

# Transmission Dip Probes with Variable Path Length

For more flexibility during absorbance measurements in fluids, this fiber-optic probe features a variable and adjustable path length. The gap between the fiber and the diffuser can be set anywhere between 0.25 and 10 mm.

A standard SMA-905 connector is used to couple light into a fiber bundle, typically consisting out of six fibers (other configurations available upon request). The light is transmitted to the probe end, where it crosses the predetermined gap and is then reflected against a diffuse white reflective material back onto the receiving read fiber which is coupled to a spectrometer on the second leg of the probe.

The read fiber is placed in the center of the illumination fiber bundle to provide the best collection efficiency for the probe. Both bundles are housed in flexible stainless steel jacketing and the probe tip is also made of stainless steel. At the mid-point of the assembly a ferrule is used to split the fibers into their respective legs (illumination or read) which are terminated in SMA-905 connectors.



## Technical Data

<b>Fibers</b>	6 illumination fibers, 1 detection fiber, all 200 $\mu\text{m}$ , standard 2 meters
<b>Wavelength range</b>	200-2500 nm (UV/VIS/NIR)
<b>Connectors</b>	SMA-905 connectors (2x)
<b>Optical Path</b>	0.25 - 10 mm physical gap, i.e. an optical path of 0.5-20 mm
<b>Probe end</b>	Stainless steel 316, 150-160 mm long x 12,7 mm ( $\frac{1}{2}$ " ) diameter. Waterproof.
<b>Jacketing</b>	The optical fibers are protected by a silicon inner tube and a flexible stainless steel (optional BX, O.D. 6.0 mm) or chrome plated brass (standard ME, 5.0 mm) outer jacket. Optionally a waterproof, steel reinforced, silicon tubing can be provided (-MS)
<b>Temperature</b>	-30°C to 100°C. (-HT version 200°C)
<b>Pressure</b>	Probe head 10 bar @ 25°C
<b>Bending</b>	Minimum bend radius: Short term (few seconds) 20 mm, long term: 120 mm



## Ordering Information

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|---------------------------|---|
| <b>FDP-7UVIR200-2-VAR</b> | • Transmission Dip Probe in stainless steel with variable tip length, 2 m length, SMA term. |
| <b>FDP-TIP-VAR</b>        | • Replacement Stainless Steel tip for Transmission dip probe with variable tip length       |

## Options

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|------------|--|
| <b>-BX</b> | • Stainless steel jacket                 |
| <b>-HT</b> | • High Temperature version (up to 200°C) |