Fiber Optic Reflectivity and Fluorescence

- Metal coated fibers for minimal cross talk.
- Thinnest probe tip with diameter 0.5 mm (Type A).
- Customizable: tip, bundle, detection geometry.

Some Applications:
- Biomedical
- Biotechnology
- Material Science
- Food & Drink
- Chemical/Petrochemical
- Pharmaceutical
- Research & Development

Fluorescence of Milk

Reflectivity of Milk

Spectra acquired with the (7+1) Type A probe

Spectra fiber solutions
**Specifications**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Wavelength Range:</td>
<td>190 - 1300 nm (UV/VIS) / 350 - 2200 nm (VIS/NIR)</td>
</tr>
<tr>
<td>Operating Temperature:</td>
<td>-20 °C to 80 °C (PEEK -70 °C to +200 °C) (SS Steel till +400 °C)</td>
</tr>
<tr>
<td>Pressure:</td>
<td>10 Bar (on request)</td>
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<tr>
<td>Bend Radius Body:</td>
<td>80 - 160 mm (long term proof test on request)</td>
</tr>
<tr>
<td>Fiber Core Ø [μm]</td>
<td>Detecting Fibers: 50, 100, 200, 300/ Illuminating Fibers: 100, 200, 300, 400 NA = 0.22 ± 0.02</td>
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</tbody>
</table>

**Customizable Design:**

2 - 20 m

Tip 2-100 mm

Handle

Flexible Part

Legs 0.3 - 0.5 m

**Different Excitation Bundles:**

- SS steel tips:
  - Flat
  - Needle (38°)
  - (7+1) Type A
  - (9+1) Type B
  - (14+1) Type C
  - (7+12) Type D

**SMA-905; FC/PC or ST connectors**

**Round, Line or Custom Type Detection Bundles:**

**High Sensitivity Versions:**

Split design with two detection legs enables contemporary measurements with two different spectrometers:

| Type E: 2 Detection Legs | 7 Al coated excitation Fibers | 2 Detection Legs (6+6 Fibers) |

**Probe with Glass Fibers Structure:**

Specially developed for multiple LED excitation and detection of weak signals:

**Type F:** Glass Bundle + Silica Bundle

- Version 1:
  - LED1
  - LED2
  - Silica Glass
  - High NA Glass Fibers
  - 2 Channels Randomized detection fibers (9+10) Al/Pl jacket

- Version 2:
  - LED1
  - LED2
  - Silica Glass
  - High NA Glass Fibers
  - 2 Channels Randomized detection fibers (7+30) Al/Pl jacket

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