

**MC4 Series - Duplex Fiber Optic Connectors**

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**Product Facts**

- **Insert-to-insert keying assists precision alignment**
- **Individually rear insertable/removable optical contacts enable easy assembly**
- **Backshells and adaptors available for most single and multifiber cable types**

**General Specifications**

**Optical**

**Attenuation** – Less than 0-4dB (50/125µm)

**Repeatability** – Better than 0.2dB

**Fiber types** – 50, 62.5, 85/125µm  
100/140µm 200/280µm

**Cable types**

Tight jacket 2.5mm dia

Duplex 4.5mm OD

For other cable sizes consult Technical Sales

**Materials**

**Shell** - Aluminium alloy. Nickel plated

**Ferrule** - Zirconia Alignment sleeve: Zirconia

**Seals** - Fluorosilicone

**Backshells** - Aluminium alloy. Nickel plated Mechanical

**Temperature range** -65°C to +155°C\*

The MC4 Duplex optical fiber connector is based upon shell size 9 Mil-C 38999 Series III making this an extremely compact environmentally sealed 2-way connector. The MC4 is suitable for use with most multimode and singlemode fibers with core diameters of 9 to 200µm. Simplex and duplex constructions can

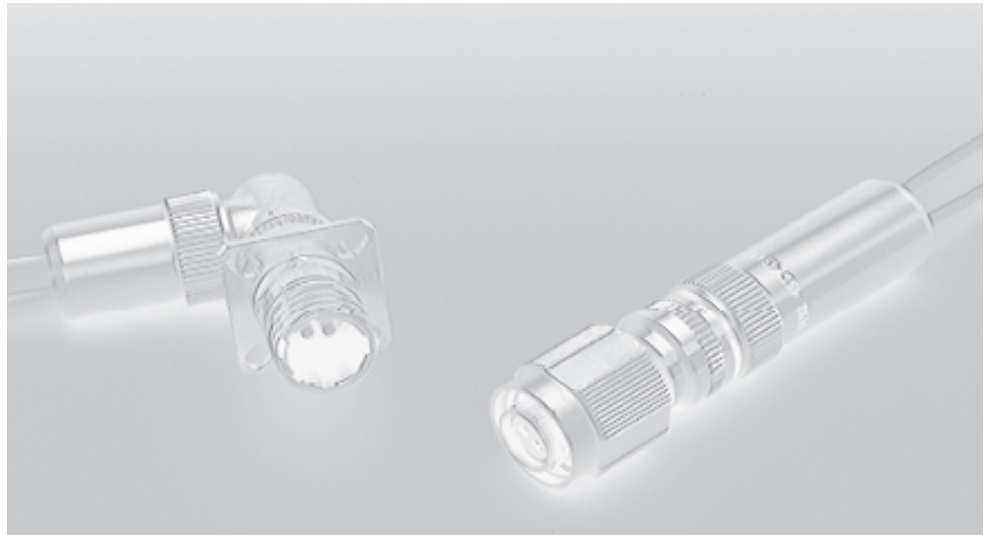
be accommodated with suitable connector backshells.

Precision ceramic ferrules and alignment sleeves ensure optical performance and reliability over an extended service life.

The optical ferrules are sprung loaded in both the plug and receptacle shells.

This provides an axial load equalization ensuring that butt joint contact is maintained even when the connector is subjected to vibration levels in excess of 30g.

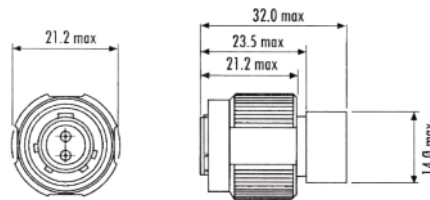
This coupling nut is built in antivibration clicker mechanism to prevent inadvertent uncoupling under adverse vibration conditions.



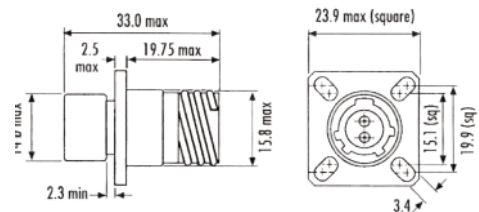
**Quality Approvals**

- Civil Aviation Authority A8-1
- BS EN ISO 9001
- Military Spec Approvals 38999
- Underwriters Laboratories (UL)

**Backplane Module - PN 2000973-1**



**Daughtercard Module - PN 2000974-1**



\*Cable and epoxy dependant  
Mechanical endurance: Not less than 500 matings

**MC4 Series - Duplex Fiber Optic Connectors** (Continued)

**Ordering Information**

**Series:**

**Style:**

00 = Bulkhead receptacle  
06 = Plug  
07 = Jam nut

**Shell finish:**

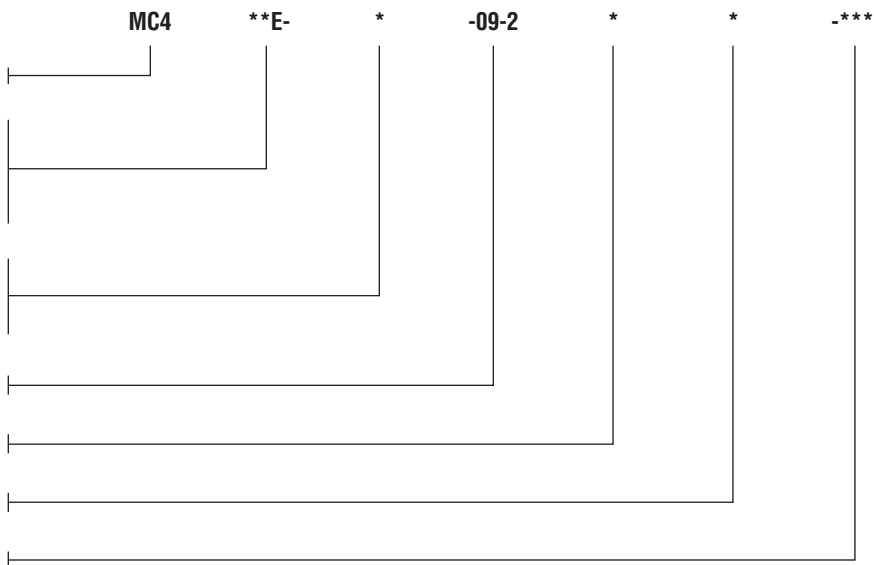
N = Nickel plated  
C = Cadmium plated olive drab

**Shell size - no. of channels** – 09-2

**Insert type** – P Pin, S Socket

**Shell orientation** – N, A, B, C, D, E

**Modification code**



Example part number: Bulkhead Receptacle MC400E-C-09-2SN, Plug MC406E-C-09-2PN

**MC4 Essential Tooling**

Part No.	Description and Use	Notes
<b>Connector Assembly Tooling</b>		
454335	Fiber stripping tool	Hozan
453228	Fiber cleaving tool	
454342	Crimp tool	
<b>Polishing Tools and Materials</b>		
454899	Polishing jig	
454539	Rubber pads	2 required
454539	Lapping film set comprises:	
454481	Coarse disk (10 off)	available separately
454482	DR diamond disc	available separately
454483	DM diamond disc	available separately
454484	Polishing disc (10 off)	
<b>Consumable Materials</b>		
454257	Epoxy kit (353ND)	
450490	Spatula	
454297	Syringe (x6)	
<b>Ferrules</b>		
454900-126	Fiber size 125µm	not supplied with connector
454900-141	Fiber size 140µm	not supplied with connector
454900-145	Fiber size 140µm	not supplied with connector
454900-283	Fiber size 280µm	not supplied with connector

Note: Additional tooling may be required specific to cable types (consult technical sales)  
For comprehensive tooling and consumable listing refer to technical sales