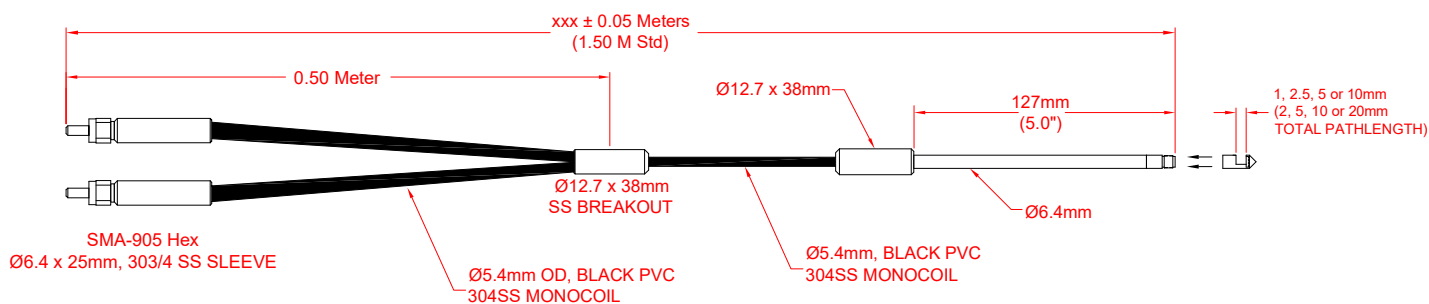


FDP - Fiber Dip Probe



The FDP (fiber dip probe) is used for measuring the transmittance and absorbance of liquid solutions. The FDP can be inserted into a beaker or any liquid container. These probes are most useful when observing changes in solutions for kinetic reaction studies or dissolution testing.

Dimensions:



Specifications:

Spectral Range	190nm to 1100nm
Core Diameter (µm)	200 ± 4 / 400 ± 4
Core Material	UV: Silica, UV Grade Fiber (High -OH) NIR: Pure Fused Silica
Cladding Material	Doped Silica
Buffer Material	Polyimide
Jacket Material	PVC
Channel Connectors	SMA905
Numerical Aperture (NA)	0.22 ± 0.02
Acceptance Cone (Full Angle)	25.4°
Overall Fiber Length	1.5m
Operating Temperature	Up to +80°C (176°F)

Probe Tip Options:

Pathlength	Tip Length *
1mm	11.5mm (0.45")
2mm	12.0mm (0.47")
5mm	13.5mm (0.53")
10mm	16.0mm (0.63")
20mm	21.0mm (0.83")

* Total length of tip and probe is 6.35mm shorter due to threaded overlap.

Chemical Resistance:

The material of the probe shaft includes 3 parts. The tube is made of stainless steel 316L SS, the window for the lens and mirror is made of silica and the seal material is an epoxy. The table below gives a summary of the chemical resistance for these materials.

Chemical Resistance of Probe Shaft Material:

(The data below constitutes recommendations only)

Chemical Environment	Window		Probe Shaft		Seal	
	Material	Resistance	Material	Resistance	Material	Resistance
Acids Weak	Silica	+	316L SS	-	Epoxy *	+
Acids Strong	Silica	+	316L SS	-	Epoxy *	±
Bases Weak	Silica	+	316L SS	+	Epoxy *	+
Bases Strong	Silica	+	316L SS	+	Epoxy *	+
Aromatic Carbons	Silica	+	316L SS	+	Epoxy *	+
Alcohols	Silica	+	316L SS	+	Epoxy *	+
Ketones/Ethers	Silica	+	316L SS	+	Epoxy *	±

- + Good Resistance
- ± Conditional Resistant
- Not Resistant

*Epoxy and probe have been tested for 24 hours for leakage