		
Crush Resistance	6.7kN		
Corrosion Resistance	500 Hours Salt Spray		
Cable Retention	1500N (Cable Dependant)		
Weight (approx)	Aluminium	Stainless Steel	Nickel Aluminium Bronze
	Plug: 160g	300g	285g
	Bulkhead: 150g	255g	240g
Connector Shell Material / Colour	Black anodised Aluminium, Nickel Aluminium Bronze or Stainless Steel. Grip & boot: Black or Olive Green		

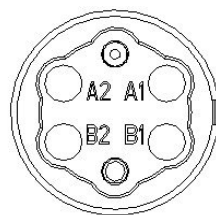
Connector Options:



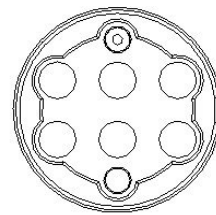
1416 - 1CH OPTICAL



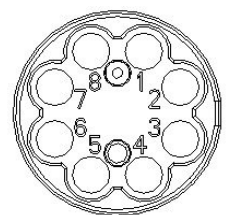
1423 - 2CH OPTICAL



1540 - 4CH OPTICAL

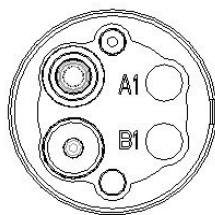


1490 - 6CH OPTICAL

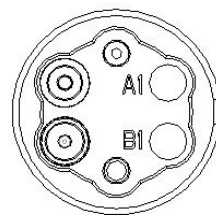


2042 - 8CH OPTICAL

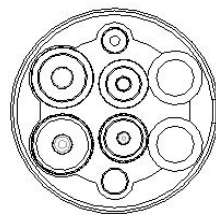
OPTICAL INSERT ARRANGEMENTS



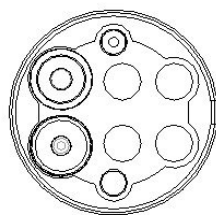
1621 - 2CH OPTICAL
2 POWER (#16)



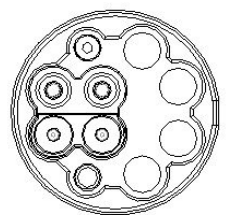
1594 - 2CH OPTICAL
2 SIGNAL (#20)



1432 - 2CH OPTICAL
2 POWER (#16)
2 SIGNAL (#20)



1519 - 4CH OPTICAL
2 POWER (#16)



1596 - 4CH OPTICAL
4 ELECTRICAL (#20)

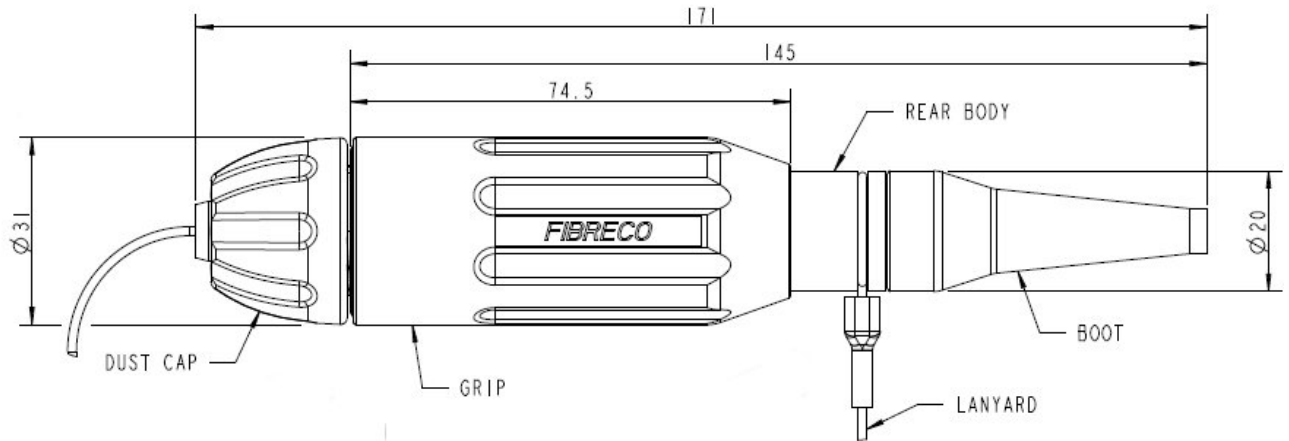
HYBRID INSERT ARRANGEMENTS

NOTE: SIZE 16 & 20 CONTACTS TO MIL C 39029



Senior Expanded Beam Connector - Outline Specification

Plug Connector:



Bulkhead Connector D-Hole Mount:

