# Fibreco connectors

## D38999 Series III Expanded Beam

Productsheet D<sub>3</sub>8999 Series III Expanded Beam

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#### **Contact**

In case of any questions, call us on +31 (0)416-387700 or sent an email to: sales@simacelectronics.nl.

We like to help you!





### The Fibreco advantage

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° backshell 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 D38999 Series III expanded beam connectors offer high performance, flexibility and cost effectiveness.

#### **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
- Aluminium, Nickel Aluminium Bronze or Stainless Steel shell options
- Fully sealed (IP67)

Fibreco Expanded Beam
Fast and easy
Suitable for many apllications
Designed for harsh environment



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## **Optical**

Insertion Loss 9/125 Fiber at 1310nm / 1550nm: 1 to 4 channels: -1.5dB max

6 & 8 channels: -2.0dB max\*

50/125 Fiber at 850nm / 1300nm: 1 to 4 channels: -1.0dB max

6 & 8 channels: -1.5dB max\*

Return Loss > 32dB (typical 40dB) singlemode / >20dB multimode\*

#### Mechanical

Durability 1000 Matings minimum

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

Cable Retention 1000N (Cable Dependant)

Weight (approx) Size 11 Plug: Aluminium 50g, Stainless Steel 90g, Nickel Aluminium Bronze 95g

Bulkhead: Aluminium 45g, Stainless Steel 85g, Nickel Aluminium Bronze 85g Plug: Aluminium 90g, Stainless Steel 170g, Nickel Aluminium Bronze 170g

Weight (approx) Size 15 Plug: Aluminium 90g, Stainless Steel 170g, Nickel Aluminium Bronze 170g

Bulkhead: Aluminium 85g, Stainless Steel 155g, Nickel Aluminium Bronze 155g

Connector Shell Material / Color Aluminium Alloy (Zinc Cobalt, Olive Drab) , Aluminium Alloy (electroless Nickel

plated), Nickel Aluminium Bronze (shot blast, non-reflective) or Stainless Steel

(passivated).

#### **Enviromental**

Operating Temperature  $-40^{\circ}\text{C to } +85^{\circ}\text{C}$ Storage Temperature  $-55^{\circ}\text{C to } +85^{\circ}\text{C}$ 

Water Immersion IP68

Corrosion Resistance 500 Hours Salt Spray

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<sup>\*</sup>Measurements against reference—random mate performance in line with MIL83526

# Fibreco connectors

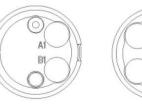
# **D38999 Series III Expanded Beam**

## **Drawings**

#### **Optical Insert Arrangements Size 11**





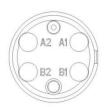


1746 - 4CH OPTICAL

#### **Optical Insert Arrangements Size 13**

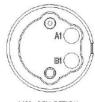


1736 - 2CH OPTICAL



1702 - 4CH OPTICAL

#### **Optical Insert Arrangements Size 15**



1423 - 2CH OPTICAL



1540 - 4CH OPTICAL

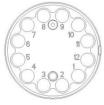


1490 - 6CH OPTICAL



2042 - 8CH OPTICAL

### **Optical Insert Arrangements Size 17**



2161 - 12CH OPTICAL



2162 - 16CH OPTICAL

### More information

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