

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) -	(XXX) ¹
- plug	X fiber number	Cable option
BF Bulkhead flange	Y contact number	09 Ø 0.9 mm fiber – BFL, BNL
BFB Bulkhead flange with boot	YD data, size 20	20 Ø 2.0 mm cable – BF, BFB, BNB
BFL bulkhead flange low profile	YP power, size 16	55 Ø 5.5 mm cable – plug, BFB, BNB
BNB bulkhead jam nut with boot		62 Ø 6.2 mm cable – plug, BFB, BNB
BNL bulkhead jam nut low profile		

Note: 1) for terminated connectors

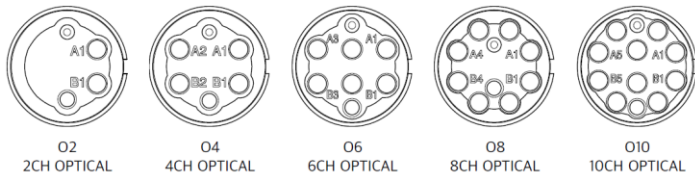
Specifications:

Insertion Loss	50/125 @ 850/1300 nm: 0.5-1.0 dB typical 9/125 @ 1310/1550 nm: 0.8-1.8 dB typical
Return Loss	9/125 @ 1310/1550 nm > 32 dB
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, 3 axis, 0.75 mm amplitude @ 10 g acceleration
Free fall resistance	500 falls from 1.2 m height
Shock	11 ms, 3 axis, 50 g

Technical drawings:

Plug Connector 		
Bulkhead Flange mount – BFB 	Bulkhead Flange mount – BF 	Panel cutout
Bulkhead Flange mount – BFL 		
Bulkhead Jam-Nut – BNB 	Bulkhead Jam-Nut – BNL 	

Optical Insert arrangement:



Hybrid Insert arrangement:

