

High-precision passive fiber optic components from German aerospace electronics



Overview

Our core components include fused optics, WDM filters, collimators and hybrids. Meeting key specification requirements such as optimised bandwidth, low losses, wide temperature performance, and excellent environmental and mechanical stability is crucial for delivering custom. From challenging projects at the edge of feasibility to rugged solutions for extreme environments, Amphenol Precision Optics offers customized fiber optic components for a wide range of applications in medical, military and industrial markets. Our. Extensive industry knowledge of the fibers available on the market, paired with the maximum precision of mechanical components with eccentricity deviations of $<15\mu\text{m}$, forms the foundation of our expertise and quality. This allows us to guarantee reliable and highly efficient customer solutions in. IFT is a component supplier in contract manufacturing of ready-to-install precision parts in absolute accuracy. These industries depend on the highest precision and quality of their components and assemblies at all times. Even minimal errors can lead to serious losses, like at Formula 1 or during. Since 1995, we have been developing and producing custom-made optical fibers in series production.

Article Content

Feb 03, 2026

IFT: High Precision Parts

IFT is an EN 9100 certified manufacturer of high precision parts and assemblies for aerospace, motorsports and medicine technology in Germany. We stand for

Jul 15, 2025

Unlocking the future of precision manufacturing: A comprehensive ...

Unlocking the future of precision manufacturing: A comprehensive exploration of 3D printing with fiber-reinforced composites in aerospace, automotive, medical, and consumer industries

Jan 28, 2026

FUSION SPLICING FIBER OPTIC CABLES IN THE AEROSPACE

In summary, to fusion splice fiber optic cables in the aerospace environment, both the equipment and the resulting splices must be designed for some very difficult conditions.

Jun 17, 2026

Fiber Technology

The construction and operation of the technology for producing the laser-active preforms and fibers for industrial purposes offers the opportunity to transfer

Nov 04, 2025

Advanced Fiber Optic Sensing Technology in

In the context of SHM in the aircraft field, this article provides an overview of four aspects: classification and principles of fiber optic sensors,

Nov 17, 2025

Multifunctional Integration of Optical Fibers and Nanomaterials for ...

Smart sensing for aeronautical applications is a multidisciplinary process that involves the development of various

Jul 04, 2025

Next-generation fiber optics - the move for modern

Infinite Electronics is the parent company for nearly 20 brands, including Integra Optics, which offers reliable transceivers and fiber optic

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Amphenol Precision Optics | Home

From challenging projects at the edge of feasibility to rugged solutions for extreme environments, Amphenol Precision Optics offers customized fiber optic components for a wide range of applications

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Passive fibre optical components – advanced products

These components guide, split, or combine optical signals with high-precision, with compliance to telecom, data center, and FTTH standards and applications.

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Optical Components | Technical Briefs, Aerospace & Defense

Discover how cutting-edge optical components are enhancing performance, reliability, and precision in aerospace applications. Stay informed with expert insights, detailed articles, and the latest news on

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Specialty Optical Fiber For Aerospace & Defence Industries

Fibercore specializes in designing and manufacturing high-performance optical fibers for fiber optic gyroscopes (FOGs), delivering precision navigation and guidance

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Micromachined SiC fiber optic pressure sensors for high-temperature ...

But in special applications, like high temperature pressure sensing for harsh environment, limited by materials and fabrication processes, the fiber-optic FP sensors commonly contain two FP ...

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Advanced fiber-optic components enable new

Recent advances in fiber-optic technology have led to a growing demand for optical data links and sensors in aerospace and defense applications. In comparison

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Successful Testing of our Mini AVIM APC Connector on

Switzerland, Losone, March 2024. DIAMOND SA, the world leader in high precision fiber optic interconnect solutions is pleased to announce the

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Fiber Optic Sensors for Harsh and High Radiation

In particular, fiber optic sensors, with their small footprint and electromagnetic immunity, represent a great opportunity in aerospace. The

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Hollow-core fibers for precise positioning in space

The vision of cars that drive or planes that fly themselves can only become true if the electronics on board can determine where they are in space,

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Optical technology: at the speed of light

Optical components and systems benefit aerospace and defense applications with high speed, low weight, and increased security.

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A Simple and Novel Passive Double-Sensitivity Optical Gyroscope

Interferometric Fiber Optic Gyroscopes (IFOGs) play an important role in a wide variety of precision navigation and guidance systems, including aerospace, maritime, defense and autonomous vehicles

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Custom Fiber Optic Solutions & Optical Sensors | FOS

Discover precise fiber solutions for industrial applications. We specialize in custom fiber cables, fiber optic assemblies, and optical sensors.

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LASER COMPONENTS Germany

LASER COMPONENTS Germany, part of the LASER COMPONENTS Group, specializes in high-quality fiber optic components and solutions. With a focus on precision and reliability, they offer advanced

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Rosenberger Group

Part of the Rosenberger Group, we are a leading provider of end-to-end passive optical infrastructure as well as innovative

Aug 01, 2025

Fiber Optic Innovations in Aerospace: Exploring Applications in ...

Discover the transformative impact of fiber optics in aerospace. From enhanced communication systems and in-flight entertainment to advanced monitoring and sensing, fiber optics provide high-speed data

Nov 03, 2025

Passive alignment optical subassemblies for military/aerospace fiber ...

The LED-PAC comprising a surface emitting LED die-bonded onto a novel precision molded AM submount passively mounted onto the silicon microbench achieves the required high coupling

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Company | Amphenol Precision Optics

Amphenol Precision Optics GmbH is one of the leading suppliers in Europe for the development and production of high-precision

Feb 19, 2026

Passive alignment optical subassemblies for military/aerospace fiber ...

Alignment v-grooves designed for passive optical alignment of 100/140 m multimode optical fiber to the optoelectronic devices were terminated by solder locking the fiber to the silicon PAC substrates.

Jul 11, 2025

High Precision Interferometric Fiber Optical Gyroscopes based on ...

This paper introduces a high-precision photonic crystal fiber optic gyroscope for space application. The overall design scheme of the gyro is proposed and the optimized small-diameter low loss photonic

Contact Us

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