

# Amphenol

## FIBER OPTIC SOLUTIONS FOR MEDICAL APPLICATIONS

Amphenol is transforming medical applications for minimally invasive surgeries, diagnostics, monitoring, and therapy with its advanced fiber optic technology. By ensuring high precision, seamless data transmission, and enhanced durability, these technologies enable more effective and efficient medical solutions.



### Amphenol Fiber Optic Products

Amphenol Fiber Optic Products (FOP), based in Downers Grove, IL, leverages over 50 years of experience in delivering advanced fiber optic solutions for the medical, wireless, IT/datacom, and data center markets. FOP's focus on engineering and innovation has positioned it as a leader in enabling high-speed, reliable data transmission across industries.



### Amphenol Precision Optics

Amphenol Precision Optics (APO), based in Germany, has over 50 years of experience in high-precision fiber optic solutions for medical, industrial, military, and aerospace applications. A leader in high precision mechanical parts, APO's capabilities include customized product development, prototype construction and order production, making it a trusted provider of fiber optic technology in Europe.



### Sachsenkabel

Sachsenkabel, based in Germany, has over 30 years of expertise in fiber optic infrastructure. They supply fiber optic cabling for the telecommunications and medical segments, offer a variety of distribution technologies, & manufacture specialized fiber assemblies for fields such as photonics and spectroscopy. With facilities in Europe, Sachsenkabel delivers flexibility, high quality, and timely service.





- Downers Grove, IL, USA
- Nogales, Mexico
- Shenzhen, China
- Ho Chi Minh, Vietnam



- Sinn (Central Hessen), Germany



- Gornsdorf, Germany
- Kocani, North Macedonia

## MARKET SEGEMENTS



### DIAGNOSTICS

Assemblies, housings, and connectors for endoscopy, imaging and other types of detection



### SURGERY

Assemblies and handpieces for minimally invasive surgery (MIS), laser surgery and dental applications



### MONITORING

Assemblies, connectors, and RFID solutions for monitoring



### CARDIOVASCULAR

Assemblies and connectors for cardiovascular procedures



### OTHER

Assemblies, housings, and connectors for wearables, monitoring and light therapy

## PRODUCTS

### CONNECTORS & ADAPTORS

#### COMPANY COLOR LEGEND:



Amphenol Fiber Optic Products



Amphenol Precision Optics



Sachsenkabel

#### F-SMA Connectors



- Available in diameters from 50µm to 2000µm in standard and custom formats
- Rugged and reliable for high-power laser delivery systems
- Suitable for medical devices needing precise optical data transmission



#### FC Connectors



- Feature a secure threaded coupling for high-precision optical alignment
- High-precision ferrule for consistent low-loss optical performance
- Designed for singlemode and multimode fiber applications

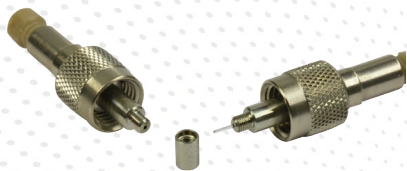


#### ST Connectors



- Twist-lock design ensures secure fiber connections in medical equipment
- Used in high-reliability applications such as biomedical instruments
- Designed for singlemode and multimode fiber applications



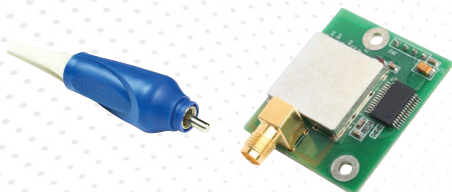


## Customized Fiber Optic Connectors

- Customized connector geometries or tolerances in the lower micrometer range
- Special materials, alternative surface treatments



## RFID SOLUTIONS



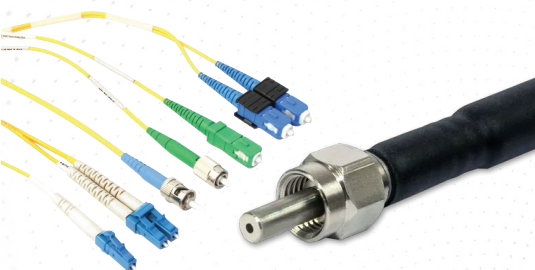
- Ensures only authorized equipment is used through RF interlock integration
- Enables real-time monitoring and precise laser power control



## ASSEMBLIES

- High-quality, diverse fiber assemblies tailored for both singlemode and multimode applications
- Customizable lengths and configurations to suit specific medical use cases such as optical sensing (pressure and temperature) and laser ablation

### Singlemode & Multimode Fiber Assemblies



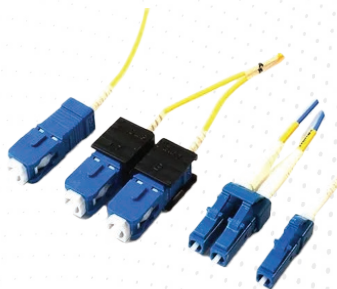
### MPO Cable Assemblies



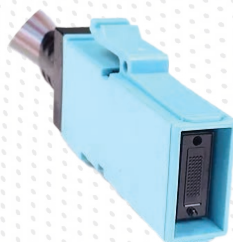
### Traceable Patch Cords



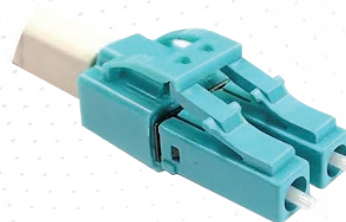
### 1.2mm Cable Assemblies



### MXC® Cable Assemblies



### LC-X Flippable Uniboot



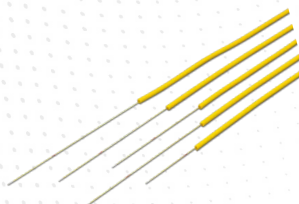
### Fiber Bundles



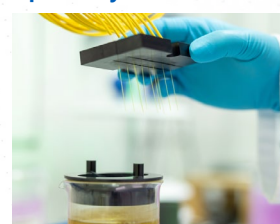
### PM Fiber Bundles



### Bare Fibers



### Specialty Coated Fibers



## HOUSINGS



- Customized housings for fiber optic spectroscopy applications, including blood analysis and cancer detection
- Engineered for optimal wavelength stability



## HANDPIECES



- Surgical handpieces customized for a range of fiber diameters (e.g., for dental applications)



## ABOUT AMPHENOL

### Pioneering Connectivity and Technology Solutions Worldwide

Amphenol is a leader in high-technology interconnect, sensor, and antenna solutions. Our goal is simple: to develop technologies that enhance the performance of our customers' products, systems and networks. Our products enable virtually all electronics systems, from sophisticated military communications systems to the latest mobile computing platforms. We are especially excited about our latest solutions in emerging segments such as medical and enterprise data centers.

### Our Legacy and Global Reach

Founded in 1932 in Chicago, Illinois, Amphenol has grown into a global leader, with 95,000+ employees, \$13B+ in global sales, and 250+ locations worldwide.

### Diverse Market Expertise

We cater to a wide range of end markets:



AUTOMOTIVE



BROADBAND  
COMMUNICATIONS



COMMERCIAL  
AEROSPACE



IT AND DATA  
COMMUNICATIONS



MILITARY



MOBILE DEVICES  
AND NETWORKS

## Contact Us Today!

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