



Efficient focussing and filtering optics are incorporated into the remarkably compact RamanProbe, resulting in a versatile sampling tool for the laboratory. The focused design makes it ideal for analysis through glass and plastic, as well as for measurement of neat solids and surfaces.

The RamanProbe is available for select excitation wavelengths in the visible and near-IR. The patented design (US 5,122,127) completely filters Rayleigh scattering with an attenuation of 10^8 . The probe also eliminates background signals arising in the fiber optic cables for optimum data quality even over 500 feet of fiber. The high Rayleigh attenuation also negates the need for additional filtering in the spectrograph. In effect, our Raman probe can be coupled to any spectrograph, detector, and laser to create a complete Raman system.

Features and Specifications

| | |
|----------------------------------|--|
| Sampling Head | Stainless-steel, cylindrical probe head, 0.5" in diameter (12.7 mm) x 4" length (76 mm), with integrated fiber optics |
| Spectral Range | 250 - 3900 cm^{-1} (Stokes), depending upon spectrograph limits |
| Excitation Wavelengths | 514, 532, 632, 670, 785, 830 nm, others available upon request (see separate specification sheet for 1064 nm probe) |
| Working Distance | 5 mm (std.), 7.5 or 10 mm optional |
| Fiber Configuration | Permanently-aligned combination of two single fibers (105 μm excitation fiber, 200 μm collection fiber) with filtering and steering micro-optics, N.A. 0.22, in rugged polyurethane jacket. Options: Fiber sizes ranging from 50 μm to 500 μm ; stainless-steel fiber jacket; "side-viewing" model with optical output perpendicular to cylindrical body. |
| Filter Efficiency | Patented design for complete filtering of the laser line and quartz spectral contributions from both input and output fibers (O.D. > 8 at laser wavelength). |
| Physical Resistance | Extremely durable sampling head and fiber cable, resistant to physical shock, can be heated to 80°C. Option: High-temperature version resistant to 200°C. |
| Cable Length/ Coupling System | 5 m with FC (std.) or SMA 905 connectors |
| Safety Features | Emission indicator (std.), Class I sample holders available |
| | |

Specifications and prices are subject to change without notice.