

# HMA-S Series connector

## Description:

The OPTOKON HMA-S connector series, a large size „Expanded Beam” connector is designed for connection of the nodes of tactical network by the help of cables with optical fibers. The used expanded beam technology preserves all advantages of signals transmission through the optical lines in field harsh environmental conditions. Additionally to military optical networks the HMA-S is suited for a vast array of applications, like heavy industry connections, petrochemical application, broadcasting temporary optical lines. The HMA-S connector functionality is based on MIL standards.

The innovative designs ensure its ability for deployment in the toughest environments where high performance and total reliability are critical. Benefiting from expanded beam technology the precision optical alignment system creates immunity from water, mud, dust oil and other contaminants.

The HMA-S Hermaphroditic coupling eliminates the need for adaptors and male and female mating halves. Hermaphroditic housings allow for rapid deployment, creating low loss Single mode and Multimode daisy chained links in a variety of planforms ranging from four to an eight fibers. The OPTOKON HMA-S is ideally suited for environmental extremities where low maintenance and quick repairability is necessary.

## Features:

- Advanced expanded beam technology
- Hermaphroditic interconnection
- 2 to 6 fiber channels Single mode or Multimode
- Low insertion loss / high return loss
- Hybrid electrical & fiber channel options available
- Rugged connector design
- Fullfills MIL-STD 810G and AECTP-400 standards

## Application:

- Broadcast
- Military communications
- Industrial
- Petrochemical



Plug Connector

## Ordering code:

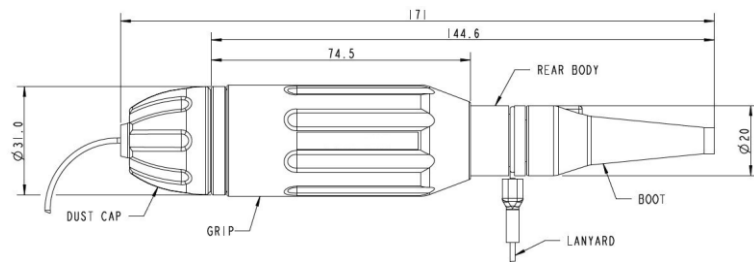
HMA -S	- (XXX)	- X(SM, M5, M6) - Y(D,P)	- XX
-	plug	X fiber number	Cable option
BNB	bulkhead jam nut with boot	Y contact number	09 Ø 0.9 mm fiber – BFL
BFB	bulkhead flange with boot	YD data, size 20	D3 Duplex zipcord Ø 2.0 mm cable – Bx 6/8 ch.
BFL	bulkhead flange low profile	YP power, size 16	D8 Duplex zipcord Ø 2.8 mm cable – Bx up to 4 ch.
			50 Ø 5.0 mm LD cable
			55 Ø 5.5 mm LD cable
			60 Ø 6.0 mm LD cable
			65 Ø 6.5 mm LD cable
			92 SMPTE 9.2mm cable

### Specifications:

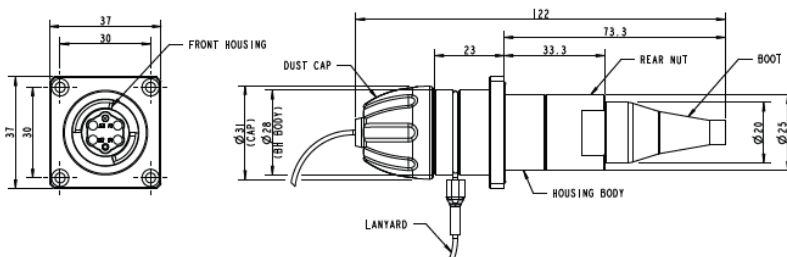
Insertion Loss	9/125 @ 1310/1550 nm: 1 to 4 channels: -1.5 dB max / 6 & 8 channels: -2.0 dB max 50/125 @ 1300 nm: 1 to 4 channels: -1.0 dB max / 6 & 8 channels: -1.5dB max
Return Loss	9/125 @ 1310/1550 nm > 32 dB (typical 40 dB) / >20 dB multimode
Electrical power contacts	Size 20 & size 16
Durability	3000 Matings minimum
Operating temperature	-40 to +85 °C
Storage temperature	-55 to +85 °C
Water immersion	up to 15 m depth
Vibration Sinusoidal	10-500 Hz, 0.75 mm amplitude @ 10 g acceleration
Bump	4000 bumps @ 40 g acceleration
Crush Resistance	6.7 kN
Corrosion Resistance	500 hours salt spray
Cable Retention	1500N (cable dependant)
Connector Shell Material	Black anodised Aluminum, Grip & boot: Black

### Technical drawings:

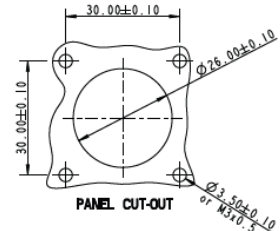
Plug Connector



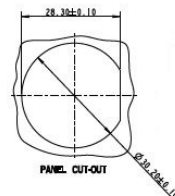
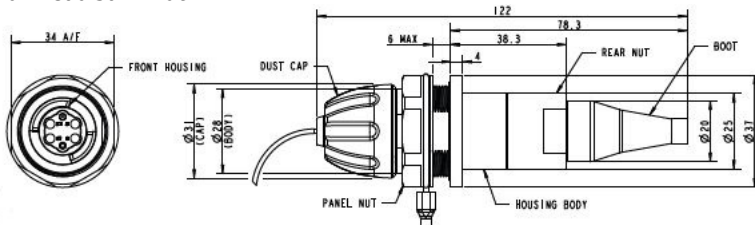
Bulkhead Flange mount



Panel cutout



Bulkhead Jam-Nut



### Insert arrangement:

