

Maxi Expanded Beam Connector

Fiber Optic Connectors

The Cinch Advantage

Maxi expanded beam fiber optic connectors have been designed for use in the most demanding harsh environment applications including military tactical communications, outside broadcast, petrochemical plant, mining, and offshore systems where high fiber counts are critical.

The Maxi connector features a fully sealed hermaphroditic coupling, high multimode and singlemode optical performance, and a plug shell diameter of just 40mm.

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.

In the event of the connector suffering severe damage in use, the connector design enables replacement of the expanded beam insert, connector front body and grip ring without the need to re-terminate the fibers.

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

Features

- 12, or 16 Optical Channels
- Singlemode or Multimode
- Low insertion loss / high return loss
- Field terminable / repairable
- Hermaphroditic design
- Aluminum or Stainless Steel shell options
- Fully sealed (IP68)



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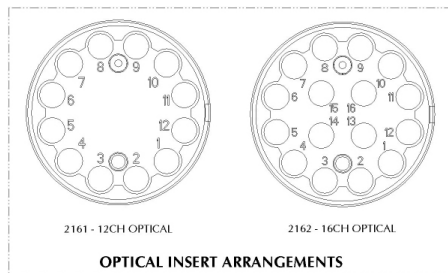
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Outline Specification

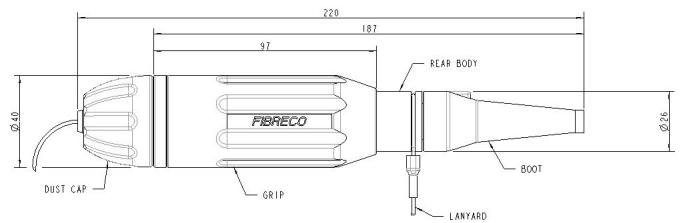
Maxi Expanded Beam Connector - Outline Specification

| | | | |
|----------------------------------|--|-----------------|------------------------|
| Insertion Loss | 9/125 Fiber at 1310nm / 1550nm: -2.0dB maximum (typical <-1.5dB)* 50/125 Fiber at 850nm / 1300nm: -1.5dB maximum (typical <-1.0dB)* | | |
| Return Loss | > 32dB (typical 40dB) singlemode / >20dB multimode* | | |
| Durability | 3000 Matings minimum | | |
| Operating Temperature | -40°C to +85°C | | |
| Storage Temperature | -55°C to +85°C | | |
| Water Immersion | 15m | | |
| 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 | | |
| Corrosion Resistance | 500 Hours Salt Spray | | |
| Cable Retention | 1500N (Cable Dependant) | | |
| Weight (approx) | Aluminum | Stainless Steel | Nickel Aluminum Bronze |
| Plug: | 310g | 575g | 575g |
| Bulkhead: | 210g | 390g | 390g |
| Connector Shell Material / Color | Black Anodised Aluminum, or Stainless Steel. Grip & boot: Black or Olive Green | | |

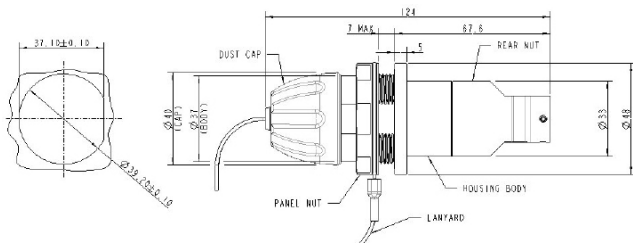
*Measurements against reference—random mate performance in line with MIL83526



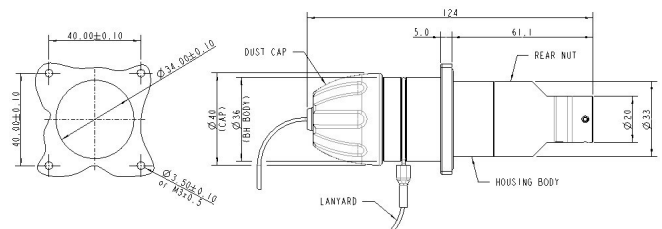
Plug Connector



Bulkhead Connector D-Hole Mount



Bulkhead Connector Square-Flange Mount



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