Fiber optical solutions – for intrinsic and extrinsic sensors

The Business Unit Fiber Optics is a leading manufacturer of optical fibers and components for optical metrology and sensors. Our technical competence and know-how enables us to offer a unique product portfolio and broad customized product solutions for various applications.

Our product range – from preform to fiber optical systems
- Extensive know-how in fiber production
- Customized fiber types and coatings
- Step and graded index fibers, single- and multimode fibers
- High technical standard of production technology and testing equipment
- Customized fiber assemblies
- Excellent for use in various environmental conditions
- Worldwide production facilities – close to your markets and customers

Your systems partner for development and consulting
In-house preform and fiber production
In-house assembling of optical components
Testing and quality control
Get to know our product families:

Light transportation

- Singlemode and multimode fibers
- Various designs and coatings
- Quartz, Polymer Optical Fibers (POF), Polymer Cladded Fibers (PCF) and Glass Optical Fibers (GOF)
- Sensor cables
- Hybrid cables in different designs
- Customized special optical fibers and assemblies
- From deep UV/UV-VIS to NIR up to MIR
- Capillaries, tapered and Non Circular Shaped Fibers (NCS)
- Various numerical apertures, coatings and claddings
- Various fiber probes and arrays
- Multi-branched fiber bundles
- Intrinsic & extrinsic sensoric assemblies
- Fiber Bragg Gratings (FBG)
- Singlemode and multimode applications
- Low insertion and polarization losses
- Excellent repeatability
- Short switching times ≤ 2 ms
- Wide to ultrawide spectral range
- Various interfaces, e.g. RS232, TTL, I2C, Ethernet, USB, etc.
- Polarization maintaining (PM) version and VIS-PM version available
- Low Etalon-Effect for spectroscopy available
- Singlemode and multimode applications
- Wide range: 450 – 2000 nm
- NIR, Broadband and Ultra Broadband, Polarization-Maintaining (PM)
- Very low insertion losses and PDL
- High uniformity and extinction rate
- With splitting rates of 1x12 to 1x64 – cascaded splitters
- – including asymmetric optical power split

Light distribution

- Intrinsic and Extrinsic Sensors
- Infrared (IR) and mid-infrared (MIR) applications
- Atomic- and molecular spectroscopy
- Analysis of optical properties and compositions of solids, liquids and gases
- – Quality Control, Food Industry, Recycling Industry, Pharmaceutical, Petrochemical and Chemical Industry, Medical, Aerospace, Astrophysics

Light switching

- Sensor Technology
- Measurements of physical, dynamic and geometric quantities, e.g. temperature, noise, pressure, humidity, strain, etc.
- Energy Sector, Security, Construction Supervision, Geodesy, Military, Diagnostics

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Environmental Analysis
- Process Analytics
- Surface & Material Analysis
- Life Science & Diagnostics
- Environmental Analysis

Business Unit Fiber Optics

www.leoni-fiber-optics.com