

BAC100B Raman Probe

Raman Accessory

The **BAC100B series** Raman probe is a versatile sampling interface for use with our portable Raman instruments and spectrometer modules. The probe can be brought directly to the sample and make contact with either the sample or the packaging of the sample via a detachable distance regulator that ensures proper focusing while minimizing contamination to the lens material.

Different versions of the probe with varying optical lenses allow for measurements down to 65 cm^{-1} Raman shift (100 cm^{-1} for 1064 nm version). The standard fiber length of 1.5 m includes flexible fiber coupling with internal support and a durable protective PVC jacket. The excitation fiber has a 105 μm core diameter and is FC/PC terminated. High throughput models (HT) have a 300 μm diameter core collection fiber and are FC/PC terminated, while standard models have a 200 μm core collection fibers with SMA 905 termination.

The standard shaft for non-immersive use is constructed from 304SS with a flat quartz window and spot size of 85 μm . For unpressurized immersion measurements, Kalrez O-ring sealed shafts models RIS100-FS (fused silica window) and RIS100-SA (sapphire window) are available. For high pressure and high temperature immersion measurements, model RIS101 type shafts can be used. This lab-grade fiber optic as the familiar B&W Tek fiber optic probe BAC102 without a trigger. Custom probes can be constructed with dimensions, material and working distance to suit your application needs.

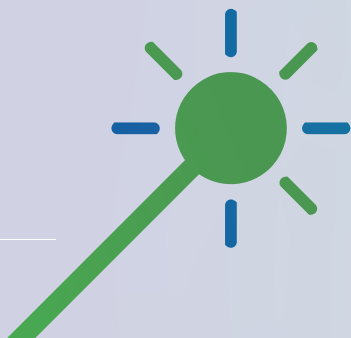
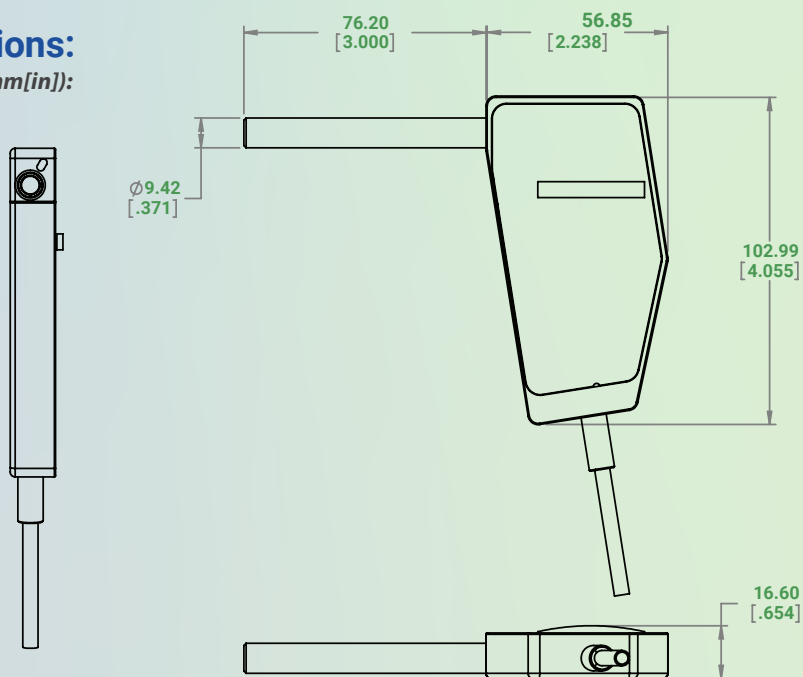


Features:

- ★ State-of-the-art packaging
- ★ Optimized optical design
- ★ High throughput options
- ★ Excellent long-term stability
- ★ Range down to 65 cm^{-1}
- ★ User-replaceable shaft

Dimensions:

Probe (mm[in]):



More about our **BAC100B Raman Probe**

Specifications:



Excitation wavelength	532 nm, 785 nm or 1064 nm
Raman cut-off	65 cm ⁻¹ for 532 and 785 models (i-Raman Plus)* 150 cm ⁻¹ for 532, 532-HT, 785, and 785-HT models 100 cm ⁻¹ for 1064, and 1064-HT models
Rayleigh rejection	OD6 (OD8 optional)
Shaft material	304 SS
Shaft length	3" (76.2 mm)
Shaft diameter	0.371" (9.42 mm)
Working distance ¹	5.4 mm for 532 nm models 5.5 mm for 785 nm models 5.9 mm for 1064 nm models
Laser spot diameter at focal plane	85 µm
Maximum operating temperature (probe shaft and body) ²	80° C; Non-immersive use
Storage temperature ²	-10° C – 60° C
Humidity	10 - 85%, non-condensing
Shaft window material	quartz
Seal material (shaft tip)	Epoxy sealed
Fiber length	1.5 m
Excitation fiber	105 µm core; FC/PC terminated
Collection fiber	200 µm core, SMA 905 terminated for standard models; 300 µm core, FC/PC terminated for HT models.

* BAC100B probe shown here with optional hastelloy ball probe shaft for harsh environments, model RIS101-HS, and adjustable probe shaft adaptor model PROBE-SHAFT-ADP

Notes:

- 1) Working distance is defined as the distance from the focal point in air to the end surface of the shaft.
- 2) The probe body and shaft are not sealed. To prevent irreversible damage caused by condensation on internal optic surfaces, do not subject any part of the probe to a temperature below the dew point. If needed, use a purged probe.

*cut-on start from 65 (up to 70) cm⁻¹