

UV/Vis/NIR Spectroscopy



Key Features:

- Fully baffled detectors to prevent first strike light from reaching the detectors
- New design sample holder for improved sampling positioning
- Port fraction ratio of less than 3% meeting the requirements of many application needs
- Compatible with all high LAMBDA units 650, 750, 850, 950 and 1050 providing enhanced capability and performance to the line of LAMBDA units

100 mm Diffuse Reflectance and Transmission Integrating Sphere Accessory for All High-End LAMBDA Systems

Introduction

The 100 mm integrating sphere is a new design capable of being used with all high end LAMBDA systems. The module is available in two configurations which include PMT/

Pbs detector and PMT/InGaAs detector providing the highest level of performance in a cost effective package for current LAMBDA users as well as new customers.

The new sphere design utilizes two measurement ports, (Transmission and Reflectance) with a dedicated reference beam only entrance only port thereby minimizing errors caused by port fraction ratios over 3% and increasing the dynamic range of the sphere over that of the 60 mm or 150 mm spheres. Detectors have been placed as to not interfere with either the transmission or reflectance port allowing clear access to position larger samples in the accessory. A convenient top access port allows easy access to view the beam position during alignment. This is essential when taking advantage of the transmission or reflectance only small spot kits or power sample holder. These kits are a cost effective solution allowing easy measurement of small samples as well as power type samples.

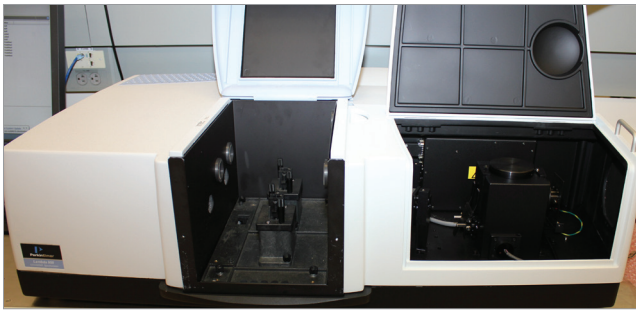


Figure 1. The 100 mm Sphere accessory is compatible with all high end LAMBDA systems

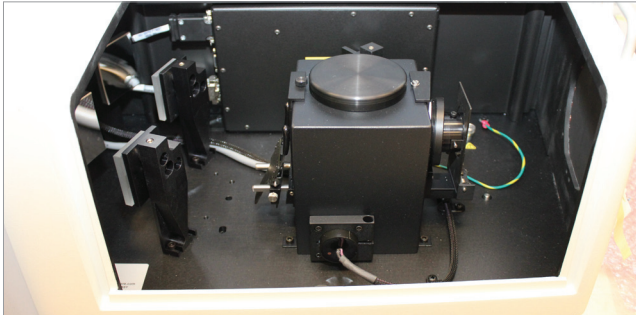


Figure 2. The 100 mm sphere design has been designed to maximize sample accessibility.

Center mount capability is not incorporated in this accessory. Applications requiring this capability will require the use of the 150 mm sphere. Reflectance measurements are supported in both Specular included at 8 degrees or Specular Excluded at 0 degrees similar to the current 60 mm sphere.

100 mm Integrating Sphere part numbers:

PMT / InGaAs detector version: L6020371

PMT / PbS detector version: L6020372

Cost competitive with the current 60 mm sphere offering enhanced measurement capability and flexibility. The 100 mm sphere offers significant improvements over the 60 mm sphere design however for applications requiring absolute measurements the 150 mm integrating sphere is still the only fully compliant device offered.

Full range of accessories including:

Small Spot Transmission Kit: L6022023

Small Spot Reflectance Kit: L6022024

NexGen Power Sample Holder: L6022025

Cuvette Holder for 100 mm Sphere: L6022022

Specifications

Specification	PMT and PbS Detector	PMT and InGaAs Detectors
Part number	L6020372	L6020371
Wavelength range	200-500 nm	200-2500 nm
Detectors		
UV/Vis	R928 PMT: 200-860.8 nm	R928 PMT: 200-860.8 nm
NIR	PbS: 860.8-2500 nm	InGaAs: 860.8-2500 nm
Coating material	Spectralon®	Spectralon®
Optics (Al/MgF ₂ coated)		
M1	FL 1.50 x 2.00 inches	FL 1.50 x 2.00 inches
M2	CV 2.00 x 2.50, 280 mm ROC	CV 2.00 x 2.50, 280 mm ROC
M3	FL 1.50 x 2.00 inches	FL 1.50 x 2.00 inches
M4	CV 2.00 x 2.50, 330 mm ROC	CV 2.00 x 2.50, 330 mm ROC
M5	FL 1.50 x 1.50 inches	FL 1.50 x 1.50 inches
Sample reflectance port dimensions (rectangular)	17 mm (w) x 22 mm (h)	17 mm (w) x 22 mm (h)
Reference transmittance port dimensions (rectangular)	13 mm (w) x 25 mm (h)	13 mm (w) x 25 mm (h)
Sample transmittance port dimensions (rectangular)	11 mm (w) x 24 mm (h)	11 mm (w) x 24 mm (h)
Max sample size (transmittance)	50 mm (w) x 60 mm (h) x 25 mm thick	50 mm (w) x 60 mm (h) x 25 mm thick
Max sample size (reflectance)	45 mm (w) x 60 mm (h) x 35 mm diameter	45 mm (w) x 60 mm (h) x 35 mm diameter