FIBRECO

Fibreco D38999 Series III

Expanded Beam Connectors

The Cinch Advantage

The D38999 Series III derived expanded beam fiber optic connectors have been designed for use in the most demanding civil and military electronic equipment interface applications.

The connector features the generic MIL-DTL-38999 Series III tri-start thread and one-turn self locking anti-vibration coupling mechanism making it ideal for use in vehicle, aircraft and naval environments.

Plug and receptacle connectors are available with straight or 90° back-shell options and a choice of shell materials including Aluminum alloy (Zinc Cobalt, Olive drab), Aluminum alloy (electroless Nickel plated), Nickel Aluminum Bronze (shot blast, non-reflective) and Stainless Steel (passivated).

Receptacle connectors are available with jam-nut or square-flange mounting and strain relief for zip-cords or tactical cable.

The connectors are terminated using an epoxy-polish ferrule termination process with standard fiber 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 Cinch-Fibreco.

The D38999 Series III expanded beam connectors offer high performance, flexibility and cost effectiveness, combined with a simple termination process allowing rapid in-field termination and repair.

Features

- Size 11 Shell: 1 to 4 Optical Channels
- Size 13 Shell: 2 or 4 Optical Channels
- Size 15 Shell: 2, 4, 6, or 8 Optical Channels
- Size 17 Shell: 12 or 16 Optical Channels
- Singlemode or Multimode
- Straight or 90° Back-Shell Options
- Low insertion loss / high return loss
- Aluminum, nickel aluminum bronze or stainless steel shell options
- Copper / optical hybrids
- IP67

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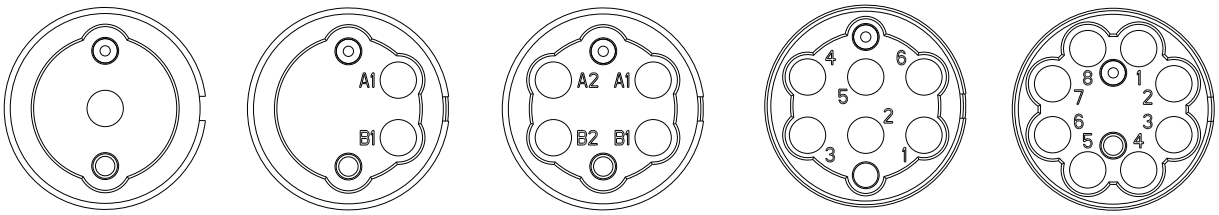
Outline Specification

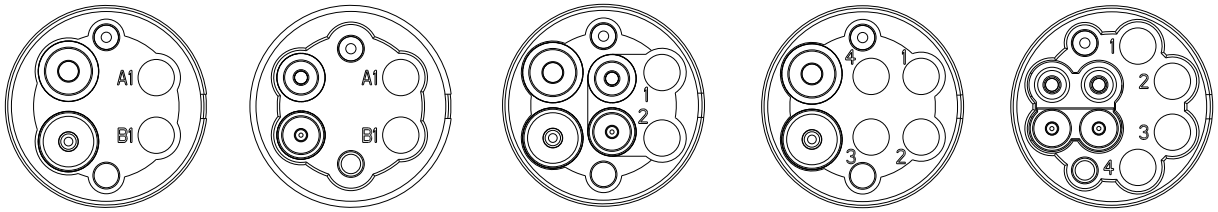
D38999 Expanded Beam Connector

Insertion Loss	9/125 Fiber at 1310nm / 1550nm: 1 to 4 channels: -1.5dB max / 6 to 16 channels: -2.0dB max* 50/125 Fiber at 850nm / 1300nm: 1 to 4 channels: -1.0dB max / 6 to 16 channels: -1.5dB max*					
Return Loss	>32dB (typical 40dB) singlemode / >20dB multimode*					
Durability	1000 Matings minimum					
Operating Temperature	-40°C to +85°C					
Storage Temperature	-55°C to +85°C					
Water Immersion	IP67					
Free Fall Resistance	350 Falls from 1.2m height					
Vibration	10-500Hz, 3 directions, 0.75mm amplitude@ 10g acceleration					
Bump	4000 bumps @ 40g acceleration					
Corrosion Resistance	350 Hours Salt Spray					
Cable Retention	1000N (Cable Dependant)					
Weight (approx)		Aluminum		Stainless Steel		Nickel Aluminum Bronze
		Size 11	Size 15	Size 11	Size 15	Size 11	Size 15
	Plug:	50g	90g	95g	170g	95g	170g
	Bulkhead:	45g	85g	85g	155g	85g	155g
Connector Shell Material / Color	Aluminum Alloy (Zinc Cobalt, Olive Drab) , Aluminum Alloy (electroless Nickel plated), nickel Aluminum Bronze (shot blast, non-reflective) or Stainless Steel (passivated)					

Optical Insert Arrangements



Hybrid Insert Arrangements



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