

# Lovibond® Colour Measurement Tintometer® Group



## PFXi-880/CIE

Colour Measurement for Transparent Samples



- Integrated RCMSi Technology for Remote Calibration
- Automatic and Non-subjective Colour Measurement
- Unique Long Path Length Chamber - Accommodates up to 6"/153mm Cells
- Very Rugged, Chemically Resistant, Steel Construction

Part Number: 1378806

### Integrated RCMSi Technology for Remote Calibration

The PFXi series of spectrophotometric colorimeters introduces a unique concept in liquid colour control: RCMSi technology (Remote Calibration & Maintenance Service via internet). You can now benefit from the capability for remote calibration and servicing via the internet - eliminating any costs and time delays associated with servicing and guaranteeing compliance with standards. Watch the RCMSi video to see how easy the procedure is.

### 153mm (6") Sample Chamber

The long path length cell chamber enables you to measure extremely unsaturated, light samples and colour scales which are defined with long path lengths including the Lovibond® RYBN and AOCS Tintometer® colour, guaranteeing compliance with AOCS, ISO and ASTM standards.

### Optional Integrated Heater Unit

The PFXi-880, -950 & -995 series are available with an optional integrated heater unit. This is a critical feature when dealing with materials such as fats and waxes whose temperature needs to be maintained at a constant temperature +10°C above the "Cloud Point" of the material.

### 16 Wavelength Filters

Ensure high precision, accurate spectral data.

### Automatic and Non-subjective Colour Measurement

The PFXi range provides absolute results. Automatic instruments communicate in clear terms, accurately and reliably with no opportunity for human error or misjudgement.

### Consistent Data Compliant with International Standards

The PFXi range automatically measures colour and displays results directly, either according to the traditional grading scales that have been widely adopted as industry standards for colour assessment and control, or in terms of internationally recognised CIE values and spectral data.

### Very Rugged, Chemically Resistant, Steel Construction

The robust steel construction enables you to use the PFXi even in the harshest of environments.

### Easy Maintenance with Removable Sample Chamber

The instruments include a robust steel sample chamber which is easily removed so you can clean it or replace it should spillage occur.

### Extensive and Flexible Choice of Colour Scales

You can choose from a selection of over 20 different, internationally recognised scales in a variety of combinations.

### Remote Upgrade Facility

Uniquely, however, you do not need to make the choice of scales at point of purchase. The PFXi instruments are upgradeable in the field - so you can add a scale at a later date.

### Calculation and Description of "Off-Hue" Status

This is a useful facility that enables you to reveal whether the sample colour is characteristic of the selected scale. Where appropriate, it includes a description of hue difference (eg. redder, greener), relative

saturation (stronger or weaker) and an off-hue factor (a relative measure of the distance away in colour space of the sample colour from the "true" colour scale).

## Supplied with Colour Control Software for Data Analysis

The software allows you to generate spectral and CIE diagrams as well as analyse spectral data. It also permits direct control of the instrument from the computer.

## Conformance Standard, Cells and Spare Bulb Included

For regular conformance checking, certified colour reference standards are also available for routine calibration and verification of test data. Conformance filters are supplied with a Certificate of Conformity - giving you the assurance of their colour values and confirmation that they were manufactured under the control of The Tintometer Ltd's ISO 9001 quality system.

## Output Conforming to GLP Including Date, Time, Sample & User ID

The adaptable software and design allow you to configure the PFXi to your requirements. You can set the display language, program the instrument to only display the scales of interest and restrict access to the menu system.

## Accommodates a Wide Range of Sample Cells and Tubes

As well as standard colorimetry cells, the PFXi-880/950/995 series can be used with a range of tubes and standards, flow-through and disposable spectrophotometer cells.

## Extensive range of accessories

A thermal printer, sample chamber, additional cells, replacement lamps and conformance filters represent some of the additional accessories you can obtain for the PFXi Series.

## Industry

Chemical Industry | Food and Beverage Industry | Industries Others | Oil and Gas | Pharmaceutical Industry

## Application

Beer, Malts and Caramels | Chemicals | Coatings | Edible Oils and Fats | Food and Beverage | Household Products | Medical and Clinical Products | Petroleum Oils and Waxes | Pharmaceuticals and Cosmetics | Plastics | Sugar Solutions, Syrups and Honey | Waste-Water Treatment

## PFXi-880/CIE

The PFXi series of spectrophotometric colorimeters introduces a unique concept in liquid colour control: RCMSi technology. You can benefit from the capability for remote calibration and servicing via the internet - saving the cost and time associated with servicing and guaranteeing compliance with standards.

The PFXi-880/950/995 series ensure high precision results from the 16 filter wavelength technology. With an extended path length capacity of up to 6" (153 mm) and an optional heater to sustain the temperature of the sample to +10°C above its "cloud point", they meet the demand for consistent and reliable colour data for a wide range of samples.

## Technical Data

<b>Applicable Standard</b>	ASTM E308
<b>Colour Type</b>	Transparent
<b>Measuring Principle</b>	16 interference filters
<b>Repeatability</b>	±0.0002 CIE xy Chromaticity on measurements of deionised water
<b>Detector</b>	blue enhanced photodiode
<b>Display</b>	240 x 128, back-lit graphic display, (white on blue)
<b>Interfaces</b>	USB RS 232 Ethernet
<b>Path Length</b>	0.1 - 153 mm (0.004" - 6")
<b>Measuring Geometrics</b>	0° - 180° transmission
<b>Internal Storage</b>	100,000+ Measurement
<b>Measurement Time</b>	less than 30 seconds
<b>Power Supply</b>	Universal (90 - 240 VAC), via external power supply
<b>Sample Chamber</b>	max 6" (153mm) cells
<b>Keypad</b>	23 key tactile membrane keypad; washable polyester with audible feedback
<b>Instrument Housing</b>	Fabricated steel with tough, textured paint finish
<b>Spectral Range</b>	420 - 710 nm
<b>Bandwidth</b>	10 nm
<b>Baseline Calibration</b>	Single key press; fully automated
<b>Illuminants</b>	CIE Illuminant A CIE Illuminant B CIE Illuminant C CIE Illuminant D65
<b>Portability</b>	Benchtop
<b>Observer</b>	2°, 10°
<b>Compliance</b>	CE RoHS WEEE
<b>Languages User Interface</b>	English, French, German, Italian, Portuguese, Russian, Spanish, Chinese, Japanese
<b>Dimensions</b>	515 x 170 x 196 mm

## Delivery Scope

- PFXi Series Instrument
- External Power Supply
- Set of 3 Power Leads (UK, European and United States)
- USB and LAN Cable
- Quick Start Guide
- USB Memory Stick (Containing Manuals)
- RCMSi Starter Pack
- Certificate of Conformity
- Accessory Box with 5 Volt Halogen Lamp, Conformance Filter and W600/OG/10 Cell
- Optional Upgrade to Klett Colour Scale

## Accessories

Title	Part Number
PFXi external power supply pack	131219
Acid Wash tube	131840
Holder for standard spectrophotometer cells (12.5 mm width)	131907
Adapter for 10.65 mm tubes	132800
Adapter for 33 mm tubes	132810
Dark sample cell for CIE values, 1 mm path length	132820
Replacement Sample Chamber for PFXi 880/950/995	133840
RCMSi Certified Calibration Pack - Full	134410
RCMSi Certified Calibration Pack - Conformance	134420
RCMSi Certified Calibration Pack - Starter	134430
PFXi Instruction CD including Windows Software	137460
PFXi IQ/OQ Documentation	137680
Flow through control software	137690
PFXi heater upgrade pack	137880
PFXi Thermal Printer	137891
PFXi Lamp 5V	138180
Tube, 10.65 mm diameter	352290
Tube, 33 mm diameter for ASTM Color	352300
Flow through cell, 10 mm path length	658020

### Tintometer GmbH

Lovibond® Water Testing  
Schleefstraße 8-12  
44287 Dortmund  
Tel.: +49 (0)231/94510-0  
sales@lovibond.com  
www.lovibond.com  
Germany

### The Tintometer Limited

Lovibond House  
Sun Rise Way  
Amesbury, SP4 7GR  
Tel.: +44 (0)1980 664800  
Fax: +44 (0)1980 625412  
sales@lovibond.uk  
www.lovibond.com  
UK

### Tintometer China

9F, SOHO II C.  
No.9 Guanghualu,  
Chaoyang District,  
Beijing, 100020  
Customer Care China Tel.: 4009021628  
Tel.: +86 10 85251111 Ext. 330  
Fax: +86 10 85251001  
chinaoffice@tintometer.com  
www.lovibond.com  
China

### Tintometer South East Asia

Unit B-3-12, BBT One Boulevard,  
Lebuh Nilam 2, Bandar Bukit Tinggi,  
Klang, 41200, Selangor D.E  
Tel.: +60 (0)3 3325 2285/6  
Fax: +60 (0)3 3325 2287  
lovibond.asia@tintometer.com  
www.lovibond.com  
Malaysia

### Tintometer Brazil

Caixa Postal: 271  
CEP: 13201-970  
Jundiaí – SP  
Tel.: +55 (11) 3230-6410  
sales@lovibond.us  
www.lovibond.com.br  
Brazil

### Tintometer Inc.

6456 Parkland Drive  
Sarasota, FL 34243  
Tel: 941.756.6410  
Fax: 941.727.9654  
sales@lovibond.us  
www.lovibond.us  
USA

### Tintometer India Pvt. Ltd.

Door No: 7-2-C-14, 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> Floor  
Sanathnagar Industrial Estate,  
Hyderabad, 500018  
Telangana  
Tel: +91 (0) 40 23883300  
Toll Free: 1 800 599 3891/ 3892  
indiaoffice@lovibond.in  
www.lovibondwater.in  
India

### Tintometer Spain

Postbox: 24047  
08080 Barcelona  
Tel.: +34 661 606 770  
sales@tintometer.es  
www.lovibond.com  
Spain