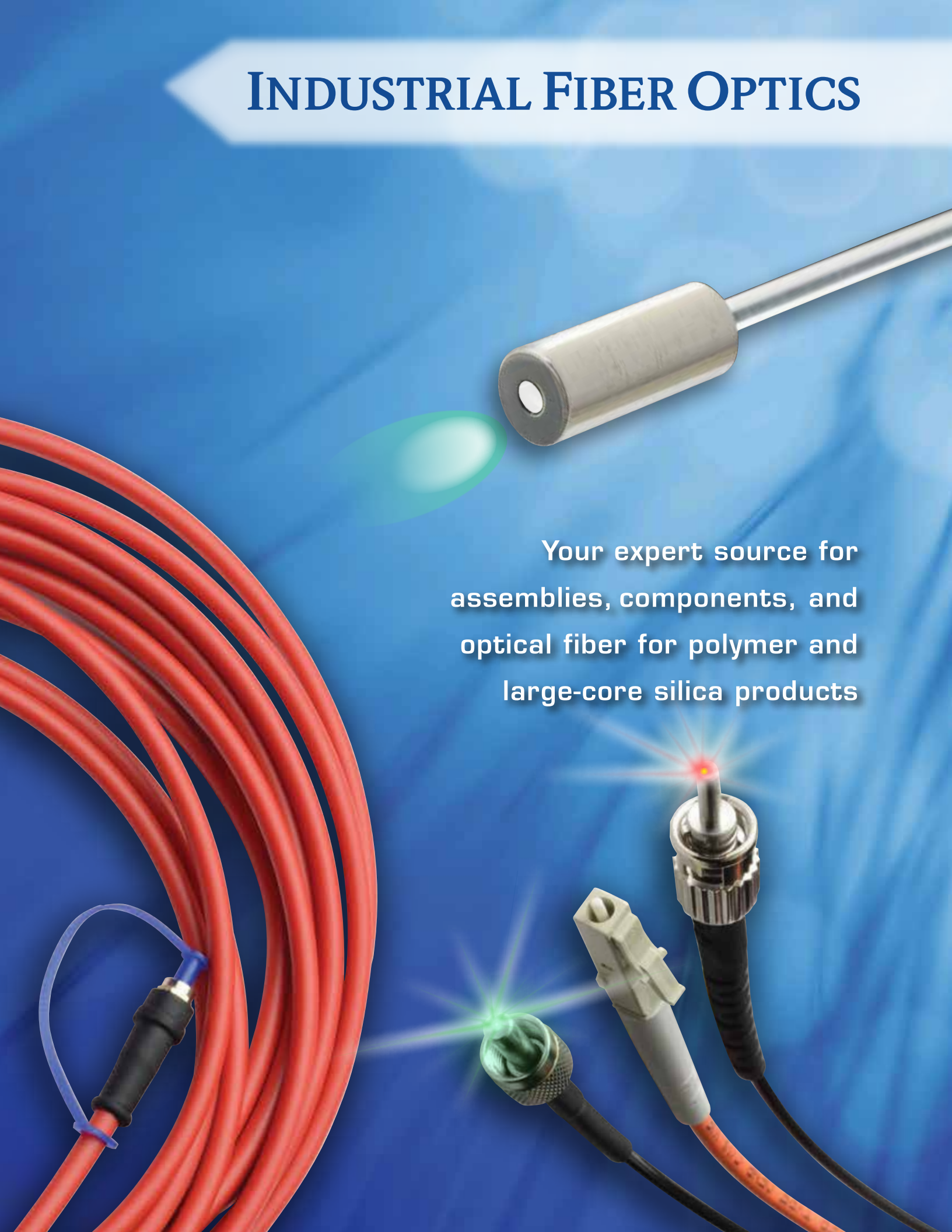


INDUSTRIAL FIBER OPTICS

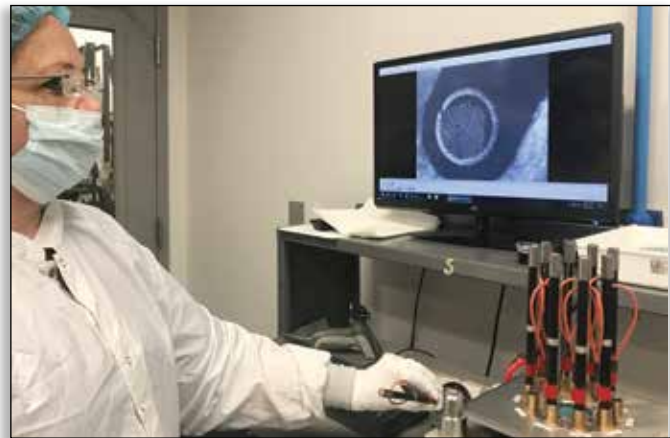


Your expert source for
assemblies, components, and
optical fiber for polymer and
large-core silica products

Industrial Fiber Optics is a world leader and expert in polymer and large-core silica optical fiber and manufacturing assemblies. We specialize in providing leading edge solutions and manufacturing technology products such as industrial networking cables, illumination fibers and bundles, medical assemblies and optical sensors. With our on-site engineering, metal machining, polymer machining, manufacturing, and distribution facility we can support customer's needs with either standard products, raw materials or components, or manufacture OEM customized assemblies.

Resources

- ✧ US manufacturing facility and highly trained manufacturing staff
- ✧ Engineering design and process team for designing products from proof-of-principle to full scale manufacturing
- ✧ Full-featured, integrated ERP manufacturing and account software with material traceability and serialization capability
- ✧ 10k and 100k cleanroom facilities
- ✧ Extensive inventory of raw fiber/cable and cable terminations
- ✧ Supplier agreements from the world's leaders in polymer and large-core silica optical fiber and cable suppliers
- ✧ Production fabrication equipment includes 4-Axis CNC mill, Swiss screw machines, laser marking, 3D printer
- ✧ In-House Electropolish and Passivation capabilities
- ✧ Additive Manufacturing for prototypes or production
- ✧ Fully staffed and equipped quality department



Optical Fiber & Cable



Industrial Fiber Optics has supplier agreements with key optical fiber and cable suppliers to offer competitive pricing, technical support and samples. We inventory an extensive portfolio of bulk or raw optical fiber and cable to support distribution sales, standard cable assemblies and light pipes, and custom assemblies. Products are available in sample quantities, for purchase in small quantities for development and to support larger production orders and assemblies.

Key Suppliers

Asahi Kasei E-materials – *High performance polymer (pmma) single and multi-core optical fiber and cable*

Hitachi Cable – *High temperature pmma and silicone fiber optic cable*

Mitsubishi Chemical – *Super Eska & Eska Premier acrylic optical fiber/cable*

OFS Specialty Photonics – *Large-core HCS® silica optical fiber and cable*

Polymicro – *Extensive line of Step-index glass core and cladding optical fiber*



Standard Cable Assemblies

Industrial Fiber Optics offers a comprehensive portfolio of standard patchcords and cables made from plastic optical fiber and large-core step-index HCS® silica fiber. The product line includes a wide variety of cable designs and constructions; such as: riser- and plenum-rated, single- and dual-jacketed, simplex and duplex cables, as well as UL-rated and drag chain-rated designs. Cable lengths are available from 10 cm to 200 meters and terminated with most industry standard connectors.

Fiber Terminations

POF		Large-Core Silica
SMA	Versalink	SMA
ST	FO-5	V-Pin
SC	FO-7	ST
FC		FO-7

In addition to the standard assemblies described above, Industrial Fiber Optics can make custom or unique OEM assemblies to customer specifications. We will make your job easier and provide high quality products, but also manage the complete supply chain. Send us your drawings or concepts. From design and prototype to manufacturing we provide a quality product manufactured in the US.



Online pricing and ordering
with more than 9,000
standard cable and
connector configurations

Custom Assemblies

Industrial Fiber Optics has the capability to fabricate any type of fiber cable assembly using any type of plastic optical fiber. We maintain a complete inventory of plastic and silica optical fibers and connector terminations. Our resources include a complete line of measuring, stripping and polishing equipment operated by highly trained manufacturing technicians. We will manufacture any plastic fiber optic communication cables to your specification and testing requirements.

Industrial Fiber Optics will address any semi-custom or custom product specifications, including modifications to existing product lines that include requirements such as:

- ✧ Variable lengths
- ✧ Special labeling
- ✧ Cables with different connectors on each end
- ✧ Cables that utilize special-purpose or non-standard connectors.
- ✧ Custom connectors



Fiber Optic Connectors

I/O inventories a comprehensive line of termination connectors and interconnections for plastic optical fiber (POF) cable and large-core fiber cable.

- ✧ **Plastic Optical Fiber**
SMA, FC, DNP, ST™ and more.
- ✧ **OFS Large-Core Silica**
Crimp and cleave connectors for 200 and 400 μm HCS® fiber cable.
- ✧ **Mating Sleeves**
Interconnections for most fiber optic connectors.

Custom designs
upon request



Fiber Optic Sensor Cables

Industrial Fiber Optics offers a line of fiber optic sensor cables made from plastic optical fiber (POF) and borosilicate glass fiber. These cables are for use with a variety of photoelectric sensors for object or proximity detection in manufacturing environments. Many options are available for thru-beam (transmissive) and bifurcated (reflective) cables. Designs include variations in optical fiber diameter, length, jacket type, temperature range, flexibility and a diverse number of sensing tip styles including coaxial. In addition to our standard cables, Industrial Fiber Optics can make complex custom OEM assemblies to customer specifications.



- ✧ Standard POF cables with threaded or unthreaded stainless steel 303 sensor heads
- ✧ Custom cable lengths available
- ✧ POF cables cut to length with included cutter
- ✧ High temperature, tight bend or 0.5 mm to 1.5 mm core
- ✧ Custom overmolding
- ✧ Specialized sensor head shape and material

Flexible Light Pipes Technology

Our flexible light pipe products feature building blocks of LED mounts, lens caps and flexible light pipes of different diameters and jacket materials. These components can be mixed and matched to meet nearly any design requirement or application need. They require no tooling fees (unlike rigid designs). Following are components available:



- ✧ LED mounts for 3 mm and 5 mm leaded devices
- ✧ LED mounts for chip, PLCC and SOT-23 surface-mount packages
- ✧ Optical lens caps
- ✧ Light pipe cable and fiber – pre-cut polished lengths
- ✧ Light pipe cable and fiber – bulk

We also offer customized options for:

- ✧ LED mounts and lens caps
- ✧ Custom length light pipes

POF LEDs and Photodetectors

Industrial Fiber Optics produces low-cost, easy-to-use, connector-less LEDs and photodetectors for use with plastic optical fiber (POF) cable. The product family contains 16 different devices. LEDs range from low-cost infrared (IR) devices for short distances to very fast 650 nm red LEDs for 100 Mb 75-meter applications. Our photodetectors include photodiode, phototransistor, photodarlington and multiple photologic devices with various data rate capabilities. We also manufacture custom IR and visible light devices for plastic optical fiber, large-core silica and multimode silica fibers using SMA and ST metal device mounts.



Device Features

- ✦ 1.0/2.2 mm POF cable compatible
- ✦ Internal micro-lens for efficient coupling
- ✦ Inexpensive injection-molded polymer housing
- ✦ Connector-less interface
- ✦ Simple fiber termination and connection
- ✦ Laser marked for permanent identification
- ✦ Active Device Adapter to allow use of Large core silica fiber

Termination Tools and Supplies

Distributor of a wide variety of tools and cleaning supplies to support the plastic optical fiber industry.



Cutting



Stripping



Crimping



Terminating



Polishing



Cleaning

Registration

Industrial Fiber Optics is registered to the following standard:



Certification Number:
0137029

Issue Date:
1/6/2021

Expiration Date:
1/5/2024

With all of the products described in this brochure, one thing remains constant: Industrial Fiber Optics strives to deliver the highest level of quality to all its customers. Our commitment stays alive by being up-front with website pricing and distribution worldwide, to offering solid warranties on the goods we sell, and in addition willing technical assistance. Our goal is to be the supplier of choice for the following industries: aerospace, defense, industrial, medical, robotics, security and sensors and to create custom products to solve any technical application. One hundred percent of our manufacturing is done in Tempe, Arizona.



Product Information

Our website is customized to provide engineering data. Our online technical information includes:

- ✦ Detailed engineering data sheets
- ✦ Manufacturers' data sheets and MSD forms
- ✦ Part profile data and installation instructions
- ✦ Descriptions of specific product applications
- ✦ Replacement operator or instruction guides
- ✦ Product pricing

Ordering

Our online order capabilities provide 24-hour access seven days a week to most countries of the world. Credit card transactions are processed through a certified SSL secure payment gateway that is PCI compliant. In-stock items ship within one business day and standard build-to-order items can ship in three to five business days.



Integrity, Quality, Service, Support and Solutions

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