



Fiber Optic Light Guides

Features

- Wide range of options and configurations
- Custom design capability
- Superior quality
- Flexible and robust
- Resistant to corrosive or high voltage environments

Applications:

- Hazardous environment illumination
- Aviation instrumentation
- Semiconductor lithography
- Scanning systems
- Point and line illumination
- Non-contact monitoring devices
- Dental and medical illumination



PHOTONIS engineering expertise in the fiber optics industry is unmatched by any other company in the world. Its unique approach to difficult applications combines a proficiency in specialized glass fabrication, precision drawing facilities, and more than forty years of experience in fiber optics. Standard and custom assemblies fabricated by PHOTONIS offer the customer the best engineering solution, utilizing the most advanced technology available today.

Flexible Light Guides transmit light through glass optical fibers. Standard light guides collect light in a large acceptance angle, typically 82°. This is equivalent in light collecting efficiency to a lens system with an f/number of 0.57. These rugged but flexible fiberoptic devices are being used to transport light over complicated paths into remote areas, while saving weight, space, and cost.

In many cases, fiberoptic light guides offer unique solutions to long standing design problems. They are especially suited to explosive, corrosive, high voltage, radiation, and otherwise hazardous environments. Standard light guides are available in a variety of sheathing materials to meet your specific requirements.

PHOTONIS supplies fiberoptic light guides to original equipment manufacturers in all fields. Application and design engineers have provided the services necessary to implement fiberoptics in the most sophisticated manufacturing, security, aerospace, and spaceflight applications. PHOTONIS has the engineering and manufacturing resources to meet the demand for specialized fiberoptics including precision machined parts and molded assemblies, as well as custom designed sheathing and end tip configurations.

Specialized Fibers

New technologies are uncovering applications for high-voltage isolating light guides. Tested at 25kV at 1×10^{-9} amperes/4 inches, these light guides can be used for the firing of thyristor circuitry for industrial monitoring in high voltage environments. A wide range of sheathing and end tips are available.

Custom Design Capability

Photonis' fiber drawing facilities are among the most modern in the world, ensuring maximum air cleanliness through elaborate HEPA filtering systems, temperature and humidity controls in Class 1000 clean rooms. Specialty fibers with strand diameters as small as 10 microns are routinely produced. Our specialized glass melting and processing facilities, together with world class specialists, can customize optical characteristics such as numerical aperture and attenuation while maximizing wavelength efficiency.