AUTO DIGITAL COLORIMETER

COLOUR	FILTER
VIOLET	400 nm
BLUE	450 nm
GREENISH BLUE	520 nm
YELLOW GREEN	560 nm
YELLOW	570 nm
ORANGE	620 nm
RED	670 nm

SET ZERO   FILTER ↑   FILTER ↓

CM-21

PRIMAN™
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CM-21

DIY Colorimeter

PRIMAN INSTRUMENTS PVT.LTD

Product Overview

The DIY Colorimeter is a versatile and accurate device designed for measuring the absorbance of solutions at multiple wavelengths. Ideal for educational, environmental, and industrial applications, this colorimeter offers user-friendly operation with customizable wavelength settings and a clear LCD display.

Technical Specifications

Display: 16x2 LCD (RG1602A)

LED Source: RGB LED for selectable wavelengths

Photodetector: Analog photodetector

Buttons: 3-button keypad for zeroing and wavelength selection

Principles

UREA, Cr, TP, Glu, ALT, AST, ALP, GGT, LDH, CK, Alb, T-bil, D-Bil, Ca, Mg, Cl, Na, K, etc.

Available Wavelengths:

400nm, 450nm, 520nm, 540nm, 578nm, 620nm, 670nm

Sample Volume

Minimum Sample Volume: 1 mL

Display

Type: 16x2 LCD (RG1602A)

Detector

Type: Analog photodetector
Resolution: 10-bit ADC (0-1023)

Accuracy

Voltage Measurement Accuracy: ±0.01V

Concentration Accuracy: ±5% (dependent on calibration quality and solution preparation)

Operating Conditions

Temperature Range: 10°C to 40°C
Humidity Range: 0% to 85% RH (non-condensing)

User Interface

Button

Button 1: Set zero (baseline) measurement
Button 2: Cycle through wavelengths (decrement)
Button 3: Cycle through wavelengths (increment)

LCD Display: Shows instructions, measured voltages,and concentrations

Physical Characteristics

Dimensions: L 250mm X B 175mm X H 100mm (approx.)
Weight: Approximately 550g (varies with enclosure materials)

Power Supply

Input Voltage: 5V DC (via USB or external power supply**)**

Current Consumption: Approximately 100 mA

Calibration

Standard Solutions: Use at least 5 standard solutions for calibration (0 ppm, 20 ppm, 40 ppm, 60 ppm, 80 ppm, 100 ppm)

Calibration Data Storage: Stored in microcontroller memory

Additional Features

Portability: Compact and lightweight design for easy transport and use in the field.

Ease of Use: Simple button interface and clear LCD instructions for user-friendly operation.