Prometheus SERIES

6-angle Colorimeter

The Prometheus Series offers a comprehensive solution for a variety of spot measurements on displays. The 6-angle Prometheus colorimeter offers a unique combination of high speed and accurate color measurement capabilities packed in a robust package. It consists of 6 Prometheus 10 mm in one housing whereby every Prometheus engine is mounted under a different angle, ranging from 0° to 75° in 15° steps. Each angle contains highly accurate filters which closely match the human eye. The filters are fabricated in house which guarantees a high accuracy level over the filters for all devices.

Highlights

Highly accurate color measurement according to human eye (CIE 1931)

6 angles: 0°, 15°, 30°, 45°, 60°, 75°

Huge dynamic range: 0.003 to 30 000 cd/m²

Fast color measurements even at low luminance values

Flicker luminance Y channel: 3 125 samples / second

Autorange function

Powerful MCU enables internal JEITA flicker calculation

Mechanical shutter

Supports Windows, Linux and macOS

Directly supported in Labview, LabWindows, Visual Studio (C#, C++), Python and Matlab via VISA library

ADMESY

admesy.com/series/prometheus

6 Angles
with Production Speed

Many display technologies demonstrate varying viewing angle dependencies for individual colors, specific gray levels, or their combination, resulting in different tonal characteristics (gamma). A goniometer is commonly used to characterize the viewing angle performance of a display. While this method can be accurate, it tends to be slow, making it impractical for production testing scenarios where quick turnaround times are crucial. Alternatively, a conoscopical setup is available but comes with a high cost and limited accuracy. An effective solution is to utilize multiple high-speed colorimeter heads to enable rapid yet accurate measurements during the production process. The Prometheus 6-angle colorimeter is designed to meet these requirements efficiently.

Admesy focuses on creating and manufacturing devices that emphasize precision, user-friendliness, and speed. The Prometheus 6-angle colorimeter is designed to offer a unique combination of rapid performance and accurate color measurement capabilities within a robust casing to meet this objective.

Similar to other products in the Admesy series, the Prometheus 6-angle model is built for round-the-clock operation, easy integration into production environments, and delivers excellent value for money.

Specifications

Model	Prometheus 6-angle Colorimeter
Optical systems	Collimating lens: 10 mm Acceptanle angle: 7° (± 3.5°)
Photo detector	6 times 3 silicon photo diode using XYZ interference filter
Spectral response	Approximates CIE 1931 color matching functions
Luminance accuracy	From 1.5 %, depending on the luminance, see detailed specs
Chromaticity accuracy	From 0.0015 CIExy, depending on the luminance, see detailed specs
Measurement speed (color)	Up to 45 samples/second, depending on the luminance
Interfaces	High speed USB, RS232, Ethernet, Trigger connections
Measurement parameters	XYZ, Yxy, Yuv, correlated colour temperature (CCT), dominant wavelength, Flicker, Response time
Weight	~ 5 000 g
Operating temperature	10 °C – 35 °C

Download the brochures with detailed
specifications from admesy.com/downloads

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