

Absolute Reflection Accessory

AT A GLANCE

- ▶ Measurement of absolute reflectance of optical surfaces, windows and metallic surfaces
- ▶ Fixed 12-degree angle of incidence
- ▶ Performance evaluation of optical elements
- ▶ Evaluation of test plates in medical, industrial and military applications

The Absolute Reflection Accessory (ARA) is designed for making high precision specular reflection measurements.

Unlike traditional relative measurements where reflectance is a function of the background reference, the ARA does not require a background reflection standard due to its unique V/W optical arrangement.

When using relative reflection accessories, the sample reflectance is measured and calculated typically against a gold mirror that has a 94–99% reflectance in the infrared region. With the ARA, however, the reference mirror is integrated into both the background and sample measurements. In the V position, the beam reflects from the reference mirror in the background spectrum. In the W position, it reflects from the sample twice and the same reference mirror once at 12 degrees in the sample position. The absolute reflectance of a sample is calculated as the square root of the measured value at a given wavenumber or wavelength.

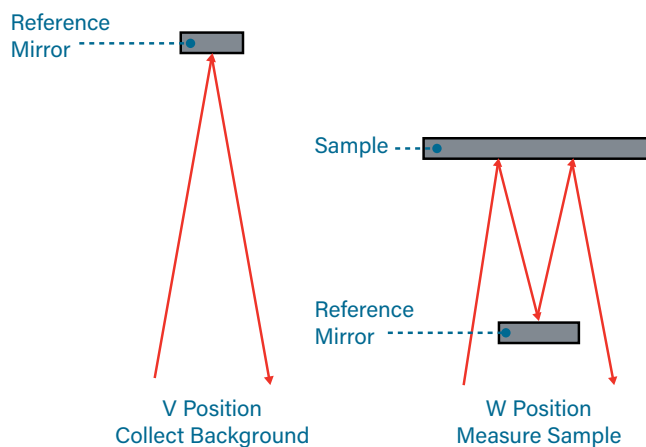


PART NUMBER	DESCRIPTION
014-10XX	Absolute Reflectance Accessory Includes V / W sample holder, gold substrate mirror and FTIR base mount
Note: Replace XX with your spectrometer's Instrument Code listed in the back of the catalog.	
Replacement Parts and Sampling Options	
300-0061	Gold Substrate Alignment Mirror, 2 x 3"

SPECIFICATIONS

Optics	All reflective
Angle of Incidence	12degrees
Optical Configuration	V / W
Purge Sealing	Purge tubes and purge barb included
Dimensions (W x D x H)	165 x 241 x 146 mm
Sample Holder Opening	Oval, 40 mm (W) x 22 mm (H)
FTIR Compatibility	Most, specify model and type

The background and sample positions are easily selected by rotating the sample holder 180 degrees. With the ARA spring-loaded mount, sample loading and unloading is easy.



Beam path for V and W positions for the ARA.