

# 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

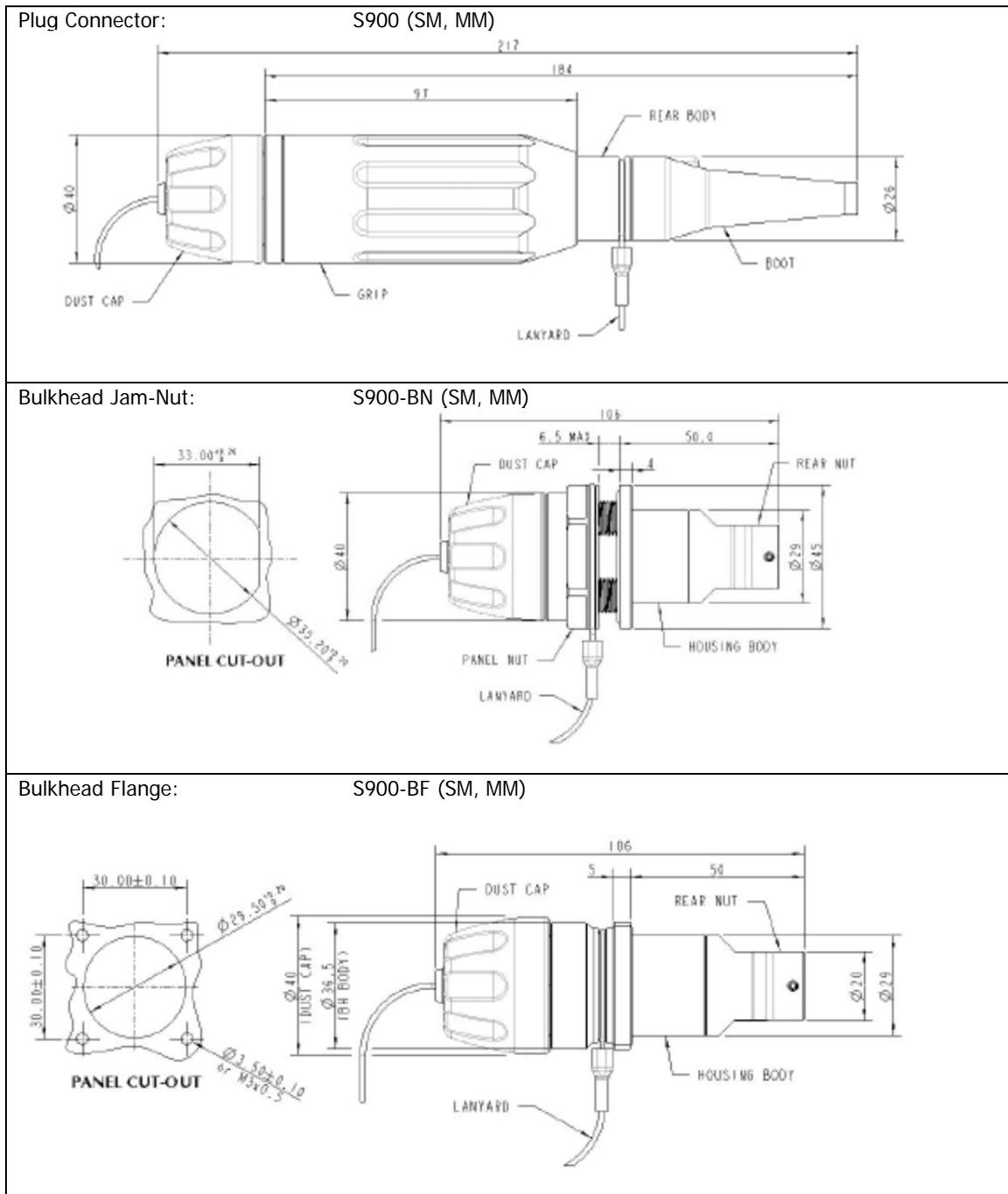


## Specifications:

Optical Loss	50/125 @ 850/1300 nm: 1 to 4 channels 1.0 dB max / 8 channel 1.5 dB max <sup>1</sup> 9/125 @ 1310/1550 nm: 1 to 4 channels 1.5 dB max / 8 channel 2.0 dB max <sup>1</sup>	
Return Loss	> 32 dB (typical 40 dB) single mode / > dB multimode <sup>1</sup>	
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 Colour	Black anodised Aluminium or Nickel Aluminium Bronze 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:



Optical insert arrangements

