let your mind flow

LED-Function Test Module VE0006-HG

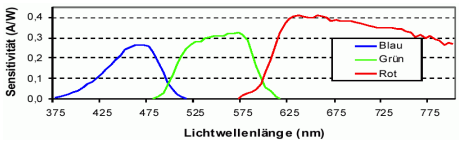
The module serves for the sequential test of the color and intensity of self-illuminated objects - particularly for LED's – in the visible area of light. It is a variant of the standard module VE0006 but with a considerably higher sensitivity (factor 3,5) and is used for the test of products with a low intensity.
Here, the measuring procedure is based on measurements in comparison to reference products by means of user-specific parameters.
Disturbances through environmental light are automatically compensated. Color and intensity of the test objects can be parameterized and evaluated separately. The measurement time for a test object amounts to app. 23 ms.

The module offers two different interfaces with the first interface being optimized for the connection via digital I/O's. Therefore, a handshake protocol is utilized that permits a stable communication with the module but, at the same time, the monitoring of the modules' as well as the connection lines' function. The digital interface provides a separated good/bad outcome.
The second interface is accomplished as a serial RS232 interface. We also provide RS422 models that can be connected to a bus. This interface is at least required for the commissioning by means of the software tool. The module can also be exclusively operated via the serial interface, which permits the user e.g. to process the sensor values with his own software. Both interfaces can be used simultaneously.

The adaption of the test objects to the module is carried out via light guides, available in a variety of configurations.

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.

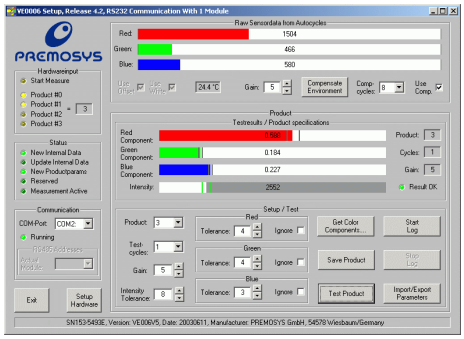
The filter functions are especially suitable for the LED colors yellow and green.



Technical data:

- Test of LED's for their color and intensity – also blinking LED's
- Variable interfaces I/O and serial
- Spectral resolution of up to 2nm
- Dynamic >90 db, Wavelength 400 - 700nm
- Temperature compensation within the range from 20-55°C
- Patent DE 100 48 447

The scope of delivery comprises a comfortable intuitive software tool for the commissioning, parameterization and the statistical evaluation of the test results. It allows for the parameterization 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 establishment of the parameters. By means of the tool, test and compensation cycles can be actuated and data can be imported or exported.
Additionally, a detailed description of the serial interface is available, explaining all commands that enable the user to record the mere sensor values and evaluate them with his own software. This is often necessary if the user requires greater product traceability.



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

Dimensions

- Length: app. 90mm
- Breadth: app. 70mm
- Height: app. 22mm

Power supply

- 12 - 30VDC
- 0,1 A

Weight: app. 200g

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