

TRANSMITTANCE COLORIMETER

INTRODUCTION

Colour variations of transparent liquids such as varnishes, solvents, resins, tensides, oils etc , may be caused by contamination or impurities, process inconsistencies or excessive weathering. Reliable and accurate measurements are therefore essential to ensure consistent production standards.

Colorimetric or spectrophotometric instruments provide objective measurements directly converted to colour scales or CIELAB colour space with traceable documentation. Furthermore they are capable of identifying any coloured products even when falling outside the scope of conventional scales.

Ref: PFX195



The PFX195 spectrophotometric colorimeter provides objective unbiased colour data according to a comprehensive range of established industry colour scales, spectral data and CIE values.

A Windows software programme is included to allow data to be transferred to a PC and also provides for remote control. Simple operation, comprehensive facilities and easy maintenance make this colorimeter the perfect instrument for both laboratory and production environments.

FEATURES

- Path length: 0.1 to 50mm.
- Can be used with Ø 10.65mm tube or 12.5mm cell, with optional adaptor.
- Data storage: up to 32 data sets.
- RS232 port, parallel printer port.
- Test with 1 certified glass filter (included), or optional filter set and colour standards.
- Data collecting software for Windows included.

PERFORMANCE

- 9 interference filters
- Spectral ranges: 420-710nm
- Repeatability: - chromaticity x/y: ± 0.0004
- transmittance: $\pm 0.5\%$
- Light source: filament lamp, easy to replace by user
- Colour systems: XYZ, xyY, CIE L*a*b*, ΔE^* , L*C*h
- Spectral data: 0-100%, optical density: 0-2.5

PERFORMANCE (cont'd)

- 5 Scales:

Scale	Path Length (mm)	Range
Pt. Co. APHA (Hazen)	50	0 – 500mg/l
Iodine	10	1 – 500 units
Gardner	10	0 – 18 units
Yellow Index	10, 25, 50	

ORDERING INFORMATION

Ref: PFX195	Automatic colorimeter PFX195
Ref: PFX195/1	Optical fused cell 10 mm length
Ref: PFX195/2	Optical fused cell 50 mm length
Ref: PFX195/3	Test tube Ø 10.65mm
Ref: PFX195/4	Adaptor for 10.65mm test tube
VCC3000/3,4,5	Individual certified standard 500ml, Gardner no 2,5 or 8
PFX195/5...9	Individual certified standard 500ml, Pt. Co. no 5, 10, 15, 30 or 50
PFX195/10	Set of 4 conformance filters, Gardner no 2,8,12 & 17
PFX195/11	Set of 5 conformance filters, Pt. Co./ APHA (Hazen) no 5,20,50,100.300

Ref: LICO 100



This colorimeter is a cost effective alternative to subjective visual assessment. Easy to use, it offers high precision measurement and perfectly repeatable routine control of clear transparent liquids with 5 built-in scales.

FEATURES

- Use with Ø 11mm or 50 x 10mm cuvettes with automatic detection.
- Output to portable printer LD500.
- Battery operated, with 90 – 240V charger.
- Certified 6 Addista test solutions, 20 of each type of cuvette included.



PERFORMANCE

- 8 spectral filters 400-700nm, Krypton lamp with reference beam, automatic zero.
- Repeatability: ± 3 Hazen with 50mm path
- 5 Scales:

Scale	Cuvette Type	Range
APHA (Hazen)	11 & 50	0-1000
Iodine	11	0-120
	50	0-7
Gardner	11	0 - 18
	50	0-5
Saybolt	11 & 50	+30...-16
ASTM1500	11	0-8

ORDERING INFORMATION

Ref: L100	Lico 100 colorimeter
Ref: L100/1	Printer LD500
Ref: L100/2	One-way glass cuvette \varnothing 11mm / 490pcs
Ref: L100/3	Holder for 16 cuvettes \varnothing 11mm
Ref: L100/4	One-way plastic cuvette 50 x 10mm / 50pcs
Ref: L100/5	Holder for 7 cuvettes 50 x 10 mm

Ref: LICO 400



This spectrophotometer provides high accuracy measurement to 11 colour scales and also to the CIELab system. This allows any coloured transparent liquid, even falling outside traditional scales, to be exactly identified with universal colorimetric data. Versatile operation with selectable colorimetric or photometric modes. Automatic data logging to built-in floppy drive or included PC data processing software.

FEATURES

- Use with Ø 11mm or 50 x 10 mm cuvettes with automatic detection.
- Memory - 500 measurements.
- RS232 port for PC or LD500 printer.
- Parallel printer port for DPU414, or compatible HP/Epson.
- Scanner port (optional bar code reader).
- Test with certified Addista solutions (included) or optional glass filters.
- SpectralQC software included.

PERFORMANCE

- Monochromator: concave grating.
- Spectral ranges: - Colour measurement: 380-720nm / 10nm.
- Photometer: 340-900nm / 1nm.
- Repeatability: $\pm 0.1 \Delta E^*$.
- Light source: halogen lamp.
- Colour systems: Txyz, XYZ, xyY, CIE L*a*b*, Lab(h), ΔE^* , CMC and components, Yellow Index.
- Photometric functions: absorbance (-3A...+3A) and transmittance.
- 11 Scales:

Scale	Cuvette Type	Range
APHA (Hazen)	11 & 50	0-1000
Iodine	11 / 50	0-120 / 0-7
Gardner	11 / 50	0 - 18 / 0-5
Saybolt	11 & 50	+30...-16
ASTM1500	11	0-8
Lovibond 5.25"	11 & 50	Y: 0-120, R: 0-20
Lovibond 1"	11 & 50	Y: 0-70, R: 0-12
Hess-Yves	11 & 50	0-500
Klett, European & US Pharmacopea		

Both Lico 100 & 400 comply with International Standards ASTM D156, ASTM D263, ASTM D1045, ASTM D1209, ASTM D1500, EN 1557, DIN 6162

ORDERING INFORMATION

Ref: L400	Lico 40 Spectrophotometer
Ref: L400/1	Certified check filter set
Ref: L400/2	Bar code reader
Ref: L400/3	One-way plastic cuvette 10 x 10mm / 1000pcs
Ref: L100/1	Printer LD500
Ref: L100/2	One-way glass cuvette Ø 11mm / 490pcs
Ref: L100/3	Holder for 16 cuvettes Ø 11mm
Ref: L100/4	One-way plastic cuvette 50 x 10mm / 50pcs
Ref: L100/5	Holder for 7 cuvettes 50 x 10 mm

Owing to continuous development. we reserve the right to introduce improvements and modify specifications without prior notice.

Sheen INSTRUMENTS

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