Large diameter precision colorimeter

Focus on color
NR20XE+
Colorimeter
LARGE APERTURE MEASUREMENT

When an ordinary colorimeter measures products such as fresh meat, its entire body is placed on the object to be measured, which not only soils the instrument, liquid and moisture can easily enter the instrument directly, but also has a kind of cross-contamination to the object to be measured.

Widescreen DISPLAY

Features

NR20XE+ is a handheld computer colorimeter designed with a 45°/0° optical geometry. Its measuring aperture is 20mm, which is the largest one among domestic colorimeters, and has high measurement accuracy. The NR20XE+ is a colorimeter with unique properties.

Principle

The color measurement results of the NR20XE+ simulate the observation of the human eye, but the accuracy is several times higher than that of the human eye. Compared with the 8°/d instrument, NR20XE+ can more effectively reflect the interaction effect of sample surface texture and color. NR20XE+ can effectively eliminate the error between human eyes and colorimeter caused by sample surface texture when judging the critical tolerance of sample color value. Therefore NR20XE+ is widely used in color QC department.

Application

NR20XE+ can satisfy the analysis and control of the quality in the production process of plastics (PET, PE, PP, PTA, ABS, EVA particles and powders), color steel plates, coatings, textiles, fluorescent materials, denim, medicine, food and other industries. Enterprises control product chromatic aberration, improve product competitiveness, reduce enterprise losses, and control production costs.

PRODUCT FEATURES

1. 20mm large measuring caliber, can accurately measure items with surface texture
2. 45°/0° optical geometry design consistent with visual inspection
3. Using full-spectrum LED combined light source to effectively reduce lighting deviation
4. COMS dual optical sensor engine, accurate color measurement
5. Vertical structure, can measure the wet items on the surface
6. Double positioning function of light and cross, making the measurement easier
7. Adopt new super optical path and dynamic integration time, higher stability
8. Ring light design, suitable for materials with polarized light (polarization)
9. Equipped with high-end color quality management software,

which can be connected to a computer for use

APPLICATION INDUSTRY

NR20XE+ is widely used in plastics (PET, PE, PP, PTA, ABS, EVA particles and powders), color steel plates, coatings, textiles, fluorescent materials, denim, medicine, food and other industries. to analyze and control the quality of the production process. It can control product color differences, improve product competitiveness, reduce enterprises losses, and control production costs.

| Color steel plates | Textiles | Plastics | Coating | Food | Laboratory | Others |

TECHNICAL SPECIFICATIONS

Model: NR20XE+
Viewing Geometry: 45°/0°
Standards compliant: CIE No.15,GB/T 3978
Illuminating: Full spectrum LED illumination
Sensor: CMOS dual optical path sensing
Measuring Aperture: Φ20 mm
Color Space: CIE LAB,LCh,XYZ
Color difference formula: ΔE*ab
Observation angle: CIE 10° Standard Observer
Light Source: D65
Display: Chroma value, color difference value/map, pass/fail result, color bias
Measure time: 1.5s
Repeatability: Standard deviation within ΔE*ab 0.08
Average of 30 measurements of standard white plate

Errors Between Each Equipment: ≤0.40ΔE*ab
Dimension: 205x67x80mm
Weight: About 400g (including battery)
Power source: lithium-ion battery 3.7V@3200mAh
Lamp Life: 5 years, more than 1.6 million measurements
Screen: TFT true color 2.8inch@(16:9)
Data Interface: USB
Locating Method: Spot positioning, camera positioning
Storage: 100pcs standards 20000pcs samples
PC software: Color Management Software
Standard accessories: Power adapter, operation manual, quality management software (download from official website), data cable, wrist strap, whiteboard box
Optional accessories: Micro printer, powder test box