



Analog Contrast Sensor PR0041

The analog sensor PR0041 serves for the evaluation of the transmission capacity of glass, paper, foils, liquids or gases. Therefore, the module emits modulated light and linearly and selectively processes the signals received via the integrated photo diode. The color of the light source can be accommodated to the application.

As the module does not use IR diodes as light source but works with light in the visible area, it allows to more reliably conclude the material qualities that are of interest in connection to the "human eye".

The receiver diode features a broad band sensitivity characteristic line covering the entire visible area of light and, in addition, the near-infrared sector. Disturbances through environment light are automatically compensated. The measurement time for a test object can be variably adjusted from 25ms to 1,8s.



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

The emitted light radiates through the respective medium (light barrier) or is reflected by it (light scanner). In both cases, the light affected by the medium is perceived by a second light guide that transfers it to the integrated receiver photo diode.



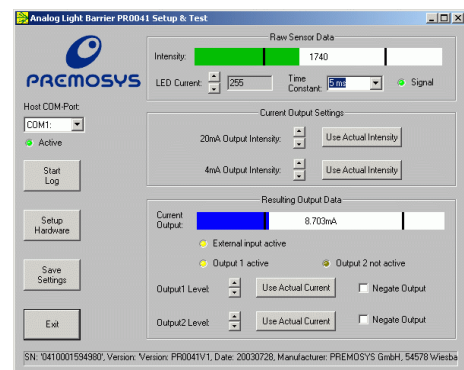
Technical data:

- Variable settings for the power of the transmitting LED
- Measurement cycles adjustable between 5, 8, 10, 13, 25, 25, 55, 110, 220, 450, 900ms and 1,8s
- variable interfaces I/O und serial
- 2 outputs 24V DC for upper and lower threshold
- Analog output 4-20mA
- 12 Bit Resolution
- Parameter stored on the module

The scope of delivery includes a comfortable intuitive software tool for the commissioning and parameterization. In the software tool, the input states of the current product's signals are continually displayed. Additionally, data can be imported or exported.

The analog current output reflects the present intensity of the received light. However, implementation is not carried out directly but can be freely determined by the user (zoom function). By means of the PC tool, the user defines a window within the possible 12 bit intensity range to which the current output refers. The current output also works linearly within the defined window and with a resolution of 12 bit.

Both digital output can be parameterized separately and become active or inactive as soon as a switching threshold stipulated by the user is reached.



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

Dimensions

- Length: app. 93mm
- Breadth: app. 70mm
- Height: app. 25mm

Power supply

- 24 VDC; 0,2 A

Weight: app. 200g