

At the core of the Ridgemount Expanded Beam connectors are the lensed insert.

These optical inserts are ultra-high precision to ensure that the insertion loss is kept to a minimum.

Ridgemount manufactures three different sizes of inserts, Mini, Junior and Senior as well the custom options. There are also three variants of the Mini (I, II & III).

All inserts are made using a precision 3mm lens which is coated on both sides of the lens with an anti-reflective coating designed to minimise the back reflection.

Although the inserts are designed to work in the F BEAM™ Connectors manufactured by Ridgemount they are also sold separately for use in customer's custom applications.



### Features & Benefits

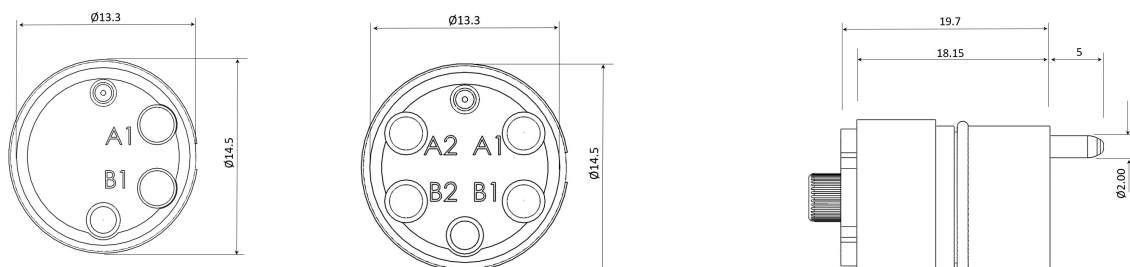
- High Precision Inserts
- Multimode and Singlemode options
- Gender specific inserts
- Precision coated 3mm optical lens
- IP68 when mounted in connector body
- Low Loss - High Return Loss Performance
- Simple 2.5mm ferrule alignment technology
- Simple to dis-assemble, clean & re-use
- Rugged Design
- Supplied with Cover Plate, O Ring & Screw

### Applications

- Expanded Beam Connectors
- Rotary Joints
- Sensor Instrumentation
- Industrial Interconnects
- Custom EX Harsh Environment



### Schematic - e.g. F BEAM Junior 4-Channel Insert



## Technical Specification

F100 Series	F BEAM™ INSERT	PERFORMANCE
Connector Material	MIL-DTL-83526	ARCAP / Stainless Steel
Optical Lens	MIL-DTL-83526	Spherical 3mm
Optical Alignment	MIL-DTL-83526	Expanded Beam
Ferrule [Not Included]	MIL-DTL-83526	Zirconia Ceramic 2.5mm
<b>Optical Performance - subject to termination method and fibre grade .</b>		
Insertion Loss [Max]	IEC 61300-3-4	Mmode ≤1.5dB / Smode ≤2.0dB
Insertion Loss [Typical]	IEC 61300-3-4	Mmode ≤0.8dB / Smode ≤1.0dB
Return Loss	IEC 61300-3-6 [mated]	Mmode > 23dB / Smode >32dB
<b>Mechanical Performance - subject to termination method and fibre grade .</b>		
Vibration	IEC 61300-2-1	10-500Hz 0.75 amplitude @10g
Durability	IEC 61300-2-2	x3000 matings
Impact	IEC 61300-2-12	8 Drops (0.9m)
<b>Environmental Performance - subject to termination method and fibre grade .</b>		
Operational Temperature	IEC 61300-2-22	-57°C to +85°C

## Ordering Information

	F1XX	XX	X	X	00	A
<b>Family</b>	F120 : FBeam MINI Insert F130 : FBeam JUNIOR Insert F140 : FBeam SENIOR Insert F900 : FBeam CUSTOM					
<b>Number of Channels</b>	01 : 1 Channel 02 : 2 Channels 04 : 4 Channels					
<b>Fibre Type</b>	1 : Singlemode 1310nm 2 : Singlemode 1310nm & 1550nm 3 : Singlemode 1550n 4 : Multimode 850nm & 1300nm 5 : Multimode 850nm 6 : Multimode 1300nm					
<b>Main Body Material</b>	1 : Stainless Steel 4 : ARCAP 5 : MIM Stainless Steel					
<b>Cable Diameter &amp; Colour</b>	0 : No Choice Required					
<b>Packaging</b>	A : Individually Packed F : Box of 20					

e.g. F130 0424 000A - F-Beam Junior Insert Kit - 4 Channel Singlemode 1310nm/1550nm - Ar - Can 1