Press release

Konica Minolta Sensing sets new standards in spectrodensitometric colour measurement for the Graphic Industry

Nieuwegein, January 2011

Entry in the Graphic Industry market

From March 2011 Konica Minolta Sensing Europe is offering the world's first portable spectrodensitometers for colour measurement of papers which use optical brighteners, to the Graphic Industry. The systems are a reaction to the ongoing digitalization of the industry. They represent the start of the colour measurement specialist's business segment specifically focusing on the Graphic Industry.

Andreas Ullrich, Marketing & Sales Manager, EMEA Konica Minolta Sensing Europe, explains the new involvement in the Graphic Industry: „Caused by the advancing digitalization in graphic–related industries, instrumental numerical colour control of printed materials has become a substantial part of printing technology, in quality management. Whether printing design, prepress

or printing itself – we discovered a new market for us here, which we will develop systematically." Alongside Central Europe, Konica Minolta Sensing will be targeting the growing markets of Eastern Europe. The subsidiary of Konica Minolta Sensing Inc., Japan, assumes a global market volume of about $100 million.

So far, the colour measurement instruments manufactured by Konica Minolta Sensing have been used in the automotive industry, for the production of colours in plastic and paint, other synthetic materials, textiles, construction materials and food. In this area, Konica Minolta Sensing draws on decades of experience: As early as 1982, the company had introduced the world's first handheld colorimeter.

The Spectrodensitometers FD-7 and FD-5

- World's first Spectrodensitometers with Colour measurement adjusted for paper fluorescence
- World's first commercial portable Spectrodensitometers with Automatic Wavelength Compensation function
- Both models weigh approximately 350g, making them currently the world's lightest and most compact stand–alone Spectrodensitometers

Abstract

A lot of printing papers and packaging materials use optical brighteners. Their fluorescent whitening properties make paper appear brighter and whiter. But, depending on illumination, this can significantly impact the reproduction of printing colours, particularly under Illuminant D50, the standard light source in Printing Industry.

Spectrodensitometer FD–7 and FD–5 are world´s only portable instruments capable of measuring and quantifying colours including fluorescence under Illuminant D50, the standard light source, corresponding to M1 measurement

condition, according to ISO 13655 from 2009. This is enabled by the unique patented colour evaluation technology “Virtual Fluorescence Standard” (VFS) from Konica Minolta.

The automatic wavelength compensation of the sensor is another charac–teristic. It starts automatically, each time white calibration is performed and ensures a unique level of reliability and repeatability. The wavelength calibration check for conventional products is normally performed during a chargeable maintenance service at the manufacturer’s site. The FD–7 also provides manually scanned measurements and spectral measurement of surrounding illumination. An optional software package enables additional evaluation for offset printing.

Both models weigh approximately 350g, making them one of the lightest spectrodensitometers in the market. Even with the target mask attached, it is still only 430g, making it much easier to work with over a long time without getting tired.

Technical Background

Uniquely corresponds to Measurement Condition M1 of ISO 13655 (2009)

The Spectrodensitometer FD–5 and FD–7 are the world’s first commercial M1–type instruments, to provide measurements corresponding to Illuminant D50.The 2009 revision of ISO 13655 (Graphic technology –Spectral measure–ment and colorimetric computation for graphic arts images) describes standards for colour evaluation including fluorescence under Illuminant D50 (daylight with a correlated colour temperature of 5000K). In this standard, Measurement Conditions M0, M1, M2, and M3 are defined with different Illuminant, but until now only instruments conforming to M0 (Illuminant A, the same as is used for density measurements) and M2 (Non–polarised light with UV–cut filter to measure with only light in the wavelength range of 400nm or higher) were available and there were no instruments conforming to M1 (Non–polarised light matching Illuminant D50 or measurement corresponding to D50).

In addition, optional PC software enables easy evaluation of conformance to ISO 12647–2 (Graphic technique and process control for the production of colour separation, hardproof, proof and printing – Part 2: lithographic printing), an inter–national standard for offset printing.

Automatic Wavelength Compensation

With spectrophotometers, white calibration is performed as part of the daily work, and this calibrates the spectral reflectance coefficients. The Spectrodensitometers FD–5 and FD–7 are equipped with the industry's first "Automatic Wavelength Compensation" function which automatically calibrates in the wavelength direction when white calibration is performed. In this way, the wavelength compensation that was conventionally performed during manufacturer maintenance can now be performed as part of daily work, greatly improving the reliability of measurement values.

Scan measurements (only FD-7)

In addition to spot measurements of density values or colorimetric values, manually scanned measurements are also possible when the instrument is connected to a PC.

Ambient light measurement (only FD-7)

The lighting under which the sample will be assessed can be measured and colorimetric data for the sample displayed for that light source. This offers complete flexibility for the numerical assessment of printed material under any lighting conditions. The colorimetric values under the measured light source can be used as a user–defined light class for further calculation.

About Konica Minolta Sensing Europe B.V.:

Konica Minolta Sensing Europe B.V., an affiliate of Konica Minolta Sensing Inc. Japan is a leading provider of measurement solutions for applications in the fields of Colour & Appearance, Light, Display and 3D form digi–talisation. Konica Minolta Sensing Europe serves the industry in the EMEA region with Branches and Distribu–tors in more then 30 countries. Derived from our state–of–the–art optical and image processing technologies, measuring solutions from Konica Minolta Sensing help improve quality control and support R&D in a wide variety of industries.

Our colour management solutions are essential to control and monitor quality in many areas of manufacturing, such as automotive, coatings, plastic, construction materials, food, chemicals and pharmaceutics. In the inno–vative area of Light & Display technology, Konica Minolta Colour Analysers enjoy an "industry standard" position. Our 3D digitisers are widely used in applications such as medicine, cultural heritage and academic education and research. Konica Minolta Sensing will continue to innovate, utilising the latest high–accuracy sensing tech–nology providing solutions which meet the ever–changing needs in diverse fields.

Konica Minolta Sensing Europe B.V.
Swiss Branch Dietikon
Riedstrasse 6, CH–8953 Dietlikon 1
Andreas Ullrich

Phone: +41 (0) 43 322 98 02
Fax: +41 (0) 43 322 98 09
andreas.ullrich@seu.konicaminolta.eu