

# Reflection Probes for Powders and Thick Fluids



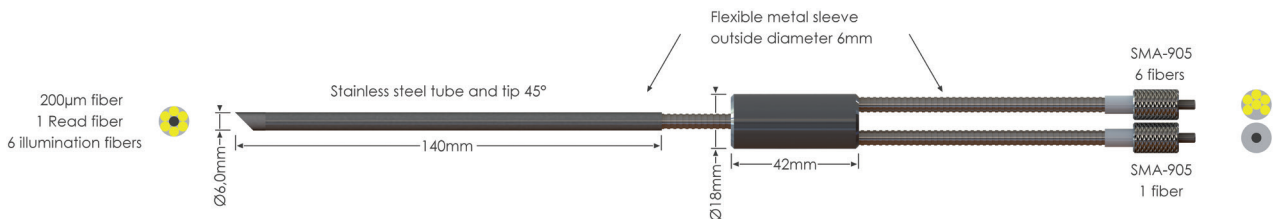
For effective measurement of reflection in powders and thick fluids, Avantes offers this specially designed series of reflection probes. The probes allow the user to simply dip the probe into the powder or thick fluids to do the measurements.

The illumination leg of the probe is connected to a light source and carries light

to the sample via a bundle of six fibers. At the probe tip, a 45 degree fused silica window illuminates the sample and collects the indirect reflections which are carried by a single fiber to the spectrometer. The 45 degree angle of the probe prevents the measurements of direct back reflection from the window, thus improving the dynamic range of your measurement.

## Technical Data

<b>Fibers</b>	7 fibers 200 $\mu\text{m}$ core, 6 light-fibers, 1 read fiber, N.A.= 0.22. Standard 2 meter length
<b>Wavelength range</b>	200-2500 nm (UV/VIS/NIR)
<b>Connectors</b>	SMA-905 connectors (2x)
<b>Probe end</b>	Stainless steel 316 cylinder, 140 mm long x 6.0 mm diameter. The probe end contains a 5 mm diam. x 1 mm thick fused silica window. Waterproof. Optionally -PK for PEEK or -HY for Hastelloy® C276 (on request).
<b>Jacketing</b>	The optical fibers are protected by a silicon inner tube and a flexible stainless steel (BX, O.D. 6.0 mm) or chrome plated brass (ME, O.D. 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

**FCR-7UVIR200-2-45-BX/ME\*** • Reflection probe for powders and turbid fluids

\* please specify jacket material

## Options

**-HT** • High Temperature version (up to 200°C)

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Avantes is specialized  
in custom made  
fiber-optic cables?