

# Lovibond® Colour Measurement Tintometer® Group



## PFXi-880/S

Colour Measurement for Sugar Solutions, Syrups & Honey



- Integrated RCMSi Technology for Remote Calibration\*
- Optional Heater Keeps Samples Above The "Cloud Point"
- Automatic and Non-subjective Colour Measurement
- Unique Long Path Length Chamber - Accommodates up to 6"/153mm Cells

Part Number: 1378805

### 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

Sugar Solutions, Syrups and Honey

## PFXi-880/S

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>      | 3. Ber. Int. Fruit Juice 1961<br>AOCS Cc 13e-92<br>AOCS Cc 13j-97<br>ASTM E308<br>BS684<br>IS 548 (part 1)-2010<br>ISO 15305<br>ISO 27608<br>MS 252 : Part 16<br>MS 817 : Part 12 |
| <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<br>RS 232<br>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>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<br>CIE Illuminant B<br>CIE Illuminant C<br>CIE Illuminant D65  |
| <b>Portability</b>              | Benchtop  |
| <b>Observer</b>                 | 2°, 10°   |
| <b>Compliance</b>               | CE<br>RoHS<br>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, 1 x W600/OG/100 Cell

| <b>Title</b>  | <b>Part Number</b> |
|---|--------------------|
| 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             |

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