

Brontes Colorimeters

The Brontes is a high-speed, high-resolution colorimeter that is designed especially for measuring colours and luminance in a production environment. Colours are measured according to the human eye (CIE1931) and numerous colour spaces are supported. Due to its small and compact size, it can be integrated very easily into a production environment. Its user-friendly interface also make it ideal for engineers in a laboratory environment.

Applications

- » Display white point adjustments
- » Display Contrast/Flicker adjustments
- » Real time colour adjustments
- » Pulsed and AC light measurements
- » LED sorting
- » High speed sorting on colour

Features

- » 4x M4 holes and 1x 1/4 BSW insert on the bottom side
- » 4x M4 holes on the front side
- » Enclosed lens system
- » Measurement with a 6° field of view
- » SMA fibre adapter
- » Up to 5,500 measurements per second
- » Trigger input for inline applications
- » Measure via PC or stand-alone

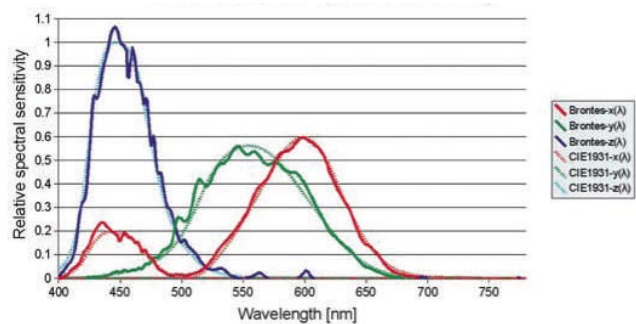
Advantages

- » Large number of mounting methods
- » Stable setup
- » Accurate and repeatable measurements
- » Easily connected to Ocean Optics fibres
- » High-speed colour measurement
- » Various colour spaces (Yxy, CEILab, Yuv, LCH)
- » Supported in LabView, LabWindows

Specifications

Brontes Colorimeter

PARAMETER	RANGE	ACCURACY	REPEATABILITY
+Luminance (Y)	0.05 cd/m ² —500.000 cd/m ² ; 8 gain stages including auto ranging function	± 4% of measured value	±0.1%
Chromaticity: x,y	Approximates CIE1931 colour matching functions	±0.001 absolute at equal energy point (x,y = 0.333)	x,y: ±0.001 for Y>2 cd/m ² x,y: ±0.0002 for Y>10 cd/m ²
CR measurement	Up to 150.000	±5% depending on lowest Y value	±5% depending on lowest Y value
Switching Time	0.1-100 ms	±5%	
Flicker	>0.05% at 50% Luminance level at every gain stage	±0.02% at 50% luminance level level at every gain stage	±0.02%
Temperature	0-50 °C above specification; Measurement at other temperatures possible via fibre optics		



Brontes relative spectral sensitivity

The Brontes Colorimeter contains an SCPI command interface for easy integration into applications. All library functions are supplied together with an example program in multiple programming languages. Several interfaces are available, including USB, I2C, RS232 and GPIO. A stand-alone mode is also possible and the Brontes can be pre-programmed to make a GO-NOGO selection of a selection into different classes.



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