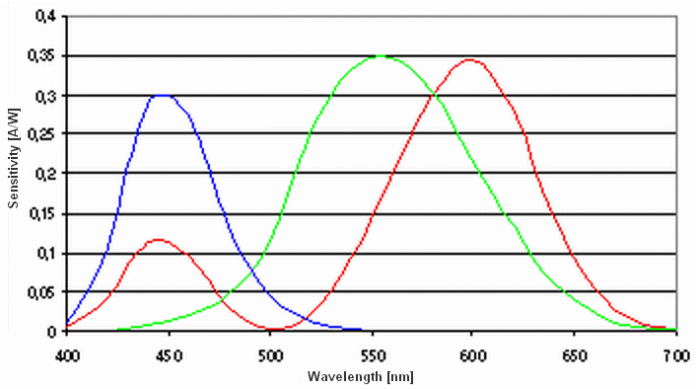
Color Sensor PR0047

The module detects the color and intensity of test objects and endues the control of an external light source. The measurement procedure is based on measurements in comparison with reference products by means of user-specific parameters. Disturbances through environment light are automatically compensated. The color and intensity of the test objects can be parameterised and evaluated separately. The module is conceived for high-speed processing. The internal cycle time amounts to 500us.

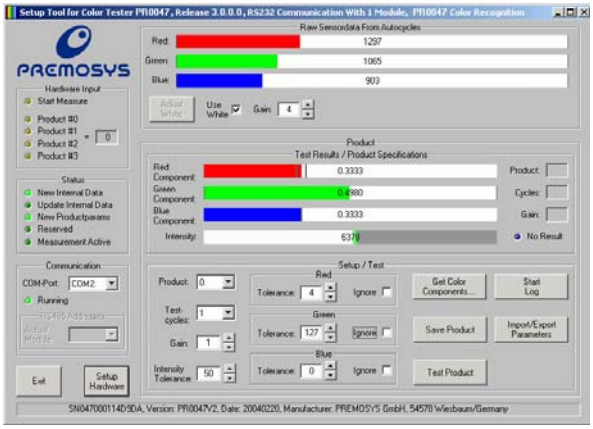


This figure shows the spectral distribution curve of the integrated three-sector color sensor. The sensor values are enhanced in a way, that a color outcome is generated in independence from the intensity.

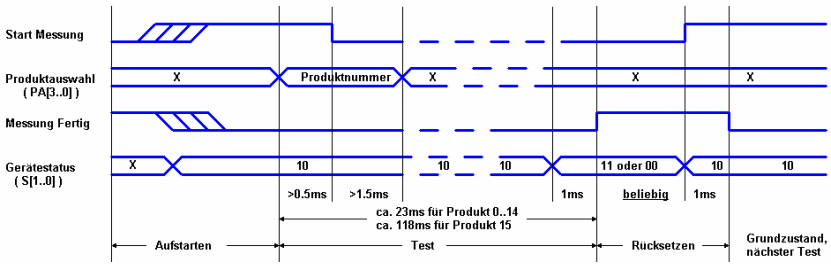
Main characteristics of the module:

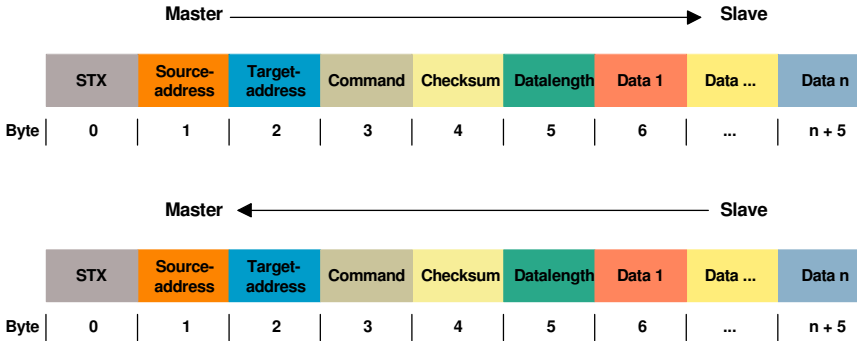
- Test of products for their color and intensity
- Variable interfaces I/O and serial
- Resolution of 16 bit
- Measuring resolution $\Delta E \geq 1$ min.
- Dynamic >90 db
- 14 amplification levels
- Wavelengths 400 - 690nm
- Parallel registration of all color conducts
- White adjustment with reference to standard panels
- Temperature compensation within the range from 20-55 degrees °C
- Measuring distance in dependence on the lighting 20-100mm
- Multiple applicability

The scope of delivery comprises a comfortable intuitive software tool for the commissioning, parameterisation and the statistical evaluation of measurement results. It allows for the parameterisation of up to 15 different products. In the software tool the input states of the ongoing product's signals are continuously displayed. An automatic "basic settings" function facilitates the determination of the parameters. The result is further optimised through the statistical evaluation of larger measurement series. By means of the software tool, test- and compensation cycles can be actuated and data can be imported or exported. Additionally, a detailed description of the serial inter face is available, clarifying all commands utilised to record the pure sensor values and evaluate them with the own software. This is often required if the user demands a greater product traceability.



The software is compatible with WIN98/WIN-NT/WIN-XP.





The module can also be exclusively operated via the serial interface, allowing the user to e.g. process the sensor data with his own software. Both interfaces can also be used simultaneously. We also provide RS422 models that can be connected to a bus.

The adaptation of the test objects to the module is carried out via light guides that available in the most different configurations.

We offer various lighting possibilities for a wide range of applications.

Dimensions

- Length: app. 90mm
- Breadth: app. 70mm
- Height: app. 22mm
- Weight: app. 200g

Electric connection:

- 24VDC +/- 10%, 0.2 A max.

Promis Electro Optics B.V.
T +31 (0) 24 648 86 88 F +31 (0) 24 366 19 84 E info@gotoPEO.com W www.gotoPEO.com