



## Reaction RamanProbe™

### In Situ Probe for Process Development

For process development applications, the Reaction RamanProbe offers chemical resistance at moderate temperatures and moderate pressures. The stainless-steel probe has a removable immersion sleeve made of either 316 stainless-steel or Hastelloy C-276. Various welded seals are available for compatibility with a different chemical environments. The probe has an adjustable working distance, to enable focusing on particles through solution media as well as measurement of dissolved species.

Because the optical filters are located at the end of the probe, the Reaction RamanProbe is also available in longer lengths upon request.



### Features and Specifications

Sampling Head	Stainless-steel, cylindrical probe tip 5/8" (15.9 mm) diameter x 13" (330 mm) length
Spectral Range	250 - 3900 cm <sup>-1</sup> (Stokes), depending upon spectrograph limits
Excitation Wavelengths	514, 532, 632, 670, 785, 830 nm, others available upon request
Working Distance	User-adjustable between 5 and <1 mm to optimize measurement of clear and opaque solutions
Fiber Configuration	Permanently-aligned combination of two single fibers (100 μm excitation fiber, 200 μm collection fiber) with filtering and steering micro-optics, N.A. 0.22, in stainless-steel jacket Option: fiber sizes ranging from 50 μm to 500 μm
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 line)
Physical Resistance	Pressure sleeve specified to 1500 psi and up to 200°C
Chemical Resistance	Stainless-steel sleeve, sapphire window and Kalrez o-ring are resistant to many chemical environments; Hastelloy-C sleeve (with gold gasket) available as option for corrosive environments.
Cable Length/ Coupling System	5 m steel-jacketed cable (std.), up to 100 m on request, with FC (std.) or SMA 905 connectors
Safety Features	Emission indicator (std.)
Retail Price	\$ 8,200 USD (Hastelloy C version \$9,200)

*Specifications and prices are subject to change without notice.*