General Purpose Raman Probe

Ideal for process and laboratory Raman analysis

High collection efficiency and effective laser line filtering

Customizable optical fiber cable and focusing lens shaft

High throughput optics and a backscattering probe optical design are incorporated into our compact Raman probes, resulting in a highly efficient probe for Raman measurements.

- **Ideal for Raman** measurements of various samples including solids, liquids and gases.
- **Available in various laser excitation** wavelengths in the visible to the near-infrared.
- **Narrow bandwidth bandpass filter** is utilized in the excitation optical train to filter out unwanted silica background generated by the excitation laser in the optical fiber.
- **High Rayleigh rejection long-pass edge blocking filter** (optical density >10-6) is also incorporated into the collection optical train to prevent the laser line from being transmitted into the collection optical fiber.

Features

- ***Low-cost Raman probe** that is ideal for routine Raman measurement applications.*
- *Can be used for Raman measurements of **all types of samples**.*

  *Can be used through **glass and plastic containers**.*
- *Probe body is encased in a **hard anodized aluminum housing**.*
- ***Focusing lens** is housed in a removable stainless steel tube, allowing the flexibility of using different focal length lenses.*
- ***Optical fibers are also removable**, allowing the user the flexibility of using the proper fiber core optimized for a specific Raman instrument.*

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SPECIFICATIONS

Excitation Wavelength	532 nm, 638 nm, 785 nm, 1064 nm; other wavelengths available
Spectral Range	100-4000 cm-1 (the ultimate range is spectrometer detector dependent)
Focal Length	9 mm standard (12,15 and 18 mm optional). Note: Probe efficiency decreases with increasing focal length.
Spot Diameter at the Sample	100 µm for standard fiber (fiber core dependent)
Working Distance	7 mm for standard lens
Numerical Aperture	0.22 with standard lens
Probe Body Dimensions	2.25” L x 0.96” W x 0.58” H
Probe Body Material	hard anodized aluminum
Probe Shaft Dimensions	3/8” diameter x 2” length (custom lengths available)
Probe Shaft Material	316 stainless steel
Filter Efficiency	OD >6 at laser wavelength
Operating Temperature	0-85 °C
Operating Pressure	15 psi
Fiber Configuration	100/600 µm fiber (standard) to laser and spectrometer, respectively; custom optical fiber cores available
Fiber Optic Cable	1 m stainless steel armor cable standard, custom length available
Coupling System	APC connector to laser, SMA connector to spectrometer
Part Number	ORP-XXX-B (with Fiber); ORP-XXX (Probe only)

US +1 727-733-2447
EUROPE +31 26-3190500
ASIA +86 21-6295-6600

info@oceanoptics.com • **www.oceanoptics.com**

05312024