let your mind flow

Color Matcher PR0049

The module PR0049 is a measuring device for the production which is conceived for the absolute measurement of self-illuminating objects.
The internal Tristimulus measuring values X, Y, Z form the basis of most of the common color spaces used today and serve for the conversion into other color spaces. Some of them are already covered by the module.
By means of the integrated three-sector color sensor and additional procedures, visional sensation of the human eye is imitated with an accuracy that can be compared to decidedly more elaborate spectrometric procedures. The adaptation of the test objects to the module is carried out via light guides.

The function „Color Controller“ can additionally be activated via the software tool included in the scope of delivery. Color and intensity values are forced via 3 analog outputs for the controlling of a light source. The module itself controls the forced values and keeps them constant.

By means of the integrated three-sector color sensor and additional procedures, sensor values are enhanced in a way that an imitation of the CIE 1931 2° CMF is produced as precisely as possible. Through the accurate reproduction of the CIE1931 2° CMF, an evaluation of the luminance perception (v(λ), photopic) is also feasible.

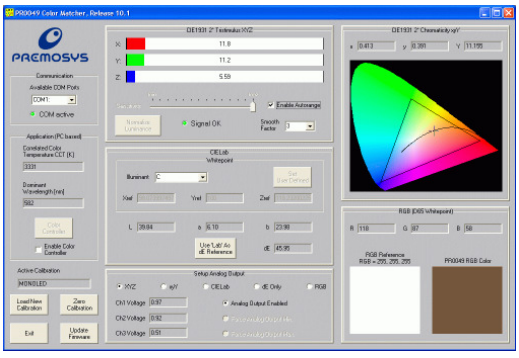
Technical data:

- Output of the color values in X, Y, Z according to CIE1931 2° (Tristimulus values)
- Output of the color values in x, y, Y according to CIE1931 2° (Chromaticity)
- Output of the color values in Lab according to CIELab – reference illuminant to be selected
- Output of the color values in RGB
- ΔE output against a definable reference
- All results over serial interface and three analog channels 0-10V – 10 bit
- Operational mode Standard, signal bandwidth 25Hz, operational mode and Enhanced, signal bandwidth 15Hz
- Absolute accuracy:average Δx, Δy in the Chromaticity color gamut at a light guide-specific optimization < +/-0.005. The standard light guide plastic 2mm diameter, 1000mm length is considered in the calibration and the correction
- dynamic range >120 db
- wavelength from 400 to 700nm, with synchronous sampling of all color channels
- Temperature compensation between 20 and 55°C
- Serial interface RS 232C
- Indication of the dominant wavelengths in nanometers in connection with the PC tool
- Indication of the color temperature in Kelvin in connection with the PC tool

The scope of delivery includes a comfortable intuitive software tool for the setup, parameterization as well as the output of the color values in different modes.

In the software tool, all current state’s and color values are continuously displayed.

Apart from the detailed description of the serial interface, there is also a WIN 32 DLL available.



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

Dimensions

- Length: app. 93mm
- Breadth: app. 70mm
- Height: app. 27mm

Dimensions without connectors

Power supply

- 24VDC +/-10%, max. 100mA

Weight: app. 200g

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