

## LDA-System fp40LD



LDA-Probe fp40LD with Controller

### **BENEFITS:**

- **Very compact**
- **High accuracy**
- **High system stability**
- **Transportable without loss of adjustment**
- **For calibration applications, educational and scientific research etc.**

The fp40LD is specially designed for having a small, compact and robust LDA-System with high accuracy for industrial use. The temperature controlled laser diode (30mW) is working in the visible range at 785nm. All optical elements are rigidly fixed inside the probe. The receiving fiber is fixed to the probe, so no user adjustment is needed. As a result this probe combines a high measuring accuracy (0,5%) in a very compact setup. The analog signal pre-processing is realized with a LDA-controller based on FPGA, which supplies the frequency and powersignals on 4 channels. Coming up soon: A Controller with integrated 14bit A/D-converter (150MHz) for receiving the LDA-signals.



## FEATURES

### Probe:

- Integrated temperature controlled laser diode
- Laser power 30mW@785nm
- Fixed optical path length compensated beam splitters
- No frequency shift
- Focal length: 90mm, 160mm, 200mm
- Beam distance: 35mm
- Size: (L) 130mm, (H) 45mm, (W) 45mm
- accuracy about 0,5% for f=200mm



### Controller:

- fiber-based
- analog signal pre-processing with freely combinable 8 lowpass and 8 highpass filters
- PM or APD with dig. temperature controller
- integrated A/D-converter 150MHz, 14bit (coming up soon)
- Connection to PC or networks over Ethernet
- Remote control via internet
- PC: Standard PC or Notebook
- optional: PC-Spectral Analysis Module: two channel, sampling rate 50MHz, 200MHz or 400 MHz, 8 Bit, input range +/-50mV, +/-100mV, +/-200mV, +/-500mV, +/-1V
- Velocity range for f=200mm: 0,005-50m/s
- Size: (L) 370mm, (H) 105mm, (W) 330mm

### Accessories:

- Traversing units (up to 5 axes, displacements from 50mm to 2000mm)
- Traversing software integrated
- LDV-Software flowpoint

### Accuracy Certification :

- Upon request we offer a calibration certificate for the accuracy (deviation of the fringe distance inside the measuring volume) from the Physikalisch Technische Bundesanstalt (PTB).