

F300-01 Series F BEAM™ Junior Connector



Ridgemount Technologies has over 30 years of experience designing, developing and producing fibre optic connectors and cable harnesses for a wide variety of industries.

The F300 series of F BEAM™ expanded beam connectors are designed for use in applications in the most demanding harsh environments including military tactical communications, outside broadcast, petrochemical plant, mining and offshore systems.

The MIL-DTL-83526 hermaphroditic interface negates the need for in-line adaptors, or male and female mating halves simplifying connectivity architecture and reducing stock holding.



Standard Plug

Square Flange Receptacle Strain Relief



Tactical Cable on deployable reel with Pulling Sock and F BEAM™ Junior Plug

Applications

- Tactical Military Communication Systems
- Remote Broadcasting Installations
- Antenna Systems
- Harsh Environment Oil & Gas Monitoring

Features

- F BEAM™ Precision Alignment Technology
- Hermaphroditic Design - Plug to Plug Daisy Chain
- Interface compliant to MIL-DTL-83526/20 & 21
- Keyed boot design for blind mating
- 90° degree back shell options
- Low profile option for bulkhead
- Loop-back Plug options



F BEAM™ Junior BH with different mountings and cable retention methods

Benefits

- Intermatable with other HMA Connectors
- Excellent Optical Performance
- Easy Connect / Easy Clean
- Field Deployable & Repairable
- Manufactured in the UK
- Variety of Cable Sizes and boot options



The BLUE face seal of the F BEAM™ distinguishes it from the angled FxBEAM™ which is identifiable by the GREEN face seal at the front of the connector - see the FxBEAM™ data sheet.

Whilst both connectors have the mechanical and environmental performance required of the MIL-DTL-83526 standard their optical performance is specific to the application required.

Ridgemount's F BEAM™ Junior connector is fully compliant with MIL-DTL-83526 standards making it intermateable with similar connectors. The next generation of FxBEAM™ connectors are ideal for the digital systems of the future.

F300-01 Series F BEAM™ Junior Connector



Technical Specification

F300 Series	F BEAM™	PERFORMANCE
Connector Shell Material	MIL-DTL-83526	Aluminium / Stainless Steel
Optical Insert 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
Optical Performance - subject to termination method and fibre grade		
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
Mechanical Performance - subject to termination method and fibre grade		
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)
Tensile	IEC 61300-2-2	2000N (Cable Dependent)
Environmental Performance - subject to termination method and fibre grade		
Operating Temperature Range	IEC 61300-2-22	-57°C to +85°C

Connector Ordering Information

SAMPLE PART NUMBER	F3	10	02	2	3	55	0A
<i>F310 0223 550A</i>							
F300 F BEAM™ Junior							
Shell Type							
10: Plug							
21: Jam Nut Receptacle - Low Profile							
22: Jam Nut Receptacle - Strain Relief							
23: SQ Flange Receptacle - Low Profile							
23: SQ Flange Receptacle - Strain Relief							
Number of Channels							
01: 1 Channel							
02: 2 Channels							
04: 4 Channels							
Fibre Type							
2: Singlemode							
4: Multimode							
Shell Material							
1: Stainless Steel							
2: Aluminium Hard Anodised - Non-Conductive (Standard Receptacle)							
3: Aluminium Hard Anodised - Conductive (Standard Plug)							
Cable Diameter							
09: 900µm Buffered Fibre (Low Profile Only)							
30: Standard Zip-Cord - 3.0mm							
55: Tactical Cable - 5.5mm							
Shell Colour							
0A: Black							
1A: Olive Green							
9A: Base Material (Stainless Steel Only)							

For the related Cable Assembly ordering information see following page

Cable Assembly Ordering Information

SAMPLE PART NUMBER	F3	22	13	02	2	4	55	0A	LCD	45M
F322 13 0224 550A LCD 45M										
F300 F BEAM™ Junior Cable Assemblies										
Shell Type for first end										
10: Plug										
21: Jam Nut Receptacle - Low Profile										
22: Jam Nut Receptacle - Strain Relief										
23: SQ Flange Receptacle - Low Profile										
24: SQ Flange Receptacle - Strain Relief										
Shell Size										
11										
13										
Number of Channels										
02: 2 Channels										
04: 4 Channels										
Fibre Type										
2: Singlemode 9/125										
4: Multimode 50/125										
Shell Material										
1: Stainless Steel										
4: Aluminium with black zinc nickel										
Cable Diameter										
09: 900µm Buffered Fibre (Low Profile Only)										
30: Standard Zip-Cord - 3.0mm										
55: Tactical Cable - 5.5mm										
Shell Colour										
0A: Black										
9A: Base Material (Stainless Steel Only)										
Connectors for other end										
P: Plug										
JRLP: Jam Nut Receptacle - Low Profile										
JRSR: Jam Nut Receptacle - Strain Relief										
SQLP: SQ Flange Receptacle - Low Profile										
SQSR: SQ Flange Receptacle - Strain Relief										
LCA/FCA/SCA: Telecom connector with angled physical contact 8° for SM only										
LC/LCD (duplex)/SC: Telecom connector available with MM & SM										
<i>For custom requirements please consult us</i>										
Cable Length										
xxxM: customer to specify length in metres, for example 45m										