

# Fiber-optic Cables

Avantes offers a wide range of fiber-optic cables, which can be made in a variety of lengths and configurations to meet your needs. For common applications, a 2 meter length is sufficient. For this reason it is our standard fiber length.

Avantes offers SMA-905 or FC/PC connectors and these can be the same or different on both ends. For some applications, special round to linear fiber cables are recommended in which a bundle of fibers configured in a round pattern on one end and a linear array on the other end. The linear array (typically 1 mm in height) is aligned with the slit height of the spectrometer which is also 1 mm. This fiber configuration provides maximized light throughput for applications requiring high-sensitivity.

Fiber-optic cable types and diameters are recommended based upon the wavelength range being measured and the sensitivity required for a measurement. In general different fibertypes can be classified. For the UV range high OH UV/VIS fiber is used. For customers working below 240 nm in the UV, special high OH UV/VIS fiber called solarization resistant fiber (SR) is available. For longer wavelengths low OH VIS/NIR fiber is recommended. Best of both worlds can be achieved with our broadband fiber, which is our standard. This gives you the combined performance of the UV, UV-SR and IR fibers.

Avantes also offers a variety of jacketing options including Kevlar reinforced PVC sleeving with PTFE inner tubing (standard), chrome plated brass monocoil, stainless

steel BX, silicone coated stainless steel monocoil and other special jacketings upon request.

For applications requiring high temperature resistance, special high temperature epoxy (HT) is available and should be specified at the time of order.

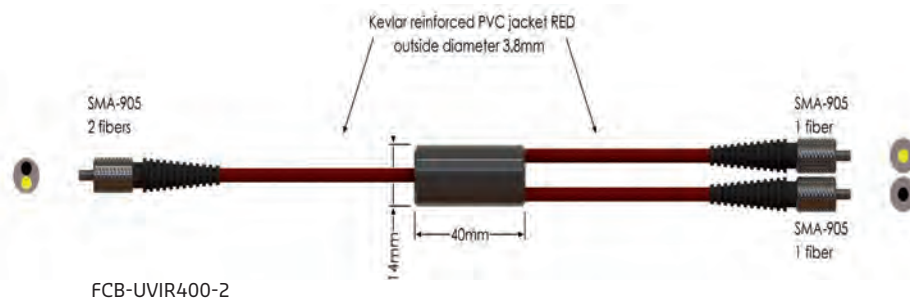
Recommended wavelengths for different cables:

200-2500 nm: UV/VIS/NIR (UVIR)  
UV/IR available in core sizes 100, 200, 400, 600  $\mu\text{m}$

200-800 nm: Solarization resistant (-SR)

250-800 nm: UV/VIS (UV)

350-2500 nm: VIS/NIR (IR)



## Ordering Information

<b>FC-IR008-2 or -1</b>	• Cable with 8 $\mu\text{m}$ Fiber, 2 or 1m length, SMA terminations
<b>FC-xx050-2 or -1*</b>	• Cable with 50 $\mu\text{m}$ Fiber, 2 or 1m length, SMA terminations
<b>FC-UVIR100-2 or -1</b>	• Cable with 100 $\mu\text{m}$ Fiber, 2 or 1m length, SMA terminations
<b>FC-UVIR200-2 or -1</b>	• Cable with 200 $\mu\text{m}$ Fiber, 2 or 1m length, SMA terminations
<b>FC-UVIR400-2 or -1</b>	• Cable with 400 $\mu\text{m}$ Fiber, 2 or 1 m length, SMA terminations
<b>FC-UVIR600-2 or -1</b>	• Cable with 600 $\mu\text{m}$ Fiber, 2 or 1m length, SMA terminations
<b>FC-xx800-2 or -1*</b>	• Cable with 800 $\mu\text{m}$ Fiber, 2 or 1m length, SMA terminations
<b>FC-xx1000-2 or 1*</b>	• Cable with 1000 $\mu\text{m}$ Fiber, 2 or 1m length, SMA terminations
<b>FCB-xx050-2 or 1*</b>	• Bifurcated cable 2x50 $\mu\text{m}$ , 2 or 1m length, SMA terminations
<b>FCB-UVIR100-2 or 1</b>	• Bifurcated cable 2x100 $\mu\text{m}$ , 2 or 1m length, SMA terminations
<b>FCB-UVIR200-2 or 1</b>	• Bifurcated cable 2x200 $\mu\text{m}$ , 2 or 1m length, SMA terminations
<b>FCB-UVIR400-2 or 1</b>	• Bifurcated cable 2x400 $\mu\text{m}$ , 2 or 1m length, SMA terminations
<b>FCB-UVIR600-2 or 1</b>	• Bifurcated cable 2x600 $\mu\text{m}$ , 2 or 1m length, SMA terminations

Other lengths and fiber types are available.

\*Specify xx = UV for UV/VIS fiber cables, IR for VIS/NIR