

Benchtop Grating Spectrophotometer



Introduction:

BK-GS6060 is a benchtop grating spectrophotometer, which has many features, like 7 inches TFT capacitive touch screen display, full illuminants, reflective d/8 and transmissive d/0 geometry (including or excluding UV). With very stable and precise color measurement, large storage and powerful PC software all makes BK-GS6060 ideal for color analysis within R&D and laboratory environments.

Features:

- * High configuration of hardware: 7 inches TFT Color Capacitive Touch screen Display; Concave Grating.
- * Double Array 256 Image Element CMOS Sensor; Long life-span stable LED, UV LED and xenon lamp.
- * With reflective and transmissive spectrum, accurate Lab value, good to calculate color formula and do precise color transmission.
- * Auto identify measuring aperture. Freely switchable between 4 measuring apertures: ϕ 25.4mm/15mm/8mm/4mm. Users also can customize apertures.
- * Built-in temperature sensor to monitor and compensate the measuring temperature to ensure the measurement more precision.
- * Wavelength range 360nm ~780nm. Built-in 400nm cut off/420nm cut off/460nm cut off (only xenon lamp edition), more professional in UV measurement.
- * Independent light source detector, continuously monitor the condition of light sources to ensure the light source reliable.
- * Multiple measurement modes: Quality Management Mode, Sample Mode; Meet more users' requirement.
- * Multiple accessories, sample holders, fixation clamp, suitable to more working condition.
- * Big capacity data storage, for 20000 pieces test result.
- * Built-in camera locating.
- * More powerful extended functions at the PC software.

Application:

BK-GS6060 benchtop spectrophotometer is used to do precise color analysis and transmission in laboratories. It can be widely applied in different industries, such as plastics, electronics, paint and ink, printing, garments, leather, paper, auto, medical, cosmetics, food, science institutes, laboratories.

Technical Parameters:

| Model | BK-GS6060 |
|----------------------------|---|
| Optical Geometry | Reflect: di: 8°, de: 8°(diffused illumination, 8-degree viewing angle); SCI (specular component included) / SCE (specular component excluded); Include UV / excluded UV light source Transmittance: di: 0°, de: 0° (diffuse illumination: 0° viewing); SCI (specular component included) / SCE (specular component excluded); Include UV / excluded UV light source; Haze(ASTM D1003), Conforms to CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil7 |
| Application | It is used for accurate analysis and transmission of laboratory color. Apply in paints, inks, textiles, garments, printing and dyeing, printing etc industries for color transfer and quality control. |
| Integrating Sphere Size | Φ 154mm |
| Light Source | 360 nm to 780 nm, Combined LED Light, 400nm cut-off light source,420nm Cut-off light source, UV Lamp |
| Spectrophotometric Mode | Concave Grating |
| Sensor | 256 Image Element Double Array CMOS Image Sensor |
| Wavelength Range | 360-780nm |
| Wavelength Interval | 10nm |
| Semi-band Width | 10nm |
| Measured Reflectance Range | 0-200% |
| Measuring Aperture | Reflective: Φ 30mm/ Φ 25.4mm, Φ 18mm/ Φ 15mm, Φ 10mm/ Φ 8mm, Φ 6mm/ Φ 4mm; Transmissive: Φ 30mm/ Φ 25.4mm |
| Specular Component | Reflectance: SCI&SCE / Transmittance: SCI&SCE |
| Color Space | CIE LAB, XYZ, Yxy, LCh, CIE LUV, Musell, s-RGB, HunterLab, β xy, DIN |
| Color Difference Formula | $\Delta E^* ab$, $\Delta E^* uv$, $\Delta E^* 94$, $\Delta E^* cmc(2:1)$, $\Delta E^* cmc(1:1)$, $\Delta E^* 00$, DIN ΔE 99, ΔE (Hunter) |
| Other Colorimetric Index | WI (ASTM E313, CIE/ISO, AATCC, Hunter, YI (ASTM D1925, ASTM 313), TI (ASTM E313, CIE/ISO), MI (Metamerism Index), Staining Fastness, Color Fastness, Color Strength, Opacity, Gardner Index, Pt-Co Index, 555 Index |
| Observer Angle | 2°/10° |
| Illuminant | D65,A,C,D50,D55,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12 |
| Displayed Data | Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset |
| Measuring Time | About 2.4s (Measure SCI & SCE about 5s) |
| Repeatability | Spectral reflectance: Φ 25.4mm/SCI, Standard deviation within 0.04% (400 nm to 700 nm: within 0.04%) Chromaticity value: Φ 25.4mm/SCI, Standard deviation within $\Delta E^* ab$ 0.01 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration) Chromaticity value: Φ 25.4mm/SCI, Standard deviation within $\Delta E^* ab$ 0.02 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration) |
| Inter-instrument Error | Φ 25.4mm/SCI, Within $\Delta E^* ab$ 0.12 (Average for 12 BCRA Series II color tiles) |
| Illuminant Life Span | 5 years, more than 3 million times measurements |
| Display | 7-inch TFT color LCD, Capacitive Touch Screen |
| Data Port | USB & Bluetooth |
| Data Storage | Standard 5000 Pcs, Sample 40000 Pcs (One PCS can include both SCI and SCE) |
| Language | Chinese, English |
| Operating Environment | 0~40°C, 0~85%RH (no condensing), Altitude < 2000m |
| Storage Environment | -20~50°C, 0~85%RH (no condensing) |
| Standard Accessory | White and Black Calibration Board, Checking Green Board, Sample Holder, ϕ 4mm, ϕ 8mm, ϕ 15mm, ϕ 25.4mm Aperture, Power Adapter, USB Cable, User Guide, PC Software |
| Optional Accessory | Micro printer, Transmissive Test Clamp Component |
| Power Supply | DC 24V, 3A; Power adapter: 110~230V 50/60HZ |
| External Size (L*W*H) | 370*300*200mm |
| Weight | 9.6kg |
| Package Size (W* D*H) | 350*470*520mm |
| Gross Weight | 18kg |