

S900 Series connector

Description:

The S900 Series harsh environment connectors are designed for deployment in the toughest applications where high performance and total reliability are critical. Benefiting from expanded beam technology, with a long and proven industry track record, the precision optical alignment system creates immunity from water, mud, dust, oil and other contaminants which normally ingress the optical path and rapidly deteriorate performance in a field environment.

The S900 Series Hermaphroditic design eliminates the need for adaptors and male and female mating halves. Hermaphroditic housings allow for rapid field deployment, creating low loss single mode, multimode daisy chained links. Ideally suited in environmental extremities where low maintenance and quick reparability is necessary the connectors are uniquely field installable, rapid field repairable, and are available in a broad range of multi-channel configurations including bulkhead feed throughs. A variety of shell materials make the S900 Series suitable for use in extreme arctic marine environments through to military platforms used in the most hostile of desert conditions.

OPTOKON S900 expanded beam fiber optic connectors are fully compatible with Stratos S900 and Tyco Pro-Beam Senior legacy connectors.

Features:

- Advanced expanded beam technology
- Hermaphroditic interconnection, no adaptors necessary
- 2 or 4 fiber channels Single mode or Multimode
- Rugged field repairable connector design
- Durable and field proven

Application:

- Military tactical communications
- Petrochemical
- Broadcast, heavy industry



Specifications:

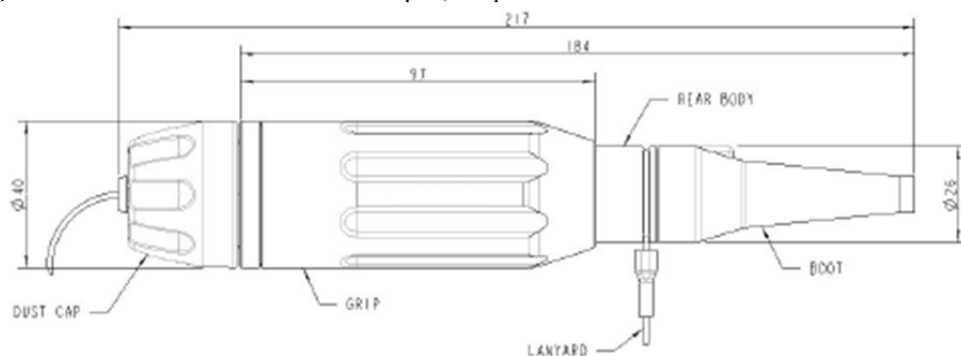
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|--------------------------|---|-----------------------------|
| Optical Loss | 50/125 @ 850/1300 nm: 1 to 4 channels 1.0 dB max / 8 channel 1.5 dB max ¹ 9/125 @ 1310/1550 nm: 1 to 4 channels 1.5 dB max / 8 channel 2.0 dB max ¹ | |
| Return Loss | > 32 dB (typical 40 dB) single mode / > dB multimode ¹ | |
| Durability | 3000 matings minimum | |
| Operating temperature | -40 to +85°C | |
| Storage temperature | -55 to +85°C | |
| Water immersion | up to 5 m depth | |
| Vibration Sinusoidal | 10-500 Hz, 0.75 mm amplitude @ 10 g acceleration | |
| Free fall resistance | 500 falls onto concrete from 1.2 m height | |
| Bump resistance | 4000 bumps @ 40 g acceleration | |
| Crush resistance | 6.7 kN | |
| Corrosion resistance | 500 hrs salt spray (anodised aluminium shell) | |
| Cable retention | Tensile of 1500 N, cable dependent | |
| Weight (approx) | Aluminium | Nickel Aluminium Bronze |
| | Plug: | 320 g / 650 g |
| | Bulkhead: | 190 g / 400 g |
| Connector Shell Material | Black anodised Aluminium or Nickel Aluminium Bronze | |
| Colour | Grip & boot: Black (standard) or Olive Green (on request) | |
| Cable Variations | Tactical cable: | 5.0 / 5.5 mm cable diameter |
| | Standard zipcord: | 2x 2.8 mm |

Note: 1) Measurements against reference

Technical drawing:

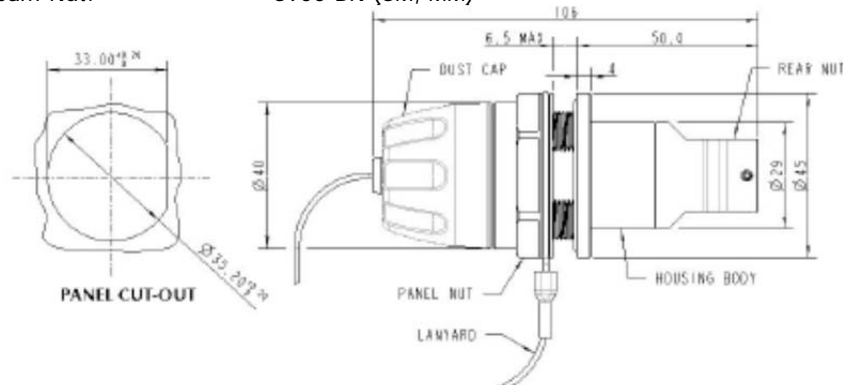
Plug Connector:

S900 (SM, MM)



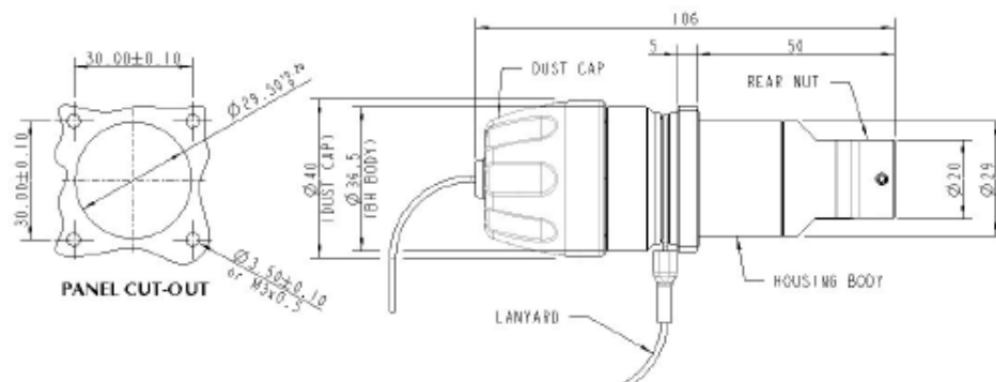
Bulkhead Jam-Nut:

S900-BN (SM, MM)



Bulkhead Flange:

S900-BF (SM, MM)



Optical insert arrangements

