

# OFR D/8° Reflectance Measuring Head



Product Information

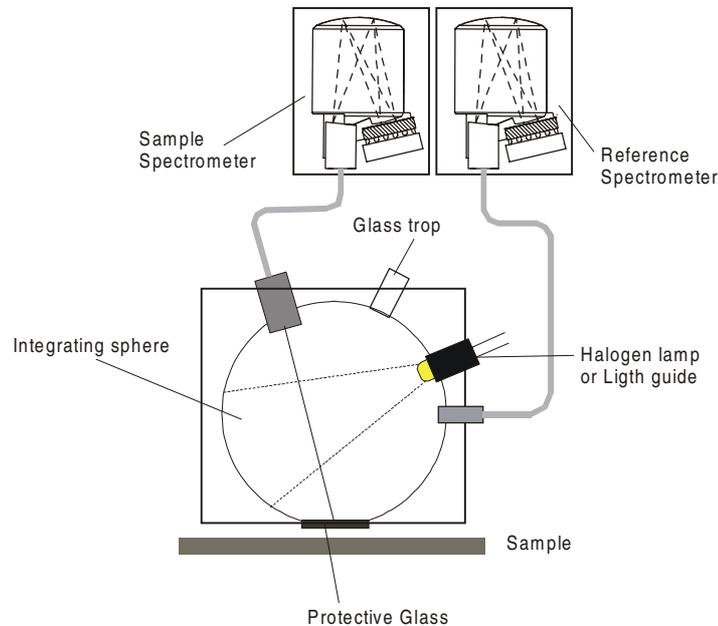


## Applications

The OFR D/8° measuring head is designed for non-contact reflection measurement of glossy and scattering samples. The OFR D/8° is part of the accessory program of the diode array systems MCS 500 and CORONA and is optimized for use with these systems. It can be used to measure with specular included or excluded.

## Function

The sample is diffusely illuminated through an Ulbricht integrating sphere. The sphere either contains a halogen lamp or is illuminated by an external xenon flash lamp connected by a fiber. The light reflected by the inside wall of the sphere can be transmitted to a reference spectrometer through an optical fiber. The light to be measured is imaged to an optical fiber connector. It is sent to the sample spectrometer through an optical fiber. The Ulbricht integrating sphere is protected against contamination by a BK7 glass plate.



## Specifications

Type	Ulbricht integrating sphere, measuring head for non-contact reflectance measurement, plug-in part for measuring with or without specular (gloss trap)
Illumination	Diffuse, integrating sphere
Viewing angle	8°
Sphere diameter	55 mm
Effective measuring aperture	Ø 10 mm
Light source	Halogen lamp (OFR D/8°-H) or external xenon flash lamp
Wavelength range	380 - 950 nm (400 - 2200 nm optional)

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# OFR 90 Reflectance Measuring Head



Product Information



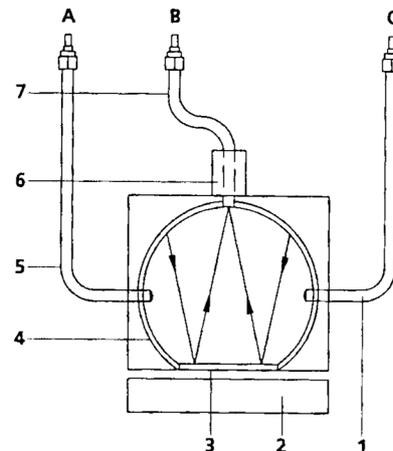
## Applications

The OFR 90 Measuring Head was specially designed for non-contact reflection measurements of clear and scattering samples (e.g. window glass). It is suitable for color measurements and for NIR reflection measurements as well.

## Function

The sample (2) is diffusely illuminated through an Ulbricht integrating sphere (4). For this, the light of either a halogen or xenon lamp is transmitted to the OFR 90 Color Measuring Head through a fiber bundle (1). Optionally, a halogen lamp can be used in place of the fiber bundle (1) to directly illuminate the sphere and thus increase the light intensity. The light reflected by the inside wall of the sphere is guided to the reference spectrometer through another fiber (5). The light to be measured is imaged onto optical fiber (7) by a 2:1 imaging optics (6). This fiber is connected to the sample spectrometer. The optical fibers used are quartz fiber bundles. The Ulbricht integrating sphere is protected against contamination by a BK7 glass disk (3).

- 1 Fiber bundle
- 2 Sample
- 3 Glass disk
- 4 Ulbricht integrating sphere
- 5 Optical fiber
- 6 2:1 imaging optics
- 7 Optical fiber
- A LL connector to reference spectrometer
- B LL connector to sample spectrometer
- C LL connector to lamp



## Specifications

Type	Ulbricht sphere, measuring head for non-contact reflectance measurement
Illumination	diffuse
Viewing	0° / 2:1 image scale
Sphere diameter	∅ 60 mm
Effective measuring aperture	∅ 15 mm
Light source	integrated halogen lamp (version-H) or external xenon flash lamp
Wavelength range	380 - 950 nm (400 - 2200 nm option)

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