

Brontes-IS

colorimeter

Colour measurement according the human eye



The Brontes-IS colorimeter has been designed for fast sorting applications like LED sorting machines. It incorporates a XYZ sensor with an integrating sphere.

The Brontes-IS features 10,000 measurement per second with a high stability and internal temperature compensation. Like all Admesy devices, the Brontes-IS is an USBTMC compliant device for easy OEM integration.

Highlights:

- sensor and sphere (1.5 inch) integrated in one design
- 10,000 colour measurements per second
- lm, cd, xy and dominant wavelength measurements
- High stability and temperature compensated
- USB & RS232
- robust design

Fields of applications:

- LED sorting
- LED light source white point adjustment
- RGB lighting
- Lighting measurements

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System features:

Measurement system

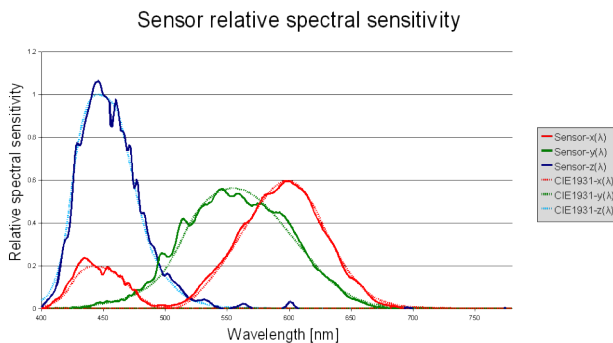
| | |
|-------------------|---|
| Photo detector | Silicon photo diodes using interference based XYZ filters |
| Spectral response | Approximates CIE 1931 2 degree colour matching functions |
| Colour systems | XYZ, xy, u'v', lumen, candela, CCT, dominant wavelength |
| Optical system | Ø38.2 mm sphere with an input port of Ø9.6 mm |
| Sphere material | Spectralon |
| Measurement speed | 10.000 colour measurements per second |

Interfaces

| | |
|----------------|---|
| USB 2.0 | USBTMC compliant, SCPI command set, full speed device |
| RS232 | Same command set as USB |
| I/O | 4 lines 3.3V general purpose IO |
| Trigger IN/OUT | 3.3V compliant |

Size

| | |
|----------|--|
| LxWxH | 94.1x60x65.5 mm |
| Mounting | 4xM4 threat on top and 4xM4 on back side, 1/4 BSW mount on top |



Colorimeter specification:

| Parameter | Range | Accuracy | Repeatability |
|-----------------------|--|---------------------------------|---------------|
| Resolution | 16 bit for X, Y and Z | >60dB without averaging | |
| Chromaticity: x,y | Approximates CIE1931 colour matching functions | ±0.001 absolute at equal energy | x,y: ±0.0005 |
| Dominant wavelength | 420 - 640 nm | < 1nm | ±0.1nm |
| Speed | 10k colour points per second | | |
| Operating temperature | 0-50° C (temp readout available) | | |