

# Transmission Dip Probes

For online and inline absorbance measurements in fluids, transmission dip probes are used. When dipping or permanently mounting the probe end into the fluid, absorbance can be measured.

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

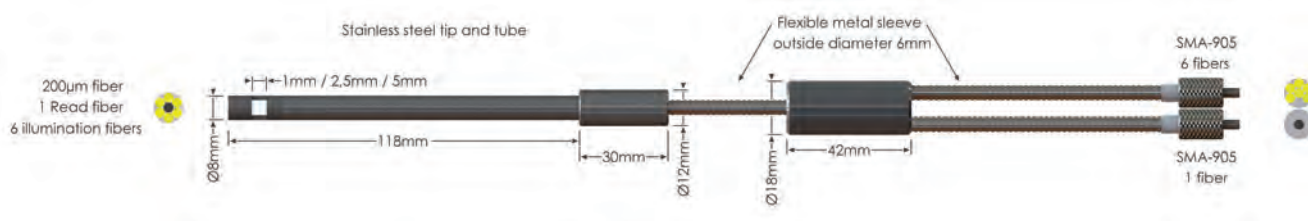
is transmitted to the probe end, where it crosses the predetermined gap and is then reflected against a diffuse white reflective material back onto the receiving read fiber, which is coupled, to a spectrometer on the second leg of the probe.

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 and 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>Tips</b>	Replacement tips are available with 1, 2.5 and 5 mm spacing, i.e. an optical path of 2,5 and 10 mm and contain a 5 mm diam. x 1 mm thick fused silica window
<b>Probe end</b>	Stainless steel 316 cylinder, 100 mm long x 8,0 mm 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. The jacketing also gives stress relieve.
<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

- FDP-7UVIR200-2-yy** • Transmission Dip Probe, yy (1, 2.5, 5 mm) gap, 2 m length, SMA term.
- FDP-TIP-yy** • Replacement tips, 1 mm, 2.5 mm, 5 mm gap for probe (fill in gap length for yy, note optical path =2\*yy)

## Options

- BX** • Stainless steel jacket
- HT** • High Temperature version (up to 200°C)