

## HMA-J Series connector

### Description:

The OPTOKON HMA-J connector series, a medium 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-J is suited for a vast array of applications, like heavy industry connections, petrochemical application, broadcasting temporary optical lines.

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



### Features:

- Advanced expanded beam technology
- MIL-DTL-83526 compatible
- Hermaphroditic interconnection
- 1 to 4 fiber channels Single mode or Multimode
- Rugged field repairable connector design
- Keyed boot for 'Blind Mating'

### Specifications:

Insertion Loss	50/125 @ 850/1300 nm 0.7 dB typ., 1.0 dB max
	9/125 @ 1310/1550 nm 1.0 dB typ., 1.5 dB max
Return Loss	Single mode >32 dB, Multimode >20 dB
Durability	3000 matings minimum
Operating temperature	-55 to +85 °C
Storage temperature	-55 to +85 °C
Water immersion	15 m depth duration 24 Hours

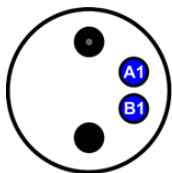


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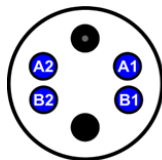
Vibration sinusoidal	20-500 Hz, 3 directions, 0.75 mm amplitude @ 10 g acceleration
Free fall resistance	500 falls from 1.2 m height
Bump resistance	4000 bumps @ 40 g acceleration
Tensile Strength	Tensile of 1500 N, cable dependent
Crush resistance	6.7 kN
Corrosion resistance	500 hours salt spray
Cable Variations	Compatible with tactical cable: Plug: 5.0-5.5 mm, Bulkhead: 2.8-5.5 mm o/d Other cable sizes available on request

All tests compliant to EN 186000-1 specifications

### Planforms



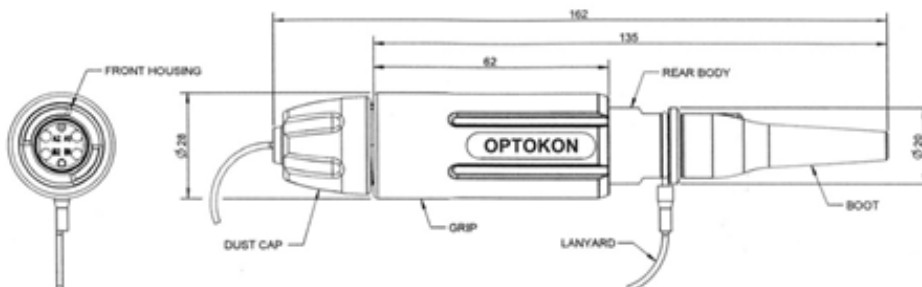
2 fibers



4 fibers



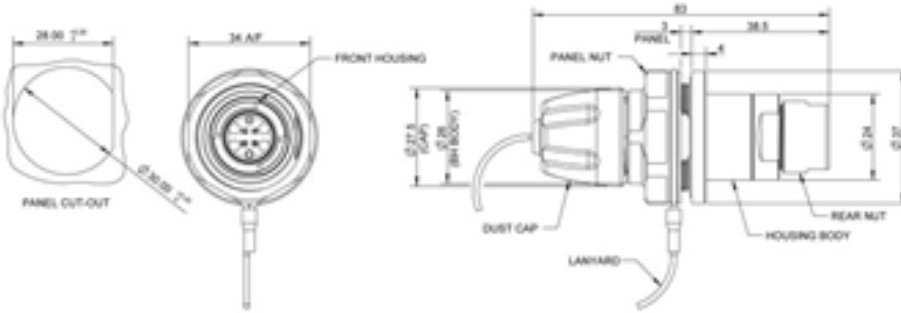
### Plug Connector: HMA-J (SM,MM)



Suitable cable:

MIL-TAC D  
2 channel Ø 5.0 mm  
4 channel Ø 5.5 mm

### Bulkhead Jam-Nut: HMA-J-BN (SM,MM)

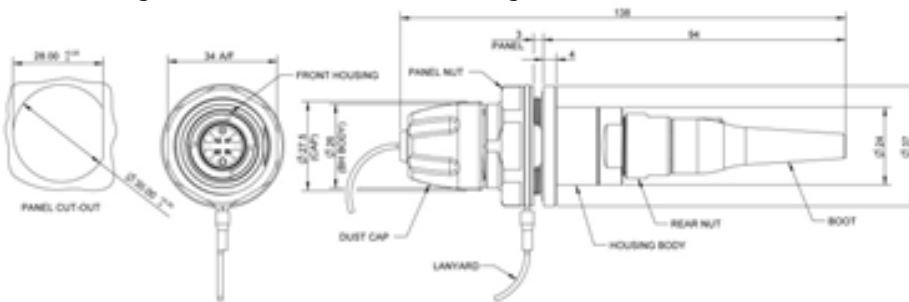


Suitable cable:

MIL-TAC D  
2 channel Ø 5.0 mm  
4 channel Ø 5.5 mm

Duplex  
2 channel 2.8x5.5 mm  
4 channel 2x 2.8x5.5 mm

### Bulkhead Jam-Nut with Boot: HMA-J-BNB (SM,MM)

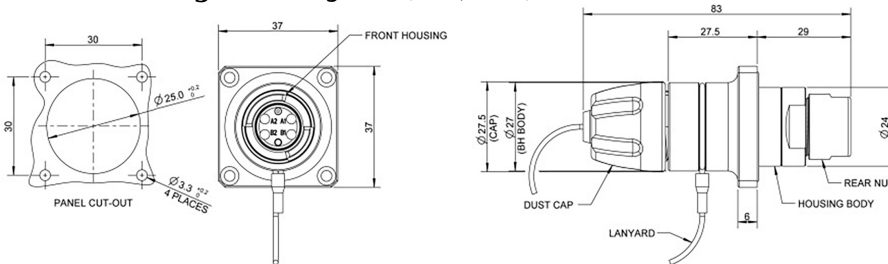


Suitable cable:

MIL-TAC D  
2 channel Ø 5.0 mm  
4 channel Ø 5.5 mm

Duplex  
2 channel 2.8x5.5 mm  
4 channel 2x 2.8x5.5 mm

### Bulkhead Flange: HMA-J-BF (SM,MM)

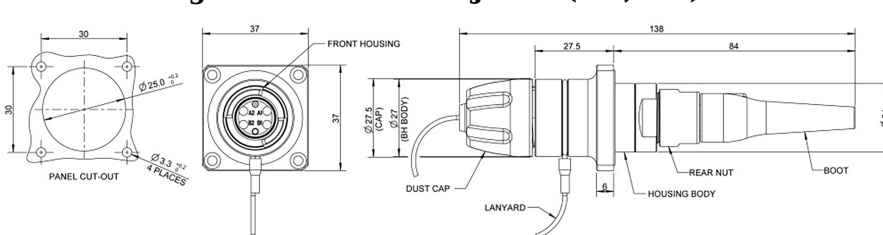


Suitable cable:

MIL-TAC D  
2 channel Ø 5.0 mm  
4 channel Ø 5.5 mm

Duplex  
2 channel 2.8x5.5 mm  
4 channel 2x 2.8x5.5 mm

### Bulkhead Flange with Boot: HMA-J-BFB (SM,MM)



Suitable cable:

MIL-TAC D  
2 channel Ø 5.0 mm  
4 channel Ø 5.5 mm

Duplex  
2 channel 2.8x5.5 mm  
4 channel 2x 2.8x5.5 mm

### Application:

- Broadcast
- Harsh environmental communications
- Industrial
- Petrochemical

### Benefits:

Best optical performance available

No adaptors necessary  
Inexpensive, low downtime field repair  
Easy clean, no special tools

**Materials:**

Black anodized high grade lightweight alloy  
Neoprene BR568 Grip ring

**Ordering code:**

<b>HMA-J</b>	-	<b>XXX</b>	-	<b>X(SM, M5, M6)</b>	-	<b>(G)</b>
-		plug	X	2/4 fiber number	G - olive green (grip color)	
BN(B)		bulkhead jam nut (with boot)				
BF(B)		bulkhead flange (with boot)				