

PREMOSYS®



Sustainable products of optical metrology
to protect the environment and resources



PREISTRÄGER
Großer Preis des
MITTELSTANDES



268405 QM15

PREMOSYS Product overview

LED Analyzer



CIE Lab Color Sensors



Agriculture



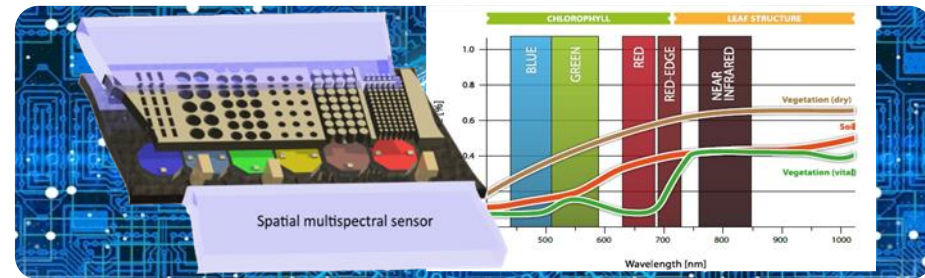
Inline Color Measurement Systems



Electronic Development



Research & Development



PREMOSYS – optical measurement systems and electronics „Made in Germany“



This is what our customers can expect

- All products and services are developed and manufactured in-house
- Active in research and development with years of experience
- In-house test and calibration laboratory
- By concentrating all competences in one location we are very flexible and can react individually to customer requirements
- Sustainable and resource-saving production through year-based production planning

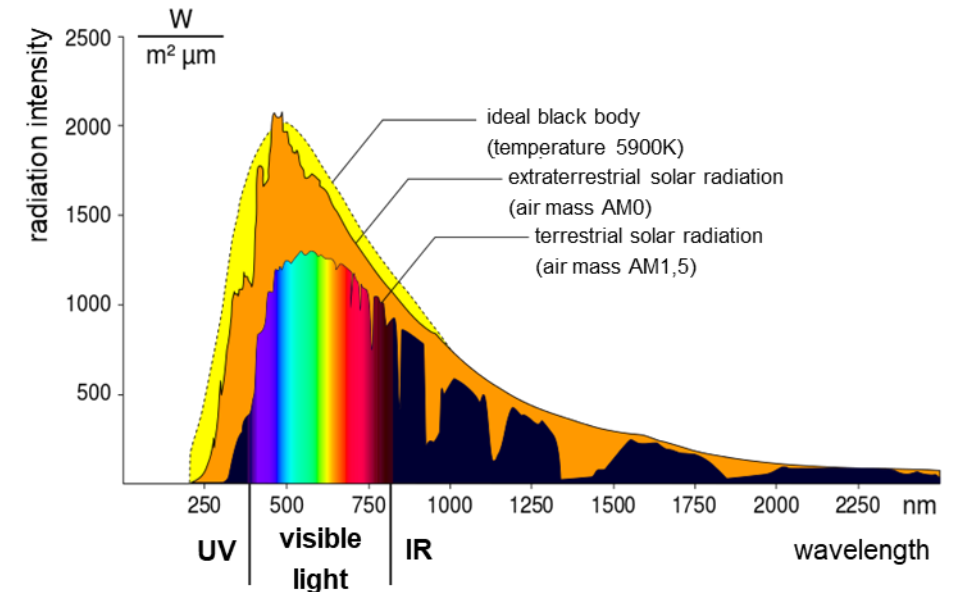


PREMOSYS Optical metrology from UV to NIR



Our products find their place in a variety of markets. Regardless of which industry, our solutions contribute to optimizing the end result and increasing efficiency.

- Agriculture
- Analytics
- Automation
- Automotive
- Research and development
- Plastics
- Medicine
- Foods
- and much more...



PREMOSYS CIELab Color Sensors

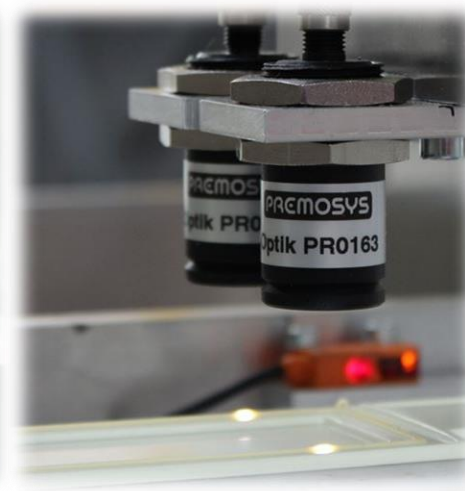
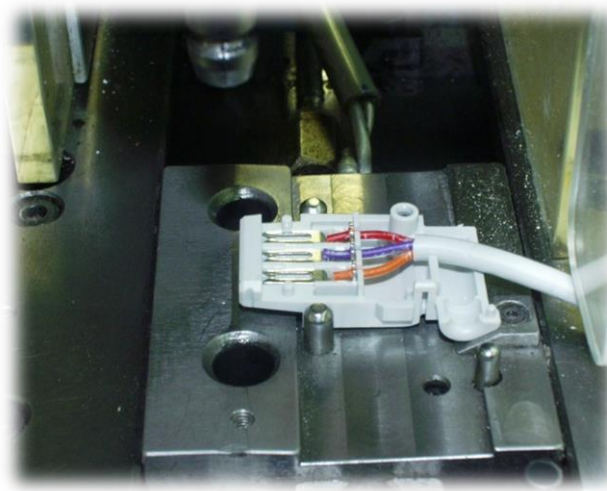
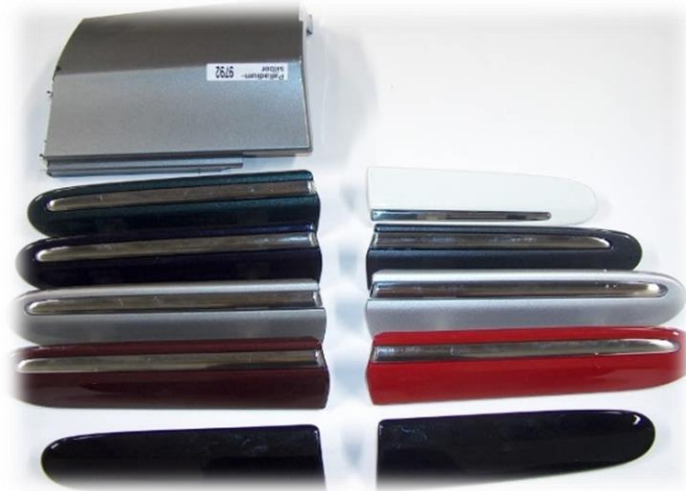
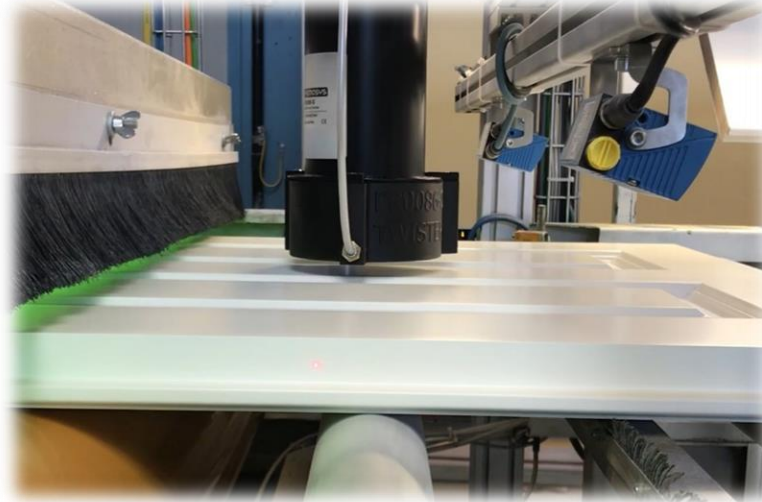


Advantages of PREMOSYS CIELab Color Sensor Series

- Very fast and high-resolution color measurement sensors
- Enable automatic testing of color and intensity of materials
- Detection range 360 nm – 700 nm
- Measuring frequency up to 20 kHz (depends on sensor type)
- Temperature compensation between 10°C to 60°C across all gain levels
- Ambient light compensation
- CIELab, Tristimulus XYZ, yellowness Index, whiteness Index and opacity measurement



PREMOSYS color sensors applications



PREMOSYS LED Analyzer

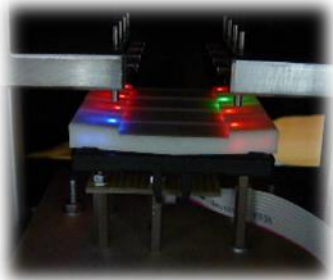
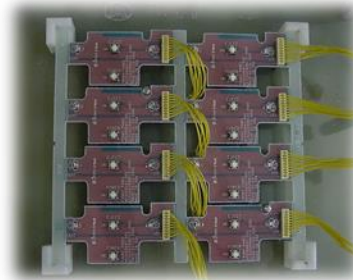


Advantages of the PREMOSYS LED Analyzer

- Parallel and fully automatic check of color and intensity of LEDs, displays, vehicle interiors and other self-luminous objects
- Temperature compensation between 10°C to 60°C
- Extendable up to 200 channels
- Continuous wavelength range from 380 nm to 1.000 nm (VIS to NIR)
- Measuring values in xy and u'v', Y, CCT, λ_d



PREMOSYS LED Analyzer applications



PREMOSYS Multichannel spectrometer



From the laboratory to production

Automated production processes spectrally resolved

- Up to two spectrometers in parallel operation
- Continuous wavelengths from 380nm to 830nm
- Measured values in xy and u'v', Y, CCT
- λ_{dom} , λ_{peak} , $\lambda_{centeroid}$, λ_{center} , $\Delta\lambda$
- CRI DIN6169-2, CRI CIE13.3-95
- Repeatability $\pm 1\text{nm}$
- Absolute resolution 6nm
- Integrated dark measurement via mechanical shutter on each measuring channel itself
- Ethernet and digital interface
- Optional WIN 32 Low Level DLL (SDK)
- Optional LabView driver

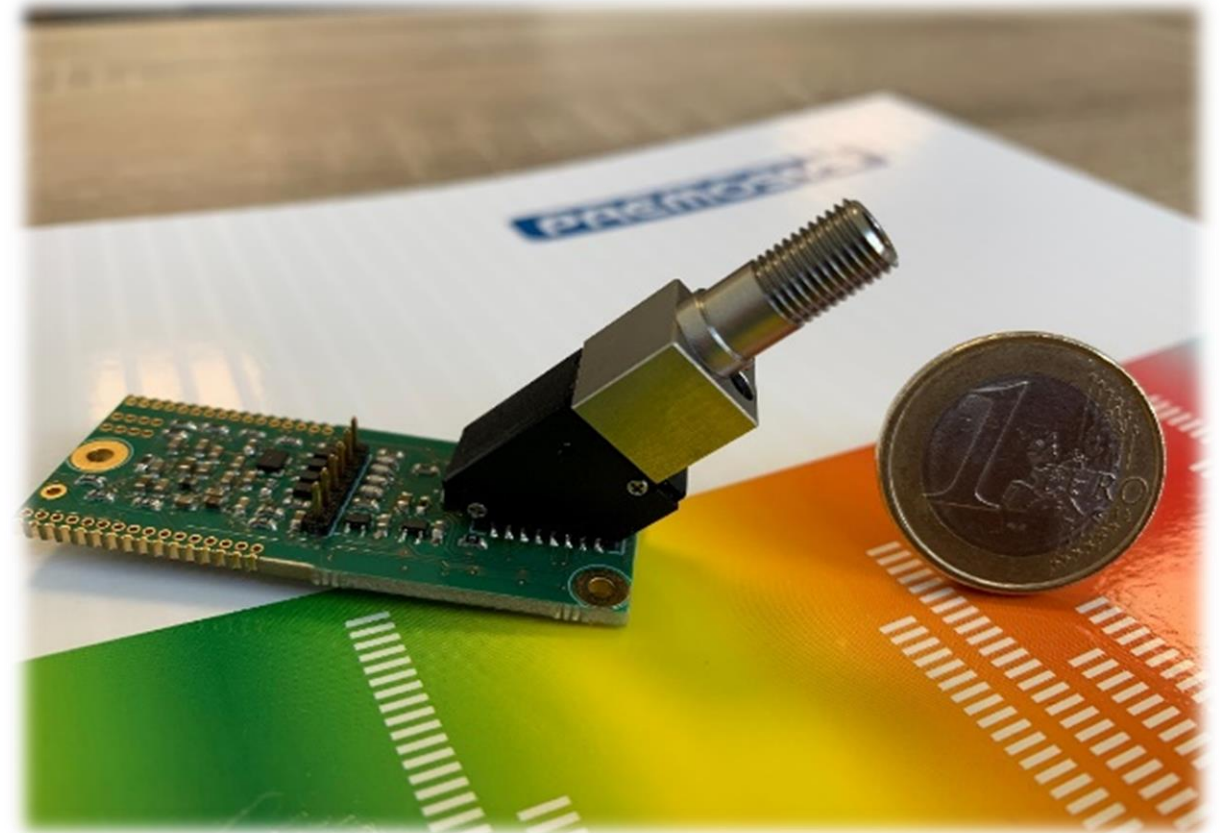


PREMOSYS Miniature Spectroscopy



Flexible miniature spectrometer

- Measuring range 360 - 830nm
- 5nm resolution, absolute resolution 0.5nm
- Integrated FPGA with 16.000 logic units
- 16Bit AD converter with 5Msps sampling
- Digital temperature sensor with +/- 2°C accuracy and 0.03°C resolution
- 512 kByte parameter memory
- SPI data interface with 25MHz
- Dimensions printed circuit board 50mm x 20mm



PREMOSYS Absorption Analytics

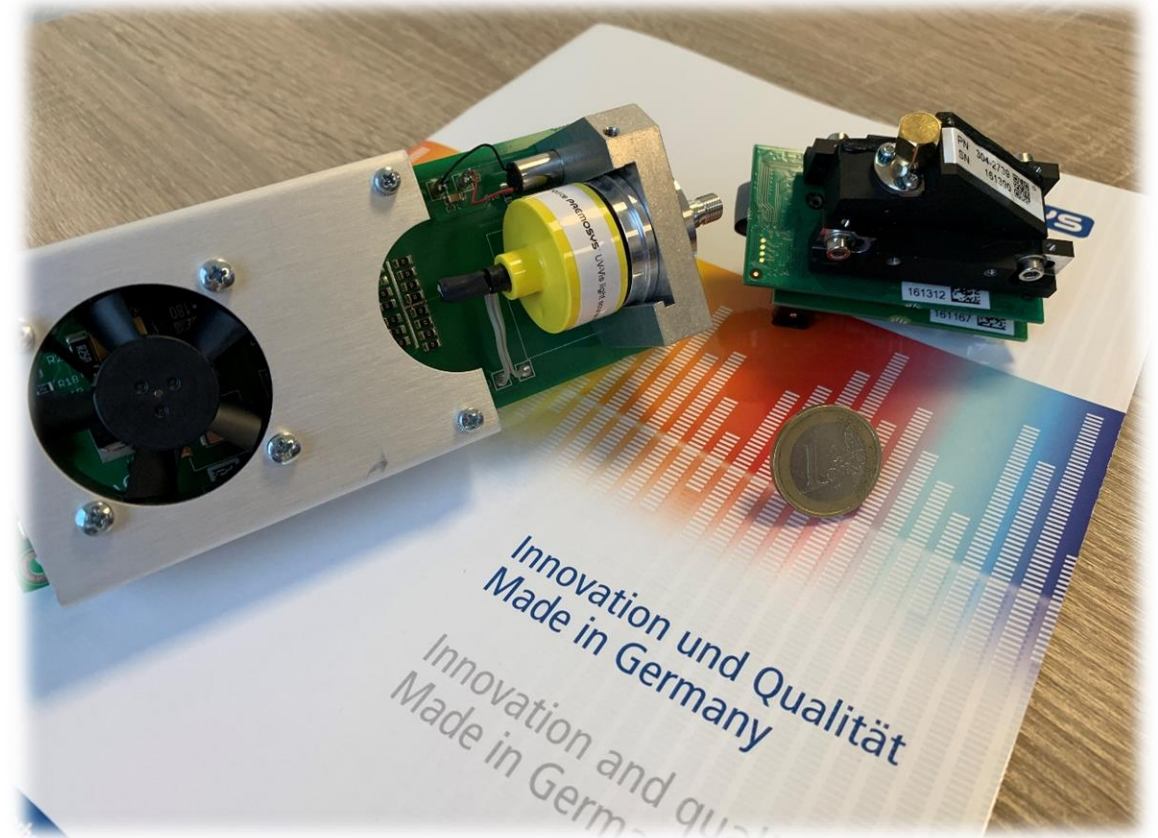


UV and Raman spectroscopy:

- Measuring range 190 - 435nm
- 0.7nm resolution, absolute resolution 0.018nm
- Integrated FPGA with 16.000 logic units
- 16Bit AD converter with 5Msps sampling
- Digital temperature sensor with +/- 2°C accuracy and 0.03°C resolution
- 512 kByte parameter memory
- SPI data interface with 25MHz

Intelligent light sources

- High power Deuterium light source with/without cooling
- Wavelength range 185 to 400nm
- PWM modulated
- MTBF 1000h (50%), can be extended to many years by using an intelligent measurement control system
- Light source exchangeable



PREMOSYS Electronic assemblies and development



Customized development and production of electronics and sensors according to PCB-EMV compliant design

- Optical Sensor Modules
- Spectrometer
- Light measurement systems
- I/O modules, digital and analog
- Stepper motor controllers
- Peltier controllers
- Current sources
- Level converters

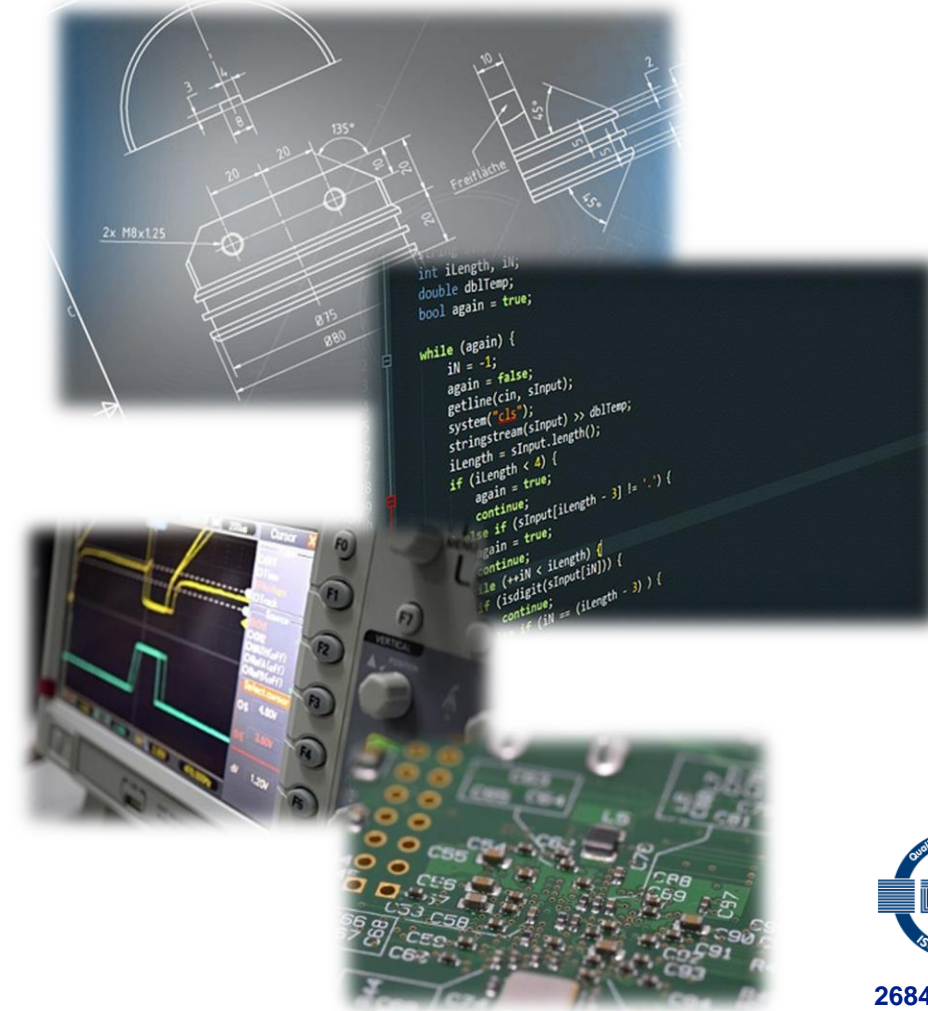
and many more possibilities.



PREMOSYS as a competent partner



- Active in research & development of new technologies
- All products are developed and manufactured in-house
- By concentrating all competences Premosys is flexible and can react individually to markets
- Fast reaction times due to good internal organization of all employees
- Sustainable and resource-saving production through year-based production planning



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