

OPTO FIBRES DEMONSTRATION KIT



The kit is packed in a plastic suitcase

The kit is developed to demonstrate light propagation in optical fibres and to transmit, receive and transfer optical data.

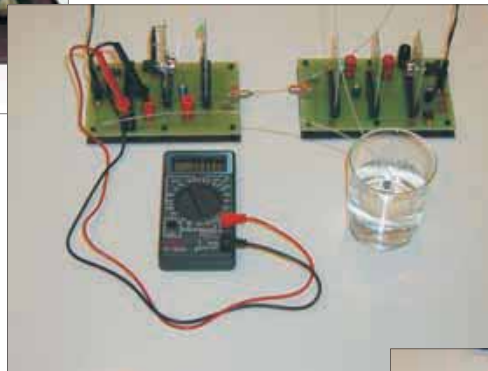
Contains:

A basic transmitter and receiver board with possibility to connect following modules: analogue transmitter, receiver, digital transmitter, receiver, transmitter set with microphone, receiver set with amplifier and speaker, a frequency generator, RS232 signal converter receiver and transmitter. The set also contains special holder for fibre optics, universal AOV meter device,

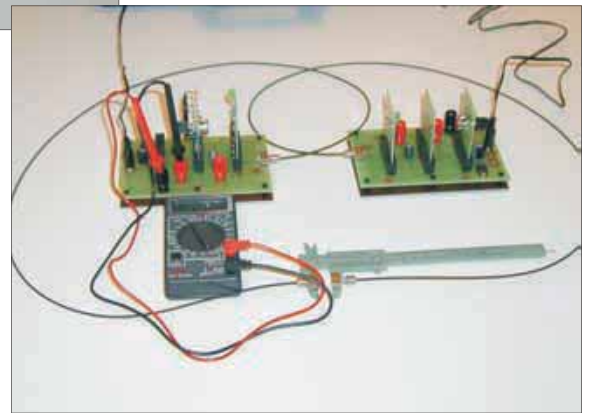
equipment for Tyndall's light guiding experiment, force plates, bending cylinders, special emeries for fibre preparation, jacketed and not jacketed fibres, power sources and a user's guide with a set of examples. **The kit contains video users guide and tutorials about the experiments.**

Basic experiments:

- ▶ Detection of optical signal by the analog receiver
- ▶ Tyndall's light guiding experiment.
- ▶ Transmission and amplification of sound, whereby the electrical signal is changed into an optical signal, amplified, changed back to an electrical signal and finally received by the speaker.
- ▶ Fibre to fibre connection damping measuring by using mechanical adjustable holders
- ▶ Transmission of signal from the frequency generator
- ▶ Fibre bend damping measured by using special cylinders to create the bend
- ▶ Optical liquid level sensors
- ▶ Transmission sensor – allowing to detect changes of optical signals between two separate optical ends (Could be used as a counter of passing objects)
- ▶ Transmission of signal from the frequency generator
- ▶ Optical fibre based dynamometer
- ▶ One way transmission of digital signal between two computers through serial port with the help of optical fibres



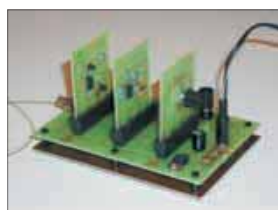
Demonstration of optical liquid level sensor



Fibre to fibre measuring of connection damping



Receiver board



Transmitter board



One way data transfer between two computers through optical fibres