

AQUALABO

Smart water solutions



PRIM Light & Advanced

COMPACT VISIBLE SPECTROPHOTOMETER

PRIM Light & PRIM Advanced spectrophotometers are combining a high level of performance with an simple and intuitive manipulation. Compacts and light, these new spectrophotometers are ideal for standard applications in education or in laboratory.

- **PRIM Light** : Basic internal software including standard spectrophotometric applications in absorbance, transmittance and single-standard concentration.
- **PRIM Advanced** : Advanced applications for absorbance, transmittance, multi-standards concentration, kinetics, multi-wavelengths and spectrum scanning.

ADVANTAGES



- **Internal applications** : All applications, basic or standard, are included and immediately available on each spectrophotometer.
- **50 methods memory** : All PRIM spectrophotometers can store up to 50 methods in their memory. Stored application can be recalled any time without reprogramming the method parameters. Before running the method, it is possible to check the stored parameters by pressing only one button from the navigator key.
- **Display** : 2 lines of 16 digits, back-lit and highly contrasted for best readability. Real-time and permanent display of wavelength and absorbance in any measurement mode.
- **1 button = 1 function** : Keyboard is clearly and simply organized and every button corresponds to one specific function. Operation is simpler, faster and tampering is avoided.
- **Safety - Low power voltage** : Mandatory in education for pupil protection, and increasingly recommended on every lab where a risk is existing due to water surroundings. Powered by low voltage, any electric shock is avoided.
- **Internal calibration filter** : In order to certify accurate and repeatable results, the spectrophotometer calibrates itself automatically on each start-up granted to its internal didymium filter ; a complete report is automatically printed on the external printer if connected.
- **Pre-adjusted halogen lamp** : Located at the rear side of the instrument, the lamp is pre-adjusted, it can be replaced quickly and easily without any tool.
- **Compact** : Light 2,5 kg and compact with only A4 size, PRIM can be handled easily.

A WIDE CHOICE OF MEASURING MODES

- **Absorbance / % Transmittance** : Automatic wavelength selection from 330 to 900 nm, per steps of 1 nm, with the Absorbance value and the % of Transmittance monitored at real time.
- **Concentration calculation** : Concentration measurement of unknown samples. Spectrophotometer calibration using factor or standards (till 8) of known concentration.
- **Kinetics** : Analysis of Absorbance variation as a function of the time. Program to include lag time, reaction time. Automatic calculation of Absorbance variation during each segment of time or the total time programmed.
- **Spectrum scan*** : A curve of Absorbance values as a function of the wavelength, with the detection of Absorbance maxima and minima. User-definable scan mode using the entire or partial visible range: 330 to 900 nm, per 1 nm steps, with automatic recording of the base line.
- **Multi-wavelengths mode** : Measure of ratio and difference of Absorbances at 2 wavelengths. Simultaneous display of calculation results as well as individual Absorbance values at each wavelength

* On optional external printer.

PRIM, A SPECTROPHOTOMETER SUITABLE FOR ALL KINDS OF APPLICATIONS

- **Education** : Designed for various vocational educations, from senior high school to university level. Resident measuring modes made it easy to teach the Beer-Lambert law : concentration, kinetics, colorimetry or spectrum measurement. PC connection via free SPECTRALAB software.
- **Laboratory** : Thanks to its wide choice of analytical modes, PRIM spectrophotometers can be used for most routine spectrophotometric laboratory applications.
- **Industry** : Its small size and ruggedness makes PRIM an ideal spectrophotometer for industrial surroundings. Employed for Quality Control, it can easily be placed at the delivery point as well as at all stages of the manufacturing chain.
- **Ordering Information** :
 - 70CI0377 PRIM Light 10 mm cell
 - 70CI0381 PRIM Advanced 10 mm cell
 - 0G6349 Solid calibration standards set for spectrophotometers (Visible)
 - 0J6620 Thermal printer KIOLYNE black & white
 - 0I6621 Paper for KYOLINE printer, 10 rolls
- **Standard delivery** : PRIM spectrophotometer, 115/230V - 50/60Hz transformer, box of 100 plastic cuvettes (PRIM 10 mm), operation manual.

TECHNICAL SPECIFICATIONS

Spectral range	330-900 nm
Bandwidth	10 nm
Photometric accuracy	+/- 0.007 Abs (0.2 Abs) +/- 0.010 Abs (0.5 Abs) +/- 0.020 Abs (1.0 Abs)
Accuracy	+/- 2 nm
Photometric range	0 -200 %T
Repeatability	+/- 2 nm
Drift	< 0.005 A/h @ 340 nm
Stray light	< 0.5 %T @340 nm
Display	Alphanumeric LCD back-lit 2 lines height 8 mm 16 characters
Zero	Automatic
Light sources	Halogen
Detector	Silicon diode
Interface	Serial RS232C
Cell holder	1 cuvette 10 mm
Power	115/230V - 50/60Hz
H x w x d	180 x 280 x 220 mm
Weight	2.5 kg

SOFTWARE EQUIPEMENT

PRIM	Light	Advanced
Absorbance	YES	YES
% Transmission	YES	YES
Concentration With factor	YES	YES
Concentration With 1 standard	YES	YES
Concentration With 1 to 8 standards	NO	YES
Kinetics	NO	YES
Multi-wavelengths	NO	YES
Spectrum scanning	NO	YES
Peaks and valleys detection	NO	YES
Multi-language	YES	YES
Automatic stand-by	YES	YES