

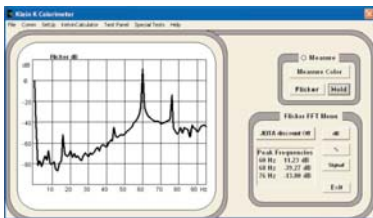
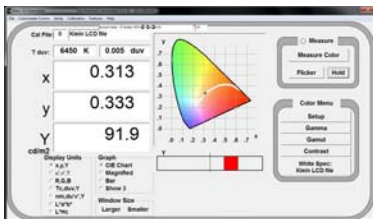
Klein K Colorimeters K-10 LF & K-10 SF

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



KLEIN INSTRUMENTS CORPORATION

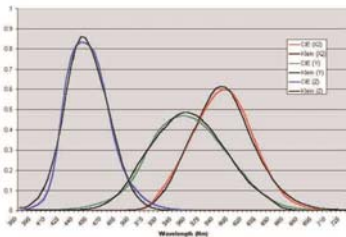
Klein K-10 Features



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, below, left.
- 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 & integrates Y data in the head, and streams in realtime to the pc, and a Fast Fourier Transform is performed. JEITA approved method.
- Klein pc Program. Create calibration files & 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 (~4m) focal length lens for the K-10 LF, or 62mm style for the K-10 SF, and focusing on a screen, define the measurement area. Acceptance angle is ± 5 degrees.
- Rugged Construction. The K-10's auto ranging is solid state and the case is impact resistant to hold up to 24 hours a day, 7 days a week required usage.

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

Ordering Information

When ordering, specify K-10 LF (long focus for cinema) or K-10 SF (short focus for flat panel), 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.