

ilumspec spectrometer

The light source modules integrated in the spectrometer *ilumspec* can be individually assembled and easily replaced by the user. Thus it is simple to operate, for example, a high-power LED white light source and a laser reference source at the same time.

Light conductors guide the light from the sources to the probe and recirculate the useful optical signal to the spectrometer *ilumspec*. In order to protect the light conductors from damage in field use they are run along the inside of a metal corrugated tube and end in a compact measuring head.



Applications

- Spectroscopy (fluorescence, luminescence and raman spectroscopy)
- Microscopy (fluorescence microscopy, white light illumination)
- Spectroradiometry (e.g. colorimetry of textiles and paints)
- Bioanalytics (e.g. analysis of biological and clinical chemical substances)
- Environment engineering (e.g. analysis of contaminations)
- For specific lighting solutions

| | |
|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| Parameter | Order-No.: 150000003 |
| Dimensions (L x W x D) | 150 x 100 x 40 mm |
| Weight | 645 gram |
| Wavelength range | 360 nm - 1040 nm |
| Spectral Resolution | < 2 nm (FWHM) for the whole spectral range |
| Measurement Accuracy | < 0,5 nm |
| Repeat Accuracy | < +/- 0,2 nm |
| Integration Time | 7,5 ms to 200 ms |
| Optical Measuring Cable | 2 Transmitting and 1 Receiving Fiber (via Spectrometer) in a metal corrugated tube (Ø 7 mm, Length 85 cm) |
| Measuring Head | length 46 mm, Ø 8,5 mm rear, Ø 6 mm front with spacer |
| Interface | USB 2.0 |
| Power Supply | +5 V via USB 2.0 |
| Current Consumption | approx. 350 mA |
| Software | included |
| Light Sources | 2 pieces exchangeable LED and/or laser light source; Dimensions (LxWxD): 28 x 10 x 21,5 mm, weight: approx. 22 gram |

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Range of light sources

Laser Diodes

- blue 405 nm, 1 mW (laser class 2)
- blue 405 nm, 5 mW (laser class 3R)
- red 650 nm, 1 mW (laser class 2)
- red 650 nm, 5 mW (laser class 3R)
- Other Wavelength, UV and IR on request



LED

- cool white
- white
- warm white
- blue 470 nm
- green 528 nm
- yellow 590 nm
- red 625 nm
- Other Wavelength, UV and IR on Request

Other light sources on request.

Preliminary Datasheet - technical changes without notice.