

LEOK-20

Optical Fiber Information and Communication Experiment Kit - Basic Model



Description

Optical fiber has increased signal transmission bandwidth over longer distance, and as the importance of fiber rises, numerous colleges and universities worldwide introduce more courses in optoelectronics and optical communications. This kit is designed to meet the increasing demand for learning and training of fiber optic fundamentals and related practical skills.

Feature

7 fundamental experiments

Detailed instruction manual

Flexible solution for different level of students

Affordable price

Application

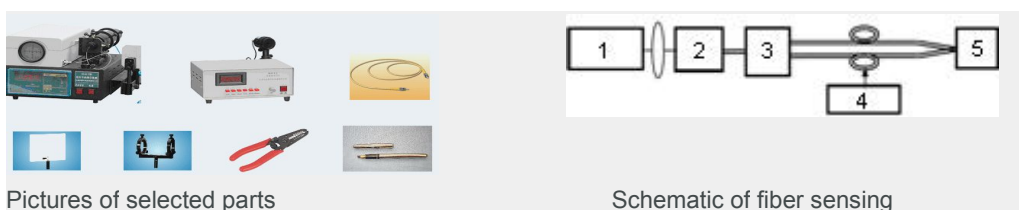
- 1) Experiment of fundamental knowledge of optical fiber optics
- 2) Experiment of coupling method between optical fiber and light source
- 3) Multimode fiber Numerical Aperture (NA) measurement
- 4) Optical fiber transmission loss property and measurement
- 5) M-Z optical fiber interference experiment
- 6) Optical fiber thermal sensing principle

7) Optical fiber pressure sensing principle

Part list

| Description | Part No./Specs | Qty |
|-------------------------|--------------------------|-----|
| He-Ne laser | LLL-2 (>1.0 mW@632.8 nm) | 1 |
| Light power meter | LEPO-61 | 1 |
| Beam splitter | 633 nm | 1 |
| Temperature controller | | 1 |
| Stress controller | | 1 |
| 5-axis adjustable stage | | 1 |
| Beam expander | $f' = 4.5$ | 1 |
| Fiber clip | | 2 |
| Fiber support | | 1 |
| White screen | With cross | 1 |
| Laser holder | LEPO-44 | 1 |
| Light target | | 1 |
| Power cord | | 1 |
| Single-mode fiber | 633 nm | 2 m |
| Single-mode fiber | With connector | 2 m |
| Multi-mode fiber | 633 nm | 2 m |
| Fiber | 1 km | 1 |
| Fiber stripper | | 1 |
| Fiber scribe | | 1 |

Examples:



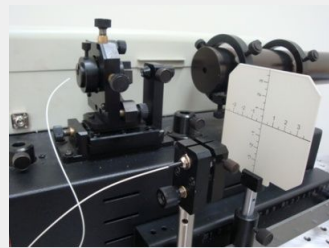
Pictures of selected parts

Schematic of fiber sensing

1. He-Ne laser 2. 5-D fiber holder 3. Fiber splitter 4. Heating controller for temperature sensing, or Pressure controller for pressure sensing 5. Display



Setup for fiber temperature sensing



Experiment setup for fiber coupling