



Mahatma Gandhi University, Kerala

Supply & Installation of the Scientific Equipment- Micro volume UV-visible spectrophotometer

Sl.No	Qty.	Equipment Name	Particulars
1.	1 No	Micro volume UV-visible spectrophotometer	<ul style="list-style-type: none"><li>• 230 V/ 50-60 Hz</li><li>• Quantification of sample volumes from 'Microlitres to Millilitres'</li><li>• Compact for kinetic studies, rapid and reliable analysis of Nucleic acids and proteins, OD600, for dye methods (parallel measurement of biomolecule and dye label), for calculating the FOI (frequency of incorporation, marking density)</li><li>• Measure and record UV/Vis spectral ranges or just measure individual wavelengths from 200 nm to 830 nm or better</li><li>• 5.7 inch or better colour display in combination with the keys of the device</li><li>• Allows analyzing and processing curve sections in detail view directly on the instrument display</li><li>• Can transfer the measured data to a PC by connecting the device directly to a PC without any additional software or transfer the data via USB stick and three-year warranty</li><li>• Receiver: CMOS Photodiode array</li><li>• Pre-programmed methods for a quick start</li><li>• Guided software sequence to minimize errors</li><li>• Direct operation on the device, no PC required</li></ul>

			<ul style="list-style-type: none"> <li>• Measuring results (&gt;1,000) can be saved directly on the device</li> <li>• &gt;100 method programs or better in memory</li> <li>• Integrated data processing option for specific methods</li> <li>• Optical system - Absorption single-beam spectrophotometer with reference beam</li> <li>• Light source - Xenon flash lamp virtually lasts a lifetime</li> <li>• Wavelengths: 200 nm to 830 nm, smallest increment: 1 nm, Spectral band width: <math>\leq 4</math> nm or better</li> <li>• Photometric measuring range: 0 A to 3.0 A at 260 nm or better</li> <li>• Random error: <math>\leq 0.002</math> if A = 0, <math>\leq 0.005</math> (0.5 %) if A = 1, Systematic error: <math>\pm 1\%</math> if A = 1 or better</li> <li>• Adjustable temperature range: 20°C to 42°C with smallest step size of 0.1°C or better</li> <li>• Systematic temperature error: <math>\pm 0.2^\circ\text{C}</math> at 25°C to 42°C or better</li> <li>• Random temperature error: <math>\pm 0.15^\circ\text{C}</math> at 25°C to 42°C or better</li> <li>• Weight: 5 to 6 kg</li> <li>• Dimensions (W× D × H): 295 mm × 400 mm ×150 mm or better</li> </ul> <p><b>Micro Cuvette:</b></p> <ul style="list-style-type: none"> <li>• minimum three numbers</li> <li>• Measuring surface made out of quartz with hydrophobic surface coating to work in UV &amp; visible region</li> <li>• Sample volume: <math>\geq 1.5</math> mL (dsDNA); <math>\geq 3</math> mL (Protein) or better</li> <li>• Detection range: 2.5 - 1500 ng/mL (dsDNA) or better</li> </ul>
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