

Brief Overview

Model: Hb 523

INTRODUCTION

This device is a specialised photometer for measuring blood haemoglobin concentration by its optical density (a linear correlation).

For photometry, the prepared test solution and sample are mixed and placed in a standard 10mm photometric cuvette. The optical density of the haemolysed blood solution is measured over a narrow spectral band and automatically converted to read-out directly as Hb concentration in g/l on a 3 digit liquid crystal display.

The measurement of the optical density is carried out at a wavelength of **523nm**, the crossing point of absorption curves of various haemoglobin forms, which are thus detected with equal sensitivity. Precision and excellent reproducibility are ensured by use of this wavelength, unique optical circuit with narrow-band interference optical filters and a very high sensitivity electronic processing unit. In contrast to other photometers and colorimeters, no zero adjustment or calibration is required and no calibrating solutions are needed. The supplied individual Control Standard (special permanent coloured optical glass) is uniquely matched to each unit and is used to verify factory calibration.

DESCRIPTION

Dimensions: (W, H, D): 178 x 43 x 127mm., Weight: 300gm. Measurement range: 20-300g/l

Designed as a small, portable optical and electronic device with sample aperture on the top surface. It provides results comparable with full size bench units. It houses a CPU, complex components (coated to protect from environmental humidity) and flash memory storage of calibration settings as well as last reading data. Readout is via a 3 digit LCD display.

The device is powered by 3 internal AA type alkaline batteries (supplied) or can be powered from mains supply using an optional low voltage safety adaptor. A socket for this is provided at the rear. On the base is a sliding cover that provides access to the internal batteries. The batteries provided have an expected life of five years or about one million tests in normal use.

Measurement is initiated automatically and repeated every 4 seconds whilst a cuvette or the Control Standard is present in the device. Each measurement is accompanied by a short audible signal and the result instantly displayed directly on the 3 digit liquid crystal display as Hb concentration in g/l .

The measured haemoglobin concentration value remains displayed whilst a cuvette is in the aperture and for up to 30 seconds after its removal. The device then automatically turns off and stays off until the next measurement is initiated by reinsertion of a cuvette. The last reading may be recalled from memory at any time by press of a button.

Kit Contents - HBM.010

<u>Description</u>	<u>Quantity</u>
DHT Hb523 Photometric Hb meter	1
Optical cuvette, 10 mm light path	1
Control Standard	1
Batteries, Alkaline AA - pre-installed (with isolating strip)	3
Operator's/Technical Manual	1

OPTIONAL Accessories Available

<u>Description</u>	<u>Order Code</u>	<u>Quantity</u>
2 Pin AC/DC adapter: 220VAC/5V DC	ACD.220	1
Graduated glass pipette to 2ml	PDE.120	1
Graduated glass pipette to 5ml	PDE.150	1
Sahli type glass micropipette, 20ul	PDE.170	1
Glass capillaries calibrated to 20ul	CAP.030	250
"Rollpette" Capillary/micropipette filler	CAS.020	1
Lancets (sterile)	LCT.010	200
Spare Glass Optical cuvettes 10 mm	CUV.040	4
Plastic Optical cuvettes 10 mm	CUV.020	100