

Applications Information

MCS 500

Colour Measurement

Quality Control of

Coating Processes



株式会社 スペクトラ・コープ

〒164-0011 東京都中野区中央4-4-5第一小林ビル

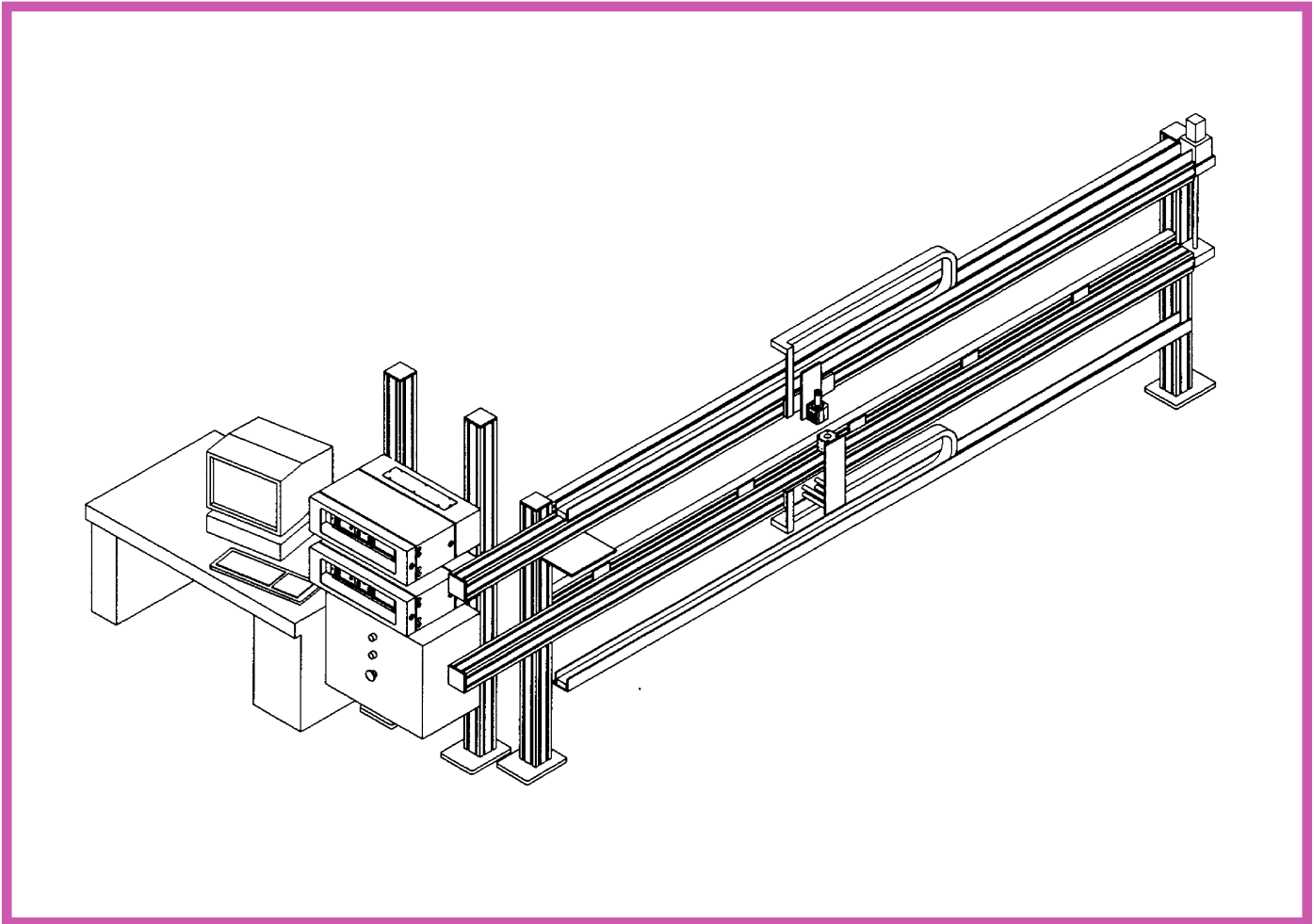
Tel: 03-5328-2858 Fax: 03-5328-2859

URL <http://www.spectra.co.jp>

Process description

A great number of applications, such as panes, displays, etc. cannot be imagined today without the use of glass. This is due to its properties such as transparency, chemical stability, environmental compatibility, scratch resistance. The optical and thermal properties of glass can be influenced.

Vacuum coating is a technique that can give glass such particular properties. By vacuum coating, ultra-thin layers are applied to the glass surface. To achieve the desired quality of the coatings it is very important to monitor the applied layers.



System description

The system serves for quality control after the coated flat glass has passed through all technical production processes. The system collects the data of transmission and reflection measurements performed by the system itself. It calculates the colour data according to CIELAB, and displays them graphically and numerically on the screen of the control computer. The measuring heads are

firmly mounted to a carriage traversing on a rail. The measuring heads are controlled and positioned in such a way that measurements can be taken at any point of the surface and underside. The measured results can be used as proof of quality according to ISO 9000.

System description

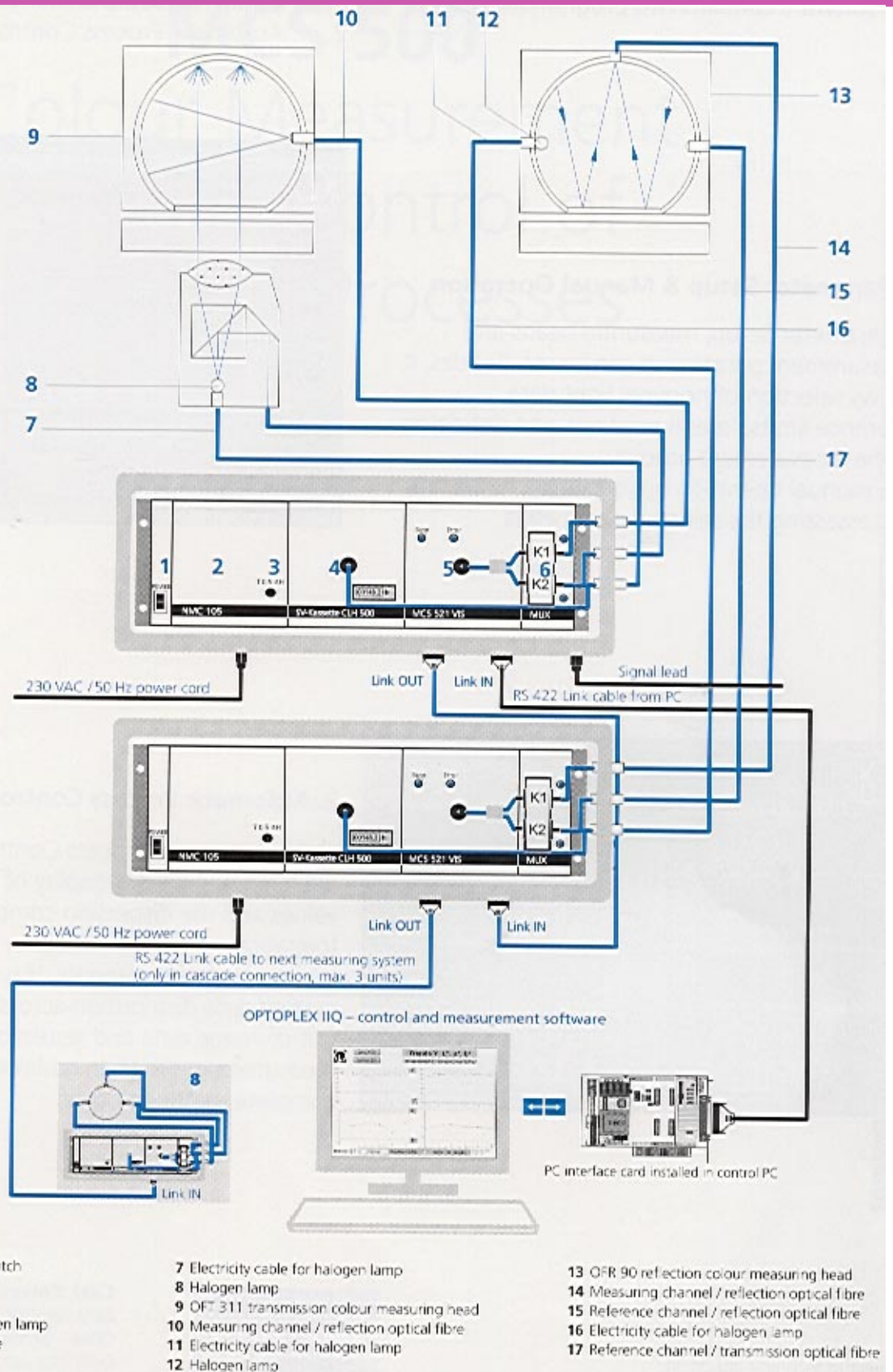


Fig. 1 System Overview

Software

The software contains two program modules:

1. Parameter Setup & Manual Operation
2. Automatic Process Control

1. Parameter Setup & Manual Operation

In Parameter Setup, measuring heads and measurement parameters can be set. Besides, it allows selection of nominal light data, tolerance limits, lateral positions and definition of the measurement process.

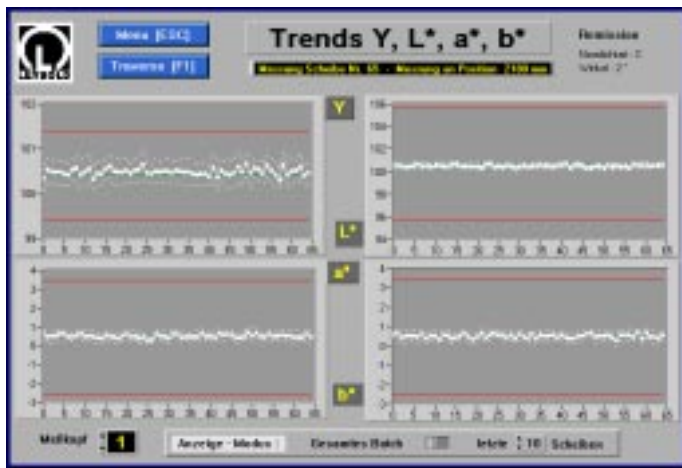
The manual operation option serves for testing and assessing the selected parameters.



2. Automatic Process Control

In the Automatic Process Control Module, the main menu provides display of the trends of mean values and the dispersion compared with the tolerance zone.

In running measurements, the system can display current data distribution across the scanned area, out-of-range data and results of preceding measurement series. In addition, the user can load complete methodologies.



Subject to technical alteration

263259-7564.161



Carl Zeiss

OEM - Spektroskopik
D-07740 Jena

Phone +49 36 41/ 64 28 38

Fax +49 36 41/ 64 24 85

e-mail: mack@zeiss.de