MJC2.0 Fiber Connector

Soft-Mating Technology, The World's Highest Performance MPO

ARRAYEDFIBEROPTICS
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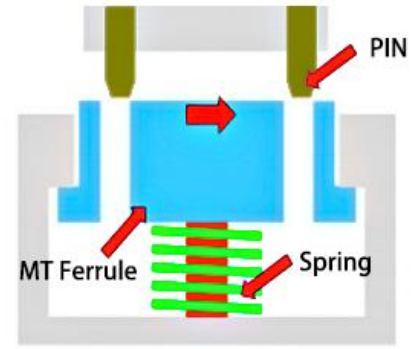
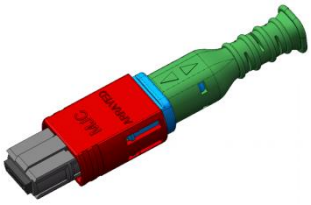


MPO Current mechanical design flaw

1） Mechanical design flaw in MPO fiber optic connectors: It is not in a floating state.

As shown in the figure, when the stainless-steel guide pin of the MPO fiber connector is about to be inserted into the plastic ferrule's guide pin hole, the MT ferrule must shift horizontally to align the guide pin with the hole. However, the spring applies a constant and significant pressure on the MT ferrule, making horizontal movement difficult. As a result, the guide pin must exert large force to fit into the hole, causing rapid wear of the guide pin hole and a corresponding decline in connector performance. This mechanical design flaw in MPO fiber optic connectors has existed for nearly 30 years.



2） How Soft-Mating Is Achieved by the MJC 2.0

The MJC 2.0 fiber optic connector is an improved version of the MPO connector. It features an internal slider that controls the elastic force of the spring. The slider has two positions—front and back—corresponding to the relaxed and tensioned states of the spring, respectively. When the spring is relaxed, the MT ferrule is in a suspended state, allowing flexible lateral movement. This design greatly reduces the risk of damage to the guide pin hole during guide pin insertion. Once the guide pin is fully inserted into the hole, the spring is compressed to provide the required mating force.

Product Feature

- When the spring is relaxed in its initial state, it provides a long plug-in lifespan and reduces damage to the guide pin hole.
- The damage rate of the fiber end face is significantly reduced.
- The dual-spring design provides better balance, eliminates torsional forces on the springs, and minimizes the risk of fiber damage, thereby improving insertion loss and plug-repeatability performance.
- Durability performance is over 10 times greater.
- Plugging and unplugging are completed in a single step by pushing and pulling the tail sleeve, making it as convenient to use as a standard MPO connector.
- Push-pull tail sleeve operation is well-suited for high-density panel deployments.
- This connector, compact yet feature-rich, is nearly the same size as a conventional MPO and offers strong compatibility.
- Officially granted as a Chinese invention patent.

Technical Specification

MJC 2.0	SM		MM	
	Standard Loss	Low loss	Standard Loss	Low loss
optical performance				
Insertion Loss（dB)	0.7	0.35	0.5	0.35
Return Loss(dB)	≥60		≥20	
Repeatability(dB)	≤ 0.1			
Machinery specification				
Durability	＞200			
Working temperature(℃）	-40~85℃			
Storage temperature(℃）	-40~85℃			

Production Base: Building 39,No.1111,Xiaojiajiang MiddleRoad,Xiaogang Street,Beilun District,Ningbo

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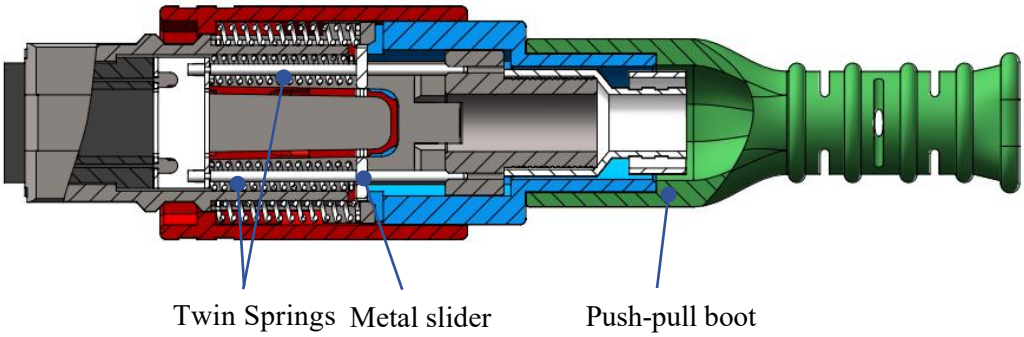
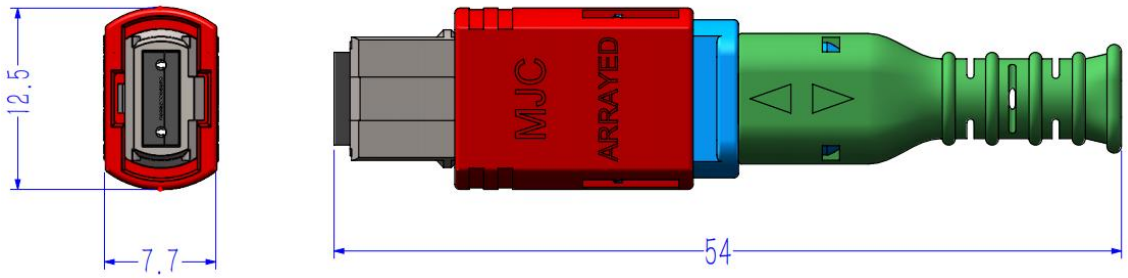
Product Structure



Product Size



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