

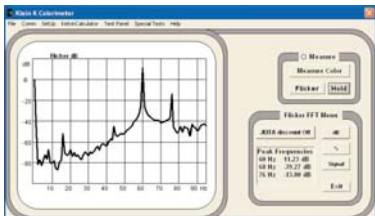
Klein K-10 Colorimeter

for use with the Klein colorimetry PC program over a USB serial or DB9 connection



KLEIN INSTRUMENTS CORPORATION

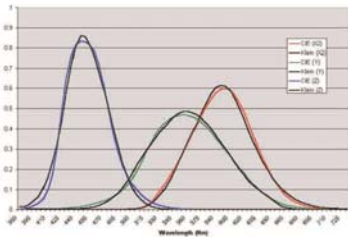
Klein K-10 Features



The Klein K-10 tri-stimulus CIE Colorimeter Probe was designed specifically for use on all display types. It is unmatched in sensitivity, stability and speed. It connects directly to a PC's USB port or serial port, and runs with the companion Klein PC application.

- Large Photodiodes. Diodes that are 5mm x 5mm each, along with thermally stable components, are combined to report the highest degree of accuracy.
- Exceptionally Accurate Filters. Not only is the f1' of Y critical, but the accuracy of X and Z as well. See the actual Klein vs. CIE graph in the lower left corner.
- Quick Measurements over an RS-232 line. The head takes 256 measurements per second, even at low light. For readability 8 measurements per second is displayed.
- FFT FlickerMeter. Probe measures and integrates Y data in the head, and streams in real time to the PC, and a Fast Fourier Transform is performed. JEITA approved method.
- Klein PC Program. Create calibration files and set measuring parameters. Then data log, graph and export. The PC program manages the data in an easy to use interface.
- 8 Bright LED's. LED's projecting through a 12ft focal length lens (62mm style available) and focusing on a screen, define the measurement area. Acceptance angle is ± 5 degrees.

Product Specifications



(Actual X, Y, Z filter data)

Measuring Function: Colorimetric; x y Y, u v Y, RGB, Tc Duw Y

Measuring Range: .00006-2919 fL; .0002-10,000 cd/m² (candelas/sq. meter)

Measurement Area/Distance: 22mm diameter / 110mm from display

Display Intervals: .1 sec. auto ranging; 6 ranges, ea. channel independently

Filtering: 20Hz low pass 3 pole analog filter, 14-bit A/D Cnvr.; digital averaging

Accuracy (Illuminant A): Chroma ± 0.002 x, y (displayed value > 1.00 cd/m²)

Luminance $\pm 1\%$ Y, ± 1 LSB (displayed value > .01 cd/m²)

Repeatability: Chroma ± 0.002 x, y (displayed value > 1.00 cd/m²)

Luminance $\pm 1\%$ Y, ± 1 LSB (displayed value > .01 cd/m²)

Data Interface: 9600 baud RS232 Communication to PC.

Output Connectors: Serial COM 9 pin (DB9), or USB connector

Size: 10.5" Long x 2.375" Diameter (267mm x 60mm)

Power Supply: 5 volts, 75mA nominal (175mA max w/LED's On)

from a PC's USB port, or from included power supply

Operating Requirements: Temperature: 0-40 C;

Humidity: below 85% RH non-condensation

Materials: Platinum colored high-impact plastic and black anodized aluminum

Weight/Shipping Weight: net 19oz (591g.); gross 3 pounds

Ordering Information

When ordering, specify standard or long focal lens, also specify USB (standard) or COM. For more detailed information, or to place your order, contact us by phone at (503) 245-1012, fax (503) 245-8166, or email us at sales@kleinstruments.com.