

Can fiber optic sensors detect color differences



Overview

Fiber optic sensors detect color by measuring reflected wavelengths; methods include comparison and triangulation. Working principle Fiber. Simple one-touch calibration with a dual digital display and ability to store up to 8 colors. Color, luster and fluorescent/UV sensing heads all connect to CZ-V20 Series amplifier. The CZ-V20 Series uses a completely different detection principle than other photoelectric sensors. This allows for. A Fiber Sensor is a type of Photoelectric Sensor that enables detection of objects in narrow locations by transmitting light from a Fiber Amplifier Unit with a Fiber Unit. There are three types of teaching (dynamic teaching, 2-point.

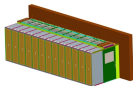
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Reflectance spectrums obtained by the proposed method for printed samples doesn't deviate significantly from those recorded by a commercial spectrophotometer. Also, the calculations ...



Fiber Sensors almost always use LEDs as the light source. The light emitted from LEDs oscillates in the vertical and horizontal directions and is referred to as unpolarized light.



Leveraging the flexibility of fiber optic transmission, it enables color detection in confined spaces or harsh environments. It is widely used in printing, packaging, and sorting applications.



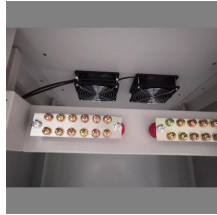
By the large operating distance of these sensors it is even possible to provide reliable measurements, even in structural distance fluctuations in which even the color differences are recognized.



Fiber optic sensors rely on optical principles to detect object properties such as reflection and scattering. They can identify color based on the wavelength characteristics of reflected light.



These sensors work well in applications where the color or angle of an object needs to be detected. For example, a retro-reflector sensor can detect transparent objects such as plastic or ...



The sensor achieves an accuracy of 100% for painted objects, over 73% for clothes and 74% for plastics in recognizing 62 defined colours. It is inherently compact and suitable for remote sensing, has high ...



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Since the light source is not just red, but includes the red, green, and blue wavelengths, and the ratio between each of these lights can be calculated, it is possible to differentiate the appearance and ...



Stable detection of the specified color is possible even if the distance to the target changes. Setting up the CZ-V20 Series is as easy as presenting the desired target to the sensor and pressing SET.



White LED light source enables stable detection of subtle color contrasts of dark colors that a sensor with red LED light source may have had difficulty in detection.

Contact Us

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