

D38999 Series III Derived Expanded Beam Connector



- 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, 90° or 45° Back-Shell Options
- Low insertion loss / high return loss
- Aluminium, Nickel Aluminium Bronze or Stainless Steel shell options
- Fully sealed (IP67)

Fibreco D38999 Series III derived expanded beam fibre 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, 90° or 45° back-shell options and a choice of shell materials including Aluminium alloy (Zinc Cobalt, Olive drab), Aluminium alloy (electroless Nickel plated), Nickel Aluminium 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 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.

Fibreco 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.

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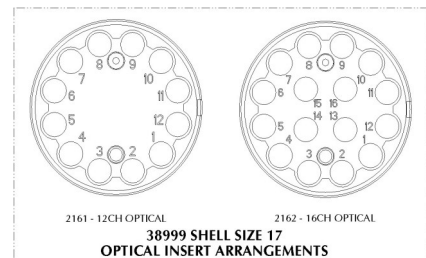
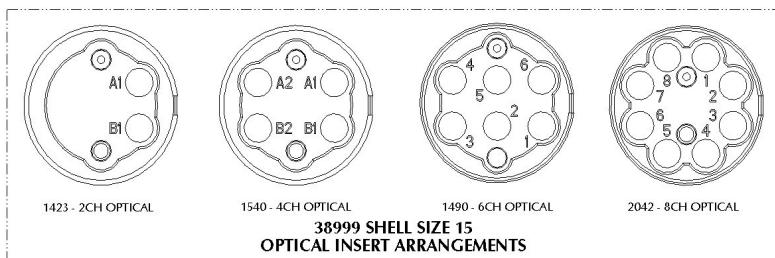
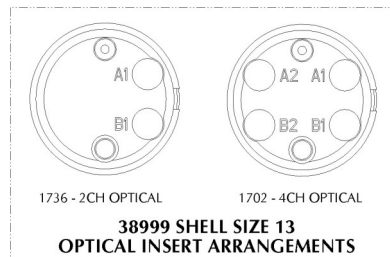
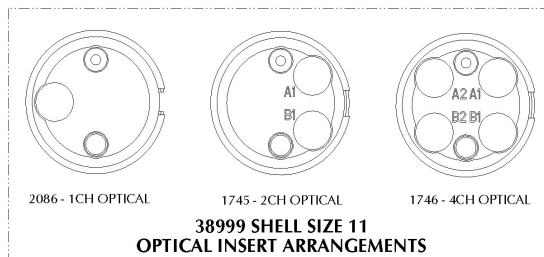
COMPONENTS FOR A
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D38999 Derived Expanded Beam Connector - Outline Specification

Connector Specification:

Insertion Loss	9/125 Fibre at 1310nm / 1550nm: 1 to 4 channels: -1.5dB max / 6 to 16 channels: -2.0dB max* 50/125 Fibre 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	IP68		
Free Fall Resistance	500 Falls from 1.2m height		
Vibration	10-500Hz, 3 directions, 0.75mm amplitude@ 10g acceleration		
Bump	4000 bumps @ 40g acceleration		
Corrosion Resistance	500 Hours Salt Spray		
Cable Retention	1000N (Cable Dependant)		
Weight (approx)	Aluminium	Stainless Steel	Nickel Aluminium Bronze
	Size 11	Size 15	Size 11
Plug:	50g	90g	95g
Bulkhead:	45g	85g	85g
Connector Shell Material / Colour	Aluminium Alloy (Zinc Cobalt, Olive Drab) , Aluminium Alloy (electroless Nickel plated), Nickel Aluminium Bronze (shot blast, non-reflective) or Stainless Steel (passivated).		



Fibreco reserves the right to change specifications without notice 02/12.
*Measurements against reference—random mate performance in line with MIL-83526