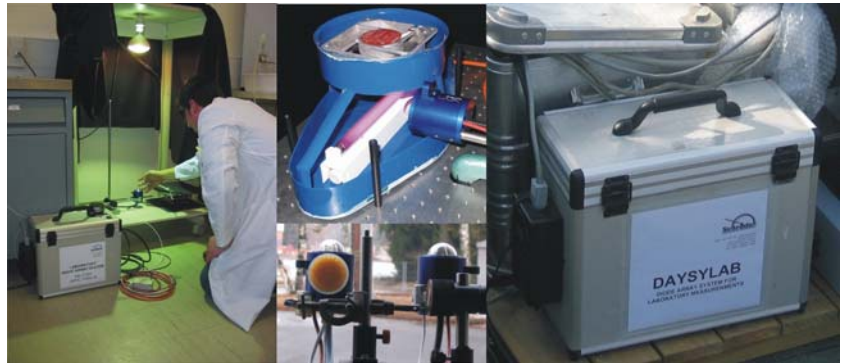


Precision is
our business



APPLICATION

The diode array spectrometer is based on a Zeiss MCS instrument and is available as laboratory or weatherproof outdoor system. Different versions (UV-VIS, UV-NIR) of these multi channel spectrometers are available. The control is done by PC or notebook with serial RS232 interface and WIN2000/NT/XP. Entrance optics for global irradiance and direct radiant flux measurements allow a wide range of use. The coupling of the optic to the diode array spectrometer is realized by quartz glass light guide with any desired length. The control and analysis software is written in Matlab. The software allows to measure in absolute units (mW/m²) or in relative units (counts).

SPECTRAL DISPERSION

Grating :	Holographic flat-filed, 284 l/mm
Wavelength range:	200-620 nm (512 pixel), 190-1015 nm (1024 pixel)
Wavelength accuracy:	< 0.3 nm
Reproducibility:	< 0.1 nm
Spectral pixel distance:	~ 0.8 nm
Resolution (FWHM):	~ 2.4 nm
Temperature drift:	< 0.05 nm/K
Optical input:	Cross section converter, diameter 0.5 mm, SMA adaptor
Coupling:	Quartz fibre bundle
Entrance optic:	UV-J1002, UV-J1002-REG (integral cosine error < 2.5 %, DIN 5032), J1004. Others on request:

DETECTROSYSTEM

Detectortyp:	Hamamatsu
Number of Pixel:	512, 1024
Pixeldimension:	25 x 2500 µm
Digital resolution:	16 Bit
Stray light suppression:	0.1 %

DATA HANDLING:

Hardware:	Personal Computer or Laptop
Interface:	RS232
Software:	Matlab
Normal Scan period:	15 ms up to 6500 ms
Data collection:	ASCII File. Scan date and time logged with each scan. Measurement schedule fully programmable. In the normal mode of operation, spectral scans are performed every at once, 15, 30 or 60 minutes with adjustable start/end- time.

PHYSICAL DATA:

Weight:	~ 5 kg
Size:	250 mm x 160 mm x 120 mm
Material:	protected Aluminium
Housing:	weather-proof enclosure

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