

User-Configurable Raman Probe

Our new, innovative Raman probe design features a modular, user-replaceable tip and fibers, which allows you to reconfigure your sampling optics to each new application. Choose from our standard probe tip, a longer ball probe for process, or our unique SM05 adaptor with 12.7 mm lenses to access focal lengths ranging from sub-mm to up to 50 mm from the probe tip. All probes are optimized for use with our f/1.3 Raman spectrometers to maximize collection efficiency and signal.

Standard Raman Probe

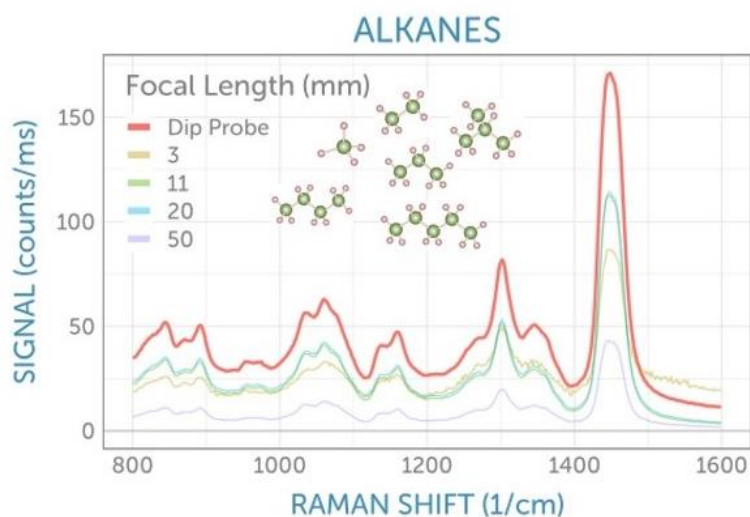
Our standard probe works well for most Raman applications, and can be easily reconfigured by the user with a different probe barrel to adapt to a new application or operating environment. OEMs may also couple directly to the probe body with their own sampling optics or probe barrel. Fibers for routing excitation light from the laser and collected light to the spectrometer are included.



Excitation Wavelength	405, 532, 633, 785, 830, or 1064 nm
Collection Optics	f/1.3
Laser Spot Size	~170 μm
Collection Area	1 mm diameter spot when using 600 μm collection fiber
Collection Distance	11 mm (lens to sample)
Laser Band Pass Filter	3 nm bandwidth, >OD 6 out of band rejection
Long pass/Edge Filter	>80% transmission, laser line blocking >OD 6
Probe Barrel	12.7 mm diameter stainless steel, 38 mm long

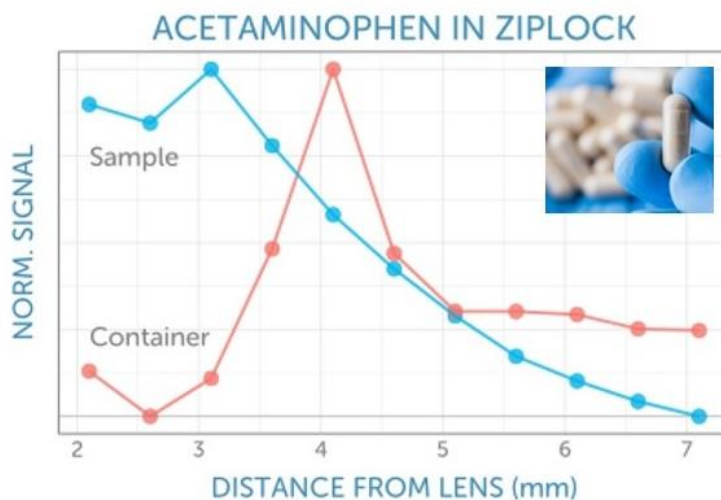
Ball Probe for Contact or Immersion

- Ideal for process or direct contact measurements
- Sapphire ball probe tip for touch sample focus
- Probe barrel: 292 mm long SS316L (hastelloy optional)
- Probe tip rated for high temperature (-55°C to 200°C) & pressure (6000 psi); optional Hastelloy upon request (-100°C to 300°C)
- Available for 405-1064 nm Raman



Probe with Custom Lens Adapter

- Quickly and easily test out focal length and spot size
- SM05-threaded adapter to fit 12.7 mm diameter optics
- Broadband lens kit: 4, 22, and 50 mm focal lengths (AR-coated for VIS-NIR or NIR use, as needed)
- Compatible with other off-the-shelf coupling components
- Allows connection to microscope or custom optical setup





Applications Using our Raman Probe Options

Our standard probes have been used in a wide variety of applications, including [identification of plastics](#). Our new contact ball probe tip has proven ideal as a Raman process probe to monitor [fermentation of sugar](#). It has also been used with ultrasonic capture for [in-situ detection of microplastics](#) – coming out soon in Spectroscopy’s June 2020 special issue on Raman. Curious about our new custom lens adapter? Stay tuned for a tech note, coming soon to our newsletter – [sign up today!](#)