# Classic VATR – Variable Angle ATR for Analysis of Solids, Films and Coatings



### FEATURES OF THE CLASSIC VATR

- 30° to 60° continuously variable angle of incidence
- Full control over the number of reflections and depth of penetration
- Unique mechanism for fine-tuning mirror positions and precise and repeatable alignment
- High energy throughput
- Stainless steel, easy to remove crystal mounts and anvils
- Economical introduction to ATR techniques excellent R&D and teaching tool

The Variable Angle ATR, is a traditional in-compartment accessory with the ATR crystal mounted vertically with respect to the spectrometer baseplate. Its optical layout is based on an optimized Gilby configuration and allows continuous adjustment of the incident beam angle between 30 to 60 degrees. This accessory is suitable for the analysis of solids, films and coatings, but for obvious reasons, it cannot be used for working with liquids. For enhanced sensitivity the sample may be mounted on both sides of the crystal. A unique mirror adjustment mechanism which utilizes mirror placement and proportional pivoting allows precise and repeatable alignment. The PIKE Technologies Variable Angle ATR offers flexibility when the frequent replacement of ATR crystals is required. VATR is an excellent, low-cost tool for teaching the principles of internal reflection spectroscopy, and for basic research.

## **ORDERING INFORMATION**

VATR Base Optics (must select, insert spectrometer model for XX) PART NUMBER DESCRIPTION

021-19XX VATR Variable Angle, Vertical ATR

Notes: VATR Base Optics includes plate for mounting in FTIR spectrometer slide mount.

#### VATR Crystal Options (must select 1 or more)

Р/N 50 мм	DESCRIPTION	Р/N 25 мм
021-4000	KRS-5, 45° Parallelogram	021-4020
021-4010	KRS-5, 60° Parallelogram	021-4030
021-4040	ZnSe, 45° Parallelogram	021-4050
021-4150	ZnSe, 60° Parallelogram	021-4120
021-4130	Ge, 30° Parallelogram	021-4100
021-4060	Ge, 45° Parallelogram	021-4080
021-4070	Ge, 60° Parallelogram	021-4090
021-4160	Si, 45° Parallelogram	021-4110

Notes: VATR crystals are available in 25 mm and 50 mm lengths – all are 3 mm thick and 10 mm wide. Select crystal length and type based upon desired sample absorbance.

VATR Crystal Holder and Clamp (must select 1 or more to hold ATR crystals) PART NUMBER DESCRIPTION

021-5050	50 mm VATR Crystal Holder and Clamp	
021-5020	25 mm VATR Crystal Holder, Clamp and Mirror	
Notes: The pressure clamp is selected for the ATR crystal length.		

#### VATR Replacement Parts

PART NUMBER DESCRIPTION

021-5040	25 mm VATR Crystal Holder and Clamp
021-5030	Set of 25 mm and 50 mm Pads

Notes: Please contact PIKE Technologies for items not described in this list.



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